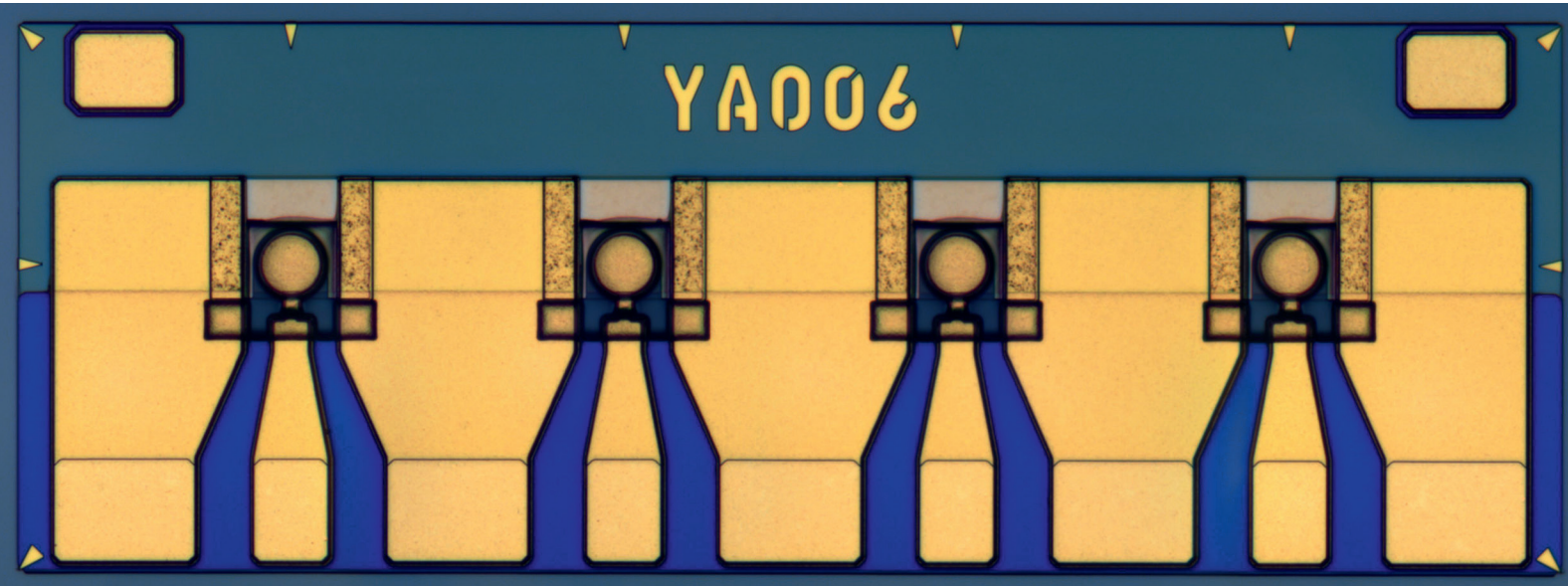


56 GBaud, 32 GBaud AND 28 GBaud SURFACE ILLUMINATED PHOTODIODES



AT A GLANCE

high-speed surface illuminated InGaAs photodiodes for datacom, telecom and sensing applications



Features

- up to 60 GHz 3 dB-bandwidth
- back side or top side illumination
- single diode or array configuration
- lens integration for back side illuminated photodiode (optional)
- integrated bias-T (optional)
- flip chip or wire bonding
- IEEE P802.3bs compliant

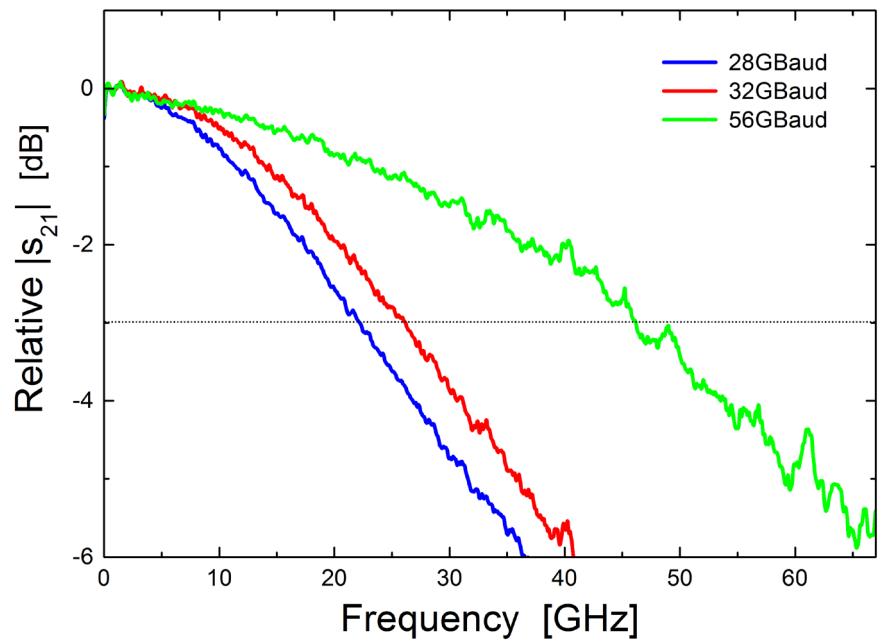
Applications

- datacommunication
- telecommunication
- sensing

Technical Background

High-speed surface-illuminated photodiodes are key components for hybrid-integrated photodetectors in datacom and telecom transceivers. The photodiodes operate at a wavelength of 1310 nm for intra-datacenter links or 1550 nm for inter-datacenter and long-haul optical communication links.

The photodiode chips are based on mature InP technology and are fabricated at the wafer process line of HHI, offering-Telcordia and space-qualified processes. Due to the ability of customising the photodiode chips, customers get the optimal performance for their application.



Technical Specifications

- wavelength: 1060 nm - 1700 nm
- responsivity:
 - 28 GBaud: 0.95 A/W @ 1310 nm
 - 32 GBaud: 0.75 A/W @ 1550 nm
 - 56 GBaud: 0.7 A/W @ 1310 nm
0.55 A/W @ 1550 nm
- low dark current: < 10 nA @ 5V
- IEEE P802.3bs compliant

Customisation

- 3 dB-bandwidth up to 60 GHz
- customised responsivity-bandwidth trade-off
- back side or top side illumination
- single diode or array configuration
- integrated bias-T
- lens integration for back side illuminated photodiode
- flip chip or wire bonding
- customised pitches and pad configurations



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