



The City of Columbus

Request for Proposal for Hardware, Software, and
Implementation Services for CTV STUDIO
CONTROL ROOM RFQ018744

June 23, 2021

Submitted By:





Engineering, Installing and Supporting A/V and Broadcast

June 30, 2021

Ms. Robin Cook
Columbus City Hall
90 West Broad Street, Room 329
Columbus, Ohio 43215

Dear Ms. Cook,

On behalf of iVideo Technologies, I wanted to thank you for considering our proposal. Our organization welcomes the opportunity to provide an updated and innovative Video Production system for Ctv. Our project history clearly demonstrates our ability to offer innovative and comprehensive solutions. In addition, our long-stated commitment to customer-service remains a source of pride for our organization.

iVideo Technologies while headquartered in Cleveland, Ohio has a full-service office in Columbus, just 20 minutes from downtown. This office provides a complete array of services for our Central Ohio clients, including engineering, installation, service and support, warehousing, and delivery services. This full-service capability has been in place since 1992. Our company, formerly known as Industrial Video, was founded in 1968 and thus has served the state of Ohio for over 50 years.

The iVideo Technologies TAX ID number is 27-4267240

Our bid response was prepared by the following persons:

1. David Walters, Regional Sales Manager
2. Ed Strickland, Senior Broadcast Engineer
3. Paul Spence, Manager of Engineering Services
4. Tim Czyzak, President

Those responsible for responding to proposal inquiries:

1. David Walters, dwalters@ivideo.com, 440-781-1733
2. Ed Strickland, estrickland@ivideo.com 440-781-1758

Company Profile and Demographics:

iVideo Technologies is an LLC and is privately-held. The organizational structure is headed by the company president with the managers reporting directly to the president. Managers consist of Engineering, Finance, Sales and Service. Below those departmental managers are the employees that report directly to them.



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Project Team Resumes

David Walters – Regional Account Manager

David is a graduate of John Carroll University with a BA in communications and business concentration. David is responsible for managing the project budget and any changes associated with the job. David provides analysis of client facilities and technical capabilities as they relate to the client's AV and broadcast market applications. He will then make recommendations for enhancements and/or incorporate new technology applications and equipment. He works closely with the Project Manager and the customer to ensure the project is being completed to specification and the client's satisfaction. David has been involved in the AV and broadcast industry for over twenty-five years. Contact Information: 440-325-2307, dwalters@ivideo.com

Ed Strickland – Sr. Integrated Systems Engineer

Ed is the lead broadcast engineer at iVideo Technologies. He graduated from Ashland University and brings 20 plus years of experience to this project. In his ten plus years at iVideo he has worked on some of the most advanced broadcast projects in the country: Columbus Crew, Case Western Reserve University, the Pro Football Hall of Fame Stadium, and the Cincinnati Bengals just to name a few. Ed is a certified ACSR and a certified ACI. He has designed and engineered complex control rooms and working with industry standard companies like Ross Grass Valley, Sony, Evertz, AJA, Avid, and Imagine Communications. Contact Information: 440-325-2314, estrickland@ivideo.com

Paul Spence – Engineering Services Manager

Paul has been in the audio video industry for nearly 30 years. His experience spans from sales roles to technical roles. Paul has certifications in AVIXIA CTS, Crestron DMC-D, Crestron DM-NVX, BiAmp and Networking, Dante – Certification Level 1, Polycom RealPresence Clariti Technical Certification. In his time with iVideo, Paul has been heavily involved in large projects such as the McDonald Hopkins, Nestle, Nationwide Children's Hospital, and the Cleveland Clinic. Contact Information: (440) 325-2311, pspence@ivideo.com

Timothy Czyzak – President

Tim purchased iVideo Technologies in 2010 and is a seasoned executive focusing on operational management and financial accounting. Prior to joining iVideo Technologies, Tim worked with Long Point Capital, a leading middle market private equity fund focused on construction companies. There he actively oversaw three portfolio companies with revenues in excess of \$250 million. Additionally, Tim has worked for Vetus Partners and National City Bank. Tim received a B.S.B.A in Finance from Elon University. Tim closely monitors and manages the project team. Contact Information: (440) 325-2310, tczyzak@ivideo.com

Executive Summary of iVideo Technologies Solution:

iVideo has put together a comprehensive solution that allows the city to have a system that not only meets the base requirements of the system, but allows for growth and flexibility both operationally and technically. By incorporating our facility design, we believe it would enable optimal use of the space, provide a better ergonomic solution and facilitate a superior user experience.

As a result of rapid advancements in technology, Video Production Control Room space requirements have changed as have system architectures. Based upon our review of the space, technical requirements and operational needs, we are offering a fully turnkey solution. This enables a comfortable operational system for up to 3 persons while easily allowing additional persons to work in the space on an as needed basis. By configuring that layout in a specific fashion, our design will allow for a single person operation while allowing three or more persons for more complex operations. As you can see from the documents, iVideo is not only recommending a change with a new console resulting in a more open operational area, but have also streamlined rack locations and wiring by incorporating one large rack and turrets along the console that will house components that may require manual adjustment. More details are shown in the drawings and additional descriptive information can be found at the bottom of this Executive Summary.

Ross Carbonite Ultra Switcher:

The iVideo Technologies' solution includes the integration of the Carbonite Ultra Switcher. The switcher package includes the following:

- One (1) CUF-124 Carbonite Ultra Frame, (1) Xpression Live CG Software, (1) Additional ME license, (1) Additional MultiViewer license, (1) Additional FSFC and Color Correction license along with the necessary power supplies including the redundant power supply
- One (1) TD1 series Panel and (1) TDTouch 15.6" series Touchpanel. Both units include the necessary power supplies including the redundant power supplies.
- The TD1 Series Panel is listed in our base package. The switcher can support the 2nd ME license. It is listed as an option. The TD2S can be purchased instead of the TD1 Panel, but like the license is NOT included in the total.

Xpression:

The iVideo Technologies solution includes the integration of the Xpression Graphics System. Package includes the following:

- Xpression 1RU HD SDI Chassis with a license of the Studio software with 3 channels of video. The custom keyboard is also included with our package.
- The Datalinq is listed as an option since this was not a requirement. This is software license key that can be added at a later time.

Tria:

The iVideo Technologies solution includes the integration of the Tria Server. The Package includes the following:

Tria Express DUET Production Server Hardware: AVC-Intra / 38-Hour Media Storage. The unit has two playout channels and two record channels. Its operation will be through a KVM that will also tie into the Xpression System.

Routing System:

iVideo has incorporated the Ross Ultrix as part of design. This system offers the ability to be part of an entire system-wide architecture. The Ross Video 48 x 48 routing solution offers the ability to not only route video signals but also enables the ability to route associated audio that is embedded within the router. If maximum size is desired, the city can purchase a 5RU frame vs. the 2RU frame that has been quoted for this system.

As a reminder, because this is a software defined router, new features and functions can be added to the system through software updates. For example, the router can natively handle 12G signals (UHD) meaning if there are 12G sources or destinations that are added to the system. The router does not scale these sources however it will enable the mixing of HD and 12G sources in the same frame whereas most routers only allow for HD signal types (1080p, 1080i, 720p) unless you purchase a system that is 12G capable from the start.

- As proposed, the router includes the added Ultriscape Multi-Viewer output. In this instance up to 48 sources (if all inputs were used) could be displayed on any or all of the outputs. The Multi-Viewers offer various pre-configured layouts along with various settings for those outputs.
- The router has an integrated control system, Ross Ultricore, that provides configuration tools, soft panels that can be made available on the network and allows for interoperability with various other tools and can be incorporated with the Ross DashBoard that is built into the Carbonite Ultra, Xpression, Tria and openGear frame.
- Two hardware router touch panels, Ultritouch 2, have been included in this package. These 2RU panels are totally customizable. These rack-mountable touchscreens can be customized to your operational workflow. The interface can operate more like a smart-phone vs. a typical broadcast control panel. As part of the solution, iVideo will finalize three different configurations for the panel including the number and type of buttons, button placement and display windows. In addition, one 40 button LCD Panel is part of the package.

Terminal Equipment / OFE Patch Panel:

As a result of the capabilities of Ross's Dashboard software, we have incorporated a Ross open gear frame to support the needs of the system including:



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- Video DA for program distribution
- Video DA for Multi-Viewer
- Analog video distribution for sync
- Audio embedders and de-embedders for use with Tria Recorder/Player and for the video program stream
- Analog audio distribution for program audio

The Ross switcher cannot be used for generation of sync therefore our proposal includes the AJA GEN-10 for sync. We have incorporated this cost-effective solution in many systems. If redundancy is a serious concern the city could purchase a second one as a back-up.

Our package also includes an engineering computer. The requirements of the dashboard software do not require intensive computing power, therefore we have included a Dell microcomputer for this application. While we will incorporate the city's existing network switch, given the volume of devices, we have added an additional 24 port Netgear switch.

Given the number of fiber runs that come into the room, we believe that it is important to properly manage these fiber lines and incorporate them into one LIU. Not only will this facilitate your current fiber connections, it can easily be expanded should additional fiber runs be added at a later time. We have kept the cost down by incorporating a LIU that only requires the use of adaptor plates and thus eliminates the need for new terminations.

We will incorporate your existing video patch panel. With the department's input, we will wire in the sources and destinations based upon the capacity of the OFE panel. If the city wanted to include any additional patch panels, there would be an additional cost for the hardware and the associated labor.

Network:

The network for the Video Production system can be isolated on its own engineering network or can be integrated within an organizational network. In this instance where this is a video-based solution, we will work with the city's IT department to determine the final configuration

Often a hybrid solution is best so that higher bandwidth signal and/or operational control & support can be separated from the organization's standard network however there are provisions that allow for remote access for trouble shooting and support as well as any remote resources. Given that almost every device in this system has the ability to be configured and/or controlled through the use of Graphical User Interface (GUI) the final network configuration is an important consideration.

Monitors:

A pair of 55" monitors are included as part of our package. One will be used for the multi-viewer and the other will be used to display Router sources. The monitors include a 3-year warranty. In addition, there is an option for (6) new 24" LED Monitors. This would enable the room to have a uniform look and color set-up would be consistent across all displays. The price per monitor is in the proposal. In addition, we have provided an optional QC monitor for the rack which can be used to monitor the router and incoming camera sources. Ideally, another QC monitor would be added to the Console area near the TD Panel.

Console & Rack:

As noted above, we have incorporated a new console, which will open up the room and result in a better environment for day-to-day operation. As part of our proposal, we would remove the existing metal structure that houses cabling. Eliminating the current depth behind the console will significantly change the space, allowing for expansion and/or the addition of additional workspaces and associated technology. While the console itself would remain in place along the wall, the 45 RU Rack as configured will be on casters, enabling someone to easily get behind the rack for servicing. Below the countertop along the back, a wire chase will be incorporated to allow cabling to monitors and the turrets. The console will incorporate an 80/20 metal solution allowing monitor arms to be moved along the back. The monitor designs incorporate tilting monitor mounts to maintain comfortable site lines.

EXCEPTIONS AND NOTES:

A network switch is listed but can be removed if the city wishes to provide one and/or we can modify what would be provided if there is manufacturer/model that is preferred. iVideo would re-quote the switch and would modify our proposal based upon that request.

It states in the bid: *During the warranty period, and any subsequent maintenance agreement, any defective hardware and software components shall be repaired or replaced at no cost to the City.* While manufacturers will often provide advance replacements, this cannot be guaranteed by iVideo.

In the bid it states: *During the implementation period, the offeror must supply no more than a 4-hour response to major problems directly with the equipment manufacturer, 24 hours a day, and 7 days a week.* iVideo will answer calls within the time frame but cannot guarantee that support from the manufacturer will allow for a "fix" within 24 hours.

In the bid it state: *Offeror must provide a 24 hour or better hardware RMA response for all components in the solution.* No firm can guarantee a 24 hour or better hardware RMA response for all of the hardware. The only way to guarantee this capability would be for the city to purchase additional hardware and have it on the premises for immediate integration, i.e., either key spares or a complete set of hardware for each component that is part of the system.

iVideo will provide phone and technical support in the field subject to normal business hours 8:00am to 5:00pm Monday through Friday. A cost for this support after year one listed in the proposal.



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iVideo's off-hour support is listed in the proposal as a separate line item. It is not included in our base support services. We have provided a line-item price for this level of service. This cost is renewable. Regardless, we believe that this is an item that should be discussed to determine the best way to not only support the system but also do so cost-effectively.

iVideo fully supports the idea that a client should have relationship with the key manufacturers as part of the support process, including the ability to contact a manufacturer directly. We will provide necessary phone/email contact information for key manufacturers. Having these manufacturer direct relationships enables the client to have multiple levels of support which definitely will result in efficiencies in the effort to resolve problems.

Proof of Concept:

iVideo can provide a complete online review of the major components including a demonstration of the software. A complete onsite proof of concept would not be cost effective and, in our experience, is not necessary. We believe the key components of the system should be reviewed, in particular anything operationally related to the TMS solution as well as Ross Video's Ultrix Control Software. If a manufacturer offers any type of no charge demonstration, iVideo can facilitate this capability.

References:

- 1) Pro Football Hall of Fame / Benson Stadium:

Television Production Control Room consisting of Ross Carbonite Switcher, Ross Ultrix Router, Xpress Graphics and Ross Mira Replay System. Project consisted of complete installation and integration of all equipment, complete system configuration and testing and completion of all system drawings.

Project Amount: \$450,000
Contact: Joe Attaway, TSAV
joeattaway@tsav.com
706-613-8759

- 2) Cuyahoga County:

Upgraded the Production Control Room and Studio upgrading their Playout system for streaming as well as for cable channels. Project entailed completely removing the existing routing and control system and installing a new router, production switcher, playout server. In addition, camera resources are available for usage in their live production switching environment. Their studio also can be used to handle camera feeds from various rooms throughout the facility and switched for a live stream. Also updated their Crestron control system so that remote starting and stopping of streaming and recording can be handled from Council Chamber and two other meeting spaces.

Project Amount: \$215,000
Contact Jonathan Schick



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jshick@cuyahogacounty.us

(216)443-8053

3) Cincinnati Bengals (Hamilton County)

Graphics system for scoreboard usage. Project consisted of installation of new Ross Xpression Studio Graphics system along with the Ross Piero System. Completed the installation and integration of system as well as interface of Datalinq system for real time statistics during games.

Project Amount: 185,000

Contact: Scott Simpson

Scott.Simpson@Bengals.Nfl.net

513-455-4890

In addition to projects noted above, iVideo has completed many projects involving Ross switchers with remote control of PTZ cameras outside of an immediate studio area. These projects typically involve a router and Xpression Graphics systems. iVideo is happy to discuss its experience in the completion of our projects that have been completed in Ohio as well as across the country.

Manufacturer Relationship:

- A. iVideo is an authorized dealer for Ross Video and has been offering their solutions for nearly ten years.
- B. As an Authorized Dealer of Ross, it means that we are able to sell, integrate and support their products. As a result of our depth of experience we often are able to commission many of their solutions without Ross's direct involvement, though we have included it in this package. This service offers another level of assurance to the city that our installation meets the requirements of the manufacturer. As requested, we have provided the costs for manufacturer training. The cost for T&E is listed. If the city wishes to reduce training and commissioning costs, Ross does offer remote services.
- C. Since becoming a Ross dealer our business with the organization has grown every year. We have sold and installed Ross switchers, routers, graphics systems and openGear solutions throughout the region. These systems have been installed in high schools, colleges and universities, governmental agencies and professional sports venues.
- D. We are a dealer for all of the other manufacturers that we have included as part of the project. We have had a long relationship with Cabinetworks, having worked with them on custom technical furniture since 1991.



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General Questions:

- 1) iVideo Technologies
6779 Engle Road
Suite G
Cleveland, OH 44130
800—352-6150 Toll Free
440-891-9440 Phone
440-891-9450 FAX
- 2) iVideo has been in business for 52 years.
- 3) iVideo Technologies, fka as Industrial Video has been providing integration services since the mid-1970s.
- 4) Company has 30 full-time employees.
- 5) All 30 employees are dedicated to our organization. They do not work for another entity.
- 6) Our client base is in the thousands. We continue to add to our customer base as additional organizations purchase our products and services.
- 7) iVideo is not publicly traded.
- 8) iVideo does not disclose its annual revenue. With a signed NDA, iVideo would be willing to provide that information.
- 9) iVideo is not an MBE but is a SBE
- 10) iVideo uses subcontractors when needed however for this project we do not anticipate that to be the case.
- 11) Annual Revenue: Requires NDA
- 12) References: See above
- 13) iVideo is not a MBE
- 14) iVideo Technologies has previously sold the Link Closed Captioning system and on-going support agreement to the city. No other pending or existing arrangements are in place at this time.
- 15) Third party contractors will not be used for this project.

2) Licensing Methods, Pricing and Costs:

The hardware and associated software solutions will be the property of the city once they are purchased. While it is recommended the client maintain software/support agreements, the cost of any software is either included with specific devices as noted in the main components in the Executive Summary or the cost is listed separately.

The way software is licensed is determined by the manufacturer.

No 3rd party software is required to run devices that are a part of this system.

Support costs for the individual Ross components can be found in the proposal. As noted below other manufacturers



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iVideo Technologies support costs are listed in the proposal as well. We have included standard 8:00am to 5:00pm costs within our base proposal. The cost for the service after 5:00pm and on weekends is listed separately so that city can determine if this a service that is truly essential and fits within the city's budget.

iVideo Technologies does not have a Software License Agreement nor do the manufacturers that are part of this project.

3) Product Background:

As a Systems integrator iVideo cannot speak to the items that were listed. Manufacturers do not make that information public. If that information is truly needed, the city would likely have to sign an NDA with the manufacturer. iVideo can assist in fulfilling this request however cannot speak to the level or degree of information that a manufacturer is or is not willing to share.

4) Product Maturity:

As a Systems integrator iVideo cannot speak to all of the associated items that were asked about.

The Ross Ultrix Router technology was first introduced at NAB in 2017 and began shipping that year. Since its initial introduction, the company has expanded the product line and introduced new capabilities to the Router line from both a hardware and software stand-point, for example the Touchpanels that we have quoted were only introduced approximately 18 months ago.

Other manufacturers that are included as part of this package have continued to enhance their hardware with updated models and/or updated software.

5) Dependencies on other technologies:

As a system our solution does not directly rely on the development or support of other technologies. The manufacturers (hardware and software) often rely on other technologies however iVideo cannot speak to those types of questions. iVideo can facilitate any direct questions to manufacturers that we have proposed for this system.

6) Third Party Offerors:

Nearly every Ross Video product has the ability to be monitored and/or controlled using the Dashboard program. There is no cost for this program that adds extensive system functionality. In addition, the Ross openGear card cage works with 70 plus partners that have agreed to a standard, so if there is a need to

(7) Product Architecture Overview:

We have provided rack elevations for approval which show the individual components that will go in the rack as well as the associated dimensions. The rack elevation also shows an OFE that will be incorporated into the rack.

There are various software upgrades available for the major system devices including the Ultra Carbonite Video Production Switcher, the Ultrix Router and the Xpression Graphics System. The openGear frame from Ross allows for cards to be removed and replaced as well as updated through the use of the network. As part of the iVideo solution, we have included a computer, that we have dubbed as the Engineering computer that will enable control of devices and facilitate any upgrades to the system or individual components.

There are not any green initiatives in this proposal.

Power requirements are as follows: Cooling requirements are as follows:

8) Equipment Support and Warranty Capabilities:

The first year of Ross Support is included in the proposal for the Production Switcher, Ultrix Router, Xpression Graphics and Tria Server.

Our proposal shows the annual per year support cost for each of these major components as well as the total purchase of the three years upfront which results in the fourth year being free, meaning the city would have the 5 full years of coverage from the outset on all the major components for this project. If these support costs fit within the city's budget, whichever ones are ultimately chosen, they must be purchased along with the hardware to realize the free last year. If that option is not possible, the city should budget for the annual renewal. Keep in mind, if support is purchased upfront, even if Ross has price increases, the city would not be affected by any price increases. The city can elect to purchase software or hardware only support either annually or for the three years upfront. Once the hardware warranty expires, should there be a need to have a replacement unit while a repair is being completed, there would be rental cost from Ross. If the hardware warranty is purchased, Ross will provide a no charge loaner.



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The Ross openGear frame and associated Ross cards includes a 5-year warranty.

The AJA embedder/de-embedder cards have a 5-year warranty.

The Netgear switch includes a 5-year warranty.

The other components in the system do not offer extended hardware and/or software warranties.

The Sony monitors are warranted for 3 years.

The Dell computer has a 3-year warranty.

As noted above, iVideo maintains a full-service office in Columbus that is 20 minutes away from Ctv. That office has personnel that provide engineering, field service and support, integration services as well as administrative support.

Our support services are handled in the following manner:

- For standard 8:00am to 5:00pm there is direct access to iVideo engineers, technicians, sales, etc. This support is included within our proposal.
- After hour would allow access to select iVideo employees through the use of a 24 x 7 phone number and email address. The routing of the outreach will determine whom gets the information and how quickly a resolution will be developed. This is shown as a separate cost within our proposal.
- An annual maintenance agreement will be presented before the end of year one of support. As with this proposal, we will provide the cost for standard 8:00am to 5:00pm support as well as after hours support. As noted, we believe that there should a discussion of what is actually needed and further define requirements in order to ensure that the city has an agreement that meets expectations but does not result in spending more than what is necessary.

9) Ctv Control Room:

The physical space required for the Console are rack are shown on the attached drawings.

We have provided power requirements for the project.



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10) Summary:

Until iVideo is awarded a project, we cannot provide exact completion dates for the project. We do know that it cannot be completed in two to four weeks from award, but that is a reasonable onsite time. In order for this project to successfully meet your expectations we follow a specific process that we have found leads to successful outcomes. If awarded the project we would have a final discussion to confirm that our system from a macro level is what you are truly expecting. The granular details will be reviewed as we move through the process. For example, given the size of this project, the engineering work needs to be completed in advance of any in-shop or on-site installation work. Drawings will be presented for a review and approval, this includes the CAD drawings of the system as well as the rack elevations, console design, etc. Given the current issues associated with product availability, we believe that it will take at least 60 and 90 days for completion of the project.

Once awarded the project we will be able to update the timeline and provide a schedule with projected milestones, such as a first draft of system drawings, expected equipment delivery dates, etc. As part of our process, we provide our clients a project report on a weekly basis which provides updates related to product, engineering, etc.

In summary iVideo believes it is not only offering a well thought out solution but can provide the necessary support for your system both in the short-term and the long term. As we tell all clients, we value our relationships and want to be a partner as we work on their projects. We want to be there to assist the department in its efforts to continue to provide the best possible product for its clientele, in this instance the citizens of Columbus, Ohio.

We look forward to hearing back from you and welcome the opportunity to review our proposal. Please do not hesitate to call or email with any questions or concerns.

Sincerely,

David A. Walters
Regional Sales Manager
iVideo Technologies
440-781-1733 Cell
440-781-1733 Office
dwalters@ivideo.com

Vendors / Manufacturers / Partners



By representing over 150 leading equipment, software and accessory manufacturers iVideo Technologies to able offer a wide range of solutions to its clients. iVideo's long-standing relationships with these firms also allows it to provide the most competitive prices available. Through actively attending industry trade shows and by working directly with its key vendors, iVideo Technologies is offers the most advanced industry solutions.



City of Columbus Television
 Andy Stout
 90 W. Router St. Rm. 315
 Columbus, OH 43215

Project: Production Control Room Upgrac
 Quote: 0012961
 Terms: Net 30
 Shipping: Prepay and Add

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
Production Switcher						
1	1	Ross Video	CUF-124	Carbonite Ultra Frame -MultiDefinition Format Support: 480i, 576i, 720p50/59.94, 1080i50/59.94, 1080pSF 23.98/25/29.97, 1080p25/29.97/50/59.94 -24 Inputs and 14 Outputs (includes MV outputs) -1 Reference Input and 1 Reference Output with H/V Adjustments -1 ME with 4 Keyers plus a Transition Keyer. Expandable to 3 MEs -4 MiniME with 2 Keyers and Full Preview -4 MediaStores with Video and Alpha each -8 2D DVE -8 Frame Sync / Format Converters with Proc Amp and Colour Correction -FSFC are assignable to any input or output. Option for Full I/O expansion -2 MultiViewers - 1 System and 1 I/O MultiViewer. Expandable to 4 MultiViewers (2 System and 2 I/O MultiViewer) -System MultiViewers have access to all Inputs, Outputs and Internal Buses. Up to 16 Windows each with 45 Layouts to chose from -I/O MultiViewers have access to all physical inputs and physical outputs. Up to 16 Windows each with 45 layouts to chose from -DashBoard Menu System and Virtual Panel -Carbonite Device Controls - AMP, RossTalk, PBUS, VISCA, Cambot, Yamaha Serial Midi (DM1000/01V96), TSL v3.1 and GVG 100 Editor Control -LiveEDL for "Live to Tap" events with quick turn around edit workflows -24 GPIO (individually assignable as Input or Output) -18 Tally -2 AES for Media Store Audio -1 LTC for Time Clock and LiveEDL -10 Bit Video Processing in All Video Formats -Optional Redundant power and Rack Mount Redundant Power -24/7 Phone Support -Includes XPression Live CG - Valued at \$2537!!	8,201.59	8,201.59
2	1	Ross Video	XDS0-0001-CPS	XPression LiveCG Software Only	0.00	0.00
3	1	Ross Video	CUF-HDBNC-BNC	HDBNC to BNC kit with 8 cables	135.29	135.29
4	0	Ross Video	CUF-ADD-ME2	Adds an additional ME	4,729.41	0.00
5	1	Ross Video	CUF-ADD-I/OPLUS	Adds FSFC and Proc Amps / Colour Correctors to All I/O: -Expands the number of Frame Sync Format Converts with Proc Amps and Colour Correctors. -Standard System includes 8 Assignable FSFC. Option enables a total of 34 FSFC in the system.	1,576.47	1,576.47

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
6	0	Ross Video	CUF-ADD-MV2&4	Adds MultiViewer 2 and MultiViewer 4 to the CUF-124 System: -Includes 1 additional System MultiViewer (MV 2) with Access to All Physical Inputs, Physical Outputs, Internal Sources and Internal Buses. 45 Layouts to chose from with up to 16 Windows. -Includes 1 additional I/O MultiViewer (MV 4) with Access to All Physical Inputs and Physical Outputs. 45 Layouts to chose from with up to 16 Windows.	788.24	0.00
7	1	Ross Video	CUF-RACKPWR	ULTRIPower for Carbonite Ultra. Includes ULTRIPower Ultrix Rackmount 1 RU power supply frame with 1 power supply AND ULTRIPower-PS Modular power supply for Ultripower rack mount PS frame	0.00	0.00
8	1	Ross Video	ULTRIPower-PS	Modular power supply for Ultripower rack mount PS frame	784.29	784.29
9	1	Ross Video	ULTRIPower	Ultrix Rackmount 1RU power supply frame with 1 power supply	1,572.53	1,572.53
10	1	Ross Video	TD1-PANEL	TouchDrive 1 ME Panel. *1 full ME control row / 15 Crosspoint buttons /15 Row Select User buttons and 3 User Trans Buttons * PS Touch Displays in every module. Source/Data information and integrated Control * 6-Axis Control Joystick * DashBoard PC built in! Optional Touch Display available. Display Port connection * 4 Rear USB ports for Optional Touch Display, Keyboard and Mouse. * Panel Glow full RGB led buttons * Ethernet rack frame connectivity * On-Desk and In Desk mounting with hardware included PSU is additional Order Item:PSU options include CUF-PSU Bricks or CUF-RACKPOWER	7,196.59	7,196.59
11	0	Ross Video	TD2S-PANEL	TouchDrive 2 ME S Series Panel	13,794.12	0.00
12	1	Ross Video	TD-TOUCHSCREEN	TouchDrive 15.6" TouchScreen Display. No computer is required.	670.00	670.00
13	1	Ross Video	CUF-PSU	Standard Power Supply unit for Carbonite Ultra Engines. 2 Units required for Redundant Power.	390.18	390.18
14	1	Ross Video	CUF-PSU	Standard Power Supply unit for Carbonite Ultra Engines. 2 Units required for Redundant Power.	390.18	390.18
Tria: Production Server						
15	1	Ross Video	TRIA-XD-AVC-02-HW	Tria Express DUET Production Server Hardware: AVC-Intra / 38-Hour Media Storage	7,881.56	7,881.56
16	1	Ross Video	TRIA-XD-2-SW	Tria Express DUET Production Server Software TWO CHANNEL	6,305.88	6,305.88
XPression: Realtime Motion Graphics System						
17	1	Ross Video	XPN-1RU-M8	XPression 1RU HD-SDI Chassis (HW Only)	8,591.76	8,591.76
18	1	Ross Video	XST3-0001	XPression Studio Triple Channel (SW Only)	27,588.24	27,588.24
19	1	Ross Video	XPN-KBD	XPression Custom Keyboard • Dedicated Keys for XPression Functions • User-defined Custom Keys	1,034.16	1,034.16
20	0	Ross Video	XST-DLQ	Datalinq Server Option: Provides a Connection to External Data Sources such as ODBC, RSS, Excel, Access, and XML	4,039.71	0.00
Dashboard Control System						
21	1	Ross Video	DB-PTZP-001	DashBoard Controller for Panasonic AW-HE Series PTZ camera.	2,363.92	2,363.92

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
22	1	Ross Video	DB-TURNKEY-HW	DashBoard Turnkey Client. All-in-one client computer with integrated touch screen, articulated screen mount, minimum 23 inch 1920x1080 display, minimum 4GB RAM, minimum 250 GB mass storage. Windows 8 Pro OS. Latest release of DashBoard pre-installed, together with gifts package including example apps videos. DashBoard badged.	3,056.78	3,056.78

Routing System

23	1	Ross Video	ULTRIX-NS-FR2	Ultrix New Style 2RU Frame w/ 16x16 plus 2 AUX (Ultrimix and Ultriclean included)	11,035.29	11,035.29
24	2	Ross Video	ULTRIX-HDB-IO-A	I/O Board - 16x16, Advanced Connectivity, 2 AUX IO	6,305.88	12,611.76
25	0	Ross Video	SFP-FIBER-3G	3G SDI Optical transceiver SFP	346.04	0.00
26	0	Ross Video	SFP-MADI-COAX	Coax MADI transceiver SFP	181.29	0.00
27	1	Ross Video	ULTRISYNC-18	Ultrisync-18 is a bundle of 18 individual Ultrisync licenses. They can be assigned individually to any input port on the Ultrix frame	5,675.29	5,675.29
28	1	Ross Video	ULTRISCAPE	Ultriscape Multiviewer License	3,941.18	3,941.18

Control and Monitoring System

29	2	Ross Video	ULTRITOUCH-2	Ethernet Enabled 2RU LCD Touchscreen Control Panel	2,754.88	5,509.76
30	2	Ross Video	ULTRITOUCH-PS	Power supply for ULTRITOUCH	232.53	465.06
31	1	Ross Video	RCP-ME	Ethernet Enabled 40 Button LCD Display Control Panel	803.21	803.21

