



Photonics Package Expert



## Eugenlight Technologies

Focus Dedication Specialty

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**Eugenlight Technologies**

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Optoelectronics Integration Empowers Optical Interconnection

## Eugenlight Technologies Profile

Founded in October 2016, Eugenlight Technologies specializes in the research, development, manufacturing, and sales of high-speed optoelectronic integrated components and optical engines. The company is dedicated to providing competitive optical interconnect solutions for applications such as telecom optical transmission/access and data centers etc.

In the field of optical communication, as a leading supplier of optoelectronic integration technology, Eugenlight boasts a high-performance, high-reliability mass production product line of optoelectronic integrated devices and optical engines, ranging from 100G to 1.6T rates. Additionally, the company possesses capabilities in silicon-photonics integration, 2.5D hetero-optoelectronic integration, and optoelectronic co-packaging NPO/CPO. Leveraging its leading technological strength and reliable product quality, Eugenlight has become a strategic partner for numerous top-tier optical module enterprises globally, with its flagship products entering the core supply chain of global optical communication.

The company's optoelectronic integration technology can also be applied to fields such as space optical communication, laser radar, and photonic computing in the future, possessing strong potential for technological innovation and business expansion.

The vision of Eugenlight Technologies is to be one of the top brands and a core supplier in the global optoelectronic industry.

## Product Platforms

With the evolution of photonic packaging technologies toward higher density integration, Eugenlight has developed proprietary product platforms of different level integration to meet various applications.

### TO-based Platform

- Innovative integration design beyond traditional TO-based Optics
- Proprietary "Eugen-Pactive Process" to ensure reliable mass production
- Pioneering in compact, integrated, and multi-port OSAs of challenging specs
- Featured products:
  - Quad-OSA for XG/XGS Combo PON ONU/OLT
  - 100G LR1/ER1 TOSA/ROSA/BOSA

### Box Platform

- Single channel and Planar multi-channel integration
- Cooled TEC in transmitter, built-in TIA in receiver
- Hermetical sealing to ensure high reliability
- Non-hermetical receiver solutions also available to support cost reduction, evolved from hermetical ones
- Featured products:
  - Single lamda 100G TOSA
  - 100G LR4/ER4/ZR4 TOSA/ROSA/BOSA
  - Non-hermetical 100G ROSA
  - 400G LR4/ER4 TOSA/ROSA
  - Tunable laser/ITLA
  - Narrow linewidth laser

### Chip On Board Platform

- Hybrid optoelectronics integration: Chip on Board (COB), Optics on Board, Co-packaging on board or submount level
- High performance in signal and power integrity
- Low cost by eliminating surplus intermediary package
- Featured products:
  - 1.6T 2 x FR4/2 x DR4/DR8 optical engine
  - 800G 2 x FR4/2 x DR4/DR8 optical engine
  - 400G DR4 optical engine



TO-based Platform



Hermetical Box Platform



Chip On Board Platform

## Products Portfolio

### Chip On Board portfolio

Product	Description	Data rate	Wavelength	Reach	Tx Power	Rx sensitivity	Part No.
1.6T Optical Engine	1.6T PAM4,2*FR4,SPIC,DML,OSFP optical engine	1.6T	CWDM	2km	-2.2~-4.9dBm per lane	-6.2dBm per lane	EO2816GMC-XXXX
1.6T Optical Engine	1.6T PAM4,2*DR4/DR8, SPIC,DML,OSFP optical engine	1.6T	1310nm	500m	-3.3~-4.0dBm per lane	-6.3dBm per lane	EO0816GMC-XXXX
800G Optical Engine	800G PAM4,2*FR4, SPIC,DML,OSFP optical engine	800G	CWDM	2km	-3.2~-4.4dBm per lane	-7.2dBm per lane	EO088CENC-XXXX
800G Optical Engine	800G PAM4,2*DR4/DR8, SPIC,DML,OSFP optical engine	800G	1310	500m	-2.9~-4dBm per lane	-5.9dBm per lane	EO088CGNC-XXXX
400G Optical Engine	400G DR4 SPIC,DML,OSFP-DD optical engine	400G	1310nm	500m	-2.9~-4dBm	-5.9dBm per lane	ES0E4CGNC-XXXX
100G Optical Engine	100G LanWDM,QSFP28 optical engine	100G	Lan-WDM	10km	0~-4dBm per lane	-13dBm per lane	EB0425DMC-XXXX
ELSFP	Cooled,high power,PM pigtail	/	1311nm	/	>23dBm	/	E3U1NA1XXC-XXXX

