

























This method can be used 1) for accurately measuring the cascaded PMD of all active and passive components and mixed fiber sections in a fiber route, including EDFAs, multiplexers, demultiplexers, ROADMs, optical fibers; 2) for obtaining the instantaneous effective PMD of each DWDM channel, without requiring a large bandwidth scanning and without interrupting in-service 40G or 100Gbps traffic. The PMD obtained reflects the effective PMD for the particular modulation format used and can be used to determine whether PMD compensation is required for the channel; 3) for obtaining the average PMD of the whole fiber link by long term monitoring a single DWDM channel and gaining knowledge about the PMD degradation of a fiber route. 4) We can also use under or over compensation to reflect the impact on the BER for a specific channel with any type of modulation.

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