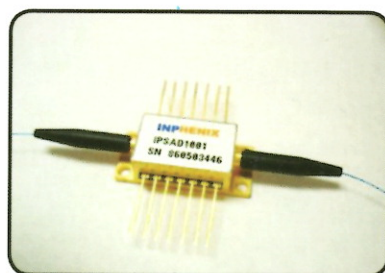


SEMICONDUCTOR OPTICAL AMPLIFIERS



FEATURES

- 800nm ~ 1600nm
- 40G+ Ready
- Wide Bandwidth & High Optical Gain

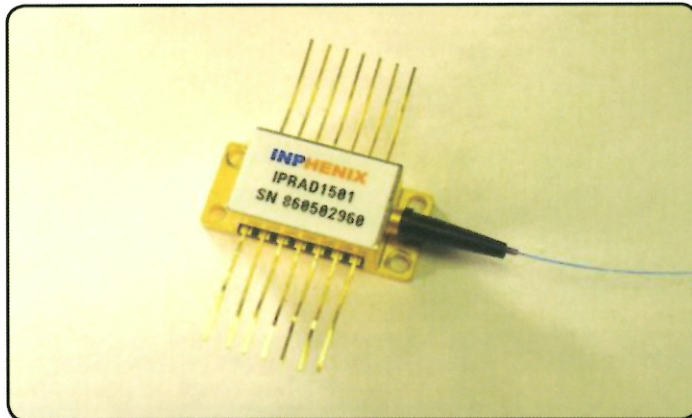
APPLICATIONS

- Amplification
- Switching
- Wavelength Conversion

SOA Device Specifications

Operating Wavelength (nm)	Gain (dB)	Saturation Power (dBm)	3dB Bandwidth (nm)	Max. Noise Figure (dB)	Current (mA)	Polarization Dependent or Independent	Part No.
880	20	10	40	8.0	150	Dependent	IPSAD0801
915	20	10	50	8.0	150	Dependent	IPSAD0901
970	20	11	25	8.0	200	Dependent	IPSAD0902
1015	20	11	80	8.0	250	Dependent	IPSAD1002
1040	25	10	55	8.0	250	Dependent	IPSAD1003
1050	25	10	45	8.0	300	Dependent	IPSAD1001
1285	30	17	60	7.5	700	Dependent	IPSAD1201
1300	30	15	60	7.0	700	Dependent	IPSAD1305
1300	19	7	80	7.5	300	Dependent	IPSAD1306
1310	10	11	40	7.5	300	Independent	IPSAD1307
1310	22	10	45	7.5	250	Independent	IPSAD1301
1310	29	9	40	7.5	200	Independent	IPSAD1308
1310	19	7	50	7.5	250	Independent	IPSAD1303
1310	16	10	55	7.0	250	Independent	IPSAD1304
1310	10	4	50	9.0	100	Independent	IPSAD1302
1490	26	9	40	7.0	400	Independent	IPSAD1401
1490	16	11	55	7.0	300	Independent	IPSAD1402
1550	13	14	55	9.0	500	Independent	IPSAD1505
1525	19	7	120	8.0	300	Dependent	IPSAD1506
1550	15	10	55	9.0	350	Independent	IPSAD1504
1550	14	16	90	9.0	700	Dependent	IPSAD1507
1550	10	12	40	9.0	300	Independent	IPSAD1510
1550	20	10	45	9.0	350	Independent	IPSAD1501
1550	16	5	50	9.0	350	Independent	IPSAD1503
1550	28	8	45	9.0	350	Independent	IPSAD1508
1550	25	12	60	9.0	500	Dependent	IPSAD1509
1550	10	3	50	10.0	120	Independent	IPSAD1502
1550	25	15	N/A	9.5	600	Dependent	IPSAD1511
1550	13	14	N/A	9.5	500	Independent	IPSAD1513

REFLECTIVE SOA



FEATURES

- 1310nm, 1550nm & Custom Wavelengths Available
- Wide Operating Bandwidth
- High Gain and High Output Power
- Polarization Dependent and Independent
- Custom Design Available