Ross Professional Services

32	1	Ross Video	CARBONITE-COM-1DAY	Carbonite Solo Commissioning	1,855.00	1,855.00
33	1	Ross Video	CARBONITE-OTR-1DAY	One Day, Carbonite Operational Training, Travel Billed Separately Carbonite Operations Training - 1 Day One day of onsite training. 4 weeks advance scheduling notice is required. Training is onsite on customer supplied equipment. Training labor is invoiced at time of purchase or upon equipment shipment. Travel and accommodation expenses are EXTRA and charged separately, billed at cost after the completion of visit. Customer is responsible for any costs associated with cancellation or rescheduling of onsite services. Once a purchase order is received, all Ross Video commissioning and/or training services may be scheduled by sending an e-mail request to services@rossvideo.com .	1,855.00	1,855.00
34	1	Ross Video	TRAVEL-PRE-001	Pre Paid Service Expense Trip 1 Travel for three (3) days onsite commissioning Expenses related to onsite services. Customer will be billed up-front for estimated expenses associated with travel and accommodation necessary to deliver onsite service. Pre-paid expenses will be invoiced upon confirmation of order.	2,823.53	2,823.53
35	1	Ross Video	XPRESSION-COM-1DAY	XPression Commissioning - 1 Day	1,855.00	1,855.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
36	2	Ross Video	XPRESSION-OTR-1DAY	Xpression Operational Training, 1-Day Onsite, Travel Billed Separately at Cost XPression Operational Training - 1 Day One day of onsite training. 4 weeks advance scheduling notice is required. Training is onsite on customer supplied equipment. Training labor is invoiced at time of purchase or upon equipment shipment. Travel and accommodation expenses are EXTRA and charged separately, billed at cost after the completion of visit. Customer is responsible for any costs associated with cancellation or rescheduling of onsite services. Once a purchase order is received, all Ross Video commissioning and/or training services may be scheduled by sending an e-mail request to services@rossvideo.com.	1,855.00	3,710.00
37	1	Ross Video	TRAVEL-PRE-002	Pre Paid Service Expense Trip 2 Travel for one (1) day onsite training Expenses related to onsite services. Customer will be billed up-front for estimated expenses associated with travel and accommodation necessary to deliver onsite service. Pre-paid expenses will be invoiced upon confirmation of order.	3,176.47	3,176.47
38	1	Ross Video	ULTRIX-ONL-COM-1DAY	Ultrix Online Commissioning	930.00	930.00
39	1	Ross Video	TRIA-X-ONL-COM-1DAY	Abekas Tria Express Online Commissioning - 1 Day	930.00	930.00
40	1	Ross Video	TRIA-X-ONL-OTR-1DAY	Abekas Tria Express Online Operational Training - 1 Day	930.00	930.00

Production Switcher: Extended Coverage (Yearly)

41	3	Ross Video	CUF-2ME-ROSSCARE	Extended Warranty for the CUF-124 Frame and 2 MEs	1,998.18	5,994.54
42	1	Ross Video	CUF-2ME-ROSSCARE	Extended Warranty for the CUF-124 Frame and 2 MEs	0.00	0.00
43	3	Ross Video	TD2S-PANEL-HM	TouchDrive 2 ME S Series Panel Warranty	1,655.29	4,965.87
44	1	Ross Video	TD2S-PANEL-HM	TouchDrive 2 ME S Series Panel Warranty	0.00	0.00
45	3	Ross Video	TD-TOUCHSCREEN-HM	TouchDrive TouchScreen Display Warranty	94.59	283.77
46	1	Ross Video	TD-TOUCHSCREEN-HM	TouchDrive TouchScreen Display Warranty	0.00	0.00

Tria: Extended Coverage (Yearly)

47	3	Ross Video	TRIA-XD-AVC-02-HM	Hardware Warranty Agreement +1 Year for TRIA-XD-AVC-02-HW	788.24	2,364.72
48	1	Ross Video	TRIA-XD-AVC-02-HM	Hardware Warranty Agreement +1 Year for TRIA-XD-AVC-02-HW	0.00	0.00
49	3	Ross Video	TRIA-XD-2-SM	Software Maintenance +1 Year for TRIA -XD-2-SW	630.59	1,891.77
50	1	Ross Video	TRIA-XD-2-SM	Software Maintenance +1 Year for TRIA -XD-2-SW	0.00	0.00

XPression: Extended Coverage (Yearly)

51	3	Ross Video	XPN-1RU-HM	XPression 1RU HD-SDI - Hardware Maintenance (HW Only)	1,082.25	3,246.75
52	1	Ross Video	XPN-1RU-HM	XPression 1RU HD-SDI - Hardware Maintenance (HW Only)	0.00	0.00
53	3	Ross Video	XST3-0001-SM	XPression Studio Standard Edition(SW Only) Maint Access to ongoing Software updates and enhancements for one year	3,476.12	10,428.36
54	1	Ross Video	XST3-0001-SM	XPression Studio Standard Edition(SW Only) Maint Access to ongoing Software updates and enhancements for one year	0.00	0.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
55	3	Ross Video	XST-DLQ-SM	DataLinq Server Option - SW Maintenance	509.20	1,527.60
56	1	Ross Video	XST-DLQ-SM	DataLinq Server Option - SW Maintenance	0.00	0.00
Dashboard: Extended Coverage (Yearly)						
57	3	Ross Video	DB-PTZP-999	Annual Maintenance for DB-PTZP-001	1,225.71	3,677.13
58	1	Ross Video	DB-PTZP-999	Annual Maintenance for DB-PTZP-001	0.00	0.00
59	3	Ross Video	DB-TURNKEYWAR-999	Extended warranty for DashBoard Turnkey Client	202.58	607.74
60	1	Ross Video	DB-TURNKEYWAR-999	Extended warranty for DashBoard Turnkey Client	0.00	0.00
Routing: Extended Coverage (Yearly)						
61	3	Ross Video	ULTRIPower-HM	Utripower - Hardware Warranty	157.26	471.78
62	1	Ross Video	ULTRIPower-HM	Utripower - Hardware Warranty	0.00	0.00
63	3	Ross Video	ULTRIX-FR2-HM	Warranty Fee for a 1 year term on Extended Warranty, Ultrix 2RU System Year 2 Extended Warranty	1,300.59	3,901.77
64	1	Ross Video	ULTRIX-FR2-HM	Warranty Fee for a 1 year term on Extended Warranty, Ultrix 2RU System Year 2 Extended Warranty	0.00	0.00
65	3	Ross Video	RCP-ME-HM	RCP-ME - Hardware Warranty	80.32	240.96
66	1	Ross Video	RCP-ME-HM	RCP-ME - Hardware Warranty	0.00	0.00
Control & Monitoring Extended Coverage (Yearly)						
67	6	Ross Video	ULTRITOUCH-2-HM	Extended Warranty, Ulritouch-2	275.88	1,655.28
68	2	Ross Video	ULTRITOUCH-2-HM	Extended Warranty, Ulritouch-2	0.00	0.00
Custom Console and Rack System						
69	1	Cabinetworks	C838	Custom Console for Video Production Control Room for Ctv. Package consists of the following: * Melamine desk, laminated top, 3mm PVC edge including monitor wall with mounts as listed below: (2) Peer ST650 Wall Mount for monitors 32" to 50" (2) 9110-8.5-4-104Wall Mount LCD Mount 75 or 100mm Vesa Mount that can tilt/rotate/turn with 14.62" of reach (2) 9110-8020 Black Mounting Plate to attach Inno 9110 Mount to 8020 (2) Speaker Plate 10" x 10" Starboard speaker plate, machined to attach to 9110 mounting bracket, hardware included (1) Inno 7000-800-NM-104 7000 series mount, no flex mount kit/Supports monitors 7.5 to 25 lbs (2) Inno 9130-D-28-104 Foldable LCD arm w/28" pole, (2) forearms includes tilter (3) RP401328-104 Mount Cup Only /Black 3500 & 7000 Series Delivered and installed at client location.	8,986.29	8,986.29
70	1	Middle Atlantic	BGR-4532	BGR Series Rack 45 RU, 32" Deep. 32" D X 82 7/8" H	1,086.80	1,086.80
71	2	Middle Atlantic	PDT-2020C-NS	Power Strip, 20 Outlet, 20A	203.14	406.28
72	1	Middle Atlantic	UPS-2200R	Premium series UPS backup power with non-critical load shedding	1,209.25	1,209.25
73	1	Middle Atlantic	MW-4QFT-FC	Integrated 4-1/2" Fan Top, includes 4 quiet fans and proportional speed fan control. Fits any MRK, WRK, DRK, VRK or VMRK, Black finish	568.73	568.73
74	1	Middle Atlantic	CBS-BGR	BGR Caster Kit with Hardware	150.73	150.73

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
75	1	Middle Atlantic	UPS-S1500R	UPS Backup Power Unit - 1500VA	697.31	697.31
Terminal Equipment / Other required System Components						
76	1	Ross Video	OGX-FR-CN	OpenGear OGX Frame with Cooling and Advanced Networking	1,812.35	1,812.35
77	1	Ross Video	SRA-8802-R2	High Performance 3G Reclocking DA w/ Rear Module	449.12	449.12
78	1	Ross Video	SEA-8803-R2	HD/SD-SDI Equalizing DA w/ Rear Module	352.06	352.06
79	1	Ross Video	UDA-8705A-R2	Analog Video Utility Distribution Amplifier with 20-Slot frame Rear Module, R2-8705	307.94	307.94
80	5	AJA	OG-3G-AMA	3G-SDI 4-Ch Analog Audio Embedder/Disembedder, balance XLR, DashBoard Support	701.47	3,507.35
81	1	Ross Video	ADA-8405-C-RC2	Analog Audio and Timecode DA with Remote Gain w/ Rear Module	404.12	404.12
82	1	AJA	GEN10-R0	HD/SD Sync Generator	304.71	304.71
83	1	Leviton	5R2UH-W06	2RU Fiber Enclosure with Sliding Tray, Empty, Accepts Up To 6 Adapter Plates and Splice Trays or 6 MPO Modules	405.00	405.00
84	4	Leviton	5F100-4LL	LC Duplex SM/OS2 Plate with 12 Couplers blue ceramic Sleeve, 24 Fiber	144.07	576.28
85	1	Netgear	GS324T-100NAS	24-port Gigabit Smart Managed Pro Switch with 2 SFP (GS324T)	237.49	237.49
86	1	Dell	3VR5K	OptiPlex 7080 MFF i5-10500T 16GB RAM, 512GB SSD, Intel HD Nowls Windows 10	1,097.96	1,097.96
87	1	Peavey	USB-P	Standard USB Audio Device	84.99	84.99
88	1	Tripp Lite	B032-HUA2	2-Port KVM Switch w/ HDMI USB Audio Cables Peripheral Sharing - 2 Computer(s) - 1 Local User(s) - 0 Remote User(s) - 1920 x 1200 - 0 - 2 x USB - 1 x HDMI	82.51	82.51
89	1	Aukey	CB-H6	USB Hub 3.0, Aluminum 7 Port USB 3.0 Data Hub with 12V/2.5A Power Adapter, 3.3ft USB Cable for MacBook Air, Mac Mini, iMac, Laptop, PC, USB Flash Drives, Hard Drive (Silver)	46.65	46.65
90	1	Black Magic	BMD-SWRCONVRCK2	Studio Converter: 4 Bi-Directional Converters in 1RU Unit 4 x Fiber to SDI 10 bit Converters 4 x Switchable SD/HD-SDI Outputs Connects up to 4 ATEM Camera Converters	1,990.32	1,990.32
Large Monitors						
91	2	Sony	FWD55X81CH	55" LED 4K HDR Pro Display w/Tuner	989.00	1,978.00
OPTIONAL Monitor Upgrades / Zoom or Teams Conversion / Audio Mixer upgrade for Dante Expansion						
NOTE: None of these options are included in the total						
92	0	TV Logic	LVM-180A	18.5" 1920x1080(true 8 bit) Wide Viewing LCD Monitor, 500 cd/m2, 2x 3G/HD/SD-SDI inputs with one loop out, DVI-I and HDMI inputs, Composite In/Out, Waveform/Vector Scope, Closed Caption : CEA-608/708 (SDI), Embedded Audio Level Meters (16Ch), Internal Speaker, 100-240V AC, 24V DC input. Includes Table Stand.	2,065.00	0.00
93	0	Samsung	S24A310NHN	LED monitor, 24" (23.8" viewable) 1920 x 1080 Full HD (1080p) @ 60 Hz, 3000:1 contrast, 9 ms, HDMI & VGA inputs. Black	142.49	0.00
94	0	AJA	ROI-HDMI-R0	HDMI to SDI with ROI	932.50	0.00
95	0	Yamaha	TF1	16 faders + 1 Master fader. 16 onboard Mic/Line analog inputs.	1,750.00	0.00
96	0	Yamaha	NY64-D	Dante Digital Interface Card for Yamaha TF Series Digital Mixing Consoles	393.75	0.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
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Service Agreement for One Year

97	0	iVideo Technologies	PLATINUM_MA	<p>iVideo's platinum maintenance agreement ensures clients' basic audio / video support needs are met. All audio / video issues associated with the rooms within this proposal, and any minor parts and cabling needed to ensure a working system, are included in the contract price. Product replacements or repairs serviced by the manufacturer are excluded. This support package has unlimited email and phone support, TBD preventative maintenance visits per annum and up to TBD onsite service calls per annum. All onsite service calls will occur within 24 business hours from the initial client request.</p> <p>NOTE: This Support Contract is NOT included in the total. We believe that a thorough discussion of after hours needs should be reviewed prior to finalization of an agreement.</p>	12,000.00	0.00
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Total Equipment:	203,846.25
Total Labor and Materials:	50,935.00
Estimated Shipping:	1,500.00
Sales Tax:	0.00
Total:	256,281.25

iVideo Technologies' Representative:	<u>David Walters</u>	Date:	<u>June 30, 2021</u>
E-Mail & Phone:	<u>dwalters@ivideo.com 440-325-2307</u>		
Client Representative:	_____	Date:	_____
Purchase Order Number:	_____		

Scope of Work

iVideo Technologies' Responsibilities:

- 1 Contact client and coordinate installation with customer for a 8:00am - 05:00pm, Monday through Friday consecutive time period. All quotes are based on consecutive installation days and scheduling non-consecutive days will result in additional charges.
- 2 Provide installation of iVideo sold components in accordance with manufacturers' recommendations. Installation outside of the manufactures' basic set up must be detailed in the scope of work. Set up outside of a manufacturers' base system will be at additional charges.
- 3 If appropriate, provide in-shop configuration and testing of equipment prior to installation.
- 4 Installation of any iVideo furnished low-voltage cabling at NEC standards. All systems are assumed to be pre-wired by others unless details in the scope of work section.
- 5 Supply all required connectors and terminations following audio / video industry standards.
- 6 Test all iVideo furnished equipment for proper operation as individual items and as a complete system.
- 7 Provide on-site operational orientation for complete system. iVideo's standard operational orientation is for 30 minutes and any time outside of that must be detailed in the scope of work section.
- 8 Installation of hardware and software that is purchased from iVideo.
- 9 Incorporation of OFE as part of project. Equipment must be in working order.
- 10 Provide drawings of system for client approval
- 11 Provide rack elevations for client approval.
- 12 Provide Console drawings and color choices for Console
- 13 Provide final As-Built drawings.

City of Columbus Television Responsibilities:

- 1 Upon receipt inspect any delivered products and inform iVideo of any freight damage within 24 hours of delivery.
- 2 Provide all required outside sources and configurations including AC power, IT, network, telephony(SIP / VOIP / Etc), cable, satellite etc.
- 3 Coordinate a block of consecutive time for a 8:00am - 05:00pm, Monday through Friday installation.
- 4 Provide iVideo with at least 72 hours' notice for changes in installation dates. Any notice within 72 hours or iVideo's inability to access a site will result in a charge to the Purchaser equal to iVideo's lost time.
- 5 Provide any required rough-in conduits, in-wall boxes, signal path-ways, and in-wall backing. Provide installed equipment with proper ventilation and cooling (HVAC).
- 6 Provide any required permits or licenses.
- 7 Inspect and confirm the good working order of all owner-furnished equipment, media, and software.
- 8 Understands that all change orders will require a written approval from an authorized Purchaser representative as well as an updated Purchase Order.
- 9 Will not install software programs or updates without contacting iVideo.
- 10 Thoroughly inspect iVideo's installation and confirm that the complete system is working within 24 hours of each project phase completion.
- 11 Purchaser is responsible for the repair or replacement of any ceiling work (grids, tiles, drywall, etc), drywall patching, and painting that may need to be altered for iVideo to complete its work.
- 12 Provide fully functioning hardware that is to be incorporated into the system.
- 13 Understands that any software and/or hardware that is purchased after the initial installation is subject to labor costs. Any options and/or modifications within reason will be completed as part of the installation, unless there is a significant change in configuration, system capabilities and/or room layout.
- 14 Disposal of any equipment and wire that is removed as part of iVideo's installation.

Note: The Scope of Work represents the work to be performed by iVideo Technologies and City of Columbus Television

We understand, acknowledge, and accept the above scope of work.

David Walters - iVideo

Date: June 30, 2021

Andy Stout - City of Columbus Television

Date: _____

Terms and Conditions

The following Terms and Conditions apply to the above quote and the subsequent order. This order means that iVideo and Purchaser have come to a complete agreement as to the list of materials, the costs and in some cases the labor charges as spelled out in this document.

Payment Terms: All orders are cash on delivery unless credit is approved and an open account is established. Open accounts are a courtesy that is available upon the satisfactory completion and review of a credit application. Accounts cannot be opened until iVideo has received written responses to its inquiries. Accounts will have credit limits and specific payment terms as determined by iVideo. An open account is subject to a service charge of 1.5% per month when the payment is 30 or more days past due. iVideo is further entitled to recover from Purchaser all reasonable attorney's fees and costs incurred in collection of any amounts outstanding. There will be a service charge of 10% of the Contract amount if the job is cancelled by Purchaser AFTER the third business day. iVideo may close an open account at any time and at its sole discretion. State and local taxes are the sole responsibility of Purchaser. For purchasers based in the State of Ohio applicable sales taxes will be charged unless Purchaser provides a valid tax exemption certificate prior to the acceptance of the quote by iVideo.

Condition and Purchaser Furnished Goods: All goods sold by iVideo will be new and in factory direct condition. Purchaser will be informed of any non-new conditioned items such as demo, used, returned or opened products. iVideo has no liability or responsibility for product compatibility on Purchaser furnished products.

Warranty: iVideo supports its workmanship for a period of 30 days from the installation completion date ("iVideo Warranty"). In addition, iVideo will pass along any available manufacturers' warranties to Purchaser. During the 30-day iVideo Warranty period, it will facilitate and install products covered under the manufacturer's warranty at no charge. All coverage and assistance outside of this 30-day period requires a maintenance agreement and will have a separate charge. Purchaser acknowledges, agrees, and understands that the only warranty given by iVideo to Purchaser regarding the work is the iVideo Warranty. Purchaser acknowledges that the terms of the iVideo Warranty provide for the manner, performance or quality of the desired construction are clear, specific and sufficiently detailed to establish the only standards of construction. TO THE EXTENT PERMITTED BY LAW, PURCHASER WAIVES ANY CAUSE OF ACTION UNDER ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF GOOD AND WORKMANLIKE CONSTRUCTION, IMPLIED WARRANTY OF HABITABILITY, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE AND STIPULATES THAT SUCH IMPLIED WARRANTIES ARE EXPRESSLY REPLACED BY THE iVideo WARRANTY. All warranties on Consumer or Manufactured Products (as those terms are defined by Federal law) are assigned, without recourse. iVideo makes no warranties of any kind, express or implied, concerning Manufactured Products and expressly disclaims all implied warranties of merchantability, fitness or use for a particular purpose, and any other warranties to the fullest extent permitted by state or federal law. Notwithstanding anything herein to the contrary, Purchaser agrees that Purchaser has not substantially performed under the Contract unless Purchaser has paid iVideo all sums due hereunder. Further, Purchaser acknowledges that iVideo shall not be obligated to perform any warranty work hereunder until Purchaser has paid the Total Contract Price in full. iVideo shall not be liable for any damages that arise out of the failure to mitigate any damages or perform any warranty repairs that are in any way related to Purchaser's failure to pay timely the Total Contract Price hereunder. Purchaser shall mitigate any warranty conditions or resulting damages that iVideo does not cure under the iVideo Warranty due to Purchaser's failure to pay the Total Contract Price.

Returns: Any equipment returned to iVideo must be approved by iVideo. Standard equipment items returned are subject to a 10% processing fee and may be subject to an additional manufacturer's restocking fee. Products will not be accepted for return without complete, original packaging and must be in new condition. All software sales are final and any custom-built items are not returnable.

Security Agreement: By placing an order the purchaser agrees to iVideo's continued secured interest in the equipment or system until such time as the Purchaser's financial obligation to iVideo is complete. iVideo retains the right to reclaim the equipment or system if Purchaser does not complete their financial obligations.

Shipping and Insurance: All orders are freight on board Cleveland, OH. Unless otherwise state shipping charges and insurance are the responsibility of the Purchaser. The shipping charges shown in the proposal are estimates and can vary from actual charges billed. iVideo reserves the right to insure shipments at the Purchaser's expense. Upon receipt of the item, Purchaser must inspect it for any and all damage incurred during shipping. It is the Purchaser's responsibility to notify iVideo within 24 hours of any shipping damage. iVideo takes no responsibility for damages caused in shipment.

Delays: iVideo is not liable fiscally or otherwise for delays caused by acts of weather, union strikes, civil disturbances, war, manufacturer's product availability, or other issues. iVideo will make its best efforts to make Purchaser aware of any delays. Delays during installation may cause additional labor charges. If an installation is delayed due to conditions outside the control of iVideo, Purchaser will be invoiced for items specifically ordered for the installation and are yet installed.

Installation: Unless otherwise noted in the quote, installation is the responsibility of the purchaser. For quotes that include installation, there will be an additional document Scope of Work that will indicate iVideo and Purchaser's specific responsibilities to the completion of the installation. The Scope of Work is to be signed by Purchaser before the order for installation is processed. Any changes from the Scope of Work requires a Change Order which may cause additional charges to Purchaser.

Business Insurance: All iVideo installation technicians are covered under workman's compensation insurance for the State of Ohio. iVideo is also a Drug Free Workplace. If required iVideo will supply Purchaser with proof of insurance. Any insurance that is required by Purchaser and is not of a type or value currently held by iVideo, the cost of that insurance will be the responsibility of Purchaser.

Validity: The quote is valid for a period of thirty days. After that time iVideo reserves the right to adjust any pricing. For install projects, if the Scope of Work or products purchased changes, iVideo retains the right to adjust the quote accordingly.

Terms and Conditions

Intellectual Property and Coding: The list of materials provide by iVideo constitute a "System" and is the intellectual property of iVideo, including, with limitation, any coding or other work product generated by iVideo in implementing the System. All coding is owned by iVideo and any copies of editable coding are excluded from this sale unless stated elsewhere in the Scope of Work. The quote cannot be shared with persons not employed by Purchaser. By requesting iVideo provide a quote, Purchaser enters into an agreement to bargain and negotiate in good faith. Providing details of the quote with parties outside of iVideo and the Purchaser's organization will constitute a breach of the Contract.

Purchaser Default: Each of the following constitutes an Purchaser Act of Default and a material breach of this Contract by Purchaser for which iVideo shall have the right to terminate the Contract: (1) Purchaser's unreasonably delay of iVideo in the commencement, prosecution, or completion of construction of the Project; (2) Purchaser fails to execute a Change Order required herein; (3) Purchaser fails to reasonably cooperate with iVideo in the selection of materials, coordination of work, and granting access to the Project; (4) Purchaser's voluntary filing of a petition for bankruptcy; (5) Purchaser's failure to pay all or any part of a payment due hereunder, Change Order, or the Total Contract Price when due; or (6) Purchaser's failure to perform any other material obligation contained herein.

Purchaser's Remedies: Purchaser's exclusive remedy due to iVideo's breach of this Contract is limited to the reasonable cost to repair iVideo's defective or substandard work.

Limitation of Claims & Remedies: NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL ANY DAMAGES, INCLUSIVE OF ATTORNEYS' FEES AND COURT COSTS, AWARDED AGAINST iVideo TO Purchaser PURSUANT TO ANY CAUSE OF ACTION EXCEED THE TOTAL CONTRACT PRICE AND Purchaser RELEASES iVideo FROM ANY SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, ADDITIONAL, KNOWING, PUNITIVE, OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, MENTAL ANGUISH, DIMINUTION OF VALUE, LOSS OF USE OR BENEFIT-OF-THE-BARGAIN, FORESEEABLE OR NOT, ARISING OUT OF OR IN CONNECTION WITH ANY CLAIMS FOR BREACH OF CONTRACT, BREACH OF WARRANTY (EXPRESS OR IMPLIED), VIOLATIONS OF THE DECEPTIVE TRADE PRACTICES ACT, ANY TORT, OR ANY OTHER BASES OF LIABILITY. ANY ACTION OR CLAIM, REGARDLESS OF FORM, ARISING OUT OF THE TRANSACTIONS COVERED BY THIS CONTRACT OR CONSTRUCTION OF THE Project MUST BE BROUGHT WITHIN TWO YEARS AND ONE DAY OF THE DATE THE CAUSE OF ACTION ACCRUES.

Waiver Of Jury Trial: Purchaser AND iVideo KNOWINGLY AND VOLUNTARILY, WITH FULL AWARENESS OF THE LEGAL CONSEQUENCES, WAIVE THEIR RIGHT TO JURY TRIAL OF ANY DISPUTE.

Assignment, Conflicts & Invalidity of Provision. This Contract may not be assigned without the written consent of all parties hereto. In the event of any conflict between the Contract Documents and all other documents, the Contract Documents shall control. If any term, provision, covenant or condition of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

Integration. The Contract Documents constitute the entire agreement of the parties concerning the subject matter hereof, supersede any prior agreement or representations made between Purchaser and iVideo, either written or oral, and may only be modified in writing. This Contract shall inure to the benefit of and be binding upon the parties hereto and their heirs, executors, administrators, grantees, successors and assigns.

Governing Law & Venue. This Contract and the performance of all the obligations set forth in this Contract shall be governed, construed, and enforced by the laws of the State of Ohio and this Contract shall be performable in the county where the Project is located. The venue for any lawsuit, claim, or arbitration arising out of this Contract shall be in Cuyahoga County, Ohio.

Waiver, Survival and Draftsmen. The terms and conditions contained herein and any attachments hereto may be waived only by written instrument executed by the party waiving compliance, save and except change orders. Any such waiver shall only be effective in the specific instance and for the specific purpose for which it is given and shall not be deemed a waiver of any other provision hereof. The terms and agreements set forth herein shall survive the termination and/or default of this Contract, Substantial Completion, closing, and payment in full of the Total Contract Price. The provisions of this Contract shall be construed without regard to the rule requiring adverse inferences to be drawn against the drafter of this Contract.



City of Columbus Television
 Andy Stout
 90 W. Router St. Rm. 315
 Columbus, OH 43215

Project: Production Control Room Upgrac
 Quote: 0012961
 Terms: Net 30
 Shipping: Prepay and Add

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
Production Switcher						
1	1	Ross Video	CUF-124	Carbonite Ultra Frame -MultiDefinition Format Support: 480i, 576i, 720p50/59.94, 1080i50/59.94, 1080pSF 23.98/25/29.97, 1080p25/29.97/50/59.94 -24 Inputs and 14 Outputs (includes MV outputs) -1 Reference Input and 1 Reference Output with H/V Adjustments -1 ME with 4 Keyers plus a Transition Keyer. Expandable to 3 MEs -4 MiniME with 2 Keyers and Full Preview -4 MediaStores with Video and Alpha each -8 2D DVE -8 Frame Sync / Format Converters with Proc Amp and Colour Correction -FSFC are assignable to any input or output. Option for Full I/O expansion -2 MultiViewers - 1 System and 1 I/O MultiViewer. Expandable to 4 MultiViewers (2 System and 2 I/O MultiViewer) -System MultiViewers have access to all Inputs, Outputs and Internal Buses. Up to 16 Windows each with 45 Layouts to chose from -I/O MultiViewers have access to all physical inputs and physical outputs. Up to 16 Windows each with 45 layouts to chose from -DashBoard Menu System and Virtual Panel -Carbonite Device Controls - AMP, RossTalk, PBUS, VISCA, Cambot, Yamaha Serial Midi (DM1000/01V96), TSL v3.1 and GVG 100 Editor Control -LiveEDL for "Live to Tap" events with quick turn around edit workflows -24 GPIO (individually assignable as Input or Output) -18 Tally -2 AES for Media Store Audio -1 LTC for Time Clock and LiveEDL -10 Bit Video Processing in All Video Formats -Optional Redundant power and Rack Mount Redundant Power -24/7 Phone Support -Includes XPression Live CG - Valued at \$2537!!	8,201.59	8,201.59
2	1	Ross Video	XDS0-0001-CPS	XPression LiveCG Software Only	0.00	0.00
3	1	Ross Video	CUF-HDBNC-BNC	HDBNC to BNC kit with 8 cables	135.29	135.29
4	0	Ross Video	CUF-ADD-ME2	Adds an additional ME	4,729.41	0.00
5	1	Ross Video	CUF-ADD-I/OPLUS	Adds FSFC and Proc Amps / Colour Correctors to All I/O: -Expands the number of Frame Sync Format Converts with Proc Amps and Colour Correctors. -Standard System includes 8 Assignable FSFC. Option enables a total of 34 FSFC in the system.	1,576.47	1,576.47

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
6	0	Ross Video	CUF-ADD-MV2&4	Adds MultiViewer 2 and MultiViewer 4 to the CUF-124 System: -Includes 1 additional System MultiViewer (MV 2) with Access to All Physical Inputs, Physical Outputs, Internal Sources and Internal Buses. 45 Layouts to chose from with up to 16 Windows. -Includes 1 additional I/O MultiViewer (MV 4) with Access to All Physical Inputs and Physical Outputs. 45 Layouts to chose from with up to 16 Windows.	788.24	0.00
7	1	Ross Video	CUF-RACKPWR	ULTRIPower for Carbonite Ultra. Includes ULTRIPower Ultrix Rackmount 1 RU power supply frame with 1 power supply AND ULTRIPower-PS Modular power supply for Ultripower rack mount PS frame	0.00	0.00
8	1	Ross Video	ULTRIPower-PS	Modular power supply for Ultripower rack mount PS frame	784.29	784.29
9	1	Ross Video	ULTRIPower	Ultrix Rackmount 1RU power supply frame with 1 power supply	1,572.53	1,572.53
10	1	Ross Video	TD1-PANEL	TouchDrive 1 ME Panel. *1 full ME control row / 15 Crosspoint buttons /15 Row Select User buttons and 3 User Trans Buttons * PS Touch Displays in every module. Source/Data information and integrated Control * 6-Axis Control Joystick * DashBoard PC built in! Optional Touch Display available. Display Port connection * 4 Rear USB ports for Optional Touch Display, Keyboard and Mouse. * Panel Glow full RGB led buttons * Ethernet rack frame connectivity * On-Desk and In Desk mounting with hardware included PSU is additional Order Item:PSU options include CUF-PSU Bricks or CUF-RACKPOWER	7,196.59	7,196.59
11	0	Ross Video	TD2S-PANEL	TouchDrive 2 ME S Series Panel	13,794.12	0.00
12	1	Ross Video	TD-TOUCHSCREEN	TouchDrive 15.6" TouchScreen Display. No computer is required.	670.00	670.00
13	1	Ross Video	CUF-PSU	Standard Power Supply unit for Carbonite Ultra Engines. 2 Units required for Redundant Power.	390.18	390.18
14	1	Ross Video	CUF-PSU	Standard Power Supply unit for Carbonite Ultra Engines. 2 Units required for Redundant Power.	390.18	390.18
Tria: Production Server						
15	1	Ross Video	TRIA-XD-AVC-02-HW	Tria Express DUET Production Server Hardware: AVC-Intra / 38-Hour Media Storage	7,881.56	7,881.56
16	1	Ross Video	TRIA-XD-2-SW	Tria Express DUET Production Server Software TWO CHANNEL	6,305.88	6,305.88
XPression: Realtime Motion Graphics System						
17	1	Ross Video	XPN-1RU-M8	XPression 1RU HD-SDI Chassis (HW Only)	8,591.76	8,591.76
18	1	Ross Video	XST3-0001	XPression Studio Triple Channel (SW Only)	27,588.24	27,588.24
19	1	Ross Video	XPN-KBD	XPression Custom Keyboard • Dedicated Keys for XPression Functions • User-defined Custom Keys	1,034.16	1,034.16
20	0	Ross Video	XST-DLQ	Datalinq Server Option: Provides a Connection to External Data Sources such as ODBC, RSS, Excel, Access, and XML	4,039.71	0.00
Dashboard Control System						
21	1	Ross Video	DB-PTZP-001	DashBoard Controller for Panasonic AW-HE Series PTZ camera.	2,363.92	2,363.92

