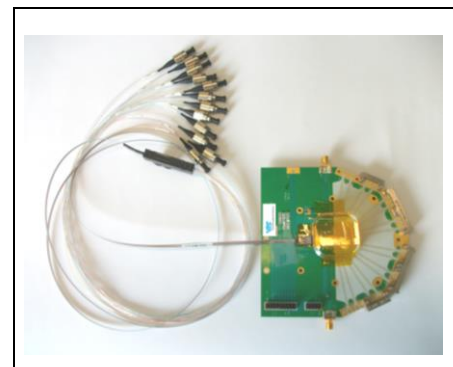


Up to 12 x 28 Gbit/s transmitter testboard (850 nm VCSEL)



Sample image only. Actual product may vary

Product Code: VHXR5212A-840

Preliminary

Product Description

The VHXR5212A-840 transmitter utilizes a 12-channel VCSEL chip array and driver IC integrated on an evaluation board. The multi mode ribbon fiber coupled transmitter board is designed for short reach ultrahigh-speed data communication applications of up to 12 x 28 Gbit/s over multi mode fiber.

Features

- up to 12 x 28 Gbit/s data rate
- high speed electrical connector (GPPO)
- ribbon-fiber coupled with FC/PC fan-out

Applications

- Infiniband EDR
- Proprietary optical interconnects
- Research and development

Parameter	Typical (PD chips)	Notes
Emission Wavelength	850 nm	available from 835 – 865 nm
Optical fiber	50/125um ribbon fiber	
Power dissipation	< 1.9 W	

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

Please contact our sales department for additional information and to receive a quotation: sales@v-i-systems.com

Datasheet

VHXR5212A-840



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

Preliminary

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
VCSEL						
Peak emission wavelength	λ	$P_{out} = 0.5mW$	840	850	860	nm
Operating temperature	T_{op}	ambient	15		35	°C
RMS spectral width	$\Delta\lambda$	$P_{out} = 0.5mW$			0.6	nm
λ_p temperature coefficient	$\Delta\lambda_p$			0.06		nm/°C
Relative intensity noise	RIN				130	dB/Hz
Rise/Fall time	$T_{r/f}$	20-80%		15		psec
Supply voltage	V_{cc}		0.3	3.3	4	V
Input resistance	R_i	differential		100		Ω
Data input differential voltage	V_{DF}	Peak-Peak	0.1		1.2	V

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage temperature	T_{st}	10	40	°C
ESD (Human Body Model)			Class 1	
Power supply voltage	V_p	-0.3	4.0	

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Datasheet

VHXR5212A-840



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Functional overview

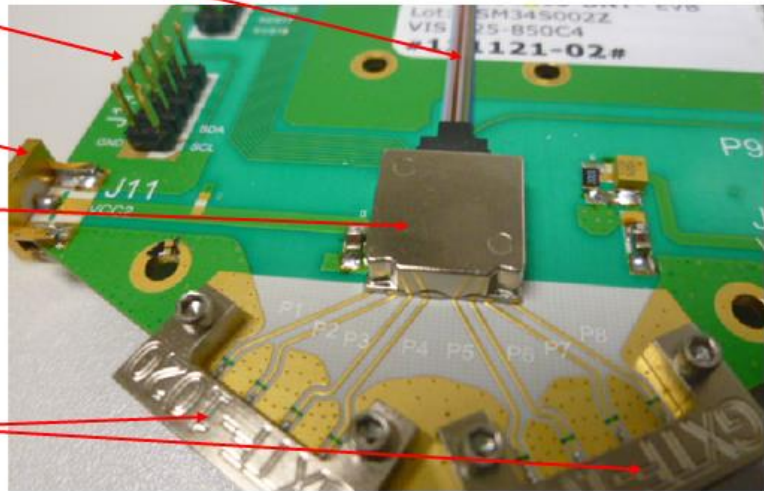
Ribbon fiber with 12-channel fan-out with FC/PC connectors

