

Datasheet



TereScope®1000P (All optics wireless link)



TereScope®1000P

Overview

The TereScope®1000P is an innovative solution for wireless optical communications without electronics. The TS1000P is an optical transceiver, which sits on rooftops and provides fiber-like connection speeds without electronics or electricity power. TereScope®1000P responds to today's as well as tomorrow's user services demands, while providing higher potential capacity, license free transmission, at lower costs, over the air.

All TereScope Passive Free Space Optics systems (outdoor head) are directly connected via optical fibers to the Media Converter MC102G/SX/PAL which acts as a Network Interface Unit (NIU).

Offering a data rate of 1000 Mbps, at distances of up to 300 m, these systems avoid the need for costly and time-consuming fiber runs in developed areas. Easy to install and align, these systems can be deployed almost instantly to expand your network as needed. Designed for short distance connectivity, and offered at low cost, TereScope®1000P is an ideal and highly reliable solution for dense urban areas and for Ethernet traffic based networks.

Features

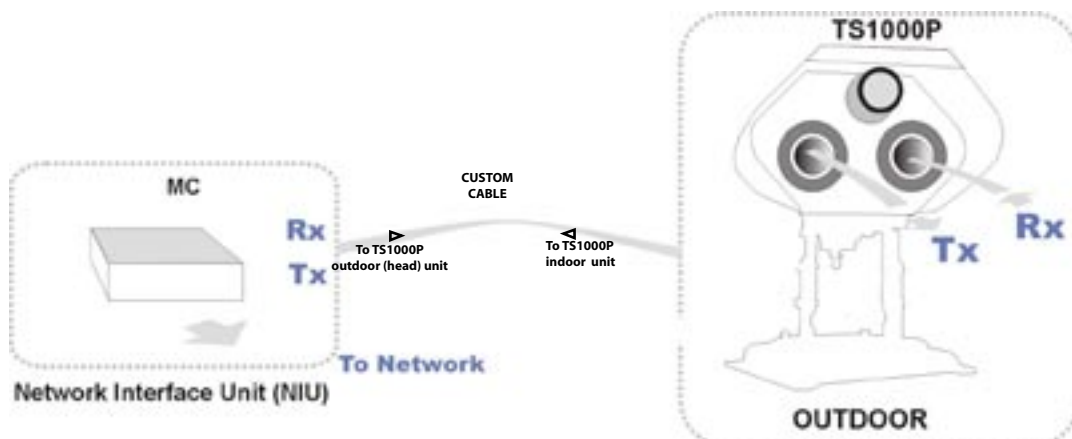
- Accommodates 1000 Mbps networks for Gigabit Ethernet
- Distances up to 300 m
- Immediate deployment
- MTBF over 10 years
- Visual and receive power measurement alignment functionality
- License free
- Secure transmission
- Full eye safety Class 1M
- Weatherproofing: IP65

Characteristics

- All-optics transceiver
- Rooftop unit immune to EMI/RFI
- No need to run power to the roof
- No need for grounding or lighting protection

Applications

- Point-to-point LAN extension
- Access connectivity
- Cellular networks
- Mesh networking
- LAN/MAN environments
- Disaster recovery
- Difficult terrain
- Fiber backup
- Temporary link



Technical Specifications: TereScope 1000P

MODEL/ PROD CODE		TS1/B/GIGA TS1/B/GIGA/DST
Applications/ Data Product		Gigabit Ethernet
Performance	Rate	1 Gbps
	Range(1) @17 dB/km	300 m
	@30 dB/km	230 m
	@60 dB/km	170 m
	@90 dB/km	135 m
Transmitter	Bit error rate	Less than 10 E-12 (unfaded)
Receiver	MTBF	Over 10 years
	Wavelength	850 nm
	Beam divergence	2 mrad
	Eye safety	1M
Interface	Field of view	2.4 mrad
Indoor Unit; Media- converter	Max cable length	50 m Custom MM Cable
	Connectors	ST
Mechanical Design	Part number	MC102G/SX/PAL/*
	TX Power	7 dBm
	RX sensitivity	-28 dBm
	Power supply	HV :100-240VAC 50/60Hz or LV:24-60VDC
	Connection to Giga-PAL	ST Connectors
Outdoor Unit	Connection to Network	SC MM 850 nm (1000Base-SX)
Environmental information	Operating temperature	-40° C to +60° C
	Storage temperature	-40° C to +60° C
Indoor Unit	Humidity	Less than 90% non-condensing
	Operating temperature	0° C to +40° C
Mechanical Design	Storage temperature	-40° C to +70° C
	Humidity	Less than 85% non-condensing
	Housing	Weatherproof IP 65
	Dimensions	410 x 244 x 325 mm 16.14x9.60x12.8 Inch
	Weight	5.5 Kg/12.13lb including accessories

⁽¹⁾ @17 dB/km = Moderate rain
@30 dB/km = Blizzard, cloudburst

^(*) Media Converter Power: for High Voltage: 2
for Low Voltage: 3

Ordering Info	Product	Description
	TS1/B/GIGA/DST	TereScope 1000P Optical Wireless Link-2 outdoor units.
	FO-25/PALG/B	25 meter fiberoptic cable for TS1/B/Giga
	FO-50/PALG/B	50 meter fiberoptic cable for TS1/B/Giga
	MC-102G/SX/PAL2	1000 Base SX to PAL converter for TS1/B/GIGA, 100 - 240 VAC
	MC-102G/SX/PAL3	1000 Base SX to PAL converter for TS1/B/GIGA, 24 - 60 VDC

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