

Wall Plate DigitalMedia 8G+™ Transmitter 200

- > DigitalMedia 8G+™ transmitter and multimedia interface
- > Built-in 2x1 AV switcher with auto-switching and audio-breakaway
- > QuickSwitch HD® technology achieves fast, reliable switching
- > DM 8G+™ output supports up to 330 ft (100 m) cable length^[2]
- > Connects to a DM® switcher or receiver over one CAT5e or Crestron® DM 8G® cable^[2]
- > Supports HDBaseT™ Alliance specifications
- > Provides HDMI® and RGB/component video inputs^[4]
- > Also supports DVI and DisplayPort Multimode sources^[3]
- > Handles HD video with HDCP
- > Handles Dolby Digital®, DTS®, and uncompressed 7.1 linear PCM audio
- > Includes mini-TRS stereo analog audio input
- > Detects and reports detailed video and audio input information
- > Performs automatic AV signal format management via EDID
- > Includes USB HID keyboard/mouse port
- > Enables device control via CEC
- > Allows quick, easy setup and diagnostics
- > 2-gang wall box mount design
- > Also fits in a typical 6" deep floor box
- > Available in black or white finish
- > Powered over the DM connection or local power pack (included)^[5]



Faceplates not included.



The DM-TX-200-C-2G is a DM 8G+™ transmitter and switcher that installs in a double-gang electrical box to provide a convenient interface for computers and high-definition AV sources as part of a complete Crestron® DigitalMedia™ system. In addition to DM 8G+, it is also compatible with HDBaseT™ specifications, allowing it to be connected directly to the input of an HDBaseT compliant display device. The DM-TX-200-C-2G is ideal for wall, lectern, and floor box applications in a boardroom, classroom, auditorium, or residence. It connects to the head end or display location using a single CAT5e or Crestron DM 8G® cable, providing HDMI®, VGA, and analog audio inputs, plus a USB HID host port. Standard gang-box mounting allows for installation adjacent to an Ethernet jack (Crestron MP-WP183 or equivalent) for a total connectivity solution^[1].

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, school, or virtually any other facility.

DigitalMedia 8G+ is the latest generation of DM, providing a true one-wire transport for moving high-definition video, audio, and Ethernet^[1] over low-cost twisted-pair cable without any compression or repeaters. Just one 8-conductor twisted-pair cable is required, supporting distances up to 330 feet (100 m) using Crestron DM 8G Cable or CAT5e.^[2]

HDBaseT™

Crestron DigitalMedia 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with third-party HDBaseT products. Via its DM 8G+ output, the DM-TX-200-C-2G can be connected directly to any HDBaseT compliant device without requiring a DM receiver. HDBaseT connectivity through the DM-TX-200-C-2G converges uncompressed full HD digital video, audio, Ethernet, power and control signals through a single CAT5e or CAT6 cable over distances up to 328 ft (100m).

Multimedia Computer/AV Interface

The DM-TX-200-C-2G provides simple switching between two inputs. The inputs can be configured to switch automatically or be selected through a Crestron control system. Inputs include:

- HDMI — Supports HD 1080p60 video and WUXGA computer signals with HDCP and multi-channel lossless audio. Also handles DVI and DisplayPort Multimode signals using an appropriate adapter or interface cable^[3].
- PC — This VGA type input handles analog RGB signals up to WUXGA 1920x1200 pixels, as well as analog video up to 1080p60^[4]. A 1/8" (3.5mm) stereo audio input is included to accommodate analog audio signals from an unbalanced line-level source or headphone output.

Note: Audio breakaway capability enables either audio input to be used with either video input.

DM-TX-200-C-2G Wall Plate DigitalMedia 8G+™ Transmitter 200



DM-TX-200-C-2G-B-T – Front and Rear Views

A single cable connects the DM-TX-200-C-2G to a DM switcher or receiver, or to an HDBaseT device, transporting video, audio, control, networking, and power signals all through one simple RJ45 connection.

