

5. Conclusions

We have shown that in dispersion uncompensated systems where the nonlinear Gaussian assumption holds, the nonlinear interference accumulation rate $1 + \varepsilon$ can also be measured through the nonlinear threshold decrease rate with distance, and we have provided the accumulation rates of the individual self- and cross-channel nonlinear effects, thus corroborating and complementing recent simulation and lab results [8, 11, 13]. We have then shown how the estimated value ε (when all nonlinear effects are taken into account) as well as the 1dB nonlinear threshold can be used to predict the ultimate transmission performance.

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