DM-4K-I-C

8-Channel HDBaseT® Certified 4K DigitalMedia 8G+® Input Blade for DM® Switchers

- Modular input blade for a DM-MD64X64 or DM-MD128X128 switcher
- Provides eight independent 4K DM 8G+® inputs
- HDBaseT® Certified — Enables direct connection to other HDBaseT certified equipment
- 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 2.2 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]
- Supports PoDM and PoH[2]
- Occupies a single input blade slot

The DMB-4K-I-C is an input blade designed for use with any blade-based Crestron® DigitalMedia™ Switcher. It provides eight independent DM 8G+® inputs, which are also compatible with HDBaseT®. Each DM 8G+ input enables the connection of a DM 8G+ transmitter, the output of another DM® switcher, or an HDBaseT® certified source, using a single CAT type twisted pair cable. Power over DM (PoDM) is supplied through the same connection, providing a centralized power source for PoDM compatible transmitters.[2]

All inputs on the DMB-4K-I-C are capable of handling video resolutions up to 4K and Ultra HD. Support for 4K video also ensures support for the latest generation of computers and monitors with native resolutions beyond 1080p and WUXGA. DM 8G+ transports uncompressed Full HD 1080p, WUXGA, and 2K signals over distances up to 330 feet (100 m) using Crestron DM Ultra or DM 8G® Cable, or third-party CAT5e. Higher resolution signals up to UHD and 4K are supported over 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]

Crestron DigitalMedia 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Any DM 8G+ input can be connected directly to an HDBaseT compliant device without requiring a DM transmitter.


SPECIFICATIONS

Video

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

<table>
<thead>
<tr>
<th>Scan Type</th>
<th>Resolution</th>
<th>Frame Rate</th>
<th>Color Sampling</th>
<th>Color Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive</td>
<td>4096x2160 4K DCI &amp; 3840x2160 Ultra HD</td>
<td>24 Hz</td>
<td>4:4:4</td>
<td>30 bit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 Hz</td>
<td>4:4:4</td>
<td>24 bit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60 Hz</td>
<td>4:2:0</td>
<td>24 bit</td>
</tr>
<tr>
<td>Interlaced</td>
<td>2560x1600 WQXGA</td>
<td>60 Hz</td>
<td>4:4:4</td>
<td>36 bit</td>
</tr>
<tr>
<td></td>
<td>1920x1080 HD1080p</td>
<td>60 Hz</td>
<td>4:4:4</td>
<td>36 bit</td>
</tr>
<tr>
<td></td>
<td>1920x1080 HD1080i</td>
<td>30 Hz</td>
<td>4:4:4</td>
<td>36 bit</td>
</tr>
</tbody>
</table>

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

Input Signal Types: DM 8G+, HDBaseT
Formats: Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, DTS®, DTS-ES, DTS-HD Master Audio®, LPCM up to 8 channels

Communications

DigitalMedia: DM 8G+, HDCP 2.2, EDID, CEC, PoDM, PoDM+, Ethernet
HDBaseT: HDCP, EDID, PoH, Ethernet

NOTE: Supports management of HDCP and EDID

Maximum Cable Lengths

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Cable Type:</th>
<th>CAT5e (or better) UTP or STP (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1080p60 Full HD</td>
<td>DM-CBL-ULTRA-DM® Ultra Cable</td>
<td>330 ft (100 m)</td>
</tr>
<tr>
<td>1920x1200 WUXGA</td>
<td>DM-CBL-8G® DM 8G® Cable</td>
<td>330 ft (100 m)</td>
</tr>
<tr>
<td>2048x1080 2K DCI</td>
<td></td>
<td>230 ft (70 m)</td>
</tr>
<tr>
<td>2560x1440 WQHD</td>
<td></td>
<td>165 ft (50 m)</td>
</tr>
<tr>
<td>2560x1600 WQXGA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3840x2160 Ultra HD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4096x2160 4K DCI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Connectors

INPUT DM 1 – 8: (8) 8-pin RJ45 female, shielded; DM 8G+ inputs, HDBaseT compliant; PoDM and PoH PSE (Power Sourcing Equipment) ports (2); Each connects to the DM 8G+ output of a DM transmitter or other DM device, or to an HDBaseT device, via CAT5e, Crestron DM-CBL-8G, or DM-CBL-ULTRA cable (1)

PoDM INPUT PWR: (1) Combo D-Sub 7w2, male; 48 Volt DC power input for PoDM power supply (2); Enables PoDM and PoH power sourcing

Indicators

ACT: (1) green LED, indicates blade activity
MSG: (1) red LED, indicates an error message has been generated

INPUT DM 1 – 8: (16) LEDs, green LEDs indicate DM link status, amber LEDs indicate video and HDCP signal presence, for each corresponding input

Construction

Plug-in blade, occupies (1) DM switcher input blade slot, includes metal faceplate w/black finish

Weight

1.6 lb (726 g)

MODELS & ACCESSORIES

Available Models
DMB-4K-I-C: 8-Channel HDBaseT® Certified 4K DigitalMedia 8G®+ Input Blade for DM® Switchers

Available Accessories

PW-4830DUS: 150W PoDM Power Pack for DM 8G+® I/O Blades
DM-PSU-3X8-RPS: PoDM+ Redundant Power Supply for DM 8G+® I/O Blades
DM-CBL-ULTRA-NSH: 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: Connector for DM-CBL-ULTRA
DM-CBL-8G-NS: DigitalMedia 8G™ Cable, non-plenum
DM-CBL-8G-P: DigitalMedia 8G™ Cable, plenum
DM-8G-CONN: Connector for DM-CBL-8G
DM-8G-CRIMP: Crimping Tool for DM-8G-CONN
DM-8G-CONN-WG: Connector with Wire Guide for DM-CBL-8G
DM-8G-CRIMP-WG: Crimping Tool for DM-8G-CONN-WG
MP-WP Series: Media Presentation Wall Plates
MPI-WP Series: Media Presentation Wall Plates – International Version

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. Supplying Power over DM (PoDM) or Power over HDBaseT (PoH) via a DM 8G+ input requires either a DM-PSU-3X8-RPS PoDM+ Redundant Power Supply or PW-4830DUS PoDM Power Pack, each sold separately. PoDM+ is supported via all eight inputs using the PW-4830DUS. Refer to the connected DM 8G+ or HDBaseT device for its PoDM or PoH capabilities and requirements. 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.

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.