

iConverter XGT+ **10GBASE-T Ethernet Media Converter**

The iConverter XGT+ is a 10 Gigabit Ethernet media converter with one 10GBASE-T RJ-45 port and one XFP or SFP+ pluggable transceiver port that provides copper-to-fiber media conversion.

The iConverter XGT+ provides a variety of 10G data center connectivity solutions, including resolving interface disparities between equipment with 10GBASE-T RJ-45 ports and existing rack servers or switches with fiber optic ports. Architecture changes such as migrating from Top of Rack to End of Row can present cabling challenges when extending network distances from racks of servers. The XGT+ converts short-reach cabling to multimode fiber, single-mode fiber or CAT-6A cabling (up to 100 meters) to extend distances to servers, switches and patch panels. For CAT-6A cabling links less than 30 meters, the XGT+ supports 10GBASE-T Short Reach mode. In this mode, the device conserves energy by reducing power and cooling requirements.

The iConverter XGT+ also supports CWDM and DWDM transceivers to convert 10GBASE-T interfaces to WDM wavelengths. This enables connecting equipment with 10GBASE-T interfaces to iConverter CWDM multiplexers that expand fiber capacity and transport multiple 10G data channels across existing fiber links.

The XGT+ supports high-power (power level 4) XFP transceivers and the latest generation of wavelength tunable DWDM XFP transceivers. The wavelength of a tunable transceiver can be programmed and saved, eliminating the need for external programming equipment.

Built-in loopback functions, on-board status LEDs and link fault propagation modes facilitate easy setup and quick troubleshooting.

The iConverter XGT+ is available as a compact, unmanaged standalone unit, or chassis plug-in module that can be managed with a management module installed in the chassis. The hot-swappable, plug-in modules can be mounted in a variety of chassis with AC and DC power supplies.

The standalone iConverter XGT+ has integrated mounting brackets and can be rack mounted (8260-0) or DIN-rail mounted (8251-1). It is DC powered and available with an external AC to DC power adapter, or 2-pin terminal connector for direct DC voltages up to 60 VDC.



SFP+/XFPs not included

KEY FEATURES

- 10GBASE-T Ethernet Media Converter
- Copper to Fiber interfaces:
RJ-45 to XFP or RJ-45 to SFP+
- IEEE 802.3an Compliant
- CWDM, DWDM and tunable DWDM fiber transceivers
- Supports MSA power level 4 XFP transceivers
- Supports up to 100m over CAT-6A and CAT-7
- Short Reach mode (up to 30m) reduces power and cooling requirements per IEEE 802.3az Energy Efficient Ethernet (EEE)
- Built-in loopback for installation verification and troubleshooting
- Link fault detection modes facilitate quick fault detection, isolation and reporting
- Automatic Link Recovery
- LED displays for immediate visual status of each port
- Standalone and high-density chassis plug-in modules
- Omnitron transceivers support XFP and SFP+ digital diagnostics reporting via LEDs or management module
- Management of the plug-in module is available with the addition of a management module to the chassis
- SNMP management via NetOutlook® provides monitoring, configuration and fault notification
- Provides management of wavelength tunable XFP transceivers, compliant with MSA SFF-8477 and INF-8077i
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

MANAGEMENT

Management of the plug-in module provides remote configuration, monitoring and trap notification. Management is accomplished by installing an iConverter Management Module (NMM2) or Network Interface Device (NID) in the same chassis.

By installing MSA compliant pluggable transceivers that support digital diagnostic capabilities, real time optical diagnostic information is provided. This includes fiber TX and RX power, voltage and temperature. DWDM tunable

transceivers can be programmed when installed in the XGT+ plug-in module. These parameters can be monitored/programed by the installed Network Management module.

The Management Module can be accessed via SNMP, Telnet, and serial console port. Omnitron's intuitive, graphic-oriented NetOutlook SNMP Management Software or third party SNMP management software is supported. Management via the Telnet and the serial interfaces have an easy-to-use, menu-driven interface.

APPLICATION EXAMPLES

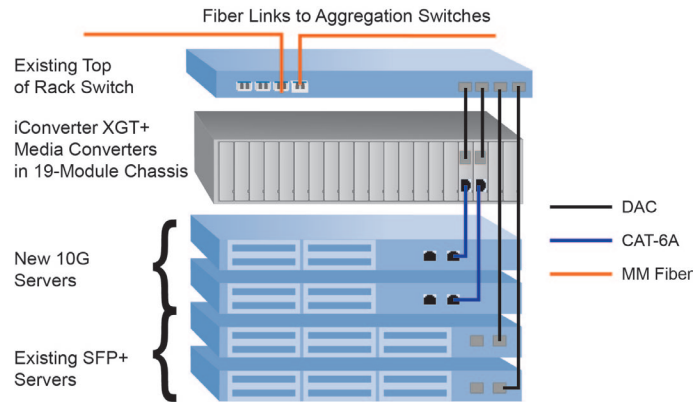
Data Center Application

In this application, new 10GBASE-T servers are added to an existing rack of servers with SFP+ interfaces. The servers are connected to a Top of Rack fiber switch with Direct Attach Copper (DAC) cables. The switch is connected to an aggregation switch in the data center with multimode fiber.

iConverter XGT+ plug-in media converters are installed in a high density (2U high), iConverter 19-Module chassis with redundant power supplies. CAT-6A patch cords connect

the new servers to the XGT+ media converters, and DAC cables connect the media converters to the fiber switch.

