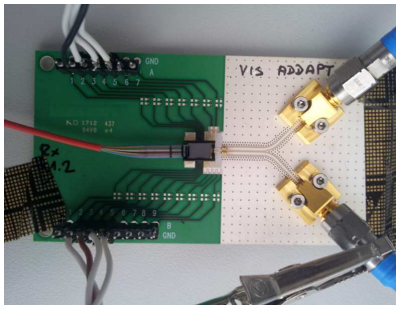
Datasheet

R56-850TB

Vertically Integrated Systems

Up to 56 Gbit/s NRZ
700-870 nm
Single channel optical receiver



Sample image only. Actual product may vary.

Preliminary

Product Description

The R56-850TB optical receiver module utilizes a PIN photodetector and limiting transimpedance amplifier (TIA) assembled onto a high speed adaptor board with differential electrical signal output. The multi mode fiber coupled module with FC/PC connector input is designed for short reach ultrahigh-speed data communication applications of up to 56Gbit/s using NRZ modulation. Each part is electro-optically tested to ensure a maximum performance

Features

· up to 56 Gbit/s data rate
· 50/125 um fiber coupled testboard
· 1.85 mm electrical RF connectors
· FC/PC optical connector

Applications

· CEI-56G-NRZ (XSR/USR/MR/LR)
· Proprietary optical interconnects
· Research and development

Parameter	Typical (PD chips)	Notes
Operating Wavelength	700 ~ 870 nm	
Data rate	up to 56 Gbit/s	NRZ modulation
Rise time (20% to 80%)	~ 6 ps	
Maximum power consumption	280 mW	

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Electro-optical characteristics (at Tcase = 25 °C)

Preliminary

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Wavelength responsivity	λ		700	850	890	nm
Case operating temperature	T_{op}		-10		85	°C
Supply voltage	V_{cc}		3.3		3.4	V
Supply current	I_{cc}		34	45	61	mA
Bandwidth	BW			50		GHz
Low frequency cuttoff					70	kHz
Sensitivity (OMA)	S			-13	-12	dBm
Output resistance	R_o			100		Ω
Optical overload			1.5			dBm
Differential output voltage	V_{out}				280	mV
Duty cycle distortion				1	10	%

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage temperature	T_{St}	-10	+50	°C
Incident optical power	P_{in}		+5	dBm
Power supply voltage	V_P		4.0	V

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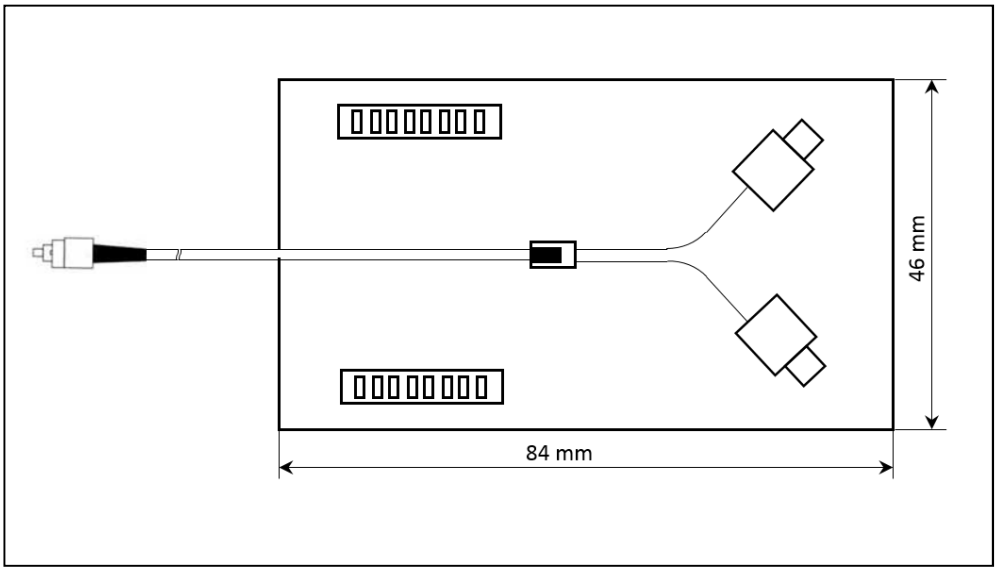
Dimensions



RoHS Compliant

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