I²C bus connector

SMA connector for supply voltage

Optical engine

GPPO connector for differential data signal input



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VI Systems GmbH Hardenbergstrasse 7 D-10623 Berlin

No. 140207-Rev 1.8

June 2016

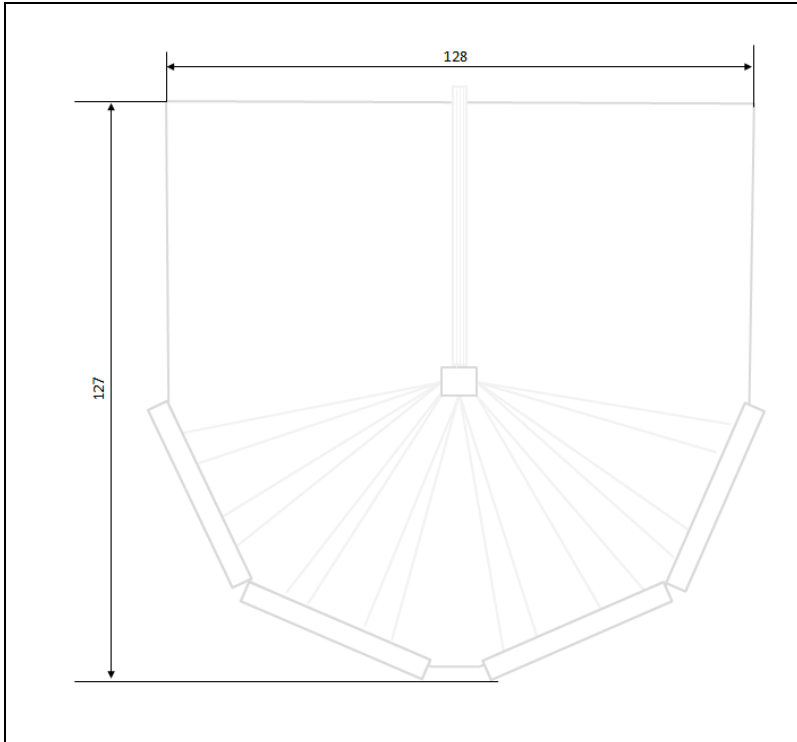
Datasheet

VHXR5212A-840

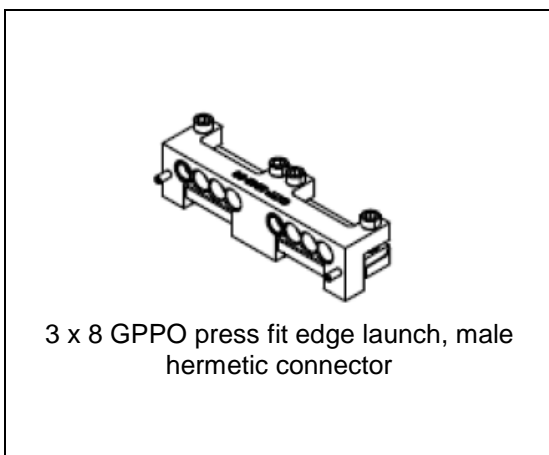


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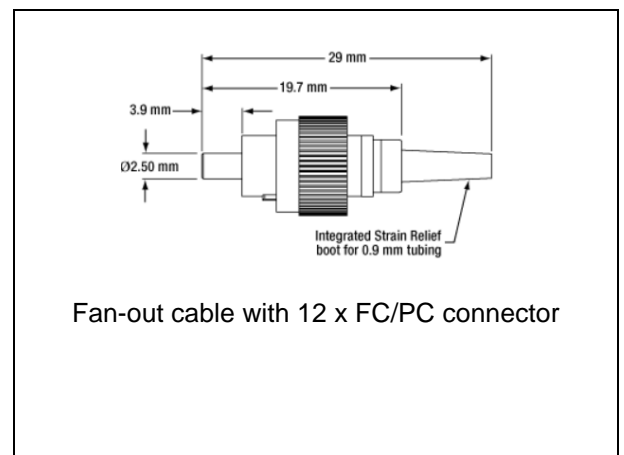
Mechanical drawing (in mm)



