

Channelized Dispersion Compensation Module

Proximion's channelized dispersion compensation module (DCM-ITU) combines all the strengths of Proximion's FBG technology with a novel design to give a best-in-class and cost effective dispersion compensation module. The DCM-ITU operates over the full C-band on any ITU-grid with a 100 GHz channel spacing.

Key features

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

Applications

- ▶ Metro and regional
- ▶ Festoon and submarine
- ▶ Simplified optical amplifiers
- ▶ SAN

Proximion's channelized dispersion compensation module is an ideal solution for enhancing current as well as future system and amplifier designs. This product is especially suited for metropolitan and regional networks, efficiently addressing the cost issues while offering key performance advantages.

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.

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.

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.

OPTICAL SPECIFICATIONS

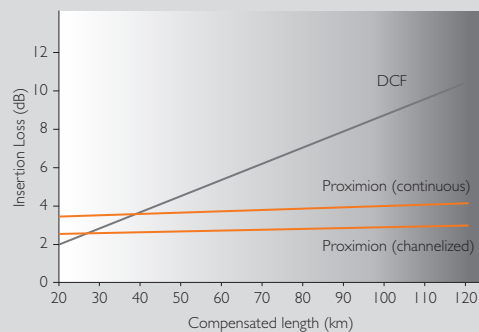
Fiber types	G.652
Frequency range	C-band
Fiber span lengths	20–240 km
Channel spacing	100 GHz
Channel width	~ 40 GHz
Insertion loss	~ 2.5 dB ^{a)}
Latency	~ 20 ns ^{a)}

a) Includes circulator

MECHANICAL SPECIFICATIONS

Operating temperature	-5 to +70 °C
Storage temperature	-40 to +85 °C
Dimensions, Proximion Box	206 x 65 x 14 mm

► Ultra-low loss



► No latency

