

**Crestron Quote #** 1037579 Rev. 0**Prepared For:**

KENT CREASY  
US DISTRICT COURT WESTERN NC  
401 W. TRADE STREET ROOM 210  
CHARLOTTE, NC 28202 US

**Project:**

COURTROOM #2

**Master Project:**

UNITED STATES DISTRICT COURT OF CHARLOTTE

**Date Created:**

4/14/15

**Date Expires:**

7/13/15

**Crestron Territory:**

Southeast US

**Sales Rep:**

Robert Doherty

**Crestron Contact Phone:****Prepared By:**

Sherif Georgy

 Wire

Crestron recommends using Crestron Certified Wire and connectors; please visit [www.crestron.com/wire](http://www.crestron.com/wire) for more information. Additionally, if you are experienced with structured cable installation and integration practices, there are alternate DM/8G Wire solutions available from other manufacturers. However, in order to achieve proper system operation, the cable you choose must meet the minimum specifications as posted within the following link:  
[http://www.crestron.com/downloads/pdf/product\\_misc/rg\\_wire\\_spec\\_for\\_dm\\_8g.pdf](http://www.crestron.com/downloads/pdf/product_misc/rg_wire_spec_for_dm_8g.pdf);

 VLAN

Crestron strongly recommends using a separate VLAN network architecture for all Crestron system ethernet/network products. This practice will allow the Crestron system to focus on the communications related to control without additional undesired interruption and delay caused by 3rd party devices that utilize high bandwidth and verbose broadcast packet transmissions. Crestron is not responsible for the design, verification and operation of IP system network/backbone communications (wired or wireless), and recommends that these services be provided by a certified specialist. For more information on IP considerations and best practices please consult the "IP Considerations Guide for the IT Professional" at [www.Crestron.com](http://www.Crestron.com) or contact Crestron Sales Support Services for more assistance.



Crestron Mobile applications are a convenient compliment to any Crestron Control system. If Crestron Mobile apps will be used in the system quoted, please be aware that these apps are sold separately and are available from the Apple App Store or Android Marketplace. Please contact Crestron Sales Support Services for additional information.

 DM

Crestron recommends designing, installing, and commissioning your DM System in adherence with the following guidelines and specifications:

- "Challenges of Distributing 4K Video" white paper;
- DigitalMedia Design Guide;
- Crestron HD Digital Transport & Distribution System (HD-DTDS) Specification;
- DigitalMedia Notes and Best Practices;
- IP Considerations Guide for the IT Professional;

All of this information is available at [www.crestron.com/dmresources](http://www.crestron.com/dmresources)

To find more information regarding Crestron DigitalMedia 4K products and solutions, please visit [www.crestron.com/4k](http://www.crestron.com/4k)

For information on DM Certification courses offered by the Crestron Training Institute, including DMC-D-4k & DMC-E-4k, please visit our training website at [www.crestron.com/training](http://www.crestron.com/training)



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**SYSTEM NOTES:**

1. Design based on RFQ 4/13/15.
2. This is a suggested Crestron Design. No specific equipment was indicated. This quote may need to be revised to meet client needs. Dealer must verify that equipment meets the required functions and that all finishes are correct before placing an order. Please contact Crestron Sales Support Services for any questions / changes.
3. DM System quoted may include some 4K video capability. For complete 4K system compatibility, or device specific 4K Support, additional equipment may be required; please visit [www.crestron.com/4k](http://www.crestron.com/4k) for a list of Crestron 4K Certified devices or contact Sales Support Services for a detailed design review.
4. DMC-STRO Output Card(s) have been added for streaming capability. Please see document "7595A" for more information regarding the DMC-STRO card & document "4579G - IP Considerations Guide" for information on IP setup considerations.
5. Proposal includes options for a Extended Services Agreement for the DM-MD32x32/DM-MD64x64/DM-MD128X128 switcher product. Customers purchasing the DM-MD32x32/DM-MD64x64/DM-MD128X128 Switcher now have the option of also purchasing an expedited and extended service plan, which will cover the switcher for a period of up to 3 years (with extensions available as well).

In the event of malfunction of a covered switcher, Crestron will ship a replacement frame within (2) business days of notification of a malfunction. Crestron may dispatch technical staff to Purchaser's location to diagnose the malfunction and to take actions to repair the malfunction if it is an electrical or mechanical failure and due to normal operating use and conditions ("Covered Malfunction") at no additional cost to Purchaser. Crestron may provide technical staff to Purchaser's location within (3) business days of being notified of a malfunction.

