



SKIEW MEASUREMENTS USING THE OBR™

A Luna Technologies Applications Brief

Skew measurements can now be made on multimode and/or single-mode fiber cable ribbons using a combination of Luna Technologies' user-friendly Software Development Kit (SDK) in conjunction with the Optical Backscatter Reflectometer and the highly scalable Fiber Optic Switch.

The skew measurement capability relies on the OBR's ability to measure minute reflections (< 0.0003 parts per billion) out to 2 kilometers with no dead zone at an industry leading spatial resolution.

Skew is determined by making a single-ended time-of-flight measurement of each fiber in a cable strand and computing the path differential, which is then graphically displayed to the user. This can all be achieved with the single click of a button with full measurement time less than 1 minute.

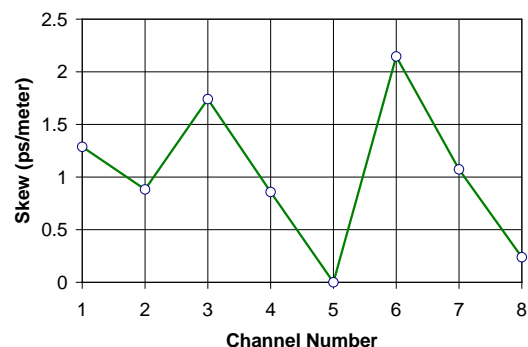
With the same measurement, the user can use OBR software tools to characterize the dispersion of each fiber in the cable strand, thus reducing overall test time and the need for duplicating equipment.

KEY FEATURES AND PRODUCT HIGHLIGHTS

- *-130 dB sensitivity*
- *70 dB dynamic range*
- *2 kilometer length range with no dead zone*
- *< 0.0005 ps/meter skew resolution at 70 m*
- *< 0.002 ps/meter skew resolution at 2 km*
- *Highly repeatable skew measurements*



OPTICAL BACKSCATTER REFLECTOMETER
(Model OBR™ 4400)



Skew results for an 8-channel system