

# Wall Plate 4K DigitalMedia 8G+<sup>®</sup> Transmitter 100

- > Cost-effective DigitalMedia 8G+<sup>®</sup> transmitter
- > Connects to a DM<sup>®</sup> switcher or receiver over a single CAT type twisted pair cable<sup>[2]</sup>
- > HDBaseT<sup>®</sup> Certified — Enables direct connection to other HDBaseT certified equipment
- > Provides one HDMI<sup>®</sup> input<sup>[4]</sup>
- > Also supports DVI and Dual-Mode DisplayPort sources<sup>[4]</sup>
- > Handles video resolutions up to 4K and Ultra HD
- > Handles 3D video and Deep Color
- > Handles Dolby<sup>®</sup> TrueHD, Dolby Atmos<sup>®</sup>, DTS-HD<sup>®</sup>, and uncompressed 7.1 linear PCM audio
- > HDCP 2.2 compliant
- > Supports cable lengths up to 330 ft (100 m) for all resolutions up to UHD and 4K using DM Ultra cable<sup>[2]</sup>
- > Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using DM 8G<sup>®</sup> cable or CAT5e<sup>[2]</sup>
- > Supports cable lengths up to 230 ft (70 m) for UHD and 4K using DM 8G cable, or 165 ft (50 m) using CAT5e<sup>[2]</sup>
- > Enables device control via CEC, IR, and RS-232<sup>[1,7]</sup>
- > Powered via the DM connection or local power pack (included)<sup>[5,6]</sup>
- > 1-gang wall box mount design (3-1/2" deep)
- > Surface mount bracket included
- > Available in white or black finish



Shown in black; faceplate not included

The DM-TX-4K-100-C-1G provides a simple, cost-effective interface solution for a single HDMI, DVI, or Dual-Mode DisplayPort source as part of a complete Crestron<sup>®</sup> DigitalMedia<sup>™</sup> system. It functions as a DM 8G+<sup>®</sup> transmitter and control interface, providing a single HDMI<sup>®</sup> input along with RS-232 and IR control ports.<sup>[1]</sup> In addition to DM 8G+, it is also compatible with HDBaseT<sup>®</sup>, allowing it to be connected directly to an HDBaseT certified receiver or display device.

Its 1-gang mountable design allows the DM-TX-4K-100-C-1G to be flush mounted in a wall or presentation lectern. It can also be mounted beneath a table or attached to a suitable flat surface using the mounting bracket provided. It connects to the head end or display location using a single CAT type twisted pair cable.<sup>[2]</sup> Standard gang-box mounting (3-1/2" deep) allows for installation adjacent to an Ethernet jack (Crestron MP-WP183 or equivalent) for a total connectivity solution.<sup>[3]</sup>

## 4K Ultra HD

Crestron DigitalMedia continues to advance the standard for digital AV signal distribution, delivering the world's first end-to-end 4K system solution. The DM-TX-4K-100-C-1G features the latest DM 8G+ technology, providing support for the transport of 4K and Ultra HD video signals. Support for 4K video also ensures support for the latest generation of computers and monitors with native resolutions beyond 1080p and WUXGA.

## DigitalMedia 8G+<sup>®</sup>

As the leader in HDMI and control system technologies, Crestron developed DigitalMedia (DM<sup>®</sup>) to deliver the first complete HD AV distribution system to take HDMI to a higher level. DigitalMedia allows virtually any mix of HDMI and other AV sources to be distributed throughout a home, office, school, or virtually any other facility. The latest generation of DM is called DigitalMedia 8G<sup>™</sup> (DM 8G<sup>®</sup>). Engineered for ultra high-bandwidth and ultimate scalability, DM 8G provides a true one-wire lossless transport for moving high-definition video, audio, and control signals over a choice of twisted-pair or fiber optic cable.

