

Crestron **DM-TX-300N/-F**

DigitalMedia™

CAT & Fiber Transmitters 300N

Operations Guide



This document was prepared and written by the Technical Documentation department at:



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Regulatory Compliance

As of the date of manufacture, the DM-TX-300N and DM-TX-300N-F have been tested and found to comply with specifications for CE marking and standards per EMC and Radiocommunications Compliance Labelling.



Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:
(1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

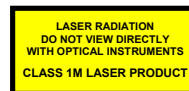
- Reorient or relocate the receiving antenna
- Increase separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada (IC) Compliance Statement

Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

The DM-TX-300N-F is a class 1M laser product. It complies with safety regulations of IEC-60825-1, FDA 21 CFR 1040.11 and FDA 21 CFR 1040.10.



WARNING: Invisible laser radiation may be emitted from disconnected fibers or connectors. Do not stare into beams or view directly with optical instruments.

NOTE: Plug the included dust caps into the optical transceivers when the fiber optic cable is unplugged.

This device includes an aggregation of separate independent works that are each generally copyrighted by Crestron Electronics, Inc., with all rights reserved. One of those independent works, Linux Bridge Project, is copyrighted under the GNU GENERAL PUBLIC LICENSE, Version 2, reproduced in "GNU General Public License" on page 37, where the corresponding source code is available at: <ftp://ftp.crestron.com/gpl>.

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DigitalMedia™ CAT & Fiber Transmitters 300N: DM-TX-300N/-F

Introduction

The DM-TX-300N is a DigitalMedia™ (DM) CAT transmitter and switcher. The DM-TX-300N-F is a DM fiber transmitter and switcher. Each provides a remarkably simple, yet versatile interface for connecting nearly any computer or AV source to a Crestron® DigitalMedia system. Boasting HDMI™, DVI, RGB and multi-format analog video inputs, plus digital and analog audio inputs, the DM-TX-300N and DM-TX-300N-F are ideal for use at a lectern, conference table, equipment cabinet or connected to a wall plate input to send signals to a display or switcher many feet away.

For simplicity within this guide, the term “DM-TX-300N/-F” is used except where noted.

Features and Functions

- DigitalMedia transmitter and multimedia interface
- Built-in 3 x 1 AV switcher
- DM CAT output (DM-TX-300N only) supports up to 450 foot (137 meter) cable length¹
- DM Fiber output (DM-TX-300N-F only) supports up to 1000 foot (300 meter) cable length²
- Provides HDMI, DVI, RGB and multi-format video inputs
- Includes balanced/unbalanced analog and S/PDIF audio inputs

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1. For DigitalMedia CAT wiring, use DM-CBL DigitalMedia Cable. Do NOT use low skew cable. Up to two DM Repeaters (model DM-DR, sold separately), may be required. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines. It is available from the Crestron website at www.crestron.com.
2. For DigitalMedia fiber wiring, use CresFiber® or other quality duplex multimode fiber optic cable. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.

Features and Functions

(Continued)

- Affords single wire connection to a DM-RMC-100-1 (DM-TX-300N), DM-RMC-100-F (DM-TX-300N-F) or DM-MD switcher (all sold separately)
- Detects and reports detailed video and audio input information¹
- Performs automatic AV signal format management via EDID¹
- QuickSwitch HD[®] technology achieves low latency switching
- Enables device control via CEC, IR, RS-232 and Ethernet
- Easy setup and diagnostics tools via software
- Extends the life of analog-based AV systems
- Single space 19-inch rack mountable

DigitalMedia

As the leader in HDMI and control system technologies, Crestron has developed DigitalMedia, the first complete HD AV distribution system that takes HDMI to a higher level and allows virtually any mix of AV sources to be distributed throughout the home, office, school or virtually any other facility.

DigitalMedia distributes uncompressed digital video and audio signals up to 450 feet (137 meters) using DM cable² for the DM-TX-300N and up to 1000 feet (300 meters) using multimode fiber optic cable³ for the DM-TX-300N-F. DigitalMedia thoughtfully manages all of the different signals and devices, matching each source's output to the capabilities of the selected display(s) without using scaling or compression. Every signal is preserved in its native video resolution and audio format, ensuring a pure, lossless signal path throughout.

1. EDID signal detection and format management in the DM-TX-300N-F requires connection to a DMC-F or DMC-F-DSP input card (both sold separately).
2. For DigitalMedia CAT wiring, use DM-CBL DigitalMedia Cable. Do NOT use low skew cable. Up to two DM Repeaters (model DM-DR, sold separately), may be required. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.
3. For DigitalMedia fiber wiring, use CresFiber[®] or other quality duplex multimode fiber optic cable. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.

Multimedia Computer /AV Interface

The DM-TX-300N/-F provides versatile switching between three different video and audio sources. Inputs on the DM-TX-300N/-F include multi-format analog video, HDMI, DVI-I, balanced and unbalanced line level audio and SPDIF digital audio. The HDMI input supports HDMI with HDCP, handling WUXGA computer resolutions and 1080p60 HDTV with multi-channel lossless audio. The HDMI input can also handle DisplayPort Multimode signals using an appropriate adapter or dongle¹. The DVI-I input handles DVI as well as analog RGB signals² up to WUXGA 1920 x 1200 pixels. The multi-format analog video input accepts component HDTV signals up to 1080p60 as well as standard definition NTSC/PAL composite and S-video. Audio inputs include HDMI, stereo balanced line level, stereo unbalanced RCA and S/PDIF coaxial digital.

A single DM CAT output (DM-TX-300N) or DM fiber output (DM-TX-300N-F) is provided to feed a centralized DM switcher or to drive a single DM-RMC-100-1 (for the DM-TX-300N) or DM-RMC-100-F (for the DM-TX-300N-F) Receiver/Room Controller at the display location (all sold separately). An HDMI output is also included, which may be set to follow the DM output or to provide a constant pass-through signal from the DVI-I input to feed a local monitor.

NOTE: The HDMI and DM video/audio outputs function in two modes: *Dual Output* is the default mode, where HDMI and DM both output the same signal. *Monitor Output*, where the HDMI output will always be sourced from the DVI-I input and the DM output can be switched to take its source from any of the inputs. Output mode is selectable from the SIMPL™ Windows program.

For a total custom installation solution, Crestron offers a complete range of professional AV interface cables and wall plates to complement the DM-TX-300N/-F.

QuickSwitch HD Technology®

Crestron exclusive QuickSwitch HD technology minimizes the annoying switching latency that plagues typical digital AV switchers. QuickSwitch HD achieves very fast switching of digital signals by maintaining a constant HDCP connection with each device in the system, eliminating the need to re-authenticate each time a different source is selected.

EDID Format Management

The DM-TX-300N/-F allows for management of the EDID (Extended Display Identification Data) information that passes between 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-300N/-F, ensuring reliable operation by instructing sources to output only the resolutions and formats that can be handled by the displays and system wiring.

NOTE: EDID signal detection and format management in the DM-TX-300N-F requires connection to a DMC-F or DMC-F-DSP input card (both sold separately).

1. **HDMI IN** requires an appropriate adapter or interface cable to accommodate a DisplayPort Multimode signal. **HDMI OUT** requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-DP-HD and CBL-HD-DVI interface cables sold separately.
2. VGA (RGB) to DVI-A adapter included. (DVI-A plug fits in the DVI-I socket.) In addition to RGB, the DVI-I input can accept component, composite and S-video signals via direct interface to Crestron MPS Series products (sold separately) or through an appropriate adapter (not included). Input sync detection is not provided for composite or S-video signal types through the DVI-I connection.

Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. The DM-TX-300N/-F includes built-in IR, RS-232 and Ethernet control ports to allow programmable control of the devices connected to it. The DM-TX-300N/-F also provides an alternative to conventional control methods by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-TX-300N/-F 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 probes.

Compact and Versatile

The DM-TX-300N/-F is designed to be placed on a shelf or mounted in an equipment rack or lectern. It is compact enough to fit inside a presentation lectern or beneath a table. An array of indicators on the front of the DM-TX-300N/-F provides for easy setup and troubleshooting, verifying the status of connections and signal activity at a glance. Advanced configuration is enabled through Crestron Toolbox software.

A Digital Upgrade for Legacy Systems

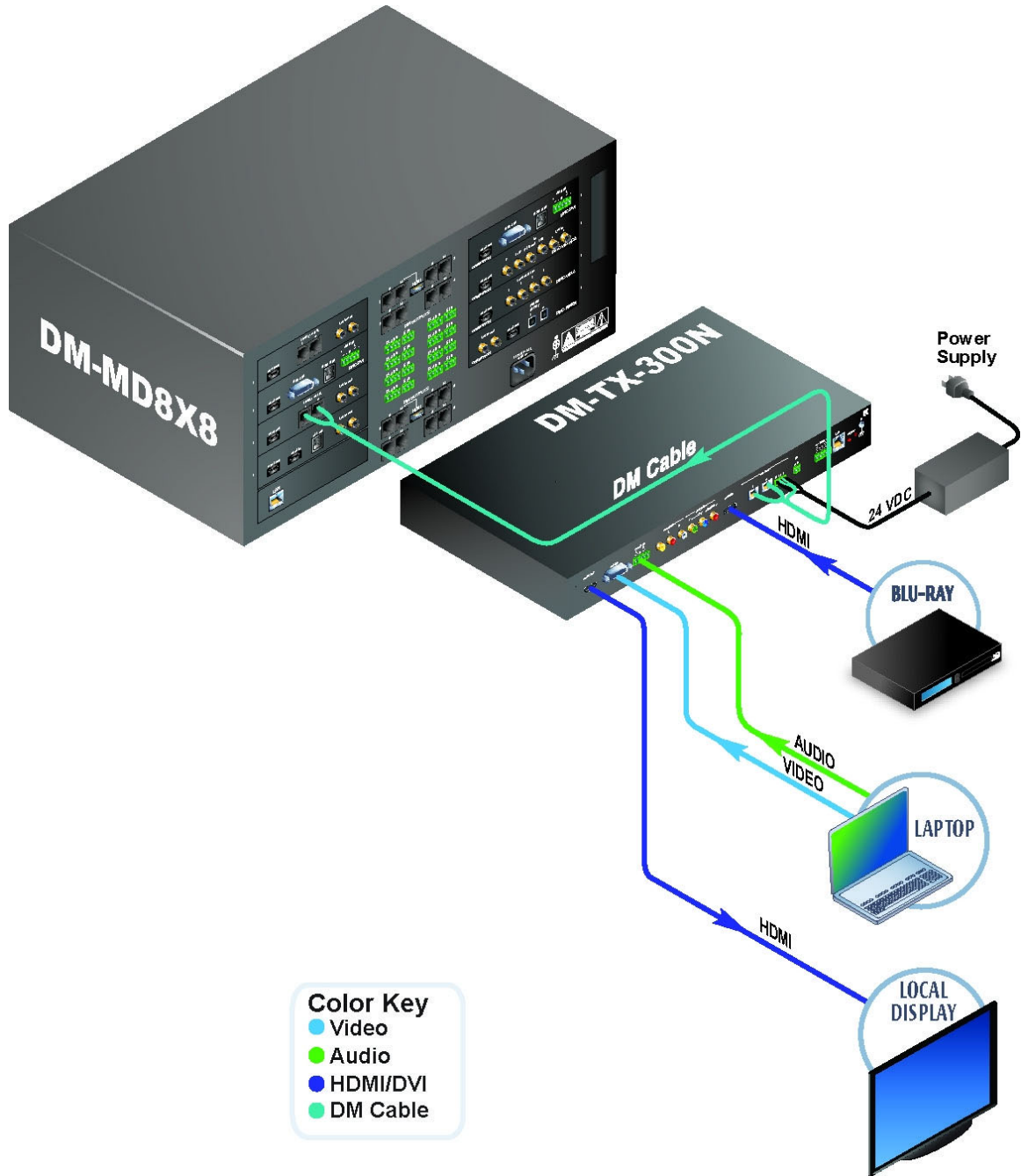
The DM-TX-300N/-F also affords a perfect signal converter for integrating DigitalMedia with analog-based systems like Crestron MPS, QuickMedia® and the CEN-RGBHV Series (all sold separately). A simple HD15 VGA cable connected between the output of an MPS system and the DVI-I input of the DM-TX-300N/-F allows every RGB, component, S-video and composite video input on the MPS to be converted to DigitalMedia*. Analog audio is converted similarly through a balanced stereo audio cable. The DM-TX-300N/-F's HDMI, DVI and S/PDIF inputs may also be used to expand the input capabilities of the MPS system to handle digital AV sources.

