

OKI Electronic Components**FEDFOAT1523-OLT-01**

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OAT1523S-OLT-B**Broad band-PON Optical Module****APPLICATION**

- Optical transceiver for Broad band-PON application (ITU-T Rec. G.983.3)

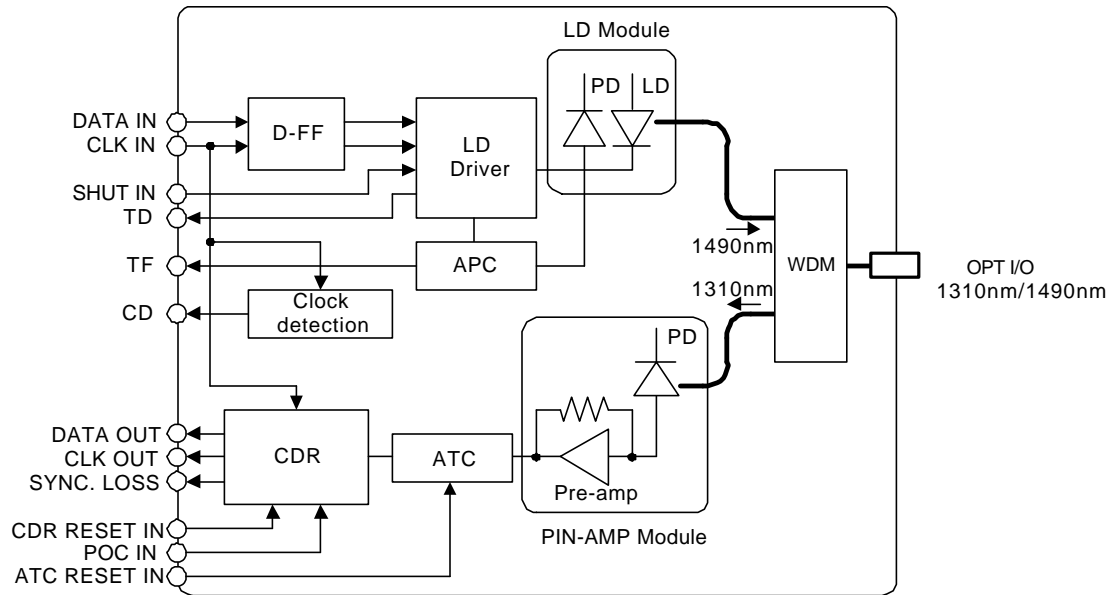
FEATURES

- 1-fiber bi-directional transmission by incorporated WDM
- Burst signal transmission
- +3.3V single power supply

