

Abstracts

A 40-Gbit/s monolithic digital OEIC module composed of uni-traveling-carrier photodiode and InP HEMT decision circuit

I. Murata, H. Kitabayashi, N. Shimizu, S. Kimura, T. Furuta, N. Watanabe and E. Sano. "A 40-Gbit/s monolithic digital OEIC module composed of uni-traveling-carrier photodiode and InP HEMT decision circuit." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. 1 [MWSYM]): 345-348.

The authors describe an optoelectronic decision IC that is a monolithic combination of a uni-traveling-carrier photodiode and $0.1 \mu\text{m}$ InAlAs-InGaAs-InP HEMTs for broadband optical fiber communication systems. The fabricated chip is packaged as an OEIC module, and 40 Gbit/s error-free operation is confirmed for an RZ data stream at the clock rate of 40 GHz for the first time.

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