* VGA (RGB) to DVI-A adapter included. (DVI-A plug fits in the DVI-I socket.) In addition to RGB, the DVI-I input can accept component, composite and S-video signals via direct interface to Crestron MPS Series products (sold separately) or through an appropriate adapter (not included). Input sync detection is not provided for composite or S-video signal types through the DVI-I connection.

Applications

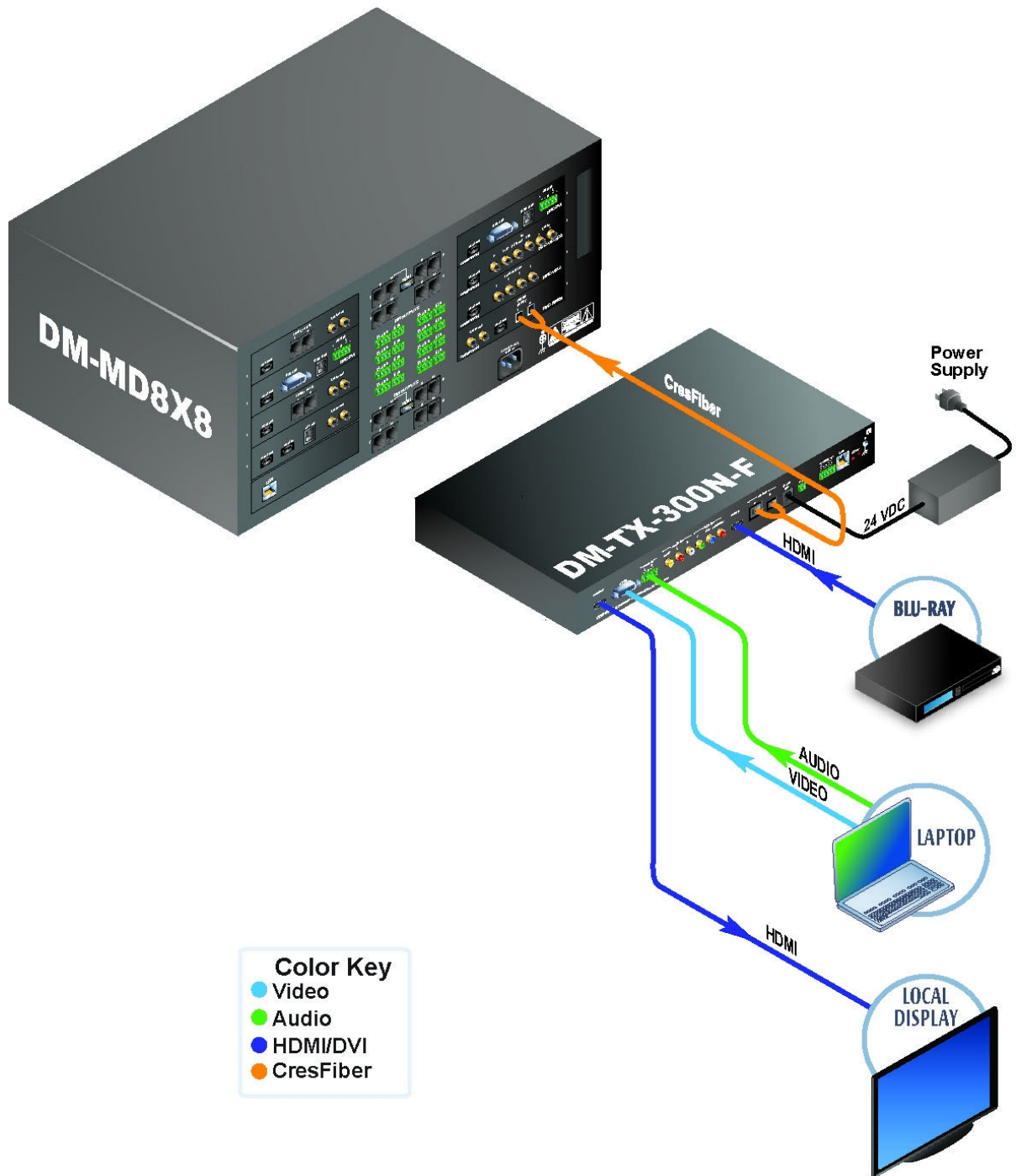
The following diagram shows a DM-TX-300N in a typical application.

DM-TX-300N in a Typical Application



The following diagram shows a DM-TX-300N-F in a typical application.

DM-TX-300N-F in a Typical Application



No LAN connection is required for these devices to transmit HDMI in a point-to-point configuration. If you wish to use the control ports (IR, RS-232, Relay, Sense) from a control system, you can connect either LAN port (the one on the DM-TX-300N/-F or the DM-RMC-100/-F) to the control system's network. Both devices will be connected because Ethernet is embedded inside DM. You may also use the other LAN connection to provide Ethernet connectivity to a remote device.

For DM CAT (e.g. DM-TX-300N) only one power supply is required to power both DM-TX-300N and DM-RMC-100-1 or other receiver device. The DMNet cable will carry power from the power supply to the other device. Please use the DMNet Power Calculator to help calculate how much power is needed for the system (www.crestron.com/calculators). For DM fiber (e.g. DM-TX-300N-F), each end has a local power supply.

Specifications

Specifications for the DM-TX-300N/-F are listed in the following table.

DM-TX-300N/-F Specifications

SPECIFICATION	DETAILS
Video	
Switcher	3x1 combination, digital/analog switch, Crestron QuickSwitch HD
Input Signal Types	HDMI, DisplayPort Multimode ¹ , DVI, RGB, component (YPbPr) ² , S-video (Y/C) ² , composite ²
Output Signal Type	DM CAT (DigitalMedia over twisted pair copper wire), HDMI, DVI ¹ DM Fiber (DigitalMedia over multimode fiber optic cable) , HDMI, DVI ¹
Formats	HDMI, DVI, HDCP v.1.2 content protection support, RGBHV up to UXGA/WUXGA, HDTV up to 1080p60, NTSC or PAL
Input Resolutions	HDMI & DVI, Progressive 640 x 480 @ 60 Hz, 720 x 480 @ 60 Hz (480p), 720 x 576 @ 50 Hz (576p), 800 x 600 @ 60 Hz, 848 x 480 @ 60 Hz, 852 x 480 @ 60 Hz, 854 x 480 @ 60 Hz, 1024 x 768 @ 60 Hz, 1024 x 852 @ 60 Hz, 1024 x 1024 @ 60 Hz, 1280 x 720 @ 50 Hz (720p50), 1280 x 720 @ 60 Hz (720p60), 1280 x 768 @ 60 Hz, 1280 x 800 @ 60 Hz, 1280 x 960 @ 60 Hz, 1280 x 1024 @ 60 Hz, 1360 x 768 @ 60 Hz, 1365 x 1024 @ 60 Hz, 1366 x 768 @ 60 Hz, 1400 x 1050 @ 60 Hz, 1440 x 900 @ 60 Hz, 1600 x 900 @ 60 Hz, 1600 x 1200 @ 60 Hz, 1680 x 1050 @ 60 Hz, 1920 x 1080 @ 24 Hz (1080p24), 1920 x 1080 @ 25 Hz (1080p25), 1920 x 1080 @ 50 Hz (1080p50),

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DM-TX-300N/-F Specifications (Continued)

SPECIFICATION	DETAILS
Input Resolutions	
HDMI & DVI, Progressive (Continued)	1920 x 1080 @ 60 Hz (1080p60), 1920 x 1200 @ 60 Hz, 2048 x 1080 @ 24 Hz, 2048 x 1152 @ 60 Hz, plus any other resolution allowed by HDMI up to 165 MHz pixel clock
HDMI & DVI, Interlaced	720 x 480 @ 30 Hz (480i), 720 x 576 @ 25 Hz (576i), 1920 x 1080 @ 25 Hz (1080i25), 1920 x 1080 @ 30 Hz (1080i30), plus any other resolution allowed by HDMI up to 165 MHz pixel clock
RGB	640 x 480 @ 60 Hz, 720 x 480 @ 60 Hz (480p), 720 x 576 @ 50 Hz (576p), 800 x 600 @ 60 Hz, 848 x 480 @ 60 Hz, 1024 x 768 @ 60 Hz, 1280 x 720 @ 50 Hz (720p50), 1280 x 720 @ 60 Hz (720p60), 1280 x 768 @ 60 Hz, 1280 x 800 @ 60 Hz, 1280 x 960 @ 60 Hz, 1280 x 1024 @ 60 Hz, 1360 x 768 @ 60 Hz, 1366 x 768 @ 60 Hz, 1400 x 1050 @ 60 Hz, 1440 x 900 @ 60 Hz, 1600 x 1200 @ 60 Hz, 1680 x 1050 @ 60 Hz, 1920 x 1080 @ 24 Hz (1080p24), 1920 x 1080 @ 50 Hz (1080p50), 1920 x 1080 @ 60 Hz (1080p60), 1920 x 1200 @ 60 Hz, 2048 x 1080 @ 24 Hz, 2048 x 1152 @ 60 Hz
Component	480i, 576i, 480p, 576p, 720p50, 720p60, 1080i25 (1125 lines), 1080i30, 1080p30, 1080p50 (1125 lines), 1080p60
Composite and S-video	480i, 576i
Output Resolutions	Matched to inputs
Analog to Digital Conversion	10-bit, 165 MHz per each of three channels
Audio	
Switcher	3x1 combination, digital/analog switch, limited audio breakaway ³
Input Signal Types	HDMI, DisplayPort Multimode ¹ , S/PDIF coaxial, analog stereo
Output Signal Type	
DM-TX-300N	DM CAT, HDMI
DM-TX-300N-F	DM Fiber, HDMI

