DML Silicon Photonics Technology in Greece

Section II discusses the design and technology of the Si photonic architecture and its operation for the multiplexing and carving of the DML signals. The wavelength locking platform employed for the ...

We optimized the previously reported IMOS layer stack and process flow to increase the DML bandwidth, fabricated and measured static and dynamic characteristics of DFB lasers.

"With a technology portfolio that spans vertical cavity surface-emitting lasers (VCSEL), electro-absorption modulated lasers (EML), directly modulated lasers (DML), and silicon photonics, ...

Silicon photonics is now a well-established technology and market, particularly for ethernet pluggable optical transceivers. In 2022, more than 2.5 million silicon photonics-based pluggable transceivers ...

We developed energy-efficient membrane III-V distributed-reflector lasers on silicon-based substrates for ultrafast short-reach communication links and neuromorphic computing applications.

Here we propose a membrane distributed reflector laser on a low-refractive-index and high-thermal-conductivity silicon carbide substrate that overcomes the modulation bandwidth limit.

The directly-modulated laser (DML) is a cost-effective solution for 10Gbps digital transmission of up to 60 km using traditional intra-city SMF-28 single-mode fiber links.

These technologies can convert ambient mechanical energy into usable power and enable advanced tactile sensing solutions for areas such as robotics, wearable electronics, smart surfaces, and ...

Low-operating-power and novel DML structures; High-temperature operation; Novel materials and fabrication methods; Machine-learning-assisted DML design; WDM and SDM transmitters based on ...

The Silicon Photonics industry in Greece presents a unique landscape shaped by several key considerations. First, the country benefits from a growing emphasis on research and development, ...

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