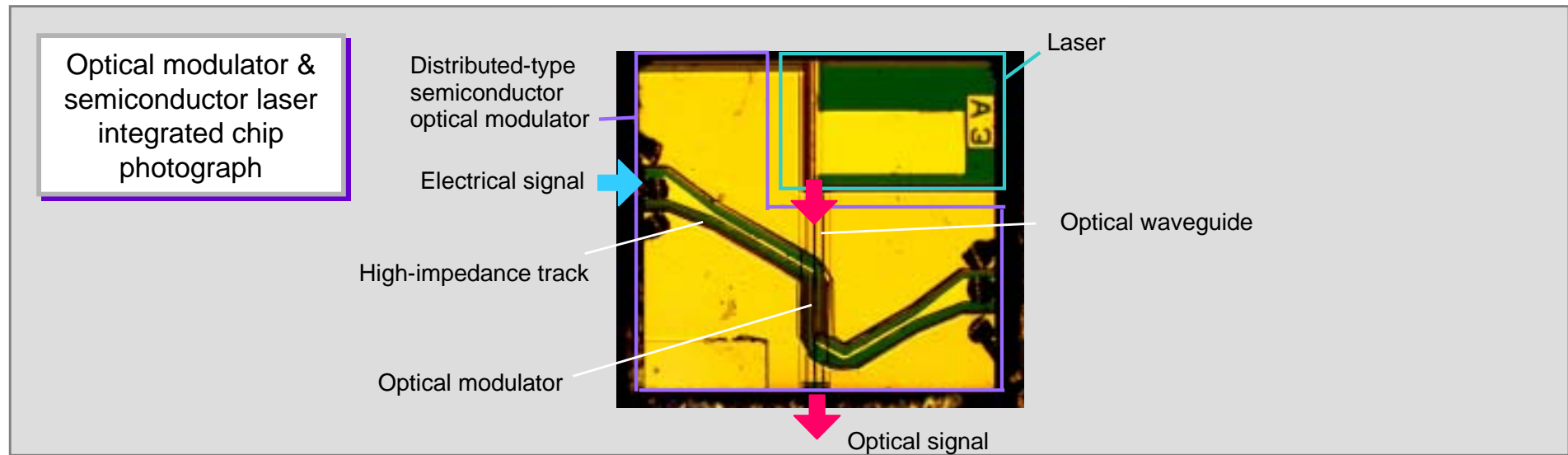


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Development of a 40Gbps optical modulator for next-generation optical metropolitan area networks

- 2km error free transmission achieved for the first time using a compact optical transmitter module -



The Central Research Laboratory of Hitachi, Ltd., has succeeded in the development of a 40 Gigabit/second optical modulator for next-generation optical metropolitan area networks. A compact high-power optical transmitter module can eliminate the need for a bulky optical amplifier, a major component in terms of size and cost. By combining a built-in InP-based HBT driver circuit, 2km error free transmission (transmission without digital code error) was achieved. This achievement will open the way to compact and cost-effective next-generation high-capacity optical networks.