

APPLICATION

- OC-192 and STM-64 SERDES Transceiver Module for SR-1(2km)

FEATURES

- Transmission Distance 2km
- Wavelength 1310nm
- Dispersion Penalty <1dB(@6.6ps/nm)
- Minimum sensitivity -11dBm
- 1:16 DeMUX with LVDS differential 622Mbps data outputs
- 16:1 MUX with LVDS differential 622Mbps data inputs
- TX/RX Loss of Lock
- Compact size 2.2x3.0x0.6(inch)
- Supply voltage; +3.3V ,+5V and -5.2V

SPECIFICATION

Parts Number	OAT1041x-V4-z-yy	
Parameter	For SR-1(2km)	Units
Transmitter module		
Pout	-6 to -1	dBm
λ_c	1290 to 1330	nm
Optical output waveform	ITU- T G.691 STM-64 Unamplified Mask standard	
Extinction ratio	6	dB
$\Delta\lambda_{20}$	1.0	nm
SMSR	30	dB
Jitter Generation	TBD	
Receiver Module		
Minimum sensitivity	-11	dBm
Minimum overload	-1	dBm
λ_{c_rx}	1290 ~ 1600	nm
Rx Return loss	-14	dB
Jitter Generation, Tolerance and Transfer	TBD	
Optical path		
D_{LRmax}	6.6	ps/nm
System Optical return loss	27	dB
Optical Path Penalty	1	dB

· Power Supply

Parameter	Symbol	Min.	Typ.	Max.	Units	I _{max}
Supply Voltage	V _{dd}	3.13	3.3	3.47	V	0.1 A
	V _{cc}	4.75	5	5.25	V	0.7 A
	V _{ee}	-4.94	-5.2	-5.45	V	0.3 A
Power consumption			5	6	W	

· Operating Temperature(Case temperature)

0 to 65 degC

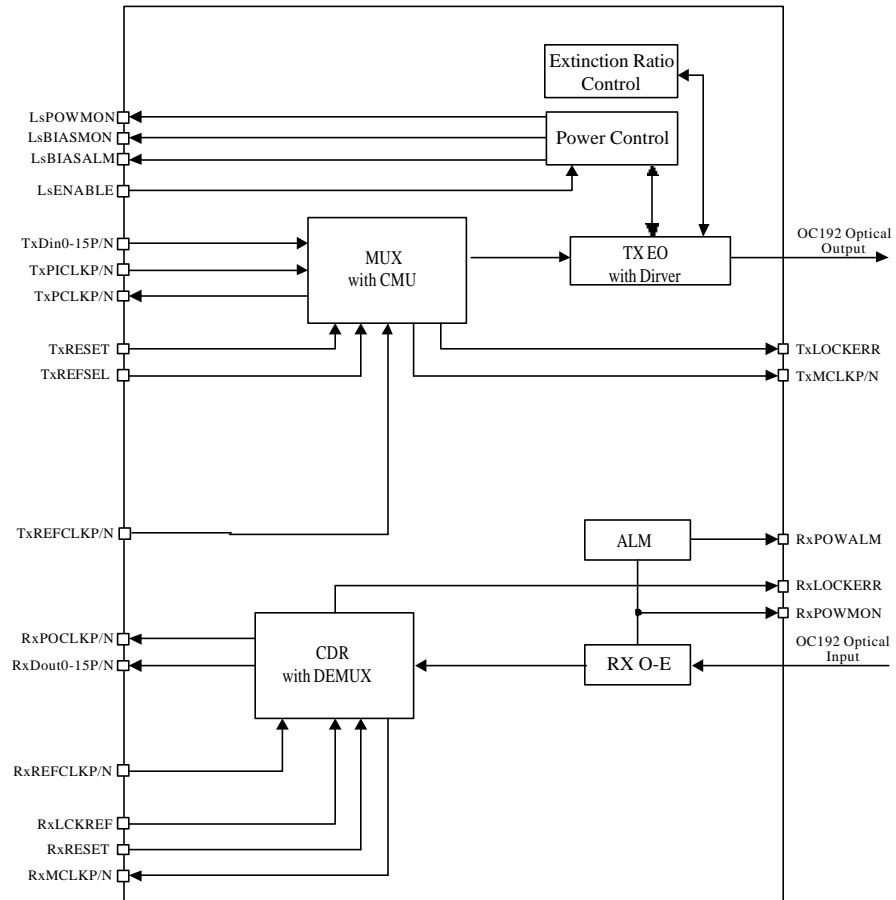
· Dimensions(without heat sink)

	Dimensions	Units
Width	50.8	mm
Length	76.2	
Height	11.5	

· Connector

Optical	Select SC / FC / LC / MU
Electrical	300pin BERG MegArray@84502-10X

BLOCK DIAGRAM



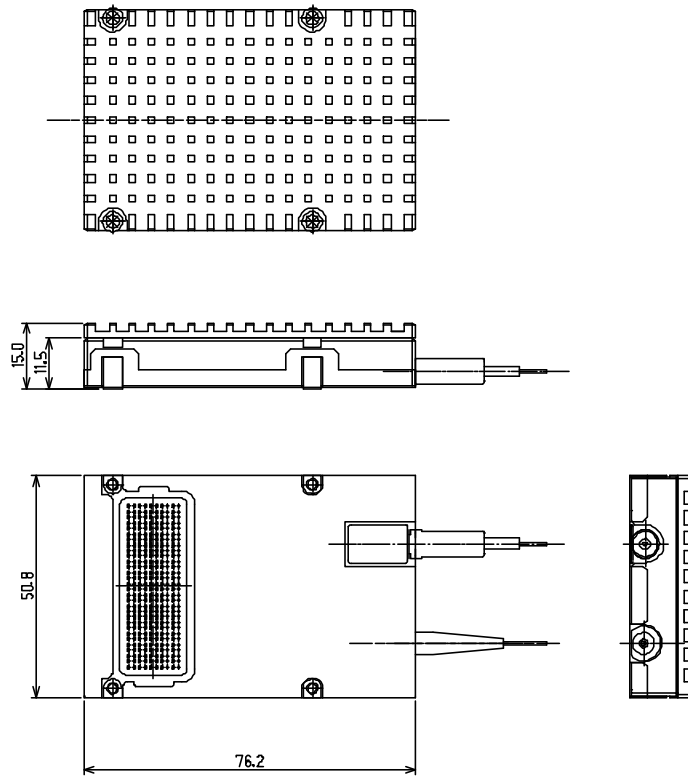
ORDERING INFORMATION

OAT1041x-V4-z-yy

x		z		yy	
optical connector		Bitrate(Gbps)		Fiber Length	
S	SC	A	9.95	10	1m
F	FC	B	10.3	05	0.5m
L	LC	C	9.95/10.3/10.7		
M	MU	D	10.7		

PACKAGE OUTLINE

(Unit: mm)



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2. The outline of action and examples for application circuits described herein have been chosen as an explanation for the standard action and performance of the product. When planning to use the product, please ensure that the external conditions are reflected in the actual circuit, assembly, and program designs.
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4. Oki assumes no responsibility or liability whatsoever for any failure or unusual or unexpected operation resulting from misuse, neglect, improper installation, repair, alteration or accident, improper handling, or unusual physical or electrical stress including, but not limited to, exposure to parameters beyond the specified maximum ratings or operation outside the specified operating range.
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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.