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DM-TX-300N/-F Specifications (Continued)

SPECIFICATION	DETAILS
Audio (Continued)	
Formats, HDMI & S/PDIF	Dolby Digital®, Dolby Digital EX, DTS®, DTS-ES, DTS 96/24, 2ch PCM
Formats, HDMI only	Up to 8ch PCM
Formats, Analog	Stereo 2-channel
Analog to Digital Conversion	24-bit, 48 kHz
Performance (Analog)	
Frequency Response	20 Hz to 20 kHz ±0.75 dB
S/N Ratio	>90 dB, 20 Hz to 20 kHz A-weighted
THD+N	<0.05% @ 1 kHz
Stereo Separation	>90 dB
Communications	
DigitalMedia	DM CAT ⁴ , DMNet ⁴ , DM Fiber ⁵ , HDCP management, EDID format management, CEC
Ethernet	10 BASE-T/100 BASE-TX, auto-switching, auto-negotiating, auto-discover, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, RSTP
Power Requirements	
DMNet Power Usage	22 Watts (0.92 Amps @ 24 Volts DC)
Rated Power Consumption	2.5 Amps @ 24 Volts DC, 100 – 240 Volts AC, 50/60 Hz power pack (included)
Minimum 2-Series Control System Update File ^{6, 7}	Version 4.1.1012 or later
Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	95 BTU/Hr
Enclosure	
Chassis	Metal with black finish, vented top and sides
Faceplate	Extruded aluminum, black finish with polycarbonate label overlay
Mounting	Freestanding or 1U 19-inch rack mountable (adhesive feet and rack ears included)
Dimensions	
Height	1.70 in (44 mm) 1.91 in (49 mm) with feet
Width	17.03 in (433 mm) 19.01 in (483 mm) with ears
Depth	8.71 in (222 mm) (DM-TX-300N) 8.83 in (225 mm) (DM-TX-300N-F)
Weight	
DM-TX-300N	3.5 lb (1.6 kg)
DM-TX-300N-F	3.6 lb (1.7 kg)

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DM-TX-300N/-F Specifications (Continued)

SPECIFICATION	DETAILS
Included Accessories	
Power Pack	24 Volt DC power pack
Available Accessories	
CBL-DP-HD	DisplayPort to HDMI Interface Cable
CBL-DVI	DVI Interface Cable
CBL-HD	HDMI Interface Cable
CBL-HD-DVI	HDMI to DVI Interface Cable
CBL-RCA	RCA Composite Video Interface Cable
CBL-RCA2	RCA Stereo Audio Interface Cable
CBL-RCA3	RCA Component Video Interface Cable
CBL-VGA	DB15HD Computer VGA Interface Cable
CNSP-XX	Custom Serial Interface Cable
CRESFIBER ⁵	CresFiber Fiber Optic Cable
CRESFIBER-CONN-SC50UM ⁵	CresFiber Fiber Optic Cable Connector
CRESFIBER-DUAL-SC ⁵	CresFiber Duplex Fiber Optic Cable Assembly, 50/125, SC
CRESFIBER-DUAL-SC-ARMORED ⁵	CresFiber ARMORED Duplex Fiber Optic Cable Assembly, 50/125, SC
CRESFIBER-SINGLE-SC-CLEAR ⁵	CresFiber CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC
DM-CBL ⁴	DigitalMedia Cable
DM-CONN ⁴	DigitalMedia Cable Connector
DM-DR ⁴	DigitalMedia CAT Repeater
IRP2	IR Emitter Probe
MP-WP100	Media Presentation Wall Plate – RCA Composite Video with RCA Stereo Audio
MP-WP110	Media Presentation Wall Plate – Mini-DIN S-video with RCA Stereo Audio
MP-WP120	Media Presentation Wall Plate – RCA Component Video with RCA Stereo Audio
MP-WP125	Media Presentation Wall Plate – RCA Component & Composite Video with 2x Video with RCA Stereo Audio
MP-WP130	Media Presentation Wall Plate – DB15HD Computer VGA with Mini-TRS Stereo Audio, Bulkhead
MP-WP131	Media Presentation Wall Plate – DB15HD Computer VGA with Mini-TRS Stereo Audio, Breakout
MP-WP140	Media Presentation Wall Plate – DVI with Mini-TRS Stereo Audio
MP-WP150	Media Presentation Wall Plate – HDMI with Mini-TRS Stereo Audio
MP-WP152	Media Presentation Wall Plate – HDMI

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DM-TX-300N/-F Specifications (Continued)

SPECIFICATION	DETAILS
Available Accessories (Continued) MP-WP160 MP-WP162 MP-WP185 ⁴ MP-WP186 ⁵	Media Presentation Wall Plate – DisplayPort with Mini-TRS Stereo Audio Media Presentation Wall Plate – DisplayPort Media Presentation Wall Plate – Crestron DigitalMedia CAT with DMNET Media Presentation Wall Plate – Crestron DigitalMedia Fiber

1. **HDMI IN** requires an appropriate adapter or interface cable to accommodate a DisplayPort Multimode signal. **HDMI OUT** requires an appropriate adapter or interface cables to accommodate a DVI signal. CBL-DP-HD and CBL-HD-DVI interface cables sold separately.
2. VGA (RGB) to DVI-A adapter included. (DVI-A plug fits in the DVI-I socket.) In addition to RGB, the DVI-I input can accept component, composite and S-video signals via direct interface to Crestron MPS Series products (sold separately) or through an appropriate adapter (not included). Input sync detection is not provided for composite or S-video signal types through the DVI-I connection.
3. Audio breakaway capabilities and limitations:
 - **SPDIF/unbalanced AUDIO IN** and balanced **AUDIO IN** may each be switched freely regardless of which video input is selected.
 - **HDMI IN** audio may be switched freely except when the **VIDEO IN** input is selected.
 - **SPDIF** and unbalanced **AUDIO IN** inputs are mutually exclusive.
 - Front panel input **SELECT** control switches balanced **AUDIO IN** with **DVI-I IN** video, **SPDIF/unbalanced AUDIO IN** with **VIDEO IN** and **HDMI IN** audio with **HDMI IN** video.
4. DM-TX-300N only.
5. DM-TX-300N-F only.
6. The latest software versions can be obtained from the Crestron website. Refer to the NOTE following these footnotes.
7. Crestron 2-Series control systems include the AV2 and PRO2. Consult the latest Crestron Product Catalog for a complete list of 2-Series control systems.

NOTE: Crestron software and any files on the website are for authorized Crestron dealers and Crestron Authorized Independent Programmers (CAIP) only. New users may be required to register to obtain access to certain areas of the site (including the FTP site).

Physical Description

This section provides information on the connections, controls and indicators available on your DM-TX-300N/-F.

DM-TX-300N/-F Physical View (Front View - DM-TX-300N Shown)



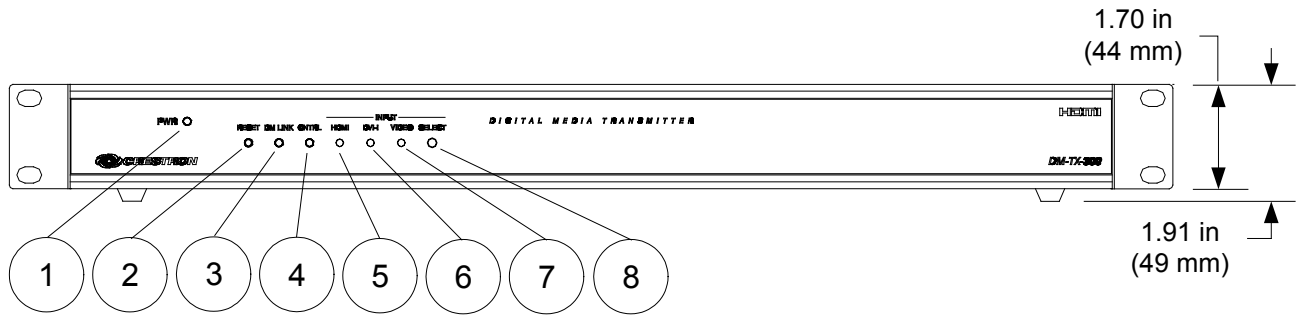
DM-TX-300N Physical View (Rear View)



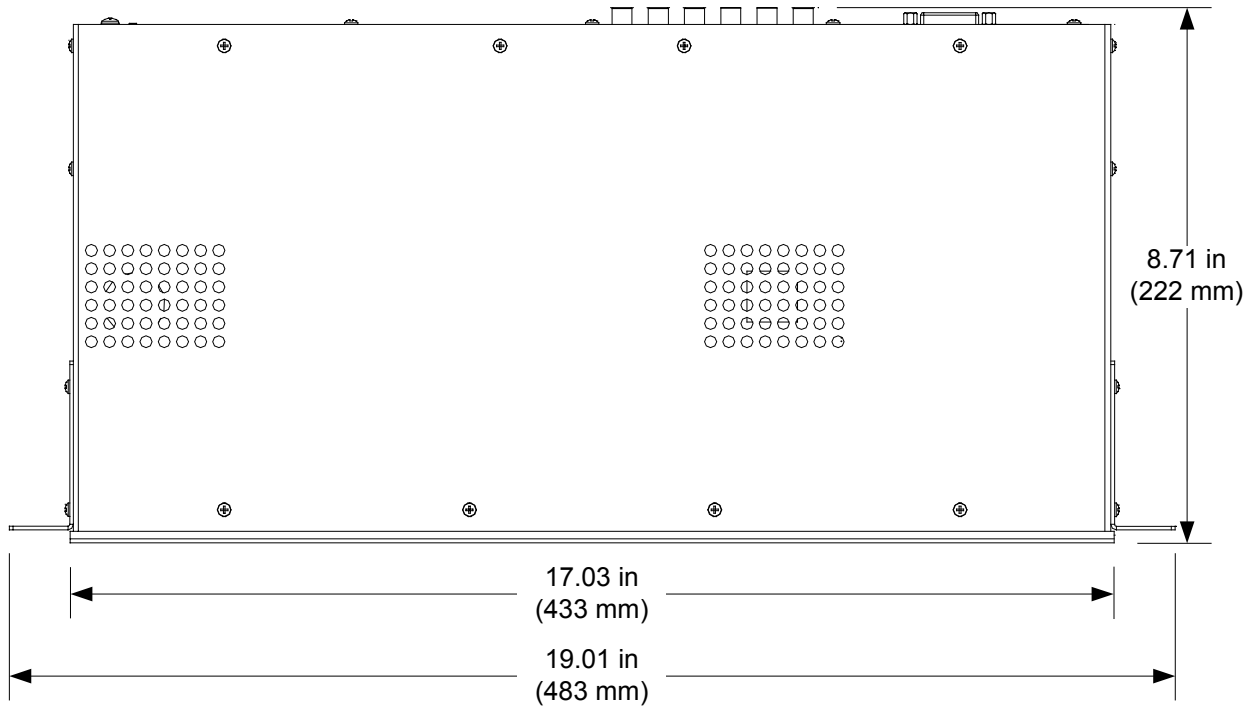
DM-TX-300N-F Physical View (Rear View)



