

OD-BP1513

156Mbps 1.3 μ m/1.5 μ m WDM Bi-directional SFP Transceiver With Digital Diagnostic Monitoring (DDM) Function

FEATURES

- Single fiber Bi-directional Optical Transceiver consists of
 - Transmitter
 - Receiver with 2R function
 - 1.3/ 1.5 μ m WDM function using Planar Lightwave Circuit (PLC)
- SFP Transceiver MSA
- Digital Diagnostic Monitoring Function (SFF-8472)
- 125 to 156Mbps Data Rates
- Loss of Signal (LOS) function
- Transmitter disable (TX_DISABLE) function
- Single Power Supply Voltage of +3.3V
- Differential AC100 ohms Data Input/Output
- Hot-pluggable electrical interface
- Serial identification
- LC and SC receptacle
- Bail latch type and Lever latch type
- Lead-free and RoHS compliant
- Applied to Fast Ethernet, SDH/SONET

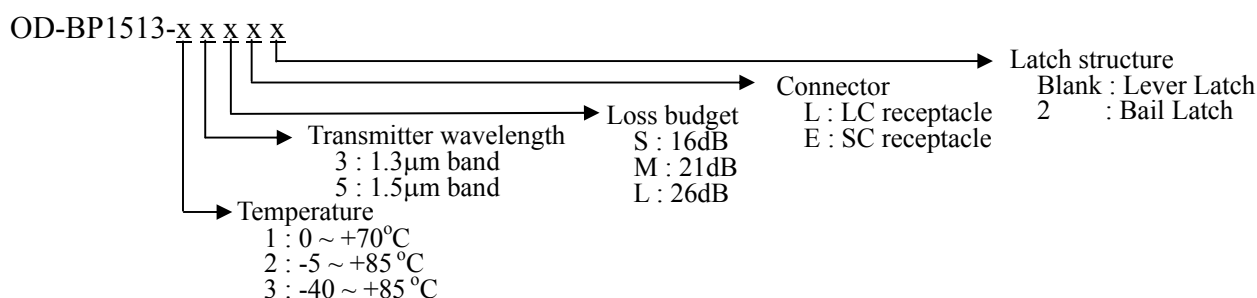


- Bail latch type
- LC receptacle type

OPERATING CONDITIONS

Parameter	Unit	Values			Remarks
		Min.	Typ.	Max.	
Case Temperature	°C	0	—	+ 70	-1xxxx
		-5	—	+ 85	-2xxxx
		-40	—	+ 85	-3xxxx
Power Supply Voltage	V	+ 3.135	+ 3.300	+ 3.465	
Power Supply Current	mA	—	—	300	

PRODUCT INFORMATION

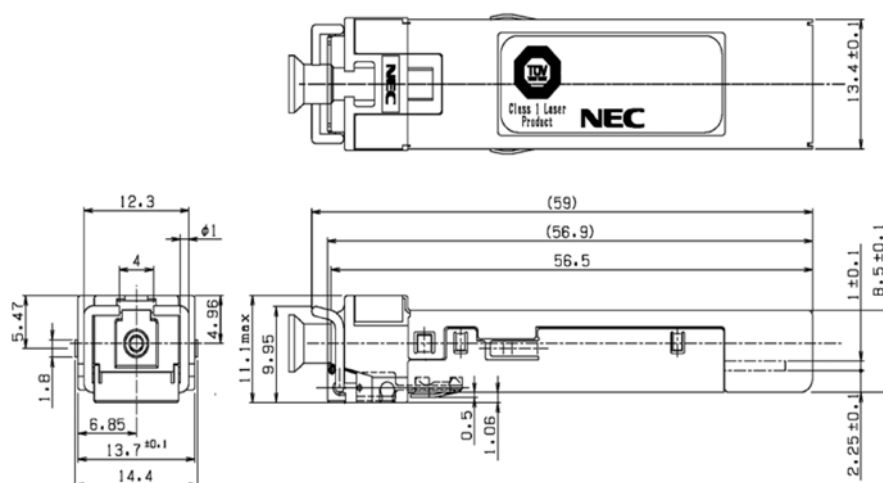


PERFORMANCE

Parameter	Unit	OD-BP1513					
		x3Sxx	x3Mxx	x3Lxx	x5Sxx	x5Mxx	x5Lxx
		1.3μm Tx / 1.5μm Rx			1.5μm Tx / 1.3μm Rx		
Bit rate	Mbps	125 ~ 155.52					
TRANSMITTER							
Laser Diode type	—	MLM-LD				SLM-LD	
Wavelength	nm	1260 ~ 1360			1480 ~ 1580		
Spectral width (RMS)	nm	≤ 7.7	≤ 7.0	≤ 4.7	≤ 4.6	—	
Spectral width (-20dB)		—				≤ 0.88	
Mean output power	dBm	-14 ~ -8	-9 ~ -3	-5 ~ 0	-14 ~ -8	-9 ~ -3	-5 ~ 0
Extinction ratio	dB	≥ 8.2	≥ 10.0	≥ 10.0	≥ 8.2	≥ 10.0	≥ 10.0
Transmitter disable (TX_DISABLE)	—	Optical output enable = Low Level Optical output disable= High Level or Open circuit					
RECEIVER							
Wavelength	nm	1480 ~ 1600			1260 ~ 1360		
2R sensitivity	dBm	≤ -30	≤ -30	≤ -31	≤ -30	≤ -30	≤ -31
2R overload	dBm	≥ -8	≥ -3	≥ -3	≥ -8	≥ -3	≥ -3
Loss of Signal (LOS)	—	Normal Operation = Low Level Fault Condition = High Level					

DIMENSIONS (Unit:mm)

(LC receptacle / Bail Latch type (-xxxL2))



Pin description

Top of Transceiver		Bottom of Transceiver	
20	VEET	1	VEET
19	TD-	2	TX_FAULT
18	TD+	3	TX_DISABLE
17	VEET	4	MOD_DEF(2)
16	VCCT	5	MOD_DEF(1)
15	VCCR	6	MOD_DEF(0)
14	VEER	7	NC
13	RD+	8	LOS
12	RD-	9	VEER
11	VEER	10	VEER

* : Rate Select function is not implemented.

DATA SUBJECT TO CHANGE WITHOUT NOTICE

NEC Corporation
Sales and Marketing Department, Fiber Optic Devices Division
(Shin Tamachi Building) 34-6, Shiba 5-chome, Minato-ku,
Tokyo 108-0014, Japan
Tel: +81-3-3798-5864 Fax: +81-3-3798-5857

<http://www.sw.nec.co.jp/on/dd/en/>

EWV-19-0191-03E, Jun., 2009
Copyright © 2009 NEC Corporation

NEC Electronics (Europe) GmbH
Sales and marketing of semiconductors across Europe
Arcadiastrasse 10, D-40472 Dusseldorf, Germany
Tel: +49-211-6503-0 FAX: +49-211-6503-1344

NEC Corporation of America (USA & Canada)
FiberOptech Division
Mail Stop# NC1000
2880 Scott Blvd, Santa Clara, CA 95050, U.S.A.
Tel: +1-408-844-1082 Fax: +1-408-844-1090

NEC