



Residual Dispersion Slope Compensator

Proximion's Continuous Residual Dispersion Slope Compensator (DCM-SLC) represents the latest in dispersion management in submarine networks. The DCM-SLC incorporates all the strengths of Proximion's continuous Fiber Bragg Grating (FBG) technology and comes with the ability to tailor the dispersion characteristics to link specific values.

Key features

- ▶ Tailored slope compensation
- ▶ Ultra-low loss
- ▶ No latency
- ▶ Continuous compensation
- ▶ Perfect slope matching
- ▶ No non-linear effects
- ▶ Improved space utilization

Applications

- ▶ Coherent systems
- ▶ 10, 40 and 100 Gbit/s
- ▶ Festoon and submarine

The Continuous Residual Dispersion Slope Compensator provides the telecommunication industry with a truly unique component, providing both cost savings and new engineering freedom when it comes to terminal design.

The method of combining different FBGs enables remarkable dispersion compensation characteristics as well as the ability to realize affordable link specific dispersion management.

Tailored slope compensation

Proximion's DCM-SLC makes it possible to achieve zero dispersion at a specific wavelength, while maintaining a controlled link specific slope, a dispersion characteristic typically suited for dispersion compensation in submarine and festoon links.

Ultra-low loss

Proximion's FBG based DCMs only have a fraction of the total loss compared to DCF equivalents. The low loss enables a higher degree of freedom when optimizing a system with respect to reach, performance and cost. In longer spans it is a major cost saver since it reduces the amount of amplification needed. (graf)

No latency

Dispersion compensation products from Proximion have negligible latency. The latency is in the order of nanoseconds compared to microseconds in DCF based solutions. This makes Proximion's products perfectly suited for high-speed networks supporting low latency services, directly reducing link latency with 10 to 20 percent. (graf)

Continuous compensation

Proximion's continuous products offer seamless operation over the whole C-band, hence providing channel plan and modulation format independence. This makes Proximion's continuous products future proof as bit rate and channel count increases.

Perfect slope matching

Proximion's FBG based DCMs can be designed to perfectly mimic the dispersion and dispersion slope characteristic of any given fiber type. Low residual dispersion is crucial when migrating to higher bit rates.

No non-linear effects

Proximion's products tolerate high optical power without suffering from penalties caused by non-linear effects. Non-linear effects are not introduced even at the highest power level present throughout any traditional network. The products are thereby future proof for introduction of higher bit rate and channel count, an advantage over traditional DCF based solutions.

Improved space utilization

Proximion's compact FBG based solutions provide a dramatic improvement in space utilization, up to 95 percent, hence providing major cost savings with regard to both CAPEX and OPEX.

