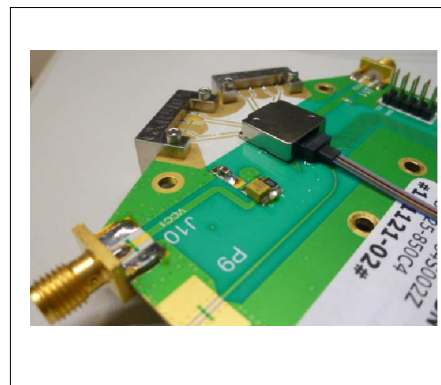


## Up to 4 x 25 Gbit/s 700-870 nm High Speed Optical Receiver

Product Code: VHXR6204A-840

### 100 Gbit/s



Sample image only. Actual product may vary.

### Product Description

The VHXR6204A-840 receiver optical subassembly utilizes a 4-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 4 x 25 Gbit/s. Each part is electro-optically tested to ensure a maximum performance

## Preliminary

### Features

- up to 4 x 25 Gbit/s data rate
- high speed electrical connector (GPPO)
- ribbon-fiber coupled
- low power consumption

### Applications

- 100G Ethernet
- 25G Ethernet
- 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	

## Preliminary

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

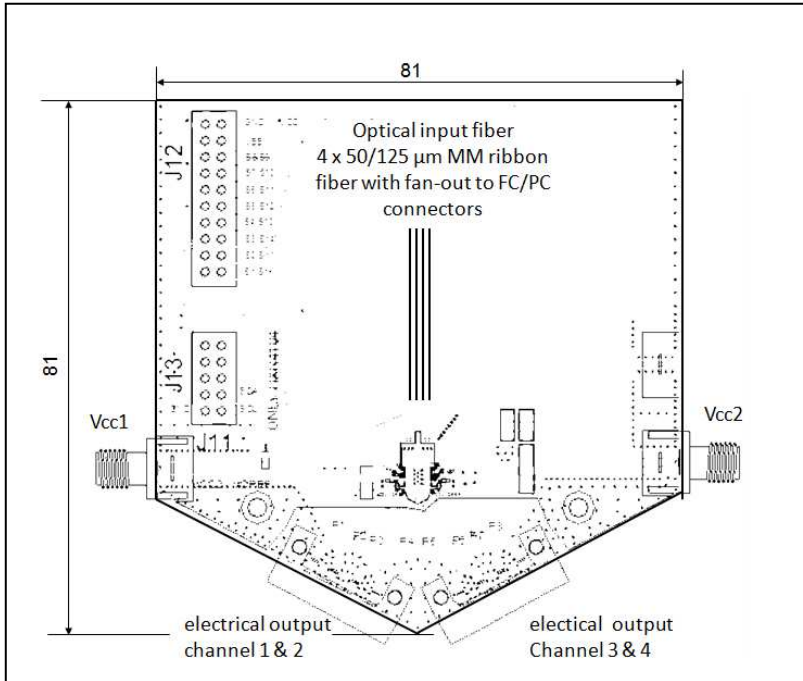
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Wavelength responsivity	$\lambda$		790	850	870	nm
Operating temperature	$T_{op}$	ambient	15		35	°C
Supply voltage	$V_{cc}$		3.1	3.3	3.5	V
Bandwidth	BW			22		GHz
Low frequency cutoff					150	kHz
Sensitivity (OMA)	S			-10		dBm
Output resistance	$R_o$	differential		100		$\Omega$
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	