Electrical connector



Optical connector



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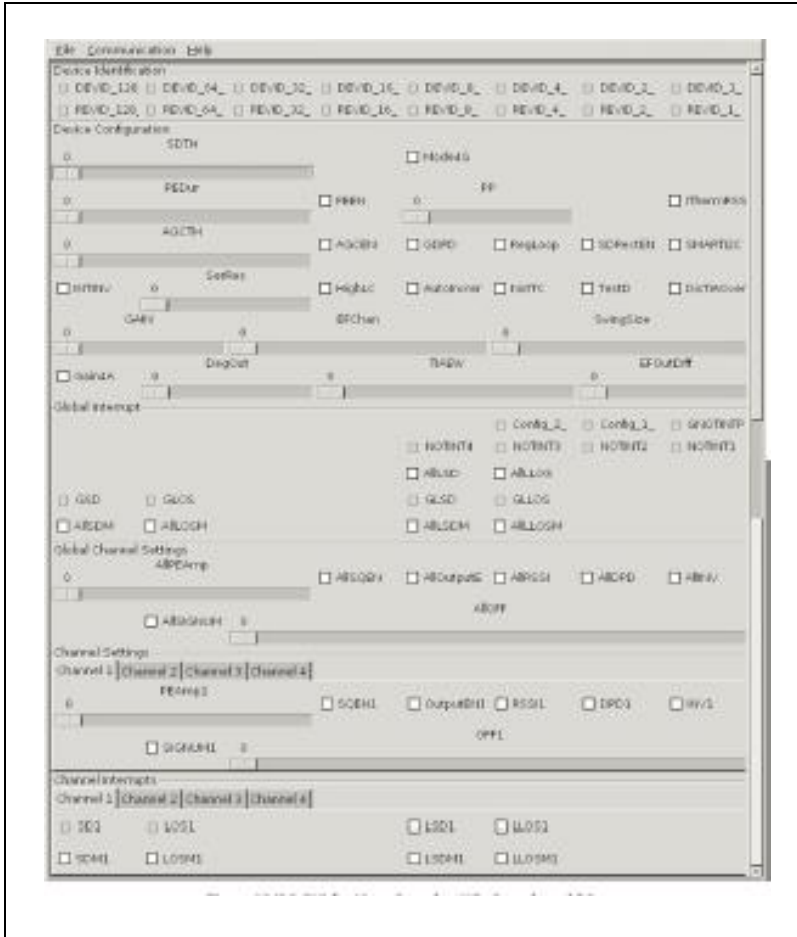
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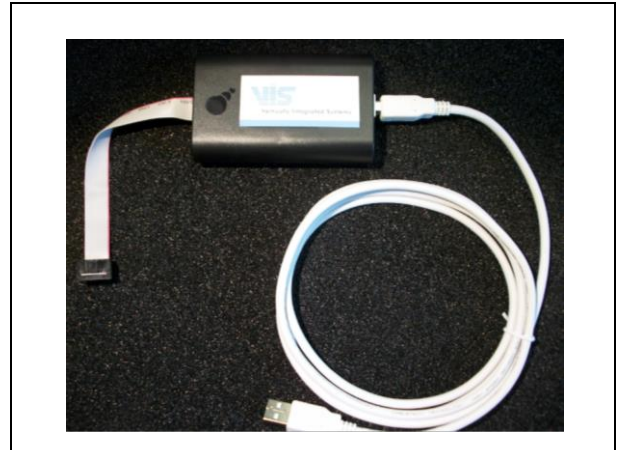


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User interface (Windows based)



USB-to-I²C converter



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