



Single Mode Fiber Dispersion Test Link

The Delaire USA fiber test links are built to meet the customer's Loss, Dispersion and Distance requirements. These links are used in the testing of optical transmission systems at 1310nm, C-band, L-band as well as 850nm. Both Single Mode and Multimode versions are available. The links provided are not simply designed for the length requirements but are tailored to provide the desired dispersion characteristics. Since these are built from hand selected industry standard fiber instead of simulated with dispersion elements, all of the effects including, loss, dispersion as well as fiber nonlinearities are present.

The addition of variable attenuators allows for variations in connector losses in the measurement system. In the case of multimode test links, careful management of cladding modes in the link/attenuator configuration insures that the system will produce repeatable results.

Typical Uses

- Photonic device/system qualification over real links
- Transceiver design verification
- Design and test of electronic dispersion compensation schemes
- Manufacturing test
- Customer demonstrations
- Vendor qualification

Product Characteristics

- Built from standard fiber not dispersion elements
- Optional Dispersion Compensating Modules
- Singlemode and Multimode versions available
- Can be tailored to worst-case conditions to industry standards such as IEEE 802.3ae etc.
- Multiple links per chassis available
- High return loss variable attenuators included for tailoring of link loss
- All standard connector types available
- Supplied in 3U – 6U rack mount chassis depending on link length.
- Up to 175km fiber in one 6U chassis

Typically the customer specifies the

- Purpose
- Dispersion
- Loss
- Target length
- OFL Bandwidth or EMB for multimode applications



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Customer Application Example

1 Fiber Test Box with 4 links as follows.

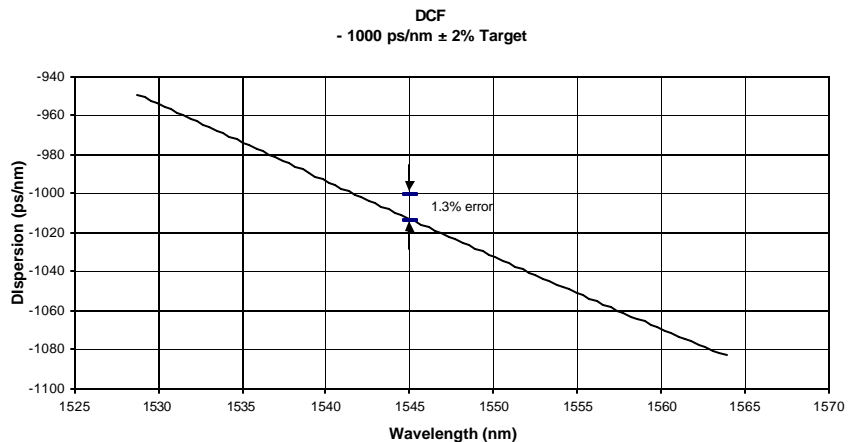
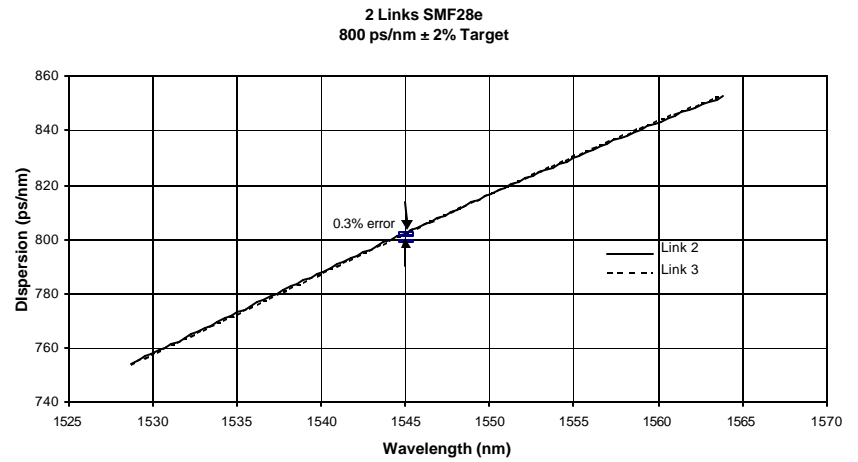
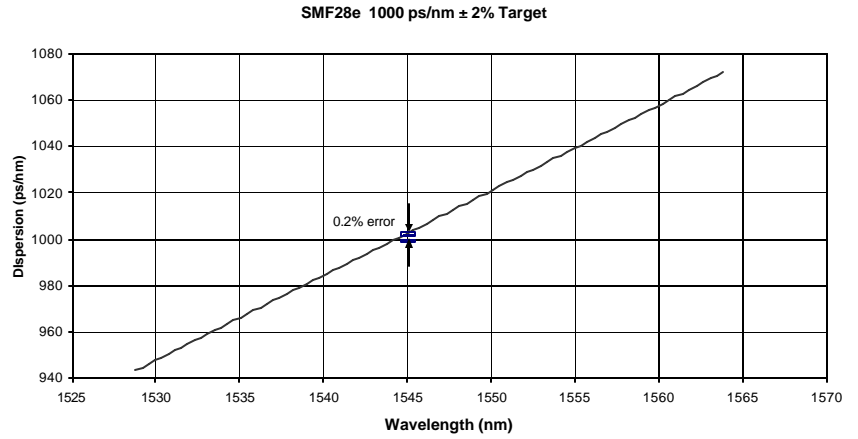
- Link 1: SMF28e
1000ps/nm \pm 2% @ 1545 nm

- Link 2: SMF28e
800ps/nm \pm 2% @ 1545 nm

- Link 3: SMF28e
1000ps/nm \pm 2% @ 1545 nm

- Link 4: DCF
1000ps/nm \pm 2% @ 1545 nm

Actual Measured Results



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