

2.5Gbps Metro Solution

Lasers, Transmitters & Receivers



2.5 Gbps 1550 nm Direct Modulation DFB Laser Module



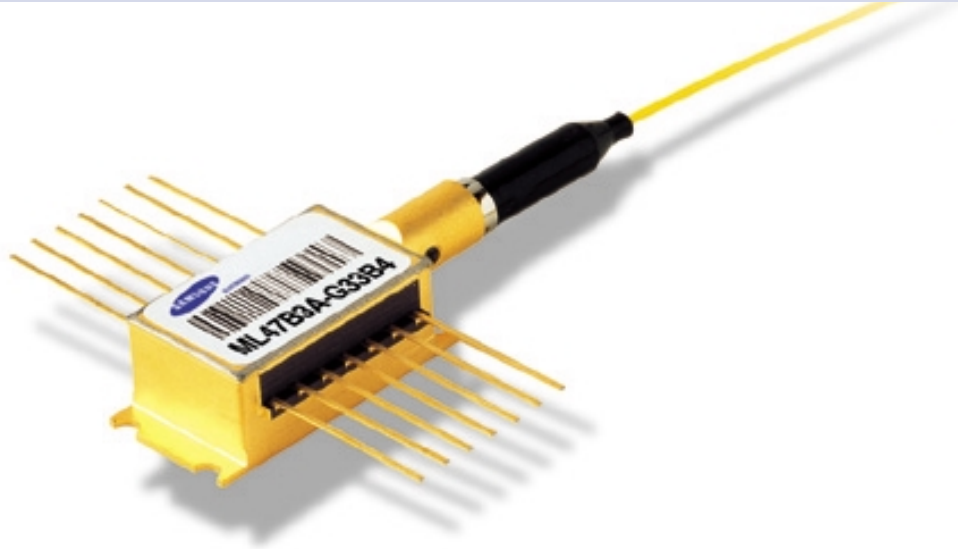
The DL47B3A DFB-LD modules are designed for SONET OC-48 and SDH STM-16 applications. The high performance multiple quantum well (MQW) laser is packaged in a hermetically sealed butterfly package with a thermoelectric cooler (TEC), a thermistor and a monitor photodiode. Selected wavelengths specified to the ITU-T channel are available.

Features

- **Hermetically sealed 14-pin butterfly package**
- **ITU-T wavelengths available from 1528.77 nm to 1610.06 nm**
- **Wide operation temperature range of -20 °C to 75 °C**
- **High output power of 2 mW**
- **Long-term wavelength stability and high reliability**
- **Meet Telcordia Technologies GR-468-CORE requirements**

2.5 Gbps EML

2.5 Gbps 1550nm DWDM Electro-absorption Modulator Integrated DFB Laser Module



The ML47B3A EML modules are designed for SONET OC-48 and SDH STM-16 applications. The low dispersion single mode spectrum, coupled with excellent extinction, achieves long-haul transmission up to 640Km. Two models are currently available: ML47B3A-F for transmission up to 360 km and ML47B3A-G for transmission up to 640 km. ITU-T wavelengths selectable to 100 GHz spacing are available for dense wavelength division multiplexing (DWDM) applications

Features

- **Hermetically sealed 14-pin butterfly package**
- **Electro-absorption modulator integrated with the 1550 nm MQW DFB laser**
- **ITU-T wavelengths selectable to 100 GHz spacing from 1528.77 nm to 1563.86 nm**
- **Min. -3 dBm average transmitted power**
- **Transmission over 640 km**

2.5 Gbps 1310 nm Uncooled Transmitter



The TX17T2A uncooled transmitter is designed for SONET OC-48 and SDH STM-16 applications. The transmitter meets all GR-253-CORE requirements, ITU-T G.957, and G.958 recommendations. The transmitter is compatible with the MSA specification, which has a space-saving 24-pin DIP package.

Features

- **Multisource agreement (MSA) compatible**
- **Wide operation temperature range of 0 °C to +75 °C**
- **Power supply voltage : Single + 5.0 V**
- **Clock or non-clock mode selector**
- **Optical output disable function**
- **Laser degrade alarm**

2.5 Gbps Receiver with Clock Recovery



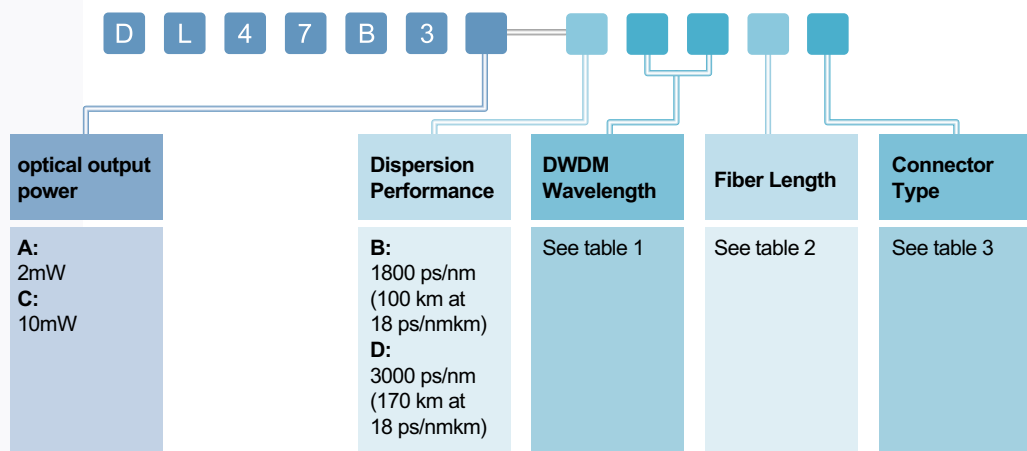
The RX77R2A receiver is designed for use in high speed data communication and telecommunication systems. The receiver operates at SONET OC-1, OC-3, OC-12, and OC-48 rates as well as at ITU-T SDH rates. The receiver is compatible with the MSA specification, which has a space-saving 24-pin DIP package.

