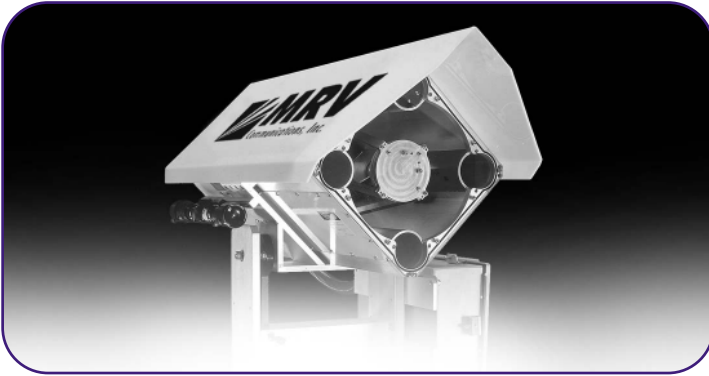




TereScope™ 155 Protocol Independent Series



Overview

Flexible Wireless Solutions for the Enterprise or Service Provider

Looking for a cost-effective, secure way to connect or expand your network? The TereScope 155 Protocol Independent systems offer you a safe and reliable, alternative to leased lines, with data rates ranging from 10 to 155 Mbps, at distances up to 3.75 km. Easy to install and align, these rugged systems can be deployed quickly to expand your network as needed.

The MRV Fusion RF back up system can be added to the TereScope 155 Protocol Independent products to offer 99.999% availability in all types of weather, including heavy fog and rain.

The TereScope 155 Protocol Independent products can be managed by MegaVision™, MRV's SNMP browser.

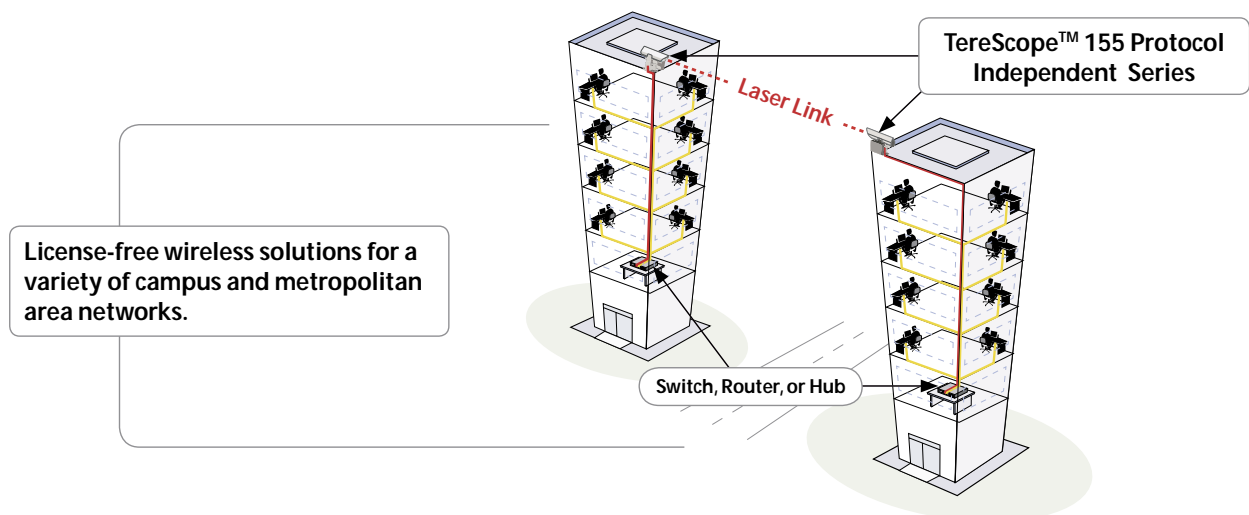
The TereScope family of Free-Space Optics products makes cost-effective, high-speed wireless connectivity available in a number of last-mile applications. Operating at data rates of 1.5 Mbps to 1.25 Gbps, TereScope solutions provide scalable wireless alternatives to leased lines. TereScope systems can be 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

- Accommodates 10 to 155 Mbps networks, for multiple protocols, including: E3/T3, Fast Ethernet, FDDI, OC-3, ATM and STM-1
- Transmits at distances up to 3.75 km
- Operating voltage: 110 or 220 VAC (50-60 Hz)
- Quick return on your investment
- Versatile, deployed quickly and easy to expand
- Full duplex
- License-free operation
- Video alignment
- Remote management options
- Upgradeable
- Portable
- Secure transmission
- One-year standard warranty; extended warranties available

