

Stable Light Source Module



Stable light source plays an irreplaceable role in all optical testing and researching area. In order to satisfy different application scenario needs, Dimension developed 4 kinds of stable light sources: DFB laser source, FP laser source, SLED broadband light source, and ultra-narrow linewidth laser source.

- 1CH, 2CH, or 4CH output available, each channel could be independently controlled. Wavelength and power can be customized.
- Support USB / Ethernet / button controlling.
- Modular design, high precision, high reliability interface with patent. Flexible disassembled SC/FC connector, convenient for post-maintenance.

DFB laser source

Main Features

- High stability, 24-hour power stability is less than $\pm 0.005\text{dB}$
- High precision TEC temperature controlling module
- Output power up to 20 mW
- Support internal modulation

Applications

- CWDM channel testing
- Optical network monitoring
- IL/RL testing
- Optical passive device, active device testing
- Instrument performance testing

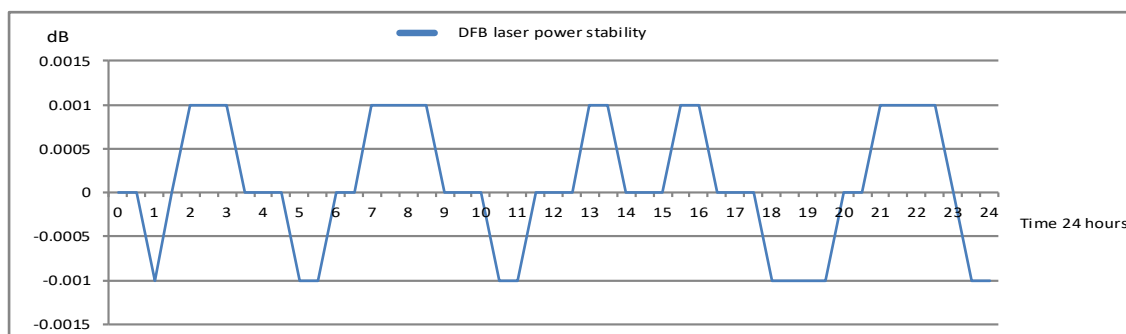
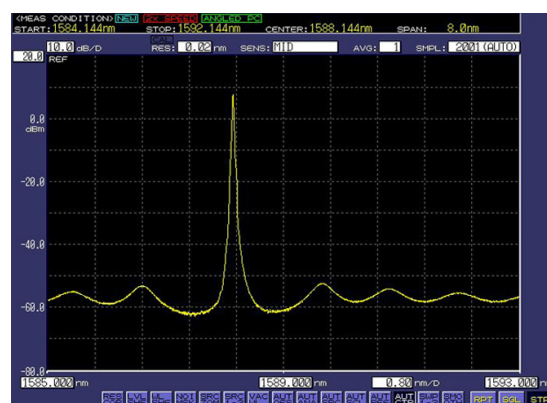


Chart1-1 Parameters of DFB Stable Laser Source^{[1][2][3][4]}

Model	DFB Stable Laser Source	
Channel	1,2,4CH available	
Fiber Type	SM 9/125;Panda PMF	
Wavelength	1270、1290、1310、1330、1350、1370、1390、1410、1430、1450、1470、1490、1510、1530、1550、1570、1590、1625、1650,etc.	
Wavelength accuracy	±5nm	
Connector	high precision, high reliability interface, SC/FC flexible switching	
Power stability	Type A	Type C
Power stability 15mins	850~1270nm: ±0.05 1270~1650nm:±0.005	850~1270nm: ±0.1 1270~1650nm:±0.05
Power stability 24H	850~1270nm: ±0.2 1270~1650nm:±0.02	850~1270nm: ±0.4 1270~1650nm:±0.2
Output power	1mW、10mW、20mW,etc.	
SMSR	>40dB	
Polarization extinction ratio (PER)	>17dB	
Modulation	internal modulation HZ(270、1K、2K)	
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)	
Recalibration period	2years	
Working temperature	10°C ~ 40°C	
Storage temperature	-40°C~70°C	
Size	Machine: 359mm*274mm*115mm; Module: 285mm*133mm*36mm	
Input power	AC 90~260V 50Hz	

SLED broadband light source

Main Features

- Wide spectral range (3dB spectral width 90nm)^[5]
- High output power (10mW)^[5]
- Excellent power stability

Applications

- Coarse wavelength division multiplexing (CWDM) network testing
- Passive optical network (PON) component manufacturing and testing
- Fiber sensing and spectral analysis.