Features

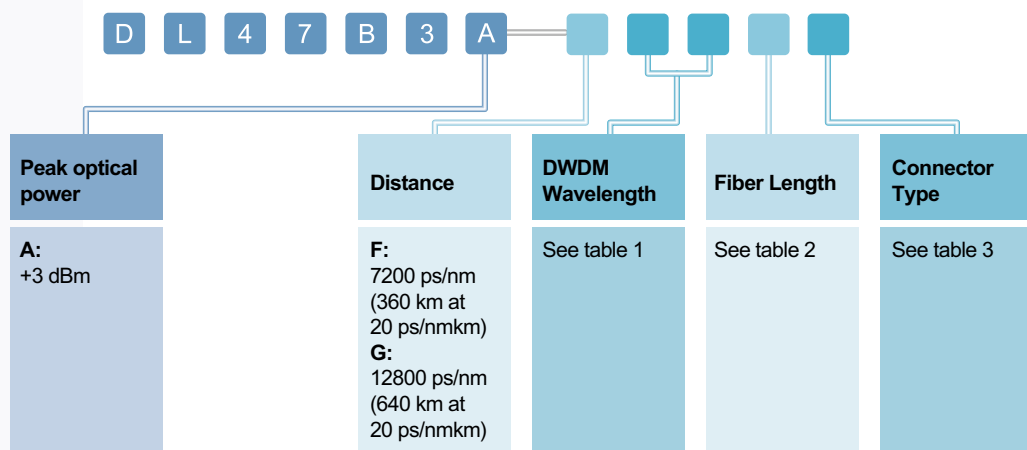
- **Multisource agreement (MSA) compatible**
- **Operation at 1310 nm or 1550 nm**
- **Typical sensitivity of APD : -32 dBm**
- **Wide operation case temperature range of -15 °C to +75 °C**
- **Power supply voltage : Single + 5.0 V**
- **Multi bit rate operation at 155.52 Mbps, 622.08 Mbps, 1244.016 Mbps, and 2488.032 Mbps**
- **Loss of signal indication of TTL**

Ordering Information

2.5 Gbps DFB-LD



2.5 Gbps EML



Ordering Information

**Table 1 :
SEC Code for DWDM Wavelength**

ITU-T Frequency (THz)	SEC Code	Center Wavelength (nm)	Wavelength Tolerance
191.7	17	1563.86	±0.4nm
191.8	18	1563.05	±0.4nm
191.9	19	1562.23	±0.4nm
192.0	20	1561.42	±0.4nm
192.1	21	1560.61	±0.4nm
192.2	22	1559.79	±0.4nm
192.3	23	1558.98	±0.4nm
192.4	24	1558.17	±0.4nm
192.5	25	1557.36	±0.4nm
192.6	26	1556.55	±0.4nm
192.7	27	1555.75	±0.4nm
192.8	28	1554.94	±0.4nm
192.9	29	1554.13	±0.4nm
193.0	30	1553.33	±0.4nm
193.1	31	1552.52	±0.4nm
193.2	32	1551.72	±0.4nm
193.3	33	1550.92	±0.4nm
193.4	34	1550.12	±0.4nm
193.5	35	1549.32	±0.4nm
193.6	36	1548.51	±0.4nm
193.7	37	1547.72	±0.4nm
193.8	38	1546.92	±0.4nm
193.9	39	1546.12	±0.4nm
194.0	40	1545.32	±0.4nm
194.1	41	1544.53	±0.4nm
194.2	42	1543.73	±0.4nm
194.3	43	1542.94	±0.4nm
194.4	44	1542.14	±0.4nm
194.5	45	1541.35	±0.4nm
194.6	46	1540.56	±0.4nm
194.7	47	1539.77	±0.4nm
194.8	48	1538.98	±0.4nm
194.9	49	1538.19	±0.4nm
195.0	50	1537.40	±0.4nm
195.1	51	1536.61	±0.4nm
195.2	52	1535.82	±0.4nm
195.3	53	1535.04	±0.4nm
195.4	54	1534.25	±0.4nm
195.5	55	1533.47	±0.4nm
195.6	56	1532.68	±0.4nm
195.7	57	1531.90	±0.4nm
195.8	58	1531.12	±0.4nm
195.9	59	1530.33	±0.4nm
196.0	60	1529.55	±0.4nm
196.1	61	1528.77	±0.4nm

Table 2: Fiber Length

Code	Fiber Length
A	0.5 m
B	1.0 m
C	1.5 m
D	2.0 m
E	2.5 m

Table 3: Fiber Connector Type

Code	Connector Type
1	FC/PC
2	FC/APC
3	ST/PC
4	SC/PC
5	Biconic
6	No connector
7	MU
8	LC

Table 4: Fiber Type

Code	Fiber Type
S	Single
M	Multi
P	PCF
G	GOF
C	Clad

Fiberoptics Division

Telecommunication Network Business
 Samsung Electronics Co., Ltd.
 7th Fl., Samsung Main Bldg.
 250, 2-Ga Taepyung-Ro, Chung-Gu,
 Seoul, Korea 100-742
 Phone: (82) 2-751-3278
 Fax: (82) 2-751-2678
 E-mail: opto@samsung.com
 URL: www.samsungfiberoptics.com