

“Bit error rate study of a low cost OTDM system based on a coherent source”

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Abstract – A low cost 10 Gb/s optical time-division multiplexing (OTDM) system using DFB laser is exhibited, with a simple way for optical pulse generation. The system channels are successfully demultiplexed, and the bit-error rate (BER) measurement is achieved for the system users, showing an error-free operation. The impact of the interference regime on the BER has been evaluated, and system performances have shown significant improvement compared to OTDM system using an incoherent Amplified Spontaneous Emission (ASE) source.