

High Sensitivity Fast PIN Photodetector Series FPD310



For experiments requiring high bandwidths and extremely short rise times choose the Menlo Systems FPD310 photoreceiver. An easy-to-use InGaAs-PIN photodiode package with integrated high gain, low noise RF amplifier. It offers a well-balanced combination of gain, bandwidth and low noise.

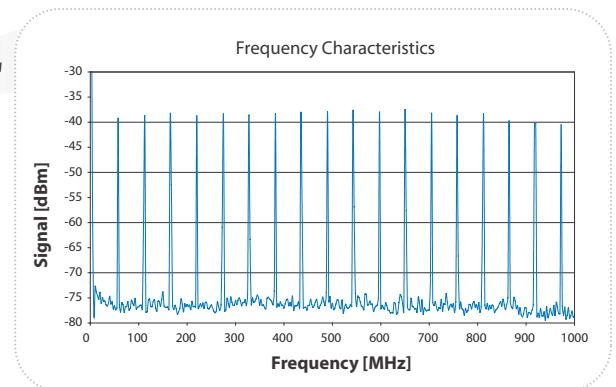
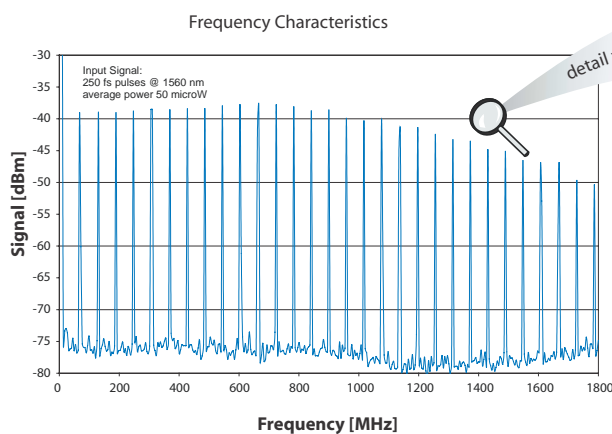
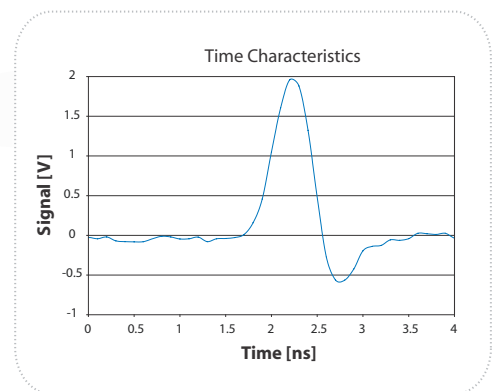
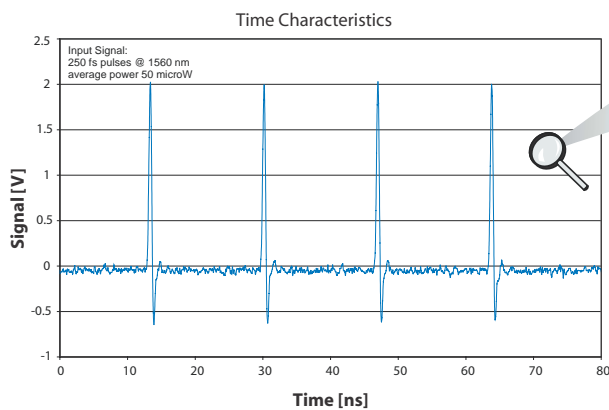
Features

- 1-dB-bandwidth at 1 GHz
- Ultrafast response (1 MHz-1.8 GHz)
- OEM package with FC/APC pigtail (SMF 28)
- Spectral range of 850 nm-1650 nm
- Two gain settings

Applications

- Detection of fast laser pulses in the near IR
- Detection of fiber coupled low light level signals
- OEM integration

FPD310: Pulse response of a femtosecond pulse train at 1560 nm



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TECHNICAL SPECIFICATIONS			
	FPD310	FPD310-F	FPD310-FV
Optical Input	Fiber *	Freespace	Freespace
Supply Voltage	+8 to +20 V	+8 to +20 V	+8 to +20 V
Current Consumption	250 mA	250 mA	250 mA
Max. Incident Power	2 mW	2 mW	2 mW
Operating Temperature	10-40 °C	10-40 °C	10-40 °C
Spectral Range **	850-1650 nm	850-1650 nm	400-1000 nm
Detector Diameter	-/-	0.04 mm	0.4 mm
Frequency Range	1 MHz-1800 MHz	1 MHz-1800 MHz	1 MHz-1500 MHz
3dB Bandwidth	10-1000 MHz	10-1000 MHz	10-900 MHz
Rise Time	0.5 ns	0.5 ns	0.7 ns
Gain setting 1 ***	5×10^4 V/W	5×10^4 V/W	5×10^4 V/W
Gain setting 2 ***	5×10^2 V/W	5×10^2 V/W	5×10^2 V/W
Dark State Noise Level	-90 dBm	-90 dBm	-90 dBm
NEP (calculated)	15.7 pW/√Hz	16.6 pW/√Hz	30 pW/√Hz
Output Connector	SMA	SMA	SMA
Output Impedance	50 T	50 T	50 T
Device Dimensions	60x50x27 mm	60x50x27 mm	60x50x27 mm
Output Coupling	AC	AC	AC

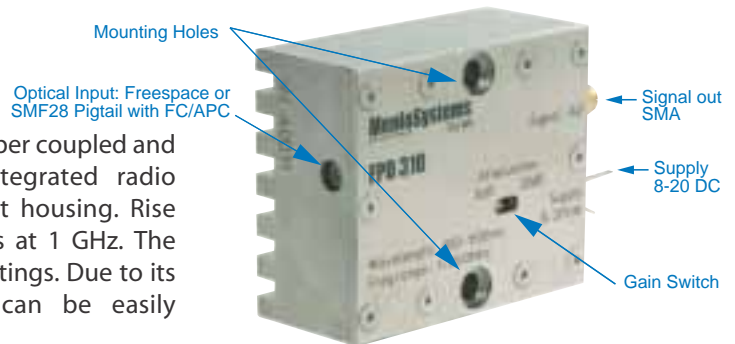
* SMF28 pigtail with FC/APC

** other spectral ranges available on request

*** at 1 GHz, 1500 nm

Mechanical Outline

The FPD310 detectors feature ultrafast fiber coupled and freespace photoreceivers with an integrated radio frequency amplifier all in one compact housing. Rise time is 500 ps, the 1-dB-bandwidth lies at 1 GHz. The user can switch in between two gain settings. Due to its compact housing OEM integration can be easily achieved.



ORDERING INFORMATION

FPD310	Fiber-coupled High Sensitivity PIN Photodiode FPD310 with Integrated RF-amplifier, Wavelength Range 850-1650 nm;	EUR 890
FPD310-F	Freespace High Sensitivity PIN Photodiode FPD310-F with Integrated RF-amplifier, Wavelength Range 850-1650 nm;	EUR 890
FPD310-FV	Freespace High Sensitivity PIN Photodiode FPD310-FV with Integrated RF-amplifier, Wavelength Range 400-1000 nm;	EUR 890

For custom modifications and OEM quantities please call for pricing.

Prices and Specifications are subject to change without notice.

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