

A driver integrated modulator module for digital coherent optical communication using an InP modulator chip featuring high speed, low loss, and low drive voltage.

Here, we present a high-speed and efficient on-chip electro-optic modulator based on midinfrared hyperbolic metamaterials using stacking of graphene and hexagonal boron nitride.

Here, the researchers bring acousto-optic devices on-chip and make them more efficient for integrated photonic circuits.

This Integrated Optic Chip (IOC) device is composed of a polarizer, a Y-junction coupler, and dual electro-optic phase modulators. Based on Lithium Niobate (LiNbO₃), M-PY-1550 is fabricated with ...

They include an arbitrary waveform generator (AWG) generating synchronous electrical pulses to drive electric-optical modulators (EOMs) at 1 MHz for the pump light and 2 MHz for the signal light.

Electro-optic modulators (EOMs), serving as indispensable components within photonic integrated circuits, are essential for enabling energy-efficient, high-speed, and high-capacity optical ...

A chip-integrated acousto-optic phase modulator tailored for visible optical wavelengths has been developed. Utilizing the lithium niobate on sapphire platform, the modulator employs a 7 GHz surface ...

Here, the authors demonstrate an ultra-high extinction ratio electro-optical modulator on silicon and its application for DAS.

The evolution of high-speed optical modulators in silicon photonics is crucial for advancing optical communication networks amid growing data demands and expanding data centers.

Here we show the first systematic investigation to incorporate a holistic analysis for high-performance and ultra-compact electro-optic modulators on-chip. We show that intricate interplay ...

Silicon-organic hybrid (SOH) integration platform combines the advantages of silicon photonics and organic materials, providing a high electro-optic effect and compact structure for photonic integrated ...

Realization of efficient acousto-optic modulation on a chip is important for the development of photonic integrated circuits. While thin-film lithium niobate has been considered as ...

This comprehensive review elucidates five principal optical modulation techniques.

Optical Chip Optical Modulator

Highly compact electro-optical modulators have been demonstrated in compound semiconductors. However, in silicon photonics, electro-optical modulation has been demonstrated only in large ...

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