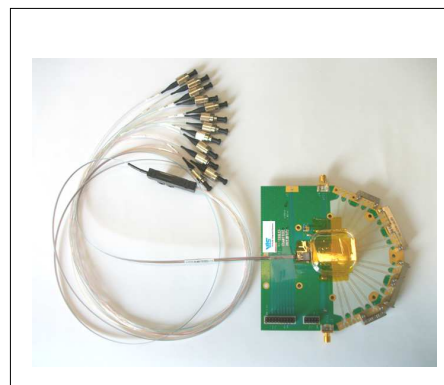


Up to 12 x 25 Gbit/s 700-870 nm High Speed Optical Receiver Testboard

Product Code: **VHXR6212A-840**

300 Gbit/s



Sample image only. Actual product may vary.

Product Description

The VHXR6212A-840 receiver optical subassembly utilizes a 12-channel PIN photodetector chip array and transimpedance amplifier (TIA) integrated on an evaluation board. The multi mode ribbon fiber coupled receiver board is designed for short reach ultrahigh-speed data communication applications of up to 12 x 25 Gbit/s over multi mode fiber.

Preliminary

Features

- up to 12 x 25 Gbit/s data rate
- high speed electrical connector (GPPO)
- ribbon-fiber coupled

Applications

- Infiniband EDR
- Proprietary optical interconnects
- Research and development

Parameter	Typical (PD chips)	Notes
Operating Wavelength	700 ~ 870 nm	
3 dB Bandwidth	22 GHz	
Rise time (20% to 80%)	17 ps	
Maximum input power	4 mW @ 850 nm	

All product specifications and descriptions are subject to change without notice.

Preliminary

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

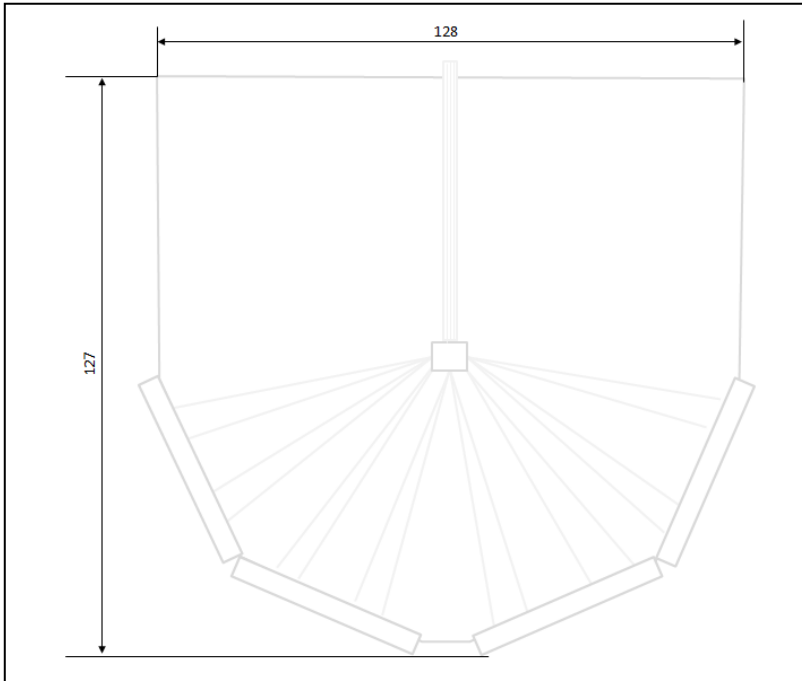
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Wavelength responsivity	λ		790	850	870	nm
Operating temperature	T_{op}	ambient	15		35	°C
Supply voltage	V_{cc}		3.1	3.3	3.5	V
Bandwidth	BW			22		GHz
Low frequency cutoff					150	kHz
Sensitivity (OMA)	S			-10		dBm
Output resistance	R_o	differential		100		Ω
Optical overload			1.5			dBm
Differential output voltage	V_{out}		100		1200	mV
Duty cycle distortion				1	10	%
Rise/Fall time	T_R / T_F			15	17	ps

Absolute Maximum Ratings

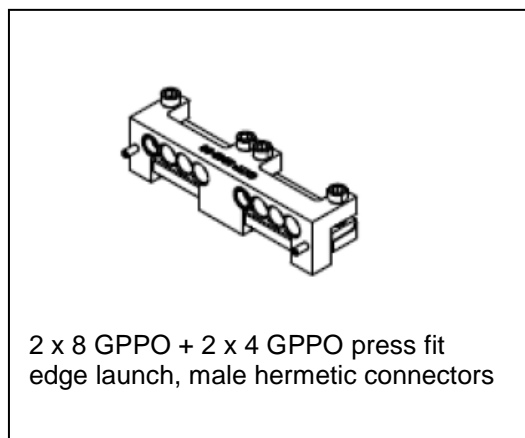
Parameter	Symbol	Min	Max	Unit
Incident optical power	P_{in}		+5	dBm
Power supply voltage	V_p	-0.3	4.0	V
ESD (Human Body Model)			Class 1A	

