IQS-2150

OPTICAL LIGHT SOURCE

FTTx Test Solutions

SPEC SHEET

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

KEY FEATURES

- Single- or dual-wavelength LED or IL/ORL optimized DFB laser
- Combines two lasers on a single output
- Continuous-wave or modulated output power
- Variable output power over a 6 dB range or 8 dB range for multimode and singlemode fiber respectively

RELATED PRODUCTS

Optical Switch
IQS-9100

High-Performance Power Meter
IQS-1700

Variable Attenuator
IQS-3150

EXFO

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 IQS-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 IQS-2150 Optical Light Source features variable output power over ranges of 6 dB for multimode and 8 dB for singlemode to stimulate power losses with precision. Both LED and laser versions come in various wavelengths to fit all singlemode and multimode applications.

APPLICATIONS

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

FTTx-READY

The IQS-2150 allows for testing of passive optical networks (PONs) at 1310 nm/1490 nm and 1550 nm, the three wavelengths recommended by ITU-T G.9833 for PONs.

ENCIRCLED FLUX COMPLIANCE

Using the IQS-2150-0012D (62.5 µm output) with EXFO's SPSB-EF (50 µm output) mode conditioner will guarantee Encircled-Flux compliance as per IEC-61280-4-1 Ed.2 for 50 µm fiber.

Compatible part numbers:

IQS-2150-0012D-EI-EUI-89 with SPSB-EF-C30-89-89
IQS-2150-0012D-EI-EUI-89 with SPSB-EF-C30-89-101
IQS-2150-0012D-EI-EUI-91 with SPSB-EF-C30-91-91
IQS-2150-0012D-EI-EUI-91 with SPSB-EF-C30-91-101

ORL MEASUREMENTS

Since the IQS-2150 singlemode light sources have been designed using DFB lasers which have narrow spectral width, Dither mode needs to be used when performing ORL measurements. Dither mode broadens source spectrum allowing stable ORL measurements.

SPECIFICATIONS

TECHNICAL SPECIFICATIONS [a]

IL/ORL Optimized DFBs

Model	0003B	0004B	0006B	0023B	0026B	0034B
Wavelength (nm)	1550 ± 6.5	1625 ± 10	1490 ± 6.5	1310 ± 6.5 1550 ± 6.5	1310 ± 6.5 1490 ± 6.5	1310 ± 6.5 1625 ± 10
Spectral width (nm)	< 1	< 1	< 1	< 1	< 1	< 1
Output power (dBm) [b]	≥ 3.0	≥ 2.0	≥ 3.0	≥ 2.5	≥ 2.5	≥ 1.5
Stability (dB) [b] 15 minutes	±0.06	±0.06	±0.06	±0.06	±0.06	±0.06
Attenuation range (dB)	8	8	8	8	8	8
Attenuation resolution (dB)	0.1	0.1	0.1	0.1	0.1	0.1
Modulation	270 Hz, 1 KHz, 2 KHz and Dither mode					

LED Light Sources

Model	0012C	0012D
Wavelength (nm)	850 ± 25 1300 –20/+50	850 ± 25 1300 –20/+50
Spectral width (nm) 850 nm 1300 nm	30 to 60 100 to 140	
Output power (dBm) [b]	≥ –25.0	≥ –21.0
Stability (dB) [b] 15 minutes	±0.06	±0.06
Attenuation range (dB)	6	6
Attenuation resolution (dB)	0.5	0.5
Modulation	270 Hz, 1 KHz, 2 KHz	
Launching conditions (typical) [c]	Within IEC -61280-4-1 Ed.2 template	N/A

GENERAL SPECIFICATIONS

Size (H x W x D)	125 mm x 36 mm x 282 mm (4 15/16 in x 1 7/16 in x 11 1/8 in)
Temperature Operating Storage	 0 °C to 40 °C (32 °F to 104 °F) –30 °C to 70 °C (–22 °F to 158 °F)
Relative humidity	0% to 80% non-condensing

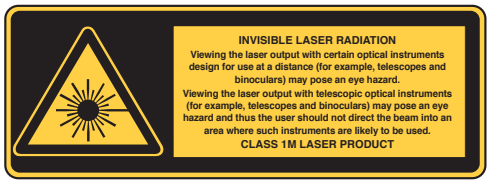
Notes

a. At 23 °C ± 1 °C with a FC/UPC connector, unless otherwise specified, after 30-minute warm-up.

b. At maximum output power.

c. At connector output.

LASER SAFETY



INSTRUMENT DRIVERS

LabVIEW™ drivers and SCPI commands

REMOTE CONTROL

With IQS-600: GPIB (IEEE-488.1, IEEE-488.2) Ethernet and RS-232.

STANDARD ACCESSORIES

User guide and Certificate of Compliance.

ORDERING INFORMATION

IQS-2150-XXXXX-XX

Model
0012C: Dual-wavelength, one port, 850/1300 nm, 50 µm fiber
0012D: Dual-wavelength, one port, 850/1300 nm, 62.5 µm fiber
0003B: IL/ORL optimized DFB, one port, 1550 nm
0004B: IL/ORL optimized DFB, one port, 1625 nm
0006B: IL/ORL optimized DFB, one port, 1490 nm
0023B: Dual-wavelength, IL/ORL optimized DFB, one port, 1310/1550 nm
0026B: Dual-wavelength, IL/ORL optimized DFB, one port, 1310/1490 nm
0034B: Dual-wavelength, IL/ORL optimized DFB, one port, 1550/1625 nm

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]

Example: IQS-2150-0023B-EI-EUI-89

Note

a. Available for singlemode models only.

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SPIQS2150.3AN Printed in Canada 19/01