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
22	1	Ross Video	DB-TURNKEY-HW	DashBoard Turnkey Client. All-in-one client computer with integrated touch screen, articulated screen mount, minimum 23 inch 1920x1080 display, minimum 4GB RAM, minimum 250 GB mass storage. Windows 8 Pro OS. Latest release of DashBoard pre-installed, together with gifts package including example apps videos. DashBoard badged.	3,056.78	3,056.78
Routing System						
23	1	Ross Video	ULTRIX-NS-FR2	Ultrix New Style 2RU Frame w/ 16x16 plus 2 AUX (Ultrimix and Ultriclean included)	11,035.29	11,035.29
24	2	Ross Video	ULTRIX-HDB-IO-A	I/O Board - 16x16, Advanced Connectivity, 2 AUX IO	6,305.88	12,611.76
25	0	Ross Video	SFP-FIBER-3G	3G SDI Optical transceiver SFP	346.04	0.00
26	0	Ross Video	SFP-MADI-COAX	Coax MADI transceiver SFP	181.29	0.00
27	1	Ross Video	ULTRISYNC-18	Ultrisync-18 is a bundle of 18 individual Ultrisync licenses. They can be assigned individually to any input port on the Ultrix frame	5,675.29	5,675.29
28	1	Ross Video	ULTRISCAPE	Ultriscape Multiviewer License	3,941.18	3,941.18
Control and Montioring System						
29	2	Ross Video	ULTRITOUCH-2	Ethernet Enabled 2RU LCD Touchscreen Control Panel	2,754.88	5,509.76
30	2	Ross Video	ULTRITOUCH-PS	Power supply for ULTRITOUCH	232.53	465.06
31	1	Ross Video	RCP-ME	Ethernet Enabled 40 Button LCD Display Control Panel	803.21	803.21
Ross Professional Services						
32	1	Ross Video	CARBONITE-COM-1DAY	Carbonite Solo Commissioning	1,855.00	1,855.00
33	1	Ross Video	CARBONITE-OTR-1DAY	One Day, Carbonite Operational Training, Travel Billed Separately Carbonite Operations Training - 1 Day One day of onsite training. 4 weeks advance scheduling notice is required. Training is onsite on customer supplied equipment. Training labor is invoiced at time of purchase or upon equipment shipment. Travel and accommodation expenses are EXTRA and charged separately, billed at cost after the completion of visit. Customer is responsible for any costs associated with cancellation or rescheduling of onsite services. Once a purchase order is received, all Ross Video commissioning and/or training services may be scheduled by sending an e-mail request to services@rossvideo.com .	1,855.00	1,855.00
34	1	Ross Video	TRAVEL-PRE-001	Pre Paid Service Expense Trip 1 Travel for three (3) days onsite commissioning Expenses related to onsite services. Customer will be billed up-front for estimated expenses associated with travel and accommodation necessary to deliver onsite service. Pre-paid expenses will be invoiced upon confirmation of order.	2,823.53	2,823.53
35	1	Ross Video	XPRESSION-COM-1DAY	XPression Commissioning - 1 Day	1,855.00	1,855.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
36	2	Ross Video	XPRESSION-OTR-1DAY	Xpression Operational Training, 1-Day Onsite, Travel Billed Separately at Cost XPression Operational Training - 1 Day One day of onsite training. 4 weeks advance scheduling notice is required. Training is onsite on customer supplied equipment. Training labor is invoiced at time of purchase or upon equipment shipment. Travel and accommodation expenses are EXTRA and charged separately, billed at cost after the completion of visit. Customer is responsible for any costs associated with cancellation or rescheduling of onsite services. Once a purchase order is received, all Ross Video commissioning and/or training services may be scheduled by sending an e-mail request to services@rossvideo.com.	1,855.00	3,710.00
37	1	Ross Video	TRAVEL-PRE-002	Pre Paid Service Expense Trip 2 Travel for one (1) day onsite training Expenses related to onsite services. Customer will be billed up-front for estimated expenses associated with travel and accommodation necessary to deliver onsite service. Pre-paid expenses will be invoiced upon confirmation of order.	3,176.47	3,176.47
38	1	Ross Video	ULTRIX-ONL-COM-1DAY	Ultrix Online Commissioning	930.00	930.00
39	1	Ross Video	TRIA-X-ONL-COM-1DAY	Abekas Tria Express Online Commissioning - 1 Day	930.00	930.00
40	1	Ross Video	TRIA-X-ONL-OTR-1DAY	Abekas Tria Express Online Operational Training - 1 Day	930.00	930.00

Production Switcher: Extended Coverage (Yearly)

41	3	Ross Video	CUF-2ME-ROSSCARE	Extended Warranty for the CUF-124 Frame and 2 MEs	1,998.18	5,994.54
42	1	Ross Video	CUF-2ME-ROSSCARE	Extended Warranty for the CUF-124 Frame and 2 MEs	0.00	0.00
43	3	Ross Video	TD2S-PANEL-HM	TouchDrive 2 ME S Series Panel Warranty	1,655.29	4,965.87
44	1	Ross Video	TD2S-PANEL-HM	TouchDrive 2 ME S Series Panel Warranty	0.00	0.00
45	3	Ross Video	TD-TOUCHSCREEN-HM	TouchDrive TouchScreen Display Warranty	94.59	283.77
46	1	Ross Video	TD-TOUCHSCREEN-HM	TouchDrive TouchScreen Display Warranty	0.00	0.00

Tria: Extended Coverage (Yearly)

47	3	Ross Video	TRIA-XD-AVC-02-HM	Hardware Warranty Agreement +1 Year for TRIA-XD-AVC-02-HW	788.24	2,364.72
48	1	Ross Video	TRIA-XD-AVC-02-HM	Hardware Warranty Agreement +1 Year for TRIA-XD-AVC-02-HW	0.00	0.00
49	3	Ross Video	TRIA-XD-2-SM	Software Maintenance +1 Year for TRIA -XD-2-SW	630.59	1,891.77
50	1	Ross Video	TRIA-XD-2-SM	Software Maintenance +1 Year for TRIA -XD-2-SW	0.00	0.00

XPression: Extended Coverage (Yearly)

51	3	Ross Video	XPN-1RU-HM	XPression 1RU HD-SDI - Hardware Maintenance (HW Only)	1,082.25	3,246.75
52	1	Ross Video	XPN-1RU-HM	XPression 1RU HD-SDI - Hardware Maintenance (HW Only)	0.00	0.00
53	3	Ross Video	XST3-0001-SM	XPression Studio Standard Edition(SW Only) Maint Access to ongoing Software updates and enhancements for one year	3,476.12	10,428.36
54	1	Ross Video	XST3-0001-SM	XPression Studio Standard Edition(SW Only) Maint Access to ongoing Software updates and enhancements for one year	0.00	0.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
55	3	Ross Video	XST-DLQ-SM	DataLinq Server Option - SW Maintenance	509.20	1,527.60
56	1	Ross Video	XST-DLQ-SM	DataLinq Server Option - SW Maintenance	0.00	0.00
Dashboard: Extended Coverage (Yearly)						
57	3	Ross Video	DB-PTZP-999	Annual Maintenance for DB-PTZP-001	1,225.71	3,677.13
58	1	Ross Video	DB-PTZP-999	Annual Maintenance for DB-PTZP-001	0.00	0.00
59	3	Ross Video	DB-TURNKEYWAR-999	Extended warranty for DashBoard Turnkey Client	202.58	607.74
60	1	Ross Video	DB-TURNKEYWAR-999	Extended warranty for DashBoard Turnkey Client	0.00	0.00
Routing: Extended Coverage (Yearly)						
61	3	Ross Video	ULTRIPower-HM	Utripower - Hardware Warranty	157.26	471.78
62	1	Ross Video	ULTRIPower-HM	Utripower - Hardware Warranty	0.00	0.00
63	3	Ross Video	ULTRIX-FR2-HM	Warranty Fee for a 1 year term on Extended Warranty, Ultrix 2RU System Year 2 Extended Warranty	1,300.59	3,901.77
64	1	Ross Video	ULTRIX-FR2-HM	Warranty Fee for a 1 year term on Extended Warranty, Ultrix 2RU System Year 2 Extended Warranty	0.00	0.00
65	3	Ross Video	RCP-ME-HM	RCP-ME - Hardware Warranty	80.32	240.96
66	1	Ross Video	RCP-ME-HM	RCP-ME - Hardware Warranty	0.00	0.00
Control & Monitoring Extended Coverage (Yearly)						
67	6	Ross Video	ULTRITOUCH-2-HM	Extended Warranty, Ultritouch-2	275.88	1,655.28
68	2	Ross Video	ULTRITOUCH-2-HM	Extended Warranty, Ultritouch-2	0.00	0.00
Custom Console and Rack System						
69	1	Cabinetworks	C838	Custom Console for Video Production Control Room for Ctv. Package consists of the following: * Melamine desk, laminated top, 3mm PVC edge including monitor wall with mounts as listed below: (2) Peer ST650 Wall Mount for monitors 32" to 50" (2) 9110-8.5-4-104Wall Mount LCD Mount 75 or 100mm Vesa Mount that can tilt/rotate/turn with 14.62" of reach (2) 9110-8020 Black Mounting Plate to attach Inno 9110 Mount to 8020 (2) Speaker Plate 10" x 10" Starboard speaker plate, machined to attach to 9110 mounting bracket, hardware included (1) Inno 7000-800-NM-104 7000 series mount, no flex mount kit/Supports monitors 7.5 to 25 lbs (2) Inno 9130-D-28-104 Foldable LCD arm w/28" pole, (2) forearms includes tilter (3) RP401328-104 Mount Cup Only /Black 3500 & 7000 Series Delivered and installed at client location.	8,986.29	8,986.29
70	1	Middle Atlantic	BGR-4532	BGR Series Rack 45 RU, 32" Deep. 32" D X 82 7/8" H	1,086.80	1,086.80
71	2	Middle Atlantic	PDT-2020C-NS	Power Strip, 20 Outlet, 20A	203.14	406.28
72	1	Middle Atlantic	UPS-2200R	Premium series UPS backup power with non-critical load shedding	1,209.25	1,209.25
73	1	Middle Atlantic	MW-4QFT-FC	Integrated 4-1/2" Fan Top, includes 4 quiet fans and proportional speed fan control. Fits any MRK, WRK, DRK, VRK or VMRK, Black finish	568.73	568.73
74	1	Middle Atlantic	CBS-BGR	BGR Caster Kit with Hardware	150.73	150.73

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
75	1	Middle Atlantic	UPS-S1500R	UPS Backup Power Unit - 1500VA	697.31	697.31
Terminal Equipment / Other required System Components						
76	1	Ross Video	OGX-FR-CN	OpenGear OGX Frame with Cooling and Advanced Networking	1,812.35	1,812.35
77	1	Ross Video	SRA-8802-R2	High Performance 3G Reclocking DA w/ Rear Module	449.12	449.12
78	1	Ross Video	SEA-8803-R2	HD/SD-SDI Equalizing DA w/ Rear Module	352.06	352.06
79	1	Ross Video	UDA-8705A-R2	Analog Video Utility Distribution Amplifier with 20-Slot frame Rear Module, R2-8705	307.94	307.94
80	5	AJA	OG-3G-AMA	3G-SDI 4-Ch Analog Audio Embedder/Disembedder, balance XLR, DashBoard Support	701.47	3,507.35
81	1	Ross Video	ADA-8405-C-RC2	Analog Audio and Timecode DA with Remote Gain w/ Rear Module	404.12	404.12
82	1	AJA	GEN10-R0	HD/SD Sync Generator	304.71	304.71
83	1	Leviton	5R2UH-W06	2RU Fiber Enclosure with Sliding Tray, Empty, Accepts Up To 6 Adapter Plates and Splice Trays or 6 MPO Modules	405.00	405.00
84	4	Leviton	5F100-4LL	LC Duplex SM/OS2 Plate with 12 Couplers blue ceramic Sleeve, 24 Fiber	144.07	576.28
85	1	Netgear	GS324T-100NAS	24-port Gigabit Smart Managed Pro Switch with 2 SFP (GS324T)	237.49	237.49
86	1	Dell	3VR5K	OptiPlex 7080 MFF i5-10500T 16GB RAM, 512GB SSD, Intel HD Nowls Windows 10	1,097.96	1,097.96
87	1	Peavey	USB-P	Standard USB Audio Device	84.99	84.99
88	1	Tripp Lite	B032-HUA2	2-Port KVM Switch w/ HDMI USB Audio Cables Peripheral Sharing - 2 Computer(s) - 1 Local User(s) - 0 Remote User(s) - 1920 x 1200 - 0 - 2 x USB - 1 x HDMI	82.51	82.51
89	1	Aukey	CB-H6	USB Hub 3.0, Aluminum 7 Port USB 3.0 Data Hub with 12V/2.5A Power Adapter, 3.3ft USB Cable for MacBook Air, Mac Mini, iMac, Laptop, PC, USB Flash Drives, Hard Drive (Silver)	46.65	46.65
90	1	Black Magic	BMD-SWRCONVRCK2	Studio Converter: 4 Bi-Directional Converters in 1RU Unit 4 x Fiber to SDI 10 bit Converters 4 x Switchable SD/HD-SDI Outputs Connects up to 4 ATEM Camera Converters	1,990.32	1,990.32
Large Monitors						
91	2	Sony	FWD55X81CH	55" LED 4K HDR Pro Display w/Tuner	989.00	1,978.00
OPTIONAL Monitor Upgrades / Zoom or Teams Conversion / Audio Mixer upgrade for Dante Expansion						
NOTE: None of these options are included in the total						
92	0	TV Logic	LVM-180A	18.5" 1920x1080(true 8 bit) Wide Viewing LCD Monitor, 500 cd/m2, 2x 3G/HD/SD-SDI inputs with one loop out, DVI-I and HDMI inputs, Composite In/Out, Waveform/Vector Scope, Closed Caption : CEA-608/708 (SDI), Embedded Audio Level Meters (16Ch), Internal Speaker, 100-240V AC, 24V DC input. Includes Table Stand.	2,065.00	0.00
93	0	Samsung	S24A310NHN	LED monitor, 24" (23.8" viewable) 1920 x 1080 Full HD (1080p) @ 60 Hz, 3000:1 contrast, 9 ms, HDMI & VGA inputs. Black	142.49	0.00
94	0	AJA	ROI-HDMI-R0	HDMI to SDI with ROI	932.50	0.00
95	0	Yamaha	TF1	16 faders + 1 Master fader. 16 onboard Mic/Line analog inputs.	1,750.00	0.00
96	0	Yamaha	NY64-D	Dante Digital Interface Card for Yamaha TF Series Digital Mixing Consoles	393.75	0.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
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Service Agreement for One Year

97	0	iVideo Technologies	PLATINUM_MA	<p>iVideo's platinum maintenance agreement ensures clients' basic audio / video support needs are met. All audio / video issues associated with the rooms within this proposal, and any minor parts and cabling needed to ensure a working system, are included in the contract price. Product replacements or repairs serviced by the manufacturer are excluded. This support package has unlimited email and phone support, TBD preventative maintenance visits per annum and up to TBD onsite service calls per annum. All onsite service calls will occur within 24 business hours from the initial client request.</p> <p>NOTE: This Support Contract is NOT included in the total. We believe that a thorough discussion of after hours needs should be reviewed prior to finalization of an agreement.</p>	12,000.00	0.00
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Total Equipment:	203,846.25
Total Labor and Materials:	50,935.00
Estimated Shipping:	1,500.00
Sales Tax:	0.00
Total:	256,281.25

iVideo Technologies' Representative:	<u>David Walters</u>	Date:	<u>June 30, 2021</u>
E-Mail & Phone:	<u>dwalters@ivideo.com 440-325-2307</u>		
Client Representative:	_____	Date:	_____
Purchase Order Number:	_____		

Scope of Work

iVideo Technologies' Responsibilities:

- 1 Contact client and coordinate installation with customer for a 8:00am - 05:00pm, Monday through Friday consecutive time period. All quotes are based on consecutive installation days and scheduling non-consecutive days will result in additional charges.
- 2 Provide installation of iVideo sold components in accordance with manufacturers' recommendations. Installation outside of the manufactures' basic set up must be detailed in the scope of work. Set up outside of a manufacturers' base system will be at additional charges.
- 3 If appropriate, provide in-shop configuration and testing of equipment prior to installation.
- 4 Installation of any iVideo furnished low-voltage cabling at NEC standards. All systems are assumed to be pre-wired by others unless details in the scope of work section.
- 5 Supply all required connectors and terminations following audio / video industry standards.
- 6 Test all iVideo furnished equipment for proper operation as individual items and as a complete system.
- 7 Provide on-site operational orientation for complete system. iVideo's standard operational orientation is for 30 minutes and any time outside of that must be detailed in the scope of work section.
- 8 Installation of hardware and software that is purchased from iVideo.
- 9 Incorporation of OFE as part of project. Equipment must be in working order.
- 10 Provide drawings of system for client approval
- 11 Provide rack elevations for client approval.
- 12 Provide Console drawings and color choices for Console
- 13 Provide final As-Built drawings.

City of Columbus Television Responsibilities:

- 1 Upon receipt inspect any delivered products and inform iVideo of any freight damage within 24 hours of delivery.
- 2 Provide all required outside sources and configurations including AC power, IT, network, telephony(SIP / VOIP / Etc), cable, satellite etc.
- 3 Coordinate a block of consecutive time for a 8:00am - 05:00pm, Monday through Friday installation.
- 4 Provide iVideo with at least 72 hours' notice for changes in installation dates. Any notice within 72 hours or iVideo's inability to access a site will result in a charge to the Purchaser equal to iVideo's lost time.
- 5 Provide any required rough-in conduits, in-wall boxes, signal path-ways, and in-wall backing. Provide installed equipment with proper ventilation and cooling (HVAC).
- 6 Provide any required permits or licenses.
- 7 Inspect and confirm the good working order of all owner-furnished equipment, media, and software.
- 8 Understands that all change orders will require a written approval from an authorized Purchaser representative as well as an updated Purchase Order.
- 9 Will not install software programs or updates without contacting iVideo.
- 10 Thoroughly inspect iVideo's installation and confirm that the complete system is working within 24 hours of each project phase completion.
- 11 Purchaser is responsible for the repair or replacement of any ceiling work (grids, tiles, drywall, etc), drywall patching, and painting that may need to be altered for iVideo to complete its work.
- 12 Provide fully functioning hardware that is to be incorporated into the system.
- 13 Understands that any software and/or hardware that is purchased after the initial installation is subject to labor costs. Any options and/or modifications within reason will be completed as part of the installation, unless there is a significant change in configuration, system capabilities and/or room layout.
- 14 Disposal of any equipment and wire that is removed as part of iVideo's installation.

Note: The Scope of Work represents the work to be performed by iVideo Technologies and City of Columbus Television

We understand, acknowledge, and accept the above scope of work.

David Walters - iVideo

Date: June 30, 2021

Andy Stout - City of Columbus Television

Date: _____

Terms and Conditions

The following Terms and Conditions apply to the above quote and the subsequent order. This order means that iVideo and Purchaser have come to a complete agreement as to the list of materials, the costs and in some cases the labor charges as spelled out in this document.

Payment Terms: All orders are cash on delivery unless credit is approved and an open account is established. Open accounts are a courtesy that is available upon the satisfactory completion and review of a credit application. Accounts cannot be opened until iVideo has received written responses to its inquiries. Accounts will have credit limits and specific payment terms as determined by iVideo. An open account is subject to a service charge of 1.5% per month when the payment is 30 or more days past due. iVideo is further entitled to recover from Purchaser all reasonable attorney's fees and costs incurred in collection of any amounts outstanding. There will be a service charge of 10% of the Contract amount if the job is cancelled by Purchaser AFTER the third business day. iVideo may close an open account at any time and at its sole discretion. State and local taxes are the sole responsibility of Purchaser. For purchasers based in the State of Ohio applicable sales taxes will be charged unless Purchaser provides a valid tax exemption certificate prior to the acceptance of the quote by iVideo.

Condition and Purchaser Furnished Goods: All goods sold by iVideo will be new and in factory direct condition. Purchaser will be informed of any non-new conditioned items such as demo, used, returned or opened products. iVideo has no liability or responsibility for product compatibility on Purchaser furnished products.

Warranty: iVideo supports its workmanship for a period of 30 days from the installation completion date ("iVideo Warranty"). In addition, iVideo will pass along any available manufacturers' warranties to Purchaser. During the 30-day iVideo Warranty period, it will facilitate and install products covered under the manufacturer's warranty at no charge. All coverage and assistance outside of this 30-day period requires a maintenance agreement and will have a separate charge. Purchaser acknowledges, agrees, and understands that the only warranty given by iVideo to Purchaser regarding the work is the iVideo Warranty. Purchaser acknowledges that the terms of the iVideo Warranty provide for the manner, performance or quality of the desired construction are clear, specific and sufficiently detailed to establish the only standards of construction. TO THE EXTENT PERMITTED BY LAW, PURCHASER WAIVES ANY CAUSE OF ACTION UNDER ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF GOOD AND WORKMANLIKE CONSTRUCTION, IMPLIED WARRANTY OF HABITABILITY, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE AND STIPULATES THAT SUCH IMPLIED WARRANTIES ARE EXPRESSLY REPLACED BY THE iVideo WARRANTY. All warranties on Consumer or Manufactured Products (as those terms are defined by Federal law) are assigned, without recourse. iVideo makes no warranties of any kind, express or implied, concerning Manufactured Products and expressly disclaims all implied warranties of merchantability, fitness or use for a particular purpose, and any other warranties to the fullest extent permitted by state or federal law. Notwithstanding anything herein to the contrary, Purchaser agrees that Purchaser has not substantially performed under the Contract unless Purchaser has paid iVideo all sums due hereunder. Further, Purchaser acknowledges that iVideo shall not be obligated to perform any warranty work hereunder until Purchaser has paid the Total Contract Price in full. iVideo shall not be liable for any damages that arise out of the failure to mitigate any damages or perform any warranty repairs that are in any way related to Purchaser's failure to pay timely the Total Contract Price hereunder. Purchaser shall mitigate any warranty conditions or resulting damages that iVideo does not cure under the iVideo Warranty due to Purchaser's failure to pay the Total Contract Price.

Returns: Any equipment returned to iVideo must be approved by iVideo. Standard equipment items returned are subject to a 10% processing fee and may be subject to an additional manufacturer's restocking fee. Products will not be accepted for return without complete, original packaging and must be in new condition. All software sales are final and any custom-built items are not returnable.

Security Agreement: By placing an order the purchaser agrees to iVideo's continued secured interest in the equipment or system until such time as the Purchaser's financial obligation to iVideo is complete. iVideo retains the right to reclaim the equipment or system if Purchaser does not complete their financial obligations.

Shipping and Insurance: All orders are freight on board Cleveland, OH. Unless otherwise state shipping charges and insurance are the responsibility of the Purchaser. The shipping charges shown in the proposal are estimates and can vary from actual charges billed. iVideo reserves the right to insure shipments at the Purchaser's expense. Upon receipt of the item, Purchaser must inspect it for any and all damage incurred during shipping. It is the Purchaser's responsibility to notify iVideo within 24 hours of any shipping damage. iVideo takes no responsibility for damages caused in shipment.

Delays: iVideo is not liable fiscally or otherwise for delays caused by acts of weather, union strikes, civil disturbances, war, manufacturer's product availability, or other issues. iVideo will make its best efforts to make Purchaser aware of any delays. Delays during installation may cause additional labor charges. If an installation is delayed due to conditions outside the control of iVideo, Purchaser will be invoiced for items specifically ordered for the installation and are yet installed.

Installation: Unless otherwise noted in the quote, installation is the responsibility of the purchaser. For quotes that include installation, there will be an additional document Scope of Work that will indicate iVideo and Purchaser's specific responsibilities to the completion of the installation. The Scope of Work is to be signed by Purchaser before the order for installation is processed. Any changes from the Scope of Work requires a Change Order which may cause additional charges to Purchaser.

Business Insurance: All iVideo installation technicians are covered under workman's compensation insurance for the State of Ohio. iVideo is also a Drug Free Workplace. If required iVideo will supply Purchaser with proof of insurance. Any insurance that is required by Purchaser and is not of a type or value currently held by iVideo, the cost of that insurance will be the responsibility of Purchaser.

Validity: The quote is valid for a period of thirty days. After that time iVideo reserves the right to adjust any pricing. For install projects, if the Scope of Work or products purchased changes, iVideo retains the right to adjust the quote accordingly.

Terms and Conditions

Intellectual Property and Coding: The list of materials provide by iVideo constitute a "System" and is the intellectual property of iVideo, including, with limitation, any coding or other work product generated by iVideo in implementing the System. All coding is owned by iVideo and any copies of editable coding are excluded from this sale unless stated elsewhere in the Scope of Work. The quote cannot be shared with persons not employed by Purchaser. By requesting iVideo provide a quote, Purchaser enters into an agreement to bargain and negotiate in good faith. Providing details of the quote with parties outside of iVideo and the Purchaser's organization will constitute a breach of the Contract.

Purchaser Default: Each of the following constitutes an Purchaser Act of Default and a material breach of this Contract by Purchaser for which iVideo shall have the right to terminate the Contract: (1) Purchaser's unreasonably delay of iVideo in the commencement, prosecution, or completion of construction of the Project; (2) Purchaser fails to execute a Change Order required herein; (3) Purchaser fails to reasonably cooperate with iVideo in the selection of materials, coordination of work, and granting access to the Project; (4) Purchaser's voluntary filing of a petition for bankruptcy; (5) Purchaser's failure to pay all or any part of a payment due hereunder, Change Order, or the Total Contract Price when due; or (6) Purchaser's failure to perform any other material obligation contained herein.

Purchaser's Remedies: Purchaser's exclusive remedy due to iVideo's breach of this Contract is limited to the reasonable cost to repair iVideo's defective or substandard work.

Limitation of Claims & Remedies: NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL ANY DAMAGES, INCLUSIVE OF ATTORNEYS' FEES AND COURT COSTS, AWARDED AGAINST iVideo TO Purchaser PURSUANT TO ANY CAUSE OF ACTION EXCEED THE TOTAL CONTRACT PRICE AND Purchaser RELEASES iVideo FROM ANY SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, ADDITIONAL, KNOWING, PUNITIVE, OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, MENTAL ANGUISH, DIMINUTION OF VALUE, LOSS OF USE OR BENEFIT-OF-THE-BARGAIN, FORESEEABLE OR NOT, ARISING OUT OF OR IN CONNECTION WITH ANY CLAIMS FOR BREACH OF CONTRACT, BREACH OF WARRANTY (EXPRESS OR IMPLIED), VIOLATIONS OF THE DECEPTIVE TRADE PRACTICES ACT, ANY TORT, OR ANY OTHER BASES OF LIABILITY. ANY ACTION OR CLAIM, REGARDLESS OF FORM, ARISING OUT OF THE TRANSACTIONS COVERED BY THIS CONTRACT OR CONSTRUCTION OF THE Project MUST BE BROUGHT WITHIN TWO YEARS AND ONE DAY OF THE DATE THE CAUSE OF ACTION ACCRUES.

Waiver Of Jury Trial: Purchaser AND iVideo KNOWINGLY AND VOLUNTARILY, WITH FULL AWARENESS OF THE LEGAL CONSEQUENCES, WAIVE THEIR RIGHT TO JURY TRIAL OF ANY DISPUTE.

Assignment, Conflicts & Invalidity of Provision. This Contract may not be assigned without the written consent of all parties hereto. In the event of any conflict between the Contract Documents and all other documents, the Contract Documents shall control. If any term, provision, covenant or condition of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

Integration. The Contract Documents constitute the entire agreement of the parties concerning the subject matter hereof, supersede any prior agreement or representations made between Purchaser and iVideo, either written or oral, and may only be modified in writing. This Contract shall inure to the benefit of and be binding upon the parties hereto and their heirs, executors, administrators, grantees, successors and assigns.

Governing Law & Venue. This Contract and the performance of all the obligations set forth in this Contract shall be governed, construed, and enforced by the laws of the State of Ohio and this Contract shall be performable in the county where the Project is located. The venue for any lawsuit, claim, or arbitration arising out of this Contract shall be in Cuyahoga County, Ohio.

Waiver, Survival and Draftsmen. The terms and conditions contained herein and any attachments hereto may be waived only by written instrument executed by the party waiving compliance, save and except change orders. Any such waiver shall only be effective in the specific instance and for the specific purpose for which it is given and shall not be deemed a waiver of any other provision hereof. The terms and agreements set forth herein shall survive the termination and/or default of this Contract, Substantial Completion, closing, and payment in full of the Total Contract Price. The provisions of this Contract shall be construed without regard to the rule requiring adverse inferences to be drawn against the drafter of this Contract.



