Digital Media[®]

HD-TX-201-C-2G-E Series

DM Lite® Transmitter and 2x1 Auto-Switcher for HDMI®, VGA, and Analog Audio Signal Extension over CATx Cable, Wall Plate



- Pairs with a DM Lite® or DMPS Lite™ receiver
- Enables extension of HDMI® video and audio signals
- Converts and extends VGA and analog audio signals
- Auto-switches between two HDMI inputs and one VGA input
- Links to the receiver via a single CAT5e (or higher) twisted pair cable
- Supports 4K and UHD at up to 130 ft (40 m)
- Supports HD 1080p, WUXGA, and 2K at up to 230 ft (70 m)
- Handles 4K video resolutions up to 4K60 4:2:0 and 4K30 4:4:4
- Handles 3D video and Deep Color
- Supports Dolby® TrueHD, Dolby Atmos®, DTS HD®, DTS:X®, and uncompressed 7.1 linear PCM audio
- Compatible with HDMI, DVI, and Dual-Mode DisplayPort™ sources
- Compatible with VGA, RGBHV, RGBS, RGsB, and YPbPr component sources up to HD 1080p and WUXGA
- HDCP 1.4 compliant
- Passes CEC and EDID signals
- Allows control system integration when paired with an HD-RX-201-C-E or DMPS Lite receiver
- Flush wall mount design
- Installs in a single-gang U.S. electrical box (2-1/4" deep) or plaster ring (not included)
- Decorator style faceplates sold separately (type FP-G2-DM only)
- Normally powered by the receiver (surface-mountable) over the link cable

The HD-TX-201-C-2G-E (-B-T or -W-T) is a DM Lite® wall plate transmitter designed to pair with a DM Lite or DMPS Lite™ receiver to form a signal extender for HDMI® signals. The DM Lite family of products offers a versatile solution for extending HD, UHD, 2K, and 4K video signals, with stereo or surround sound audio, over a single CAT5e (or higher) cable. A cable length of up to 230 ft (70 m) is supported for HD 1080p, WUXGA, and 2K signals, or up to 130 ft (40 m) for UHD and 4K.¹

In addition to its HDMI input, the HD-TX-201-C-2G-E also includes a VGA input accompanied by a stereo analog audio input. Autoswitching between HDMI and VGA enables plug-and-play simplicity. Manual input selection is also available using the front panel INPUT SEL button. The VGA input can accept RGB and component video signals by using an appropriate breakout cable or adapter (not included). The audio input is selected in tandem with the VGA input, and can be used by itself with no video source connected. However, it cannot be paired with the HDMI video input.

NOTE: When paired with an <u>HD-RX-201-C-E</u> or DMPS Lite receiver, the local inputs are switched in combination with the HDMI input on the receiver, and can also be controlled remotely through integration with a Crestron® control system.

A CAT6a RJ-45 courtesy jack is included to provide a 1000BASE-T network connection for computers and other devices. The front panel jack passes through to a parallel jack on the rear, which connects to an available port on the customer's LAN. This LAN jack is provided as a convenience to replace the need for a separate RJ-45 wall jack. It does not interface with the DM Lite system and cannot be used to extend Ethernet signals or interface with a control system.

The HD-TX-201-C-2G-E series is available in black or white, and is designed to mount into a 2-gang electrical box or plaster ring (not included). When paired with a surface-mountable receiver, the HD-TX-201-C-2G-E is powered by the receiver over the DM Lite link cable.²

NOTE: This product is not addressable from a control system and offers no programmable functionality except when paired with an HD-RX-201-C-E or DMPS Lite receiver. Otherwise, AV and CEC signals are simply passed through between the transmitter and receiver. The RJ-45 link port on this product is exclusively intended for linking with a single DM Lite or DMPS Lite receiver. It should not be used to connect to any other equipment or network. DM Lite technology is not compatible with PoE, PoDM, DigitalMedia 8G+®, or HDBaseT® technology.



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Specifications

Video

Switcher 2x1 manual or auto-switching,

audio-follow-video

HDMI with Deep Color, 3D, and 4K (DVI and Input Signal Types

Dual-Mode DisplayPort™ interface compatible³), VGA/RGB (RGBHV, RGBS,

RGsB), component (YPbPr)⁴

HDCP 1.4 Copy

Protection

Maximum Common resolutions are listed in the following

Resolution table.

