FTBx-2150

OPTICAL LIGHT SOURCE

Exceptional selection of single- or multi-wavelength, multimode light-emitting diodes (LEDs) and singlemode distributed feedback (DFB) lasers, perfect for IL and ORL testing, as well as FTTx component verification.

SPEC SHEET

KEY FEATURES

- Single-, dual- or multi-wavelength LEDs or IL/ORL optimized DFB lasers
- Individual output port for DFB lasers
- Combines two sources on a single output for LED
- Continuous-wave or modulated output power
- Variable output power over a 9 dB range for singlemode fiber

RELATED PRODUCTS

Platform
LTB-8

Optical switch
FTBx-9150

Power meter
FTBx-1750

Variable attenuator
FTBx-3500

HIGH-PERFORMANCE OPTICAL LIGHT SOURCES

Advanced testing environments require a high-performance, stable light source to guarantee accurate and reliable test results. Designed for optimal stability, the modular FTBx-2150 offers this and more. Steady drive circuitry maximizes optical output power and maintains excellent stability, while precision optical components ensure low-loss, narrow-beam, truly efficient output coupling.

The FTBx-2150 optical light source features variable output power over range of 9 dB for singlemode with power level setting resolution of 0.1 dB. FTBx-2150 module must be inserted inside an LTB-8 platform to operate.

APPLICATIONS

- Insertion loss measurements
- Return loss measurements
- Spectral attenuation measurements in fibers
- FTTx component characterization
- Splicing test stations
- Stability measurements
- Polarization-dependent loss measurements

ENCIRCLED FLUX COMPLIANCE

Using the FTBx-2150-0012C-1 (50 µm output) with EXFO's 50 µm and 62.5 µm output mode conditioner will guarantee Encircled-Flux compliance as per IEC-61280-4-1 Ed.2.

Compatible part numbers:

- FTBx-2150-0012C-1-EI-EUI-89 with MC-FC-50-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-50-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-LC-50-N
- FTBx-2150-0012C-1-EI-EUI-89 with MC-FC-62-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-62-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-LC-62-N

ORL MEASUREMENTS

Since the FTBx-2150 singlemode light sources have been designed using DFB lasers which have narrow spectral width, ORL optimized modulation needs to be used when performing ORL measurements.

SPECIFICATIONS

SPECIFICATIONS [a]

		0023B-2	**0234B-3**	**0236B-3**	**2346B-4**
IL/ORL optimized DFBs	Wavelength (nm)	1310 ± 6.5 1550 ± 6.5	1310 ± 6.5 1550 ± 6.5 1625 ± 10	1310 ± 6.5 1490 ± 6.5 1550 ± 6.5	1310 ± 6.5 1490 ± 6.5 1550 ± 6.5 1625 ± 10
	Spectral width (nm)	< 1	< 1	< 1	< 1
	Output power (dBm) [b]	≥ 1	≥ 1	≥ 1	≥ 1
	Stability (dB) [b, c] 15 minutes	±0.07	±0.07	±0.07	±0.07
	Attenuation range (dB)	> 9	> 9	> 9	> 9
	Modulation	None, 270 Hz, 330 Hz, 1 kHz, 2 kHz, ORL optimized			
LED light sources		**0012C-1**			
	Wavelength (nm)	850 ± 25 1300 –20/+30			
	Spectral width (nm) 850 nm 1300 nm	 30 to 60 100 to 140			
	Output power (dBm) [b]	≥ –25.0			
	Stability (dB) [b, c] 15 minutes	±0.06			
	Modulation	None, 270 Hz, 330 Hz, 1 kHz, 2 kHz			
	Launching conditions [d]	Controlled launch condition to be typically within IEC 61280-4-1Ed.2 Encircled-Flux template limits			

GENERAL SPECIFICATIONS

Size (H x W x D)		25 mm x 159 mm x 175 mm (1 in x 6 1/4 in x 6 7/8 in)
Weight		0.35 kg (0.77 lb)
Temperature	Operating Storage	0 °C to 40 °C (32 °F to 104 °F) –40 °C to 70 °C (–40 °F to 158 °F)
Relative humidity		0 % to 80 % non-condensing
LTB-8 operation		Windows 10
Instrument drivers		IVI Drivers, LabVIEW™ drivers and SCPI commands
Remote control (automation)		With LTB-8: GPIB (IEEE-488.1, IEEE-488.2), Ethernet and RS-232

LASER SAFETY

a. Guaranteed unless otherwise specified. Specifications valid at 23 °C ± 1 °C at maximum power after 30-minute warm-up period with a FC/APC connector (except for multimode sources, for which a PC connector is used).

b. Only when source modulation is set to none (CW).

c. Stability is expressed as ± half the difference between maximum and minimum values measured during the period.

d. At output connector for 850 nm.

e. For the FTBx-2150-0012C-1 model, storage temperature is -30 °C to 70 °C (–22 °F to 158 °F).

ACCESSORIES	
MC-FC-50-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm FC connector at both ends of mode conditioner
MC-FC-50-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm FC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-FC-50-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm FC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-50-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm SC connector at both ends of mode conditioner
MC-SC-50-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm SC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-50-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm SC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-LC-50-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm SC connector at input of mode conditioner & LC connector at output of mode conditioner
MC-SC-LC-50-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-LC-50-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 µm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-FC-62-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm FC connector at both ends of mode conditioner
MC-FC-62-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm FC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-FC-62-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm FC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-62-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm SC connector at both ends of mode conditioner
MC-SC-62-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm SC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-62-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm SC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-LC-62-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm SC connector at input of mode conditioner & LC connector at output of mode conditioner
MC-SC-LC-62-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-LC-62-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 µm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance and test report, attached to ModCon serial number

ORDERING INFORMATION

FTBx-2150-XX-XX

Model

0012C-1 = Single output LED source, 850/1300 nm, 50/125 µm fiber type, multimode model
0023B-2 = Dual output IL/ORL optimized DFB, 1310/1550 nm, 9/125 µm fiber type, one wavelength per output
0234B-3 = Triple output IL/ORL optimized DFB, 1310/1550/1625 nm, 9/125 µm fiber type, one wavelength per output
0236B-3 = Triple output IL/ORL optimized DFB, 1310/1490/1550 nm, 9/125 µm fiber type, one wavelength per output
2346B-4 = Quad output IL/ORL optimized DFB, 1310/1490/1550/1625 nm, 9/125 µm fiber type, one wavelength per output

Other wavelengths and configurations may be available upon request. Please call factory.

Example: FTBx-2150-0023B-2-EI-EUI-89

Connector

EI-EUI-28 = UPC/DIN 47256
EI-EUI-89 = UPC/FC narrow key
EI-EUI-90 = UPC/ST
EI-EUI-91 = UPC/SC
EI-EUI-95 = UPC/E-2000
EI-EUI-98 = UPC/LC
EA-EUI-28 = APC/DIN 47256 [a]
EA-EUI-89 = APC/FC narrow key [a]
EA-EUI-91 = APC/SC [a]
EA-EUI-95 = APC/E-2000 [a]
EA-EUI-98 = APC/LC [a]

a. Available for singlemode models only.

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