City of Columbus Television
 Andy Stout
 90 W. Router St. Rm. 315
 Columbus, OH 43215

Project: Production Control Room Upgrac
 Quote: 0012961
 Terms: Net 30
 Shipping: Prepay and Add

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
Production Switcher						
1	1	Ross Video	CUF-124	Carbonite Ultra Frame -MultiDefinition Format Support: 480i, 576i, 720p50/59.94, 1080i50/59.94, 1080pSF 23.98/25/29.97, 1080p25/29.97/50/59.94 -24 Inputs and 14 Outputs (includes MV outputs) -1 Reference Input and 1 Reference Output with H/V Adjustments -1 ME with 4 Keyers plus a Transition Keyer. Expandable to 3 MEs -4 MiniME with 2 Keyers and Full Preview -4 MediaStores with Video and Alpha each -8 2D DVE -8 Frame Sync / Format Converters with Proc Amp and Colour Correction -FSFC are assignable to any input or output. Option for Full I/O expansion -2 MultiViewers - 1 System and 1 I/O MultiViewer. Expandable to 4 MultiViewers (2 System and 2 I/O MultiViewer) -System MultiViewers have access to all Inputs, Outputs and Internal Buses. Up to 16 Windows each with 45 Layouts to chose from -I/O MultiViewers have access to all physical inputs and physical outputs. Up to 16 Windows each with 45 layouts to chose from -DashBoard Menu System and Virtual Panel -Carbonite Device Controls - AMP, RossTalk, PBUS, VISCA, Cambot, Yamaha Serial Midi (DM1000/01V96), TSL v3.1 and GVG 100 Editor Control -LiveEDL for "Live to Tap" events with quick turn around edit workflows -24 GPIO (individually assignable as Input or Output) -18 Tally -2 AES for Media Store Audio -1 LTC for Time Clock and LiveEDL -10 Bit Video Processing in All Video Formats -Optional Redundant power and Rack Mount Redundant Power -24/7 Phone Support -Includes XPression Live CG - Valued at \$2537!!	8,201.59	8,201.59
2	1	Ross Video	XDS0-0001-CPS	XPression LiveCG Software Only	0.00	0.00
3	1	Ross Video	CUF-HDBNC-BNC	HDBNC to BNC kit with 8 cables	135.29	135.29
4	0	Ross Video	CUF-ADD-ME2	Adds an additional ME	4,729.41	0.00
5	1	Ross Video	CUF-ADD-I/OPLUS	Adds FSFC and Proc Amps / Colour Correctors to All I/O: -Expands the number of Frame Sync Format Converts with Proc Amps and Colour Correctors. -Standard System includes 8 Assignable FSFC. Option enables a total of 34 FSFC in the system.	1,576.47	1,576.47

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
6	0	Ross Video	CUF-ADD-MV2&4	Adds MultiViewer 2 and MultiViewer 4 to the CUF-124 System: -Includes 1 additional System MultiViewer (MV 2) with Access to All Physical Inputs, Physical Outputs, Internal Sources and Internal Buses. 45 Layouts to chose from with up to 16 Windows. -Includes 1 additional I/O MultiViewer (MV 4) with Access to All Physical Inputs and Physical Outputs. 45 Layouts to chose from with up to 16 Windows.	788.24	0.00
7	1	Ross Video	CUF-RACKPWR	ULTRIPower for Carbonite Ultra. Includes ULTRIPower Ultrix Rackmount 1 RU power supply frame with 1 power supply AND ULTRIPower-PS Modular power supply for Ultripower rack mount PS frame	0.00	0.00
8	1	Ross Video	ULTRIPower-PS	Modular power supply for Ultripower rack mount PS frame	784.29	784.29
9	1	Ross Video	ULTRIPower	Ultrix Rackmount 1RU power supply frame with 1 power supply	1,572.53	1,572.53
10	1	Ross Video	TD1-PANEL	TouchDrive 1 ME Panel. *1 full ME control row / 15 Crosspoint buttons /15 Row Select User buttons and 3 User Trans Buttons * PS Touch Displays in every module. Source/Data information and integrated Control * 6-Axis Control Joystick * DashBoard PC built in! Optional Touch Display available. Display Port connection * 4 Rear USB ports for Optional Touch Display, Keyboard and Mouse. * Panel Glow full RGB led buttons * Ethernet rack frame connectivity * On-Desk and In Desk mounting with hardware included PSU is additional Order Item:PSU options include CUF-PSU Bricks or CUF-RACKPOWER	7,196.59	7,196.59
11	0	Ross Video	TD2S-PANEL	TouchDrive 2 ME S Series Panel	13,794.12	0.00
12	1	Ross Video	TD-TOUCHSCREEN	TouchDrive 15.6" TouchScreen Display. No computer is required.	670.00	670.00
13	1	Ross Video	CUF-PSU	Standard Power Supply unit for Carbonite Ultra Engines. 2 Units required for Redundant Power.	390.18	390.18
14	1	Ross Video	CUF-PSU	Standard Power Supply unit for Carbonite Ultra Engines. 2 Units required for Redundant Power.	390.18	390.18
Tria: Production Server						
15	1	Ross Video	TRIA-XD-AVC-02-HW	Tria Express DUET Production Server Hardware: AVC-Intra / 38-Hour Media Storage	7,881.56	7,881.56
16	1	Ross Video	TRIA-XD-2-SW	Tria Express DUET Production Server Software TWO CHANNEL	6,305.88	6,305.88
XPression: Realtime Motion Graphics System						
17	1	Ross Video	XPN-1RU-M8	XPression 1RU HD-SDI Chassis (HW Only)	8,591.76	8,591.76
18	1	Ross Video	XST3-0001	XPression Studio Triple Channel (SW Only)	27,588.24	27,588.24
19	1	Ross Video	XPN-KBD	XPression Custom Keyboard • Dedicated Keys for XPression Functions • User-defined Custom Keys	1,034.16	1,034.16
20	0	Ross Video	XST-DLQ	Datalinq Server Option: Provides a Connection to External Data Sources such as ODBC, RSS, Excel, Access, and XML	4,039.71	0.00
Dashboard Control System						
21	1	Ross Video	DB-PTZP-001	DashBoard Controller for Panasonic AW-HE Series PTZ camera.	2,363.92	2,363.92

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
22	1	Ross Video	DB-TURNKEY-HW	DashBoard Turnkey Client. All-in-one client computer with integrated touch screen, articulated screen mount, minimum 23 inch 1920x1080 display, minimum 4GB RAM, minimum 250 GB mass storage. Windows 8 Pro OS. Latest release of DashBoard pre-installed, together with gifts package including example apps videos. DashBoard badged.	3,056.78	3,056.78
Routing System						
23	1	Ross Video	ULTRIX-NS-FR2	Ultrix New Style 2RU Frame w/ 16x16 plus 2 AUX (Ultrimix and Ultriclean included)	11,035.29	11,035.29
24	2	Ross Video	ULTRIX-HDB-IO-A	I/O Board - 16x16, Advanced Connectivity, 2 AUX IO	6,305.88	12,611.76
25	0	Ross Video	SFP-FIBER-3G	3G SDI Optical transceiver SFP	346.04	0.00
26	0	Ross Video	SFP-MADI-COAX	Coax MADI transceiver SFP	181.29	0.00
27	1	Ross Video	ULTRISYNC-18	Ultrisync-18 is a bundle of 18 individual Ultrisync licenses. They can be assigned individually to any input port on the Ultrix frame	5,675.29	5,675.29
28	1	Ross Video	ULTRISCAPE	Ultriscape Multiviewer License	3,941.18	3,941.18
Control and Monitoring System						
29	2	Ross Video	ULTRITOUCH-2	Ethernet Enabled 2RU LCD Touchscreen Control Panel	2,754.88	5,509.76
30	2	Ross Video	ULTRITOUCH-PS	Power supply for ULTRITOUCH	232.53	465.06
31	1	Ross Video	RCP-ME	Ethernet Enabled 40 Button LCD Display Control Panel	803.21	803.21
Ross Professional Services						
32	1	Ross Video	CARBONITE-COM-1DAY	Carbonite Solo Commissioning	1,855.00	1,855.00
33	1	Ross Video	CARBONITE-OTR-1DAY	One Day, Carbonite Operational Training, Travel Billed Separately Carbonite Operations Training - 1 Day One day of onsite training. 4 weeks advance scheduling notice is required. Training is onsite on customer supplied equipment. Training labor is invoiced at time of purchase or upon equipment shipment. Travel and accommodation expenses are EXTRA and charged separately, billed at cost after the completion of visit. Customer is responsible for any costs associated with cancellation or rescheduling of onsite services. Once a purchase order is received, all Ross Video commissioning and/or training services may be scheduled by sending an e-mail request to services@rossvideo.com .	1,855.00	1,855.00
34	1	Ross Video	TRAVEL-PRE-001	Pre Paid Service Expense Trip 1 Travel for three (3) days onsite commissioning Expenses related to onsite services. Customer will be billed up-front for estimated expenses associated with travel and accommodation necessary to deliver onsite service. Pre-paid expenses will be invoiced upon confirmation of order.	2,823.53	2,823.53
35	1	Ross Video	XPRESSION-COM-1DAY	XPression Commissioning - 1 Day	1,855.00	1,855.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
36	2	Ross Video	XPRESSION-OTR-1DAY	Xpression Operational Training, 1-Day Onsite, Travel Billed Separately at Cost XPression Operational Training - 1 Day One day of onsite training. 4 weeks advance scheduling notice is required. Training is onsite on customer supplied equipment. Training labor is invoiced at time of purchase or upon equipment shipment. Travel and accommodation expenses are EXTRA and charged separately, billed at cost after the completion of visit. Customer is responsible for any costs associated with cancellation or rescheduling of onsite services. Once a purchase order is received, all Ross Video commissioning and/or training services may be scheduled by sending an e-mail request to services@rossvideo.com.	1,855.00	3,710.00
37	1	Ross Video	TRAVEL-PRE-002	Pre Paid Service Expense Trip 2 Travel for one (1) day onsite training Expenses related to onsite services. Customer will be billed up-front for estimated expenses associated with travel and accommodation necessary to deliver onsite service. Pre-paid expenses will be invoiced upon confirmation of order.	3,176.47	3,176.47
38	1	Ross Video	ULTRIX-ONL-COM-1DAY	Ultrix Online Commissioning	930.00	930.00
39	1	Ross Video	TRIA-X-ONL-COM-1DAY	Abekas Tria Express Online Commissioning - 1 Day	930.00	930.00
40	1	Ross Video	TRIA-X-ONL-OTR-1DAY	Abekas Tria Express Online Operational Training - 1 Day	930.00	930.00

Production Switcher: Extended Coverage (Yearly)

41	3	Ross Video	CUF-2ME-ROSSCARE	Extended Warranty for the CUF-124 Frame and 2 MEs	1,998.18	5,994.54
42	1	Ross Video	CUF-2ME-ROSSCARE	Extended Warranty for the CUF-124 Frame and 2 MEs	0.00	0.00
43	3	Ross Video	TD2S-PANEL-HM	TouchDrive 2 ME S Series Panel Warranty	1,655.29	4,965.87
44	1	Ross Video	TD2S-PANEL-HM	TouchDrive 2 ME S Series Panel Warranty	0.00	0.00
45	3	Ross Video	TD-TOUCHSCREEN-HM	TouchDrive TouchScreen Display Warranty	94.59	283.77
46	1	Ross Video	TD-TOUCHSCREEN-HM	TouchDrive TouchScreen Display Warranty	0.00	0.00

Tria: Extended Coverage (Yearly)

47	3	Ross Video	TRIA-XD-AVC-02-HM	Hardware Warranty Agreement +1 Year for TRIA-XD-AVC-02-HW	788.24	2,364.72
48	1	Ross Video	TRIA-XD-AVC-02-HM	Hardware Warranty Agreement +1 Year for TRIA-XD-AVC-02-HW	0.00	0.00
49	3	Ross Video	TRIA-XD-2-SM	Software Maintenance +1 Year for TRIA -XD-2-SW	630.59	1,891.77
50	1	Ross Video	TRIA-XD-2-SM	Software Maintenance +1 Year for TRIA -XD-2-SW	0.00	0.00

XPression: Extended Coverage (Yearly)

51	3	Ross Video	XPN-1RU-HM	XPression 1RU HD-SDI - Hardware Maintenance (HW Only)	1,082.25	3,246.75
52	1	Ross Video	XPN-1RU-HM	XPression 1RU HD-SDI - Hardware Maintenance (HW Only)	0.00	0.00
53	3	Ross Video	XST3-0001-SM	XPression Studio Standard Edition(SW Only) Maint Access to ongoing Software updates and enhancements for one year	3,476.12	10,428.36
54	1	Ross Video	XST3-0001-SM	XPression Studio Standard Edition(SW Only) Maint Access to ongoing Software updates and enhancements for one year	0.00	0.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
55	3	Ross Video	XST-DLQ-SM	DataLinq Server Option - SW Maintenance	509.20	1,527.60
56	1	Ross Video	XST-DLQ-SM	DataLinq Server Option - SW Maintenance	0.00	0.00
Dashboard: Extended Coverage (Yearly)						
57	3	Ross Video	DB-PTZP-999	Annual Maintenance for DB-PTZP-001	1,225.71	3,677.13
58	1	Ross Video	DB-PTZP-999	Annual Maintenance for DB-PTZP-001	0.00	0.00
59	3	Ross Video	DB-TURNKEYWAR-999	Extended warranty for DashBoard Turnkey Client	202.58	607.74
60	1	Ross Video	DB-TURNKEYWAR-999	Extended warranty for DashBoard Turnkey Client	0.00	0.00
Routing: Extended Coverage (Yearly)						
61	3	Ross Video	ULTRIPower-HM	Utripower - Hardware Warranty	157.26	471.78
62	1	Ross Video	ULTRIPower-HM	Utripower - Hardware Warranty	0.00	0.00
63	3	Ross Video	ULTRIX-FR2-HM	Warranty Fee for a 1 year term on Extended Warranty, Ultrix 2RU System Year 2 Extended Warranty	1,300.59	3,901.77
64	1	Ross Video	ULTRIX-FR2-HM	Warranty Fee for a 1 year term on Extended Warranty, Ultrix 2RU System Year 2 Extended Warranty	0.00	0.00
65	3	Ross Video	RCP-ME-HM	RCP-ME - Hardware Warranty	80.32	240.96
66	1	Ross Video	RCP-ME-HM	RCP-ME - Hardware Warranty	0.00	0.00
Control & Monitoring Extended Coverage (Yearly)						
67	6	Ross Video	ULTRITOUCH-2-HM	Extended Warranty, Ultritouch-2	275.88	1,655.28
68	2	Ross Video	ULTRITOUCH-2-HM	Extended Warranty, Ultritouch-2	0.00	0.00
Custom Console and Rack System						
69	1	Cabinetworks	C838	Custom Console for Video Production Control Room for Ctv. Package consists of the following: * Melamine desk, laminated top, 3mm PVC edge including monitor wall with mounts as listed below: (2) Peer ST650 Wall Mount for monitors 32" to 50" (2) 9110-8.5-4-104Wall Mount LCD Mount 75 or 100mm Vesa Mount that can tilt/rotate/turn with 14.62" of reach (2) 9110-8020 Black Mounting Plate to attach Inno 9110 Mount to 8020 (2) Speaker Plate 10" x 10" Starboard speaker plate, machined to attach to 9110 mounting bracket, hardware included (1) Inno 7000-800-NM-104 7000 series mount, no flex mount kit/Supports monitors 7.5 to 25 lbs (2) Inno 9130-D-28-104 Foldable LCD arm w/28" pole, (2) forearms includes tilter (3) RP401328-104 Mount Cup Only /Black 3500 & 7000 Series Delivered and installed at client location.	8,986.29	8,986.29
70	1	Middle Atlantic	BGR-4532	BGR Series Rack 45 RU, 32" Deep. 32" D X 82 7/8" H	1,086.80	1,086.80
71	2	Middle Atlantic	PDT-2020C-NS	Power Strip, 20 Outlet, 20A	203.14	406.28
72	1	Middle Atlantic	UPS-2200R	Premium series UPS backup power with non-critical load shedding	1,209.25	1,209.25
73	1	Middle Atlantic	MW-4QFT-FC	Integrated 4-1/2" Fan Top, includes 4 quiet fans and proportional speed fan control. Fits any MRK, WRK, DRK, VRK or VMRK, Black finish	568.73	568.73
74	1	Middle Atlantic	CBS-BGR	BGR Caster Kit with Hardware	150.73	150.73

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
75	1	Middle Atlantic	UPS-S1500R	UPS Backup Power Unit - 1500VA	697.31	697.31
Terminal Equipment / Other required System Components						
76	1	Ross Video	OGX-FR-CN	OpenGear OGX Frame with Cooling and Advanced Networking	1,812.35	1,812.35
77	1	Ross Video	SRA-8802-R2	High Performance 3G Reclocking DA w/ Rear Module	449.12	449.12
78	1	Ross Video	SEA-8803-R2	HD/SD-SDI Equalizing DA w/ Rear Module	352.06	352.06
79	1	Ross Video	UDA-8705A-R2	Analog Video Utility Distribution Amplifier with 20-Slot frame Rear Module, R2-8705	307.94	307.94
80	5	AJA	OG-3G-AMA	3G-SDI 4-Ch Analog Audio Embedder/Disembedder, balance XLR, DashBoard Support	701.47	3,507.35
81	1	Ross Video	ADA-8405-C-RC2	Analog Audio and Timecode DA with Remote Gain w/ Rear Module	404.12	404.12
82	1	AJA	GEN10-R0	HD/SD Sync Generator	304.71	304.71
83	1	Leviton	5R2UH-W06	2RU Fiber Enclosure with Sliding Tray, Empty, Accepts Up To 6 Adapter Plates and Splice Trays or 6 MPO Modules	405.00	405.00
84	4	Leviton	5F100-4LL	LC Duplex SM/OS2 Plate with 12 Couplers blue ceramic Sleeve, 24 Fiber	144.07	576.28
85	1	Netgear	GS324T-100NAS	24-port Gigabit Smart Managed Pro Switch with 2 SFP (GS324T)	237.49	237.49
86	1	Dell	3VR5K	OptiPlex 7080 MFF i5-10500T 16GB RAM, 512GB SSD, Intel HD Nowls Windows 10	1,097.96	1,097.96
87	1	Peavey	USB-P	Standard USB Audio Device	84.99	84.99
88	1	Tripp Lite	B032-HUA2	2-Port KVM Switch w/ HDMI USB Audio Cables Peripheral Sharing - 2 Computer(s) - 1 Local User(s) - 0 Remote User(s) - 1920 x 1200 - 0 - 2 x USB - 1 x HDMI	82.51	82.51
89	1	Aukey	CB-H6	USB Hub 3.0, Aluminum 7 Port USB 3.0 Data Hub with 12V/2.5A Power Adapter, 3.3ft USB Cable for MacBook Air, Mac Mini, iMac, Laptop, PC, USB Flash Drives, Hard Drive (Silver)	46.65	46.65
90	1	Black Magic	BMD-SWRCONVRCK2	Studio Converter: 4 Bi-Directional Converters in 1RU Unit 4 x Fiber to SDI 10 bit Converters 4 x Switchable SD/HD-SDI Outputs Connects up to 4 ATEM Camera Converters	1,990.32	1,990.32
Large Monitors						
91	2	Sony	FWD55X81CH	55" LED 4K HDR Pro Display w/Tuner	989.00	1,978.00
OPTIONAL Monitor Upgrades / Zoom or Teams Conversion / Audio Mixer upgrade for Dante Expansion						
NOTE: None of these options are included in the total						
92	0	TV Logic	LVM-180A	18.5" 1920x1080(true 8 bit) Wide Viewing LCD Monitor, 500 cd/m2, 2x 3G/HD/SD-SDI inputs with one loop out, DVI-I and HDMI inputs, Composite In/Out, Waveform/Vector Scope, Closed Caption : CEA-608/708 (SDI), Embedded Audio Level Meters (16Ch), Internal Speaker, 100-240V AC, 24V DC input. Includes Table Stand.	2,065.00	0.00
93	0	Samsung	S24A310NHN	LED monitor, 24" (23.8" viewable) 1920 x 1080 Full HD (1080p) @ 60 Hz, 3000:1 contrast, 9 ms, HDMI & VGA inputs. Black	142.49	0.00
94	0	AJA	ROI-HDMI-R0	HDMI to SDI with ROI	932.50	0.00
95	0	Yamaha	TF1	16 faders + 1 Master fader. 16 onboard Mic/Line analog inputs.	1,750.00	0.00
96	0	Yamaha	NY64-D	Dante Digital Interface Card for Yamaha TF Series Digital Mixing Consoles	393.75	0.00

Continued

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
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Service Agreement for One Year

97	0	iVideo Technologies	PLATINUM_MA	<p>iVideo's platinum maintenance agreement ensures clients' basic audio / video support needs are met. All audio / video issues associated with the rooms within this proposal, and any minor parts and cabling needed to ensure a working system, are included in the contract price. Product replacements or repairs serviced by the manufacturer are excluded. This support package has unlimited email and phone support, TBD preventative maintenance visits per annum and up to TBD onsite service calls per annum. All onsite service calls will occur within 24 business hours from the initial client request.</p> <p>NOTE: This Support Contract is NOT included in the total. We believe that a thorough discussion of after hours needs should be reviewed prior to finalization of an agreement.</p>	12,000.00	0.00
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Total Equipment:	203,846.25
Total Labor and Materials:	50,935.00
Estimated Shipping:	1,500.00
Sales Tax:	0.00
Total:	256,281.25

iVideo Technologies' Representative:	<u>David Walters</u>	Date:	<u>June 30, 2021</u>
E-Mail & Phone:	<u>dwalters@ivideo.com 440-325-2307</u>		
Client Representative:	_____	Date:	_____
Purchase Order Number:	_____		

Scope of Work

iVideo Technologies' Responsibilities:

- 1 Contact client and coordinate installation with customer for a 8:00am - 05:00pm, Monday through Friday consecutive time period. All quotes are based on consecutive installation days and scheduling non-consecutive days will result in additional charges.
- 2 Provide installation of iVideo sold components in accordance with manufacturers' recommendations. Installation outside of the manufactures' basic set up must be detailed in the scope of work. Set up outside of a manufacturers' base system will be at additional charges.
- 3 If appropriate, provide in-shop configuration and testing of equipment prior to installation.
- 4 Installation of any iVideo furnished low-voltage cabling at NEC standards. All systems are assumed to be pre-wired by others unless details in the scope of work section.
- 5 Supply all required connectors and terminations following audio / video industry standards.
- 6 Test all iVideo furnished equipment for proper operation as individual items and as a complete system.
- 7 Provide on-site operational orientation for complete system. iVideo's standard operational orientation is for 30 minutes and any time outside of that must be detailed in the scope of work section.
- 8 Installation of hardware and software that is purchased from iVideo.
- 9 Incorporation of OFE as part of project. Equipment must be in working order.
- 10 Provide drawings of system for client approval
- 11 Provide rack elevations for client approval.
- 12 Provide Console drawings and color choices for Console
- 13 Provide final As-Built drawings.

City of Columbus Television Responsibilities:

- 1 Upon receipt inspect any delivered products and inform iVideo of any freight damage within 24 hours of delivery.
- 2 Provide all required outside sources and configurations including AC power, IT, network, telephony(SIP / VOIP / Etc), cable, satellite etc.
- 3 Coordinate a block of consecutive time for a 8:00am - 05:00pm, Monday through Friday installation.
- 4 Provide iVideo with at least 72 hours' notice for changes in installation dates. Any notice within 72 hours or iVideo's inability to access a site will result in a charge to the Purchaser equal to iVideo's lost time.
- 5 Provide any required rough-in conduits, in-wall boxes, signal path-ways, and in-wall backing. Provide installed equipment with proper ventilation and cooling (HVAC).
- 6 Provide any required permits or licenses.
- 7 Inspect and confirm the good working order of all owner-furnished equipment, media, and software.
- 8 Understands that all change orders will require a written approval from an authorized Purchaser representative as well as an updated Purchase Order.
- 9 Will not install software programs or updates without contacting iVideo.
- 10 Thoroughly inspect iVideo's installation and confirm that the complete system is working within 24 hours of each project phase completion.
- 11 Purchaser is responsible for the repair or replacement of any ceiling work (grids, tiles, drywall, etc), drywall patching, and painting that may need to be altered for iVideo to complete its work.
- 12 Provide fully functioning hardware that is to be incorporated into the system.
- 13 Understands that any software and/or hardware that is purchased after the initial installation is subject to labor costs. Any options and/or modifications within reason will be completed as part of the installation, unless there is a significant change in configuration, system capabilities and/or room layout.
- 14 Disposal of any equipment and wire that is removed as part of iVideo's installation.

Note: The Scope of Work represents the work to be performed by iVideo Technologies and City of Columbus Television

We understand, acknowledge, and accept the above scope of work.

David Walters - iVideo

Date: June 30, 2021

Andy Stout - City of Columbus Television

Date: _____

Terms and Conditions

The following Terms and Conditions apply to the above quote and the subsequent order. This order means that iVideo and Purchaser have come to a complete agreement as to the list of materials, the costs and in some cases the labor charges as spelled out in this document.

Payment Terms: All orders are cash on delivery unless credit is approved and an open account is established. Open accounts are a courtesy that is available upon the satisfactory completion and review of a credit application. Accounts cannot be opened until iVideo has received written responses to its inquiries. Accounts will have credit limits and specific payment terms as determined by iVideo. An open account is subject to a service charge of 1.5% per month when the payment is 30 or more days past due. iVideo is further entitled to recover from Purchaser all reasonable attorney's fees and costs incurred in collection of any amounts outstanding. There will be a service charge of 10% of the Contract amount if the job is cancelled by Purchaser AFTER the third business day. iVideo may close an open account at any time and at its sole discretion. State and local taxes are the sole responsibility of Purchaser. For purchasers based in the State of Ohio applicable sales taxes will be charged unless Purchaser provides a valid tax exemption certificate prior to the acceptance of the quote by iVideo.

Condition and Purchaser Furnished Goods: All goods sold by iVideo will be new and in factory direct condition. Purchaser will be informed of any non-new conditioned items such as demo, used, returned or opened products. iVideo has no liability or responsibility for product compatibility on Purchaser furnished products.

Warranty: iVideo supports its workmanship for a period of 30 days from the installation completion date ("iVideo Warranty"). In addition, iVideo will pass along any available manufacturers' warranties to Purchaser. During the 30-day iVideo Warranty period, it will facilitate and install products covered under the manufacturer's warranty at no charge. All coverage and assistance outside of this 30-day period requires a maintenance agreement and will have a separate charge. Purchaser acknowledges, agrees, and understands that the only warranty given by iVideo to Purchaser regarding the work is the iVideo Warranty. Purchaser acknowledges that the terms of the iVideo Warranty provide for the manner, performance or quality of the desired construction are clear, specific and sufficiently detailed to establish the only standards of construction. TO THE EXTENT PERMITTED BY LAW, PURCHASER WAIVES ANY CAUSE OF ACTION UNDER ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF GOOD AND WORKMANLIKE CONSTRUCTION, IMPLIED WARRANTY OF HABITABILITY, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE AND STIPULATES THAT SUCH IMPLIED WARRANTIES ARE EXPRESSLY REPLACED BY THE iVideo WARRANTY. All warranties on Consumer or Manufactured Products (as those terms are defined by Federal law) are assigned, without recourse. iVideo makes no warranties of any kind, express or implied, concerning Manufactured Products and expressly disclaims all implied warranties of merchantability, fitness or use for a particular purpose, and any other warranties to the fullest extent permitted by state or federal law. Notwithstanding anything herein to the contrary, Purchaser agrees that Purchaser has not substantially performed under the Contract unless Purchaser has paid iVideo all sums due hereunder. Further, Purchaser acknowledges that iVideo shall not be obligated to perform any warranty work hereunder until Purchaser has paid the Total Contract Price in full. iVideo shall not be liable for any damages that arise out of the failure to mitigate any damages or perform any warranty repairs that are in any way related to Purchaser's failure to pay timely the Total Contract Price hereunder. Purchaser shall mitigate any warranty conditions or resulting damages that iVideo does not cure under the iVideo Warranty due to Purchaser's failure to pay the Total Contract Price.

Returns: Any equipment returned to iVideo must be approved by iVideo. Standard equipment items returned are subject to a 10% processing fee and may be subject to an additional manufacturer's restocking fee. Products will not be accepted for return without complete, original packaging and must be in new condition. All software sales are final and any custom-built items are not returnable.

Security Agreement: By placing an order the purchaser agrees to iVideo's continued secured interest in the equipment or system until such time as the Purchaser's financial obligation to iVideo is complete. iVideo retains the right to reclaim the equipment or system if Purchaser does not complete their financial obligations.

Shipping and Insurance: All orders are freight on board Cleveland, OH. Unless otherwise state shipping charges and insurance are the responsibility of the Purchaser. The shipping charges shown in the proposal are estimates and can vary from actual charges billed. iVideo reserves the right to insure shipments at the Purchaser's expense. Upon receipt of the item, Purchaser must inspect it for any and all damage incurred during shipping. It is the Purchaser's responsibility to notify iVideo within 24 hours of any shipping damage. iVideo takes no responsibility for damages caused in shipment.

Delays: iVideo is not liable fiscally or otherwise for delays caused by acts of weather, union strikes, civil disturbances, war, manufacturer's product availability, or other issues. iVideo will make its best efforts to make Purchaser aware of any delays. Delays during installation may cause additional labor charges. If an installation is delayed due to conditions outside the control of iVideo, Purchaser will be invoiced for items specifically ordered for the installation and are yet installed.

Installation: Unless otherwise noted in the quote, installation is the responsibility of the purchaser. For quotes that include installation, there will be an additional document Scope of Work that will indicate iVideo and Purchaser's specific responsibilities to the completion of the installation. The Scope of Work is to be signed by Purchaser before the order for installation is processed. Any changes from the Scope of Work requires a Change Order which may cause additional charges to Purchaser.

Business Insurance: All iVideo installation technicians are covered under workman's compensation insurance for the State of Ohio. iVideo is also a Drug Free Workplace. If required iVideo will supply Purchaser with proof of insurance. Any insurance that is required by Purchaser and is not of a type or value currently held by iVideo, the cost of that insurance will be the responsibility of Purchaser.

Validity: The quote is valid for a period of thirty days. After that time iVideo reserves the right to adjust any pricing. For install projects, if the Scope of Work or products purchased changes, iVideo retains the right to adjust the quote accordingly.

Terms and Conditions

Intellectual Property and Coding: The list of materials provide by iVideo constitute a "System" and is the intellectual property of iVideo, including, with limitation, any coding or other work product generated by iVideo in implementing the System. All coding is owned by iVideo and any copies of editable coding are excluded from this sale unless stated elsewhere in the Scope of Work. The quote cannot be shared with persons not employed by Purchaser. By requesting iVideo provide a quote, Purchaser enters into an agreement to bargain and negotiate in good faith. Providing details of the quote with parties outside of iVideo and the Purchaser's organization will constitute a breach of the Contract.

Purchaser Default: Each of the following constitutes an Purchaser Act of Default and a material breach of this Contract by Purchaser for which iVideo shall have the right to terminate the Contract: (1) Purchaser's unreasonably delay of iVideo in the commencement, prosecution, or completion of construction of the Project; (2) Purchaser fails to execute a Change Order required herein; (3) Purchaser fails to reasonably cooperate with iVideo in the selection of materials, coordination of work, and granting access to the Project; (4) Purchaser's voluntary filing of a petition for bankruptcy; (5) Purchaser's failure to pay all or any part of a payment due hereunder, Change Order, or the Total Contract Price when due; or (6) Purchaser's failure to perform any other material obligation contained herein.

Purchaser's Remedies: Purchaser's exclusive remedy due to iVideo's breach of this Contract is limited to the reasonable cost to repair iVideo's defective or substandard work.

Limitation of Claims & Remedies: NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL ANY DAMAGES, INCLUSIVE OF ATTORNEYS' FEES AND COURT COSTS, AWARDED AGAINST iVideo TO Purchaser PURSUANT TO ANY CAUSE OF ACTION EXCEED THE TOTAL CONTRACT PRICE AND Purchaser RELEASES iVideo FROM ANY SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, ADDITIONAL, KNOWING, PUNITIVE, OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, MENTAL ANGUISH, DIMINUTION OF VALUE, LOSS OF USE OR BENEFIT-OF-THE-BARGAIN, FORESEEABLE OR NOT, ARISING OUT OF OR IN CONNECTION WITH ANY CLAIMS FOR BREACH OF CONTRACT, BREACH OF WARRANTY (EXPRESS OR IMPLIED), VIOLATIONS OF THE DECEPTIVE TRADE PRACTICES ACT, ANY TORT, OR ANY OTHER BASES OF LIABILITY. ANY ACTION OR CLAIM, REGARDLESS OF FORM, ARISING OUT OF THE TRANSACTIONS COVERED BY THIS CONTRACT OR CONSTRUCTION OF THE Project MUST BE BROUGHT WITHIN TWO YEARS AND ONE DAY OF THE DATE THE CAUSE OF ACTION ACCRUES.

Waiver Of Jury Trial: Purchaser AND iVideo KNOWINGLY AND VOLUNTARILY, WITH FULL AWARENESS OF THE LEGAL CONSEQUENCES, WAIVE THEIR RIGHT TO JURY TRIAL OF ANY DISPUTE.

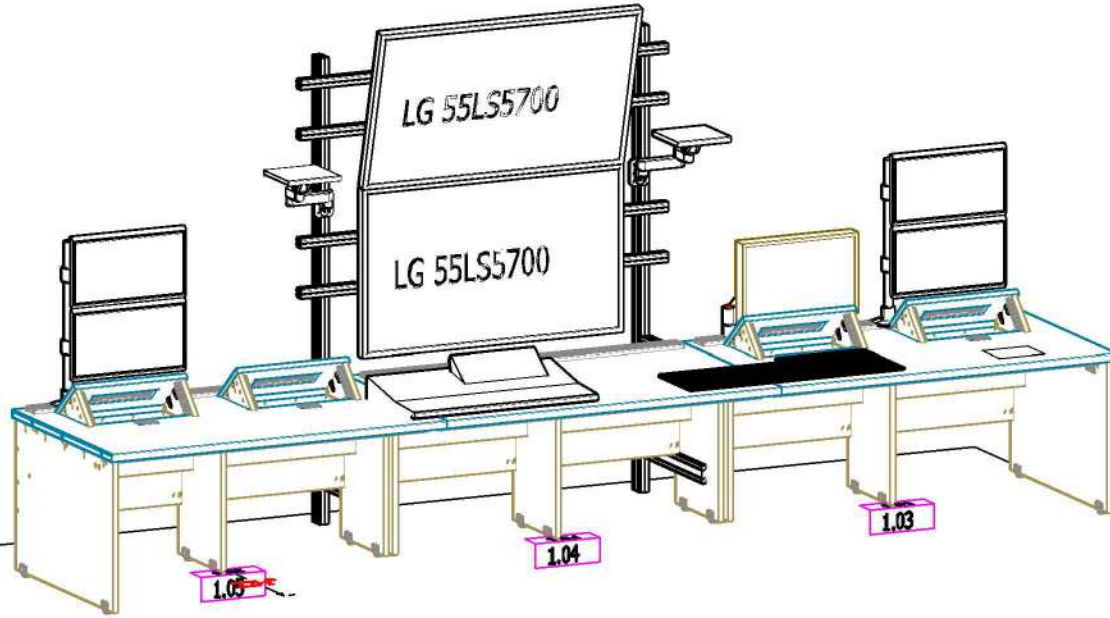
Assignment, Conflicts & Invalidity of Provision. This Contract may not be assigned without the written consent of all parties hereto. In the event of any conflict between the Contract Documents and all other documents, the Contract Documents shall control. If any term, provision, covenant or condition of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

Integration. The Contract Documents constitute the entire agreement of the parties concerning the subject matter hereof, supersede any prior agreement or representations made between Purchaser and iVideo, either written or oral, and may only be modified in writing. This Contract shall inure to the benefit of and be binding upon the parties hereto and their heirs, executors, administrators, grantees, successors and assigns.