### TO-based OSA portfolio

Product	Description	Data rate	Wavelength	Reach	Tx Power	Rx sensitivity	Part No.
<b>10G PON OSA</b>							
Combo PON OLT OSA	XG-PON Combo OLT Quad OSA, Class C+	10G/2.5G	1577/1490/1270/1310nm	20km	1577nm 8dBm/1490nm 4.5dBm	1270nm -30.5dBm/1310nm -33dBm	EO0410ETC-XXXX
Combo PON OLT OSA	XGS-PON Combo OLT Quad OSA, Class C+	10G/10G	1577/1490/1270/1310nm	20km	1577nm 8dBm/1490nm 4.5dBm	1270nm -29.5dBm/1310nm -33dBm	EO0410ETC-XXXX
Combo PON ONU OSA	XGS-PON Combo ONU Quad-OSA	10G/10G	1270/1310/1490/1577nm	20km	1270nm 4.5dBm/1310nm 2dBm	1490nm -32dBm/1577nm -30.5dBm	EO0410DTI-XXXX
Combo PON OLT OSA	XGS-PON Combo OLT Quad OSA, Class D	10G/10G	1577/1490/1270/1310nm	20km	1577nm 8dBm/1490nm 6dBm	1270nm -33.5dBm/1310nm -35dBm	EO0310ETC-XXXX
10G EPON OLT OSA	10G EPON OLT Tri-OSA, SFP+	10G	1577nm/1490nm/dual rate	20km	1577nm 6dBm/1490nm 2.5dBm	-30dBm	EO0310ETC-XXXX
<b>25G OSA</b>							
25G BOSA	25G BIDI,DML+APD	25G	1270nm/1310nm	30km	-3~-1dBm	-21.5dBm@5E-5	EB2125KTE-XXXX
25G BOSA	25G BIDI, DML/PIN	25G	1270nm/1330nm	10km	0~-3dBm	-13dBm	EB0225DTE-XXXX
<b>100G OSA</b>							
100G EML TOSA	100G Single Lamda,EML TOSA,PAM4	100G	1311nm	10km	-2.5~-5dBm	/	ET011CETC-XXXX
100G PIN ROSA	100G Single Lamda,PIN ROSA,PAM4	100G	1311nm	10km	/	-10dBm@2E-4	ER011CPTI-XXXX
100G APD ROSA	100G Single Lamda,APD ROSA,PAM4	100G	1309.14nm	30km	/	-15dBm@2E-4	ER011CATI-XXXX
100G BOSA	100G Single Lamda,BIDI,EML+PIN,PAM4	100G	1271nm/1331nm	10km	-2.5~-5dBm	-10dBm@2E-4	Eb011CJTC-XXXX
<b>Others</b>							
SLED TOSA	SLED TOSA,C+L band	<1G	C+L band	/	power density -59dBm	/	EO0101STC-XXXX

### Mux/DeMux portfolio

Product	Description	Wavelength(nm):	Pitch(um)	1dB Bandwidth(nm)	Insertion Loss(dB)	Ripple(dB)
AWG	Demux AWG Assembly	CWDM/LWDM	750/250	>12	<2.3	<0.5