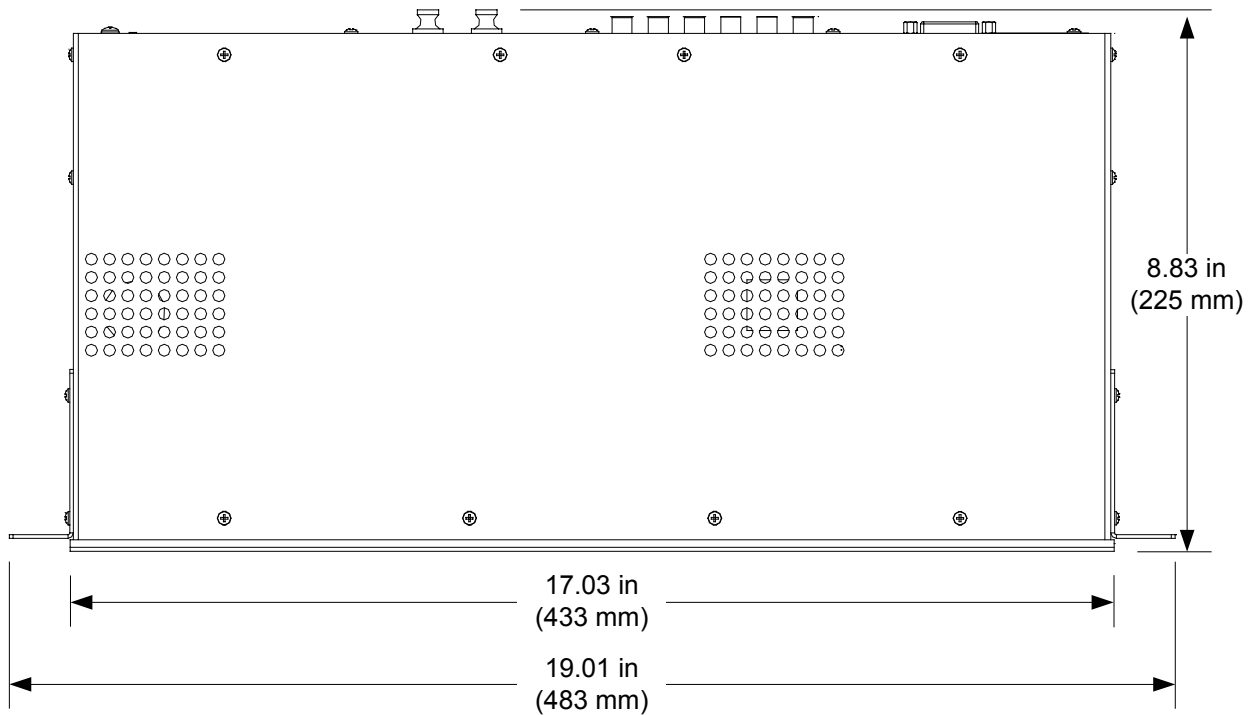
DM-TX-300N/-F Overall Dimensions (Front View - DM-TX-300N Shown)



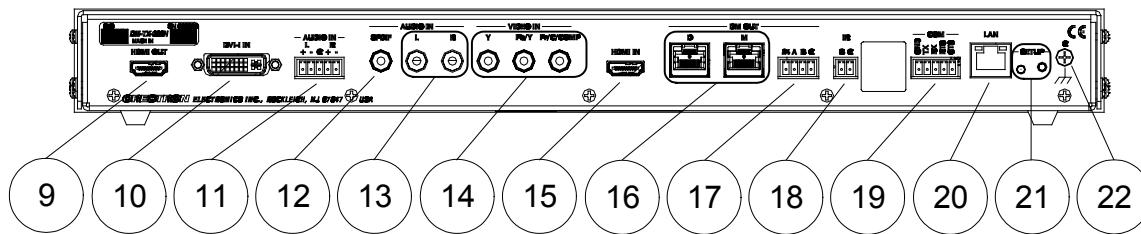
DM-TX-300N Overall Dimensions (Top View)



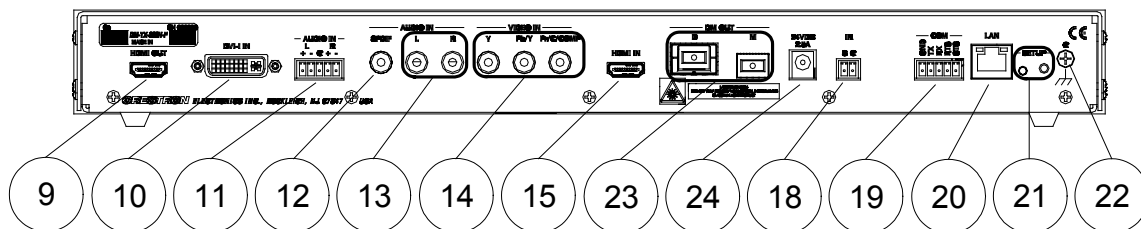
DM-TX-300N-F Overall Dimensions (Top View)




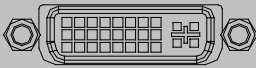
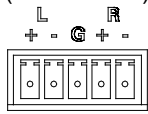
DM-TX-300N Overall Dimensions (Rear View)



DM-TX-300N-F Overall Dimensions (Rear View)


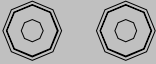


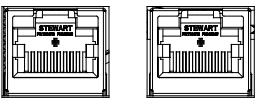
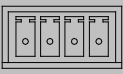

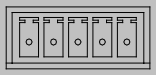


Connectors, Controls & Indicators

#	CONNECTORS ¹ , CONTROLS & INDICATORS	DESCRIPTION
1	PWR LED	(1) Green LED, indicates operating power supplied via external power supply
2	RESET BUTTON	(1) Miniature recessed pushbutton for hardware reset
3	DM LINK LED	(1) Green LED, indicates connection to a downstream DM device
4	CNTRL LED	(1) Red/green dual-color LED, indicates Ethernet connection and control system communication status: Red – indicates no Ethernet link Green – indicates Ethernet link and connection to control system Blinking Red/Green – indicates Ethernet link but no connection to control system Blinking Green – The LED also goes out momentarily every time a control command is sent or received (i.e. IR or RS-232)
5	INPUT, HDMI LED	(1) Green LED, indicates HDMI input is selected
6	INPUT, DVI-I LED	(1) Green LED, indicates DVI-I input is selected
7	INPUT, VIDEO LED	(1) Green LED, indicates VIDEO input is selected
8	INPUT, SELECT Button	(1) Pushbutton, toggles through video/audio inputs as follows: no video (video mute), HDMI, DVI, analog video
9	HDMI OUT 	(1) 19-pin Type A HDMI female; HDMI digital video/audio output; Carries same audio and video signals as DM OUT or same signal as DVI-I input
10	DVI-I IN 	DVI-I female (or DB15HD female via included adapter), DVI, RGB (VGA) or component (YP _b P _r) video input ^{2, 3} ; Analog formats: RGBHV, RGBS, RG _s B, YP _b P _r ; Analog input levels: 0.5 to 1.5 V _{p-p} with built-in DC restoration; Analog input impedance: 75 Ω; Analog sync input type: Autodetect RGBHV, RGBS, RG _s B, YP _b P _r ; Analog sync input level: 3 to 5 V _{p-p} ; Analog sync input impedance: 1 kΩ
11	AUDIO IN (BALANCED) 	(1) 5-pin 3.5 mm detachable terminal block; Balanced/unbalanced stereo line level input; Input impedance: 24 kΩ balanced/unbalanced; Balanced input level: 4 V _{rms} maximum; Unbalanced input level: 2 V _{rms} maximum

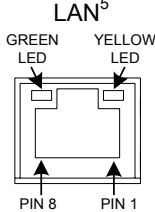

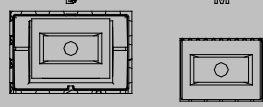

(Continued on following page)

Connectors, Controls & Indicators (Continued)

#	CONNECTORS ¹ , CONTROLS & INDICATORS	DESCRIPTION
12	AUDIO IN, SPDIF 	(1) RCA female, S/PDIF coaxial digital audio input; SPDIF and UNBALANCED AUDIO IN inputs are mutually exclusive; Input impedance: 75 Ω
13	AUDIO IN (UNBALANCED) L R 	(2) RCA female, Unbalanced stereo line level audio input; UNBALANCED and SPDIF AUDIO IN inputs are mutually exclusive; Maximum input: 2 V _{rms} ; Input impedance: 15 kΩ
14	VIDEO IN Y Pb/Y Pr/C/COMP 	(3) RCA female comprising (1) auto-sensing multi-format analog video input; Signal types: component (YPbPr), S-video (Y/C) or composite input; Input level: 1 V _{p-p} nominal; Input impedance: 75 Ω
15	HDMI IN 	(1) 19-pin Type A HDMI female; HDMI digital video/audio input
16	DM OUT, D & M ^{4, 5, 6} D M 	(1) DM CAT output composed of (2) 8-pin RJ-45 female, shielded; Connects to DM CAT input of a DM switcher, receiver/room controller or other DM device via DM-CBL ⁷
17	DM OUT, 24 A B G ^{4, 9} 24 A B G 	(1) 4-pin 3.5 mm detachable terminal block, DMNet port; Connects to external power supply and DMNet port of a DM switcher, receiver/room controller or other DM device via DM-CBL ^{7, 8}
18	IR S G 	(1) 2-pin 3.5 mm detachable terminal block, IR/Serial port; IR output up to 1.1. MHz; 1-way serial TTL/RS-232 (0-5 Volts) up to 19200 baud
19	COM GND TX RX RTS CTS 	(1) 5-pin 3.5 mm detachable terminal block, bidirectional RS-232 port; Up to 115.2k baud, hardware and software handshaking support