Governing Law & Venue. This Contract and the performance of all the obligations set forth in this Contract shall be governed, construed, and enforced by the laws of the State of Ohio and this Contract shall be performable in the county where the Project is located. The venue for any lawsuit, claim, or arbitration arising out of this Contract shall be in Cuyahoga County, Ohio.

Waiver, Survival and Draftsmen. The terms and conditions contained herein and any attachments hereto may be waived only by written instrument executed by the party waiving compliance, save and except change orders. Any such waiver shall only be effective in the specific instance and for the specific purpose for which it is given and shall not be deemed a waiver of any other provision hereof. The terms and agreements set forth herein shall survive the termination and/or default of this Contract, Substantial Completion, closing, and payment in full of the Total Contract Price. The provisions of this Contract shall be construed without regard to the rule requiring adverse inferences to be drawn against the drafter of this Contract.

Black melamine base
 Graphite Nebula laminate



MATERIAL DESCRIPTION

iVideo-0621-07 City of Columbus

Project Title:
 Project Number:
 Project Address:
 Project Phone:
 Project E-Mail:
 Contractor:
 Sheet Title:

REVISIONS:

No.	Date	By	Description
▲			
▲			
▲			
▲			
▲			
▲			
▲			
▲			

Scale
 Date issued
 Sheet Number

CITY OF COLUMBUS
CHAMBER CONTROL ROOM UPGRADE
AV Systems

System Integrated By:



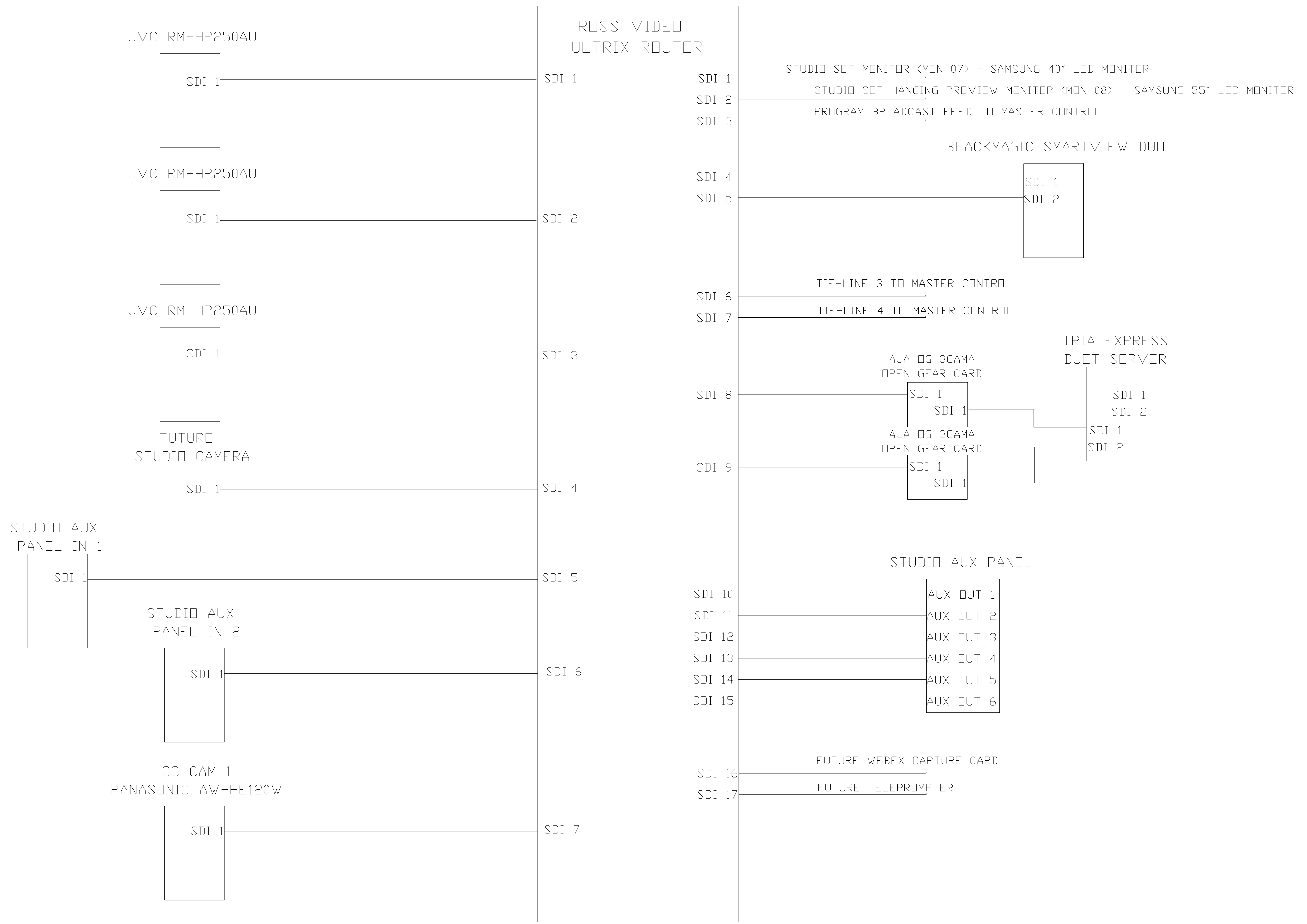
6779 Engle Rd. Suite G
 Middleburg Heights, Ohio 44130
 1-800-352-6150
 www.ivideo.com

DRAWING LIST

- AV1-VIDEO RTR-1
- AV2-VIDEO RTR-2
- AV3-VIDEO RTR-3
- AV4-VIDEO RTR-4
- AV5-VIDEO RTR-5
- AV6-RACK ELEVATION

<p style="font-size: 8px; margin-top: 5px;">6779 Engle Rd. Suite G CLEVELAND, OHIO 44130 (440) 891-9440</p>	<p>CITY OF COLUMBUS</p> <p>CHAMBER CONTROL ROOM UPGRADE</p> <p style="font-size: 8px;">Cover Page</p>	<p>SCALE: NONE</p> <p>REVISION: CONCEPTUAL</p> <p>DRAWN BY: E. Strickland</p> <p>DATE: 6/30/21</p>	<p>APPROVED</p> <p>SHEET NO: 1 of 1</p> <p style="font-size: 8px;">Rack_Layout.dwg</p>	<p>The concepts, designs, plans and details contained herein are the sole property of iVideo Technologies. and shall not be copied for any purpose without the expressed written permission of iVideo Technologies.</p>
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ROSS VIDEO
ULTRIX ROUTER



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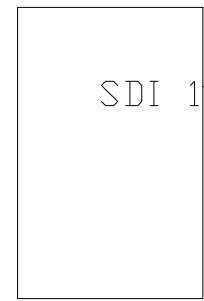
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REVISION:	CONCEPTUAL	SHEET NO: 1 of 1
DRAWN BY:	E. Strickland	DATE: 6/30/21
		Rack Layout.dwg

CITY OF COLUMBUS
CHAMBER CONTROL ROOM UPGRADE
AV1-VIDEO RTR-1

6779 Engle Rd, Suite G
CLEVELAND, OHIO 44130
(440) 891-9440

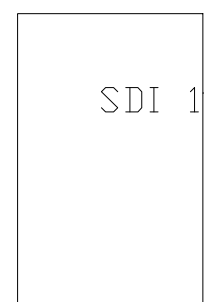
iVideo
Technologies

CC CAM 2
PANASONIC AW-HE120W



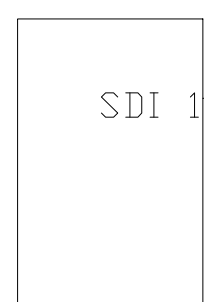
SDI 8

CC CAM 3
PANASONIC AW-HE120W



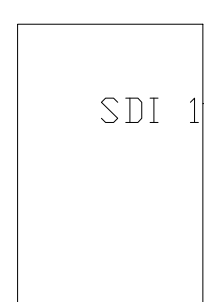
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PANASONIC AW-HE120W



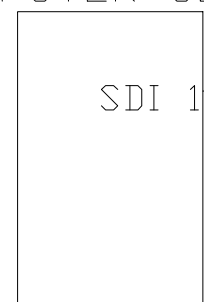
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CC CAM 5
PANASONIC AW-HE120W



SDI 11

COUNCIL CHAMBERS
COMPUTER SLIDES

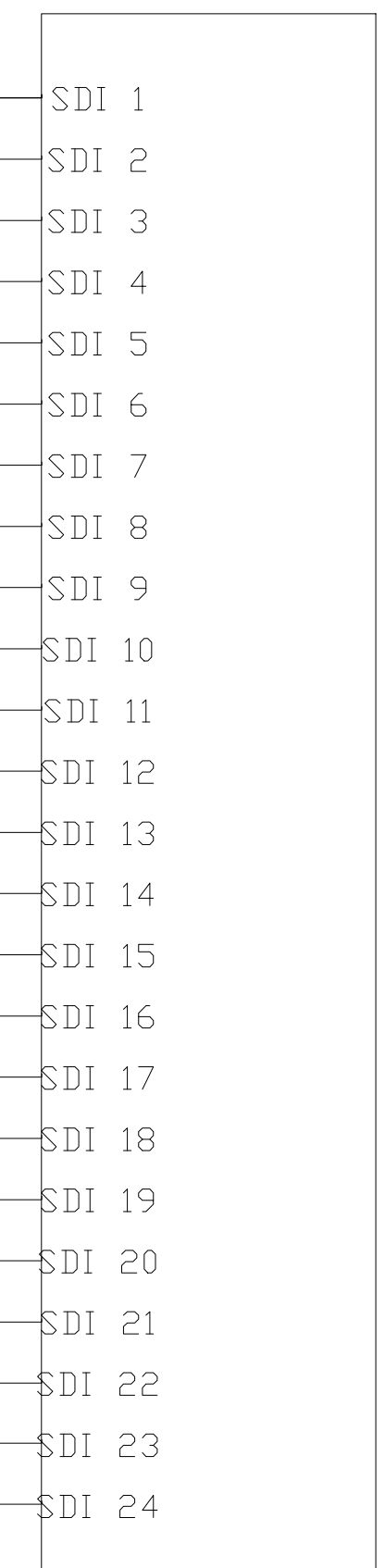


SDI 12

ROSS VIDEO
ULTRIX ROUTER
CONTINUED

- SDI 18
- SDI 19
- SDI 20
- SDI 21
- SDI 22
- SDI 23
- SDI 24
- SDI 25
- SDI 26
- SDI 27
- SDI 28
- SDI 29
- SDI 30
- SDI 31
- SDI 32
- SDI 33
- SDI 34
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- SDI 38
- SDI 39
- SDI 40
- SDI 41

ROSS VIDEO
CARBONITE ULTRA

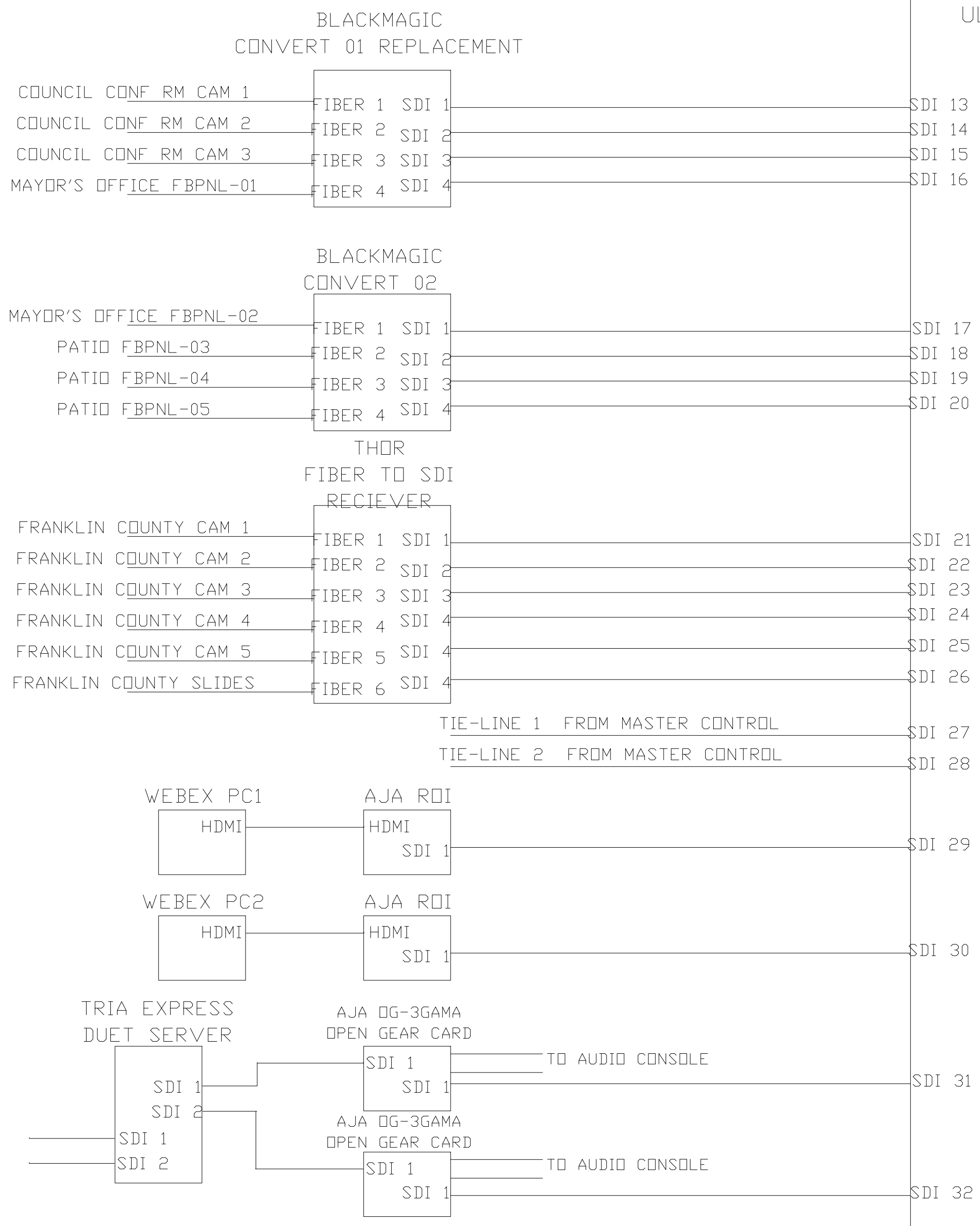


- SDI 42 FUTURE GREEN ROOM
- SDI 43 FUTURE HALLWAY MONITOR 1
- SDI 44 FUTURE HALLWAY MONITOR 2

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SCALE:	NONE	APPROVED
REVISION:	CONCEPTUAL	
DRAWN BY:	E. Strickland	SHEET NO: 1 of 1
DATE:	6/30/21	Rack Layout.dwg

CITY OF COLUMBUS
CHAMBER CONTROL ROOM UPGRADE
AV2-VIDEO RTR-2



ROSS VIDEO
ULTRIX ROUTER
CONTINUED

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REVISION:	CONCEPTUAL	
DRAWN BY:	E. Strickland	SHEET NO: 1 of 1
DATE:	6/30/21	Rock Layout.dwg

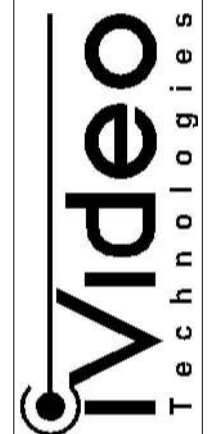
CITY OF COLUMBUS
CHAMBER CONTROL ROOM UPGRADE
AV3-VIDEO RTR-3

6779 Engle Rd, Suite G
CLEVELAND, OHIO 44130
(440) 891-9440

iVideo
Technologies

ROSS VIDEO
ULTRIX ROUTER
CONTINUED

SWITCHER MULTIVIEW 1	\$DI 33
SWITCHER PGM OUT	\$DI 34
SWITCHER AUX 1	\$DI 35
SWITCHER AUX 2	\$DI 36
SWITCHER AUX 3	\$DI 37
SWITCHER AUX 4	\$DI 38
SWITCHER AUX 5	\$DI 39
SWITCHER AUX 6	\$DI 40
SWITCHER AUX 7	\$DI 41
SWITCHER AUX 8	\$DI 42
SWITCHER AUX 9	\$DI 43
FUTURE COLEMAN BUILDING CAM 1	\$DI 44
FUTURE COLEMAN BUILDING CAM 2	\$DI 45
FUTURE COLEMAN BUILDING CAM 3	\$DI 46
FUTURE COLEMAN BUILDING CAM 4	\$DI 47
FUTURE COLEMAN BUILDING CAM 5	\$DI 48
FUTURE COLEMAN BUILDING CAM 6	\$DI 49
FUTURE COLEMAN BUILDING SLIDES	\$DI 50
FUTURE POLICE TRAINING ACADEMY CAM 1	\$DI 51
FUTURE POLICE TRAINING ACADEMY CAM 2	\$DI 52
FUTURE POLICE TRAINING ACADEMY CAM 3	\$DI 53
FUTURE POLICE TRAINING ACADEMY CAM 4	\$DI 54
FUTURE POLICE TRAINING ACADEMY CAM 5	\$DI 55
FUTURE POLICE TRAINING ACADEMY SLIDES	\$DI 56
FUTURE TELEPROMPTER	\$DI 57



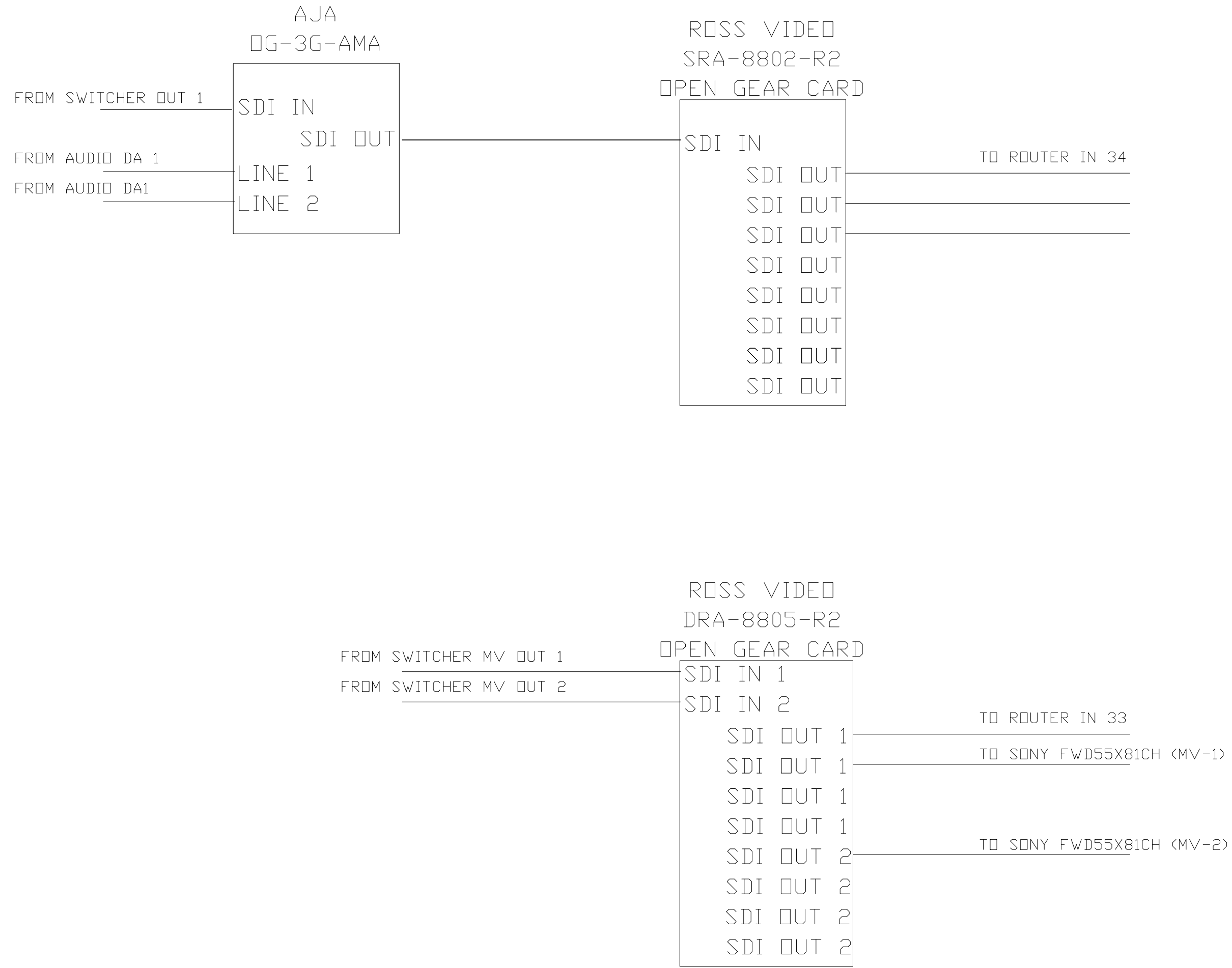
6779 Engle Rd., Suite G
CLEVELAND, OHIO 44130
(440) 891-9440

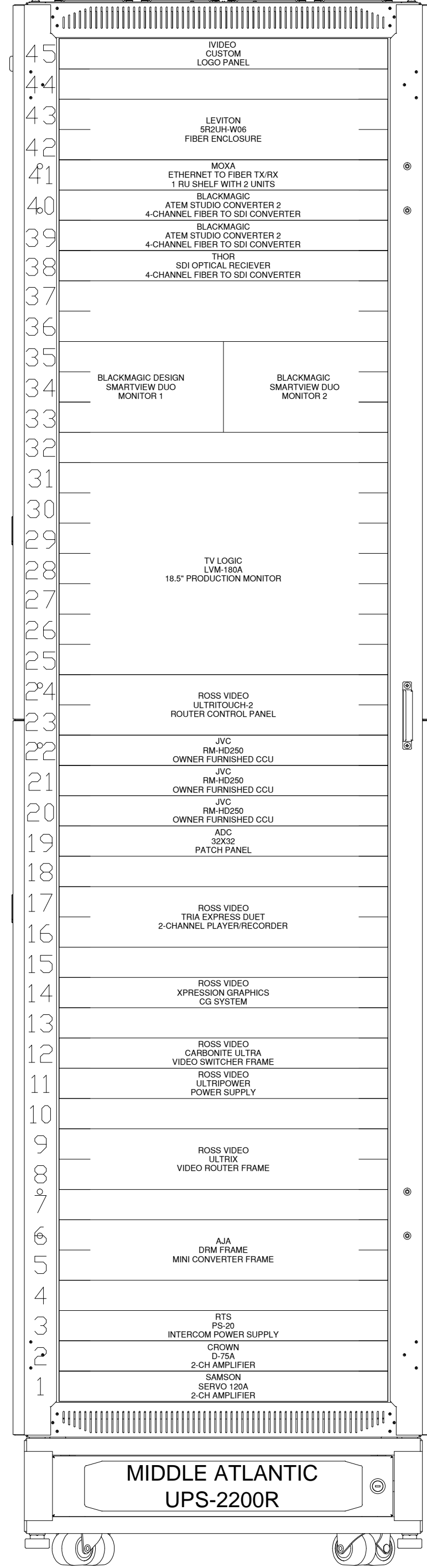
CITY OF COLUMBUS
CHAMBER CONTROL ROOM UPGRADE
AV4-VIDEO RTR-4

SCALE: NONE
REVISION: CONCEPTUAL
DRAWN BY: E. Strickland
DATE: 6/30/21

APPROVED
SHEET NO: 1 of 1
Rack Layout.dwg

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MIDDLE ATLANTIC
UPS-2200R

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Customer: City of Columbus			Power Estimate							
Project: Control Room Upgrade			iVideo Technologies							
Project #: 12961			Account Manager: David Walters							
			Engineer: Ed Strickland							
Item #	Qty	UM	Model	Manufacturer	Item	AMPS (ea)	Volts	WATTS	Total	BTU
1	1	ea	CUF-124	Ross Video		7.6		114	114	388.968
2	1	ea	TD2S-PANEL	Ross Video		7.13	15	107	107	365.084
3	1	ea	TRIA-XD-AVC-02-HW	Ross Video		3		110	110	375.32
4	1	ea	XPN-1RU-M8	Ross Video		3.7		550	550	1876.6
5	1	ea	ULTRIX-NS-FR2	Ross Video		20		310	310	1057.72
6	1	ea	ULTRITOUCH-2	Ross Video		1.4		154	154	525.448
7	1	ea	ULTRITOUCH-PS	Ross Video					0	0
8	1	ea	RCP-ME	Ross Video				12	12	40.944
9	1	ea	OGX-FR-CN	Ross Video		28	250	375	375	1279.5
10	2	ea	FWD55X81CH	Sony			120	196	392	668.752
11	1	ea	LVM-180A	Tv Logic				80	80	272.96
12	6	ea	S24A310NHN	Samsung				56	336	191.072
13	2	ea	ROI-HDMI-R0	AJA			120	8	16	27.296
14	2	ea	ZX1-90	Electrovoice				200	400	682.4
15	1	ea	Smartview Duo	Blackmagic			12	20	20	68.24
16	3	ea	RM-HP250	JVC			12	80	240	272.96
17	1	ea	PS-20	RTS		1.8	28	50.4	50.4	171.9648
18	1	ea	ATEM Studio Converter 2	Blackmagic				25	25	85.3
19	1	ea	2816	Dell				300	300	1023.6
20	2	ea	10	Moxa		0.2	45	9	18	30.708
21	1	ea	Monitor Station	Presonus			18	10	10	34.12
22	1	ea	ADC-5112	Leitch				10	10	34.12
23	1	ea	D75	Crown				15	15	51.18
24	1	ea	Servo 120A	Samson				15	15	51.18
25	1	ea	Workstation	Dell				300	300	1023.6
26	1	ea	1905FB	Dell				56	56	191.072
TOTALS								33	4,015	10,790

Ross Warranties

Ross Video has been in the business of manufacturing broadcast equipment for more than 35 years. Our products are built to withstand the rigors of daily use. Ross standard warranties protect your investment and ensure you are covered should there be a problem during the initial ownership period. We also offer extended warranties across most of our product lines, that allow you to extend the standard warranty period by one-year increments for either hardware or software or both.

Ross warranties stay with the product and are transferable to subsequent owners should you decide to sell your system.

Standard features of Ross Warranties include:

Free 24/7/365 Telephone support for the life of your product

Ross will always answer the phone and provide you with free technical and operational advice for the life of your Ross product whether you are in or out of the warranty period.

Free email support for the life of your product

If you prefer email, Ross is happy to provide email support at no charge for the life of your product whether you are in or out of the warranty period.

Hardware repairs are typically by module exchange

Ross products use a modular design to facilitate manufacture and repair. In most cases repairs can be made by diagnosing the fault to a module level and then exchanging that module.

Advance board exchange

When your product is under warranty and requires a new module, Ross will ship the replacement module in advance of receiving the defective module. This level of service is often only available from other manufacturers at additional cost.

Ross Warranties are Transferrable

Ross product warranties are transferrable to the new owner should you decide to sell your Ross product.

After the warranty period:

Telephone and Email Advice is Still Free

Both telephone and email advice are always available whether your Ross product is in or out of warranty.

Spare Parts

Modules and components required to repair your Ross product are available to purchase outside of the warranty period.

RossCare+ Extended Warranties

We understand exactly how critical our equipment is to the success of your production. You can't afford down time. We also understand that repairs and upgrades to sophisticated technology can often be expensive, something you likely haven't included in your budget. Don't wait until you encounter a mission critical challenge. Explore the RossCare+ Extended Warranty program today. Instead of worrying about your equipment, you can focus on what you do best, creating quality content.

This Agreement is a legal agreement between you (the “Customer”) and Ross Video Limited (“Ross Video”) specifying the terms and conditions of your purchase of a RossCare[®] Advantage Warranty Plan (“Plan”). This Agreement also includes certain terms and conditions of your purchase of the Plan as shown on your original quotation, purchase order, acknowledgement, pro forma, invoice and other purchase documentation for the Ross Products and/or the Extended Warranty (the “Order”).

1. **INTERPRETATION.** In this Agreement, (a) words signifying the singular number include the plural and vice versa, and words signifying gender include all genders; (b) every use of the words "herein", "hereof", "hereto" "hereunder" and similar words shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof; (c) reference to any agreement or other document herein will be construed as referring to such agreement or other document as from time to time amended, modified or supplemented (subject to any restrictions on such amendment, modification or supplement set forth therein); (d) every use of the words “including” or “includes” is to be construed as meaning “including, without limitation” or “includes, without limitation”, respectively; and (e) references to an Article or a Section are to be construed as references to an Article or Section of or to this Agreement unless otherwise specified.

2. **DEFINITIONS.** In this Agreement, in addition to the terms defined elsewhere in this Agreement, the following terms have the meanings set out below:

“**Acknowledge**” means a response by Ross Video to Customer that indicates the Support Request has been received and a case ticket opened and email notification with the case number forwarded to the Customer.

“**Affiliate**” means, with respect to any Person, any other Person who directly or indirectly controls, is controlled by, or is under direct or indirect common control with, such Person. A Person shall be deemed to control a Person if such Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise; and the term “controlled” and “controlling” shall have a similar meaning.

“**Agreement**” means this RossCare[®] Warranty Agreement including the recitals hereto, the Order and all schedules annexed thereto, as the same may be amended from time to time.

“**Change of Control**” means (a) the direct or indirect sale, transfer or exchange by the shareholders of a Party of more than fifty percent (50%) of the voting securities of such Party, (b) a merger or amalgamation or reorganization or other transaction to which a Party is party after which the shareholders of such Party immediately prior to such transaction hold less than fifty percent (50%) of the voting securities of the surviving entity, (c) the sale, exchange, or transfer of all or substantially all of the assets of a Party.

“**Data Protection Laws**” means the *General Data Protection Regulation* of the European Union, the *California Consumer Privacy Act*, the *Personal Information Protection and Electronic Documents Act* (Canada) and like legislation for the protection of personal information of natural persons wherever applicable to delivery of the Plan to the Customer.

“**Designated Equipment**” shall mean (a) the hardware products sold by Ross Video to Customer on which the Software is installed and licensed for use, as the same may be replaced from time to time by Ross Video; or (b) in the case of Software licensed on a stand-alone basis, the equipment of the Customer on which the Software is to be installed and that meets the minimum specifications set out in the Documentation.

“Documentation” means the user manuals, instruction guides user documentation or other related materials of any kind relating to the Ross Products that are provided by Ross Video to the Customer from time to time during the period of ownership and use of the Ross Products by the Customer;

“Equipment” shall mean the hardware products sold by Ross Video to the Customer that are the subject of the Plan, as described in the Order, as the same may be repaired, Modified, Improved or replaced from time to time by Ross Video;

“Equipment Warranty Period” means, in connection with the Equipment, the warranty period of one (1) year from the date of shipment unless otherwise specified in the table below:

Product Category	Equipment Warranty Period
openGear	Five (5) years from the date of shipment
Master Control Systems	Five (5) years from the date of shipment
Nielsen Encoders	Five (5) years from the date of shipment

“EULA” means the Ross Video Limited End User Software License Agreement entered into between the Customer and Ross Video in connection with any Ross Product.

