PHOTONWARES

2 μm Spectrometer

(low cost, high sensitivity, USB)

Patent pending

Features

- Low Noise
- Low Cost
- Ease to Use

Product Description

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

Performance Specifications

Parameter		Min	Typical	Max	Unit
Center Wavelength		1900	2000	2400	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		-110		-60	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
Electronic Interface				Mini USB	
Operating Temperature		0	20	60	° C
Storage Temperature		-10	-	70	° C

Applications

- Sensor
- Testing
- Instrumentation

Revised on 11/24/21

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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

Ordering Information

SMFD-	0 1	☐	☐	☐	☐	☐	☐	☐
	Type	Wavelength *	Optical Power	Cooling	Fiber Type		Fiber Length	Connector
	module	2040-2160nm=1 1950-2050nm= 2 1920-2000nm= 3 1800-1950nm= 4 1950-2160nm =a 1920-2050nm =b 1800-2000nm =c 1920-2160nm = A 1800-2050nm = B 1800-2160nm =C Special = 0	Standard = 1 High Power=2	Non = 1 -10C=2 -20C=3 -30C=4 -40C=5 Special=0	SMF-28 = 1 PM1550 = 2 SM2000 = 3 PM2000 = 4 SM1950 =5 PM1950 =6 Special = 0	900um tube=3 Special=0	0.25m= 1 0.5m = 2 1.0 m= 3 Special =0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0

- Broad spectral range cost more

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