(Continued on following page)

Connectors, Controls & Indicators (Continued)

#	CONNECTORS ¹ , CONTROLS & INDICATORS	DESCRIPTION																				
20	<p>LAN⁵</p> 	<p>(1) 8-wire RJ-45 female with two LED indicators; 10BASE-T/100BASE-TX Ethernet port; Green LED indicates link status; Yellow LED indicates Ethernet activity</p> <table border="1"> <thead> <tr> <th>PIN</th> <th>SIGNAL</th> <th>PIN</th> <th>SIGNAL</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>TX +</td> <td>5</td> <td>N/C</td> </tr> <tr> <td>2</td> <td>TX -</td> <td>6</td> <td>RC -</td> </tr> <tr> <td>3</td> <td>RC +</td> <td>7</td> <td>N/C</td> </tr> <tr> <td>4</td> <td>N/C</td> <td>8</td> <td>N/C</td> </tr> </tbody> </table>	PIN	SIGNAL	PIN	SIGNAL	1	TX +	5	N/C	2	TX -	6	RC -	3	RC +	7	N/C	4	N/C	8	N/C
PIN	SIGNAL	PIN	SIGNAL																			
1	TX +	5	N/C																			
2	TX -	6	RC -																			
3	RC +	7	N/C																			
4	N/C	8	N/C																			
21	<p>SETUP (LED and Button)</p>	<p>(1) Red LED and (1) recessed miniature pushbutton for Ethernet auto-discovery and default IP address</p>																				
22		<p>(1) 6-32 screw, chassis ground lug</p>																				
23	<p>DM OUT^{10, 11}</p> 	<p>(1) DM fiber output comprised of (2) SC female fiber optic connectors; Connects to DM fiber input of a DM switcher, receiver/room controller or other DM device via CresFiber fiber optic cable¹²</p>																				
24	<p>24VDC 2.5A¹⁰</p> 	<p>(1) 2.1 mm barrel DC power jack, 24 Volt DC power input; Connects to local power supply (included)¹⁰</p>																				


- Interface connectors for **AUDIO IN** (balanced), **24 A B G**, **IR** and **COM** ports are provided with the DM-TX-300N. Interface connectors for **AUDIO IN** (balanced), **IR** and **COM** ports are provided with the DM-TX-300N-F
- VGA (RGB) to DVI-A adapter included. (DVI-A plug fits in the DVI-I socket.) In addition to RGB, the DVI-I input can accept component, composite and S-video signals via direct interface to Crestron MPS Series products (sold separately) or through an appropriate adapter (not included). Input sync detection is not provided for composite or S-video signal types through the DVI-I connection.
- Refer to the following table for video connections using the RGB-DVI input.

ASSIGNMENT: RGB	ASSIGNMENT: COMPOSITE, S-VIDEO AND COMPONENT
- RGB Red	- Chrominance / - P _r
+ RGB Red	+ Chrominance / + P _r
- RGB Green	- Luminance / - Y
+ RGB Green	+ Luminance / + Y
- RGB Blue	- Composite / - P _b
+ RGB Blue	+ Composite / + P _b

- DM-TX-300N only.
- To determine which is pin 1 on the cable, hold the cable so the end of the eight pin modular jack is facing away from you, with the clip down and copper side up. Pin 1 is on the far left.

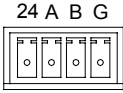
6. The **DM OUT** port consists of two separate RJ-45 connectors labeled **D** and **M**. The **D** port carries HDMI signal. The **M** port carries data. Refer to the following table for the connector pinouts.

D and M Ports

			
PIN #	WIRE COLOR	PIN #	WIRE COLOR
1	Orange/White	5	Blue/White
2	Orange	6	Green
3	Green/White	7	Brown/White
4	Blue	8	Brown

7. For DigitalMedia CAT wiring, use DM-CBL DigitalMedia Cable. Do NOT use low skew cable. Up to two DM Repeaters (model DM-DR, sold separately), may be required. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.
8. DMNet wiring is not compatible with Cresnet wiring. DMNet wiring cannot be daisy chained.
9. Refer to the following table for the **24 A B G** connector pinouts.

24 A B G Port

			
PIN #	SIGNAL	DESCRIPTION	WIRE COLOR
24	24V DC	DC Power	Red
A	DMNet+	DMNet	Orange
B	DMNet-	DMNet	Grey
G	Ground	DC Ground	Black

10. DM-TX-300N-F only.
11. The **DM OUT** port consists of two separate fiber optic SC type connectors, labeled **D** and **M**. The **D** port carries HDMI signal. The **M** port carries data.
12. For DigitalMedia fiber wiring, use CresFiber or other quality duplex multimode fiber optic cable. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.

Setup

Network Wiring

When wiring the DM network, consider the following:

NOTE: DMNet wiring and Cresnet® wiring are not compatible.

- Use Crestron Certified Wire.
- Use Crestron power supplies for Crestron equipment.
- Provide sufficient power to the system.
- For DigitalMedia CAT wiring, use DM-CBL DigitalMedia Cable. Do NOT use low skew cable. Up to two DM Repeaters (model DM-DR, sold separately), may be required. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.
- For DigitalMedia fiber wiring, use CresFiber or other quality duplex multimode fiber optic cable. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789) for complete wiring guidelines.

CAUTION: Insufficient power can lead to unpredictable results or damage to the equipment. Please use the Crestron Power Calculator to help calculate how much power is needed for the system (www.crestron.com/calculators).

For more details, refer to “Check Network Wiring” which starts on page 33.

Identity Code

NOTE: In the SIMPL Windows program, when the DM-TX-300N/-F is dropped onto an input card of a DM switcher, its IP ID is assigned automatically and does not require additional programming. Use the information below when the DM-TX-300N/-F is dropped directly into an Ethernet slot on the control system in SIMPL Windows, without a DM switcher.

The IP ID is set within the DM-TX-300N/-F's table using Crestron Toolbox. For information on setting an IP table, refer to the Crestron Toolbox help file. The IP IDs of multiple DM-TX-300N/-F devices in the same system must be unique.

When setting the IP ID, consider the following:

- The IP ID of each unit must match an IP ID specified in the SIMPL Windows program.
- Each device using IP to communicate with a control system must have a unique IP ID.

Installation

Ventilation

The DM-TX-300N/-F should be used in a well-ventilated area. The venting holes should not be obstructed under any circumstances.

To prevent overheating, do not operate this product in an area that exceeds the environmental temperature range listed in the table of specifications. Consider using forced air ventilation and/or incrementing the spacing between units to reduce overheating. Consideration must be given if installed in a closed or multi-unit rack assembly since the operating ambient temperature of the environment may be greater than the room ambient temperature. Contact with thermal insulating materials should be avoided on all sides of the unit.

Rack Mounting

The DM-TX-300N/-F can be mounted in a rack or stacked with other equipment. Two “ears” are provided with the DM-TX-300N/-F so that the unit can be rack mounted. These ears must be installed prior to mounting. Complete the following procedure to attach the ears to the unit. The only tool required is a #1 Phillips screwdriver.

WARNING: To prevent bodily injury when mounting or servicing this unit in a rack, take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

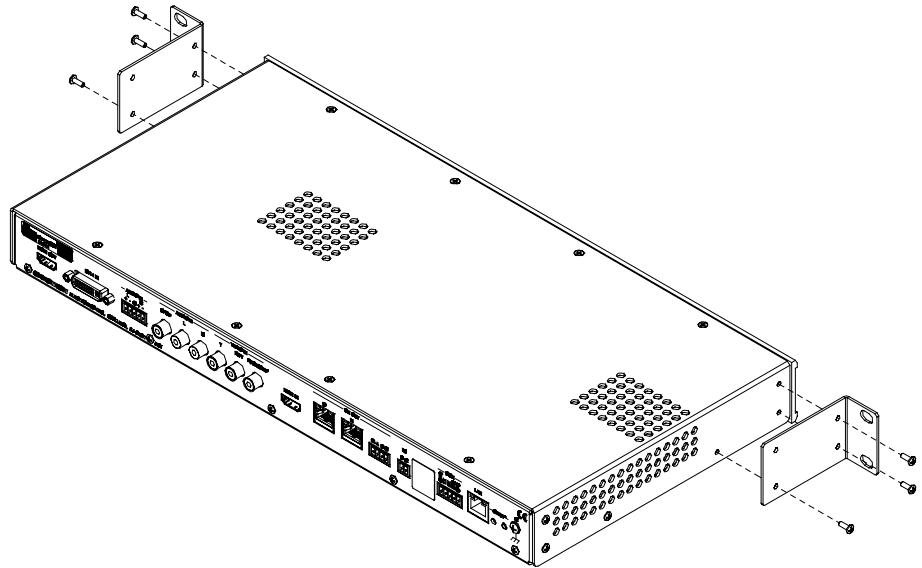
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

NOTE: If rack mounting is not required, rubber feet are provided for tabletop mounting or stacking. Apply the feet near the corner edges on the underside of the unit.

NOTE: Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

To install the ears:

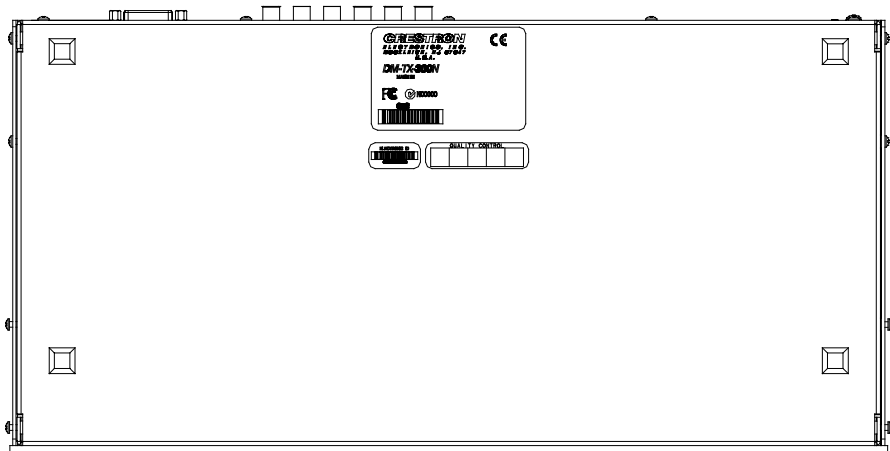
1. There are screws that secure each side of the DM-TX-300N/-F top cover. Using a #1 Phillips screwdriver, remove the three screws closest to the front panel from one side of the unit. Refer to the diagram following step 3 for a detailed view.
2. Position a rack ear so that its mounting holes align with the holes vacated by the screws in step 1.
3. Secure the ear to the unit with three screws from step 1, as shown in the following diagram.