Application Eg

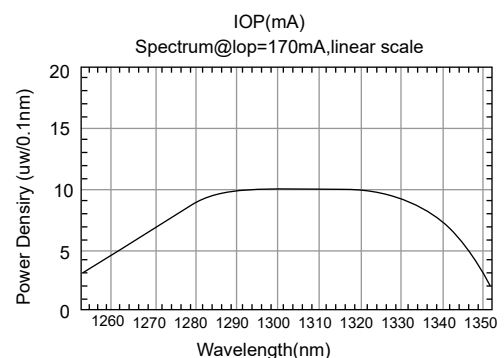
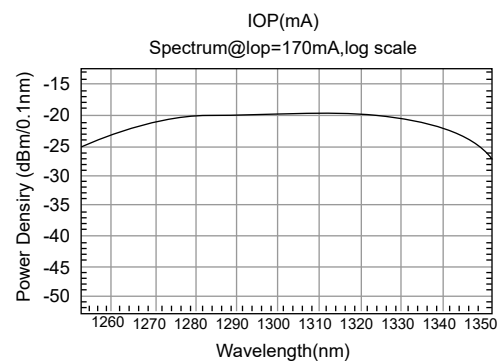


Chart1-2 Parameters of SLED Broadband Light Source [1] [2] [3] [4]

Model	SLED Broadband Light Source
Center wavelength	750、840、880、1020、1050、1280、1310、1410、1490、1550、1610、1640
-3dB spectrum width (Typ.) [5]	40-90nm
Output power (Typ.) [5]	5-10mW
Power stability [5]	±0.05dB/8H (Typical)
Working Mode	CW
Fiber Type	SM 9/125
Connector	high precision, high reliability interface, SC/FC flexible switching
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)
Recalibration period	2years
Working temperature	10°C ~ 40°C
Storage temperature	-40°C ~ 70°C
Size	Machine: 359mm*274mm*115mm; Module: 285mm*133mm*36mm
Input power	AC 90~260V 50Hz
Spectral power density	≥ -20dBm

FP laser source

Main Features

- Output power higher than 5 mW
- Support internal modulation

Applications

- Fiber product testing and verification
- Optical component manufacturing and testing

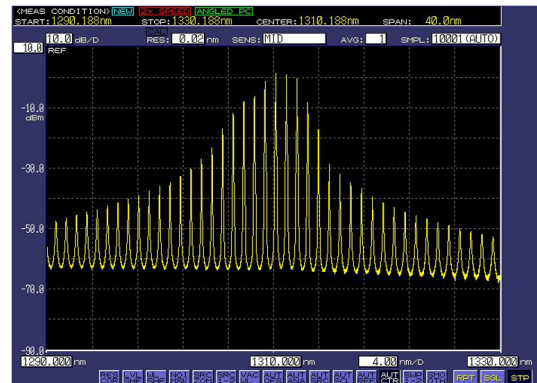


Chart1-3 Parameters of FP Laser Source [1] [2] [3] [4]

Model	FP Laser Source	
Channel	1,2,4CH available	
Fiber Type	9/125;50/125;62.5/125 available	
Wavelength (TEC)	850、980、1060、1310、1550	
Wavelength	850、1310、1550	
Wavelength accuracy	±20nm	
Connector	high precision, high reliability interface, SC/FC flexible switching	
Power stability	Type A	Type C
Power stability 15mins	850~1270nm: ±0.05 1270~1650nm:±0.005	850~1270nm: ±0.1 1270~1650nm:±0.05
Power stability 24H	850~1270nm: ±0.2 1270~1650nm:±0.02	850~1270nm: ±0.4 1270~1650nm:±0.2
Output power	>5mW	
Modulation	internal modulation HZ(270、1K、2K)	
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)	
Recalibration period	2years	
Working temperature	10°C ~ 40°C	
Storage temperature	-40°C ~ 70°C	
Size	Machine: 359mmX274mmX115mm; Module: 285mmX133mmX36mm	
Input power	AC 90~260V 50Hz	

