

APPLICATION

- Optical transmitter/receiver for 2.4888Gb/s (STM-16/OC-48)

FEATURES

- STM-16/OC-48 compatible
- CDR function
- +3.3 V single power supply

SPECIFICATION**[Transmitter]**

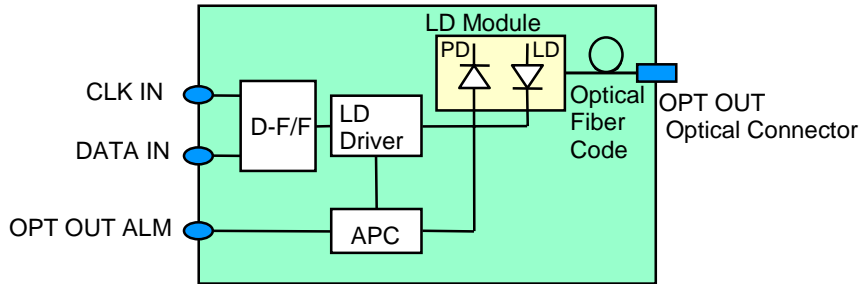
	OAS2531-LV	OAS2532-LV	OAS2536-LV	OAS2537-LV
Bit rate (Mb/s)	2488.32			
Optical wavelength (nm)	1266 to 1360	1260 to 1360	1280 to 1335	1500 to 1580
Optical output power (dBm)	-10 to -3	-5 to 0	-2 to +3	-2 to +3
RMS spectral width (nm)	≤ 4	—		
Spectral width [20dB down] (nm)	—	≤ 1		
Side mode suppression ratio (dB)	—	≥ 30		
Extinction ratio (dB)	≥ 8.2	≥ 8.2		
Power consumption (W)	0.6	0.7	0.8	
Laser diode	FP-LD	DFB-LD		
Operating temperature (°C)	-20 to 85			
Dimension (mm)	25 × 55 × 12.5			

[Receiver]

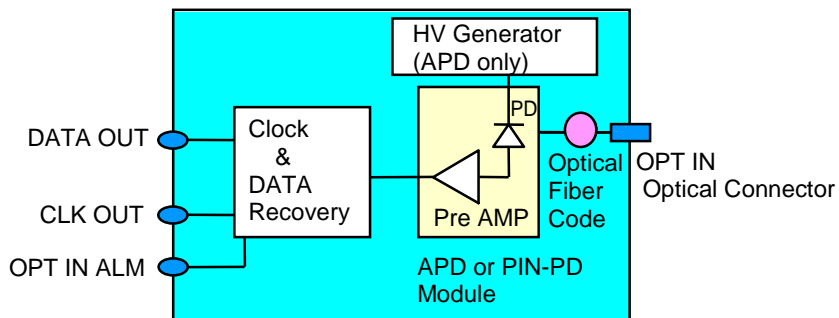
	OAR2531-LV	OAR2535-LV
Bit rate (Mb/s)	2488.32	
Optical input power [EBR = 10 ⁻¹⁰] (dBm)	-18 to 0	-28 to -9
Power consumption (W)	0.7	0.9
Photo diode	PIN-PD	APD
Operating temperature (°C)	-20 to 85	
Dimension (mm)	30 × 70 × 11.1	

BLOCK DIAGRAM

[Transmitter]



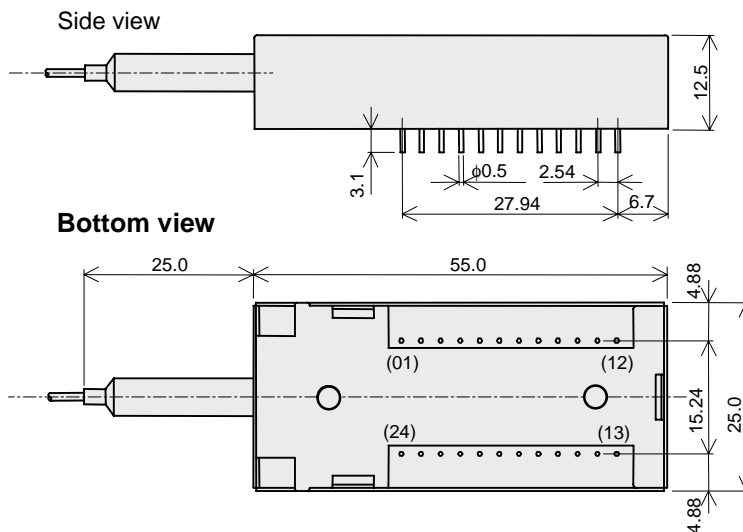
[Receiver]