Ear Attachment for Rack Mounting (DM-TX-300N Shown)

4. Repeat procedure (steps 1 through 3) to attach the remaining ear to the opposite side.

Stacking

Four “feet” are provided with the DM-TX-300N/-F so that if the unit is not rack mounted, the rubber feet can provide stability when the unit is placed on a flat surface or stacked. These feet should be attached prior to the hookup procedure. Refer to the following illustration for placement of the feet.

Foot Placement for the DM-TX-300N/-F (DM-TX-300N Shown)

NOTE: No more than two DM-TX-300N/-F units should be stacked.

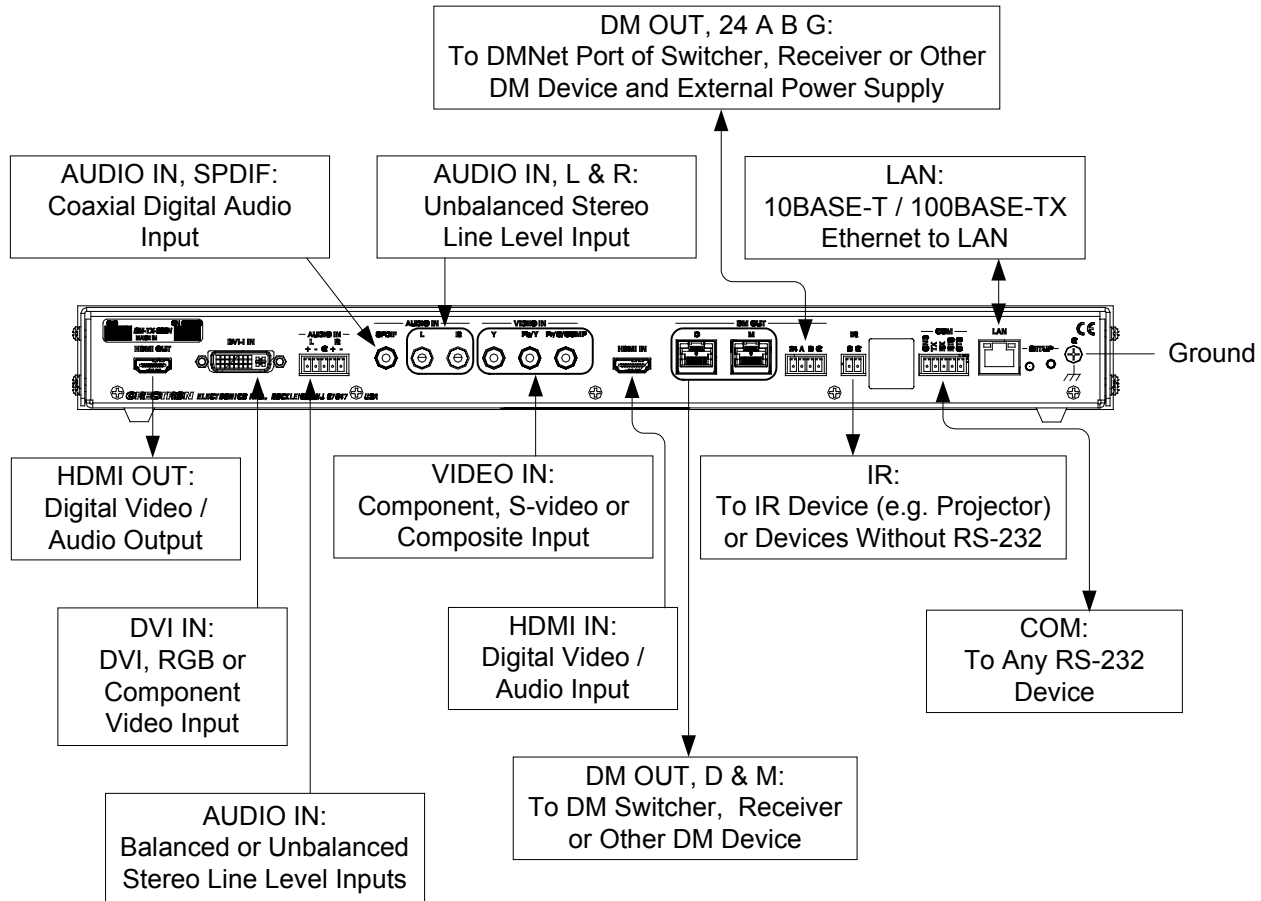
Hardware Hookup

Make the necessary connections as called out in the illustration that follows this paragraph. Refer to “Network Wiring” on page 19 before attaching the 4-position terminal block connector. Apply power after all connections have been made.

When making connections to the DM-TX-300N/-F, note the following:

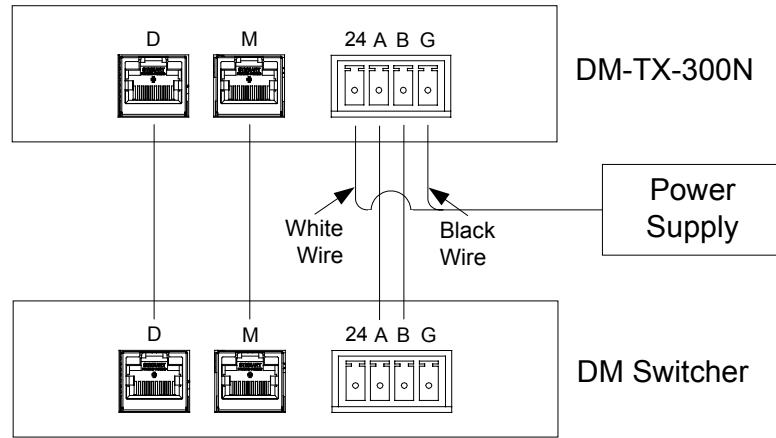
- Use Crestron power supplies for Crestron equipment.
- The included cable cannot be extended.

Hardware Connections for the DM-TX-300N



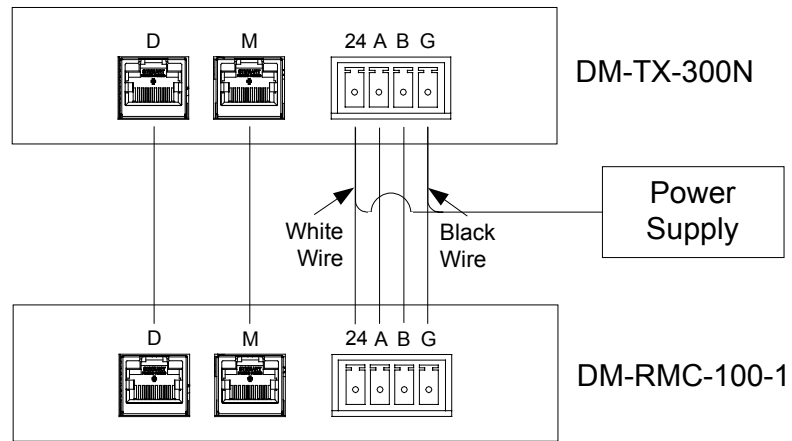
The included power pack for the DM-TX-300N has bare wire leads for connection to the device. The white wire connects to **24**; the black wire connects to **G**. The proper method for connection depends on the associated components in the system, as shown in the following three illustrations.

Using the DM-TX-300N with a DM Switcher



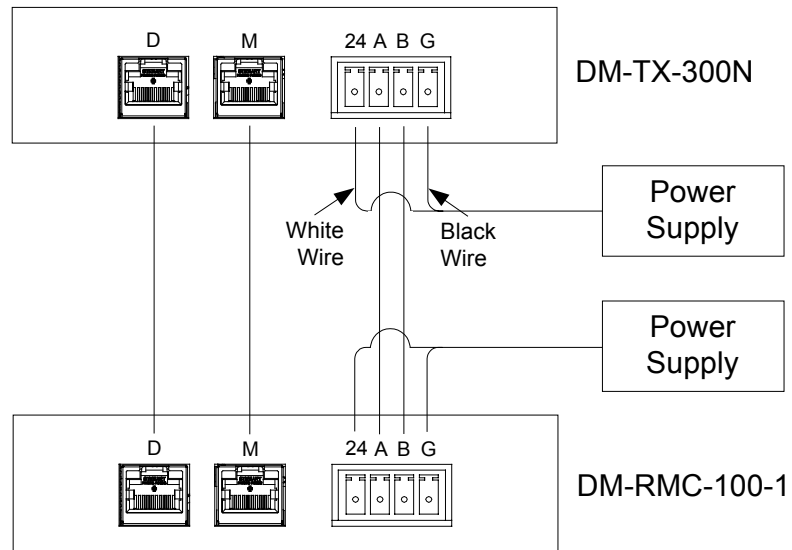
No connection to **24** and **G** on DM Switcher

Using the DM-TX-300N with a Room Controller/DM CAT Receiver (One Power Supply for DM-TX-300N and DM-RMC-100-1)

