

TereScope™ 1000 Series



Overview

Wireless Gigabit Ethernet Solutions for high-speed networks.

When deploying a Gigabit Ethernet network, you want to be able to take full advantage of your investment. The TereScope 1000 series ensures that your remote sites will have the full benefit of your high-speed network.

The TereScope 1000 Series is an ideal solution for connecting the Gigabit Ethernet network in your campus environment. With a maximum range of 1.5 km, a data rate of 1.25 Gbps, and a modular and compact design, the 1000 Series is a reliable, safe and secure alternative to traditional last-mile access.

The TereScope 1000 Series systems are equipped with an advanced video alignment system ensuring simple and precise installation. An integrated SNMP agent is also available and allows for easy monitoring and network management.

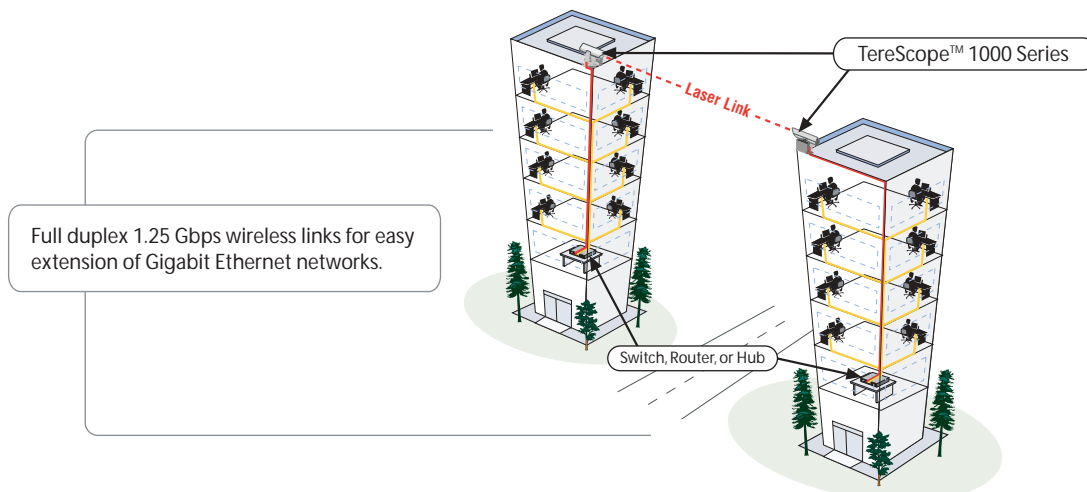
The TereScope family of Free-Space Optics products makes cost-effective, high-speed wireless connectivity available for a number of last-mile applications. Operating at data rates of 1.5 Mbps to 1.25 Gbps, TereScope solutions provide scalable wireless alternatives to leased lines. TereScope systems are deployed in one day, without right-of-way or government permits for installation, providing you with communication links in hours instead of weeks or months.

Features

- Data rate 1.25 Gbps for Gigabit Ethernet
- Quick return on investment
- Versatile, deployed quickly and easy to expand
- Transmits at distances up to 1.5 km
- Built-in heaters prevent condensation and ice buildup on lens
- Operating voltage - 100-120 VAC, 200-240 VAC (50-60 Hz) or -48 VDC
- Full duplex
- License-free operation
- Video alignment
- Remote management
- Secure transmission
- Modular design
- Portable
- One-year standard warranty; extended warranties available

Applications

- Gigabit Ethernet LANs
- High speed, last-mile connectivity
- Mesh network environments
- MAN environments
- Temporary or permanent installations
- Live video transmission
- Disaster recovery
- Backup to fiber



Technical Specifications: TereScope™ 1000 Series

MODEL/ PROD CODE		TS1000G TS1000/H/CM8/V*, TS1000/H/CS3/V*	TS3000G TS1000/J/CM8/V*, TS1000/J/CS3/V*	
Applications/ Data Product		Gigabit Ethernet-full duplex		
Performance	Rate	1250 Mbps		
	Range(1)	@ 3 dB/km	535 m	1930 m
		@ 5 dB/km	515 m	1600 m
		@10 dB/km	480 m	1170 m
		@17 dB/km	430 m	880 m
		@30 dB/km	360 m	620 m
Bit error rate	Less than 10 E-9 (unfaded)			
MTBF	Greater than 8 years			
Transmitter	Light source	VCSELs		
	Wavelength	850 nm		
	Output power	9 mW	24 mW	
	Beam divergence	2.5 mrad		
Receiver	Detector	APD		
	Field of view	2.2 mrad	2.8 mrad	
	Sensitivity	500 nW	500 nW	
Interface	Type	Multimode	Singlemode	
	Connector		SC	
	Wavelength (nm)	850	1300	
	Fiber link length			
	9/125 μm fiber	N/A	5 km	
	50/125 μm fiber	500 m	N/A	
	62.5/125 μm fiber	220 m	N/A	
	Input optical power (dBm)	-17	-28	
	Output optical power (dBm)	-9.5 to -4	-15 to -8	
Power Supply	Voltage range	100-120 VAC or 200-240 VAC (Factory Set)	100-120 VAC, 200-240 VAC, or -48 VDC (Factory Set)	
	Power consumption	190 W	100 W	
Environmental Information	Operating temperature	-30° C to +50° C (-22° F to 122° F)		
	Storage temperature	-30° C to +70° C (-22° F to 158° F)		
	Humidity	Less than 90% non-condensing		
	Housing	Weatherproof		
Mechanical Design	Dimensions (mm)	610 x 380 x 394	794 x 424 x 576	
	Weight (kg)	20	30	
Diagnosics	Indicators	Alignment via NTSC CCD camera, receive and transmit data lights, RJ45, fiber and RS232 based interfaces		
Management		Command line interface, SNMP (manageable via MRV's MegaVision™ or 3 rd party browser)		

- ⁽¹⁾ @ 3 dB/km = Light rain (5-10 mm/hr) - Light haze
 @ 5 dB/km = Light to medium rain (15-20 mm/hr) - Haze
 @10 dB/km = Medium to heavy rain (45 mm/hr) - Light snow - Thin fog
 @17 dB/km = Cloudburst (100 mm/hr) - Medium snow - Light fog
 @30 dB/km = Rain (up to 180 mm/hr) - Blizzard - Moderate fog

CM8 = SC, Multimode, 850 nm
 CS3 = SC, Singlemode, 1310 nm

Ordering Info	Product	Description
	TS1000/H/CM8/V*	TereScope 1000G, Optical Wireless 500 m Gigabit Link 1250 Mbit/s, camera alignment (DSC, MM 850 nm), SNMP Management, Power supply V1 or V2*
	TS1000/H/CS3/V*	TereScope 1000G, Optical Wireless 500 m Gigabit Link 1250 Mbit/s, camera alignment (DSC, SM 1310 nm), SNMP Management, Power supply V1 or V2*
	TS1000/J/CM8/V*	TereScope 3000G, Optical Wireless 1500 m Gigabit Ethernet Link 1250 Mbit/s, camera alignment (DSC, MM 850 nm), SNMP Management, Power supply V1, V2 or V4*
	TS1000/J/CS3/V*	TereScope 3000G, Optical Wireless 1500 m Gigabit Ethernet Link 1250 Mbit/s, camera alignment (DSC, SM 1310 nm), SNMP Management, Power supply V1, V2 or V4*

*V1 = 110 VAC · V2 = 220 VAC · V3 = 24 VDC · V4 = -48 VDC (Internal) · V5 = -48 VDC (External)

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