Since the 10GBASE-T servers are connected to the 10GBASE-T media converters over a short cable (less than 30 meters) they can take advantage of the 10GBASE-T Short Reach mode, in which all devices operate with a lower transmit power. Short reach mode is specified in the IEEE 10GBASE-T standard, and conserves energy and produces less heat.



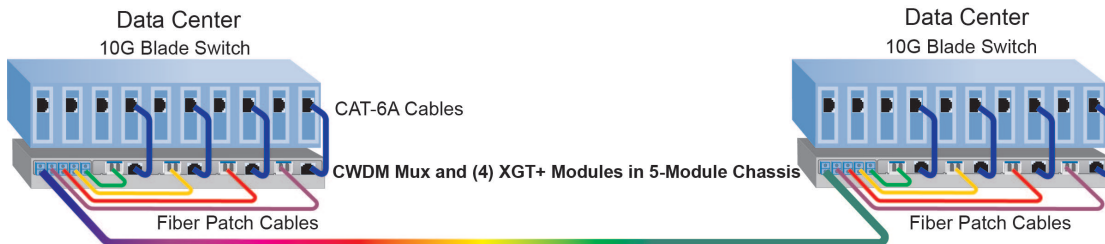
CWDM Data Center Interconnect Application

This application shows two data centers interconnected by four 10G Ethernet connections across a CWDM fiber link (multi-color line) in order to increase the fiber capacity.

An iConverter 4-Channel CWDM/X multiplexer module and four iConverter XGT+ plug-in modules are installed in an iConverter 5-Module Chassis at both locations. The iConverter XGT+ modules are used to convert the RJ-45

interfaces on the 10G Ethernet switch ports to CWDM wavelengths required by the CWDM/X multiplexers.

The SFP+ port of each iConverter XGT+ contains an SFP+ CWDM transceiver that generates a specific CWDM optical wavelength, and is connected to the CWDM/X multiplexer with fiber patch cables (where each colored line represents a different wavelength).



SPECIFICATIONS

Description	iConverter XGT+ 10GBASE-T Ethernet Media Converter	
Standard Compliances	IEEE 802.3, 802.3an, 802.3az	
Regulatory Compliances	Safety: EMI: ACT:	UL, cUL, CE, NEBS 3 Compliant, UKCA FCC Class A TAA, BAA NDAA
Environmental	RoHS, WEEE, REACH	
Frame Size	Unlimited	
Port Types	Copper: Fiber:	10GBASE-T (RJ-45) 10GBASE-X Dual and single-fiber SFP+, XFP Direct Attach Cable (SFP+)
Cable Types	Copper: Fiber:	EIA/TIA 568-B.2-10, Cat 6A UTP and higher Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm Direct Attach Cable: 1 meter (7499-DC-1) Direct Attach Cable: 3 meter (7499-DC-3)
AC Power Requirements	AC Adapter:	100 - 240VAC/50 - 60Hz 0.20A @ 120VAC (max)

DC Power Requirements	DC Input: (Backplane)	3.3VDC, 2.8A @ 3.3VDC
	DC Input: (Terminal)	10 - 60VDC, 1.3A @ 12VDC max 2-Pin Terminal (non-isolated)
	DC Input: (AC Adapter)	10 - 60VDC, 1.3A @ 12VDC max 2.5mm Barrel Connector
Dimensions W x D x H	Plug-in:	0.85" x 4.5" x 2.8" (21.6 mm x 114.3 mm x 71.1 mm)
	Standalone:	3.8" x 4.8" x 1.8" (96.5 mm x 121.9 mm x 45.7 mm)
Weight	Plug-in:	8 oz. (226.8 grams)
	Standalone w/o AC Adapter:	1.0 lb. (453.6 grams)
	Standalone w AC Adapter:	1.5 lbs. (680.4 grams)
Temperature	Commercial:	0 to 50°C
	Wide:	-40 to 60°C
	Storage:	-40 to 80°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
MTBF (hrs)	Plug-in:	400,000
	Standalone w/o AC Adapter:	230,000
	Standalone w/ AC Adapter:	70,000
	Standalone w/ Uni AC Adapter:	70,000
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

The XGT+ plug-in modules require specific chassis and installation configurations. Please contact Omnitron for more information.

ORDERING INFORMATION

Step 1: Choose a Base Part Number (8589N-x-pt)

Model Number	Description
8589N-0-pt	10GBASE-T RJ-45 Copper to SFP+ Receptacle
8589N-1-pt	10GBASE-T RJ-45 Copper to XFP Receptacle

Please contact Omnitron for other temperature operating ranges, configurations and RoHS (5/6) compliant models.

The XGT+ plug-in modules require specific chassis and installation configurations. For more information on XGT+ chassis installation requirements, download the [iConverter XG, XG+ and XGT+ Chassis Installation Guidelines for Airflow and Cooling Application Note](#).

Order the appropriate XFP/SFP+ separately. [Visit the Omnitron Optical Transceivers web page.](#)

See chassis and mounting options at: [iConverter Chassis and Mounting Option web page.](#)

Step 2: Choose a Power Option (8589N-x-pt)

<leave blank> = Plug-in module
D = External AC/DC Adapter, 100 - 240 VAC included, with US Power Cord, with mounting brackets
E = Universal AC/DC Adapter, 100 - 240 VAC included, No Power Cord, with mounting brackets
F = Direct DC input, 2 pin terminal connector, no AC/DC power adapter, with mounting brackets
J = External AC/DC Adapter, 100 - 240 VAC included, with Japanese Power Cord, with mounting brackets

Step 3: Choose an Operating Temperature Range (8589N-x-pt)

<leave blank> = (0 to 50°C)
W = Wide temperature (-40 to 60°C)

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