Applications

- Last-mile connectivity
- Mesh network environments
- LAN/MAN environments
- Temporary or permanent installations
- Disaster recovery
- As back up to fiber





Datasheet

Technical Specifications: TereScope™ 155 Protocol Independent Series					
MODEL/ PROD CODE		TS1000 TS155/H/DST/V*, TS155/H/TM8/V*, TS155/H/TS3/V*	TS1000X TS155/I/DST/V*, TS155/I/TM8/V*, TS155/I/TS3/V*	TS3000 TS155/J/DST/V*, TS155/J/TM8/V*, TS155/J/TS3/V*	
Applications/ Data Product		Protocol Independent (accommodates Ethernet, Fast Ethernet, FDDI, ATM, etc.)			
Performance	Rate	10 - 155 Mbps			
	Range(1)	@ 3 dB/km	510 m	1140 m	4000 m
		@ 5 dB/km	490 m	1080 m	3110 m
		@10 dB/km	450 m	970 m	2080 m
		@17 dB/km	410 m	840 m	1460 m
		@30 dB/km	340 m	660 m	970 m
Bit error rate	Less than 10 E-9 (unfaded)				
MTBF	Greater than 8 years				
Transmitter	Light source	1 laser diode	1 laser diode	3 laser diodes	
	Wavelength		785 nm		
	Output power	7 mW	7 mW	21 mW	
	Beam divergence		2.5 mrad		
Receiver	Detector	PIN		APD	
	Field of view	4.16 mrad	2.6 mrad	2.8 mrad	
	Sensitivity	5000 nW	100 nW	100 nW	
Interface	Type	Fiber Optic Transceiver			
	Connector	ST			
	Wavelength (nm)	850 (Multimode)	or 1310 (Multimode)	or 1310 (Singlemode)	
	Fiber link length				
	9/125 m fiber	N/A	N/A	5 km	
	50/125 m fiber	2 km	2 km	N/A	
	62.5/125 m fiber	2 km	2 km	N/A	
	Input optical power (dBm)	-26 to -12	-28 to -14 (avg.)	-34	
Output optical power (dBm)	-17 to -12	-18.5 to -14 (avg.)	-15 to -7		
Power Supply	Voltage range	110/220 VAC (Factory Set)			
	Power consumption	170 W	170 W	350 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	610 x 380 x 394	794 x 424 x 576	
	Weight (kg)	16	16	30	
Diagnostics Indicators/ Selectors	Indicators	Alignment via CCD camera, Receive and Transmit data lights			
		Palm Pilots™ and Windows-based monitoring software.			
		Monitors Receive Signal Level, Laser and Temperature			
		RS232 based interface			
Management		Optional RTMS or SNMP Access (manageable via MRV 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

Ordering Info	Product	Description
	TS155/I/DST/V*	TereScope 1000X, Optical Wireless 1000 m Clear Channel Link 10-155 Mbps CCD camera alignment, Heating (DTS, MM 1310 nm). Power supply V1 or V2.
	TS155/I/TM8/V*	TereScope 1000X, Optical Wireless 1000 m Clear Channel Link 10-155 Mbps CCD camera alignment, Heating (DST, MM 850 nm). Power supply V1 or V2.
	TS155/I/TS3/V*	TereScope 1000X, Optical Wireless 1000 m Clear Channel Link 10-155 Mbps CCD camera alignment, Heating (DST, SM 1310 nm). Power supply V1 or V2.
	TS155/J/DST/V*	TereScope 3000, Optical Wireless 3750 m Clear Channel Link 10-155 Mbps CCD camera alignment, Heating (DST, MM 1310 nm). Power supply V1 or V2.
	TS155/J/TM8/V*	TereScope 3000, Optical Wireless 3750 m Clear Channel Link 10-155 Mbps CCD camera alignment, Heating (DST, MM 850 nm). Power supply V1 or V2.
	TS155/J/TS3/V*	TereScope 3000, Optical Wireless 3750 m Clear Channel Link 10-155 Mbps CCD camera alignment, Heating (DST, SM 1310 nm). Power supply V1 or V2.

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

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