Realization of Long Reach High Speed Optical System by Incorporating Optical Phase Conjugation (OPC)

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Abstract

This work reports the lessening of optical signal distortion due to group velocity dispersion by incorporating the optical phase conjugation (OPC) scheme in order to meet the requirement of high speed signals with better performance. The work reports a comparative discussion of with- and without- incorporating OPC at varied values of its efficiency based on various performance measures such as BER, eye opening, Q-factor. Furthermore, along with the impact of OPC efficiency, the influence of laser line-width is also deliberated to realize a high speed optical system.

References

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Index Terms
Keywords

Optical Phase Conjugation technique (OPC), BER, eye diagram, Q-factor.