

All-Semiconductor ASE Broadband Light Source in I²LM form



ASE-CW



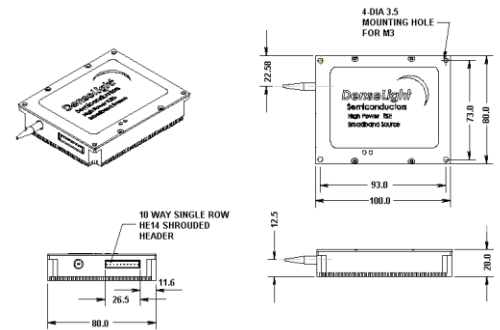
ASE-IM

Product Description

THE DENSELIGHT **ASE**-SERIES PRODUCTS ARE BASED ON THE PROVEN PERFORMANCE OF OUR **DL-CS** SERIES OF 14-PIN BUTTERFLY **SLEDS**. IT IS AN IDEAL ASE BROADBAND LIGHT SOURCE SOLUTION FOR APPLICATIONS THAT REQUIRE **LOW-DOP, EXTRA-WIDE BANDWIDTH AND HIGH OPTICAL POWER**. The **ASE**-SERIES IS A COMPACT, HIGH POWER OPTICAL LASER SOURCE, COMPLETE WITH PRECISE CONTROLLERS FOR **EXCELLENT POWER & SPECTRUM STABILITY**. THE **ASE**-SERIES FEATURES **ENTIRE COVERAGE OF TELECOM SPECTRAL BANDS** (FROM O-BAND TO U-BAND) WITH THE ABILITY TO DIRECTLY INTENSITY MODULATE.

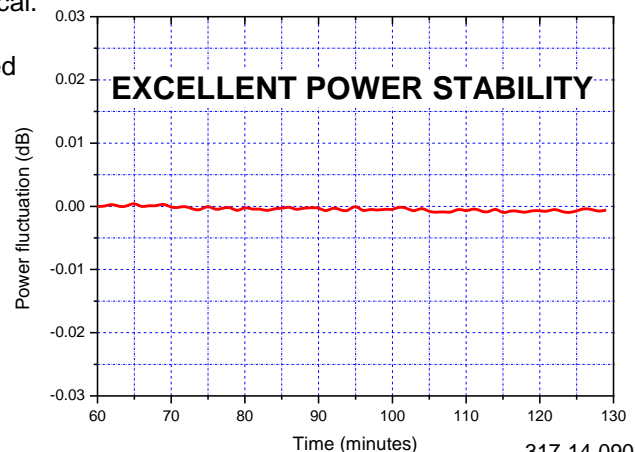
Features

- Wide spectral coverage (1200nm - 1700nm)
- Customized ASE design and spectrum combination (e.g. return sensing signal port, monitoring optical coupler, etc.)
- Compact form factor design: L100 x W80 x H20 mm
- CW operation or Direct-modulation operation
- Fiber pigtail or FC receptacle output
- Improved reliability by integrated optical isolator
- Over-temperature protection and internal PCB temperature monitor
- Remote optical power enabled function by active-low logic
- Standard operating temperature: 0°C to 65°C typical. Extended range -20 °C to 70 °C
- Telcordia certification, RoHS Compliance, UL-Recognized



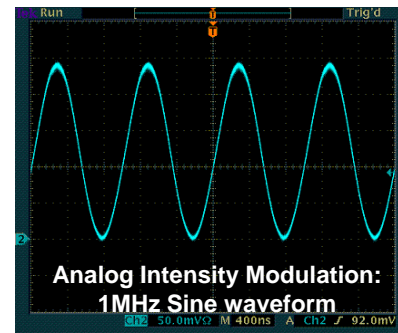
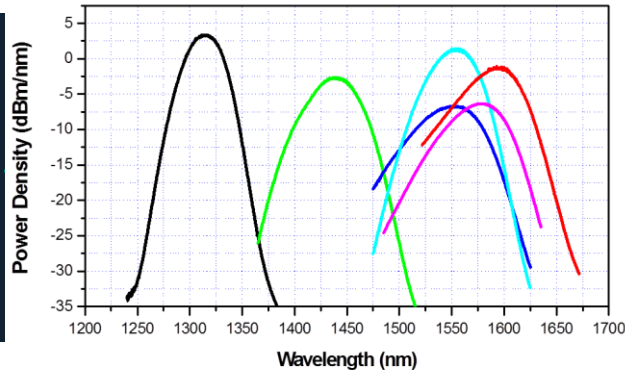
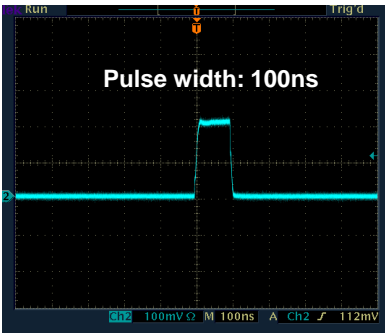
Performance