Input Type	Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
НДМІ	Progressive	4096x2160 DC14K or 3840x2160 4K UHD	24 Hz	4:4:4	30 bit
			30 Hz	4:4:4	24 bit
			30 Hz	4:2:2	36 bit
			60 Hz	4:2:0	24 bit
		2560x1600 WQXGA	60 Hz	4:4:4	36 bit
		1920x1080 HD 1080p	60 Hz	4:4:4	36 bit
	Interlaced	1920x1080 HD 1080i	30 Hz	4:4:4	36 bit
VGA/RGB	Progressive	1600x1200 UXGA	60 Hz	n/a	n/a
		1920x1200 WUXGA	60 Hz	n/a	n/a
Component	Progressive	1920x1080 HD 1080p	60 Hz	n/a	n/a
	Interlaced	1920x1080 HD 1080i	30 Hz	n/a	n/a

NOTE: Common resolutions are shown; other custom resolutions are supported at pixel clock rates up to 300 MHz for HDMI or 165 MHz for VGA.

Audio

Input Signal HDMI (Dual-Mode DisplayPort interface

Types compatible³), analog stereo

Digital Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS®, DTS **Formats**

> ES, DTS 96/24, DTS HD High Res, DTS HD Master Audio, DTS:X, LPCM up to 8 channels

Analog **Formats** Stereo 2-channel

Analog-To-Digital Conversion

24-bit 48 kHz

Analog Performance

Frequency Response: 20 Hz to 20 kHz ±0.75

S/N Ratio: >90 dB, 20 Hz to 20 kHz

A-weighted;

THD+N: <0.006% @ 1 kHz; Stereo Separation: >80 dB

Communications

HDMI HDCP 1.4, EDID, CEC pass-through

DM Lite Link Proprietary link for connection between one

DM Lite transmitter and DM Lite or DMPS

Lite receiver only

NOTE: Supports management of HDCP and EDID only when paired with an HD-RX-201-C-E or DMPS Lite receiver; supports management of CEC between the connected HDMI device and a control system only when paired with an HD-RX-201-C-E or DMPS Lite receiver.

Connectors

HDMI IN (1) HDMI Type A connectors, female;

HDMI digital video/audio input (DVI and Dual-

Mode DisplayPort interface compatible³)

VGAIN (1) HD15 connector, female; RGB (VGA) or component video input;4

Formats: RGBHV, RGBS, RGsB, and YPbPr

AUDIO IN (1) 3.5 mm TRS mini phone jack;

Unbalanced stereo line-level audio input;

Maximum Input Level: 2 Vrms; Input Impedance: 44k Ohms

(1) 8-pin RJ-45 connector, female; LAN (Front)

Passive pass-through to the rear panel LAN

SERVICE (Right Side)

(1) USB Type A connector, female; For factory use only

TO RX (DM Lite, Rear)

(1) 8-pin RJ-45 connector, female, shielded; DM Lite link port for connection to a DM Lite

or DMPS Lite receiver¹

24VDC 1.25A (Rear)

(2) Captive screw terminals;

24 VDC power input;

Power pack sold separately (if required, model

 $TBA)^2$:

NOTE: This connection powers both the transmitter and receiver; this connection is not normally used when pairing with a surface-mountable receiver.2



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LAN (Rear) (1) 8-pin RJ-45 connector, female;

Passive pass-through to the front panel LAN

jack

Compatible Cable Standards: CAT5e, CAT6,

and CAT6a;

Low Level Contact Resistance: 100 m Ω

maximum;

Insulation Resistance: 500 $m\Omega$ minimum at

500 VDC;

Dielectric Withstanding Voltage: 1000 VAC

between contacts and shell; Voltage Rating: 125 VAC; Current Rating: 1.5 Amps;

PoE Compatibility: IEEE 802.3at PoE and

PoE+;

Insertion Force: 22 N maximum; Retention Force: 76 N minimum;