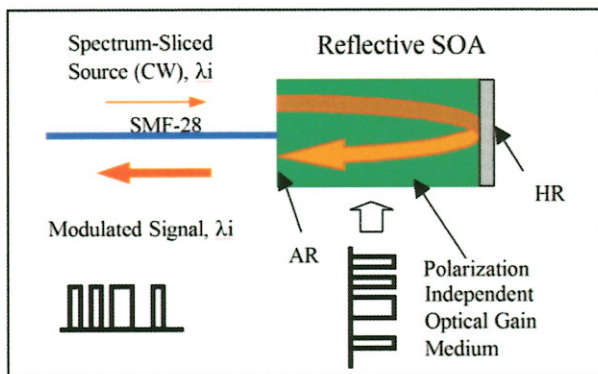
APPLICATIONS

- Gain Medium for single FBG Laser
- Gain Medium for Tunable External Cavity Laser
- WDM-PON

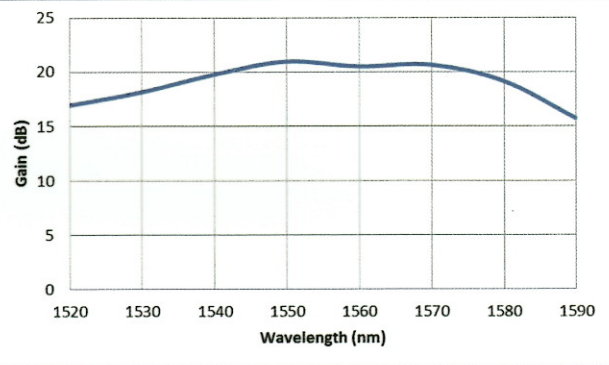
1330nm and 1550nm Reflective Semiconductor Optical Amplifier

Operating Wavelength (nm)	Gain (dB)	Saturation Power (dBm)	3dB Bandwidth (nm)	Noise Figure (dB)	Current (mA)	Polarization Dependent or Independent	Part No.
1310	18	6	32	6.0	100	Dependent	IPRAD1301
1550	18	6	32	7.0	100	Independent	IPRAD1501

RSOA as Tunable Light Source



Small Signal Gain @120mA (HR~90%, AR~0.01%)

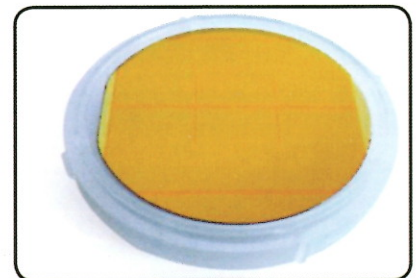


GAIN CHIPS

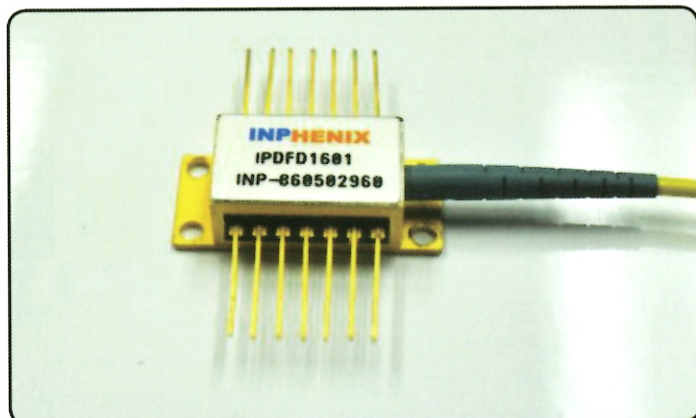
- 1310nm & 1550nm
- Application
 - ✓ Tunable Laser
 - ✓ Instrumentation

Specifications

Part Number	ASE Peak Wavelength (nm)	Threshold Current (mA) (CL-CL)	Slope Efficiency (%) (CL-CL)	ASE Bandwidth (nm)
IPSGC1300	1310	12	25	40
IPSGC1550	1550	15	20	40



