6241 Series Optical Relative Intensity Noise Analyzer



Product Overview

The Optical Relative Intensity Noise Analyzer can achieve optical relative intensity noise (RIN) characterization analysis up to 100 MHz to 67 GHz, featuring wide wavelength band, wide frequency test range, and high sensitivity. It is a precision measurement instrument for RIN characterization in testing fields such as optical chips, optical modules, optical communications, optical sensing, single-frequency lasers, and tunable laser sources.

Main Features

- Complete measurement and display of optical relative intensity noise
- Wide wavelength range covering O-band + CL-band
- Bandwidth range up to 67 GHz
- High sensitivity
- Remote control

Complete Measurement and Display of Optical Relative Intensity Noise

Enables measurement, display, and analysis of optical relative intensity noise spectral density characteristics under large bandwidth, while outputting the DC value of optoelectronic conversion. By setting marker functions, the software can automatically search for global or local peaks of the RIN measurement curve, facilitating users to quickly read and analyze the maximum RIN measurement value.

Wide Wavelength Range Covering O-band + CL-band

Enables measurement and analysis of optical relative intensity noise of optical signals at any wavelength point within the wide wavelength range of 1260 nm to 1625 nm.

Bandwidth Range up to 67 GHz

Enables measurement and analysis of optical relative intensity noise of optical signals within the wide frequency range of 100 MHz to 67 GHz. The measurement bandwidth of up to 67 GHz allows users to better analyze and study the RIN characteristics of each frequency band of the light source under test.

High Sensitivity

The minimum RIN measurement value can be as low as -157 dB/Hz (@1 mW optical input), with a theoretical value of -170 dB/Hz (@10 mW optical input). The high sensitivity meets customers' more precise testing needs.

Remote Control

The device has an Ethernet program control interface and provides a remote control command set.

Technical Specifications

Item	Technical Specification
Wavelength Range	1260 nm ~ 1625 nm
Frequency Range[1]	10 MHz ~ 4 GHz
	10 MHz ~ 8 GHz
	100 MHz ~ 18 GHz
	100 MHz ~ 26.5 GHz
	100 MHz ~ 40 GHz
	100 MHz ~ 50 GHz
	100 MHz ~ 67 GHz
Optical Power Range	1 mW ~ 10 mW
RIN Measurement Minimum[2] (1 mW optical input)	-157 dB/Hz
Operating Conditions	Ambient temperature: 25±10°C; Humidity: ≤80%
Display	Touch Screen
Interface	USB / Ethernet
Dimensions	W×H×D = 426×177×450 mm (optical base, excl. handles and feet) W×H×D = 426×222×450 mm (spectrum analyzer, excl. handles and feet)
Weight	≤ 40 kg
Power Supply	220 VAC ± 10%, 50 Hz ± 5%
Maximum Power Consumption	450 W

Note: 1. Frequency range can be customized within 1 Hz ~ 67 GHz.

2. -154 dB/Hz (40, >30 GHz; 50, >40 GHz; 67, >40 GHz); -150 dB/Hz (67, >50 GHz).

Ordering Information

Main Unit

6241F Optical Relative Intensity Noise Analyzer

Standard Configuration

No.	Name	Qty.	Remarks
1	Power Cable Assembly	1	Standard 3-pin power cable
2	RF Cable	1	/
3	USB Cable	1	/
4	User Manual	1	/
5	Product Certificate	1	/