The following options and pricing are included in this proposal for purchase if required:

- 1 Year Extended Service Agreement: 5% of the MSRP of the Switcher and internal Blades/Cards purchased;
  - 3 Year Extended Service Agreement: 7% of the MSRP of the Switcher and internal Blades/Cards purchased;
6. System quoted at "LIST" Pricing. Possession of this quote does not constitute authorization for direct purchase from Crestron. Please contact your regional representative for dealership inquiries.
  7. The Capture-HD has multiple modes of operation. Capture-HD integration with Fusion-RV Media Services may require additional server/network hardware based upon actual usage requirements. For additional information on system requirements and streaming solutions please visit [www.crestron.com/downloads/pdf/product\\_misc/dg\\_capturelivehd.pdf](http://www.crestron.com/downloads/pdf/product_misc/dg_capturelivehd.pdf).
  8. Stand-alone mode: CAPTURE-HD will record the connected sources to USB flash memory (USB flash memory stick provided by others. Not all USB memory sticks will work. Please see Crestron Answer ID 5165 for more information). The session to be captured (recorded) can be initiated by a Crestron control processor via user-interface preset or command or by the "Record" button on the front panel of the unit. At the end of the session the video file containing the recorded session may be automatically uploaded to a predetermined network location or the USB flash memory module (containing the recorded session) may be removed for alternate storage.
  9. FUSION-RV mode: CAPTURE-HD will record the connected sources to internal MMC flash memory card. The session to be captured (recorded) can be initiated by a Crestron control processor via user-interface preset or command or by the "Record" button on the front panel of the unit. At the end of the session the video file containing the recorded session is automatically uploaded to FUSION-RV server and the file on the MMC flash memory module is deleted. The FUSION-RV server manages the remainder of the postproduction services up to the streaming server (streaming services provided by others).
  10. Live Streaming — As an alternative to capturing video, the CAPTURE-HD can also be used to stream live HD video and audio via RTSP to a computer, mobile device, touchscreen, or third-party streaming server. CAPTURE-HD can either record or live stream. Multiple CAPTURE-HD devices will be required for simultaneous record/streaming capabilities.

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Project: COURTROOM #2  
 Master Project: UNITED STATES DISTRICT COURT OF CHARLOTTE  
 Proposal Type: Equipment Proposal

MSRP

**COURTROOM #2**

• Judges Bench	Total:	<b>\$7,800.00</b>
• Witness Stand	Total:	<b>\$4,400.00</b>
• Courtroom Deputy Station	Total:	<b>\$4,050.00</b>
• Law Clerk Station	Total:	<b>\$1,400.00</b>
• Prosecution	Total:	<b>\$18,000.00</b>
• Defense	Total:	<b>\$18,000.00</b>
• Audience	Total:	<b>\$2,800.00</b>
• Court Reporter	Total:	<b>\$1,400.00</b>
• Equipment Rack	Total:	<b>\$92,000.00</b>
• <b>COURTROOM #2 TOTAL</b>	<b>Sub Total:</b>	<b>\$149,850.00</b>
<b>Grand Total:</b>		<b>\$153,434.00</b>

*(The above grand total includes a 3 year Extended Service Agreement for the DM-MD64X64 and/or DM-MD128X128 switchers quoted.)*

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QUOTE SUMMARY SHEET

Project: COURTRROOM #2  
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### DM-MD64X64/128X128 Extended Service Plans

Please see below pricing for suggested DM-MD64X64/128X128 service programs quoted specifically for this project. Because of the extended coverage and expedited services being offered under this Agreement, we highly recommend that you purchase one of the below options for the DM-MD64x64/128X128's included in this proposal. For more information on these extended service plans please visit [www.Crestron.com](http://www.Crestron.com).

	1 Year	2 Year	3 Year	Service Price	MSRP
3 Year Extended Service Agreement			BEST	\$3,584.00	\$153,434.00
1 Year Extended Service Agreement	BETTER			\$2,560.00	\$152,410.00
					*System price with no Extended Service Agreement \$149,850.00

Customers purchasing the DM-MD64x64/DM-MD128X128 Switchers now have the opportunity to purchase an expedited and extended service plan, which will cover the switchers for a period of up to 3 years (with extensions available as well).

In the event of malfunction of a covered switcher, Crestron will ship a replacement frame within (2) business days of notification of a malfunction. Crestron may dispatch technical staff to Purchaser's location to diagnose the malfunction and to take actions to repair the malfunction if it is an electrical or mechanical failure and due to normal operating use and conditions at no additional cost to Purchaser. Crestron may provide technical staff to Purchaser's location within (3) business days of being notified of a malfunction.