INPHENIX DFB LASERS



FEATURES

- High output power
- Narrow Linewidth
- High side mode suppression

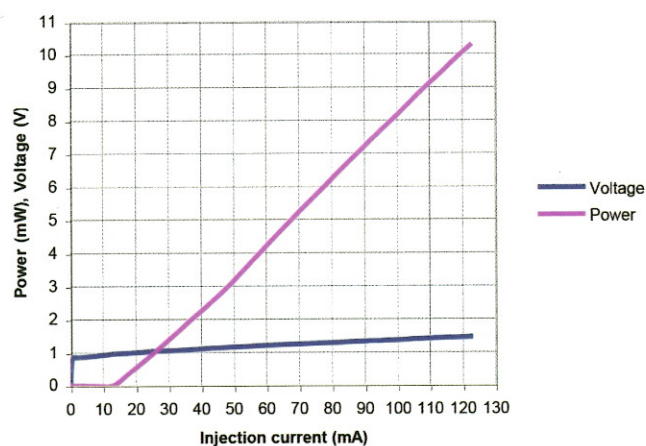
APPLICATIONS

- Fiber Optic Sensor
- Gas Sensor
- Telecom
- Datacom

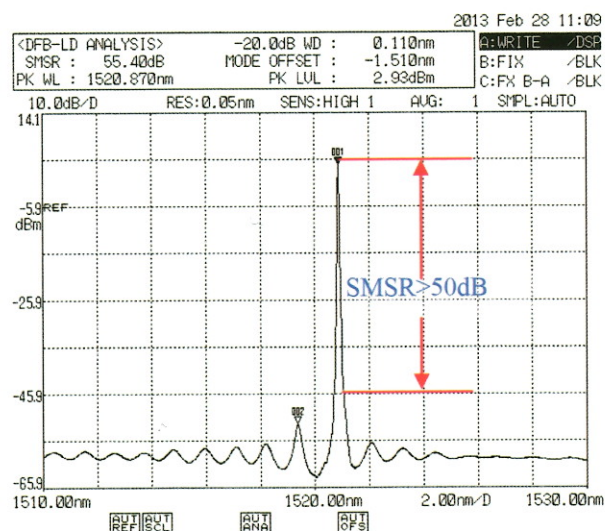
Specifications

Wavelength Window (nm)	Part No.	Peak Wavelength (nm)	Threshold Current (mA)	Output Power (mW)	Current (mA)	Side Mode Suppression Ratio (dB)	Spectrum Width (rms) (nm)
1310nm	IPDFD1301	1290 to 1330	< 20	> 8	< 80	> 35	< 0.2
1490nm	IPDFD1401	1460 to 1495	< 20	> 6	< 80	> 35	< 0.2
1550nm	IPDFD1501	1500 to 1570	< 20	> 5	< 80	> 35	< 0.2
1660nm	IPDFD1601	1650 to 1675	< 20	> 3	< 80	> 35	< 0.2

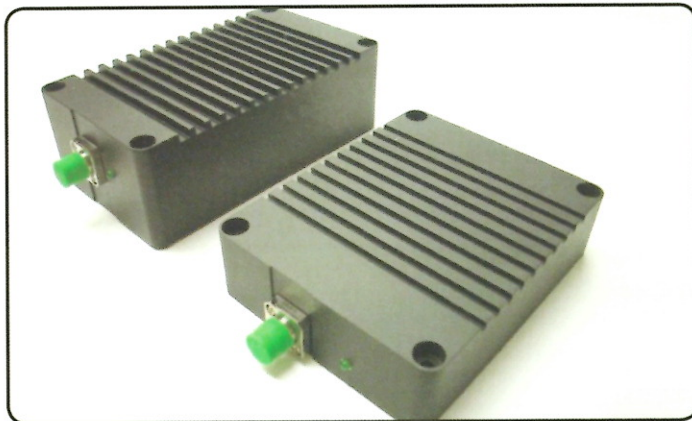
Optical Power



Lasing Spectrum



BROADBAND LIGHT SOURCE MODULES



FEATURES

- High Power Density
- Wide Optical Bandwidth
- Plug and Play
- Built-in Current Driver & TEC Control

