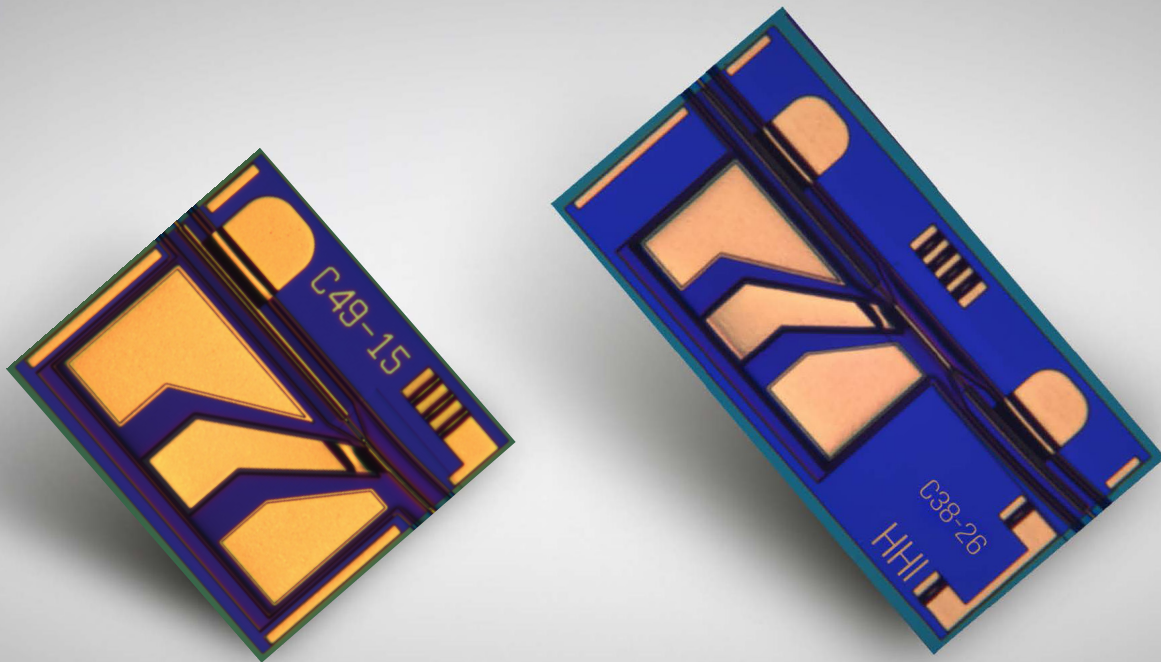


ELECTROABSORPTION-MODULATED LASERS (EML) FOR 100G/400G



AT A GLANCE

High speed InGaAlAs EML transmitter chips for direct detection schemes

Features

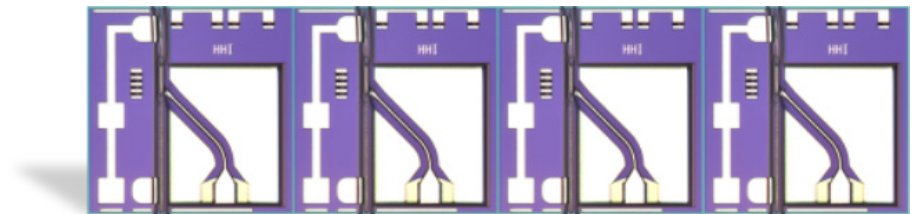
- Wavelengths in O-, C-, L-Band
- Modulation bandwidth > 50 GHz
- Operation up to 100 Gb/s NRZ, 200 Gb/s PAM4
- Small footprint
- Single chips and 4-arrays, 8-arrays
- Monolithically integrated amplifier section as high power option
- Typical operation temperature: 50°C
- Extended operation temperature: 20°C to 85°C
- fully customizable

Applications

- Datacom/Telecom
- Analog photonic transmitter
- CATV

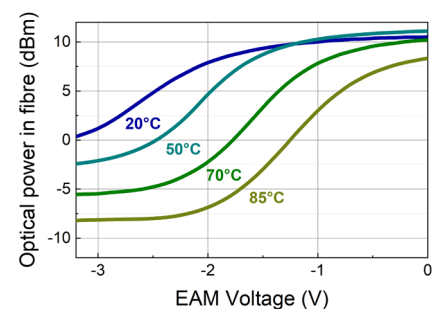
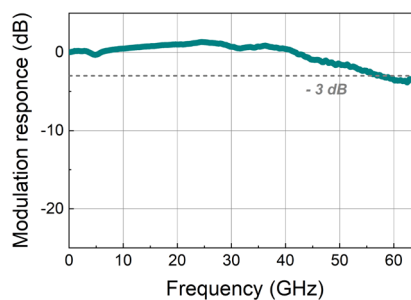
Device variants

- Individual EML with small footprint 360 μm x 250 μm
- EML with integrated semiconductor optical amplifier (SOA)
- N-fold EML-arrays with on-chip RF routing



Typical performance

- > 10 mW facet output power
- > 50 GHz modulation bandwidth @50°C



Dr. Martin Moehrle
 Photonic Components

Phone +49 30 31002 724
 martin.moehrle@hhi.fraunhofer.de

Fraunhofer Heinrich Hertz Institute
 Einsteinufer 37, 10587 Berlin
 Germany

www.hhi.fraunhofer.de/pc

200 Gb/s PAM4 Optical Eyes

