

Ultra High-Speed Photoreceiver with InGaAs-PIN Photodiode



The picture shows the HSPR-X-I-2G-IN-FS with free space input. The photoreceiver will be delivered without post holder and post.

Features	<ul style="list-style-type: none"> • Bandwidth 10 kHz ... 2 GHz • InGaAs-PIN detector • Spectral range 900 ... 1700 nm • Amplifier transimpedance (gain) 5×10^3 V/A (inverting) • Conversion gain 4.75×10^3 V/W @ 1550 nm 																																	
Applications	<ul style="list-style-type: none"> • Spectroscopy • Ultra-fast pulse and transient measurements • Optical triggering • Optical front-end for oscilloscopes and ultra-fast A/D converters 																																	
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Specifications (continued)

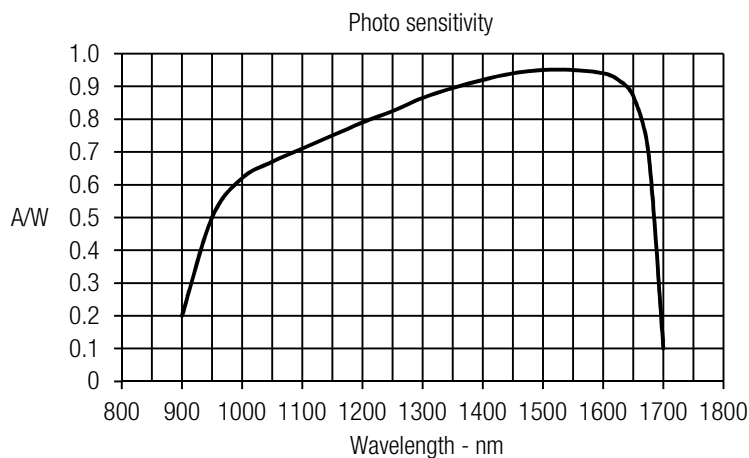
Output	Output impedance 50 Ω (designed for 50 Ω load) Output VSWR 1.4 : 1 (@ f < 2.5 GHz) Output return loss 15.5 dB (@ f < 2.5 GHz) Max. output voltage 2.0 V _{PP} (@ 50 Ω load, for linear amplification) Output noise typ. 2.5 mV _{RMS} or 17 mV _{PP} * (measurement BW: 4 GHz)
Power Supply	Supply voltage +15 V, 150 mA typ. (depends on operating conditions, recommended power supply capability minimum 200 mA)
Case	Weight 100 g (0.23 lbs) Material AlMg4.5Mn, nickel-plated
Temperature Range	Storage temperature -40 ... +100 °C Operating temperature 0 ... +60 °C

* The peak-to-peak output noise is derived from the RMS noise as follows: $V_{PP} = V_{RMS} \times 6.6$ (99.9% of the time the output noise voltage will be within the specified peak-to-peak value.)

Absolute Maximum Ratings

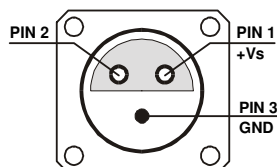
Power supply voltage	±18.5 V
Optical input power	12 mW (averaged)

Spectral Response



Connectors

Input	HSPR-X-I-2G-IN-FS 25 mm round flange for free space applications HSPR-X-I-2G-IN-FC FC fiber optic receptacle
Output	SMA jack (female)
Power supply	Lemo® series 1S, 3-pin fixed socket (mating plug type: FFA.1S.303.CLAC52) Pin 1: +15 V Pin 2: NC Pin 3: GND



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with InGaAs-PIN Photodiode**

Available Models	HSPR-X-I-2G-IN-FS HSPR-X-I-2G-IN-FC HSPR-X-S	free space input fiber optic receptacle customized versions available on request
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Dimensions	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>HSPR-X-I-2G-IN-FS</p> </div> <div style="text-align: center;"> <p>HSPR-X-I-2G-IN-FC</p> </div> </div> <p style="text-align: right; margin-top: 10px;">All measures in mm unless otherwise noted.</p>	
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FEMTO Messtechnik GmbH
 Klosterstr. 64
 10179 Berlin · Germany
 Phone: +49 30 280 4711-0
 Fax: +49 30 280 4711-11
 Email: info@femto.de
 www.femto.de

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