

Wall Plate 4K DigitalMedia 8G+™ Transmitter

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

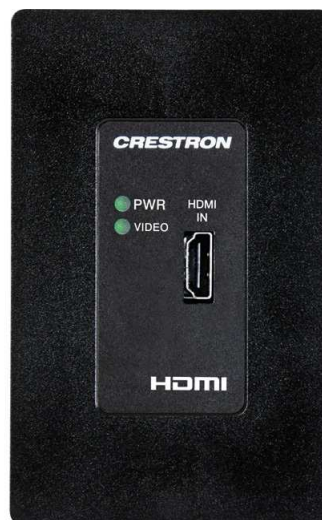
The DM-TX1-4K-C-1G provides a simple, cost-effective interface solution for a single HDMI, DVI, or DisplayPort Multimode source as part of a complete Crestron® DigitalMedia™ system. It functions as a DM 8G+™ transmitter, providing a single HDMI® input. In addition to DM 8G+, it is also compatible with HDBaseT®, allowing it to be connected directly to an HDBaseT certified receiver or display device. Its 1-gang mountable design allows the DM-TX1-4K-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.^[1] Standard gang-box mounting allows for installation adjacent to an Ethernet jack (Crestron [MP-WP183](#) or equivalent) for a total connectivity solution.^[2]

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-TX1-4K-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+™

As the leader in HDMI and control system technologies, Crestron developed DigitalMedia (DM®) 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,



Faceplate not included

school, or virtually any other facility. The latest generation of DM is called DigitalMedia 8G™ (DM 8G®). 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. Audio capabilities include support for high-bitrate 7.1 audio formats like Dolby® TrueHD and DTS-HD Master Audio™ 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](#) or [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.^[1]

HDBaseT® 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-TX1-4K-C-1G can be connected directly to an HDBaseT compliant device without requiring a DM receiver.

Multimedia Computer/AV Interface

A single HDMI digital AV input port is provided on the DM-TX1-4K-C-1G for connection of a laptop computer, mobile device, or other AV source. The HDMI input can also handle DVI and DisplayPort Multimode signals using an appropriate adapter or interface cable.^[3]

A single CAT type cable connects the DM-TX1-4K-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.^[1,4] Used with a single DM 8G+ Receiver/Room Controller, the DM-TX1-4K-C-1G affords a

DM-TX1-4K-C-1G Wall Plate 4K DigitalMedia 8G+™ Transmitter

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-TX1-4K-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.

CEC Embedded Device Control

For controlling the connected source device, the DM-TX1-4K-C-1G offers an alternative to conventional IR and RS-232 control by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Using CEC, many devices can be controlled right through their HDMI connections, eliminating the need for any dedicated serial cables or IR emitters.^[5]

USB Signal Extension (optional)

DigitalMedia allows for the routing of USB signals alongside video and audio. USB signal extension is enabled on the DM-TX1-4K-C-1G by adding a [USB-EXT-DM](#) USB over Ethernet Extender Module^[6].

Versatile Mounting Options

The DM-TX1-4K-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 via PoDM (Power over DigitalMedia) for a true one-wire solution^[4]. An array of indicators is provided for easy setup and troubleshooting.

Please refer to the DigitalMedia Resources Webpage at <http://www.crestron.com/dmresources/> for additional design tools and reference documents.

SPECIFICATIONS

Maximum Cable Lengths

Cable Type:	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	CAT5e (or better) UTP or STP ^[1]
Resolution:			
1080p60 Full HD	330 ft (100 m)	330 ft (100 m)	330 ft (100 m)
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 2K DCI		230 ft (70 m)	165 ft (50 m)
2560x1440 WQHD			
2560x1600 WQXGA			
3840x2160 Ultra HD			
4096x2160 4K DCI			

Video

Input Signal Types: HDMI®, DVI^[3], DisplayPort Multimode^[3]

Output Signal Types: DM 8G+™ (DigitalMedia over one CAT type twisted pair copper wire), HDBaseT®^[1]

Formats: DM 8G+, HDBaseT, & HDMI w/Deep Color, 3D, & 4K; DVI; HDCP content protection support

Maximum Resolutions:

Scan Type	Maximum Resolution	Frame Rate	Color Sampling
Progressive	4096x2160 4K DCI	Up to 24 Hz	4:4:4
Progressive	3840x2160 Ultra HD	Up to 30 Hz	4:4:4
Progressive	2560x1600 WQXGA	Up to 60 Hz	4:4:4
Progressive	4096x2160 4K DCI	Up to 60 Hz	4:2:0
Progressive	3840x2160 Ultra HD	Up to 60 Hz	4:2:0
Interlaced	1920x1080 1080i30	Up to 30 Hz	4:4:4

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

Audio

Input Signal Types: HDMI, DisplayPort Multimode^[3]

Output Signal Type: DM 8G+, HDBaseT

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

Communications

DigitalMedia: DM 8G+, HDCP, EDID, CEC^[5], PoDM

HDBaseT: HDCP, EDID, CEC^[5], PoH

HDMI: HDCP, EDID, CEC^[5]

Connectors – Front

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

HDMI digital video/audio input;

Also supports DVI and DisplayPortMultimode^[3]

Connectors – Rear

G: (1) 6-32 screw, chassis ground lug

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

DM 8G+ output, HDBaseT compliant;

PoDM and PoH PD (Powered Device) port^[4];

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^[1]

24VDC 0.7A: (1) 2-pin 3.5mm detachable terminal block;

24 Volt DC power input;

PW-2407WUL power pack included

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Indicators

PWR: (1) green LED, indicates operating power supplied via PoDM, PoH, 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 Requirements

Power Pack: 0.75 Amps @ 24 Volts DC;
100-240 Volts AC, 50/60 Hz power pack, model PW-2407WUL included

Power over DM (PoDM): PoDM PD (Powered Device), capable of being powered by a PoDM PSE (Power Sourcing Equipment), conforms to IEEE 802.3af (802.3at Type 1) Class 0 (12.95W)^[7]

Power over HDBaseT (PoH): PoH PD (Powered Device), capable of being powered by a PoH PSE (Power Sourcing Equipment), conforms to IEEE 802.3af (802.3at Type 1) Class 3 (12.95W)^[7]

Note: May be powered via power pack or PoDM/PoH, not both.

Power Consumption: 4 Watts typical;
2.3 Watts idle

Environmental

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

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

Heat Dissipation: 13.7 BTU/hr

Enclosure

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

Flush Wall Mount: 1-gang mountable in an extra-deep electrical box (3-1/2 inch deep minimum), requires a decorator style faceplate (not included)

Surface Mount: Surface mount bracket included

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

Dimensions

Height: 4.12 in (105 mm)

Width: 1.72 in (44 mm)

Depth: 2.35 in (60 mm)

Weight

TBD

MODELS & ACCESSORIES

Available Models

DM-TX1-4K-C-1G-B-T: Wall Plate 4K DigitalMedia 8G+™ Transmitter, Black Textured

DM-TX1-4K-C-1G-W-T: Wall Plate 4K DigitalMedia 8G+™ Transmitter, White Textured

Included Accessories

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

Available Accessories

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

DM-CONN: DigitalMedia™ Cable Connector

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

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

DM-8G-CONN: DigitalMedia 8G™ Cable Connector

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

DM-8G-CONN-WG: DigitalMedia 8G™ Cable Connector with Wire Guide

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

CBL Series: Crestron® Certified Interface Cables

MP-WP183: Media Presentation Wall Plate - Ethernet

USB-EXT-DM: USB over Ethernet Extender with Routing

Notes:

1. 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.
2. The DM-TX1-4K-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.
3. The HDMI input requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. [CBL-HD-DVI](#) interface cables are available separately.
4. Receiving Power over DM (PoDM) or Power over HDBaseT (PoH) requires connection to a switcher or other equipment that has a PoDM or PoH PSE (Power Sourcing Equipment) port. Any wiring that is connected to a PoDM or PoH 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.
5. Supports simple pass-through of CEC when connected directly to a [DM-RX1-4K-C-1G](#) receiver. Supports full management of CEC between the locally connected HDMI device and a control system when connected to any Ethernet-enabled 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.
6. USB-EXT-DM USB over Ethernet Extender Modules are sold separately. Refer to the [USB-EXT-DM](#) spec sheet for more information.
7. References to the IEEE 802.3af and 802.3at standards are used to demonstrate that PoDM and PoH technology is similar in function to PoE and follows the same essential specifications. The DM-TX1-4K-C-1G cannot be powered over Ethernet, and its DM OUT port should not be connected directly to an Ethernet network or device.

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This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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

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