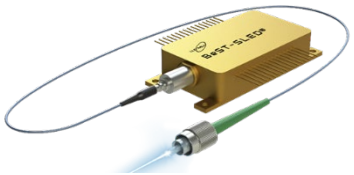
BeST-SLED®

Optical Spectral Engine (OSE) - Product Brief



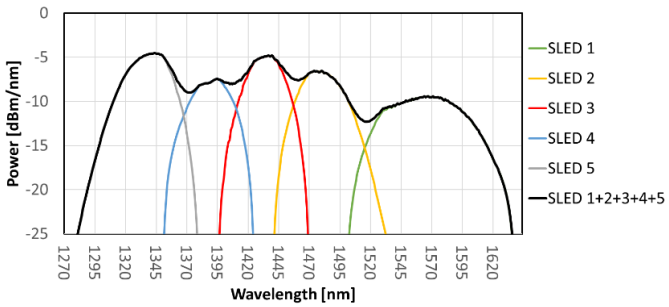
Description: BeST-SLED® Optical Spectral Engine: 5 SLEDs: 1340nm, 1390nm, 1430nm, 1480nm, 1550nm, PM Fiber, Spectral Coverage: 1305nm-1605nm, FWHM: 300nm, CW: 1455nm, Fiber Output Power > 35mW

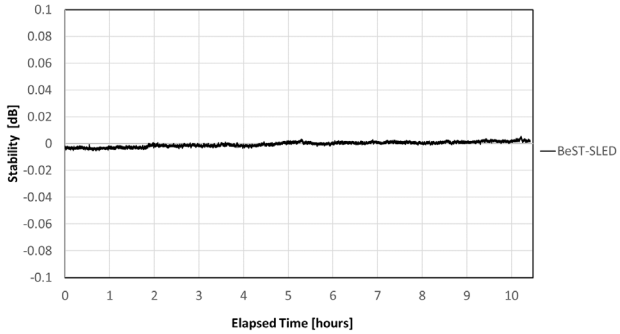
The Luxmux Broadband source (BeST-SLED®) can be configured with up to 6 light sources combined as a single spectrum product. The system provides individual control of light sources through a digitally controlled interface. The ISB is designed to offer up to 19 spectral combinations, which creates a compact and powerful unit that can widen the performance of its intended application use. The light source has an integrated Thermoelectrical Cooler (TEC) and thermistor with external readout that permits to have complete temperature control.

Luxmux's Spectral Stitching technique of integrating multiple wavelengths into a single broad spectrum is designed for optimum coupling efficiency into a single mode fiber. These compact, high-bandwidth modules provide the optimum power and highest optical density bandwidth in a single fiber system in the industry. This brings exceptional flexibility and usability to the sensing marketplace.

The BeST-SLED® product lines can be spectrally tailored to suit specific application needs. This provides exceptional flexibility and usability, making these sources ideal for:

- Optical component Testing
- Telecom Test Equipment
- Optical Coherence Tomography
- Optical Sensing
- White Light Interferometry
- Research and Development





KEY FEATURES

- 5 Superluminescent Diodes (SLEDs) in a single package
- Fiber Coupled Output Power > 35mW
- Bandwidth FWHM > 300nm, @10dB > 330nm
- The best combination of power and spectrum width in multi-SLED modules
- Each SLED comes with a built-in independent monitor photodiode
- Internally Optimized for maximum coupling efficiency with PM1300-XP Fiber
- Light Output: FC/APC Connector (Optional FC/PC or SMA)
- CW operation (Excellent Stability < 0.1dB)
- Spectrum Ripple:
  - Standard Performance < 0.45dB
  - Enhanced Performance < 0.30dB
  - High Performance < 0.15dB
- RIN typical -130dB/Hz
- Operating temperature -40˚C to 60˚C

