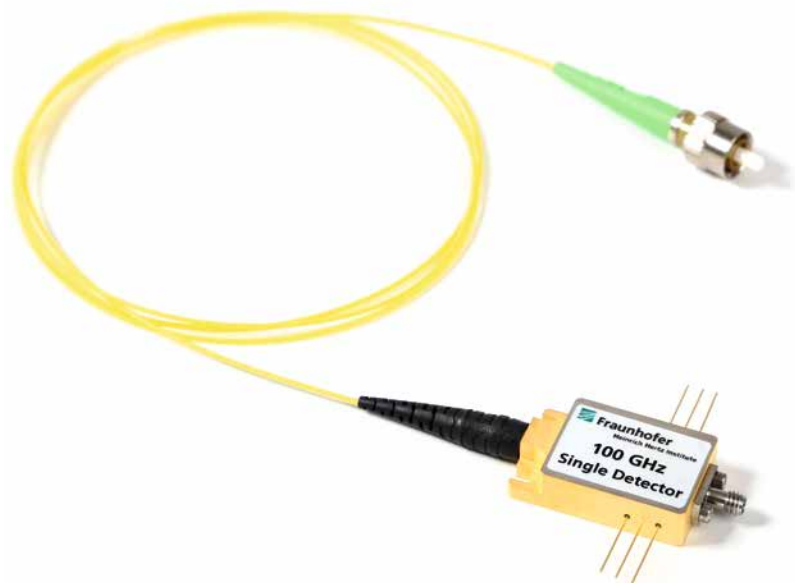


100 GHz PHOTODETECTOR MODULE

AT A GLANCE

- high-speed photodetector module for > 1 T/bs PAM datacom applications



Features

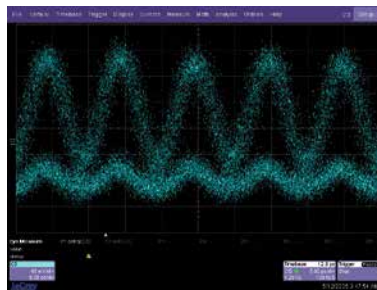
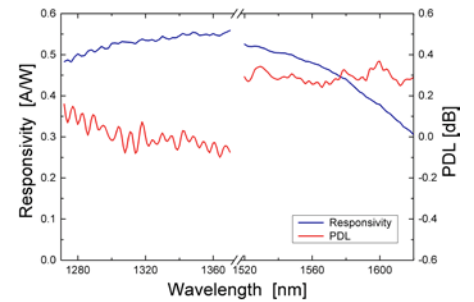
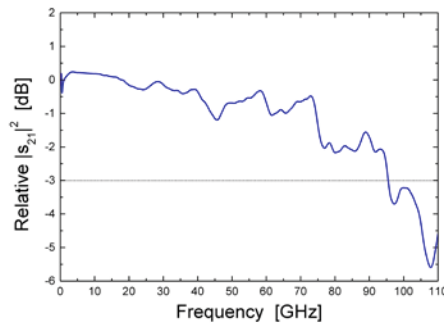
- up to 100 GHz 3 dB-bandwidth
- detection of 128 GBaud amplitude modulated signals
- operation in O-band and C+L-band (optional)
- comprises PD chips with more than 100 GHz bandwidth
- integrated bias network
- low bias operation
- 1 mm RF connector

Applications

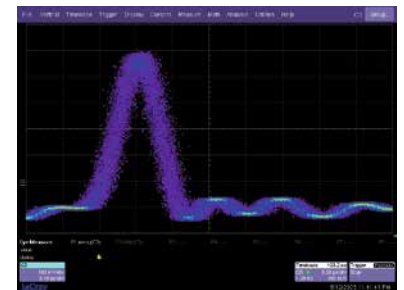
- datacommunication
- test- & measurement systems
- microwave photonics

Technical Specifications

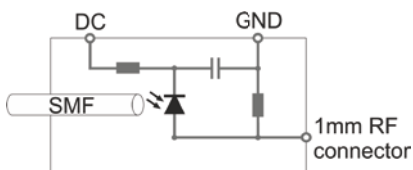
- C+L-band option
wavelength: 1480 nm - 1620 nm
responsivity: 0.5 A/W @ 1550 nm
- O-band & C+L-band option
wavelength: 1270 nm - 1620 nm
responsivity: 0.45 A/W @ 1550 nm
0.5 A/W @ 1310 nm
- PDL: < 0.5 dB
- 3 dB-bandwidth: up to 100 GHz
- optical input power:
up to +15 dBm
- dark current: < 100 nA @ 3V
- bias voltage: +2V
- 1 mm female RF connector
- RF output matched to 50 Ω
- optical input: FC/APC SMF fibre



107 GB/s PRBS sequence



2.4 ps FWHM input pulse



Schematic of Module

The Fraunhofer HHI

The Fraunhofer Heinrich Hertz Institute conducts research in the areas of video compression and processing, 3D systems, wireless communication as well as photonic components and networks.

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