SPECIFICATION

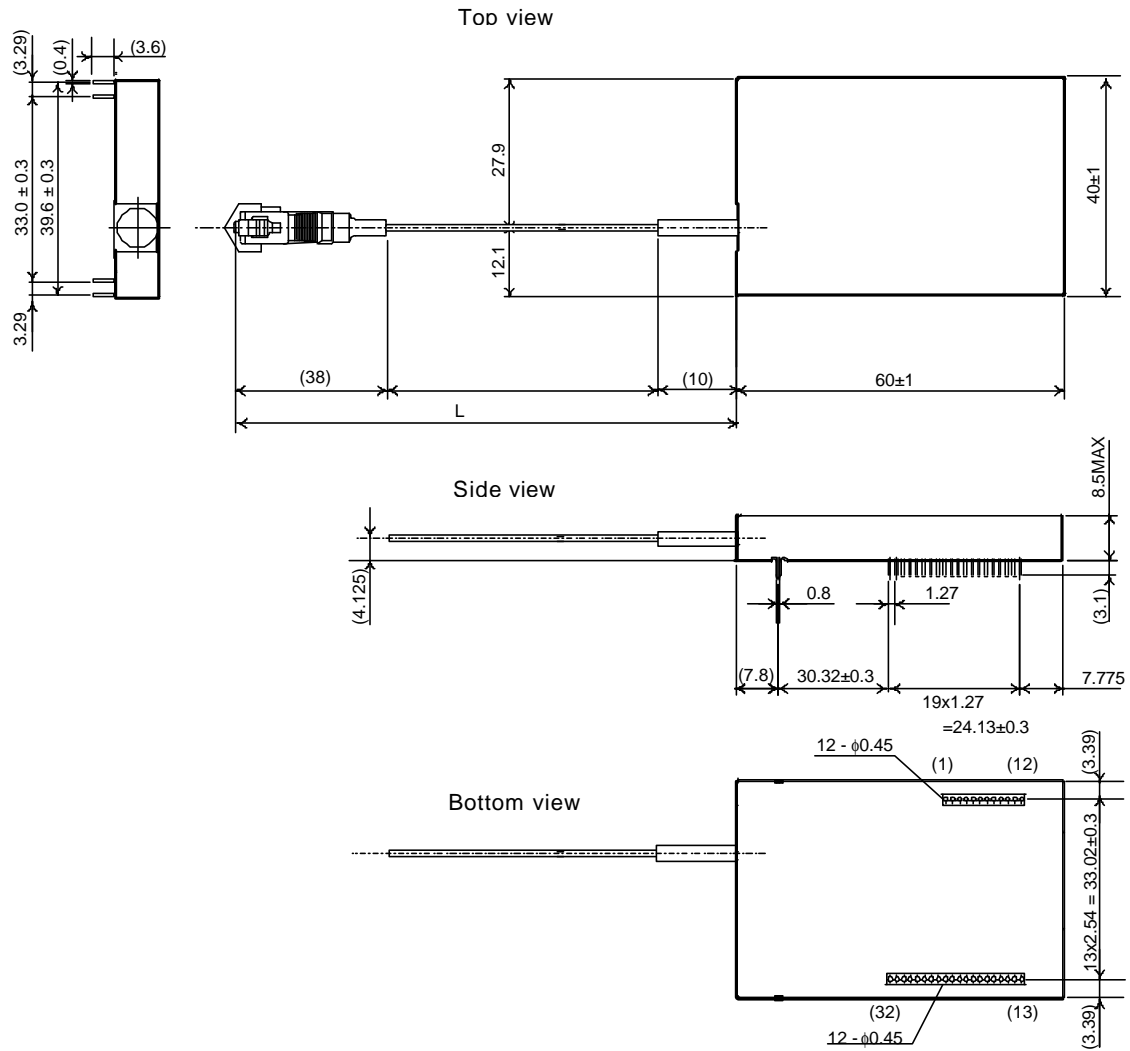
Parameter	Unit	OAT1523S-OLT-B
ITU-T Rec. G983.3		ClassB
Bit rate	Mb/s	155.52
Transmission distance	km	≤ 20
Transmission mode		Tx: continuous, Rx: burst
Optical wavelength	nm	TX: 1480 to 1500 Rx: 1260 to 1360
Maximum reflectance of equipment, measured at transmitter wavelength	dB	-
Mean launched power range	dBm	-1 to +2
Minimum extinction ratio	dB	≥ 10
Tolerance to the transmitter incident light power	dB	≥ -15
Launched optical power w/o input to the transmitter	dBm	-
Maximum spectral width	nm	≤ 1 (@ -20 dB)
Side mode suppression ratio	dB	≥ 30
Maximum reflectance of equipment, measured at receiver wavelength	dB	≤ -20
Received optical power [BER = 10 ⁻¹⁰]	dBm	-33 to -8
Consecutive identical digit immunity	bit	≥ 72
Tolerance to the reflected optical power	dB	≤ 10
Power consumption	W	1.2
Laser diode		1.49 μm DFB-LD
Photo diode		PIN-PD
Operating temperature	°C	0 to 70
Dimension	mm	40 x60 x 8.5

BLOCK DIAGRAM



PACKAGE OUTLINE

(Unit: mm)



PIN DESCRIPTIONS

No.	Symbol	Functionality
01	SVcc	Transmitter power supply (SVcc = +3.3 V)
02	GND	Ground
03	SDATAP	Positive data input <LVPECL>
04	SDATAN	Negative data input <LVPECL>
05	SCLKP	Positive clock input <LVPECL>
06	SCLKN	Negative clock input <LVPECL>
07	GND	Ground
08	SHUT	Optical output shut down <LVTTTL>
09	CD	Clock down alarm <LVTTTL>
10	TD	Transmitter degraded alarm <LVTTTL>
11	TF	Transmitter failure alarm <LVTTTL>
12	GND	Ground
13	GND	Ground
14	ALM	Sync. out alarm <LVTTTL>
15	GND	Ground
16	POC	Power on clear <LVTTTL>
17	BRSP	Positive CDR reset <LVPECL>
18	BRSN	Negative CDR reset <LVPECL>
19	GND	Ground
20	RCLKP	Positive clock output <LVPECL>
21	RCLKN	Negative clock output <LVPECL>
22	GND	Ground
23	RDATAP	Positive data output <LVPECL>
24	RDATAN	Negative data output <LVPECL>
25	GND	Ground
26	BVcc	Power supply for CDR (BVcc = +3.3 V)
27	GND	Ground
28	GND	Ground
29	RSN	Negative ATC reset <LVPECL>
30	RSP	Positive ATC reset <LVPECL>
31	GND	Ground
32	RVcc	Power supply for ATC (RVcc = +3.3 V)

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9. **Qualification and Reliability**
To help ensure high product reliability and customer satisfaction, OKI is committed to an intensive quality program that starts in the design phase and proceeds through the manufacturing process. Optical transceiver modules are qualified to OKI internal standards using MIL-STD-883 test methods and procedures and using sample techniques consistent with Telcordia requirements. This qualification program fully meets the intent of Telcordia reliability practices GR-468-CORE.
10. **Laser Safety**
All version of transceiver are Class 1 Laser products FDA complies with 21 CFR 1040.10 and 1040.11 requirements.
Also, all versions are Class 1 Laser products pre IEC 825-1.