^[1,5] Used with a single DM 8G+ Receiver/Room Controller and optional Crestron Control System, the DM-TX-200-C-2G affords a simple solution for extending a multimedia computer or AV signal to a single display up to 330 feet (100 m) away^[2]. As part of a larger system using a DM-MD series switcher, multiple DM-TX-200-C-2Gs may be installed to enable the distribution of several sources at different locations to feed multiple displays throughout any room or larger facility.

Keyboard/Mouse Extender

The DM-TX-200-C-2G functions as a keyboard/mouse extender, allowing a USB HID-compliant keyboard and/or mouse to be connected at the wall plate and used to control a computer or other component located at the central equipment rack or some other location.

EDID Format Management

The DM-TX-200-C-2G allows for management of the EDID (Extended Display Identification Data) information that passes between the display devices and input sources in the system. Using [Crestron Toolbox™](#) software, the format and resolution capabilities of each device can be assessed and managed through the DM-TX-200-C-2G, ensuring reliable operation by instructing sources to output only the resolutions and formats that can be handled by the displays and system wiring.

CEC Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. DigitalMedia provides an alternative to conventional IR and RS-232 device control by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-TX-200-C-2G provides a gateway for controlling the connected source device right through the HDMI connection, potentially eliminating the need for any dedicated control wires or IR emitters. Through proper CEC signal management, DigitalMedia allows you to take control of each device in the system as you like.

Simple Wall Box Mounting

The DM-TX-200-C-2G is designed to be installed using a 2-gang electrical box or plaster ring. It also fits a 2-gang opening in a typical 6" deep floor box. 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^[5]. An array of indicators on the front of the DM-TX-200-C-2G provides for easy setup and troubleshooting. Advanced configuration is enabled through Crestron Toolbox software.

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

SPECIFICATIONS

Video

Switcher: 2x1 combination digital/analog switch, Crestron QuickSwitch HD®

Input Signal Types: HDMI®, DVI^[3], DisplayPort Multimode^[3], RGB, component (YPbPr)^[4], S-Video (Y/C)^[4], composite^[4]

Output Signal Types: DM 8G+™ (DigitalMedia™ over one CAT5e twisted-pair copper wire), HDBaseT™ ^[2]

Formats: HDMI, DVI, HDCP content protection support, computer up to UXGA/WUXGA, HD up to 1080p60, NTSC or PAL

Input Resolutions, HDMI & DVI, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60),

DM-TX-200-C-2G Wall Plate DigitalMedia 8G+™ Transmitter 200

1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, HDMI & DVI, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, RGB: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1152@60Hz

Input Resolutions, Component^[4]: 480i, 576i, 480p, 576p, 720p50, 720p60, 1080p24, 1080i25 (1125 lines), 1080i30, 1080p30, 1080p50 (1125 lines), 1080p60

Input Resolutions, Composite and S-Video^[4]: 480i, 576i

Output Resolutions: Matched to inputs

Analog-To-Digital Conversion: 10-bit 165 MHz per each of 3 channels

Audio

Switcher: 2x1 combination digital/analog switch

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

Output Signal Types: DM 8G+, HDBaseT

Formats, HDMI: Dolby Digital®, Dolby Digital EX, DTS®, DTS-ES, DTS 96/24, Up to 8ch PCM

Formats, Analog: Stereo 2-channel

Analog-To-Digital Conversion: 24-bit 48 kHz

Input Level Compensation (analog): ±10 dB

Performance (analog): Frequency Response: 20Hz to 20kHz ±0.75dB;
S/N Ratio: >90dB, 20Hz to 20kHz A-weighted;
THD+N: <0.05% @ 1kHz;
Stereo Separation: >90dB

Communications

DigitalMedia: DM 8G+, HDCP management, EDID format management, CEC, PoDM, HDBaseT compliant

USB: Supports USB HID class devices

Connectors – Front

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

Unbalanced stereo line-level audio input;

Input Level: 2 Vrms maximum;