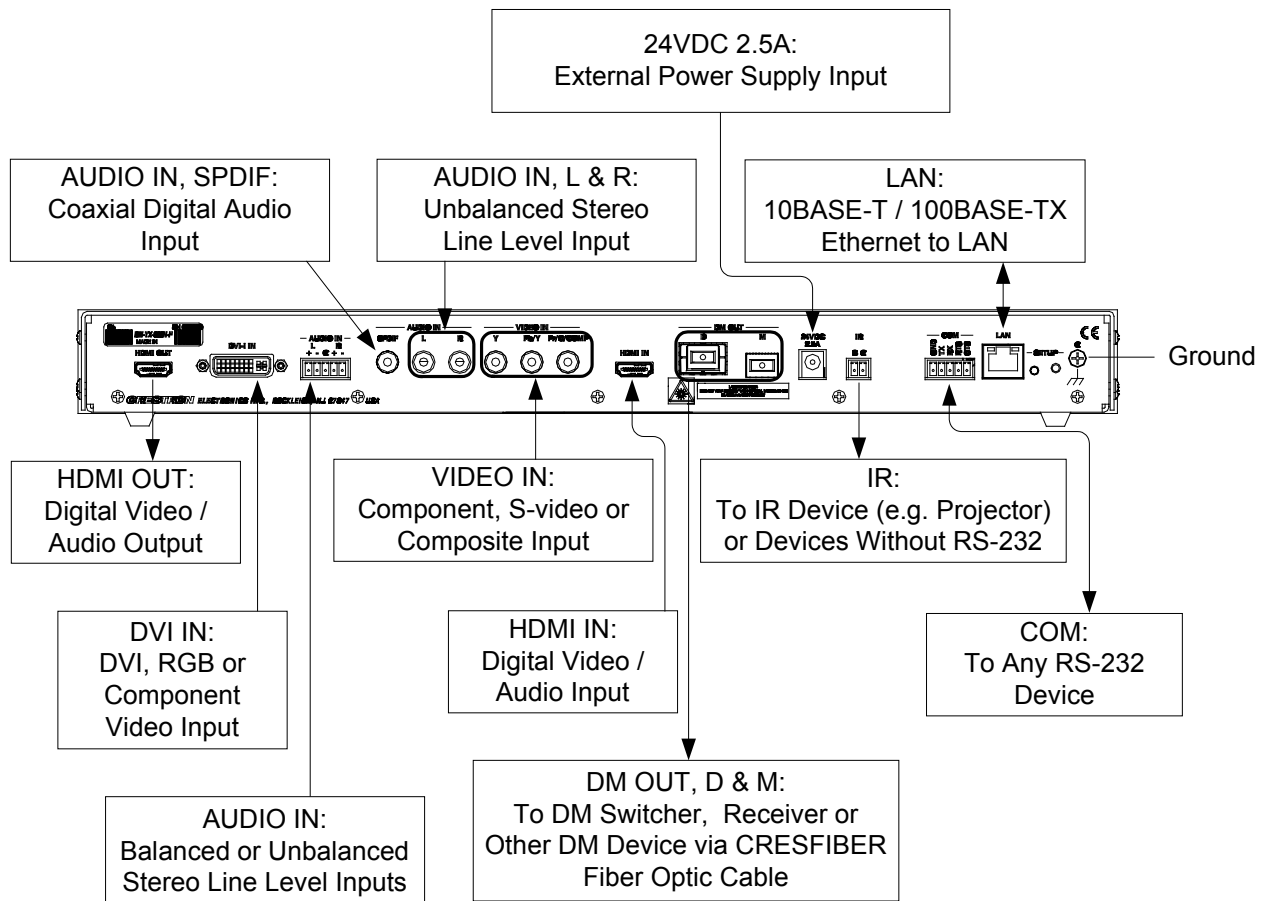


NOTE: When using a single supply, ensure it provides sufficient power for both devices.

*Using the DM-TX-300N with a Room Controller/DM CAT Receiver
(DM-RMC-100-1 Uses a Separate Power Supply)*



Hardware Connections for the DM-TX-300N-F



NOTE: Ensure the unit is properly grounded by connecting the chassis ground lug to an earth ground (building steel).

NOTE: To prevent overheating, do not operate this product in an area that exceeds the environmental temperature range listed in the table of specifications.

NOTE: For optimum performance with the DM-TX-300N, Crestron strongly recommends using DM-CBL DigitalMedia Cable, available from Crestron. CresCAT-D or high quality CAT5e/CAT6 wiring may also be used with varying performance. Do NOT use low-skew cable. For optimum performance with the DM-TX-300N-F, Crestron recommends using CresFiber or other quality duplex multimode fiber optic cable.

NOTE: Minimum recommended length for DM-CBL DigitalMedia Cable is 15 feet (~4.6 meters).

Programming Software

Have a question or comment about Crestron software?

Answers to frequently asked questions (FAQs) can be viewed in the Online Help section of the Crestron website. To post a question or view questions you have submitted to Crestron's True Blue Support, log in at <http://support.crestron.com>. First-time users will need to establish a user account.

Earliest Version Software Requirements for the PC

NOTE: Crestron recommends that you use the latest software to take advantage of the most recently released features. The latest software is available from the Crestron website.

Crestron has developed an assortment of Windows®-based software tools to develop a controlled DigitalMedia system. For the minimum recommended software versions, visit the Version Tracker page of the Crestron website (www.crestron.com/versiontracker).

Programming with SIMPL Windows

SIMPL Windows is Crestron's premier software for programming Crestron control systems. It is organized into two separate but equally important "Managers".

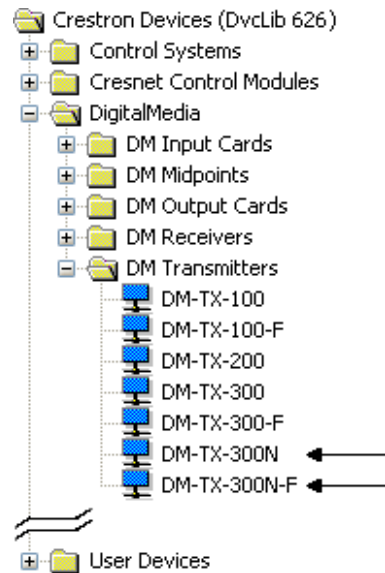
Configuration Manager

Configuration Manager is the view where programmers "build" a Crestron control system by selecting hardware from the *Device Library*.

In the examples shown on the following pages, the DM-TX-300N and DM-TX-300N-F are being used in a DigitalMedia system with a DM-MD8X8 Switcher, equipped with a DMC-CAT input card (for the DM-TX-300N) or a DMC-F input card (for the DM-TX-300N-F). For details, refer to the latest version of the DigitalMedia Switchers Operations Guide (Doc. 6755).

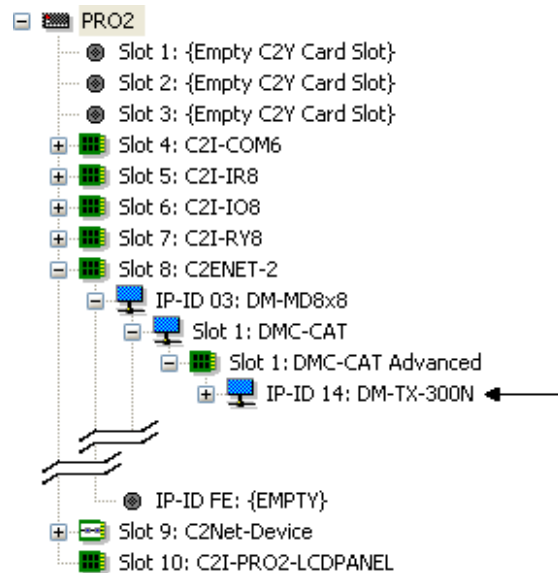
1. To incorporate the DM-TX-300N/-F into the system, drag the DM-TX-300N/-F from the DigitalMedia | DM Transmitters folder of the *Device Library* and drop it in the *System Views*.

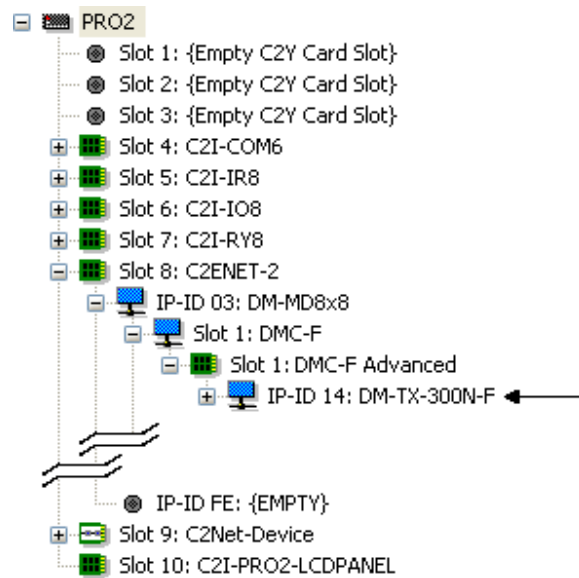
Locating the DM-TX-300N and DM-TX-300N-F in the Device Library



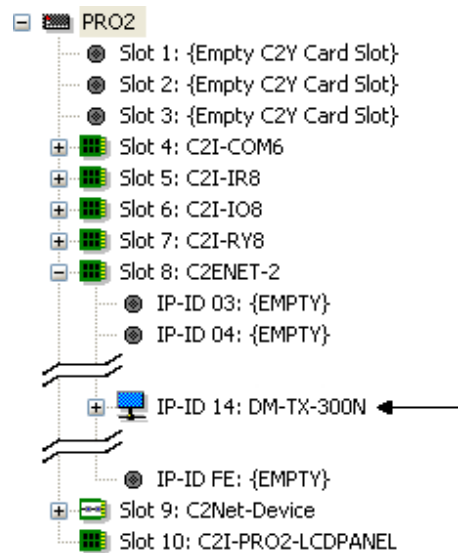
2. The system tree of the control system displays the device in the appropriate slot with an IP ID as shown in the following illustration.

C2Net Device, Slot 8 (DM-TX-300N Shown Using Input Card in DM Switcher)

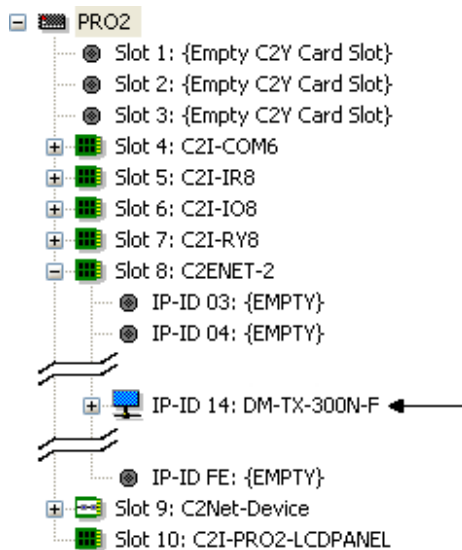


C2Net Device, Slot 8 (DM-TX-300N-F Shown Using Input Card in DM Switcher)

NOTE: Alternatively, the DM-TX-300N/-F can be dragged directly to a card such as the C2ENET-2, in the Ethernet slot of the control system, when it is to be used without a DM switcher.

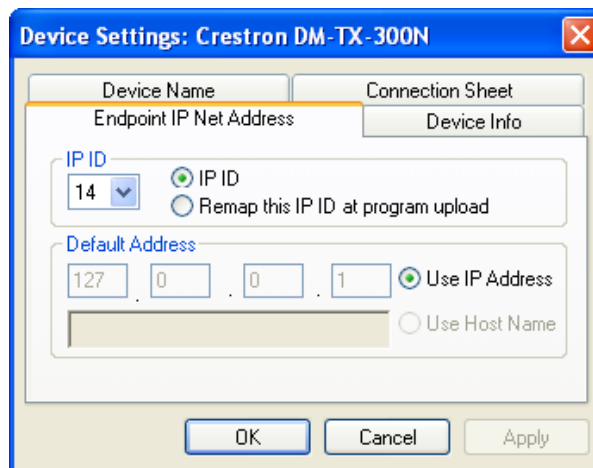
C2Net Device, Slot 8 (DM-TX-300N Shown Using Ethernet Slot on Control System)

C2Net Device, Slot 8 (DM-TX-300N-F Shown Using Ethernet Slot on Control System)



3. Additional DM-TX-300N/-F devices are assigned different IP ID numbers as they are added.
4. If necessary, double click a device to open the “Device Settings” window and change the IP ID, as shown in the following figure (DM-TX-300N shown).

