Abstracts

2.24 Gbit/s Direct Modulation of Injection Laser by Monolithic Silicon Multiplexer

B.G. Bosch, U. Langmann and D. Daniel. "2.24 Gbit/s Direct Modulation of Injection Laser by Monolithic Silicon Multiplexer." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 537-539.

It is shown that direct laser-diode pulse-code modulation at 2.24 Gbit/s can be performed by a fast Si monolithic integrated bipolar circuit (2.5 µm design rules, pn-junction isolation, f/sub T/ /spl ap/ 7 GHz at V/sub CE/ = 1 V) : The current switch output stage of a 4:1-time-division multiplexer IC feeds a modulation current swing of 4 mA into a TJS injection laser biased above threshold. The measured laser diode response for different static data input patterns are reported.

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