

FIBER NETWORK SIMULATOR

by Total Cable Solutions

Bench mark testing of WAN, SAN, or Telecom Systems Engineering performance testing
System Simulation for Optical Transport

Custom Configuration

Custom fiber length with granularity of 1km--25km per reel

Interchangeable Plates

Supports LC UPC, LC APC, SC UPC, SC APC, ST, and FC

225km Distance

Longest Distance Test Module/ Launch Box in the industry
(up to 225 km)

Features

- 19" Reversible Mounting Bracket to Support Both Datacom and Telcom Racks
- 6RU Chassis with Plexi-Glass Front
- Supports up to 225km using (9) 25km reels

Applications

- Telecommunications • Local Area Networks • Testing laboratories
- Fiber to the Home • Video Transmission • Fiber Optic Sensing
- Test Instruments • CATV

Specifications

- Termination Types: LC, SC, FC, ST
- Polish Types: UPC, APC, and PC
- Fiber Types: Singlemode SMF28e, SMF28e XB, and other options available
- Passive: no active components
- Low Insertion Loss Terminations and Industry Standard Fiber Specifications
- Material: Cabinet is Aluminum, Brackets Steel
- Dimensions: Standard 6U height x 19" W x 30.35" D
- Dual supporting rail brackets
- Custom plates with distance engraved

OPTICAL CHARACTERISTICS

CHARACTERISTICS	CONDITIONS	SPECIFIED VALUES	UNITS
Attenuation	1310 nm	<0.35 [dB/km]	<0.35 [dB/km]
	1550 nm	<0.20 [dB/km]	<0.20 [dB/km]
	1625 nm	<0.24 [dB/km]	<0.24 [dB/km]
Attenuation vs. Wavelength Max. ∞ difference	1550 nm	<0.20 [dB/km]	<0.03 [dB/km]
	1625 nm	<0.24 [dB/km]	<0.02 [dB/km]
Dispersion Coefficient	1550 nm	<18	[ps/(nmkm)]
	1625 nm	<22	[ps/(nmkm)]
Zero dispersion wavelength		1312 \pm 12	[nm]
Zero dispersion slope		<0.091	[ps/(nmkm)]
PMD Maximum Individual Fiber		<0.2	[ps/ km]
PMD Link Design Value (M=20, Q=0/01%)		<0.1	[ps/ km]
PMD Typical Value		0.04	[ps/ km]
Cable cutoff wavelength λ_{∞}		<1260	[nm]
Mode field diameter (MFD)	1310 nm	9.2 \pm 0.4	[μ m]
	1550 nm	10.4 \pm 0.5	[μ m]


ENVIRONMENTAL CHARACTERISTICS

CHARACTERISTICS	CONDITIONS	SPECIFIED VALUES	UNITS
Temperature dependence Induced attenuation at	-60°C TO +85°C	<0.05	[dB/km]
Temperature-humidity cycling	-10°C to +85°C, 98% RH	<0.05	[dB/km]
Watersoak dependence Induced attenuation at	23°C, for 30 days	<0.05	[dB/km]
Damp heat dependence Induced attenuation at	85°C and 85% RH, for 30 days	<0.05	[dB/km]
Dry heat aging at	85°C	<0.05	[dB/km]

MACRO-BEND INDUCED ATTENUATION

1 turn around a mandrel of 32 mm diameter	1550 nm	<0.05	[dB]
100 turns around a mandrel of 50 mm diameter	1310 nm & 1550 nm	<0.05	[dB]
100 turns around a mandrel of 60 mm diameter	1625 nm	<0.05	[dB]

STANDARDS COMPLIANCE

- Telcordia GR-326-CORE
- TIA/EIA-568B-B.3 Fiber Optic Cabling Components Standard
- IEEE802.3z Standards for Fiber Optic Cabling
- RoHS Approved for European Market Requirements 

ORDERING INFORMATION

FDS-SM-XXX-XXX-6U
(call for specific part # details)