APPLICATIONS

- Biomedical Imaging
- Optical Coherence Tomography (OCT)
- Fiber Optical Sensor (FOS)
- Broadband Light Source Equipment
- Optical Test Instruments

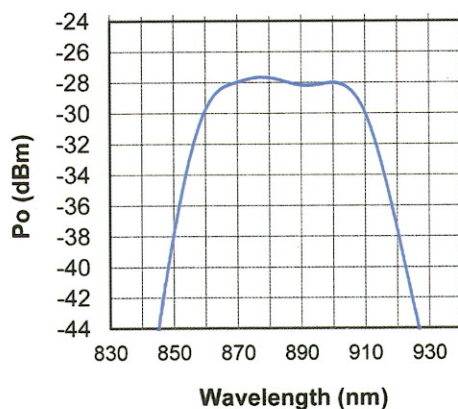
Module Specifications

Part No.**	Center Wavelength (nm)	Output Power* (mW)	FWHM* (nm)	Spectral Ripple (dB)	Spectral Ripple (%)
IPSDS07xx	740 ~ 790	3	10	< 0.2	< 5
IPSDS08xx	800 ~ 850	5	35	< 0.2	< 5
IPSDS08xx	850 ~ 900	3	30	< 0.2	< 5
IPSDS10xx	1000 ~ 1100	10	50	< 0.2	< 5
IPSDS13xx	1260 ~ 1360	8	50	< 0.2	< 5
IPSDS15xx	1520 ~ 1590	10	40	< 0.2	< 5

* Typical

** The last two digits of module's PN shall be same as the last digits of the PN of the SLD device used in the modules.

Optical Spectrum



Customization Available for:

- Operating Wavelength Range
- Output Power
- Optoelectronic Integration
- Interface
- Modulation
- Compact Size

ULTRA WIDEBAND LIGHT SOURCE



FEATURES

- High Power Density
- Wide Optical Bandwidth
- Plug and Play
- Built-in Current Driver & TEC Control

APPLICATIONS

- Biomedical Imaging
- Optical Coherence Tomography (OCT)
- Fiber Optical Sensor (FOS)
- Broadband Light Source Equipment
- Optical Test Instruments

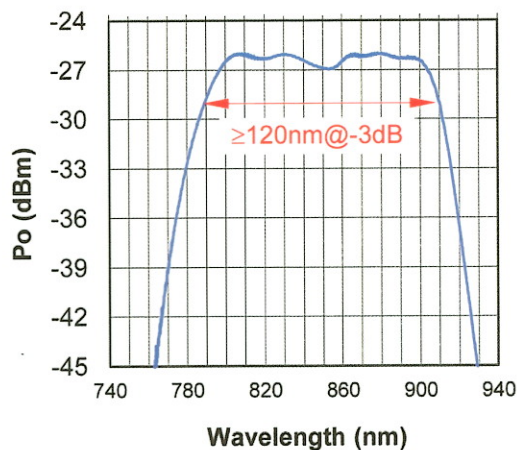
Specifications

Part No.	Wavelength Range (nm)	Output Power* (mW)	FWHM (nm)	Spectral Ripple (dB)		Spectral Flatness (dB)	Point Spread Function** (dB)	
IPSDW082x	790 ~ 920	5	90	< 0.2	< 5	< 2.0	< -7.0	< 20
IPSDW083x	790 ~ 920	5	120	< 0.2	< 5	< 2.0	< -7.0	< 20
IPSDM082x	790 ~ 920	5	100	< 0.2	< 5	< 2.0	< -7.0	< 20
IPSDM134x	1250 ~ 1650	5	~400~	< 0.2	< 5	< 2.0	< -7.0	< 20

* Typical

** Side Lobe Suppressed Peak relative to Main Peak

Optical Spectrum



Point Spread Function