- Low-DOP capability < 5%
- High optical power up to 19dBm
- Consistent spectral power density across wide bandwidth (up to 120nm)
- Excellent power stability <0.01dB
- Analog modulation ($f_{3dB} \sim 20\text{MHz}$)
- Digital modulation ($t_r < 1\text{ns}$)



Telecom Band	Product Code	SLED Type	Wavelength Range	CWL	Band width	Power	Spectral Density	Usage Mode	Spectral Symmetry
			(nm)	(+/- 20 nm)	3dB	dBm	dBm/nm		Gaussian
O Band (1260 - 1360 nm)	DL-CW-CSO 193A	DL-CS-3452A-FP	1285 - 1335	1310	32	19	-6.5	CW	Yes
	DL-CW-CSO 157A	DL-CS-3207A-FP	1265 - 1365	1310	50	15	-12.5	CW	Yes
	DL-CW-CSO 139A	DL-CS-3159A-FP	1250 - 1350	1310	75	13.5	-7.5	CW	Yes
	DL-CW-CSO 119A	DL-CS-3159A-FP	1250-1350	1310	75	11	-12.5	CW	Yes
	DL-CW-COE 109A	DL-CS-2079A-FP DL-CS-35H5A-FP	1235-1380	1310	120	10	-15	CW	No
E Band (1360 - 1460 nm)	DL-CW-CSE 145A	DL-CS-44H5A-FP	1420 - 1460	1450	50	14	-7.5	CW	Yes
S Band (1460 - 1530)	DL-CW-CSS145A	DL-CS-48H5A-FP	1470-1506	1480	50	13.5	-9	CW	Yes
S-C Band (1460-1565)	DL-CW-CSSC129A	DL-CS-53109A	1470-1565	1530	80	12	-10	CW	Yes
C Band (1530 - 1565)	DL-CW-CSC 183A	DL-DL-CS5403A-FP	1525 - 1565	1550	35	18	-3.5	CW	Yes
	DL-CW-CSC-164A	DL-CS-5254A-FP	1525 - 1565	1550	40	16	-5	CW	Yes
	DL-CW-CSC 147A	DL-CS-5107A-FP	1510 - 1590	1550	60	15	-7.5	CW	Yes
	DL-CW-CSC 119A	DL-CS-5169A-FP	1510 - 1590	1550	80	11.5	-9	CW	Yes
	DL-CW-CSC 117A	DL-CS-5107A-FP	1525 - 1565	1550	60	11	-10	CW	Yes
	DL-CW-CSC 107A	DL-CS-5107A-FP	1526 - 1565	1550	60	10	-11	IM	
	DL-CW-CSC 143A	DL-CS-5254A-FP	1525 - 1565	1550	40	14	-8	IM	
C-L Band (1525-1625)	DL-CW-CSC 117A	DL-CS 58M7A-FP	1527 - 1610	1580	58	11	-15	CW	Yes
	DL-CW-CSCL - 107A	DL-CS 58M7A-FP	1526-1625	1580		10	-16	IM	
L- Band (1565 - 1625)	DL-CW-CSL-165A	DL-CS60H5A-FP	1525-1610	1600	50	16	-6	CW	Yes
U Band (1625 - 1675)	DL-CW-CSU-125A	DL-CS65M5A-FP	1651-1691	1650	50	11.5	-13	CW	Yes
	DL-CW-CSU-125A	DL-CS65M5A-FP	1625-1675	1650	50	11.5	-9	CW	Yes
	DL-CW-CSU-135A	DL-CS69M5A-FP	1645-1710	1690	50	13	-10	CW	Yes

Wide Spectral Coverage



Application

Medical Technology	<ul style="list-style-type: none"> – OCT (biopsies-less medical cell imaging, diagnostic imaging), point of use/ handhelds/ non-invasive diagnosis (blood analysis)
Structure Health Monitoring (SHM)	<ul style="list-style-type: none"> – sensing in gas & oil production, telemetry in electricity distribution (FOS) – physical (temp, pressure, strain, vibrations), structural and civil engineering, smart structures, intelligent distributed sensing (DTS & DTSS)
Test & Measurement	<ul style="list-style-type: none"> – in-line production process monitoring, 3D metrology and surface metrology, semiconductor fabrication (solar cells)
Communications	<ul style="list-style-type: none"> – affordable gigabit bandwidth fiber-link to homes and business (FTTX), test & measurement for telecom network
Defense & Security	<ul style="list-style-type: none"> – perimeter defense, navigation and guidance - inertia sensing (gyroscope), infrared illumination for surveillance and speckle-free military imaging

ASE Broadband Light Source in Integrated InfraRed Light Module (I²LM) form