Preliminary

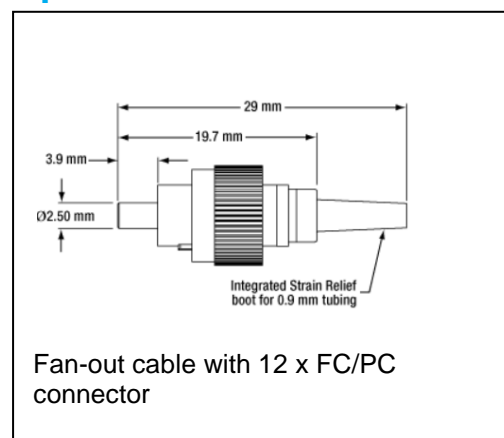
Mechanical drawing (in mm)



Electrical connector



Optical connector



Preliminary

Functional overview

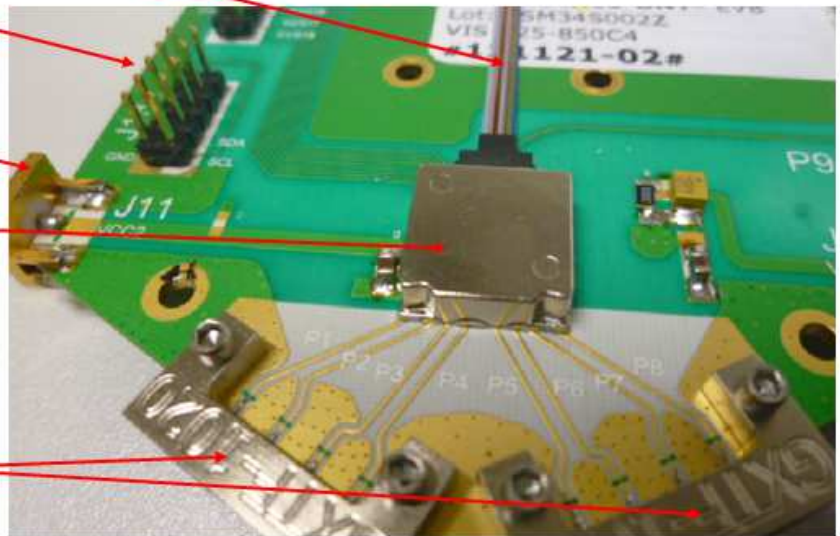
Ribbon fiber with 12-channel fan-out with FC/PC connectors

I²C bus connector

SMA connector for supply voltage

Optical engine

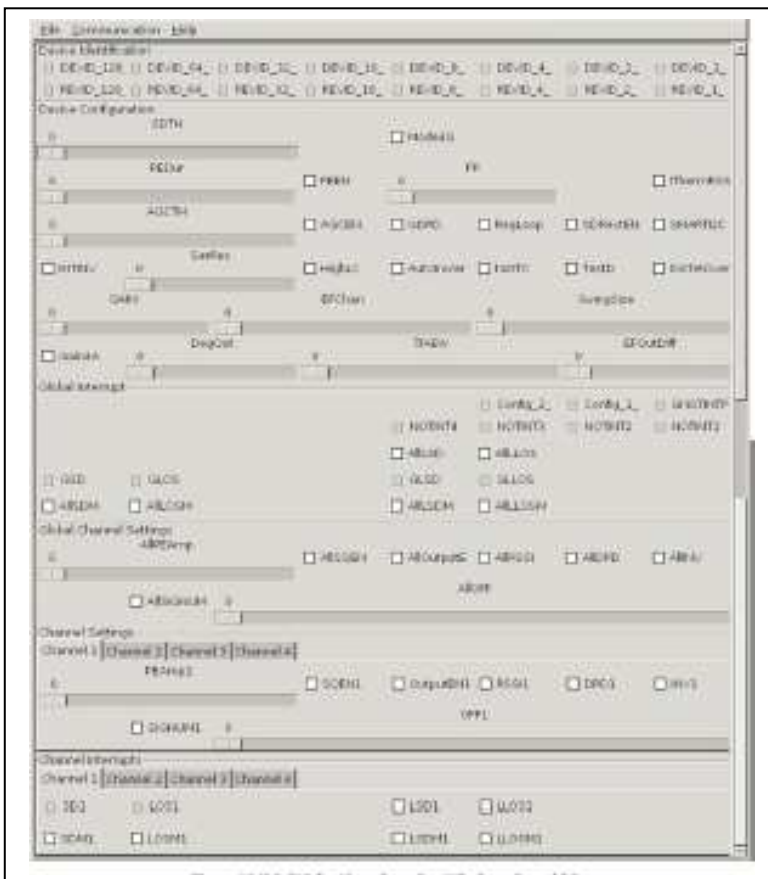
GPPO connector for differential data signal input



USB-to-I²C converter



User interface (Windows based)



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