Controls and Indicators

PWR (1) Bi-color green/amber LED, indicates

operating power is supplied from the receiver via the DM Lite link or from a power pack via the 24 VDC input, turns amber while booting

and green when operating

HDMI IN (1) Bi-color green/amber LED, indicates HDMI

input selection and signal presence

INPUT SEL (1) Push button for manual input selection,

cycles through all available inputs on both the

transmitter and receiver

VGA IN (1) Bi-color green/amber LED, indicates VGA

input selection and signal presence

AUTO (1) Push button to enable/disable auto-

switching mode, and (1) green LED to indicate

auto-switching mode is enabled

SETUP (1) Red LED and (1) recessed push button for

Ethernet setup (only when paired with an HD-RX-201-C-E or DMPS Lite receiver)

RESET (1) Push button for hardware reset (Resets

both the transmitter and receiver when paired

with an HD-RX-201-C-E or DMPS Lite

receiver)

LINK (1) Green LED, indicates the DM Lite link

status

TO RX (DM Lite, Rear) (2) LEDs on RJ-45 connector, green LED indicates DM Lite link status, amber LED

indicates a valid video signal

Power

Power Pack

(sold separately)

Input: 100-240 VAC, 50/60 Hz;

Output: 1.25 Amps @ 24 VDC;

Model: TBA

NOTE: This power pack is required only when the HD-TX-201-C-2G-E is paired with a wall plate receiver. When the HD-TX-201-C-2G-E is paired with a surface-mountable receiver, the power pack included with and connected to the receiver is used to power both the receiver and the HD-TX-201-C-2G-E.²

Environmental

Temperature 32° to 104° F (0° to 40° C)

Humidity 20% to 90% RH (non-condensing)

Heat 20.1 BTU/hr

Dissipation

Construction

Composition Metal housing and bracket with black or white

polycarbonate front label overlays

Mounting Mounts in a 2-gang, 2-1/4 inch (57 mm) deep

U.S. electrical box or plaster ring (not included)

Faceplate Requires a Crestron FP-G2-DM-B-T or FP-G2-DM-W-T faceplate (sold separately,

other faceplates are incompatible)

Dimensions

 Height
 4.19 in (107 mm)

 Width
 3.50 in (89 mm)

 Depth
 2.07 in (53 mm)

Weight

8.9 oz (252 g)

Compliance

Regulatory HD-TX-201-C-2G-E-B-T, Models HD-TX-201-C-2G-E-W-T

UL® Listed for US and Canada, CE, IC, FCC Part 15 Class B

digital device



DM Lite® Transmitter and 2x1 Auto-Switcher for HDMI®, VGA, and Analog Audio Signal Extension over CATx Cable, Wall Plate

Maximum DM Lite Link Cable Length

Resolution	CAT5e (or higher), DM-CBL-ULTRA DM® Ultra Cable, or DM-CBL-8G DM 8G® Cable ¹		
1920x1080 FHD 1080p			
1920x1200 WUXGA			
1600x1200 UXGA	230 ft (70 m)		
2048x1080 DCI 2K			
2048x1152 QWXGA			
2560x1080 UWFHD			
2560x1440 WQHD			
2560x1600 WQXGA	130 ft (40 m)		
3840x2160 4K UHD			
4096x2160 DCI 4K			

Models

HD-TX-201-C-2G-E-B-T

DM Lite® Transmitter and 2x1 Auto-Switcher for HDMI®, VGA, and Analog Audio Signal Extension over CATx Cable, Wall Plate, Black Textured

HD-TX-201-C-2G-E-W-T

DM Lite® Transmitter and 2x1 Auto-Switcher for HDMI®, VGA, and Analog Audio Signal Extension over CATx Cable, Wall Plate, White Textured

Available Accessories

FP-G2-DM-B-T

Decorator Style Faceplate for HD-TX-201-C-2G-E & DM-TX-200-C-2G Series, 2-Gang, Black Textured

FP-G2-DM-W-T

Decorator Style Faceplate for HD-TX-201-C-2G-E & DM-TX-200-C-2G Series, 2-Gang, White Textured

HD-RX-101-C-1G-E-B-T

DM Lite – HDMI® over CATx Receiver, Wall Plate, Black Textured

HD-RX-101-C-E

DM Lite - HDMI® over CATx Receiver, Surface Mount

HD-RX-201-C-E

DM Lite – HDMI® over CATx Receiver, Room Controller, 2x1 Auto-Switcher, HD Scaler, Surface Mount