“Extended Warranty” has the meaning ascribed to it in Section 3 of this Agreement;

“Governmental Authority” means (a) and federal, provincial, state, local, municipal, regional, territorial, aboriginal, or other government, governmental or public department, branch, ministry, or court, domestic or foreign, including any district, agency, commission, board, arbitration panel or authority and any subdivision of any of them exercising or entitled to exercise any administrative, executive, judicial, ministerial, prerogative, legislative, regulatory, or taxing authority or power of any nature; and (b) any quasi-governmental or private body exercising any regulatory, expropriation or taxing authority under or for the account of any of them, and any subdivision of any of them.

“Improvements” means all inventions, works, discoveries, improvements and innovations of or in connection with the Equipment made by or on behalf of Ross Video; and **“Improve”** shall mean the implementation of any of the foregoing.

“Incident” means an issue in the commissioning and/or normal functioning of a Ross Product that gives rise to a Support Request.

“License Period” means the period of time that Licensee will have the rights granted under the EULA, as may be specified in the Order.

“Modifications” means any enhancements, changes, corrections, improvements, developments, upgrades or updates to the Ross Products, or any of them; and **“Modify”** shall mean the creation of any of the foregoing;

“Order” has the meaning given to it in the introduction to this Agreement;

“Parties” means both Ross Video and Customer and **“Party”** means either one of them as the context requires;

“Person” will be broadly interpreted and includes (a) a natural person, whether acting in his or her own capacity, or in his or her capacity as executor, administrator, estate trustee, trustee or personal or legal representative; (b) a corporation or a company of any kind, a partnership of any kind, a sole proprietorship, a trust, a joint venture, as association, an unincorporated association, an unincorporated syndicate, an unincorporated organization or any other association, organization or entity of any kind; and (c) a Governmental Authority.

“Plan” has the meaning given to it in the introduction to this Agreement;

“Priority Level” means each Incident priority level described opposite the named priority level under “Description” in the chart in Section 6(a).

"Resolution" means the implementation of a fully tested repair and resolution of an Incident, which returns the Ross Products to their full and proper operation, but does not include a Workaround.

"Response" means a Ross Video communication to Customer to the effect that a support ticket has been opened and a support agent has been assigned to the ticket.

"Ross Products" means the Equipment and/or Software sold by Ross Video to the Customer that is/are supported by the Plan in accordance with this Agreement.

"Ross Video" means Ross Video Limited or, if any Affiliate of Ross Video Limited enters into this Agreement with Customer, it means such Affiliate of Ross Video Limited.

"Software" means the software products sold by Ross Video to the Customer that are the subject of the Plan, as described in the Order, as the same may be repaired, Modified, Improved or replaced from time to time by Ross Video.

"Software Maintenance Period" means, in connection with the Software, the warranty period of one (1) year from the date of shipment unless otherwise specified in the table below:

Product Category	Software Maintenance Period
Switchers	For the life of the Designated Equipment
NK Routers	For the life of the Designated Equipment
Master Control System Software (Dashboard)	For the life of the Designated Equipment
openGear	For the life of the Designated Equipment
Nielsen Encoders	For the life of the Designated Equipment
Sports Analysis - non-perpetual licenses only	For the License Period,

"Software Modification" means a Modification to the Software;

"Support Request" means request for support made by the Customer as regards an Incident relating to a Ross Product.

"Support Services" has the meaning ascribed to it in Section 6(a) of this Agreement.

"Support Request Response Time" has the meaning ascribed to it in Section 6(c) of this Agreement.

"Warranty Period" means the Equipment Warranty Period or the Software Maintenance Period, as the context requires.

"Workaround" means a temporary workaround to an Incident which allows the resumption of operational use of the Ross Products, albeit that the applicable Ross Product may not be returned to its full and proper state of operation and may still require a permanent resolution. A Workaround may include solutions which require human intervention or additional hardware or software which would no longer form part of the Ross Products once a permanent resolution has been achieved.

"Year 1" means the twelve (12) month period commencing on the date of shipment of the Ross Product and terminating as of the close of business on the day before the first anniversary thereof.

- 3. WARRANTY PERIOD AND EXTENDED WARRANTY.** Unless extended in accordance with this Section 3, Year 1 shall be the Warranty Period for any Ross Product purchased by Customer from Ross Video. Customer shall have the option of purchasing an extended warranty for the Ross Products in one (1) year increments from and after the end of Year 1 (the "Extended Warranty") at Ross Video's warranty fee rates then in effect for the Plan. Upon purchase of an Extended Warranty, the Warranty Period for the Plan shall be deemed to be extended for each such one (1) year increment and the terms and conditions of this Agreement shall remain in full force and effect for such Extended Warranty period. Terms of payment shall be net thirty (30) days from date of invoice by Ross Video to Customer. Taxes on the Plan are extra.

4 IMPROVEMENTS AND MODIFICATIONS. The Customer may from time to time request Ross Video to incorporate certain Improvements and/or Modifications into the Ross Products. Ross Video may, in its sole discretion, undertake to incorporate and provide such Improvements and/or Modifications to the Customer with or without payment of a fee to be negotiated at the time of such request. All Improvements and/or Modifications, whether recommended and developed by Ross Video or Customer, shall be considered the sole property of Ross Video and shall be used by the Customer pursuant to the terms of this Agreement.

5 LIMITED REPRESENTATIONS AND WARRANTIES.

a) Equipment Warranties

Ross Video represents and warrants that:

- i. During the Equipment Warranty Period the Equipment will be in full conformity with the specifications for the Equipment provided to Customer; and
- ii. the Equipment will be merchantable, of good material and workmanship, free from any material defects, and will be fit for the normal business use intended by Customer.

b) Warranty Exclusions and Inclusions

Notwithstanding the above, all of Ross Video's obligations with respect to such representations and warranties shall be contingent on the Customer's use of the Equipment in accordance with this Agreement, normal industry practice and Ross Video's instructions for such Equipment as provided in the Documentation. Ross Video shall have no warranty obligations where any Equipment failure occurs as a result of misuse, neglect, accident, abuse, misapplication improper installation, unauthorized modification, extreme power surge or extreme electromagnetic field or other Acts of God. Ross Video shall pass through to the Customer the benefit of all warranties from third party manufacturers and suppliers.

c) Software Maintenance

Ross Video represents and warrants that:

- (i) During the Software Maintenance Period the Software is warranted to be free from material defects under normal use;
- (ii) Except as expressly stated herein, no disabling mechanism or protection feature designed to prevent the Software's use, including any computer virus, worm, lock, drop dead device, Trojan-horse routine, trap door, time bomb or any other codes or instructions that may be used to access, Modify, delete, damage or disable the Software or any other hardware or computer system, will be used or activated by Ross Video in respect of Software that is delivered to Customer under a valid license; and
- (iii) The Software, if properly installed and used with Designated Equipment, will perform substantially as described in Ross Video's then current Documentation for such Software for the Software Maintenance Period.

d) Warranty Exclusions and Inclusions

Notwithstanding the above, Ross Video does not warrant that the Software is or will be error free; further, all of Ross Video's obligations with respect to the warranties set out in paragraph (c) above shall be contingent on Customer's use of the Software in accordance with the terms and conditions of the EULA and Ross Video's instructions as provided in the Documentation. Ross Video shall have no warranty obligations where any Software failure occurs as a result of misuse, neglect, accident, abuse, misapplication, improper installation, unauthorized modification, extreme power surge or extreme electromagnetic field or other Act of God. Ross Video shall pass through to Customer the benefit of all warranties from third party manufacturers and suppliers.

6 SUPPORT SERVICES

a) The core of the Plan is the support services described in this Section 6 which Ross Video shall provide to the

Customer in connection with the Ross Products (the “Support Services”).

- b) Telephone and email support from Ross Video technicians are included in the Plan at no extra charge in accordance with and subject to Ross Video policy. If Ross Video personnel are required to attend at the Customer’s location to do any warranty work under the Plan, Customer will be charged for reasonable out of pocket expenses incurred in connection with such warranty work.
- c) Ross Video will respond to Support Requests within the response times (each a “Support Request Response Time”) set forth below and resolve or correct the issue identified in the Support Request within the Resolution times set forth below subject to circumstances that are reasonably beyond Ross Video’s control, such as the root cause of a problem being situated in a non-Ross Video product, unforeseeable supply chain delay or force majeure events. Ross Video, in its reasonable judgment, will determine the Priority Level of each Support Request.

Priority Level	Support Request Response Times*	Description
Emergency	5 min Acknowledge 30 min Response 4-hour Workaround Resolution: 24 hours	An event and/or problem that has a significant business impact, or an immediate severe impact to a core business process or an operation that is mission critical to the business. The event and/or problem may render the Ross Product(s) non-functional
Major	5 min Acknowledge 30 min Response 6-hour Workaround Resolution: 72 hours	The presence of a major error implies that Ross Products and/or Documentation cannot be substantially used, or have a major negative impact on the total system operation, system functionality, or system reliability
Minor	5 min Acknowledge 30 min Response 24-hour Workaround Resolution: Next Release	The presence of a medium severity error seriously affects the functionality of Ross Products and Documentation, but can be circumvented so that Ross Products and/or Documentation can be used, or implies that a program or function in a Ross Product or Documentation cannot be used although other programs or functions remain unaffected, or implies that Ross Products and Documentation as a whole function but a certain function is somewhat disabled, gives incorrect results or does not conform to the Documentation or any agreed standards
Trivial	5 min Acknowledge 30 min Response 24-hour Workaround Resolution: Next major release	A low severity error has no significant effect on the functionality of Ross Products or the usability of Documentation
* Support Request Response Times are conditional upon Customer’s cooperation in providing information required to process a Support Request in the necessary time frames.		

d) Reporting

Ross Video shall supply to the Customer’s designated staff access to the Customer’s current and historical cases during the term of this Agreement. Additionally, Ross Video shall supply to Customer such additional reporting

on the Support Services as Ross Video and Customer shall determine to be necessary and desirable from time to time during the term of this Agreement

e) Software Modifications

During the Software Maintenance Period, Ross Video shall supply downloadable Software Modifications upon request of Customer, when available, at no extra charge to Customer. Notwithstanding the foregoing, Ross Video shall be under no legal obligation to create or release Software Modifications at any time or in accordance with a fixed schedule.

f) Replacement Parts

Under the Plan, replacement parts for Ross Products are free to the Customer. Further, Ross Video shall be responsible for and shall pay all shipping and handling charges, as well as customs duties and taxes in connection with the replacement parts and delivery of replacement parts to the Customer's location.

g) On-line Refresher Training

Under the Plan, upon the Customer's request and subject to availability of Ross Video staff and other resources, Ross Video shall provide to representatives of the Customer free on-line refresher training.

h) Solution Health Check

Under the Plan, Ross Video shall engage with the Customer to provide an annual online solution health check for the Customer and its business as it relates to the products and services supplied or potentially to be supplied by Ross Video to the Customer.

7. **LIMITATION OF LIABILITY.** The limitation of liability provisions of this Agreement reflect an informed voluntary allocation of the risks (known and unknown) that may exist in connection with the warranty work being undertaken hereunder by Ross Video under the Plan, and that such voluntary risk allocation represents a material part of this Agreement. Should Ross Video be in breach of any obligation, Customer agrees that Customer's remedies will be limited to those set forth in this Agreement. No action, regardless of form, arising out of this Agreement may be brought by Customer more than twelve (12) months after the facts giving rise to the cause of action have occurred, regardless of whether those facts by that time are known to, or reasonably ought to have been discovered by, Customer.

- (A) EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, THE ROSS PRODUCTS AND DOCUMENTATION ARE PROVIDED "AS IS" AND ROSS VIDEO (I) MAKES NO OTHER REPRESENTATIONS, AND PROVIDES NO WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, STATUTORY, BY USAGE OF TRADE CUSTOM OF DEALING, BY VIRTUE OF ANY OTHER CONTRACT OR DOCUMENT RELATING TO THE PURCHASE OF A ROSS PRODUCT THAT IS SUPPLIED BY CUSTOMER (ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED) OR OTHERWISE, AND (II) SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING ANY IMPLIED WARRANTY OF UNINTERRUPTED OR ERROR FREE OPERATION, MERCHANTABILITY, QUALITY OR FITNESS FOR A PARTICULAR PURPOSE.
- (B) IN NO EVENT SHALL ROSS VIDEO, ITS AFFILIATES, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS, BE LIABLE FOR ANY CLAIM FOR INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, AGGRAVATED DAMAGES; LOST PROFITS, OR LOST REVENUE ARISING FROM OR IN CONNECTION WITH THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, OR IN TORT, EVEN IF THE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
- (C) IN ANY EVENT THE AGGREGATE LIABILITY OF ROSS VIDEO, ITS AFFILIATES, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS, FOR ANY CLAIM FOR DIRECT DAMAGES WITH RESPECT TO THE SUBJECT MATTER OF THIS AGREEMENT SHALL NOT TO EXCEED THE AMOUNT OF MONEY PAID TO ROSS VIDEO UNDER THIS AGREEMENT.

8. TERM AND TERMINATION.

- (1) Unless terminated earlier in accordance with the terms of this Agreement, the term of this Agreement shall commence on the date the Ross Products are delivered to Customer and continues until the expiration of the Warranty Period, as extended by the purchase of any Extended Warranty, applicable to that Ross Product.
- (2) Either Party shall have the right on notice to the other Party to terminate this Agreement if:
 - (a) the other Party fails to pay any fees or other amounts when due hereunder or under any Purchase Document in connection with the Ross Products and such breach is not cured within thirty (30) days after written notice of such failure to pay is given to the defaulting Party by the non-defaulting Party;
 - (b) the other Party shall file a voluntary petition in bankruptcy or insolvency or shall petition for reorganization under any bankruptcy law, consent to an involuntary petition in bankruptcy, or if a receiving order is given against it under the *Bankruptcy and Insolvency Act* (Canada) or the comparable law of any other jurisdiction (and such is not dismissed within ten (10) days);
 - (c) there shall be entered an order, judgment or decree by a court of competent jurisdiction, upon the application of a creditor, approving a petition seeking reorganization or appointing a receiver, trustee or liquidator of all or a substantial part of the other Party's assets and such order, judgment or decree continues in effect for a period of thirty (30) consecutive days; or
 - (d) the other Party shall fail to perform any of the other material obligations set forth in this Agreement and such default, in the case of a default which is remediable, continues for a period of thirty (30) days after written notice of such failure has been given by the non-defaulting Party or, in the case of a non-remediable default, immediately upon notice.
9. **FORCE MAJEURE.** Dates and times by which Ross Video is required to render performance under this Agreement shall be automatically postponed to the extent and for the period that Ross Video is prevented from meeting them by reason of events of force majeure or any cause beyond its reasonable control provided Ross Video notifies Customer of the commencement and nature of such cause and uses its reasonable efforts to render performance in a timely manner.
10. **ASSIGNMENT.** Ross Video may assign this Agreement, or any of its rights or obligations hereunder, in whole or in part, upon notice to Customer. Customer shall not assign this Agreement, or any of its rights or obligations hereunder, in whole or in part, without the prior written consent of Ross Video, which consent may not be unreasonably withheld. This Agreement ensures to the benefit of and is binding upon each of the Parties and their respective successors and permitted assigns.
11. **GOVERNING LAW.** If Customer acquired the Ross Product(s) in the United States or Canada, the laws of the state or province where Customer's principal place of business is located govern the interpretation of this Agreement, claims for its breach, and all other claims regardless of conflict of laws principles. If Customer acquired the Ross Product(s) in the European Union or the United Kingdom, then the laws of England and Wales apply. If Customer acquired the Ross Product(s) in any other country, then the laws of the Province of Ontario, Canada shall apply.
12. **DATA PROTECTION.** The Parties shall comply with all relevant Data Protection Laws in the performance of this Agreement.
13. **AMENDMENT AND WAIVER.** No amendment, discharge, modification, restatement, supplement, termination or waiver of this Agreement or any Section of this Agreement is binding unless it is in writing and executed by the Party to be bound. No waiver of, failure to exercise or delay in exercising, any Section of this Agreement constitutes a waiver of any other Section (whether or not similar) nor does any waiver constitute a continuing waiver unless otherwise expressly provided.
14. **SEVERABILITY.** Each Section of this Agreement is distinct and severable. If any Section of this Agreement, in whole or in part, is or becomes illegal, invalid, void, voidable or unenforceable in any jurisdiction by any court of

competent jurisdiction, the illegality, invalidity or unenforceability of that Section, in whole or in part, will not affect (a) the legality, validity or enforceability of the remaining Sections of this Agreement, in whole or in part; or (b) the legality, validity or enforceability of that Section, in whole or in part, in any other jurisdiction.

15. **ENTIRE AGREEMENT.** This Agreement, and any other documents referred to herein, constitutes the entire agreement between the Parties relating to the subject matter of this Agreement and supersedes all prior written or oral agreements, representations and other communications between the Parties.

In Witness Whereof the Parties have executed this Agreement as of the latest date indicated below.

CUSTOMER:

ROSS VIDEO LIMITED

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____



This End User Software License Agreement is a legal agreement between you (the "Licensee") and Ross Video Limited ("Ross Video") specifying the terms and conditions of your installation and use of the Software and all Documentation (as those terms are defined herein).

IMPORTANT:

BY DOWNLOADING, ACCESSING, INSTALLING OR USING THE SOFTWARE AND/OR DOCUMENTATION LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT AND THE LICENSE GRANTED HEREUNDER SHALL BE EFFECTIVE AS OF AND FROM SUCH DATE. IF YOU DO NOT WISH TO ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT DOWNLOAD, ACCESS, INSTALL, REFER TO OR OTHERWISE USE THE SOFTWARE AND/OR DOCUMENTATION.

1. **INTERPRETATION.** In this Agreement, (a) words signifying the singular number include the plural and vice versa, and words signifying gender include all genders; (b) every use of the words "herein", "hereof", "hereto" "hereunder" and similar words shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof; (c) reference to any agreement or other document herein will be construed as referring to such agreement or other document as from time to time amended, modified or supplemented (subject to any restrictions on such amendment, modification or supplement set forth therein); (d) every use of the words "including" or "includes" is to be construed as meaning "including, without limitation" or "includes, without limitation", respectively; and (e) references to an Article or a Section are to be construed as references to an Article or Section of or to this Agreement unless otherwise specified.

2. **DEFINITIONS.** In this Agreement, in addition to the terms defined elsewhere in this Agreement, the following terms have the meanings set out below:

"**Affiliate**" means, with respect to any Person, any other Person who directly or indirectly controls, is controlled by, or is under direct or indirect common control with, such Person. A Person shall be deemed to control a Person if such Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise; and the term "controlled" and "controlling" shall have a similar meaning.

"**Agreement**" means this End User Software License Agreement including the recitals hereto, as the same may be amended from time to time in accordance with the provisions hereof.

"**Backup System**" means the secondary piece of Designated Equipment upon which the Software is installed and mirrored for the sole purpose of replacing a Primary System in the event such Primary System is not available or functioning properly for any reason.

"**Change of Control**" means (a) the direct or indirect sale, transfer or exchange by the shareholders of a Party of more than fifty percent (50%) of the voting securities of such Party, (b) a merger or amalgamation or reorganization or other transaction to which a Party is party after which the shareholders of such Party immediately prior to such transaction hold less than fifty percent (50%) of the voting securities of the surviving entity, (c) the sale, exchange, or transfer of all or substantially all of the assets of a Party.

"**Confidential Information**" means all data and information relating to the business and management of either Party, including the Software, trade secrets and other technology to which access is obtained or granted hereunder by the other Party, and any materials provided by Ross Video to Licensee; provided, however, that Confidential Information shall not include any data or information which:

- (i) is or becomes publicly available through no fault of the other Party;
- (ii) is already in the rightful possession of the other Party prior to its receipt from the other Party;
- (iii) is already known to the receiving Party at the time of its disclosure to the receiving Party by the disclosing Party and is not the subject of an obligation of confidence of any kind;

- (iv) is independently developed by the other Party;
- (v) is rightfully obtained by the other Party from a third party; or
- (vi) is disclosed with the written consent of the Party whose information it is.

“Designated Equipment” shall mean (a) the hardware products sold by Ross Video to Licensee on which the Software is installed and licensed for use, as the same may be replaced from time to time by Ross Video; or (b) in the case of Software licensed on a stand-alone basis, the equipment of Licensee on which the Software is to be installed and meets the minimum specifications set out in the Documentation.

“Documentation” shall mean manuals, instruction guides, user documentation and other related materials of any kind pertaining to the Software (whether in electronic, hard-copy or other media format) that are furnished to Licensee by or on behalf of Ross Video in relation to the Software.

“Freeware” means Software that is available free of charge from Ross Video, and includes, without limitation the master control system software known as “Dashboard”.

“Governmental Authority” means (a) any federal, provincial, state, local, municipal, regional, territorial, aboriginal, or other government, governmental or public department, branch, ministry, or court, domestic or foreign, including any district, agency, commission, board, arbitration panel or authority and any subdivision of any of them exercising or entitled to exercise any administrative, executive, judicial, ministerial, prerogative, legislative, regulatory, or taxing authority or power of any nature; and (b) any quasi-governmental or private body exercising any regulatory, expropriation or taxing authority under or for the account of any of them, and any subdivision of any of them.

“Improvements” means all inventions, works, discoveries, improvements and innovations of or in connection with the Software, including error corrections, bug fixes, patches and other updates in Object Code form to the extent made available to Licensee in accordance with Ross Video’s release schedule.

“License Fee” means the fee(s), if any, payable in respect of the Software in accordance with the relevant invoice(s) or other purchase documents delivered in connection with this Agreement.

“License Period” means the period of time that Licensee will have the rights granted under this Agreement, as may be specified in an Order.

“Modifications” means any enhancements, changes, corrections, translations, adaptations, revisions, developments, upgrades or updates thereto; and **“Modify”** shall mean the creation of any of the foregoing.

“Object Code” means the machine readable executable form of a computer software program.

“Order” means the documents provided by Ross Video to Licensee detailing the Ross Video products contemplated for purchase, the corresponding fees and any License Period that may apply to the Software, including any and all quotations, purchase orders, acknowledgements, pro formas, invoices and other purchase documentation.

“Parties” means both Ross Video and Licensee and **“Party”** means either one of them as the context requires.

“Person” will be broadly interpreted and includes (a) a natural person, whether acting in his or her own capacity, or in his or her capacity as executor, administrator, estate trustee, trustee or personal or legal representative; (b) a corporation or a company of any kind, a partnership of any kind, a sole proprietorship, a trust, a joint venture, an association, an unincorporated association, an unincorporated syndicate, an unincorporated organization or any other association, organization or entity of any kind; and (c) a Governmental Authority.

“Primary System” means the Designated Equipment upon which the Software is installed and executed to deliver its intended functionality.

“Ross Video” means Ross Video Limited and its Affiliates.

“Software” shall mean the version of the Object Code licensed and delivered to Licensee by Ross Video concurrently with delivery of this Agreement, including without limitation the Freeware, and any subsequent error corrections, updates, Modifications or Improvements provided to Licensee by Ross Video pursuant to this Agreement, but specifically excluding any features or plugins that may be purchased by you directly from third parties as upgrades or enhancements to the Software.

“Source Code” means the human readable form of a computer software program, and all tools and documentation necessary for a reasonably competent computer programmer to understand, maintain and Modify the Software.

“**Third Party Software**” means those portions of the Software, if any, which are owned or controlled by third parties and licensed to Ross Video pursuant to certain license agreements or arrangements with such third parties, including the NewTek NDI™ software (<http://NDI.NewTek.com/>); and

“**Use**” means to execute, run, display, store, merge, network, Modify, translate, host or integrate with Licensee’s products or other third party software.

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6. **IMPROVEMENTS.** Licensee may from time to time request Ross Video to incorporate certain Improvements into the Software. Ross Video may, in its sole discretion, undertake to incorporate and provide such Improvements to Licensee with or without payment of a fee to be negotiated at the time of such request. All Improvements, whether recommended and developed by Ross Video or Licensee, shall be considered the sole property of Ross Video and shall be used by Licensee pursuant to the terms of the License granted under this Agreement.
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 - a. Licensee will not Use the Freeware to engage in or allow others to engage in any illegal activity.
 - b. Licensee will not Use the Freeware in any way that will interfere with or damage the operation of the services of any third parties by overburdening/disabling network resources through automated queries, excessive usage or similar conduct.
 - c. Licensee will not Use the Freeware to engage in any activity that will violate the rights of others, including, without

limitation, by using it for operations that involve child labour, suppressing the right of freedom of expression or endangering the security of the person.

8. **OWNERSHIP.** The Parties acknowledge and agree that, as between the Parties, Ross Video shall be the owner of all intellectual property rights in the Software, Documentation and all related Modifications and Improvements, written materials, logos, trademarks, trade names, copyright, patents, trade secrets and moral rights, registered or unregistered. No proprietary interest or title in or to the intellectual property in the Software, Documentation or any Improvements or Modifications is transferred to Licensee by this Agreement. Ross Video reserves all rights not expressly licensed to Licensee under section 3.
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10. **INTELLECTUAL PROPERTY INDEMNITY.**
 - a. Ross Video agrees to defend, indemnify and hold harmless Licensee from final damages awarded by a court of competent jurisdiction (hereinafter referred to as the “**Losses**”), which Licensee, or any of its officers or directors, may incur, suffer or become liable for as a result of, or in connection with, any third party claim asserted against Licensee to the extent such claim is based on a contention that the Software, Documentation or any portion thereof, infringes any valid, registered, enforceable patents, copyrights, trade secrets, trademarks or other intellectual property rights of any third party, provided that (a) the allegedly infringing Software or Documentation has been used within the scope of and in accordance with the terms of this Agreement, and (b) Licensee notifies Ross Video in writing of such claim within ten (10) days of a responsible officer of Licensee becoming aware of such claim. If the Software, Documentation or any portion thereof is held to constitute an infringement of a third party’s intellectual property rights, and use thereof is enjoined, Ross Video shall, at its election and expense, either (i) procure the right to use the infringing element of the Software or Documentation; or (ii) replace or modify the element of the Software or Documentation so that the infringing portion is no longer infringing and still performs the same function without any material loss of functionality. Ross Video shall make every reasonable effort to correct the situation with minimal effect upon the operations of Licensee.
 - b. Notwithstanding the above, Ross Video reserves the right to terminate this Agreement and the License granted hereunder on immediate notice to Licensee, and without liability to Licensee, in the event that the Software or Documentation constitutes or may, in Ross Video’s determination, constitute, an infringement of the rights of a third party that Ross Video, in its sole discretion, does not consider to be affordably remediable.
 - c. Either party may terminate this Agreement immediately should any Software become, or in either party’s opinion be likely to become, the subject of a claim of infringement of any intellectual property right and, in such event, there shall be no claim by either Licensee or Ross Video against the other arising out of such termination, provided that the foregoing shall not apply to a claim for infringement by Ross Video against Licensee in the event that Licensee is alleged to have infringed Ross Video’s intellectual property rights, in which case Licensee shall remain liable for all outstanding License Fees and other amounts owing to Ross Video.
 - d. Notwithstanding the foregoing, Ross Video shall have no liability for any claim of infringement based on use of other than a current, unaltered release of the Software and/or Documentation available from Ross Video if such infringement would have been avoided by the use of a current, unaltered release of the Software and/or Documentation provided that such current, unaltered release performs substantially in conformity with the specifications set out in the Documentation and was provided, at no additional cost by Ross Video, to those subscribing for maintenance services for the Software or Documentation.
11. **CONFIDENTIALITY.** Each Party shall maintain in confidence all Confidential Information of the other Party, shall use such Confidential Information only for the purpose of exercising its rights and fulfilling its obligations under this Agreement, and shall not disclose any Confidential Information of the disclosing Party to any third party except as expressly permitted hereunder or make any unauthorized use thereof. Each Party shall disclose the Confidential Information only to those of its employees, consultants, advisors, and/or subcontractors who have a need to know the Confidential Information. Each Party shall, prior to disclosing the Confidential Information to such employees, consultants, advisors and/or subcontractors, obtain their agreement to receive and use the Confidential Information on a confidential basis on the same terms and conditions contained in this Agreement. The receiving Party shall treat the Confidential Information of the disclosing Party with the same degree of care against disclosure and/or unauthorized use as it affords to its own information of a similar nature, or a reasonable degree of care, whichever is greater. The receiving Party further agrees not to remove or destroy any proprietary or confidential

legends or markings placed upon any documents or other materials of the disclosing Party. The obligations of confidence set forth in this Agreement shall extend to any Affiliates that have received Confidential Information of the disclosing Party and shall also cover Confidential Information disclosed by any Affiliate. The receiving Party shall be responsible for any actions or omissions of its Affiliates as if such actions or omissions were its own.

Either party may disclose certain Confidential Information if it is expressly required to do so pursuant to legal, judicial, or administrative proceedings, or otherwise required by law, provided that (i) such Party provides the other Party with reasonable written notice prior to such disclosure; (ii) such Party seeks confidential treatment for such Confidential Information; (iii) the extent of such disclosure is only to the extent expressly required by law or under the applicable court order; and (iv) such Party complies with any applicable protective or equivalent order.

Each of Ross Video and Licensee (the “**Indemnifying Party**”, as applicable) agree to indemnify the other (the “**Indemnified Party**”, as applicable) for all Losses incurred by the Indemnified Party as a result of a failure of the Indemnifying Party to comply with its obligations under this Section 11 provided that the Indemnified Party has given prompt notice of any such claim and, to the extent that a claim may lie against a third party for the unauthorized disclosure of such Confidential Information, the right to control and direct the investigation, preparation, action and settlement of each such claim and, further, provided that the Indemnified Party reasonably co-operates with the Indemnifying Party in connection with the foregoing and provides the Indemnifying Party with all information in the Indemnified Party’s possession related to such claim and such further assistance as reasonably requested by the Indemnifying Party.

The Parties acknowledge and agree that any breach of the confidentiality provisions of this Agreement by one Party may cause significant and irreparable injury to the other Party that is not compensable monetarily, as well as damages that may be difficult to ascertain, and agrees that, in addition to such other remedies that may be available at law or in equity, the other Party shall be entitled to seek injunctive relief (including temporary restraining orders, interim injunctions and permanent injunctions) in a court of competent jurisdiction in the event of the breach or threatened breach by such party of any of the confidentiality provisions of this Agreement. The relief contemplated in this Section shall be available to each Party without the necessity of having to prove actual damages and without the necessity of having to post any bond or other security. Each Party further agrees to notify the other Party in the event that it learns of or has reason to believe that any Person has breached the confidentiality provisions of this Agreement.

12. **LIMITATION OF LIABILITY.** The limitation of liability provisions of this Agreement reflect an informed voluntary allocation of the risks (known and unknown) that may exist in connection with the licensing of the Software or Documentation hereunder by Ross Video, and that voluntary risk allocation represents a material part of the Agreement reached between Ross Video and Licensee. Should Ross Video be in breach of any obligation, Licensee agrees that Licensee’s remedies will be limited to those set forth in this Agreement. No action, regardless of form, arising out of this Agreement may be brought by Licensee more than twelve (12) months after the facts giving rise to the cause of action have occurred, regardless of whether those facts by that time are known to, or reasonably ought to have been discovered by, Licensee.
- (A) EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, THE SOFTWARE AND DOCUMENTATION ARE PROVIDED “AS IS” AND ROSS VIDEO (I) MAKES NO OTHER REPRESENTATIONS, AND PROVIDES NO WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, STATUTORY, BY USAGE OF TRADE CUSTOM OF DEALING, OR OTHERWISE, AND (II) SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING ANY IMPLIED WARRANTY OF UNINTERRUPTED OR ERROR FREE OPERATION, MERCHANTABILITY, QUALITY OR FITNESS FOR A PARTICULAR PURPOSE. ROSS VIDEO DOES NOT REPRESENT OR WARRANT THAT THE SOFTWARE WILL MEET ANY OR ALL OF LICENSEE’S PARTICULAR REQUIREMENTS, THAT THE USE AND OPERATION OF THE SOFTWARE WILL OPERATE ERROR-FREE OR UNINTERRUPTED, THAT ALL PROGRAMMING ERRORS IN THE SOFTWARE CAN BE FOUND IN ORDER TO BE CORRECTED, OR THAT THE SOFTWARE WILL BE COMPATIBLE WITH OTHER PROGRAMS, SYSTEMS, AND HARDWARE.
- (B) IN NO EVENT SHALL ROSS VIDEO, ITS AFFILIATES AND LICENSORS, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS, BE LIABLE FOR ANY CLAIM FOR INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, AGGRAVATED DAMAGES; LOST PROFITS, OR LOST REVENUE ARISING FROM OR IN CONNECTION WITH THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, OR IN TORT, EVEN IF THE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
- (C) IN ANY EVENT THE AGGREGATE LIABILITY OF ROSS VIDEO, ITS AFFILIATES AND LICENSORS, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS, FOR ANY CLAIM FOR DIRECT DAMAGES WITH RESPECT TO THE SUBJECT MATTER OF THIS AGREEMENT SHALL NOT EXCEED THE AMOUNT OF THE PURCHASE PRICE PAID TO ROSS VIDEO UNDER THIS AGREEMENT.

