High-speed photodetector module for microwave photonics applications

Features
- up to 65 GHz 3 dB-bandwidth
- single or balanced configuration
- operation in C- and L-band
- integrated bias network
- 1.85 mm RF connector

Applications
- radio-over-fibre
- phased array antennas
- precision frequency generation
- photonic channelizer

Technical Background
High-power photodetector modules are of interest for down-converting optically generated signals in the field of microwave photonics. The photodetector chips inside the modules are based on mature InP technology and are fabricated at the wafer process line of HHI, having Telcordia and space-qualified processes. The modules are also packaged at HHI facilities.
Technical Specifications

- wavelength: 1480 nm - 1620 nm
- 3 dB-bandwidth: up to 65 GHz
- low dark current: < 100 nA @ 3 V
- 1.85 mm female RF connector
- optical input: FC/APC SMF fibre