

IQS-2800

ITLA TUNABLE LIGHT SOURCE



Please note that this model has been discontinued. For more information, visit EXFO.com

Modular, continuous wave (CW), tunable laser with a high-power output, narrow linewidth and high-resolution tunability for coherent/OFDM transmission and WDM network emulation.

KEY FEATURES AND BENEFITS

Up to 36 lasers in one IQS-636 platform

Narrow linewidth of less than 100 kHz

1 pm tuning resolution

Up to 15 dBm of output power

Remote PC control via USB or Ethernet

SPEC SHEET

INTEGRATED TUNABLE LASER ASSEMBLY

The IQS-2800 is a modular, continuous wave (CW), tunable laser with a high-power output, narrow 100 kHz linewidth and 1 pm resolution tunability over the C or L bands. This laser is a cost-effective and versatile solution for various applications, including coherent/OFDM transmission and WDM network emulation.

Up to nine IQS-2800 modules can be inserted into an IQS-636 platform, for a total of 36 lasers. Multiple IQS-636 platforms can then be cascaded and controlled in one simple and easy-to-use software application.

EASY-TO-USE SOFTWARE

The IQS-2800 light sources are locally controlled using software. Using the software application, operators can easily control multiple lasers and IQS-636 platforms, and its graphical interface allows for fast and easy access to the system status and control of lasers.

Users can control each laser individually, or control multiple lasers to create tilt over a wavelength range and automatically spread the lasers over the entire C band for example.



Figure 1. Unit view

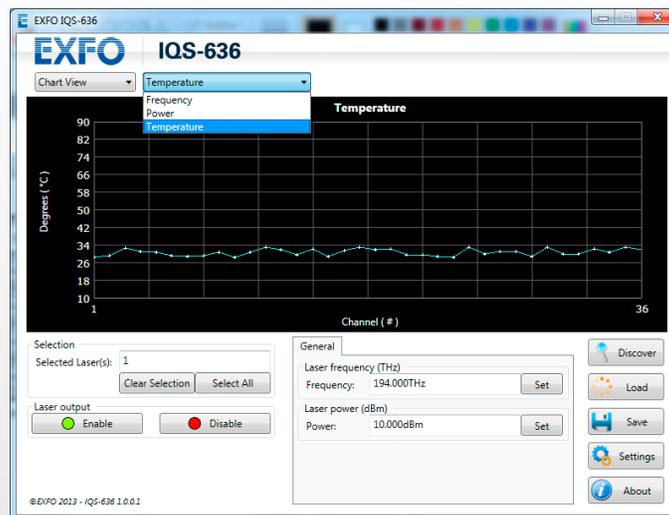


Figure 2. Chart view

SPECIFICATIONS ^a	
Wavelength tuning	
C band	
Operating wavelength range	1527.605 nm – 1567.133 nm
Operating frequency range	191.30 THz – 196.25 THz
L band	
Operating wavelength range	1567.133 nm – 1608.760 nm
Operating frequency range	186.35 THz – 191.30 THz
Laser type	
	Thermally tuned external cavity diode laser (ECDL)
Frequency tuning resolution (wavelength)	100 MHz (1 pm) ^b
Tuning time	< 25 s
Spectral characteristics	
Linewidth (FWHM), instantaneous ^c	< 100 kHz
Side-mode suppression ratio	40 dB (55 dB typical)
Frequency linearity (wavelength)	± 1.5 GHz (± 13 pm) ^b
Frequency uncertainty (wavelength)	± 2.5 GHz (± 22 pm) ^b
Frequency stability (wavelength)	± 0.3 GHz (± 3 pm) ^b over 24 hours
Optical power	
Maximum optical output power	S: ≥ 13 dBm H: ≥ 15 dBm (C-band only)
Minimum optical output power	S: ≤ 7 dBm H: ≤ 8 dBm (C-band only)
Optical power uncertainty after calibration ^d	± 0.6 dB
Power stability	± 0.1 dB over 24 hours (2σ)
Output power tuning resolution	0.01 dB
Power flatness, peak-to-peak	0.5 dB over entire wavelength range
Polarization extinction ratio	> 20 dB at the PM fiber output
Relative intensity noise RIN (for 13 dBm)	-145 dB/Hz (10 MHz – 40 GHz)
Power monitoring	Built-in

Notes

a. Specifications are valid at 23 °C \pm 3 °C.

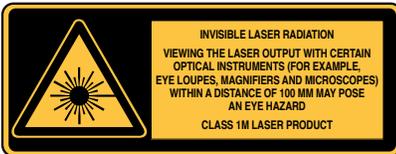
b. Varies slightly according to wavelength.

c. The laser uses a small FM dithering as part of its wavelength-locking mechanism. The instantaneous linewidth is measured in 1 ms (integration time).

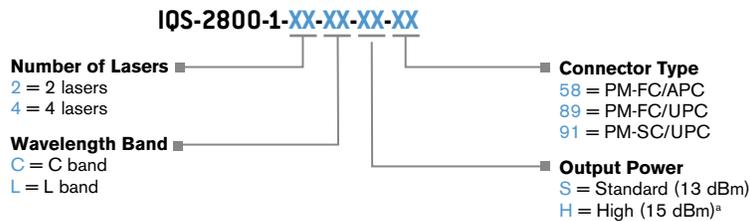
d. At maximum output power.

GENERAL CHARACTERISTICS	IQS-636	IQS-2800
Dimensions (H x W x D)	220 mm x 480 mm x 500 mm (8 11/16 in x 18 7/8 in x 19 11/16 in)	130 mm x 40 mm x 305 mm (5 1/8 in x 1 9/16 in x 12 in)
Weight	18 kg (40 lb)	1.7 kg (3.7 lb)
PC interface method	USB 2.0, Ethernet	NA
Minimum PC requirements	Pentium 4, 1 GB RAM, USB 2.0 running Windows 7 or later	NA
Power supply	~100 – 240 V; 50/60 Hz; 500 W	NA
Operating temperature range	5 °C to 45 °C (41 °F to 113 °F)	5 °C to 45 °C (41 °F to 113 °F)
Storage temperature range	-40 °C to 70 °C (-40 °F to 158 °F)	-40 °C to 70 °C (-40 °F to 158 °F)

LASER SAFETY



ORDERING INFORMATION



Example: IQS-2800-1-2-C-S-89

Note

a. Available for C-band models only.

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