DM 8G over twisted-pair copper wire is called DigitalMedia 8G+ (DM 8G+). DM 8G+ handles uncompressed Full HD 1080p, Ultra HD, 2K, and 4K video signals with support for 3D, Deep Color, and HDCP 2.2. Audio capabilities include support for high-bitrate 7.1 audio formats like Dolby<sup>®</sup> TrueHD, Dolby Atmos<sup>®</sup>, and DTS-HD<sup>®</sup>, as well as uncompressed linear PCM. All signals are transported over a single CAT type wire, supporting 1080p, WUXGA, and 2K signals at distances up to 330 feet (100 m) using Crestron DM Ultra Cable, Crestron DM 8G Cable, or third-party CAT5e. Higher resolutions up to UHD and 4K are supported at distances up to 330 feet (100 m) using DM Ultra Cable, 230 feet (70 m) using DM 8G Cable, or 165 feet (50 m) using CAT5e.<sup>[2]</sup>

## HDBaseT<sup>®</sup> Certified

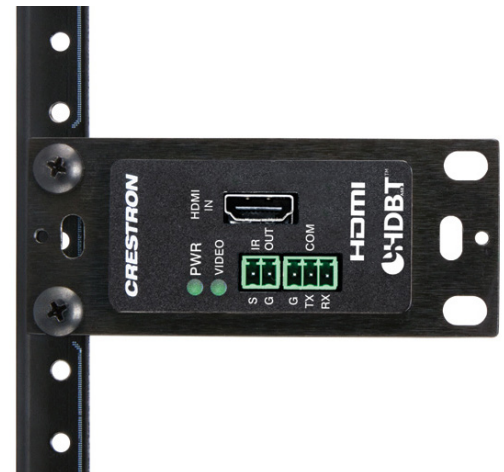
Crestron DigitalMedia 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Via its DM 8G+ output, the DM-TX-4K-100-C-1G can be connected directly to an HDBaseT compliant device without requiring a DM receiver.



**DM-TX-4K-100-C-1G-B-T  
Front & Rear Views**



**DM-TX-4K-100-C-1G-B-T  
With Mounting Bracket**



**DM-TX-4K-100-C-1G-B-T  
Attached to Rack Rail**

### Multimedia Computer/AV Interface

A single HDMI digital AV input port is provided on the DM-TX-4K-100-C-1G for connection of a laptop computer, mobile device, or other AV source. The HDMI input can also handle DVI and Dual-Mode DisplayPort signals using an appropriate adapter or interface cable.<sup>[4]</sup>

A single CAT type cable connects the DM-TX-4K-100-C-1G to a DM switcher or receiver, or to an HDBaseT device, transporting video, audio, control, and power signals all through one simple RJ45 connection.<sup>[2,5,6]</sup> Used with a single DM 8G+ Receiver/Room Controller, the DM-TX-4K-100-C-1G affords a simple solution for extending a computer or AV signal to a single display. As part of a larger system using a DM-MD series switcher, multiple DM-TX-4K-100-C-1Gs may be installed to enable the distribution of several sources at different locations to feed multiple displays throughout any room or larger facility.

### Embedded Device Control

The DM-TX-4K-100-C-1G includes built-in RS-232 and IR control ports to allow for programmable control of the connected source device (via a control system).<sup>[1]</sup> Additional control capability is afforded by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-TX-4K-100-C-1G provides a gateway for controlling the source right through its HDMI connection, potentially eliminating the need for a dedicated serial cable or IR emitter.<sup>[7]</sup>

### Versatile Mounting Options

The DM-TX-4K-100-C-1G is designed to be installed using a 3-1/2" deep 1-gang electrical box or plaster ring (not included). It can also be mounted beneath a table or attached to a suitable flat surface using the mounting bracket provided, or it can be fastened to a single rack rail in an equipment cabinet. The DM cable connects to the rear of the transmitter via a shielded RJ45 DM port. The unit can be powered using the wall mount power pack (included), or PoDM (Power over DigitalMedia) for a true one-wire solution.<sup>[5,6]</sup> An array of indicators is provided for easy setup and troubleshooting.

## SPECIFICATIONS

### Maximum Cable Lengths

Cable Type:	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	CAT5e (or better) <sup>[2]</sup>
Resolution:			
1080p60 Full HD	330 ft (100 m)	330 ft (100 m)	330 ft (100 m)
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 DCI 2K			
2560x1440 WQHD		230 ft (70 m)	165 ft (50 m)
2560x1600 WQXGA			
3840x2160 4K UHD			
4096x2160 DCI 4K			