HD-RX-4K-210-C-E

DMPS Lite™ 4K Multiformat 2x1 AV Switch and Receiver

HD-RX-4K-410-C-E

DMPS Lite™ 4K Multiformat 4x1 AV Switch and Receiver

HD-RX-4K-410-C-E-SW4

DMPS Lite $^{\text{TM}}$ 4K Multiformat 4x1 AV Switch and Receiver with 4-Port Ethernet Switch

HD-RX-4K-510-C-E

DMPS Lite™ 4K Multiformat 5x1 AV Switch and Receiver

HD-RX-4K-510-C-E-SW4

DMPS Lite™ 4K Multiformat 5x1 AV Switch and Receiver with 4-Port Ethernet Switch

DM-CBL-ULTRA-PC-5

DigitalMedia™ Ultra Patch Cable, 5 ft (1.5 m)

DM-CBL-ULTRA-PC-50

DigitalMedia™ Ultra Patch Cable, 50 ft (15 m)

DM-CONN-ULTRA-RECP-20

DigitalMedia™ Ultra Keystone RJ-45 Jack, 20-Pack w/Termination Tool

DM-RPP-K24

DigitalMedia™ 24-Port Keystone Patch Panel

DM-CBL-8G-NP-SP1000

DigitalMedia 8G™ Cable, Non-Plenum, 1000 ft spool

DM-CBL-8G-P-SP1000

DigitalMedia 8G™ Cable, Plenum, 1000 ft spool

DM-8G-CONN-WG-100

Connectors with Wire Guide for DM-CBL-8G DigitalMedia $8G^{\text{TM}}$ Cable, 100-Pack

DM-8G-CRIMP-WG

Crimping Tool for DM-8G-CONN-WG-100

DM-CBL-ULTRA-NP-SP1000

DigitalMedia $^{\text{TM}}$ Ultra Cable, Non-Plenum Type CMR, 1000 ft spool

DM-CBL-ULTRA-P-SP1000

DigitalMedia™ Ultra Cable, Plenum Type CMP, 1000 ft spool

DM-CBL-ULTRA-LSZH-SP1000

DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen, 1000 ft spool (Available only in Europe)

DM-CONN-20

Connectors for DM-CBL-ULTRA DigitalMedia Ultra Cable, 20-Pack

CBL-HD-6

High-Speed HDMI® Cable, 18 Gbps, 6 ft (1.8 m)

CBL-HD-LOCK-8

Locking High-Speed HDMI® Cable, 10.2 Gbps, 8 ft (2.4 m)

CBL-HD-DVI-6

HDMI® to DVI Interface Cable, 6 ft

CBL-VGA-6

VGA Cable, 6 ft

CBL-VGA-AUD-6

VGA Cable w/Mini-TRS Stereo Audio, 6 ft

CBL-AUDIO-6

Mini-TRS Stereo Audio Cable, 6 ft



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Notes:

- 1. For the DM Lite link cable, use Crestron DM-CBL-8G DigitalMedia 8G[™] cable, Crestron DM-CBL-ULTRA DigitalMedia[™] Ultra cable, or third-party CAT5e or higher. The maximum cable length is 230 ft (70 m) for resolutions up to 2K or 130 ft (40 m) for higher resolution signals up to 4K. Refer to the "Maximum DM Lite Link Cable Lengths" table for a more detailed overview. Shielded cable and connectors are required when bundling multiple cables in a wire run, and are recommended for all applications to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Wire and cables are sold separately. DM Lite devices are not compatible with DigitalMedia 8G+, HDBaseT, PoE, PoDM, or any other CATx based interface or network.
- 2. When connecting a wall plate transmitter to a surface-mountable receiver, use the power pack that ships with the receiver. If the transmitter and receiver are both wall plates, a separate power pack must be purchased, which may be connected to either the transmitter or receiver. Only one power pack is required. Do not connect more than one power pack. Please note, the wall plate compatible power pack is not yet available. Please contact Crestron Customer Support for assistance when pairing a wall plate transmitter with a wall plate receiver. DM Lite devices are not compatible with PoE or PoDM. DM Lite devices are not compatible with PoE or PoDM.
- The HDMI input requires an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. <u>CBL-HD-DVI</u> interface cables are available separately.
- 4. The VGA input requires an appropriate breakout cable or adapter to accommodate an RGB or component video signal.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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HDMI

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