

OmniConverter[®] 10GMG/M

Managed Multi-Gigabit/Multi-Rate 100M, 1G, 2.5G, 5G, 10G Ethernet Switch

The OmniConverter 10GMG/M are managed multi-gigabit Ethernet switches. They feature one 1/10G SFP/SFP+ or multi-gigabit/multi-rate RJ-45 uplink port and two multi-gigabit/multi-rate RJ-45 and two 10/100/1000 RJ-45 user ports.

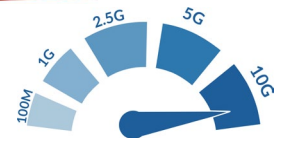
The RJ-45 user ports support multi-gigabit/multi-rate speeds of 100Mbps, 1Gbps, 2.5Gbps, 5Gbps and 10Gbps, supporting frame sizes up to 10,240 bytes.

All models support Directed Switch mode, which directs multicast traffic (such as video) only to the appropriate uplink port, preventing multicast traffic from flooding other network ports.

The switches feature a Small Form Pluggable (SFP) transceiver receptacle port supporting a variety of copper and fiber transceivers. It supports 10/100/1000BASE-T, 1000BASE-T, 100M/1G/2.5G/5G/10GBASE-T multi-gigabit copper transceivers and 1G and 10G multimode or single-mode fiber, dual or single-fiber transceivers in standard, CWDM and DWDM wavelengths.

The mode of operation can be configured using easily accessible DIP-switches or using Web, Telnet, SSH, SNMPv1/v2c/v3 or Serial Console management interfaces. IPv4 and IPv6 are supported on the switches. These management interfaces provide access to filtering and security options, such as, broadcast storm prevention, IGMP, IEEE 802.1x, RADIUS, TACACS+ and Access Control Lists. Email notification and alarm reporting is provided.

All models can be wall mounted, rack mounted using a shelf or DIN-rail mounted using DIN-rail mounting clips. They are available with an external 100 to 240V AC power adapter or with a DC terminal connector.



SFPs not included

KEY FEATURES

- Managed 10G multi-gigabit/multi-rate Ethernet Switch
- Modbus Industrial Protocol for device management and monitoring
- Supports IPv4 and IPv6
- IEEE 802.1x, RADIUS, TACACS+ and ACL
- Email Notification
- IEEE 802.1Q VLAN tagging and IEEE 802.1ad Q-in-Q
- Broadcast / Multicast / Unicast Storm Prevention
- DHCP Relay Option 82, DHCPv6 and DHCPv6 Relay
- IPv4 Internet Group Management (IGMP) and IPv6 Multicast Listener Discovery (MLD) snooping
- Rate Limiting, Queue prioritization and Class of Service
- IEEE 802.1ab Link Layer Discovery Protocol
- Static MAC configuration and blocking of unknown Unicast/Multicast addresses
- Management via Web, Telnet, SSH, SNMPv1/v2c/v3 and serial interfaces
- Easy to use Hierarchical Command Line Interface
- SNMP management via Omnitron's NetOutlook® management software, or third-party SNMP software
- Directed Switch mode prevents flooding of multicast video traffic
- Free 24/7/365 Technical Support

ADDITIONAL FEATURES

- One SFP/SFP+ transceiver uplink port or multi-gigabit/multi-rate copper port
- 1/10G SFP/SFP+ supports standard/CWDM/DWDM fiber transceiver uplink port
- Uplink port supports copper and fiber SFP/SFP+ transceivers
- Multi-gigabit/multi-rate ports support speeds of 100Mbps, 1Gbps, 2.5Gbps, 5Gbps and 10Gbps
- Two multi-gigabit/multi-rate RJ-45 and two 10/100/1000 RJ-45 user ports
- AC to DC Power Adapter or 2-Pin DC terminal
- Wall, Rack and DIN-rail mountable
- Commercial (0° to 50°C), wide (-40° to 60°C) and extended (-40° to 75°C) operating temperature ranges
- TAA, BAA and NDAA compliant, and Made in the USA

APPLICATIONS

Security and Wireless

In this application example, outdoor IP surveillance cameras and Wi-Fi 6/6E Access Points are installed throughout a large facility. An iConverter® XM5 aggregation fiber switch is used to distribute a fiber link from a control room to OmniConverter switches with fiber SFP ports.

The OmniConverter 10GMG/M provides a fully managed solution to an IP camera and Wireless Access Point at each location, each of which can be located up to 100 meters from the switches.