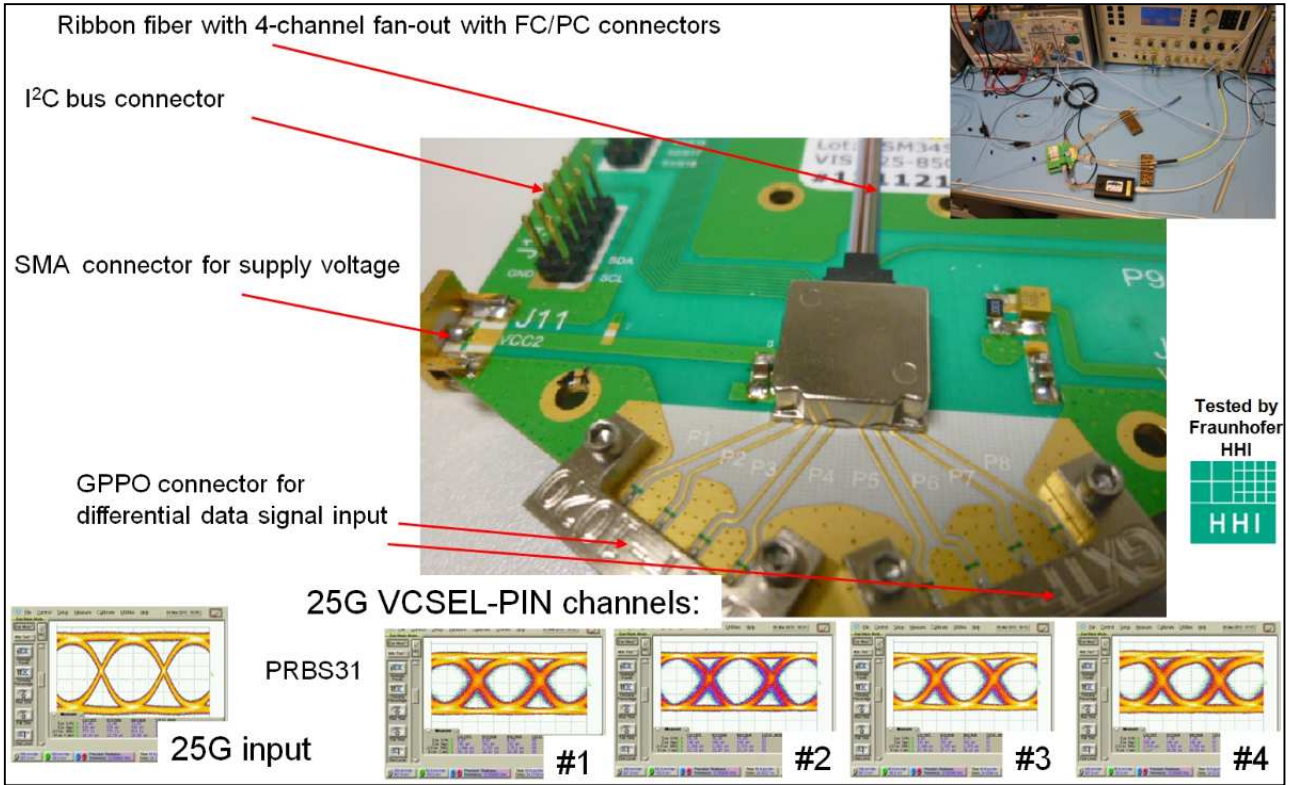
Preliminary

Mechanical drawing (in mm)



Preliminary

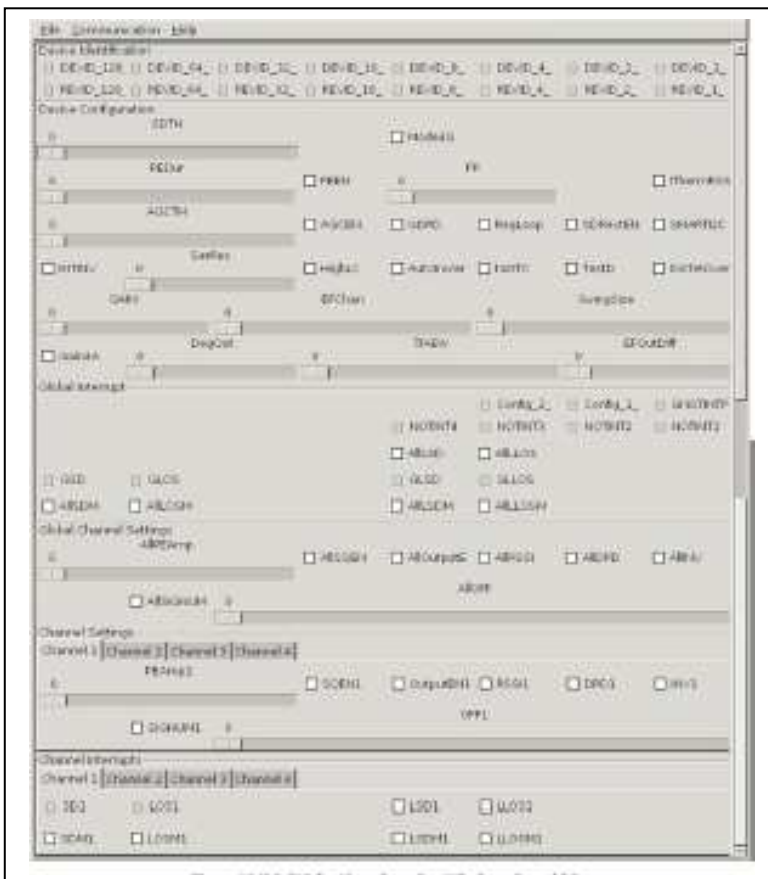
Eye diagram at 25 Gbit/s



## USB-to-I<sup>2</sup>C converter



## User interface (Windows based)



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