13. TERM AND TERMINATION.

- (1) Unless terminated earlier in accordance with the terms of this Agreement, the term of this Agreement shall commence upon Licensee's first download, access, installation, or other use of the Software or Documentation and continues until, in the case of Software licensed with Designated Equipment provided by Ross Video, the earliest of (a) the end of the License Period, or (b) if the Designated Equipment is assigned or transferred in accordance with this Agreement, the date on which the Designated Equipment is no longer owned by Licensee;
- (2) Either Party shall have the right to terminate this Agreement on notice to the other Party if:
 - (a) the other Party fails to pay any fees or other amounts when due hereunder or under any other agreement between the Parties (or any Affiliates of the Parties, as applicable) in connection with the Software and/or Designated Equipment and such breach is not cured within thirty (30) days after written notice of such failure to pay is given to the defaulting Party by the non-defaulting Party;
 - (b) the other Party shall file a voluntary petition in bankruptcy or insolvency or shall petition for reorganization under any bankruptcy law, consent to an involuntary petition in bankruptcy, or if a receiving order is given against it under the *Bankruptcy and Insolvency Act* (Canada) or the comparable law of any other jurisdiction (and such is not dismissed within ten (10) days);
 - (c) there shall be entered an order, judgment or decree by a court of competent jurisdiction, upon the application of a creditor, approving a petition seeking reorganization or appointing a receiver, trustee or liquidator of all or a substantial part of the other Party's assets and such order, judgment or decree continues in effect for a period of thirty (30) consecutive days; or
 - (d) the other Party shall fail to perform any of the other material obligations set forth in this Agreement and such default, in the case of a default which is remediable, continues for a period of thirty (30) days after written notice of such failure has been given by the non-defaulting Party or, in the case of a non-remediable default, immediately upon notice.
- (3) Notwithstanding anything to the contrary contained in this Agreement:
 - (a) Ross Video may forthwith terminate this Agreement if Licensee is in breach of any of sections 3, 4 or 11 of this Agreement. For greater certainty, in such instances Ross Video shall provide written notice of such termination as soon as practicable but written notice shall not be a necessary prerequisite to such termination; and
 - (b) in the event of a Change of Control of Licensee, Ross Video shall have the right to terminate this Agreement and the License granted hereunder upon thirty (30) days' prior written notice to Licensee. For greater certainty, Ross Video's right to terminate in the event of a Change of Control of Licensee shall continue for a period of six (6) months from the date Licensee delivers notice of such Change of Control to Ross Video.
 - (c) Ross Video may terminate the License immediately on the date on which it provides notice to Licensee, if its agreements for Third Party Software are terminated.
- (4) Upon the termination or expiry of this Agreement:
 - (a) Licensee shall immediately cease and desist all use of the Software and Documentation;
 - (b) Licensee shall immediately deliver to Ross Video any of Ross Video's Confidential Information provided hereunder (including the Software and Documentation) then in its possession or control, if any, and shall deliver a certificate of an officer of Licensee certifying the completeness of same;
 - (c) Licensee shall refrain from further use of such Confidential Information; and
 - (d) Licensee shall forthwith pay all amounts owing to Ross Video or any of its Affiliates hereunder.
- 14. SURVIVAL.** The provisions of sections 1, 2, 6, 8, 9, 10, 11, 12, 13, 14, 17, 21, 22 and 23 herein shall survive the expiry or termination of this Agreement.
- 15. FORCE MAJEURE.** Dates and times by which Ross Video is required to render performance under this Agreement shall be automatically postponed to the extent and for the period that Ross Video is prevented from meeting them by reason of events of force majeure or any cause beyond its reasonable control provided Ross Video notifies Licensee of the commencement and nature of such cause and uses its reasonable efforts to render performance in a timely manner.
- 16. ASSIGNMENT.** Ross Video may assign this Agreement, or any of its rights or obligations hereunder, in whole or in part, upon notice to Licensee. Licensee shall not assign this Agreement, or any of its rights or obligations hereunder, in whole or in

part, without the prior written consent of Ross Video, which consent may not be unreasonably withheld. This Agreement enures to the benefit of and is binding upon each of the Parties and their respective successors and permitted assigns.

17. **GOVERNING LAW.** If Customer acquired the Ross Product(s) in the United States or Canada, the laws of the state or province where Customer's principal place of business is located govern the interpretation of this Agreement, claims for its breach, and all other claims regardless of conflict of laws principles. If Customer acquired the Ross Product(s) in the European Union or the United Kingdom, then the laws of England and Wales apply. If Customer acquired the Ross Product(s) in any other country, then the laws of the Province of Ontario, Canada shall apply.
18. **LANGUAGE.** The Parties have expressly required that this Agreement and all documents relating thereto be prepared in English. Les parties ont expressément exigé que cette convention ainsi que tous les documents qui s'y rattachent soient rédigés en anglais.
19. **GOVERNMENT CONTRACTS.** If the Software and/or Documentation to be furnished to Licensee hereunder are to be used in the performance of a government contract or subcontract, the Software and/or Documentation shall be provided on a "restricted rights" basis only and Licensee shall place a legend, in addition to applicable copyright notices, in the form provided under the applicable governmental regulations. For greater certainty, Ross Video shall not be subject to any flowdown provisions required by any customer of Licensee that is a Governmental Authority unless Ross Video expressly agrees to be bound by such flowdown provisions in writing.
20. **EXPORT AND IMPORT LAWS.** Licensee acknowledges and agrees that the Software (including any technical data and related technology) may be subject to the export control laws, rules, regulations, restrictions and national security controls of the United States and other applicable countries (the "**Export Controls**") and agrees not to export, re-export, import or allow the export, re-export or import of such export-controlled Software (including any technical data and related technology) or any copy, portion or direct product of the foregoing in violation of the Export Controls. Licensee hereby represents that it is not an entity or person to whom provision of the Software (including any technical data and related technology) is restricted or prohibited by the Export Controls. Licensee agrees that it has the sole responsibility to obtain any authorization to export, re-export, or import the Software (including any technical data and related technology), as may be required. Licensee will defend, indemnify and hold Ross Video harmless from any and all claims, losses, liabilities, damages, fines, penalties, costs and expenses (including attorney's fees) arising from or relating to any breach by Licensee of its obligations under this Section.
21. **AMENDMENT AND WAIVER.** No amendment, discharge, modification, restatement, supplement, termination or waiver of this Agreement or any Section of this Agreement is binding unless it is in writing and executed by the Party to be bound. No waiver of, failure to exercise or delay in exercising, any Section of this Agreement constitutes a waiver of any other Section (whether or not similar) nor does any waiver constitute a continuing waiver unless otherwise expressly provided.
22. **SEVERABILITY.** Each Section of this Agreement is distinct and severable. If any Section of this Agreement, in whole or in part, is or becomes illegal, invalid, void, voidable or unenforceable in any jurisdiction by any court of competent jurisdiction, the illegality, invalidity or unenforceability of that Section, in whole or in part, will not affect (a) the legality, validity or enforceability of the remaining Sections of this Agreement, in whole or in part; or (b) the legality, validity or enforceability of that Section, in whole or in part, in any other jurisdiction.
23. **ENTIRE AGREEMENT.** This Agreement, and any other documents referred to herein, constitutes the entire agreement between the Parties relating to the subject matter of this Agreement and supersedes all prior written or oral agreements, representations and other communications between the Parties.

CARBONITE UltraA

MID-SIZE PRODUCTION SWITCHER.

UltraA

CARBONITE

CARBONITE

ROSS[®]

LIVING LIVE!

CARBONITE Ultra

MORE POWERFUL, MORE COMPACT AND MORE AFFORDABLE THAN EVER. Carbonite Ultra uses the latest technology to distill the best of the Carbonite production switcher series into a single, next-generation platform.



PRODUCTION WIZARDRY.

WHAT IS PRODUCTION WIZARDRY?



THE BIGGEST 1RU PRODUCTION SWITCHER EVER

Carbonite Ultra's 1RU chassis packs up to 3 full MEs & 4 built-in MiniMEs, equivalent to a 7ME switcher with 20 key channels.



MORE AFFORDABLE THAN EVER

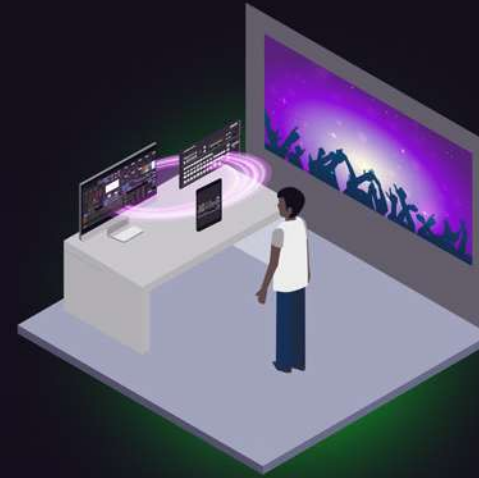
With a starting price of \$10,900*, Carbonite Ultra reduces the cost of the essential Ross mid-size production switcher feature set by a huge margin.*

*USA pricing, international pricing will vary.



ENGAGING MEDIA RICH PRODUCTIONS

Boost your visuals with full-length video clips, animated logos, lively media-effect transitions, and great-looking still graphics. Carbonite Ultra includes a dedicated single-channel USB media player, 4 key+fill MediaStores and XPression LiveCG graphics software.



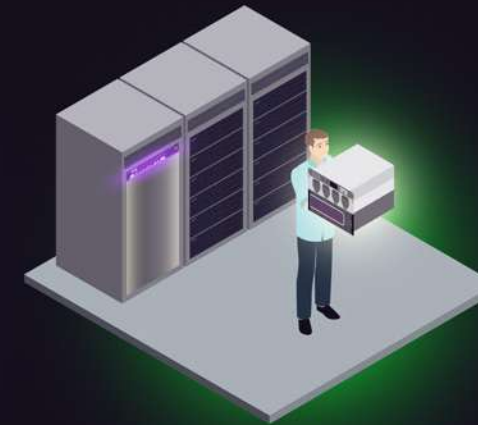
CREW FOR YOUR PRODUCTION. NOT YOUR GEAR.

A full suite of user-tailored control interfaces – ergonomic switcher panels, custom-programmed software interfaces, and touchscreen control – make it easy to hire and retain operations staff.



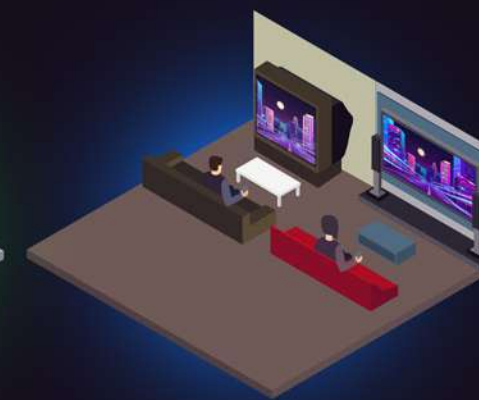
ADVANCED FEATURES, ALWAYS AVAILABLE

Every part of this production switcher is backed by dedicated hardware. Engage all the resources you need for a stunning production, without any trade-offs or surprises.



THE VIDEO ENGINEER'S SWISS ARMY KNIFE

Handle wild signals, mixed video formats and extensive production monitoring from a single box. Configure your Carbonite Ultra system with full I/O signal processing resources and up to 4 MultiViewers, and be ready for anything a production can throw at you.



MAXIMUM QUALITY VISUALS

Support for HDR and WCG formats, along with bi-directional format conversion and quick-select colour temperature presets.



WISE INVESTMENT FOR THE 12G/UHD FUTURE

Major 12G/UHD Feature set that can't be matched by other mid-size production switchers.



SOFTWARE-DEFINED MAGIC

Carbonite Ultra isn't just a production switcher, it's a software-defined live production engine. A product that remains cutting-edge for years to come, that's the magic of going Ross.

7ME ROSS PERFORMANCE

1-3 Full MEs

Major effects and keying power in every ME. Carbonite Ultra's main MEs have 5 powerful keys: 4 for luma, linear, chroma and DVE key types - and a 5th for dedicated transition keyer for DVE and MediaWipe transitions. Each ME also contains 2 advanced pattern generators for wipes, pattern masks and color washes. Clean feed outputs are available for every ME.

4 Built-in MiniMEs

MiniMEs aren't so mini anymore. Carbonite Ultra's MiniMEs function exactly like full next-transition / preview MEs, with 2 full function keyers and full look-ahead preview. MiniMEs are great for pre-branding inputs, pre-building a chroma key, or putting an overlay on a DVE key-heavy ME output.

Total Layering Freedom

Compose MEs and MiniMEs anyway you desire. Carbonite Ultra isn't restrained by a fixed signal flow. Use your switcher resources in the way that best suits your final program output.

8 Floating DVEs

Each channel of floating DVE is accessible to any ME or MiniME in the system, making it easy to compose multi-box shots where you choose.

3D Borders with Lighting and Shadows

Add cool borders with perspective, lighting and shadows to your production for maximum visual impact. Available on every DVE channel in all MEs and MiniMEs.

Monitor Everything

In today's live productions, you have to deal with multiple sources, multiple outputs and lots of different destinations. Carbonite Ultra can be configured with up to 4 MultiViewers for viewing of up to 64 independent video channels, to give you the extensive monitoring you need:

16-window MultiViewers

- 2 I/O MultiViewers: Monitor the physical inputs and outputs of the switcher.
- 2 System MultiViewers: Monitor anything - ME outputs, keyer outputs, MediaStores, chroma keyers, anything.
- 2 MultiViewers (1 of each) are included as standard, the 2 additional MultiViewers are available via software license.

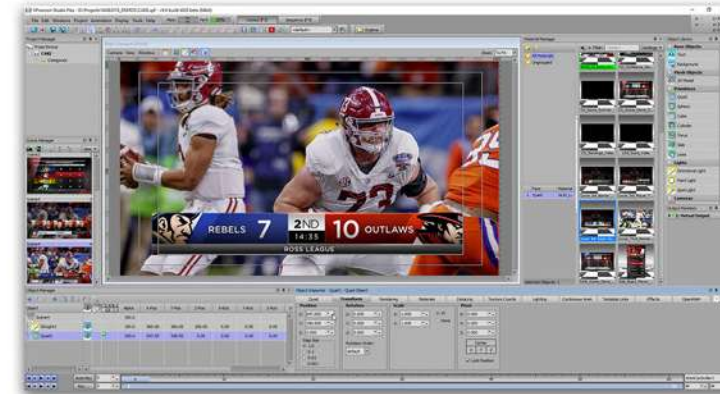
Each MultiViewer has user-selectable layouts with the individual choice of border tally and UMD label display for each source. In addition, a user-configurable clock can be sized and positioned anywhere on the MultiViewer screen.





Sounds as Good as it Looks

Professional Audio Mixing built right inside. With 384 input channels and 13 x 48 channel stereo mixers you can produce pristine sound in tandem with those great looking visuals. Audio sample rate conversion, embed/disembed, EQ, Limiting and Compression come right along with Ultra's powerful RAVE audio license. You can even add up to 24 mic inputs with the optional audio breakout boxes.



CREATE YOUR LOOK

USB Media Player

When operating in SD or HD production formats, Carbonite Ultra offers a dedicated single-channel clip player for playout of compressed MPEG-4 AVC media directly from a connected USB-media drive. Load media files onto a USB drive, plug it into Carbonite Ultra and playback full-length video clips as part of your production - with clip audio readily-available to your audio mixer via Carbonite Ultra's assignable AES audio outputs. Assign the internal clip-player to any bus in the switcher and control playout from a dedicated DashBoard interface, Custom Controls, or AMP commands. This is a Ross-exclusive feature not found in any other production switcher on the market.

4 Key + Fill MediaStores

Incorporate stills, logos, and animated graphics in virtually any common file format. Each of the 4 MediaStore channels handles key+fill media with audio, with support for standalone WAV files for audio effects and music beds. All MediaStores are available switcher-wide as a source or key, while the 8GB cache of MediaStore is manageable from the highly-visual and intuitive MediaManager interface.

Included XPression LiveCG

Includes high-end XPression LiveCG still graphics software. XPression is one of the industry's leading graphics packages, used in major live broadcasts across the world. From an Ethernet-connected laptop, XPression LiveCG renders still graphics directly into the switcher MediaStores for use in your production.



BRILLIANCE IN ANY APPLICATION

Leading-Edge Chroma Keying

Carbonite Ultra's UltraChrome chroma key technology is simply stunning in virtual set productions. After several years of development, we've created a chroma key that rivals the quality of an external chroma keyer. Unique quality-of-life features like soft-edge masks and auto-image analysis make it easy to setup quickly and get the best results from your green screen.

Large & On-Set Display Processing

Carbonite Ultra's 4 MiniMEs form the foundation of Carbonite Ultra's Multi-Canvas Display Processing, for high-quality video scaling across large or multi-screen displays. Each MiniME becomes a scaler-tile for creation of composited canvas images across multiple screens. Normally you need an external display controller, but this functionality is built right into Carbonite Ultra.

MiniMEs are also great as on-set display outputs, with access to format conversion and colour correction resources to nail the on-set look.

Post Production Assistance

LiveEDL is a tribute to the people who've spent tons of time in the post-production process. The LiveEDL feature creates an edit decision list based on your timecode input, recording every source cut and transition. When your event is over, take that EDL file and plug it into your non-linear editing suite and camera ISOs to recreate the event exactly as you cut it (and correct those small mistakes and bad cuts). With LiveEDL you can recreate your productions in a fraction of the time.

LIGHTNING-FAST OPERATION

Custom Control Timelineable Macros

Condense multi-step events - including internal switcher resources and external gear - into a single-button push with Carbonite Ultra's powerful custom control macros. Record events, recalls, pauses, holds and control devices directly from a Carbonite Black panel or Dashboard GUI - and edit your macro timeline as needed.

Memories

Patented Memory AI Recall mode to automatically assign free resources to create the Effect in Preview without breaking Program no matter what resources were used in the memory. The memory system of a big production switcher with a vast level of creative control. Take a snapshot of everything going on in the switcher - ME sources & key settings, PGM & preview channels, DVE scales and positions, chroma keys, Mediastore settings and more - and recall the specific elements you want. Carbonite Ultra's granular memory gives you tons of flexibility in how you put together your show. Truly masterful live production maneuvers are achievable by tethering memory recalls and custom control macros.

EDITOR
For editor and RS-422 control

ETHERNET CONNECTIVITY
For panel connections and use with ViewControl, DashBoard LiveAssist, XPression LiveCC, LiveEDL, FTP, browser-based GUI, diagnostics and more!

TALLY & GPIO INTERFACE
• 24 Contact Closure Tallies
• 24 GPIO individually selectable to input or output

TIME CODE INPUT
For use with LiveEDL, to generate an EDL file for post-production suites

AES DIGITAL AUDIO OUTPUTS
For audio assignable outputs from RAVE audio engine.



OPTIONAL REDUNDANT POWER
Compatible with standard or Ultripower rackmount power supply. Power both Carbonite Ultra and Ultrix Routers from a single Ultripower unit.

BUILT-IN REFERENCE GENERATOR
• Black Burst or Tri-Level sync input
• Black Burst output is configurable for H/V offset from input reference

4 MULTIVIEWER OUTPUTS
• 4 x 16 window MultiViewer outputs
• 2 outputs in 12G/UHD mode

10 CONFIGURABLE OUTPUTS
• Supporting SD/HD/3G
• 10 outputs in 12G/UHD mode

24 INPUTS
• Supporting SD/HD/3G
• 18 inputs in 12G/UHD mode

FrameGlow

Customize the look of your switcher with a programmable RGB LED bar, because there's no reason live productions can't look cool behind the scenes. FrameGlow also provides at-a-glance diagnostics such as boot-up cycle, upgrade progress and temperature/status alerts.



CREW FOR YOUR PRODUCTION

Carbonite Ultra makes you productive immediately with a range of control choices for operators of any caliber:

Compatible with the wide range of Carbonite Black panels. Super-ergonomic design with a dedicated button for every function and the legendary Ross fader bar. Operators simply love Carbonite Black panels for their speed and efficiency.

CARBONITE BLACK 1S

- 24 Button 1 ME Row
- Effects Memory Control



CARBONITE BLACK 3S

- 24 Button 3 ME Row
- Effects Memory Control



CARBONITE BLACK 1

- 16 Button 1 ME Row
- Global Memory Control



CARBONITE BLACK 2

- 16 Button 2 ME Row
- Global Memory Control



CARBONITE BLACK 2S

- 24 Button 2 ME Row
- Effects Memory Control



CARBONITE BLACK 3X

- 32 Button 3 ME Row
- Effects Memory Control



SOLO CB9

- 9 Button 1 ME Row
- Global Memory Control

MULTI-PURPOSE BUTTONS

- Quickly select patterns, DVE effects, memories, media, or menu functions

POWERFUL MACRO EDITING

- Easy to create, amazing to use

KEY TYPE SELECTIONS

- Choose between self-keying, linear keying, chroma keying, and DVE picture in picture keying

TOP BUS DELEGATION

- Reassign the top bus to keyer, AUX bus, or macro recall control

SOURCE MNEMONICS

- Name sources, select text size, choose color and even invert

MACRO NAMES

- Give macros names for worry-free recall during live productions

PANEL GLOW

- User-adjustable for various lighting environments

DIRECT ACCESS TO MEMORIES

- MemoryAI™ Recalls make for impressive productions

HIGHLY VISIBLE MENU

- Intuitive auto-follow menu

ME EFFECTS MEMORY CONTROL

- Instant access to individual ME effects memories.

HIGH END 3-AXIS JOYSTICK

- Position wipes, patterns, washes, camera control and DVE effects

LEGENDARY ROSS FADER

- Robust and Guaranteed for Life

DEDICATED CUT AND AUTO TRANS BUTTONS

- Rapid live keyer control

SOURCE MNEMONICS

- Show current source names for every keyer

ADVANCED TRANSITION TYPE SELECTION

- Choose from dissolve, wipe, DVE, and MediaWipe™ Transitions

TRUE NEXT TRANSITION AREA

- Rapid selection of all keyers with full preview

SELECTION CONTROL

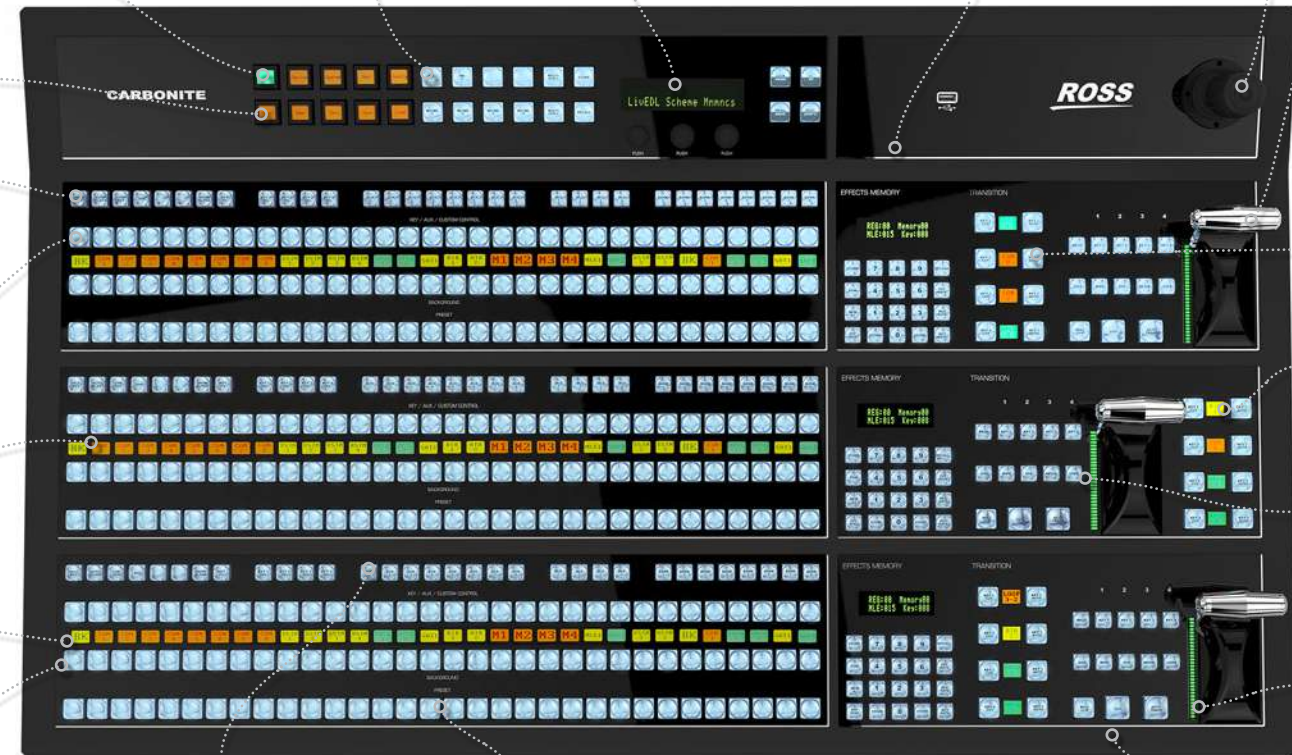
- Configurable AUX, ME, MiniME & MultiScreen control selection

16 / 24 / 32 WIDE SELECTOR BUS

- (Depending on panel) 32 wide on Carbonite Black 3X
- Access to every internal and external source in the switcher

ROLL CLIP

- Automatically roll a clip cued on Preview bus with next transition





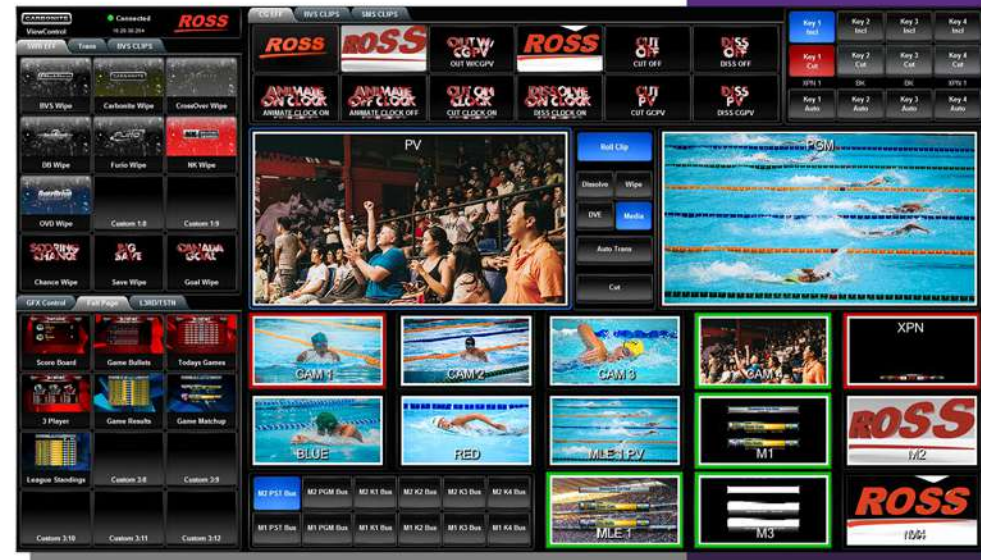
DashBoard SoftPanel



DashBoard CustomPanel



DashBoard Audio Mixer Panel



ViewControl



Ultritouch Panel

DASHBOARD

Fully-integrated with the DashBoard control ecosystem, the open control platform that makes Ross solutions so well-integrated and unique. With the DashBoard software application you can setup, configure and operate Carbonite Ultra from any computer with a network connection.

DashBoard allows you to rethink the traditional method of operating equipment and to create something much more efficient for your unique workflow. DashBoard is:

- A central component of Ross solutions
- Third-party friendly with numerous devices that don't have a Ross label.
- Open, programmable, and customizable to your workflow
- Downloadable from the Ross website
- Something you can master on your own
- Something we can help you with

Once you get started with custom-tailored control, you're going to be producing shows at a quality and speed you never thought possible.

RAVE AUDIO MIXING

Comprehensive control over the RAVE audio mixers, assign sources and outputs, manage EQ, Compression and Limiting. Connect hardware control panels via Midi Control Protocol.

VIEWCONTROL TOUCHSCREEN INTERFACE

A great choice for single operator production. The ViewControl touchscreen interface combines a live MultiViewer with DashBoard control software for self-directed production. Control your switcher, graphics system, video servers, audio devices and more - from a live touchscreen surface.

ULTRITOUCH SYSTEM CONTROL & MONITORING PANEL

Ultritouch is an adaptable touchscreen control and monitoring system, which leverages DashBoard PanelBuilder technology for creation of custom-programmed interfaces that streamline control of your show. Direct integration between Ultritouch and Carbonite Ultra make it easy to get started with purpose-built menu layouts which include: Status, Bus Assignment, Custom Control Shotbox and more.

VIDEO THE WAY YOU NEED IT.

Handle wild signals, mixed video formats, and differing video colour with a full toolkit of video processing resources. Carbonite Ultra ensures you're ready for anything a live production can throw at you with a single-box solution.

Carbonite Ultra includes 8 swappable and freely-assignable video processing resources as standard:

Input Frame Syncs

Make sure all your gear is on the same page with frame synchronization resources.

Input/Output Format Converters

Match external video sources to your native production format and tune video outputs to the necessary receiving-end format.

Input/Output Proc Amps and Colour Correctors

Apply all video corrections needed to external sources. Great for tuning onset monitors so video on the monitor will match the direct source!

For productions with serious video processing requirements, Carbonite Ultra can be outfitted with the PLUS I/O license for dedicated processing resources on every input and output.

Standalone Reference Generator

While Carbonite Ultra accepts a reference input, this production switcher can act as a standalone reference generator – great for syncing up gear in a small flight-pack or mobile application.

High Dynamic Range (HDR) & Wide Colour Gamut (WCG)

Carbonite Ultra's 10-bit SDI infrastructure handles HDR and WCG video with ease. In SD & HD formats, Carbonite Ultra can bi-directionally convert between HDR-HLG & SDR video. In UHD formats, Carbonite Ultra can convert between SDR video and a variety of HDR formats such as HLG, PQ, and S-LOG3. Carbonite Ultra also supports bi-directional WCG conversion (Rec.709 <=> Rec.2020) when operating in UHD. HDR and WCG technology is a great way to affordably improve the quality of image delivered to your audience and presents exciting opportunities for re-thinking traditional set lighting.

In UHD formats, Carbonite Ultra is the same flexible and easy-to-operate switcher you know and love!

