

Unmanaged Media Converters

10/100/1000Base T/TX to 1000Base SX and LX

Description

Wirewerks™ Gigabit Ethernet media converters provide an easy and economical solution to upgrade a copper based network to fiber optic to extend the signal reach, or to bridge copper and optical fiber cabling by converting an electrical signal to an optical signal. Their plug-and-play design enables a quick and easy installation.

Wirewerks media converters can be used as standalone with their external power supply, or mounted in Wirewerks media converter chassis with centralized power supply.

Features and Benefits

Half or full duplex auto-negotiation
 10/100/1000 Mbps auto-negotiation for copper port
 Auto MDI/MDI-X for copper port
 Plug-and-play installation
 Extend network distance up to 20 km

Accommodate a variety of connector types
 Power and Link status LED for monitoring and management
 19 inches rack mountable in Wirewerks media converter chassis
 External power supply

Applications

Local Area Networks (LAN)
 Enterprise Networks
 Campus Networks

Fiber to the Building (FTTB)
 Fiber to the Curb (FTTC)
 Point-to-point fiber networks

Certification and Compliance

IEEE 802.3
 IEEE 802.3u
 IEEE 802.3ab
 IEEE 802.3z
 FCC part 15, Class A
 CE
 RoHS

10Base T Standard.
 100Base Fast Ethernet Standard
 1000Base T Gigabit Ethernet Standard.
 1000Base Gigabit Ethernet Standard.
 Emissions and Immunity Standard.
 European Conformity Standard.
 Directive on Restriction of Hazardous Substances.



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SX and LX

wirewerks



Ordering Information

	Description	Part Number
53 Series	10/100/1000Base T/TX to 1000Base SX Multimode 850 nm SC 550 m.	WMC1-531SC01
	10/100/1000Base T/TX to 1000Base SX Multimode 850 nm LC 550 m.	WMC1-531LC01
	10/100/1000Base T/TX to 1000Base LX Single mode 1310 nm SC 10 km.	WMC1-533SC10
	10/100/1000Base T/TX to 1000Base LX Single mode 1310 nm SC 20 km.	WMC1-533SC20

Packaging

Description
Cardboard box, 1 unit per box.

Inclusion

Description
1 external power supply, instructions manual.

Physical Characteristics

Parameter	Value
Twisted Pair interface	RJ45
Fiber optic interface	SC or LC
Twisted pair media	CAT5e, CAT6, and higher
Fiber optic media	Multimode 50/125 μ m, 62.5/125 μ m, single mode 9/125 μ m
LED indicators	Power status, TP port, LNK/ACK, FDX/COL
Encasement material	20 gauge Cold Rolled Steel (CRS)
Overall dimensions	97 mm (3.82 in) x 69 mm (2.72 in) x 26 mm (1.02 in)
Weight	0.2 kg (0.44 lb) without power supply

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	Parameter	Value
Mechanical Characteristics	Operating temperature	0° C (32° F) ~ 50° C (122° F)
	Storage temperature	-40° C (-40° F) ~ 70° C (158° F)
	Relative humidity	10~90% non-condensing
Transmission Characteristics	Signal distance TP port	100 m max.
	Signal distance fiber port	Multimode : 550 m max. Single mode 10 km max., 20 km max.
	Latency	<6 μ s (LIFO)
	Throughput at 100Base	148,809 pps (64 byte packets)
	Throughput at 1000Base	1,448,100 pps (64 byte packets)
	Speed	1000Base T: 1000/2000 Mbps; 100Base T: 100/200 Mbps; 10Base T: 10/20 Mbps; half/full duplex
	Switching method	Store-and-forward
	Maximum MAC addresses	1,024 entries
	Memory	256 KB
	Optical Characteristics	Wavelength multimode
Wave length single mode		1310 nm (nom.), 1340 nm (max.), 1270 nm (min.)
Output power multimode		-12/-17 dBm (max./min.)
Output power single mode		10 km: -6/-12 dBm; 20 km: -3/-8 dBm (max./min.)
Input power multimode		-12 dBm (max.)
Input power single mode		10 km: -6 dBm (max.); 20 km: -3 dBm (max.)
Sensitivity multimode		-20 dBm
Sensitivity single mode		10 km: -21dBm; 20 km: -23 dBm
Link budget multimode		3 dB
Link budget single mode		10 km: 9 dB; 20 km: 15dB
Electrical Characteristics	External power supply	5 Volts DC, 1A max.
	Power consumption	5 Watts max.