### Video

**Input Signal Types:** HDMI w/Deep Color, 3D, & 4K (DVI & Dual-Mode DisplayPort compatible)<sup>[4]</sup>

**Output Signal Types:** DM 8G+ & HDBaseT w/Deep Color, 3D, & 4K

### Maximum Resolutions:

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 DCI 4K & 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 HD1080p	60 Hz	4:4:4	36 bit
Interlaced	1920x1080 HD1080i	30 Hz	4:4:4	36 bit

*NOTE: Common resolutions are shown; other custom resolutions are supported at pixel clock rates up to 300 MHz*

## Audio

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**Input Signal Types:** HDMI (Dual-Mode DisplayPort compatible<sup>[4]</sup>)

**Output Signal Types:** DM 8G+, HDBaseT

**Formats:** Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, Dolby Atmos®, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, LPCM up to 8 channels

## Communications

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**RS-232:** 2-way device control and monitoring up to 115.2k baud with software handshaking (via control system)<sup>[1]</sup>

**IR/Serial:** 1-way device control via infrared up to 1.1 MHz or serial TTL/RS-232 (0-5 Volts) up to 19.2k baud (via control system)<sup>[1]</sup>

**DigitalMedia:** DM 8G+, HDCP 2.2, EDID, CEC<sup>[7]</sup>, PoDM

**HDBaseT:** HDCP 2.2, EDID, CEC<sup>[7]</sup>, PoE

**HDMI:** HDCP 2.2, EDID, CEC<sup>[7]</sup>

## Connectors – Front

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**HDMI IN:** (1) 19-pin Type A HDMI female;

HDMI digital video/audio input;

(DVI and Dual-Mode DisplayPort compatible<sup>[4]</sup>)

**IR OUT:** (1) 2-pin 3.5 mm detachable terminal block; IR/Serial port<sup>[1]</sup>;

IR output up to 1.1 MHz;

1-way serial TTL/RS-232 (0-5 Volts) up to 19200 baud

**COM:** (1) 3-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port<sup>[1]</sup>;

Up to 115.2k baud, software handshaking support

## Connectors – Rear

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**G:** (1) 6-32 screw;

Chassis ground lug

**DM OUT:** (1) 8-pin RJ45 female, shielded;

DM 8G+ output, HDBaseT compliant;

PoDM PD port (HDBaseT PoE compatible)<sup>[5,6]</sup>;

Connects to the DM 8G+ input of a DM switcher, receiver, or other DM device, or to an HDBaseT device, via CAT5e, Crestron DM-CBL-8G, or Crestron DM-CBL-ULTRA cable<sup>[2]</sup>

**24VDC 0.75A:** (1) 2-pin 3.5 mm detachable terminal block;

24 Volt DC power input;

PW-2407WUL power pack included

## Indicators

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**PWR:** (1) Green LED, indicates operating power supplied via PoDM, HDBaseT PoE, or local power pack

**VIDEO:** (1) Green LED, indicates video signal presence at the HDMI input

**DM OUT (rear):** (2) LEDs, green LED indicates DM link status, amber LED indicates video and HDCP signal presence

## Power

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**Power Pack (included):** Input: 100-240 Volts AC, 50/60 Hz

Output: 0.75 Amps @ 24 Volts DC

Model: PW-2407WUL

**Power over DM (PoDM):** IEEE 802.3at Type 1 Class 3 (12.95 W) compliant PoDM PD (Powered Device), capable of being powered by a PoDM PSE (Power Sourcing Equipment)<sup>[5]</sup>

**Power over HDBaseT:** IEEE 802.3at Type 1 Class 3 (12.95 W) compliant HDBaseT PoE PD (Powered Device), capable of being powered by an HDBaseT PoE PSE (Power Sourcing Equipment)<sup>[6]</sup>

**Power Consumption:** 4 Watts typical;  
2.3 Watts idle

## Environmental

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

**Humidity:** 10% to 90% RH (non-condensing)

**Heat Dissipation:** 13.7 BTU/hr

## Enclosure

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**Construction:** Metal, black finish with white or black polycarbonate label overlay

**Flush Wall Mount:** Mounts in a 1-gang 3-1/2" deep electrical box or plaster ring, requires decorator style faceplate (not included)

**Surface Mount:** Surface mount bracket included

**Rack Mount:** Attachable to a single 19-inch EIA rack rail

## Dimensions

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**Height:** 4.12 in (105 mm)

**Width:** 1.72 in (44 mm)

**Depth:** 2.35 in (60 mm)

## Weight

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6.3 oz (179 g)

