FLEXIBLE INTERCONNECTS

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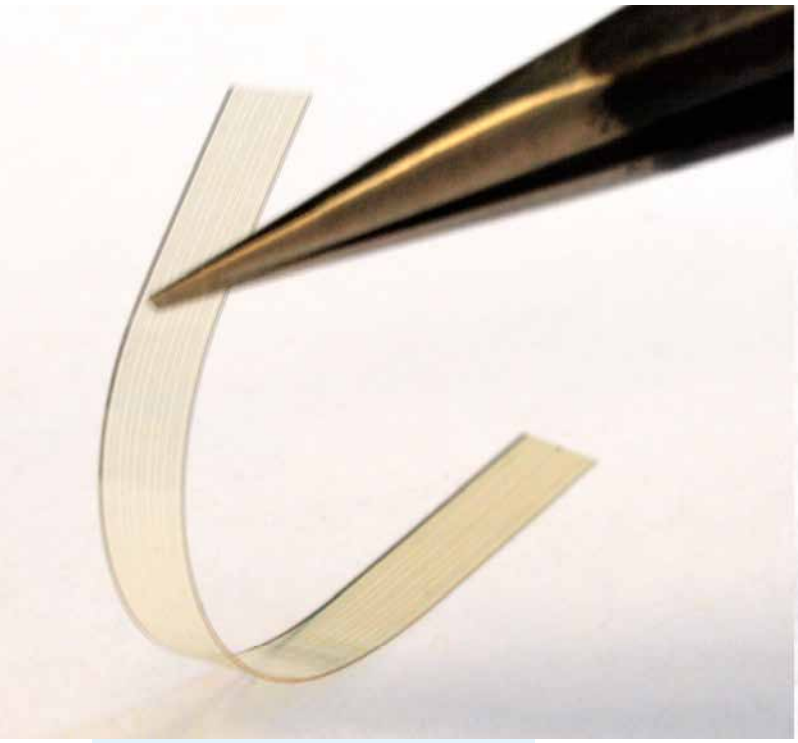

AT A GLANCE

Optical and high-frequency flexible interconnects for optoelectronic packaging and wearables

Features

- Optical single mode waveguides with additive functions
- Electrical coplanar waveguides with bandwidths >100 GHz.
- Customized designs

Applications

- Flexible optical interconnects (chip-to-chip or chip-to-PIC)
- Flexible electrical interconnects (LD-to-driver or PD-to-TIA)
- 3D optoelectronic packaging
- Wearable sensors

Technical Background

Optical FlexLines offer simple and cost-effective solutions for the interconnection of photonic integrated circuits (PICs) from diverse technology platforms featuring customized taper structures for low loss coupling and the integration of optical functions such as AWGs, wavelength filters or polarization handling.

Electrical FlexLines provide an ultra-fast and flexible electrical connection of active optical devices such as laser diodes and photo detectors to their electrical drivers or TIAs exceeding bandwidths >100 GHz.

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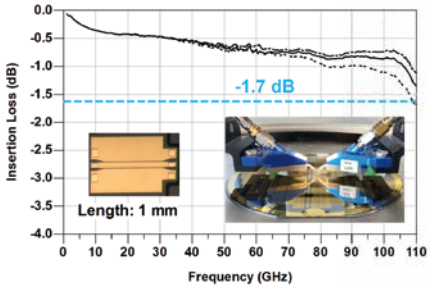
References

- International R&D projects 3PEAT and TERIPHIC (funded by EU commission)
- Innovative Regional Growth Core PolyPhotonics Berlin (funded by BMBF)

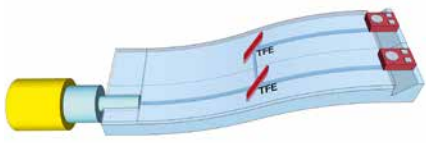
Characteristics

Optical FlexLine: Optical ribbon cable

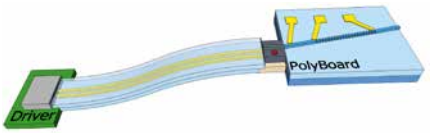


Electrical FlexLine: Bandwidth >100 GHz

Applications



Optical FlexLine as PBS interconnect to SMF



Electrical FlexLine as laser driver interconnect

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