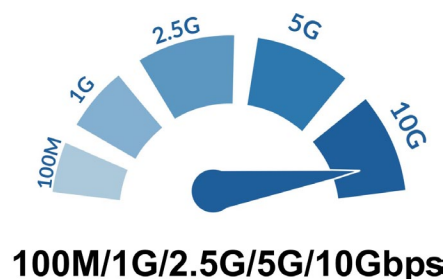
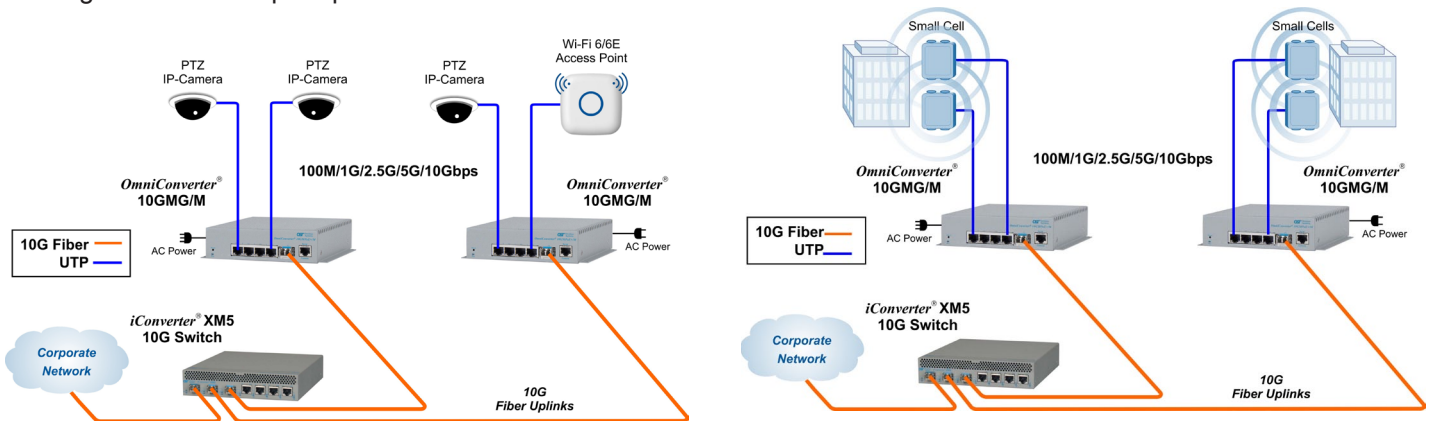
The camera and access point have full bandwidth capability utilizing the 10G fiber uplink port on each 10GMG/M switch.

Small Cell

Small cell devices are increasing their demand on bandwidth requirements. Speeds of 10Gbps is common with today's small cell devices.

In this application example, high-speed small cell devices requiring up to 10Gbps bandwidth are deployed inside several buildings. An iConverter® XM5 aggregation fiber switch is used to distribute a fiber link to each OmniConverter switch.

The OmniConverter 10GMG/M switches provide speeds up to 10Gbps on the RJ-45 user ports.