12G/UHD PRODUCTION SWITCHER

Carbonite Ultra offers a 12G/UHD production switcher feature set that is unlike anything you've ever seen in a mid-size class production switcher:

- 2160p 23.98/24/25/29.97/30/50/59.94/60
- 18 x 12G inputs or 16 x 12G & 2 Quad-Link 2SI inputs
- 10 x 12G outputs
- 1 full ME standard - 2nd ME requires license
- 2 UHD MiniMEs
- 2 UHD channels of DVE
- 2 UHD channels of MediaStore with Key+Fill
- 2 UHD chroma keys
- Up to 2 MultiViewers (1080P) – 2nd MultiViewer requires license

UHD Video Processing Resources

The standard Carbonite Ultra configuration provides:

- 2 Frame Sync/Format Converters – assignable to any input or output
- 2 Proc Amps / Colour Correctors – assignable to any input or output

The PLUS I/O license provides more video processing resources in UHD:

- 7 frame sync / format converter – assignable to any input
- 1 input format converter assignable to any input
- 4 Format Converters – assignable to any output
- 8 Proc Amps / Colour Correctors – assignable to any input or output

12G/UHD/HDR



CONFIGURATIONS & OPTIONS

Carbonite Ultra makes insane mid-sized production horsepower more affordable than ever.

Build Your Carbonite Ultra

FEATURE	DESCRIPTION
CUF-124	Base unit, 1 ME, 4 MiniMEs, 8 2D DVEs, 8FSFC+ (Frame Syncs/Format Converters, Proc Amps/Colour Correctors)
CUF-ADD-ME2	Adds ME 2 option to the CUF-124 engine. Enables UHD ME1
CUF-ADD-ME3	Adds ME3 option to the CUF-124 engine. Enables UHD ME2
CUF-ADD-MV2&4	Adds MultiViewer 2 & MultiViewer 4 to the CUF-124 engine – each with 45 layouts to choose from, with up to 16 windows: <ul style="list-style-type: none"> Includes 1 additional System MultiViewer (MV 2) with access to all physical I/O, internal sources and internal buses. Includes 1 additional I/O MultiViewer (MV 4) with access to all physical inputs and physical outputs Enables 2nd MultiViewer in UHD mode
CUF-ADD-I/OPLUS	Add FSFC+ to all inputs and outputs: <ul style="list-style-type: none"> Standard system includes 8 assignable FSFC+. Option enables a total of 34*** when operating in HD/SD formats. Increases processing resource in UHD mode: 7 input frame syncs, 8 input format converters, 4 output format converters, 8 freely-assignable proc amps / colour correctors
CUF-PSU	Standard Power Supply
CUF-RACKPWR	Ultrapower 1RU Redundant Rackmount Power Supply: <ul style="list-style-type: none"> Can power multiple Carbonite Ultra and Ultrix Router frames simultaneously
CUF-HDBNC-BNC	HDBNC to BNC kit with 8 cables: <ul style="list-style-type: none"> Kit includes 8 x 1-foot HDBNC to BNC cables Ultra has 40 total HDBNC I/O 5 kits required for conversion of all HDBNC I/O
CUF-RAVE-AUDIO	Adds Rave Audio engine with Sample Rate Conversion.
GRAPHITE-1RU-AUDBKM	RAVE 1RU Audio Breakout Module

*** RAVE Audio - Input Sample Rate Conversion reduces HD FSFC+ to 24 inputs and 2 outputs



PART OF THE ROSS PRODUCTION ECOSYSTEM

RAVE Audio Breakout Box

With the addition of up to 3 optional audio breakout panels, RAVE gains access to discrete Analog and Digital audio I/O with microphone pre-amps and phantom power.

XPression Motion Graphics

Take your production to the echelon of top Hollywood productions, pro-sports teams, and television networks – with XPression motion graphics. XPression and Carbonite Ultra are the most effective graphics/switcher combo you can work with in a live production, thanks to smart RossTalk protocols. XPression is available in a variety of configurations to suit any budget or application.

Tria Production Servers

Available in a wide array of channel-counts, storage capacities, and price points - Tria production servers meet the artistic demands of live program creation with clips, finished video segments and animated switcher transitions. Tight integration with Carbonite Ultra via AMP control protocol makes it easy to control Tria playout and ingest entirely from the switcher.

Mira Replay Systems

Producing instant replay of live-televised sporting events is always a fast-paced and demanding endeavor. The Mira Replay line makes it easy with operator-minded control, reliable hardware and streamlined file workflows.

RCP Ethernet Aux Panels

Simple and cost-effective remote control panels that are ideally-suited for XY or cut-bus control applications. The RCP-ME model includes 40 soft, fully programmable back-lit keys for convenient function key layout, while the RCP-QE series offers greater ease of use with programmable LED button labels - available in 18 or 36 button models.

Ultritouch Control Panel

Shallow 2RU or 4RU rack-mountable touchscreen that combines the customization power of DashBoard with smart-phone-like functionality. Make Carbonite Ultra part of a custom Ultritouch interface or monitor & control the switcher from an intuitive touchscreen system.

PIVOTCam PTZ

An excellent choice for highly-repeatable productions. PIVOTCam is a quality-image camera with quiet, accurate PTZ functionality. Mark your preset shot positions and recall them in an instant from a Carbonite Black panel, while making any necessary PTZ fine-tuning from the panel joystick. Like all Ross products, PIVOTCam is tightly-integrated with DashBoard for total production control.

SPECIFICATIONS

CARBONITE ULTRA FRAME / OPERATIONAL FEATURES

CARBONITE ULTRA FEATURE	DESCRIPTION
MULTI-DEFINITION INPUTS	24 SDI inputs (HDBNC)
MULTI-DEFINITION OUTPUTS	14 SDI outputs (HDBNC) 10 configurable, 4 MultiViewer only
MIX EFFECT BUSES (MEs)	Configurable with up to 3 MEs, each with 4 full function keyers + transition keyer for animated MediaWipes and DVE transitions. Ships with 1ME as standard and is configurable with MEs 2 and 3 via software license.
MINIME EFFECT BUSES	4 MiniMEs, each with 2 full function keyers, independent mixer and preview bus. All 4 MiniMEs are included as standard with every system.
CHROMA KEYERS	4 floating UltraChrome chroma keyers can be utilized by any keyer in the system
DVES	8 floating DVES can be utilized by any keyer in the system
USB MEDIA PLAYER	The USB media player allows for playback of ITU-T H.264 (MPEG-4 AVC) codec video clips when operating in SD/HD video formats. Video clips must be formatted into a 1280x720 resolution for use in the clip player, while the required clip frame rate is determined by the operating video format of the production switcher.
STILLS & ANIMATIONS	4 Channels of MediaStore with a total storage capacity of 8 GB. Each channel can render stills and animations with alpha. Supports animations with audio or audio-only playback. Files can be directly rendered to the MediaStores via Ethernet.
SUPPORTED MEDIA FILE TYPES	Stills: .BMP Stills & Animations: .JPG & .JPEG (no Alpha), TGA & PNG (with Alpha & 48K WAV audio files)
GRAPHICS SOFTWARE	Included XPression LiveCG software creates still graphics from a network-connected PC workstation and renders directly into MediaStores via IP.
PATTERN GENERATORS	2 per ME
EFFECTS & TRANSITIONS	Support for standard transitions along with Animated MediaWipes with audio and overlay effects on main MEs. Dissolve transitions are available to MiniMEs.
MEMORIES	100 Memories per ME and MiniME per Show File. Multiple show files can be stored on the USB drive. Effects memory functionality allows for animated memory recalls, while MemoryAI ensure memory recalls will not adversely affect what is currently on-air.
CUSTOM CONTROL MACROS	Up to 256 Custom Controls can be created in DashBoard or from the Control Panel surface.
INPUT / OUTPUT PROCESSING	Equipped with 8 FSFC+ that can be assigned to any input or output. Each FSFC+ offers Frame Syncs for inputs - along with Color Correction, Proc Amps and Format Conversion for inputs and outputs. Optional FSFC+ on every input and output via software license.***
MONITORING	Offers up to 2 System MultiViewers and 2 dedicated I/O MultiViewers. Ships with 1 I/O MultiViewer & 1 System MultiViewer as standard, additional I/O and System MultiViewers via software license.
RAVE AUDIO ENGINE (OPTIONAL)	384 input channels (embedded SDI), Main 48 channel stereo mixer, 12 x 48 channel stereo AUX mixers,
RAVE AUDIO SRC (WITH RAVE OPTION)	Audio Sample Rate Conversion available on all Inputs***
RAVE AUDIO BREAKOUT EXTERNAL BREAKOUT UNIT (OPTIONAL)	8 Analog / Microphone Inputs, 5 Analog Outputs, 1 AES Input, 1 AES Output

*** RAVE Audio - Input Sample Rate Conversion reduces HD FSFC+ to 24 inputs and 2 outputs

CARBONITE ULTRA FEATURE Con't	DESCRIPTION
DEVICE CONTROL	Includes device control for Video Servers, XPression Graphics, Robotics, PBus, GPO, Trackless Virtual Sets and PTZ Cameras.
IP, SERIAL AND PARALLEL TALLY	24 Contact Closure Tallies
GPI/O	24 GPI/O connections
AES DIGITAL AUDIO	2 AES digital audio outputs
TIME CODE INPUT	For use with MultiViewer System Clock and Live EDL Feature
ETHERNET PORTS	1 Ethernet port
REFERENCE INPUT & OUTPUT	Black or Tri-Level - Output is configurable for H/V Offset from Input Reference or internally generated
EDITOR / SERIAL TALLY PORT	1 (RS-422)
EDIT DECISION LISTS	LiveEDL can capture EDL data in a file that you load into your non-linear editing (NLE) suites

12G/UHD FEATURES

12G / UHD FEATURES	DESCRIPTION
12G SDI INPUTS	18 x 12G Inputs or 16 x 12G & 2 Quad-Link 2SI Inputs
12G SDI OUTPUTS	12 x 12G Outputs (10 configurable, 2 MultiViewer only)
MIX EFFECT BUSES (MEs)**	1 or 2 UHD MEs, each with 4 full function keyers + transition keyer for MediaWipes and DVE transitions
MINIMES	2 UHD MiniMEs, each with 2 full function keyers, independent mixer and preview bus.
CHROMA KEYERS	2 floating UltraChrome chroma keyer can be utilized by any keyer in the system
DVES	2 floating DVES can be utilized by any keyer in the system
STILLS & ANIMATIONS	2 Channels of MediaStore with Key+Fill
MONITORING	Up to 2 MultiViewers (1080P) - 2nd MultiViewer available via software license.
INPUT / OUTPUT PROCESSING	Standard UHD Video Processing: <ul style="list-style-type: none"> • 2 Frame Sync / Format Converters - assignable to any input or output • 2 Proc Amp / Colour Correctors - assignable to any input or output PLUS I/O Video Processing: <ul style="list-style-type: none"> • 7 Frame Sync / Format Converters - assignable to any input • 1 Input Format Converter • 4 Format Converters - assignable to any output • 8 Proc Amps / Colour Correctors - assignable to any input or output

*12G/UHD Operation Mode requires the standard ADD-ME2 license

**UHD ME1 requires standard ADD-ME2 license / UHD ME2 requires standard ADD-ME3 license

SIGNAL PROCESSING STANDARDS

FORMAT	LINE/ FRAME RATES
STANDARD DEFINITION	480i/59.94 - 4:3 and 16:9 576i/50 - 4:3 and 16:9
HIGH DEFINITION	720p & 1080i 50/59.94 1080pSF 23.98/24/25/29.97/30
3G 1080P	1080p 23.98/24/25/29.97/30/50/59.94/60
12G UHD	2160p 23.98/24/25/29.97/30/50/59.94/60 (Available with ADD-2ME license)

CONTROL INTERFACES

CONTROL INTERFACES	
Carbonite Black Control Panels	✓
DashBoard LiveAssist	✓
ViewControl Touchscreen Interface	✓

CARBONITE BLACK CONTROL PANELS

KEY FEATURES	SOLO CB9	CB1	CB1S	CB2	CB2S	CB3S	CB3X
DIRECT ACCESS CROSSPOINT BUTTONS	9	16	24	16	24	24	32
NUMBER OF ME ROWS	1	1	1	2	2	3	3
ME EFFECTS MEMORY KEYPAD	No - Global only	No - Global only	1 per ME + Global	No - Global only	1 per ME + Global	1 per ME + Global	1 per ME + Global
THEME-ABLE PANEL GLOW RGB BUTTONS	✓	✓	✓	✓	✓	✓	✓
8 CHARACTER INPUT AND KEY SOURCE COLOR MNEMONICS	X	✓	✓	✓	✓	✓	✓
CUSTOM CONTROL MACRO BUTTONS WITH SPLIT ROW MNEMONICS	72 (No Mnemonics)	128	192	128	192	192	256

POWER SUPPLIES

UNIT	DESCRIPTION
Standard Power Supplies	Standard brick-style power supplies, with support for dual-unit redundant power.
Ultrapower Rackmount Power Supply	Ultrapower is a 1RU rackmount power supply that can simultaneously power multiple Ultrix routers and Carbonite Ultra chassis. In environments where equipment ruggedness, security, and maximum space saving is critical, Ultrapower is a great fit. Perfect for flypacks, OB production, or equipment rooms where rack space is at a premium.

CARBONITE Ultra

Ross Video has a complete range of technical services available to ensure that your Carbonite Ultra installation is a success.

Operational Training can be provided at Ross Video, on-site or on the web. Experienced Ross operators will teach your staff to get the most out of your new system, and enhance your productions.

Commissioning is a service to help get your switcher properly configured, connected and installed. This service is performed by factory trained Ross technical staff.

Technical Training can be provided at Ross Video, on-site or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

Carbonite Ultra comes standard with a 1 year comprehensive warranty. **Extended Warranties** on hardware and software maintenance are available for an annual fee.

Technical advice is available on-line, by telephone, or email to Ross Video – **Included for the life of your system.**

Contact Us

North America: 1-844-652-0645
Global: +800 1005 0100
Email: solutions@rossvideo.com

Technical Support
Emergency: +1 613 349-0006
Email: techsupport@rossvideo.com



www.rossvideo.com

ROSS VIDEO PRODUCTION TECHNOLOGY AND SERVICES

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Control Systems
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Media Asset Management & Storage

SERVICES

Creative Services
Mobile Production

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Carbonite Ultra_Brochure_200706_a

ROSS[®]
LIVING LIVE!

TD | TOUCH
DRIVE

TD | TOUCH
DRIVE
FEEL THE DIFFERENCE



ROSS

EVOLUTION, NOT REVOLUTION

TouchDrive™ is another step in the success story that is Carbonite. As production requirements have grown, Carbonite has evolved to keep pace. TouchDrive™, the latest step in this evolution, is a tribute to the feedback from thousands of Technical Directors and Vision Mixers around the world.





PRODUCTION CONTROL REDEFINED

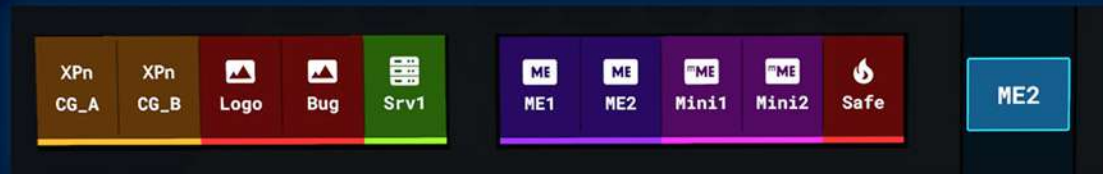
Complemented by Touch

Modern production switchers are more powerful and feature-rich than ever, and they require control panels that provide access to these functions efficiently. Rather than complicating operations, we have designed a control panel that provides access to these functions in a clear and concise manner. Every hi-res LCD display uses touch technology that keeps the panel footprint manageable and greatly enhances efficiency.

- Gestures - Swipe to select functions and parameters
- TouchMap™ - Create bus maps with absolute ease
- Memory Inclusions - Know which ME/MiniME/Canvas are included in the memory recall
- Instant visual feedback enhances operator confidence

Clear Visual Cues

Using a combination of rich color, clear text and touch displays, TouchDrive™ provides you with all the pertinent information you need during production. Whether you are configuring bus maps, assigning button functions, delegating key buses or selecting your next transition type, you can operate with absolute confidence.



OPERATIONAL EFFICIENCY

Surprisingly Familiar

Despite its many innovations and improvements, if you have switched on a Carbonite or Carbonite Black panel, you will feel right at home on TouchDrive™. It gives you what you are used to, and so much more. We wanted to be sure our thousands of loyal customers would still enjoy the “Carbonite experience”.

Built-in DashBoard

A separate DashBoard computer is no longer required. An optional industrial grade 15.6” touchscreen is available that draws power directly from the panel for simpler cabling.

Unprecedented Control

DashBoard provides tight integration between TouchDrive™ and all your other production devices. The Live Assist DashBoard screen auto follows panel operations. TouchDrive™ does not just control your switcher – it allows you to have the entire production at your fingertips.

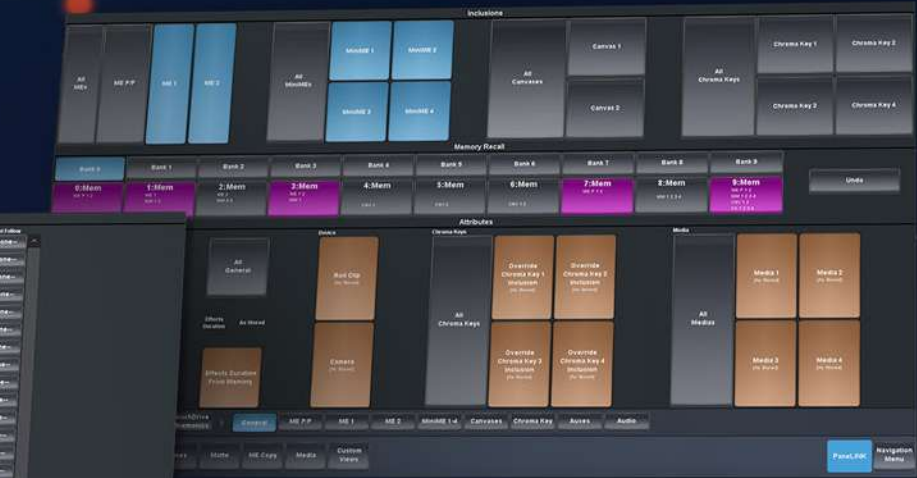
With TouchDrive™, you can playout XPression graphics, trigger Tria+ clips or switch Ultrix crosspoints with ease. In fact, virtually any device can be controlled by DashBoard and integrated into TouchDrive™. This unprecedented consolidation of device control is simple and efficient – another Ross innovation.



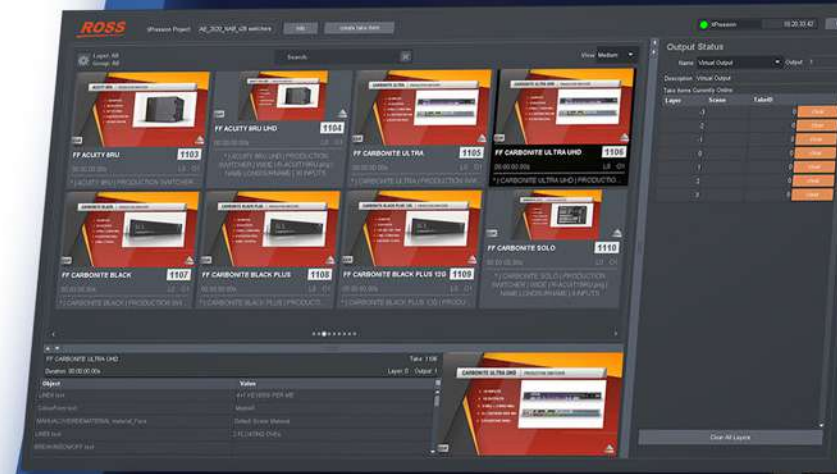
SOFTPANEL



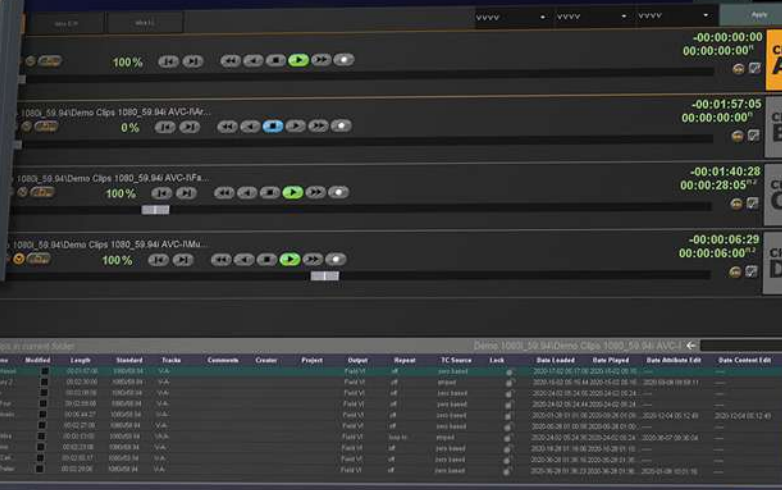
INPUT CONFIGURATION



MEMORIES



XPRESSION



TRIA+



ULTRIX

KEY BENEFITS



CREATIVE

TouchDrive™ allows you to produce your shows confidently, with controls that augment your capabilities instead of getting in your way.

High-resolution, rich color touch displays provide clear visual cues, boosting your confidence during operation. The ergonomic design reduces fatigue so you can focus your energy on producing a dynamic show.

With easily accessible Custom Control macros, auto-follow DashBoard panels, and tightly integrated device controls, complex production operations are easily accomplished with TouchDrive™.



BUSINESS

Improved operational efficiency and reduced setup time will boost revenue while keeping costs down.

TouchDrive™ comes in various panel sizes, from the ultra portable TD1C to the uncompromising TD3S. Choose the right one for your budget and production requirement.

TouchDrive™ works with Carbonite Ultra, Carbonite Black and Graphite systems, making it a sound investment for today and tomorrow.

Enjoy peace of mind as TouchDrive™ is backed by Ross Video's industry-leading support.



TECHNICAL

TouchDrive™ is easy to set up and operate. The panel's built-in DashBoard eliminates the need for an external computer system.

Intuitive interfaces and auto-follow menus make it easy for operators of all levels. Confidently control the video switcher and other devices such as Tria video servers and XPression graphics systems. This allows confident delivery of complex, multi-device driven productions.

If you require assistance, technical support by phone or email is available 24/7, and it is free forever! Visit support.rossvideo.com for more info.

MEET THE FAMILY



COMPATIBLE WITH

CARBONITE BLACK
CARBONITE BLACK PLUS
CARBONITE BLACK PLUS 12G

GRAPHITE
GRAPHITE PPC

CARBONITE ULTRA





User Buttons

- Individually assignable:
 - Select Keyer types
 - Delegate ME or Mini ME Rows
 - Assign Memory or Custom Control Banks
 - Map direct-access Custom Controls

Delegation Rows

- Delegate any row to control Key or Aux Bus Source assignments, Memory Recalls, or Custom Controls

IPS Touch Displays

- Display Source and Custom Control macro names and icons
- Access Menus, Device Controls, TouchMap™, and much more

Panel Glow

- User-adjustable panel glow schemes and configurations for Keyers, MEs and more

Advanced Memory Keypads

- Global or Local Memory Control
- Link multiple ME, MiniME, Canvas and Chroma-Key levels to a single Memory store or recall
- Override programmed PGM, EFF Dissolve, or patented MemoryAI™ modes

On Panel Quick Menu

- Auto-follows to provide detailed control of attributes where knobs and fine-tuning are required

6 Axis Control

- New joystick design with control for 6 Axes
- Two additional buttons for Hold and Reset

Dedicated Keyer Control Per Row

- Touch Mnemonics with full keyer information and control
- Individual Keyer delegation and control buttons
- Dedicated Keyer Cut and Auto-Trans buttons
- Provides "at-a-glance" layer status

Exclusive Roll Clip Feature

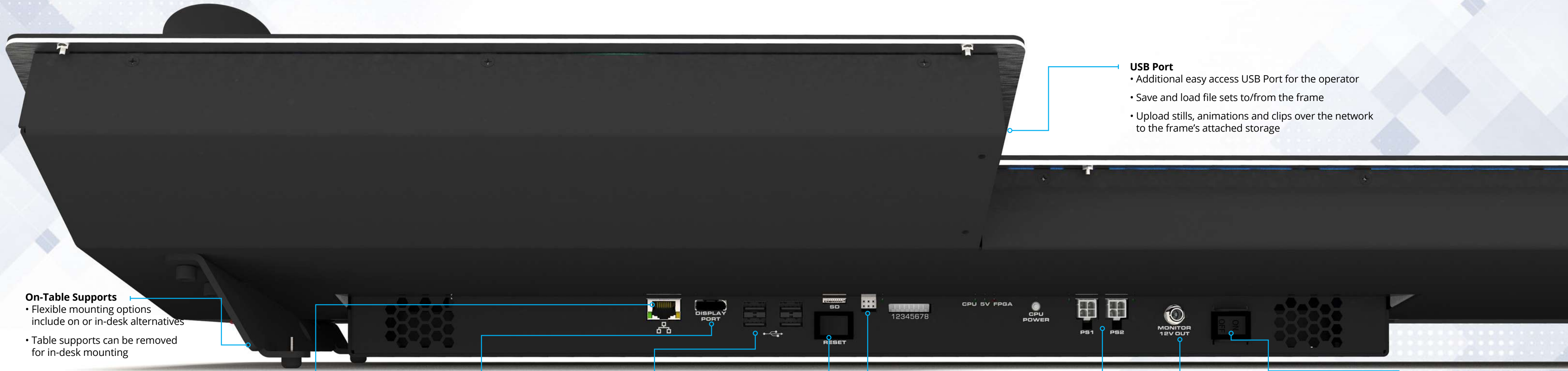
- Automatically roll controlled Servers or Clip players when taken to air
- User-definable pre-roll durations

Advanced Transition Control

- Industry-standard Next Transition layout
- Modify transition parameters using Touch display
- Three User Buttons for quick Memory or Custom Control assignment

Vertical Row Display

- Full touch control
- Access row functions or TouchMap™ control
- Quickly provides menu- or function - specific operator information



USB Port

- Additional easy access USB Port for the operator
- Save and load file sets to/from the frame
- Upload stills, animations and clips over the network to the frame's attached storage

On-Table Supports

- Flexible mounting options include on or in-desk alternatives
- Table supports can be removed for in-desk mounting

Network Port

- Connect to Carbonite Ultra, Carbonite Black/Black Plus or Graphite frames over TCP/IP

Display Port

- Access the built-in Linux-based DashBoard menu PC using the optional 15.6" Ross 1080p display or user-supplied standard monitor.

USB Ports

- Four USB Type A connectors for keyboard, mouse, and optional Touch Display connection

CPU Reset Button

Service Ports

- Micro SD card slot for recovery
- Six-pin service port for Tech Support
- DIP switches for IP Address recovery, upgrade locking and other service items

PSU Inputs

- Support for dual PSU bricks or rack-mounted Ultra PSU

Touch Monitor PSU

- Power port for optional touch display

Power Button

- Protected from accidental bumping
- Accessible even when in-desk mounted



TD1C

The exceptionally compact TD1C panel is “right-sized” for rack or in-desk mounting, making it a perfect addition to a fly-pack or small mobile unit. With 15 crosspoint buttons, on-board DashBoard, and exclusive multi-function touch displays, the TD1C provides the same professional-grade toolset as other TouchDrive™ panels while saving space and power.



ON DESK



IN DESK



TD1

Like its larger cousin, the TouchDrive™ TD1 also features 15 crosspoint buttons, but only a single ME row. This compact panel provides the same functionality as larger TouchDrive™ panels, including the innovative 6-axis joystick and user-configurable buttons.



ON DESK



IN DESK



TD2

The TouchDrive™ TD2 features 15 buttons and 2 ME rows. With a smaller footprint than the TD2S, the TD2 still provides a Global Memory system and the ability to map Memories to individual bus row buttons for fast, accurate recall.



ON DESK

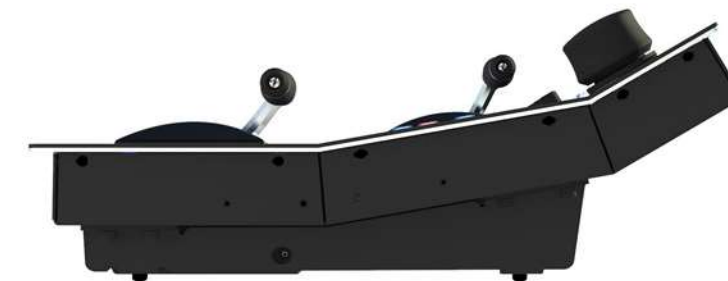


IN DESK



TD2S

The TouchDrive™ TD2S 25-button, 2 ME row panel is a more space-conscious version of the larger TD3S. Both the TD3S and TD2S also include individual Advanced Memory keypads on each ME row.



ON DESK



IN DESK

TD3S

The beautiful new TouchDrive™ TD3S panel includes 25 crosspoint buttons and three full ME rows. Like all TouchDrive™ panels, the ergonomically designed TD3S features bright, easy-to-read multi-function touch displays and a built-in DashBoard computer.



ON DESK



IN DESK





ACCESSORIES

Touch Display*

A 15.6" high-resolution touchscreen is offered as an option. It is driven by touch, but USB ports are available for keyboard and mouse control. Users can opt to provide their own screen.

The TouchDrive™ panel has built-in power, display and control connections for the Touch Display

*Monitor arm is not provided.

Power Supply Unit

Users can choose to power their TouchDrive™ panels using Ultripower or regular power bricks. Using Ultripower brings benefits such as DashBoard monitoring, and the same Ultripower can be used to power both Carbonite Ultra and the TouchDrive™ panel.



AUX PANELS



RCP-ME



RCP-QE18



RCP-QE36

RCP series Ethernet-connected control panels can be directly linked to your production switcher.

Multiple panels can be connected to service a variety of positions – engineering, shading, producer, etc.



ULTRITOUCH-2



ULTRITOUCH-4

Ulritouch panels can connect to multiple devices simultaneously. DashBoard Custom Panels can be loaded for tailored production control operation.

TECHNICAL SPECS / COMPARISON TABLE

TOUCHDRIVE	TD1C		TD1		TD2		TD2S		TD3S	
Direct Access Crosspoint Buttons	15		15		15		25		25	
Number of Rows	1		1		2		2		3	
Advanced Memory Keypad	x*		x*		x*		✓		✓	
Theme-able Panel Glow RGB Buttons	✓		✓		✓		✓		✓	
Touch-enabled Display Mnemonics	✓		✓		✓		✓		✓	
User Buttons	18		18		18 per row		28 per row		28 per row	
Joystick	✓		✓		✓		✓		✓	
Built-in DashBoard Computer	✓		✓		✓		✓		✓	
	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.
Width #	17.50	444.5	28.29	718.57	28.29	718.57	41	1041.4	41	1041.4
Depth #	12.91	327.91	9.86	250.44	15.73	399.54	15.73	399.54	21.23	539.24
Ambient Temperature Range	Operating: 0 – 40°C (32 – 104°F) Storage: -20 – 85°C (-4 – 185°F)									
Power	73W 4.87A 15V		73W 4.87A 15V		85W 5.67A 15V		107W 7.13A 15V		165W 11A 15V	
Input Voltage	100 – 120V~, 200 – 240V~, 47 – 63Hz									

*Memory row assignment allows memory recalls using key source selector buttons.

Dimensions are provided as a guide. Scale DXF/CAD drawings of the TouchDrive™ panels are available from Ross Video's TouchDrive™ webpage.





Ross Video has a complete range of technical services available to ensure that your TouchDrive™ Control Panel deployment is a success.

Operational Training can be provided at Ross Video, on-site, or over the web. Experienced Ross operators will teach your staff to get the most out of your new system and enhance your productions.

Commissioning is a service to help get your production system properly configured, connected, and installed. This service is performed by factory-trained Ross technical staff.

Technical Training can be provided at Ross Video, on-site, or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

TouchDrive™ comes standard with a 1 year comprehensive warranty. Extended Warranties on hardware and software maintenance are available for an annual fee and also include enhanced Service Level Agreements.

Technical advice is available on-line, by telephone, or email to Ross Video – Included for the life of your system.

Contact Us

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