

Preliminary

OC-192 Transponder module Specification Draft by OKI Draft: 0.2
QPS-0302-006

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OC-192/STM-64 SERDES Transceiver Module for LR(80km) OAT1049x-V5-z-yy

1.Features

- Transmission Distance 80km(Dispersion 1600ps/nm)
- Wavelength 1550nm
- Optical Output Power +2 to +6dBm
- Minimum sensitivity <-22dBm
- 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;88.9x114.3x17.5(mm)
- Supply voltage; +1.8V,+3.3V and -5.2V

Modification History

Rev.	Date	Originator	Comment
DRAFT0.1	Apr.28, 2002	T.ITOU	
DRAFT0.2	May.30,2002	T.ITOU	Revision of Block Diagram

2.Specifications

• Optical interface specifications

Parts Number	OAT1049x-V5-z-yy	
Parameter	LR	Units
Transmitter module		
Pout	+2 to +6	dBm
λ_c	1530 to 1565	nm
Optical output waveform	ITU-T G.691 STM-64 Unamplified Mask standard	
Extinction ratio	10	dB
$\Delta\lambda_{20}$	1.0	nm
SMSR	30	dB
Jitter Generation	Compliant with GR-253	
Receiver Module		
Minimum sensitivity	-22	dBm
Minimum overload	-5	dBm
λ_{c_rx}	1290 ~ 1600	nm
Rx Return loss	27	dB
Jitter Generation, Tolerance and Transfer	Compliant with GR-253	
Optical path		
D_{LRmax}	1600	ps/nm
System Optical return loss	24	dB
Optical Path Penalty	2	dB

RXPOWMON Linearity <-9dBm

• Power Supply

Parameter	Symbol	Min.	Typ.	Max.	Units	I _{max}
Supply Voltage	V _{dd1}	3.13	3.3	3.47	V	1.5A
	V _{dd2}	1.71	1.8	1.89	V	1.2A
	V _{ee}	-4.94	-5.2	-5.45	V	0.3A
Power consumption			6	8	W	

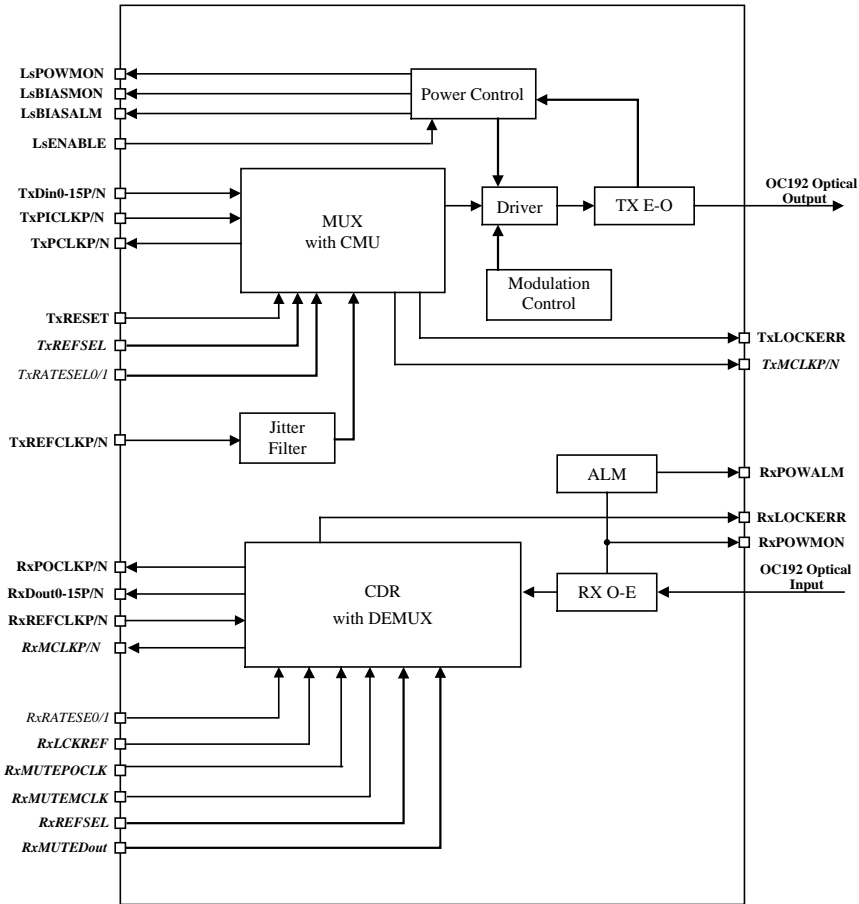
•Operating Temperature(Case temperature)

0 to 65 degC

•Connector

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

3. Block diagram



4. Ordering Information

OAT1049x-V5-z-yy

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

5.Package Outline (Units : mm)

