

2.5 Gb/s Optical Transmitter (OTM16)



The OTM16 2.5 Gb/s transmitter is designed for use in optical transport and high-speed data communication systems equipped with Dense Wavelength Division Multiplexing (DWDM). The device is capable of 100km, 170km, 340km or 640km transmission at 2.5 Gb/s in DWDM system. It can generate ITU-T grid specific wavelengths for DWDM. The stability of the wavelength over operating case temperature ranges is within ± 15 pm without a wavelength locker.

The OTM16 provides these features: selection pin for non-clocked or clocked operation, single ended or differential 2.5 Gb/s signal inputs, LVTTTL selection pin for transmitter output enable or disable. The OTM16 can monitor and control various transmitter functions via RS232 or I2C serial interface. The transmitter has a low profile 24-pin DIP type package compliant with transmitter multisource design agreement. It operates with a dual power supply which is +3.3 V and -5.2 V.

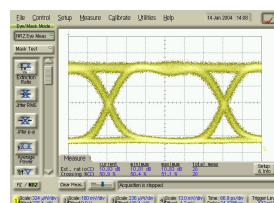
Features

- ▶ Compliant with OC-48/STM-16 (2.5Gb/s) specifications
- ▶ Long-haul transmission up to 640km
- ▶ ITU-T wavelength standards at 200GHz, 100GHz, 50GHz
- ▶ ± 15 pm wavelength stability without a wavelength locker
- ▶ Clocked / Non-clocked selectable
- ▶ Transmitter enable control input
- ▶ RS232 / I2C serial interface
- ▶ 24 pin DIP type

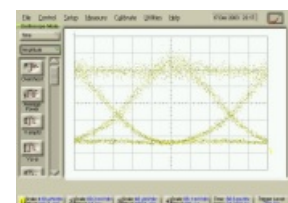
Applications

- ▶ High-speed and long-haul DWDM networks
- ▶ Metropolitan networks

Eye diagram



[Transmitter]



[After 640km]

Ordering Information

Relationship between Part Numbers and Wavelengths for Ordering

Par Number	ITU-T Freq. (Thz)	Wavelength (nm)	Par Number	ITU-T Freq. (Thz)	Wavelength (nm)
OTM16-E60	196.05	1529.16	OTM16-E38	193.85	1546.52
	196	1529.55		193.8	1546.92
OTM16-E59	195.95	1529.94	OTM16-E37	193.75	1547.32
	195.9	1530.33		193.7	1547.72
OTM16-E58	195.85	1530.72	OTM16-E36	193.65	1548.11
	195.8	1531.12		193.6	1548.51
OTM16-E57	195.75	1531.51	OTM16-E35	193.55	1548.91
	195.7	1531.90		193.5	1549.32
OTM16-E56	195.65	1532.29	OTM16-E34	193.45	1549.72
	195	1532.68		193.4	1550.12
OTM16-E55	195.55	1533.07	OTM16-E33	193.35	1550.52
	195.5	1533.47		193.3	1550.92
OTM16-E54	195.45	1533.86	OTM16-E32	193.25	1551.32
	195.4	1534.25		193.2	1551.72
OTM16-E53	195.35	1534.64	OTM16-E31	193.15	1552.12
	195.3	1535.04		193.1	1552.52
OTM16-E52	195.25	1535.43	OTM16-E30	193.05	1552.93
	195.2	1535.82		193	1553.33
OTM16-E51	195.15	1536.22	OTM16-E29	192.95	1553.73
	195.1	1536.61		192.9	1554.13
OTM16-E50	195.05	1537.00	OTM16-E28	192.85	1554.54
	195	1537.40		192.8	1554.94
OTM16-E49	194.95	1537.79	OTM16-E27	192.75	1555.34
	194.9	1538.19		192.7	1555.75
OTM16-E48	194.85	1538.58	OTM16-E26	192.65	1556.15
	194.8	1538.98		192.6	1556.55
OTM16-E47	194.75	1539.37	OTM16-E25	192.55	1556.96
	194.7	1539.77		192.5	1557.36
OTM16-E46	194.65	1540.16	OTM16-E24	192.45	1557.77
	194.6	1540.56		192.4	1557.17
OTM16-E45	194.55	1540.95	OTM16-E23	192.35	1558.58
	194.5	1541.35		192.3	1558.98
OTM16-E44	194.45	1541.75	OTM16-E22	192.25	1559.39
	194.4	1542.14		192.2	1559.79
OTM16-E43	194.35	1542.54	OTM16-E21	192.15	1560.20
	194.3	1542.94		192.1	1560.61
OTM16-E42	194.25	1543.33	OTM16-E20	192.05	1561.01
	194.2	1543.73		192	1561.42
OTM16-E41	194.15	1544.13	OTM16-E19	191.95	1561.83
	194.1	1544.53		191.9	1562.23
OTM16-E40	194.05	1544.92	OTM16-E18	191.85	1562.64
	194	1545.32		191.8	1563.05
OTM16-E39	193.95	1545.72	OTM16-E17	191.75	1563.45
	193.9	1546.12		191.7	1563.86

Coding Scheme for Ordering Information

Part Name	LD Type	Channel Number	Connector Type	Transmission Distance	Pin3 Selection	Serial Selection
OTM16	-X	XX	-X	X	X	X
	D : DFB-LD E : EML	17~60 : ITU-T Ch.#	S : SC F : FC L : LC M : MU	M : 100Km X : 170Km L : 640Km	M : LD Bias Mon. A : LD Bias Alarm	I : I2C R : RS-232C

Ex) OTM16-E42-SL-AI : 1543.33 nm ~ 1543.73 nm EML, SC connector, 640km, LD Bias alarm, and I2C interface

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