6100

ERBIUM-DOPED FIBER AMPLIFIER

IQS-6100

R&D AND MANUFACTURING

- Up to +15 dBm output power
- Amplification of multiple WDM channels within the C-band
- Stable output power
- Ideal for non-linear optical effect characterization

www.exfo.com

Telecommunications Test and Measurement

EXFO

EXPERTISE REACHING OUT

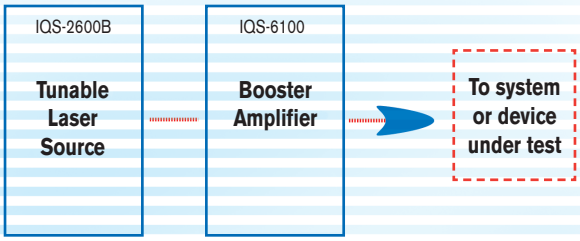
Investigate, Calibrate and Verify

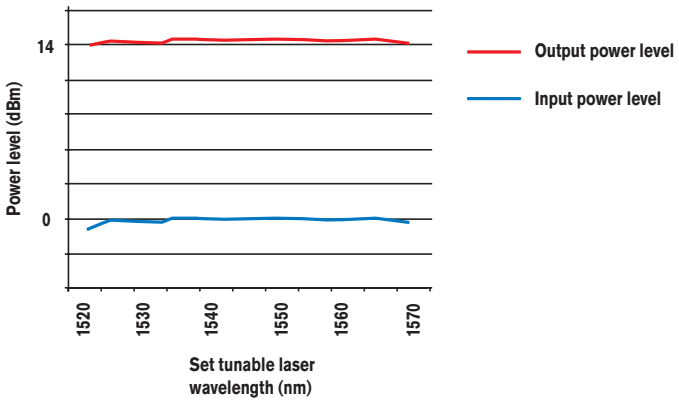
The IQS-6100 Erbium-Doped Fiber Amplifier (EDFA) is part of the IQS-500 Intelligent Test System, EXFO's unmatched modular-concept test unit. The addition of an optical amplifier offers considerable flexibility to a WDM active component test setup. Use the EDFA to investigate non-linear effects such as four-wave mixing, or to calibrate and verify power meters, photodetectors and attenuators at high power levels.

KEY FEATURES

- User-friendly operation
- Easy one-slot IQS-500 module insertion
- Compatible with EXFO tunable laser sources

Boost the tunable laser source and obtain high power over the entire C-band.





Stability

The IQS-6100 attains a maximum drift of ± 0.01 dB, preserving input signal stability. Combine this EDFA with the EXFO IQS-2600B Tunable Light Source or the IQS-2400 WDM Laser Source to evaluate non-linear properties of optical materials in the 1550 nm band.

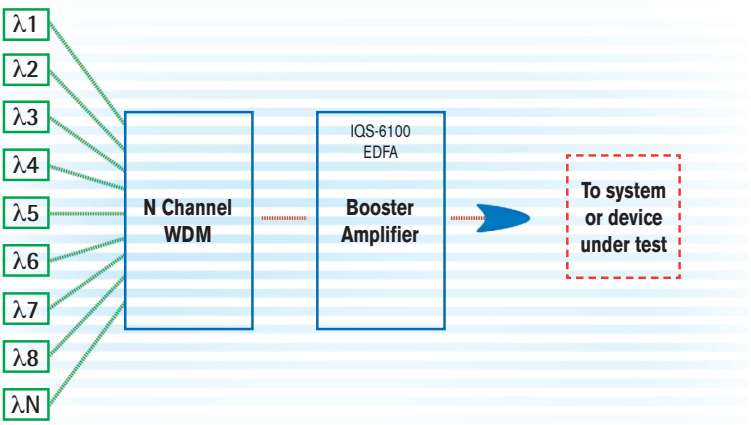
IQS-2600B Tunable Light Source, IQS-2400 WDM Laser Source

Powerful Versatility

For use with single or multiple wavelength signals, this optical amplifier increases output power from 0 dBm up to 15 dBm. Ideal for integration in WDM active component test setups, it enables the adjustment of WDM signals to the total input power level required for system or booster-amplifier modules. Achieve adequate power levels conveniently with this C-band amplifier.