PERFORMANCE HIGHLIGHTS

Product	Conditions	CWL [nm]	I_{OP}[mA]	P [mW]	B_{FWHM} [nm]	$B_{@10dB}$ [nm]
SLED 1	CW T_{OP} = 25˚C T_{TEC} = 21˚C	1550	500	7	75	120
SLED 2		1480	350	7	40	70
SLED 3		1430	350	7	30	55
SLED 4		1390	400	6	35	60
SLED 5		1340	350	8	40	70
SLED 1+2+3+4+5		1455	1950	35	300	330

#LTC-OSE-1340_1390_1430_1480_1550-PM-1305_1605-300-1455-35_PB_2020_03_24

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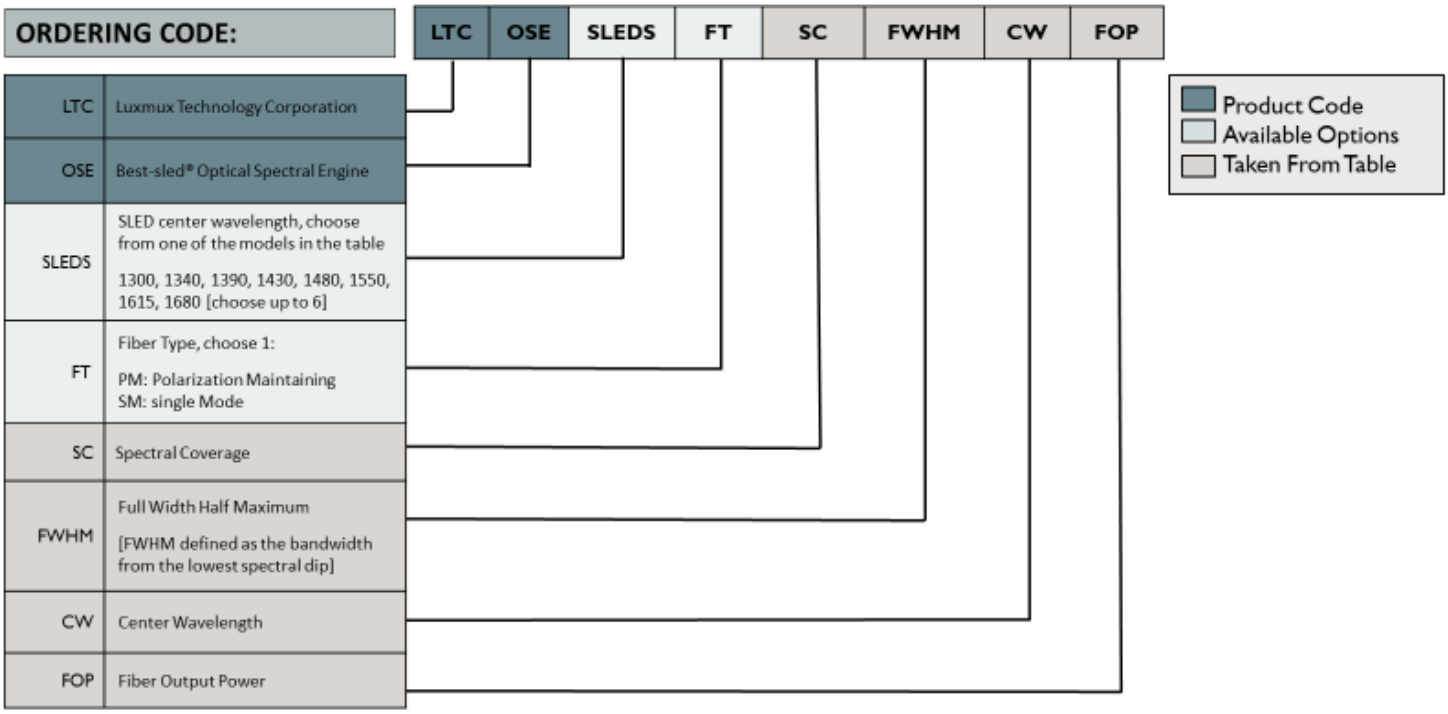
ORDERING CODE:



LTC	Luxmux Technology Corporation
OSE	Best-sled® Optical Spectral Engine
SLEDS	SLED center wavelength, choose from one of the models in the table 1300, 1340, 1390, 1430, 1480, 1550, 1615, 1680 [choose up to 6]
FT	Fiber Type, choose 1: PM: Polarization Maintaining SM: single Mode
SC	Spectral Coverage
FWHM	Full Width Half Maximum [FWHM defined as the bandwidth from the lowest spectral dip]
CW	Center Wavelength
FOP	Fiber Output Power

Ordering Code: LTC-OSE-(SLEDS)-(FT)-(SC)-(FWHM)-(CW)-(FOP)	SLEDs [nm]	FT	SC [nm]	FWHM [nm]	CW [nm]	FOP [mW]
LTC-OSE-1615_1680-PM-1575_1725-150-1650-12	1615, 1680	PM	1575 - 1725	150	1650	12
LTC- OSE -1480_1550_1615-PM-1435_1640-205-1538-18	1480, 1550, 1615	PM	1435 - 1640	205	1538	18
LTC-OSE-1340_1390_1430-PM-1310_1465-155-1388-20	1340, 1390, 1430	PM	1310 - 1465	155	1388	20
LTC- OSE-1300_1340_1390_1430-PM-1265_1465-200-1365-25	1300, 1340, 1390, 1430	PM	1265 - 1465	200	1365	25
LTC-OSE-1480_1550_1615_1680-PM-1435_1725-290-1580-25	1480, 1550, 1615, 1680	PM	1435 - 1725	290	1580	25
LTC-OSE-1300_1340_1390_1430_1480-PM-1265_1500-235-1383-35	1300, 1340, 1390, 1430, 1480	PM	1265 - 1500	235	1383	35
LTC-OSE-1340_1390_1430_1480_1550-PM-1305_1605-300-1455-35	1340, 1390, 1430, 1480, 1550	PM	1305 - 1605	300	1455	35
LTC-OSE-1300_1390_1480_1550_1615_1680-PM-1265_1725-460-1495-40	1300, 1390, 1480, 1550, 1615, 1680	PM	1265 - 1725	460	1495	40
LTC-OSE-1480_1550-PM-1435_1605-170-1520-12	1480, 1550	PM	1435 - 1605	170	1520	12
LTC-OSE-1340_1390_1430_1480_1550_1615-PM-1310_1640-330-1475-38	1340, 1390, 1430, 1480, 1550, 1615	PM	1310 - 1640	330	1475	38
LTC-OSE-1300_1340_1390_1430_1480_1550-PM-1265_1605-340-1435-40	1300, 1340, 1390, 1430, 1480, 1550	PM	1265 - 1605	340	1435	40
LTC-OSE-1430_1480_1550-PM-1410_1605-195-1508-19	1430, 1480, 1550	PM	1410 - 1605	195	1508	19
LTC-OSE-1300_1340_1390-PM-1265_1420-155-1343-20	1300, 1340, 1390	PM	1265 - 1420	155	1343	20
LTC-OSE-1390_1430_1480-PM-1355_1500-145-1428-19	1390, 1430, 1480	PM	1355 - 1500	145	1428	19
LTC-OSE-1550_1615_1680-PM-1515_1725-210-1620-18	1550, 1615, 1680	PM	1515 - 1725	210	1620	18
LTC-OSE-1300_1340-PM-1265_1365-100-1315-12	1300, 1340	PM	1265 - 1365	100	1315	12
LTC-OSE-1390_1480_1550-PM-1340_1610-270-1475-20	1390, 1480, 1550	PM	1340 - 1610	270	1475	20
LTC-OSE-1300_1390_1480-PM-1265_1500-235-1383-20	1300, 1390, 1480	PM	1265 - 1500	235	1383	20
LTC-OSE-1390_1480_1550_1615_1680-PM-1340_1725-385-1533-32	1390, 1480, 1550, 1615, 1680	PM	1340 - 1725	385	1533	32

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