

# DFB Lasers

## Features

- ITU wavelength and high output power is optional
- Line width options: <10MHz, <1MHz, <200KHz
- Built-in optical isolator
- Multiple operating modes are available
- Module package、desktop package

## Applications

- Laser distance measurement
- Seed light source
- Optical fiber communication
- Optical sensing system

## Parameters



Parameter	Symbol	Min	Typ	Max	Unit
Operating wavelength	λ	852/1064/1310/1550/1653/2000			nm
Output optical power	P <sub>o</sub>	-	13	16	dBm
3dB spectral width	Δλ*	0.2	2	10	MHz
SMSR	SMSR	30	45		dB
Relative noise intensity	RIN		-160	-150	dB/Hz
Power stability**	PSS			±0.005	dB/5min
	PLS			±0.01	dB/8h
Output isolation	ISO	30	35		dB
Specification		Desktop		Module	
Dimensions L x W x H		320×220×90 mm		90×70×18 mm	
Power requirements		AC 220V ± 10% 30W		DC +5V GND	
Output optical fiber		SMF/PMF			
Operating mode		CW、 internal modulation ,external signal modulation			
Optical connector		FC/PC , FC/APC or user specified			

# ns-Pulse Lasers

## Features

- The narrowest pulse is up to 3ns
- Pulse width is tunable
- Pulse repetition frequency is tunable
- Internal trigger and external trigger are optional
- Desktop and module package are optional
- Can be customized according to customer's requirements

## Applications

- laser distance measurement
- Seed light source
- Optical fiber sending
- Passive device testing

## Parameters

Parameter index	Min	Typ	Max	Unit
Central wavelength	851	852	853	nm
Peak pulse optical power	50			mW
Spectral line width		1	2	nm
Pulse width	3		100	ns
Light pulse repetition frequency	1		1000	KHz
Optical power stability	<1			%
Wavelength stability	<0.01			nm
Pulse width adjustment accuracy	1			ns
Pulse width adjustment step size	5			ns
Re-adjust the step size	5			KHz
Output optical isolation	30			dB
Optical fiber connector	FC/PC、FC/APC or user specified			
Optical fiber type	HI 780 or62.5μm MMF			



# Tunable Lasers

## Features

- Wavelength tuning range
- Output power 10mw
- Narrow line width
- Internal locked of wavelength
- Remote control is available



## Applications

- WDM device testing
- Optical fiber sensing & OCT
- PMD and PDL testing

Parameter		Symbol	Min	Typ	Max	Unit
Wavelength	C-band	l	1524		1565	nm
	L-band	l	1560		1620	
Wavelength tuning range			40			nm
Channel spacing				50		GHz
Wavelength conversion speed				2		s
Wavelength accuracy			-1.5		1.5	GHz
Output optical power		Po	10			dBm
3dB spectral width		DI*		3	10	MHz
SMSR		SMSR	40	50		dB
Polarization extinction ratio		PEX	20			dB
Relative noise intensity		RIN		-145	-135	dB/Hz
Power stability **		PSS			±0.005	dB/5min
		PLS			±0.01	dB/8h
Power supply			AC 220V ± 10% 30W			
Output optical fiber			PMF			
Optical connector			FC/PC, FC/APC or user specified			

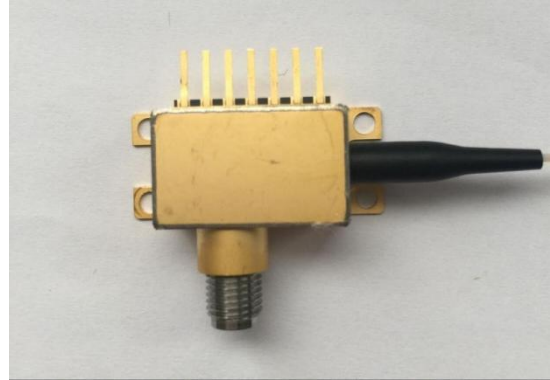
# Broadband Analog Direct-Modulation Lasers

## Features

- Wavelength options: 1310nm、1550nm、DWDM
- Bandwidth options: 6/10/18GHz
- Output power options: 8/10mW
- Excellent RF flatness
- Wide dynamic range
- Entire transparent work

## Applications

- Remote antenna and phased array
- Long -distance analog optical fiber communication
- Military three wave communication
- Tracking telemetry and control



Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Threshold current	I <sub>th</sub>	CW	-	-	25	mA
Operating current	I <sub>op</sub>	CW	-	-	100	mA
Input impedance	Z <sub>in</sub>	IF=I <sub>op</sub>	-	50	-	Ω
Thermistor	RT	@+25°C	9.5	10	10.5	kΩ
Thermistor temperature coefficient		@+25°C	-	-4.4	-	%/°C
Output optical power	PF	CW, IF=I <sub>op</sub> ,		10		mW
SMSR	SMSR	CW, IF=I <sub>op</sub>	35	-	-	dB
Relative noise intensity	RIN	100MHz-3GHz		-150		dB/Hz
Monitor current	I <sub>m</sub>	-	10	-	200	uA/mW
Optical isolation		-	30			dB
Input 1dB power compression point	P1dB		15			dBm

# EA Modulation Lasers

## Features

- Low drive voltage: <2.5V
- High bandwidth: >10G, >40G (optional)
- High extinction ratio: 10dB
- Module package desktop package

## Applications

- 10Gbps high-speed optical fiber communication system
- 40Gbps high speed optical fiber system
- Microwave photonics



Parameter		Symbol	Min	Typ	Max	Unit
Central wavelength		$\lambda_C$	1530	-	1564	nm
Output average light power		$P_{avg}$	-4	0		dBm
3dB spectral width		DI		2	10	MHz
Wave stability					0.01	nm
SMSR		SMSR	30	45	-	dB
Power stability **		PSS			$\pm 0.005$	dB/5min
		PLS			$\pm 0.01$	dB/8h
Modulation drive voltage		$V_{pp}$		2.0	2.5	V
3dB bandwidth	EAS-10	BW	10	12	-	GHz
	EAS-40		32	35		GHz
Dynamic extinction ratio		ER		9	10	dB
Specification			Desktop		Module	
Dimensions		LxWxH	320x220x90 mm		90x70x18mm	
Power requirement			AC 220V $\pm 10\%$ 30W		DC +5V GND	
Input signal interface			SMA(f) / V(f)			
Output optical fiber			Single mode fiber smf-28			
Output optical interface			FC/PC FC/APC or user specified			

# ASE Broadband Light Source

## Features

- Well power stability
- Low degree of polarization output
- Intelligent microprocessor control
- Well average wavelength stability



## Applications

- Spectral analysis and biomedical imaging
- Biomedical imaging
- Optical fiber sensing system
- Optical gyroscope testing

Parameter		Min	Typ	Max	Unit
Operating wavelength	C	1525	-	1565	nm
	L	1570	-	1610	
	C+L	1525		1610	
	1060	1030		1090	
Output power			10/13/17/23		dBm
Power spectral density		-20		-2	dBm
Power stability	15min @ 23°C	2.0	3.0	5.0	%
	8h@ 23°C	-	0.01	0.02	dB
3dBspectral width		37	40	42	nm
Spectral flatness			1.5	2	dB
Specification		Desktop		Module	
Dimensions L x W x H		320×220×90 mm		90×70×18mm	
Power requirement		AC 220V ± 10% 30W		DC +5V GND	
Optical fiber type		SMF-28 or PMF			
Connector type		FC/PC、FC/APC or user specified			

# SLED Broadband Light Source

## Features

- Low degree of coefficient
- High power stability
- Excellent spectral flatness
- Module mode desktop are optional

## Applications

- Optical fiber sensing system
- Passive device testing production and testing
- Light test instrument

## Parameters



Parameter	Typical				Unit
Central wavelength	850	1310	1550	1250~1650	nm
FWHM spectral width	>30	>45	>55	>400	nm
Output optical power	>3	>1	>0.5	>5	mW
Spectral wave	<0.2	<0.2	<0.2	<0.2	dB
Spectral stability@15 min	≤±0.05				dB
Short-term stability@15 min	≤±0.01				dB
Long-term stability@8hour	≤±0.03				dB
Operating mode	Continuous 、 Internal modulation、 external modulation				
Specification	Desktop	Module			
Dimensions L x W x H	320×220×90 mm	90×70×18mm			
Power supply	AC 220V ± 10% 30W	DC +5V GND			
Output optical fiber	SMF/PMF				
Optical light connector	FC/PC FC/APC or user specified				