MRV

OPTICAL ACCESS SOLUTIONS

Datasheet

TereScope 700 Series

TereScope 700

Overview

The TS700/155 provides high speed Free Space optics (FSO) connectivity for a variety of last mile applications. Operating at full wire speed data rates of 1 Mbps to 155 Mbps, the TS700/155 is rapidly deployable, without requiring right-of-way or government permits for installation, providing you with communication links in hours instead of weeks or months.

Price performance ratio

The TS700/155 is a high quality product specially designed for connections at distances of up to 400 m at the best price performance ratio possible.

Reliability

TereScope700/155 is extremely reliable with an MTBF (Mean Time Between Failures) of more than ten years.

Heating

TereScope700/155 is equipped with MRV's special internal air circulation feature, based on dissipation of the power supply heat. This prevents the formation of condensation on the lenses under all weather conditions without the need for additional heating at low temperatures.

Safety

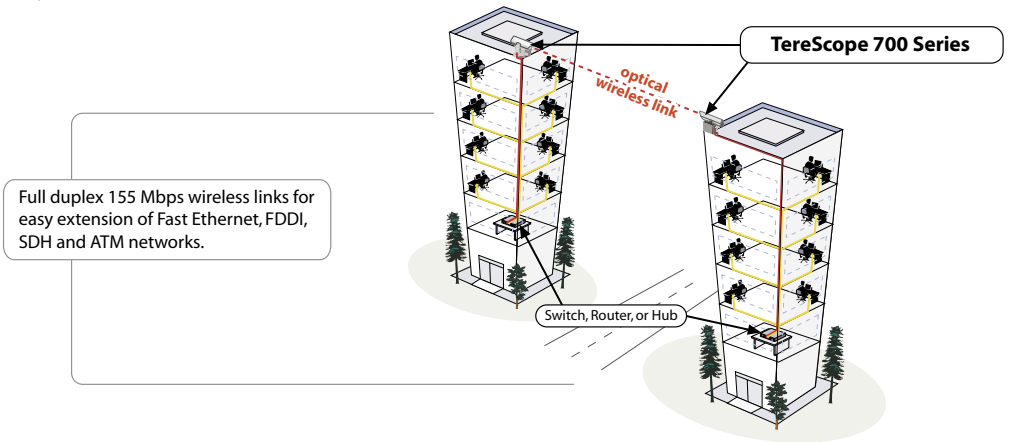
MRV offers this equipment based on low power lasers.
TereScope 700/155 is eye and skin safe at the aperture and complies with eye safety standard 1M.

Features

- Accommodates 1 to 155 Mbps networks, for protocols such as:
  E3/T3, Fast Ethenret, FDDI, OC-3 and STM-1
- Distances up to 400 meter
- Fast deployment
- License-free operation
- Visual and receiver power measurement alignment
- Weatherproofing: IP66
- Secure transmission
- Eye Safety Class 1M
- Chain Multiple connections (hopping)
- Open Protocol (special order)

Applications

- Last –mile connectivity
- Mesh networking
- LAN/MAN environments
- Temporary or permanent installation
- Disaster recovery



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Technical Specifications: TereScope 700/155 (high speed light)

MODEL/ PROD CODE		TS155/A/XYZ/VS TS700/155
Applications/ Data Protocol		T3, E3, Fast Ethernet, and ATM
Performance	Rate	1-155 Mbps
	Range[1]	
	@ 3 dB/km	750 m
	@ 5 dB/km	670 m
	@10 dB/km	530 m
	@17 dB/km	430 m
	@30 dB/km	320 m
	BER	Less than 1E - 12 (unfaded)
	MTBF	10 years
Transmitter	Light source	1 VCSELs
	Wavelength	830 - 860 nm
	Total Output power	5 mW
	Beam divergence	3.5 mrad
Receiver	Detector	Silicon Photodiode
	Field of view	14 mrad
	Sensitivity	-32 dBm
Interface	Type	Fiber Optic Transceiver - Multimode (Singlemode available upon request)
	Connectors	SC (other connectors available)
	Wavelength	1300 nm (other wavelengths available)
	Output power	-17 ± 3 dBm
	Receiver operating range	-14 to - 30 dBm
Power Supply	Voltage range	100 - 240 VAC @50/60 Hz or 24-60 VDC (factory set)
	Power consumption	10 W
Environmental Information	Operating temperature	-50˚ C to +60˚ C
	Storage temperature	-50˚ C to +70˚ C
	Humidity	95% non-condensing
	Housing	Weatherproofing: IP66
	Eye safety Class	1M
Mechanical Design	Dimensions (mm)	470 x 282 x 390
	Weight Unit	5 kg
	Weight Accessories	3.5 kg
Diagnostics	Indicators	Airlink: Flag, Sync., Fiber Optic: Flag, Sync. Receive Signal Strength (Digital Display)
	Selectors	Data Rate, Alignment, Loopback (local)
Management		SNMP protocol - Opional
Standards Compliance	Jitter Specifications proposed for SONET/SDH equipment defined by the Bellcore Specifications: GR-253-CORE, Issue 2, December 1995 and ITU-T Recommendations: G.958 document. Typical Applications: OC-1, STS-3, ATM, FDDI, E3, Fast Ethernet etc... EN50081-1: 1991; EN50082-1: 1998; EN55022: 1997; EN61000-4-2: 1995; EN61000-4-3: 1995; EN61000-4-4: 1995; EN61000-4-5:1995; ENV50142; EN61000-4-6: 1996/ENV50141; EN61000-4-8: 1993; EN61000-4-11: 1994; EN61000-3-2:1995; IEC950, 1991, A1, A2, A3, A4; EN60950, 1992, A1,A2,A3,A4,A11; FCC part 15 Class A; UL1950,3rd Edition (1995); CSA22.2, No.950 (1995) ;weather proofing IP66	

[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 (135 mm/hr) - Blizzard - Moderate fog

Ordering Info

Product	Description
TS155/A/M8C/V*	TereScope 700/155: 1-155Mbps link, Multimode 850 nm, SC interface, Power Supply V*
TS155/A/S8C/V*	TereScope 700/155: 1-155Mbps link, Singlemode 850 nm, SC interface, Power Supply V*
TS155/A/M8T/V*	TereScope 700/155: 1-155Mbps link, Multimode 850 nm, ST interface, Power Supply V*
TS155/A/S8T/V*	TereScope 700/155: 1-155Mbps link, Singlemode 850 nm, ST interface, Power Supply V*
TS155/A/M3C/V*	TereScope 700/155: 1-155Mbps link, Multimode 1300 nm, SC interface, Power Supply V*
TS155/A/S3C/V*	TereScope 700/155: 1-155Mbps link, Singlemode 1300 nm, SC interface, Power Supply V*
TS155/A/M3T/V*	TereScope 700/155: 1-155Mbps link, Multimode 1300 nm, ST interface, Power Supply V*
TS155/A/S3T/V*	TereScope 700/155: 1-155Mbps link, Singlemode 1300 nm, ST interface, Power Supply V*
TS155/A/SSC/V*	TereScope 700/155: 1-155Mbps link, Singlemode 1550 nm, SC interface, Power Supply V*
TS155/A/SST/V*	TereScope 700/155: 1-155Mbps link, Singlemode 1550 nm, ST interface, Power Supply V*

When ordering please specify required voltage by replacing the asterix (*) with either S or 3 to the catalogue number

Ex: TS155/A/M8C/VS for high voltage or

TS155/A/M8C/V3 for low voltage

* S : High voltage: 100 - 240 VAC

3 : Low voltage: 24 - 60 VDC