Exalos Broadband Sources | EBS

Applications

- Optical Coherence Tomography
- Bio-medical Imaging
- Fiber Sensor Interrogation
- Component Testing
- Spectroscopy

Product Features

- Ultra-low noise (RIN)
- Ultra-stable output power
- Ultra-broad optical spectrum
- High output power
- Multiple spectral ranges
- Spectral shaping options
- Remote control

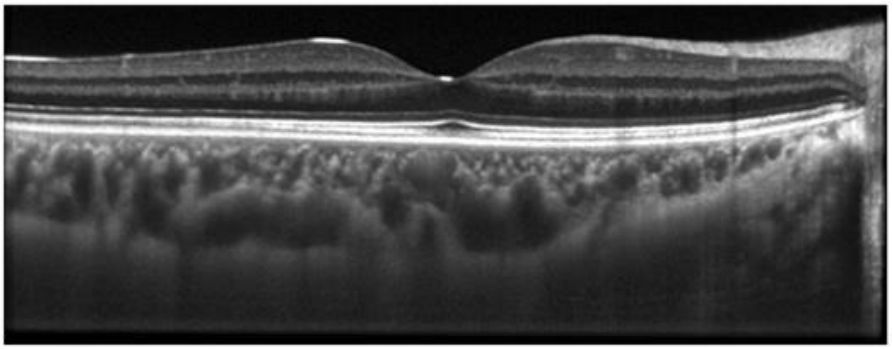
Description

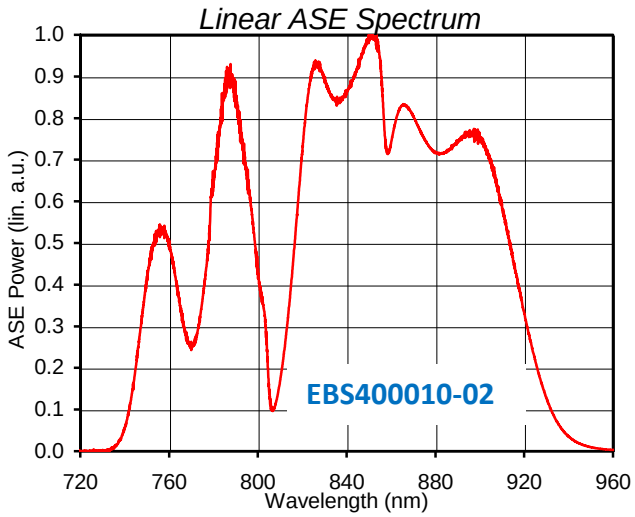
The EXALOS broadband sources (EBS) are high-performance fiber-coupled light sources based on superluminescent light emitting diodes (SLEDs). These turnkey benchtop instruments are suitable for research and development or for production and testing environments. The EBS broadband light sources are highly customizable and can be configured for up to three SLEDs (EBS30 series) or up to eight SLEDs (EBS40 series), having either individual control and individual optical outputs or one common optical output where the SLEDs are combined.

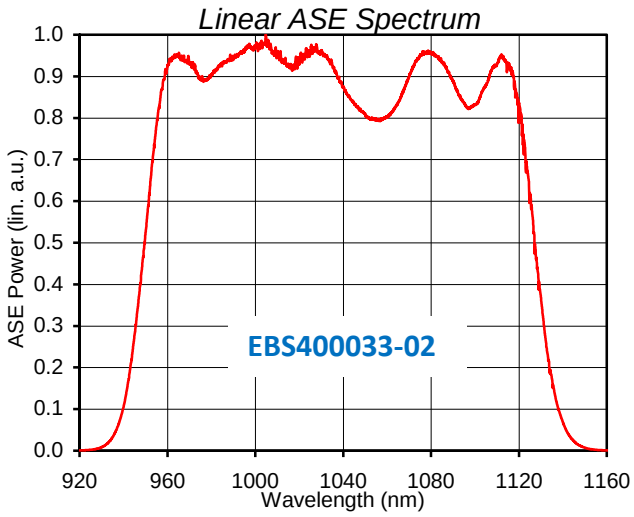
The EBS light sources are available over a wide spectral range, ranging from the near-UV (390 nm) to the near-IR (1700 nm). EXALOS can offer, in the long-wavelength range an ultra-broadband 350-nm light source from 1270 to 1620 nm with 40 mW of optical output power, and in the short-wavelength range an ultra-broadband 160-nm light source from 750 to 920 nm, featuring a coherence length in air of less than 2.5 microns.