\*If one of the above Extended Service Agreements is not purchased, the DM-MD Switcher/Equipment will only be covered by the Crestron Standard Limited Warranty. This Standard Warranty does not include automatic/expedited advanced replacements or factory on-site technical support.

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COURTROOM #2

**Judges Bench**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
1	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	1	DM-TX-401-C	DigitalMedia 8G&#43;® Transmitter 401, includes PW-2407WU	\$2,000.00	\$2,000.00
2	1	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$1,400.00
3	1	V15-TILT-B	V-Panel™ 15" Tilt HD Touch Screen Display, DM CAT, Black; includes V-IMCW and V-CBL-T6-B	\$4,400.00	\$4,400.00
<b>Total</b>					\$7,800.00

**Witness Stand**

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	1	V15-TILT-B	V-Panel™ 15" Tilt HD Touch Screen Display, DM CAT, Black; includes V-IMCW and V-CBL-T6-B	\$4,400.00	\$4,400.00
<b>Total</b>					\$4,400.00

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COURTROOM #2

**Courtroom Deputy Station**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
1	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	1	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$1,400.00
2	1	TSW-1052-B-S	10.1" Touch Screen, Black Smooth	\$2,400.00	\$2,400.00
3	1	TSW-1050-TTK-B-S	Tabletop Kit for TSW-1050 & TSW-1052, Black Smooth	\$250.00	\$250.00
<b>Total</b>					\$4,050.00

**Law Clerk Station**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
1	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	1	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$1,400.00
<b>Total</b>					\$1,400.00

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COURTROOM #2

**Prosecution**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
4	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD
1	RS-232	Capture Controls (TBD)	Video Doc Cam	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	4	DM-TX-401-C	DigitalMedia 8G&#43;® Transmitter 401, includes PW-2407WU	\$2,000.00	\$8,000.00
2	4	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$5,600.00
3	1	V15-TILT-B	V-Panel™ 15" Tilt HD Touch Screen Display, DM CAT, Black; includes V-IMCW and V-CBL-T6-B	\$4,400.00	\$4,400.00
<b>Total</b>					\$18,000.00

**Defense**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
4	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD
1	RS-232	Capture Controls (TBD)	Video Doc Cam	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	4	DM-TX-401-C	DigitalMedia 8G&#43;® Transmitter 401, includes PW-2407WU	\$2,000.00	\$8,000.00
2	4	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$5,600.00
3	1	V15-TILT-B	V-Panel™ 15" Tilt HD Touch Screen Display, DM CAT, Black; includes V-IMCW and V-CBL-T6-B	\$4,400.00	\$4,400.00
<b>Total</b>					\$18,000.00

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**Audience**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
2	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	2	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$2,800.00
				<b>Total</b>	<b>\$2,800.00</b>

**Court Reporter**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
1	RS-232	Input Select, Power, Settings	Video Display	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	1	DM-RMC-SCALER-C	DigitalMedia 8G&#43;® Receiver & Room Controller w/Scaler	\$1,400.00	\$1,400.00
				<b>Total</b>	<b>\$1,400.00</b>

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COURTROOM #2

**Equipment Rack**

**Controlled Devices**

Qty	Interface	Functions	Description	Make	Model
1	RS-232	Audio Controls (Routing, Mixing, Volume etc.)	Audio DSP	TBD	TBD
1	RS-232	Addresses, Dial, Navigation, Status, Switching	VTC Codec	TBD	TBD

**Crestron Hardware**

Item	Qty	Model	Description	MSRP	Extended MSRP
1	1	CP3N	3-Series Control System®	\$2,600.00	\$2,600.00
2	6	DMC-4K-HD	4K HDMI® Input Card for DM® Switchers	\$800.00	\$4,800.00
3	9	DMC-4K-C	HDBaseT® Certified 4K DigitalMedia 8G&#43;&#153; Input Card for DM® Switchers	\$1,300.00	\$11,700.00
4	1	DM-MD32X32	32x32 DigitalMedia™ Switcher	\$17,200.00	\$17,200.00
5	7	DMC-4K-CO-HD	2-Channel HDBaseT® Certified 4K DigitalMedia 8G&#43;&#153; Output Card for DM® Switchers	\$1,300.00	\$9,100.00
6	3	DMC-4K-HDO	2-Channel 4K Scaling HDMI® Output Card for DM® Switchers	\$1,800.00	\$5,400.00
7	1	DMC-STRO	Streaming Output Card for DM® Switchers	\$3,000.00	\$3,000.00
8	1	CAPTURE-HD-PRO	Capture HD® High-Definition Capture Recorder w/3G-SDI	\$5,800.00	\$5,800.00
9	4	DGE-2	Digital Graphics Engine, DM CAT & HDMI, Dual-Window HD Video	\$8,000.00	\$32,000.00
10	1	CEN-SW-POE-5	5-Port PoE Switch	\$400.00	\$400.00
<b>Total</b>					\$92,000.00

