

Broadband circuits for high-speed optical transceivers

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Abstract

High-speed electronic integrated circuits are essential to the development of new fiber-optic communication systems. As a consequence of the increasing speeds and multi-channel operation, close integration and co-design of photonic and electronic devices have become a necessity to realize high-performance sub-systems. New electro-optic transceiver architectures have become possible thanks to the increasing integration of photonics circuits. This presentation will illustrate a number of recent developments of application-specific high-speed electro-optic transceiver circuits including e.g. broadband driver amplifiers, transimpedance amplifiers, analog equalizers and multiplexer circuits for signal generation beyond 100 Gbaud.

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