Abstracts

2.8 Gbit/s Optical Interconnection Circuit Using D8B1C/D8B1M Coding Scheme

Y. Uematsu, K. Murata, Y. Yamabayashi and Y. Kobayashi. "2.8 Gbit/s Optical Interconnection Circuit Using D8B1C/D8B1M Coding Scheme." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1003-1006.

We develop a 2.8 Gbit/s optical interconnection circuit using the D8B1C (Differential 8 Binary 1 Complement insertion) /D8B1M (Differential 8 Binary with 1 Mark insertion) coding scheme for multiplexed channel framing and synchronization and suppressing Direct Current level variation. The circuit multiplexes 16 parallel 156 Mbit/s input signals, and outputs a 2.8 Gbit/s serial signal. The coding scheme, named D8B1C/D8B1M, realizes large capacity interconnections with simple analog circuits, and offers high flexibility for extension to higher capacity interconnections.

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