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**GENERAL NOTES  
TERMS and CONDITIONS**

Project: COURTRROOM #2  
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## GENERAL NOTES:

1. This preliminary quote is subject to submittal/review of complete AV System specifications/drawings detailing all devices to be controlled and full functional requirements. Manufacturer/Model# & control format/functionality for each device subject to verification.
2. RS-232 runs over 50' in length may require use of C2N-IO (2 or 3-series Cresnet), INET-IOEX-IRCOM (3-series wireless), CEN-CI3-1 w/C3-COM (3-series Ethernet) or 3rd-party RS232-to-RS422 converter placed at the device location. Quote subject to revision upon receipt/review of floorplan, wiring riser & equipment layout.
3. IR emitters, RS-232/Serial control interface cables and AV interface cables to be provided by others or available at additional cost, if not already included in this quote.
4. Crestron cable (CRESNET, CRESCAT, CRESFIBER, DM and CBL-interface cables) is available at additional cost if not included in this quote.
5. IR controlled device(s) may require additional current-sensor or video-sensor for power-status sensing, or power controller for hard-switched devices; requirement subject to verification.
6. Custom system programming to be provided by others. Expert programming services are offered by our network of Crestron Services Providers (CSPs). See the website under "Partnerships – Crestron Services Providers" for a list of CSPs. While they operate as independent contractors, all CSPs have passed rigorous Crestron Programming Certification tests and have the full cooperation and support of Crestron.
7. Crestron gateways for wireless infiNET EX and Extended Range RF devices have been included as necessary; it is the responsibility of the dealer to determine the actual number of gateways and / or wireless expanders necessary for appropriate wireless coverage.
8. All room types / systems are quoted in quantities of one (1) unless otherwise stated.

## Terms and Conditions

1. Prices and specifications in this proposal are based on information received to date.
2. Prices quoted are valid for 90 days from the date of this proposal.
3. Crestron hardware delivery is typically 30 days or less upon order placement and credit approval.
4. Substitution of equipment with control formats that differ from those specified and/or the addition of controlled equipment may result in a change of the original proposal.
5. Engineering services, unless otherwise noted, to be provided by others or available for an additional charge on a separate proposal.
6. Please note that expert programming services are offered by our network of Crestron Authorized Independent Programmers. See [http://www.crestron.com/partnerships\\_and\\_programs/crestron\\_authorized\\_independent\\_programmers/](http://www.crestron.com/partnerships_and_programs/crestron_authorized_independent_programmers/) for a list of CAIPs. While they operate as independent contractors, all CAIPs have passed rigorous Crestron Programming Certification tests and have the full cooperation and support of Crestron.
7. This quote is subject to revision if additional information becomes available, specification documents or drawings change or quote is past expiration date.

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### Crestron Bill of Materials

Model	Qty	MSRP	Extended MSRP
CAPTURE-HD-PRO	1	\$5,800.00	\$5,800.00
CEN-SW-POE-5	1	\$400.00	\$400.00
CP3N	1	\$2,600.00	\$2,600.00
DGE-2	4	\$8,000.00	\$32,000.00
DM-MD32X32	1	\$17,200.00	\$17,200.00
DM-RMC-SCALER-C	14	\$1,400.00	\$19,600.00
DM-TX-401-C	9	\$2,000.00	\$18,000.00
DMC-4K-C	9	\$1,300.00	\$11,700.00
DMC-4K-CO-HD	7	\$1,300.00	\$9,100.00
DMC-4K-HD	6	\$800.00	\$4,800.00
DMC-4K-HDO	3	\$1,800.00	\$5,400.00
DMC-STRO	1	\$3,000.00	\$3,000.00
TSW-1050-TTK-B-S	1	\$250.00	\$250.00
TSW-1052-B-S	1	\$2,400.00	\$2,400.00
V15-TILT-B	4	\$4,400.00	\$17,600.00
<b>Totals</b>	<b>63</b>		<b>\$149,850.00</b>