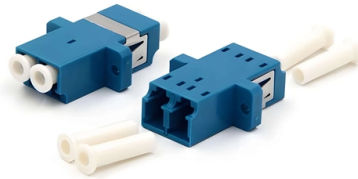


The optical receiver output signal is incorrect



Overview

The possible causes of low signal quality include damaged connectors, dirty or damaged fiber optic cables, or incorrect transceiver configuration. A damaged or dirty connector can cause light loss or reflection, leading to a decrease in signal quality. The optical transmitter receiver operates optimally within a specific power range. If the received signal is too weak, the result is a poor signal-to-noise ratio, which can increase bit error rates and reduce data fidelity. Conversely, if the signal is too strong, it can saturate or even. Converting the optical energy emerging from the end of a fiber into electrical signal. various noises and distortions will unavoidably be introduced due to imperfect component responses. As signals travel in a fiber, they are attenuated and distorted, and it is the function of the receiver circuit at the other side of the fiber to generate a clean electrical signal from the signal to an electrical signal.



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When determining whether the optical power into an optical receiver is within the acceptable dynamic range, if the optical power is too high, but the loss budget agrees with the design, what should be ...

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