

# Everon SD Solutions

## 10G HPoE Media Converter (1LAN-FMC-10G)

The Corning 10G HPoE Media Converter is the smallest industrial-grade 10G Ethernet media converter (from 10000Base-X SFP+ to 10G/5G/2.5G/1G/100M Base-T Copper) with 802.3bt Power over Ethernet Plus Plus (PoE++) injector function to deliver up to 90W of power output and high data transmission speed to PDs (powered devices) installed in a remote area where sufficient and reliable power input is required, providing non-blocking wire-speed performance and great flexibility for 10G Ethernet extension in harsh industrial environment. It is equipped with one 10G/5G/2.5G/1G/100M Base-T RJ45 copper interface and one 10GBase-X SFP+ fiber optic interface delivered in an IP30 rugged but compact sized strong case with redundant power system (44~57VDC).



It is Ideal for wide range of applications from copper to fiber media conversion wherever 10GE bandwidth is required in climatically demanding environments with wide temperature ranges.

Features	Benefits
Physical Port	<ul style="list-style-type: none"> <li>• 1 port 10G/5G/2.5G/1G/100M Base-T RJ45 interface with IEEE 802.3bt PoE++ injector function</li> <li>• 1 port 10GBase-X SFP+ interface</li> </ul>
Power over Ethernet	<ul style="list-style-type: none"> <li>• Complies with IEEE 802.3bt PoE++ Type-4 PSE</li> <li>• Backward compatible with IEEE 802.3af/at PoE+ standard</li> <li>• Supports PoE Power up to 90 watts for PoE port</li> <li>• Provides DC 55V power over RJ45 Ethernet cable to PD with Ethernet port</li> <li>• Auto-detect IEEE 802.3bt equipment and incorrect installation damage protection</li> <li>• Remote powering of connected PD up to 100m</li> </ul>
Layer 2 Features	<ul style="list-style-type: none"> <li>• IEEE 802.3an/802.3ae Ethernet standard compliant</li> <li>• Supports auto-negotiation and 10Gbps full duplex mode</li> <li>• Prevents packet loss with IEEE 802.3x pause frame flow control (full-duplex)</li> <li>• Automatic address learning and address aging</li> </ul>

Industrial Case and Installation	<ul style="list-style-type: none"> <li>• Slim-type IP30 metal case</li> <li>• DIN rail and wall-mount design</li> <li>• 44~57V DC redundant power with reverse polarity protection</li> <li>• 100 meters over Cat6A at 10Gbps</li> <li>• Plug and Play Installation</li> </ul>
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## Specifications |

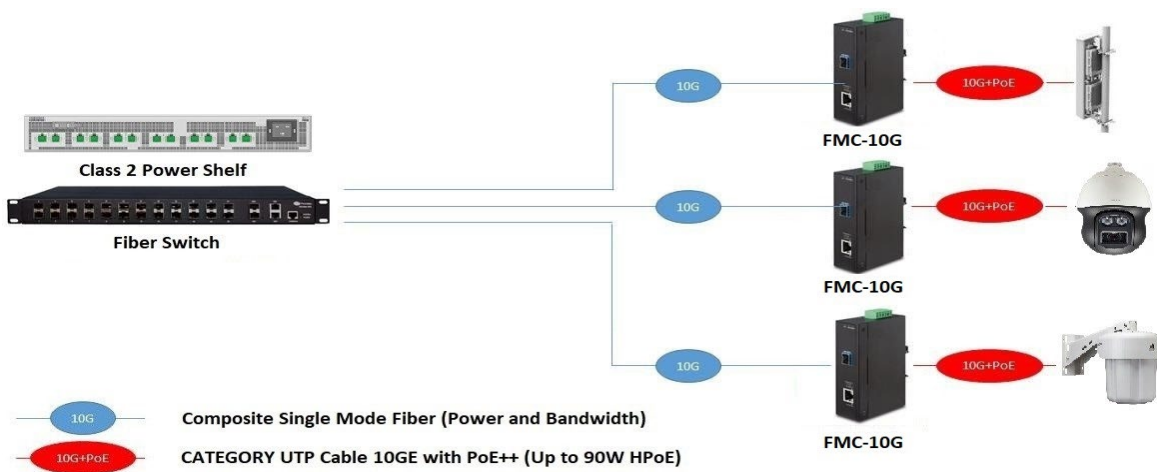
Hardware Specifications	
Copper Interface	1 x 10G/5G/2.5G/1G/100M Base-T RJ45, Auto-MDI/MDI-X, auto-negotiation
Fiber Optical Interface	1 x 10GBase-SR/LR SFP+ interface
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1, Pin 3/4 for fault alarm, Pin5/6 for Power 2
Alarm	Provides one relay output for power failure
LED	PWR, SYS, Fault Alarm, PoE++ Usage, 10G RJ45 port LNK/ACT, 10G SFP+ port LNK/ACT
Enclosure	IP30 type metal case
Installation	DIN-rail and wall mount
Dimensions (W x D x H)	3.03 x 1.48 x 4.21 in (77 x 37.5 x 107mm)
Weight	270g
Power Requirements	44~57V DC, supports reverse polarity protection
Power Consumption	System ON without loading: 48V DC: 4.36W Full loading with PoE++: 48V DC: 98W
Specifications	
Flow Control	IEEE 802.3x pause frame for full duplex
Fabric	20Gbps
Network Cables	10G/ 5G/ 2.5G/ 1G/ 100M Base-T: 10G - Cat 6A/7 5G - Cat 6/6A/7 2.5G/1G - Cat 5e/6/6A/7 100M – Cat 5/5e/6/6A/7 Cat 5/5e/6/6A/7 UTP cable (max 100 meters) EIA/TIA-568 100-ohm STP (max 100 meters) 10GBase-IR/ SR/ BX: 50/125um or 62.5/125um multi-mode fiber optic cable, up to 300m 9/125um single-mode fiber optic cable, up to 80km
Power over Ethernet	
PoE Standard	IEEE 802.3bt Power over Ethernet Plus Plus (HPoE)
PoE Power Output	90W
PoE Power Supply Type	End-span + Mid-span
Power Pin Assignment	Mode A End-span: 1/2(-), 3/6(+) Mode B Mid-span: 4/5(+), 7/8(-)
PoE Power Budget	90 watts@44~57V DC input
Standards Conformance	
IEEE Standards	IEEE 802.3u 100Base-T IEEE 802.3ab 1000Base-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10GBase-T IEEE 802.3ae 10Gbps Ethernet IEEE 802.3af Power over Ethernet