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## MODELS & ACCESSORIES

### Available Models

**DM-TX-4K-100-C-1G-B-T:** Wall Plate 4K DigitalMedia 8G+® Transmitter 100, Black Textured

**DM-TX-4K-100-C-1G-W-T:** Wall Plate 4K DigitalMedia 8G+® Transmitter 100, White Textured

### Included Accessories

**PW-2407WUL:** Wall Mount Power Pack, 24VDC, 0.75A, Flying Leads, Universal (Qty. 1 included)

### Available Accessories

**DM-PSU-ULTRA-MIDSPAN:** DigitalMedia™ Ultra Midspan PoDM++ Injector

**DM-CBL-ULTRA-PC:** DigitalMedia™ Ultra Patch Cables

**DM-CONN-ULTRA-RECP:** DigitalMedia™ Ultra Keystone RJ45 Jack

**DM-CBL-ULTRA-NP:** DigitalMedia™ Ultra Cable, Non-Plenum Type CMR

**DM-CBL-ULTRA-P:** DigitalMedia™ Ultra Cable, Plenum Type CMP

**DM-CBL-ULTRA-LSZH:** DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen (Available only in Europe)

**DM-CONN:** Connectors for DM-CBL-ULTRA DigitalMedia Ultra Cable

**DM-CBL-8G-NP:** DigitalMedia 8G™ Cable, non-plenum

**DM-CBL-8G-P:** DigitalMedia 8G™ Cable, plenum

**DM-8G-CONN:** Connectors for DM-CBL-8G DigitalMedia 8G™ Cable

**DM-8G-CRIMP:** Crimping Tool for DM-8G-CONN

**DM-8G-CONN-WG:** Connectors with Wire Guide for DM-CBL-8G DigitalMedia 8G™ Cable

**DM-8G-CRIMP-WG:** Crimping Tool for DM-8G-CONN-WG

**CBL Series:** Crestron® Certified Interface Cables

**CNSP-XX:** Custom Serial Interface Cable

**IRP2:** IR Emitter Probe w/Terminal Block Connector

**MP-WP183:** Media Presentation Wall Plate - Ethernet

### Notes:

1. The IR and RS-232 (COM) ports are only enabled when the DM-TX-4K-100-C-1G is connected to an Ethernet-enabled DM transmitter or switcher that is addressable from a Crestron control system.
2. The maximum cable length for DigitalMedia 8G+ (DM 8G+) or HDBaseT is dependent upon the type of cable and resolution of the video signal. Refer to the "Maximum Cable Lengths" table for a detailed overview. Crestron legacy cable models [DM-CBL](#) DigitalMedia Cable and [DM-CBL-D](#) DigitalMedia D Cable support the same resolutions and cable lengths as CAT5e. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Refer to the [Crestron DigitalMedia Design Guide, Doc. #4546](#) for complete system design guidelines. DM 8G+ is compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment. All wire and cables are sold separately.
3. The DM-TX-4K-100-C-1G does not include an Ethernet port. Local Ethernet connectivity for external devices requires a [MP-WP183](#) or equivalent Ethernet jack with a dedicated LAN connection.
4. The HDMI input requires an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. [CBL-HD-DVI](#) interface cables are available separately.
5. To power the DM-TX-4K-100-C-1G using PoDM (Power over DigitalMedia) requires connection to a DM switcher or other equipment that has a PoDM PSE port. Any wiring that is connected to a PoDM PSE port is for intra-building use only and should not be connected to a line that runs outside of the building in which the PSE is located.
6. To power the DM-TX-4K-100-C-1G using HDBaseT PoE requires connection to a switcher or other equipment that has an HDBaseT PoE PSE port. Any wiring that is connected to an HDBaseT PoE PSE port is for intra-building use only and should not be connected to a line that runs outside of the building in which the PSE is located.
7. Supports simple pass-through of CEC when connected directly to a [DM-RMC-4K-100-C-1G](#) receiver. Supports full management of CEC between the locally connected HDMI device and a control system when connected to an Ethernet-enabled 4K DM receiver or switcher that supports CEC over HDBaseT. Refer to the spec sheet for each DM receiver, switcher, input card, or input blade to verify "CEC" is listed under "HDBaseT" in the "Communications" section of the product's specifications.

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