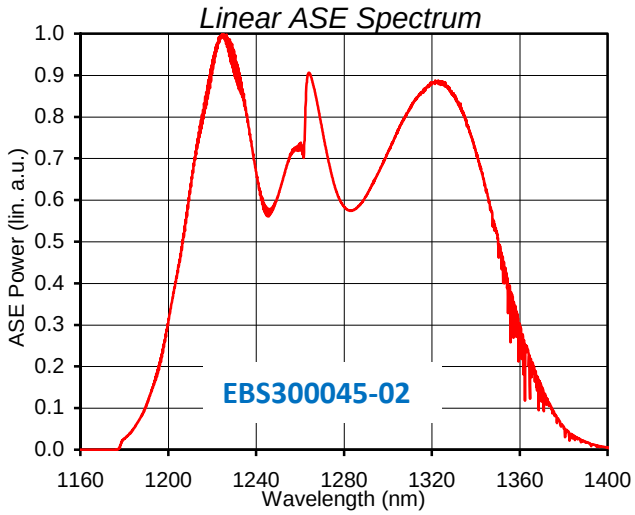
The electro-optical performance of the EBS light source depends on the particular product code. Optical output might be realized either with a single-mode fiber (SMF) or with a polarization maintaining fiber (PMF), depending on the type of SLED module that is chosen.

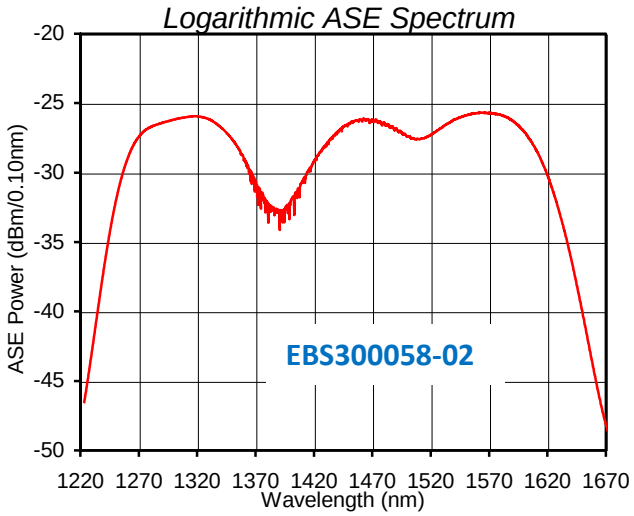
The new EBS30 and EBS40 series offer remote control through electrical analog and digital control signals, and modulation capabilities up to 50 Hz. Optionally, a low degree of polarization (DOP) can be achieved using fiber depolarizers. Furthermore, spectral shaping through custom optical bandpass filters can be realized.











Center WL	3dB BW	10dB BW	Power	Coherence Length	Part Number
405 nm	3 nm	6 nm	0.5 mW	21 µm	EBS300011-02
650 nm	6 nm	12 nm	3 mW	30 µm	EBS300035-02
830 nm	160 nm	190 nm	9 mW	2.5 µm	EBS400010-02
845 nm	140 nm	160 nm	9 mW	2.9 µm	EBS300080-02
865 nm	105 nm	125 nm	9 mW	4.1 µm	EBS300002-03
1030 nm	180 nm	200 nm	5 mW	3.3 µm	EBS300033-03
1040 nm	175 nm	200 nm	15 mW	3.6 µm	EBS400033-02
1070 nm	100 nm	120 nm	20 mW	6.5 µm	EBS300034-02
1270 nm	140 nm	170 nm	20 mW	6.0 µm	EBS300059-02
1280 nm	145 nm	185 nm	15 mW	6.0 µm	EBS300045-02
1325 nm	100 nm	150 nm	20 mW	9.1 µm	EBS300047-03
1315 nm	120 nm	150 nm	25 mW	8.0 µm	EBS300040-02
1440 nm	350 nm	400 nm	7 mW	3.1 µm	EBS300058-02
1460 nm	320 nm	360 nm	40 mW	3.1 µm	EBS400005-02
1570 nm	110 nm	140 nm	20 mW	12 µm	EBS300006-03