Abstract

The focus of this paper is to report a detailed investigation of dispersion compensated DWDM system with equal channel spacing incorporating pre-, post- and symmetrical-dispersion compensation techniques (DCF) with different optical pulses. The proposed high speed DWDM system is demonstrated with dispersive standard single-mode fiber (SSMF), which is compensated with proportionate length of DCF fiber under different DCF compensation schemes. Further, a performance comparison of pre-, post- and symmetrical-DCF schemes is reported by computing Q-parameter, and required optical power at receiver sensitivity at varied values of laser line-width to underscore the best possible performance. A connection among the attributes like laser line-width, different optical pulses and different DCF schemes is reported at 10Gbps.

References

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**Index Terms**

Computer Science  
Pattern Recognition

**Keywords**

Dispersion  
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