SPECIFICATIONS

Description	OmniConverter® 10GMG/M Managed 10Gigabit Multi-Gigabit/Multi-Rate Ethernet Switch
Standard Compliances	IEEE 802.3, IEEE 802.1Q, IEEE 802.1ad, IEEE 802.1ab, RFC 5424, RFC 4541, RFC 2710, IEC 624339-2, SMTP, SNTP, RADIUS, TACACS+, IEEE 802.1x,
Regulatory Compliances (Pending)	<p>Safety: UL 62368-1, UL 60950-1, IEC 62368-1, IEC 60950-1, EN 62368-1, EN 60950-1, CAN/CSA C22.2 No. 62368-1-14, CAN/CSA C22.2 No. 60950-1, CE Mark, UKCA</p> <p>EMC: EN 55032/24 CE Emissions/Immunity, IEC 61000-6-4 Industrial Emissions, IEC 61000-6-2 Industrial Immunity</p> <p>EMI: CISPR 32, FCC 47 Part 15 Subpart B Class A</p> <p>EMS: IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV, IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m, IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV (DC models), IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV (AC models), IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV (DC models), IEC 61000-4-5 Surge: Power: 1 kV Line/Line; 2 kV Line/Gnd; Signal: 2 kV (AC models), IEC 61000-4-6 CS: Signal: 10 V, IEC 61000-4-8 (Magnetic Field) 30A/m, IEC 61000-4-11 (Voltage Dips, interrupts)</p> <p>IP Rating: IP20 Protection</p> <p>ACT: TAA, BAA, NDAA</p>
Environmental	REACH, RoHS and WEEE
Management	IPv4 and IPv6 address Web, Telnet, SSH, SNMPv1/v2c/v3 In-Band management via Ethernet port, Out-of-band management via serial port
Frame Size	Up to 10,240 bytes
Port Types	<p>Copper: 100/1000BASE-T, 2.5GBASE-T/5GBASE-T/10GBASE-T (RJ-45) 10/100/1000BASE-T (RJ-45)</p> <p>SFP/SFP+: 10GBASE-X Fiber Transceivers, 10GBASE-T Copper Transceivers 1000BASE-X Fiber Transceivers, 1000BASE-T Copper Transceivers 10/100/1000BASE-T SGMII Copper Transceivers 100/1000/2.5G/5G/10GBASE-T Multi-rate Copper Transceivers</p> <p>Serial: RS-232 (RJ-45)</p>
Cable Types	<p>Copper: Twisted-pair cable up to 100 meters 10BASE-T: 4-pair UTP Cat 3, 4, 5, 5e, 6, 6A, 100BASE-TX: 4-pair UTP Cat 5, 5e, 6, 6A 1G/2.5G: 4-pair UTP Cat 5e, 6, 6A, 7 5G: 4-pair UTP Cat 6, 6A, 7 10G: 4-pair UTP Cat 6A, 7</p> <p>Fiber: Multimode: 50/125, 62.5/125µm Single-mode: 9/125µm</p>
AC Power Requirements (Models with AC/DC Adapters)	100 - 240VAC/50 - 60Hz 0.25A max at 115VAC 0.12A max at 230VAC
DC Power Requirements (Models with DC Terminals)	+12 to +57VDC; 0.93A @ 12VDC 0.23A @ 48VDC 2 Pin Terminal (isolated)
Dimensions (W x D x H)	6.28" x 5.2" x 1.5" (159.5 mm x 132.1 mm x 38.1 mm)
Weight	Module Only: 1.5 lbs. (680 grams) Module with AC/DC Adapter: 2.0 lbs. (907 grams)
Operating Temperature (See Temperature Derating Table)	Commercial: 0 to 50°C Wide: -40 to 60°C (-20°C AC cold start) Extended: -40 to 75°C Storage: -40 to 80°C
Humidity	5 to 95% (non-condensing)
Altitude	-100m to 4,000m (operational)
MTBF (hours)	Module Only: 249,000 AC/DC Adapter: 100,000
Warranty	5 year product warranty with 24/7/365 free Technical Support and 2 year AC power adapter warranty

ORDERING INFORMATION

Step 1: Choose the Base Part Number (xxxx-x-xx-pt)

OmniConverter 10GMG/M Models	
Model Number	Description
9655-0-14-pt	10GMG/M - 1 x SFP+ + 2 x 100/1G/2.5G/5G/10G RJ-45 ports + 2 x 10/100/1000 RJ-45 ports
9655-1-14-pt	10GMG/M - 1 x 100/1G/2.5G/5G/10G RJ-45 + 2 x 100/1G/2.5G/5G/10G RJ-45 ports + 2 x 10/100/1000 RJ-45 ports
Contact Omnitron for other fiber options. Order the appropriate SFPs separately. Visit the Omnitron Optical Transceivers web page.	

Step 2: Choose the Power Option (xxxx-x-xx-pt)

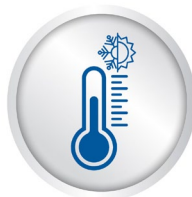
1 = External AC/DC Adapter, 100 - 240 VAC included, with US Power Cord
2 = External AC/DC Adapter, 100 - 240 VAC included, No Power Cord
8 = External AC/DC Adapter, 100 - 240 VAC included, PS JET/PSE Certified, with Japanese Power Cord
9 = Direct DC 2 pin terminal connector, no AC/DC power adapter

Step 3: Choose the Operating Temperature Range Option (xxxx-x-xx-pt)

<leave blank> = Commercial temperature (0 to 50°C)
W = Wide temperature (-40 to 60°C)
Z = Extended temperature (-40 to 75°C)

ACCESSORIES

Accessories			
Model Number	Description	Model Number	Description
8251-0	DIN-Rail Mounting Clip	8260-0	19" rack mount shelf (up to 2 switches)



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