Input Impedance: 10k Ohms

USB HID: (1) USB Type A female; USB 2.0 host port for connection of a mouse/keyboard or other USB HID-compliant device

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

HDMI digital video/audio input;

Also supports DVI and DisplayPort Multimode^[3]

PC IN: (1) DB15HD female;

RGB (VGA), component, S-Video, or composite video input^[4];

Formats: RGBHV, RGBS, RGsB, YPbPr, Y/C, NTSC, PAL;

Input Levels: 0.5 to 1.5 Vp-p with built-in DC restoration;

Input Impedance: 75 Ohms;

Sync Input Type: Autodetect RGBHV, RGBS, RGsB, YPbPr;

Sync Input Level: 3 to 5 Vp-p;

Sync Input Impedance: 1k Ohms

Connectors – Rear

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

DM 8G+ output, HDBaseT compliant;

PoDM and PoH PD (Powered Device) port^[5];

Connects to the DM 8G+ input of a DM switcher, receiver/room controller, or other DM device, or to a HDBaseT device, via CAT5e or Crestron DM-CBL-8G cable^[2];

Note: RJ45 jack is recessed to accommodate long male cable connectors

24VDC 0.7A: (1) 2-pin captive screw terminal block;

24 Volt DC power input;

PW-2407WUL power pack included

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

Controls & Indicators

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

RESET: (1) miniature recessed pushbutton for hardware reset

SETUP: (1) red LED and (1) miniature recessed pushbutton for Ethernet setup

8G LINK: (1) green LED, indicates DM link status

8G ACTV: (1) yellow LED, indicates video and HDCP signal presence

HDMI: (1) green LED, indicates HDMI input is selected

PC: (1) green LED, indicates PC input is selected

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)

Power over HDBaseT (PoH): PoH PD (Powered Device), capable of being powered by a PoH PSE (Power Sourcing Equipment)

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

Environmental

Temperature: 32° to 95°F (0° to 35°C)

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

Heat Dissipation: 36 BTU/hr

DM-TX-200-C-2G Wall Plate DigitalMedia 8G+™ Transmitter 200

Enclosure

Construction: Metal

Flush Mount: Mounts in a 2-gang electrical box or in a 2-gang opening in a typical 6 inch deep floor box, 2.5 inch minimum mounting depth required, decorator style faceplate not included

Dimensions

Height: 4.12 in (105 mm)

Width: 3.50 in (89 mm)

Depth: 2.65 in (68 mm)

Weight

14.2 oz (403 g)

MODELS & ACCESSORIES

Available Models

DM-TX-200-C-2G-B-T: Wall Plate DigitalMedia 8G+™ Transmitter 200, Black Textured

DM-TX-200-C-2G-W-T: Wall Plate DigitalMedia 8G+™ Transmitter 200, White Textured

Included Accessories

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

Available Accessories

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

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

DM-8G-CONN-100: DigitalMedia 8G™ Cable Connector, 100-Pack

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

CBL Series: Crestron® Certified Interface Cables

Notes:

1. The DM-TX-200-C-2G does not include an external Ethernet port. Local Ethernet connectivity for external devices requires a [MP-WP183](#) or equivalent Ethernet jack with a dedicated LAN connection.
2. For DM 8G+ wiring, use Crestron [DM-CBL-8G](#) DigitalMedia 8G Cable, Crestron [DM-CBL](#) DigitalMedia Cable, Crestron [DM-CBL-D](#) DigitalMedia D Cable, or generic CAT5e (or better) UTP or STP. Maximum wire length for DM 8G+ is 330 ft (100 m) between devices. 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 also compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment. All wire and cables sold separately.
3. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. [CBL-HD-DVI](#) interface cables available separately.
4. The RGB input can actually accept component, composite, and S-Video signals via direct interface to Crestron MPS Series products, or through an appropriate adapter (not included). However, input sync detection is not provided for composite or S-Video signal types through the RGB connection.
5. 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.

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.

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

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