“Device Settings” Window (DM-TX-300N Shown)



5. The ID code specified in the SIMPL Windows program must match the IP ID of each unit. Refer to “Identity Code” on page 19.

Program Manager

Program Manager is the view where programmers “program” a Crestron control system by assigning signals to symbols.

The symbol can be viewed by double clicking on the icon or dragging it into *Detail View*. Each signal in the symbol is described in the SIMPL Windows help file (F1).

Example Program

An example program for the DM-TX-300N/-F is available from the Crestron website (www.crestron.com/exampleprograms).

Uploading and Upgrading

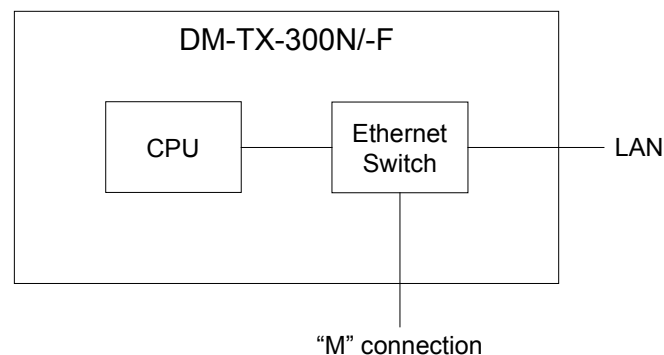
Crestron recommends using the latest programming software and that each device contains the latest firmware to take advantage of the most recently released features. However, before attempting to upload or upgrade it is necessary to establish communication. Once communication has been established, files (for example, firmware) can be transferred to the device. Finally, program checks can be performed (such as changing the device ID or creating an IP table) to ensure proper functioning.

Establishing Communication

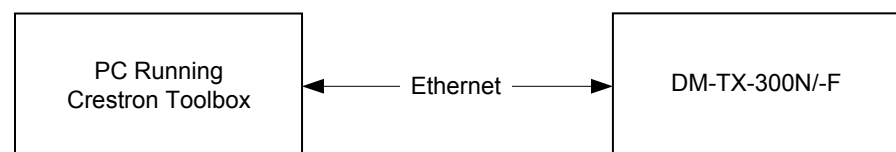
Use Crestron Toolbox for communicating with the DM-TX-300N/-F; refer to the Crestron Toolbox help file for details. There is a single method of communication: TCP/IP communication.

The DM-TX-300N/-F has an internal Ethernet switch. It can be connected via Ethernet or DM, as shown in the following illustration.

Internal Ethernet Switch Allows Connection via Ethernet or DM



Ethernet Communication




The DM-TX-300N/-F connects to PC via Ethernet:

1. Enter the IP address, IP mask and default router of the DM-TX-300N/-F via the Crestron Toolbox (**Functions | Ethernet Addressing**); otherwise enable DHCP.

NOTE: Use the Device Discovery Tool in Crestron Toolbox to detect all Ethernet devices on the network and their IP configuration. The tool is available in Toolbox version 1.15.143 or later.

2. Confirm Ethernet connections between DM-TX-300N/-F and PC. If connecting through a hub or router, use CAT5 straight through cables with 8-pin RJ-45 connectors. Alternatively, use a CAT5 crossover cable to connect the two LAN ports directly without using a hub or router.

3. Use the Address Book in Crestron Toolbox to create an entry for the DM-TX-300N/-F with the DM-TX-300N/-F's TCP/IP communication parameters.
4. Display the “System Info” window (click the  icon) and select the DM-TX-300N/-F entry.

NOTE: When the DM-TX-300N/-F is connected to a DM switcher, the switcher will manage its IP configuration and assign the proper IP address.

NOTE: If the DM-TX-300N/-F is in a non-DHCP environment and not connected to a DM switcher via DM, a default IP address (192.168.1.233) can be assigned by holding down its **SETUP** button while applying power. This IP address will overwrite any previous settings and will remain until it is changed. The **COM** port will also provide a console, which may be useful for setting the IP configuration using Crestron Toolbox. It will not be controllable by the program until reboot.

Firmware


Firmware files may be distributed from programmers to installers or from Crestron to dealers. Firmware upgrades are available from the Crestron website as new features are developed after product releases.

Check the Crestron website to find the latest firmware. (New users may be required to register to obtain access to certain areas of the site, including the FTP site.)

To upgrade DM-TX-300N/-F firmware:

1. Download the appropriate .puf file from the Crestron website.
2. Double click the .puf file. The Crestron Toolbox address book will open.
3. From the list, select the means for communication.
4. In the list that will be presented, select item(s) to upgrade using the checkboxes.
5. Click **Update**.
6. After the process is complete, click **Recheck** to verify the upgrade.

Program Checks

Using Crestron Toolbox, display the “System Info window (click the  icon) and select the **Functions** menu to display actions that can be performed on the DM-TX-300N/-F.

Be sure to use Crestron Toolbox to create the DM-TX-300N/-F IP table.

NOTE: This procedure is required when configuring the DM-TX-300N/-F as a standalone device, without a DM switcher. If using a DM switcher with a DMC-CAT card, the IP table entry will be created automatically. (Refer to illustration on the following page.)

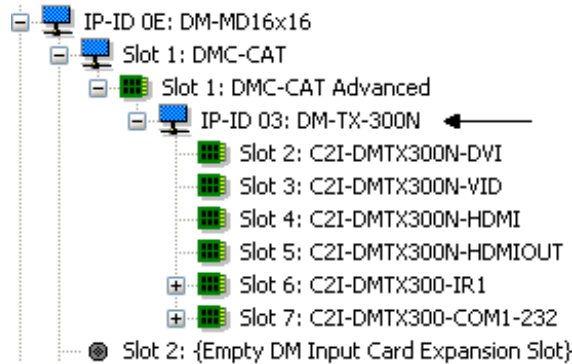
1. Select **Functions | IP Table Setup**.
2. Add, modify or delete entries in the IP table. The DM-TX-300N/-F can have only one IP table entry.

3. A defined IP table can be saved to a file or sent to the device.

Edit the control system's IP table to include an entry for the DM-TX-300N/-F. The entry should list the DM-TX-300N/-F's IP ID (specified on the DM-TX-300N/-F's IP table) and the internal gateway IP address 127.0.0.1.

In installations where the DM-TX-300N/-F is used with a DM switcher and DMC-CAT card, the IP table entry will be created automatically.

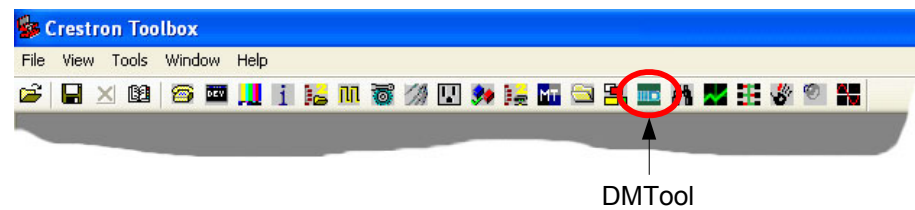
DM-TX-300N Shown on DMC-CAT Card in DM Switcher



DMTool

In the Crestron Toolbox Address Book, select the DM-TX-300N/-F. Then use the DMTool to configure EDID, HDCP or to troubleshoot AV on the DM-TX-300N/-F. Refer to the help file for additional information.

DMTool



Problem Solving

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

DM-TX-300N/-F Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Device does not function.	Device is not communicating with the network.	Use Crestron Toolbox to poll the network. Verify network connection to the device.
	Device is not receiving power from a Crestron power source.	Use the provided Crestron power source. Verify connections.
PWR LED does not illuminate.	Device is not receiving power.	Verify PWR connections are properly attached.
DM LINK LED does not illuminate.	Device is not transmitting DMNet signal.	Verify DM OUT connections are properly attached.
Loss of functionality due to electrostatic discharge.	Improper grounding.	Check that all ground connections have been made properly.

NOTE: For more advanced diagnostics, use the DMTool in Crestron Toolbox.

Check Network Wiring

Use the Right Wire

In order to ensure optimum performance over the full range of your installation topology, Crestron Certified Wire and only Crestron Certified Wire may be used. Failure to do so may incur additional charges if support is required to identify performance deficiencies because of using improper wire.

Calculate Power

CAUTION: Use only Crestron power supplies for Crestron equipment. Failure to do so could cause equipment damage or void the Crestron warranty.

CresFiber fiber optic cables provide for longer distances between the DigitalMedia switcher and a DigitalMedia Room Controller. For more information, refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4789).

Refer to the following tables for maximum cable lengths using various cables.

Maximum Cable Length by Type (DM-TX-300N only)

Cable Type:	DM-CBL DigitalMedia Cable	
Resolution:	Maximum length without, between, before or after repeaters	Maximum total length using up to 2 repeaters
720p, 1080i, 1080p24	200 ft (60 m)	450 ft (137 m)
1024x768 @ 75 Hz	200 ft (60 m)	450 ft (137 m)
1080p60	150 ft (45 m)	450 ft (137 m)
1280x1024 @ 75 Hz	150 ft (45 m)	450 ft (137 m)
1920x1200 @ 60 Hz	150 ft (45 m)	450 ft (137 m)
1600x1200 @ 60 Hz	125 ft (38 m)	375 ft (114 m)
1080p60 Deep Color	Not supported	

NOTE: All Crestron certified DMNet wiring must consist of two twisted pairs. One twisted pair is the +24V conductor and the GND conductor and the other twisted pair is the A conductor and the B conductor.

Maximum Cable Length by Type (DM-TX-300N-F only)

RESOLUTION	CRESFIBER
1080i, 720p, 1080p @24 Hz	1000' (~300 m)
1024 x 768 @ 75 Hz	
1280 x 1024 @ 75 Hz	
1600 x 1200 @ 60 Hz	
1920 x 1200 @ 60 Hz	
1080p @ 60 Hz	
1080p @ 60 Hz Deep Color	

Reference Documents

The latest version of all documents mentioned within the guide can be obtained from the Crestron website (www.crestron.com/manuals). This link will provide a list of product manuals arranged in alphabetical order by model number.

List of Related Reference Documents

DOCUMENT TITLE
Crestron DigitalMedia Design Guide
DigitalMedia Switchers Operations Guide

Further Inquiries

If you cannot locate specific information or have questions after reviewing this guide, please take advantage of Crestron's award winning customer service team by calling Crestron at 1-888-CRESTRON [1-888-273-7876].

You can also log onto the online help section of the Crestron website (www.crestron.com/onlinehelp) to ask questions about Crestron products. First-time users will need to establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features and extends the capabilities of the DM-TX-300N/-F, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an “Addendum” in the Download column.

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3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

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