High power

Add an EDFA booster to increase the flexibility of your WDM active component testing platform. Easily adjust multiple signals to the total input power level required for higher power subsystem characterization.



High-power, multiple wavelength comb generator

An active component testing solution

The IQS-6100 EDFA booster is the perfect instrument for attaining higher power levels and minimizing insertion loss in linearity evaluations of photosensitive devices. Here's how it works:

STEP 1

- Use a stable, optically isolated DFB laser source to reduce sensitivity to reflection.

STEP 2

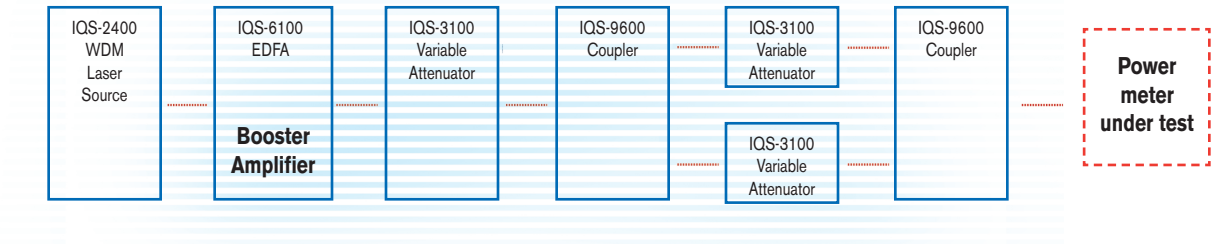
- Split the power into two branches. Use a coupler of different lengths to avoid Mach-Zehnder interference fluctuations, then recombine the branches.

STEP 3

- Use inserted variable optical attenuators (VOA) to obtain identical power from both branches at the testing point.

STEP 4

- Use the superposition method to characterize DUT linearity.



Typical setup for measuring the optical linearity of power meters with the superposition method. The IQS-6100 compensates for the insertion loss introduced by the coupler.

SPECIFICATIONS

Wavelength range (nm)		1530 to 1560
Saturated output power (dBm) at 3 dBm input power		
	typical	> 14
	minimum	13
	maximum	15
Noise figure (dB)	typical	8
Output power stability[1] (dB)		± 0.01 (Δ = 0.02)
Polarization dependent gain (dB)		< 0.2
Optical return loss (dB)	typical	35
Small signal gain (dB)[2]	minimum	29

Notes
1. Over 15 minutes after a 1-hour warm-up with a stable input source.
2. At input power of –20 dBm.

GENERAL SPECIFICATIONS

Operating Temperature	0 °C to 40 °C	(32 °F to 104 °F)
Storage Temperature	–40 °C to 60 °C	(–40 °F to 140 °F)
Humidity	0 % to 95 %	
Weight	0.75 kg	(1.65 lb)
Dimensions		
Height	12.5 cm	(4 15/16 in)
Width	3.6 cm	(1 7/16 in)
Depth	28.2 cm	(11 1/8 in)

REMOTE CONTROL

With IQS-500: GPIB (IEEE-488.1, IEEE-488.2) Ethernet and RS-232.

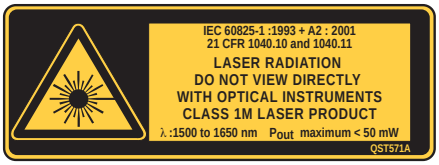
INSTRUMENT DRIVERS

LabVIEW™, SCPI commands and COM/DCOM librairies drivers

STANDARD ACCESSORIES

User guide; Certificate of Compliance; Test Report

LASER SAFETY



21 CFR 1040.10 and 1040.11
IEC 60825-1:1993+A1:1997+A2:2001:
CLASS 1M LASER PRODUCT

ORDERING INFORMATION

IQS-6100-XX

Connector
58 = FC/APC narrow key
89 = FC/UPC

Example: IQS-6100-89

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