

IQS-2150

OPTICAL LIGHT SOURCE



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.

SPEC SHEET

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



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

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

| LASER SAFETY | |
|---|--|
|  | <p>INVISIBLE LASER RADIATION</p> <p>Viewing the laser output with certain optical instruments design for use at a distance (for example, telescopes and binoculars) may pose an eye hazard.</p> <p>Viewing the laser output with telescopic optical instruments (for example, telescopes and binoculars) may pose an eye hazard and thus the user should not direct the beam into an area where such instruments are likely to be used.</p> <p>CLASS 1M LASER PRODUCT</p> |
|  | <p>RAYONNEMENT LASER INVISIBLE</p> <p>L'observation de la sortie du laser avec certains instruments d'optique conçus pour l'observation à distance (par exemple télescopes et jumelles) peut présenter un risque pour les yeux.</p> <p>L'observation de la sortie du laser avec certains instruments d'optique télescopiques (par exemple, des télescopes et des jumelles) peut présenter un danger pour les yeux; il convient donc que l'utilisateur ne dirige pas le faisceau dans une zone où ce type d'instrument est susceptible d'être utilisé.</p> <p>APPAREIL À LASER DE CLASSE 1M</p> |

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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