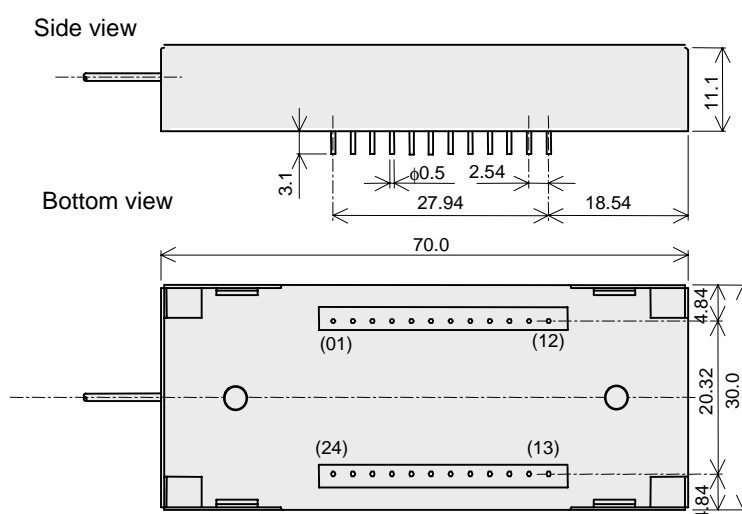
PACKAGE OUTLINE

(Unit: mm)

[Transmitter]



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[Receiver]

PIN DESCRIPTIONS
[Transmitter]

No.	Symbol	Functionality
01	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
02	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
03	LBFM (+)	Laser back face monitor (+)
04	LBFM (-)	Laser back face monitor (-)
05	$\overline{\text{DATA}}$	Negative data input (LVPECL)
06	NC	No user connection
07	DATA	Positive data input (LVPECL)
08	NC	No user connection
09	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
10	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
11	GND	Ground
12	GND	Ground
13	GND	Ground
14	GND	Ground
15	TD	Laser bias alarm output (LVTTTL/LVCMOS)
16	LS	Transmitter disable input (LVTTTL/LVCMOS)
17	Latch	Select latched or non latched data with clock (LVTTTL/LVCMOS)
18	CLK	Positive clock input (LVPECL)
19	NC	No user connection
20	$\overline{\text{CLK}}$	Negative clock input (LVPECL)
21	LBCM (-)	Laser bias current monitor (-)
22	LBCM (+)	Laser bias current monitor (+)
23	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
24	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)

[Receiver]

No.	Symbol	Functionality
01	NC	No user connection
02	GND	Ground
03	NC	No user connection
04	GND	Ground
05	$\overline{\text{DATA}}$	Negative data output (CML)
06	DATA	Positive data output (CML)
07	GND	Ground
08	GND	Ground
09	$\overline{\text{CLK}}$	Negative clock output (CML)
10	CLK	Positive clock output (CML)
11	GND	Ground
12	GND	Ground
13	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
14	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
15	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
16	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
17	GND	Ground
18	GND	Ground
19	GND	Ground
20	GND	Ground
21	LOS	Positive Loss of signal alarm output (LVTTTL/LVCMOS)
22	$\overline{\text{LOS}}$	Negative Loss of signal alarm output (LVTTTL/LVCMOS)
23	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)
24	V_{CC}	Power supply ($V_{CC} = +3.3\text{ V}$)

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