## Products Portfolio

### Box based OSA portfolio

Product	Description	Data rate	Wavelength	Reach	Tx Power	Rx sensitivity	Part No.
<b>25G OSA</b>							
25G EML TOSA	SFP28, 25G BASE-ZR4 TOSA, EML	25G	1309.14nm	80km	1~-5dBm	/	ET0125EBI-XXXX
25G DML TOSA	SFP28, 25G Ethernet CPRI/eCPRI, Oband, DML	25G	O-band 16wavelengths	40km	1.5~-6dBm	/	ET0125DBC-XXXX
25G SOA ROSA	SFP28, 25G BASE-ZR4 ROSA, PIN+SOA,	25G	Lan-WDM	80km	/	-31dBm	ER0125SBC-XXXX
<b>100G OSA</b>							
100G DML TOSA	QSFP28 MSA, 100G BASE-LR4 TOSA, DML+driver	4x25G	Lan-WDM	10km	0~-4dBm per lane	/	ET0425DBC-XXXX
100G DML TOSA	QSFP28 MSA, 100G BASE-LR4 TOSA, DML	4x25G	Lan-WDM	10km	0~-4dBm per lane	/	ET0425DBI-XXXX
100G EML TOSA	QSFP28 MSA, 100G BASE-ER4/ER4 Lite TOSA, EML	4x25G	Lan-WDM	40km	0~-4dBm per lane	/	ET0425EBC-XXXX
100G EML TOSA	QSFP28 MSA, 100G BASE-ZR4 TOSA, EML	4x25G	Lan-WDM	80km	1~-5dBm per lane	/	ET0425EBC-XXXX
100G PIN ROSA	QSFP28 MSA, 100G BASE-LR4 ROSA, PIN+TIA	4x25G	Lan-WDM	10km	/	-13dBm per lane	ER0425PBC-XXXX
100G PIN ROSA	QSFP28 MSA, 100G BASE-LR4 ROSA, PIN+TIA,Non-hermetic	4x25G	Lan-WDM	10km	/	-13dBm per lane	ER0425PBC-XXXX
100G PIN ROSA	QSFP28 MSA, 100G BASE-LR4 ROSA, PIN+CDR, Non-hermetic	4x25G	Lan-WDM	10km	/	-13dBm per lane	ER0425PBC-XXXX
100G APD ROSA	QSFP28 MSA, 100G BASE-ER4 Lite ROSA, APD	4x25G	Lan-WDM	30km	/	-18dBm per lane	ER0425ABC-XXXX
100G SOA PIN ROSA	QSFP28 MSA, 100G BASE-ER4/ZR4 ROSA, SOA+PIN	4x25G	Lan-WDM	40/80km	/	-31dBm per lane	ER0425PBC-XXXX
SOA	Semiconductor Optical Amplifier, pigtailed	100G	O-band	40km	Optical gain >19dB, NF <7.5	/	ES0100SBC-XXXX
100G EML TOSA	100G ER1 EML TOSA,PAM4	100G	1309.14nm	40km	0~-5.6dBm	/	ET011CEBC-XXXX
100G BOSA	100G ER1 BIDI,EML+APD,PAM4	100G	1304.58/1309.14nm	30km	0~-5.6dBm	-13.9dBm	EB211CIBE-XXXX
100G BOSA	QSFP28,100G ZR4 BIDI,EML,PIN+SOA	4*25G	Lan-WDM	40/80km	1~-5dBm/0~-4dBm/	-31dBm per lane	EB241CFB-XXXX
<b>400G OSA</b>							
400G TOSA	QSFP-DD,400G LR4,PAM	4x100G	CWDM	10km	-2.5~-5dBm / lane	/	ET044CEBC-XXXX
400G TOSA	QSFP-DD, 400G ER4,PAM	4x100G	Nano LWDM	40km	1.5~-7dBm / lane	/	ET044CEBC-XXXX
400G ROSA	QSFP-DD, 400G LR4,PAM	4x100G	CWDM	10km	/	-9dBm per lane	ER044CPBC-XXXX
400G ROSA	QSFP-DD, 400G ER4,PAM	4x100G	Nano LWDM	40km	/	-16dBm per lane	ER044CSBC-XXXX
<b>Others</b>							
SLED TOSA	Cooled wide spectrum source,mini BOX	/	C+L band	/	Po density≥-40dBm	/	ET0100LBI-XXXX
OTDR TOSA	OTDR source,mini BOX,high Power, Pulse mode	/	1500~1650nm	/	/	/	ET0102DBC-XXXX
Narrow Linewidth Laser	1550nm,DFB,butterfly	/	1548~1552nm	/	≥17dBm,linewidth(3dB)<100K	/	ET0102DFC-XXXX
Ultra Narrow Linewidth Laser	1550nm,ECL, butterfly/Module	/	1548~1552nm	/	≥10dBm,linewidth(3dB)<3K	/	ER0100QFC-XXXX
Nano ITLA	Tunable LD chip,BOX	/	1528~1567nm	/	≥17dBm,linewidth(3dB)<300K	/	ET0100QFC-XXXX
Fast Tunable laser	SGDBR,BOX,PM pigtail,Etalon	/	1527~1567nm	/	≥10dBm,linewidth(3dB)<5MHz	/	ET0100TBC-XXXX