

1000 - 1650 nm Spectrometers

(low cost, high sensitivity, USB)

Patent pending

Product Description

This SFSD series of Spectrometer is based on a patent-pending scanning technology, offering unprecedented benefits: 1) extending spectral bands beyond traditional spectrometers' coverage; 2) eliminating detector array resulting in low cost; 3) deeply cooling with low power consumption for ultra-high sensitivity; 4) providing comprehensive spectral coverages. The spectrometer has a photon integration option for low noise detection, a USB or RS232 interface, and a user-friendly GUI. OEM module is also available.



Performance Specifications

Parameter	Min	Typical	Max	Unit
Center Wavelength	1000		1650	nm
Resolution Bandwidth	0.2	0.4		nm
Wavelength Accuracy	0.05	0.08	0.1	nm
Wavelength Repeatability	-	±20	±100	pm
PDL	-	0.15	0.35	dB
Noise Floor [1]	-110		-10	dBm
Wavelength Accuracy		±0.05	-	nm
Power Accuracy		±0.05	-	dB
Scan Time	1			s
Input Optical Power	Standard version	-	0.3	W
	High power version		5	W
f-number		1.4		
Electronic Interface			Mini USB	
Operating Temperature	0	20	60	°C
Storage Temperature	-10	-	70	°C

[1] The low level requires -40 cooling, the high level is room temperature. These also related to the integration time setting.

Features

- DWDM
- Low Cost
- Ease to Use

Applications

- Network
- Testing
- Instrumentation

Dimensions (Unit: mm)

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Electrical/Computer Connection

12V DC power input, a wall pluggable power supply is provided
 About 1 W electrical power consumption

USB 2.0, 480 Mbps; RS-232 (3-wire)

Ordering Information

Prefix	Type	Wavelength *	Optical Power	Cooling	Entry Slit	Detector Slit	Connector
SPFD-	module	900-1600nm = 1 950-1650nm = 2 Special = 0	Standard = 1 High Power = 2	Non = 1 -10C = 2 -20C = 3 -30C = 4 -40C = 5 Special = 0	Non = 1 25µm = 2 50µm = 3 100µm = 4 200µm = 5 300µm = 6 500µm = 7 Special = 0	Non = 1 25µm = 2 50µm = 3 100µm = 4 200µm = 5 300µm = 6 500µm = 7 Special = 0	SMA905 = 1 FC/PC = 2 SC/PC = 4 ST/PC = 6 Special = 0

Broad spectral range cost more