



technical data sheet

Product Code :	2040431
Description :	QLS-QUAD - QUAD LASER SOURCE (850/1300/1310/1550 nm)



Description

The QLS-QUAD laser source (P/N 2040431) is a next-generation portable instrument designed for optical signal generation and the testing of single-mode and multimode fiber optic networks. It integrates four wavelengths across two dedicated output ports: 850/1300 nm for multimode fibers and 1310/1550 nm for single-mode fibers. The instrument provides excellent signal stability in both continuous-wave (CW) and modulated modes and can be used in combination with a power meter to measure optical link attenuation.

Main functions

- **Automatic wavelength recognition (TWIN function):** in combination with the Qubix QPM optical power meter, it transmits a signal for automatic identification of the transmitted wavelength. This simplifies field operations and eliminates manual selection errors.
- **Modulated tone output:** supports modulated output signals at 270 Hz, 330 Hz, 1 kHz, and 2 kHz for fiber identification in the field.
- **Channel and wavelength switching:** allows easy selection of the operating wavelength and switching between optical output channels via dedicated keys.
- **Backlit LCD screen:** clear display for simultaneous viewing of the selected wavelength, battery status, modulation frequency, and TWIN mode activation—ideal for low-light environments.
- **Power management and charging:** disableable Auto-Off function for extended work sessions and an integrated Type-C port for direct power and charging.



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Technical specifications

Parameter	Product specifications
Emitter type	Laser Diode (LD)
Output wavelengths	850 / 1300 nm (multimode) - 1310 / 1550 nm (single-mode)
Typical output power	-5 dBm $\pm$ 0.5 dB
Short-term stability (15 min)	< $\pm$ 0.05 dB @ 1310/1550 nm; $\pm$ 0.1 dB @ 850/1300 nm
Long-term stability (8 hours)	< $\pm$ 0.1 dB @ 1310/1550 nm; $\pm$ 0.2 dB @ 850/1300 nm
Spectral width	$\leq$ 5 nm
Modulation frequencies	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz
Optical interface	2 output ports with interchangeable FC/PC or SC/PC connectors (adapters included)
Electrical interface / charging	USB Type-C port
Power supply	2x Ni-MH AA rechargeable batteries, 2500 mAh (not included) / external DC 5V 1A power adapter
Operating temperature	-10 °C to +50 °C
Storage temperature	-20 °C to +70 °C
Dimensions & weight	160 mm (L) $\times$ 76 mm (W) $\times$ 45 mm (H) / 260 g
Included accessories	2x FC adapters, 2x SC adapters, AC power supply, USB Type-C cable, rechargeable batteries, test report, quick guide, carrying pouch

Quick user guide

1. Power on and preparation:

- Turn on the device by holding down the power button. To disable auto power-off during extended measurements, keep the button pressed until the device has fully booted.
- Check battery status and connect the Type-C charger if needed.

2. Fiber connection:

- Identify the correct optical port (multimode port for 850/1300 nm or single-mode port for 1310/1550 nm) for connection.
- Remove the protective dust cap and connect a clean fiber patch cord using the dedicated adapter (FC or SC).

3. Wavelength selection and emission mode:

- Select the output port to activate and the desired test wavelength.
- Set the emission mode to continuous (CW) or modulated (270 Hz, 330 Hz, 1 kHz, 2 kHz).

4. Activating TWIN automatic function:

- Enable the TWIN function to allow automatic wavelength recognition when paired with the Qubix QPM optical power meter.

5. Power off and maintenance:

- Disable laser emission and power off the device when finished.
- Always replace dust caps on the optical ports to protect the internal ceramic sleeves and ferrules.