Regulatory Compliance	FCC Part 15 Class A CE ETL
<b>Environment</b>	
Temperature	Operating: -40°C ~ 65°C   -40°F ~ 149°F Storage: -40°C ~ 85°C   -40°F ~ 185°F
Humidity	Operating: 5% ~ 95% RH Non-condensing

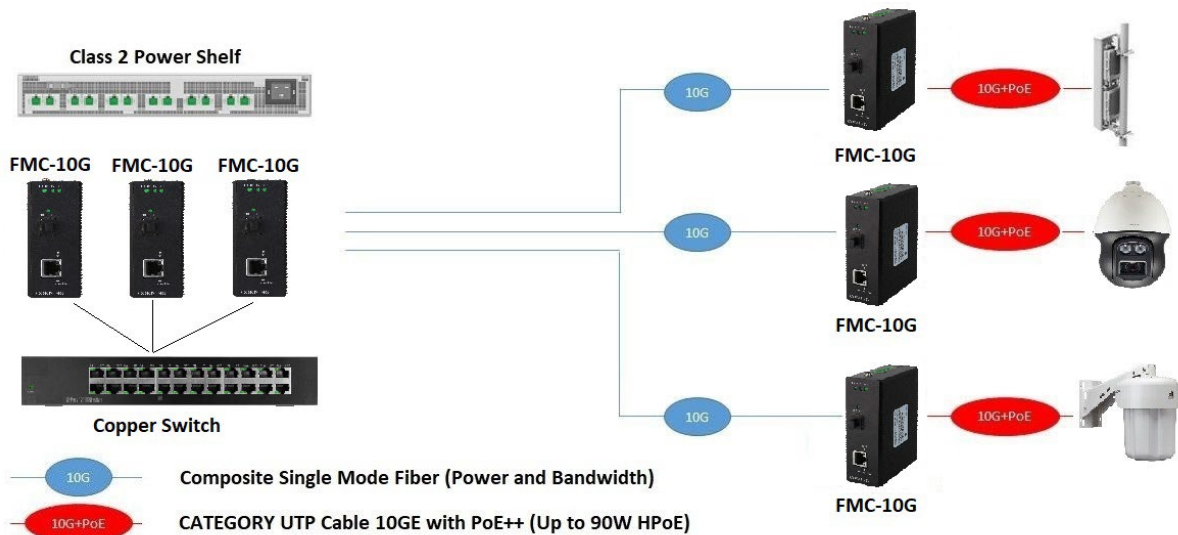
## Application |

The Corning FMC-10G lends itself to 2 main methods of deployment.  
 Single sided - extending the reach of an optical switch.  
 Double sided - extending the reach of a copper based switch.

### Method 1:



### Method 2:



## Ordering Information

P/N	Short Description
1LAN-FMC-10G	10G Fiber Media Converter, 1x10G RJ-45, 802.3bt HPoE
1LAN-FMC-DINBRACKET	Din Rail Accessory Bracket for FMC (48.4 x 32 x 9mm) (15g)
1LAN-SDAN-DIN1160	EN 50022 – 35 x 7.5 (1M) (DIN RAIL)
CIP-16-56V	Class 2 power supply, 56Vdc, 16 channels, 1.5RU
CIP-32-56V	Class 2 power supply, 56Vdc, 32 channels, 2RU
PSM-I	Power Supply Module
PSU6-1U	Power Supply Unit
1LAN-SDAN-PWRSUP2	POWER SUPPLY, SDAN (72W)
1LAN-SDAN-PWRSUP160	POWER SUPPLY, SDAN (150W)
1LAN-D600-ENC-3	NEMA4 enclosure
1LAN-D600-FMC-KIT	Mounting kit for 1LAN-FMC-10G into 1LAN-D600-ENC-3 outdoor enclosure
1LAN-D600-ENC-8	NEMA4 enclosure, contains DIN Rail for mounting 1LAN-FMC-10G
1LAN-SFPP-10G-BXD-I	10GBASE-BX10-D BiDi SFP+ 1330nm-TX/1270nm-RX 10km DOM Transceiver Module
1LAN-SFPP-10G-BXU-I	10GBASE-BX10-U BiDi SFP+ 1270nm-TX/1330nm-RX 10km DOM Transceiver Module
1LAN-SFPP-10LR	10Gb/s SFP+ Transceiver module, SMF, 1310nm, 10km
1LAN-FMC-10G-U	TAA Compliant 10G Fiber Media Converter, 1x10G RJ-45, 802.3bt HPoE



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