

SPECIALTY COMMUNICATIONS

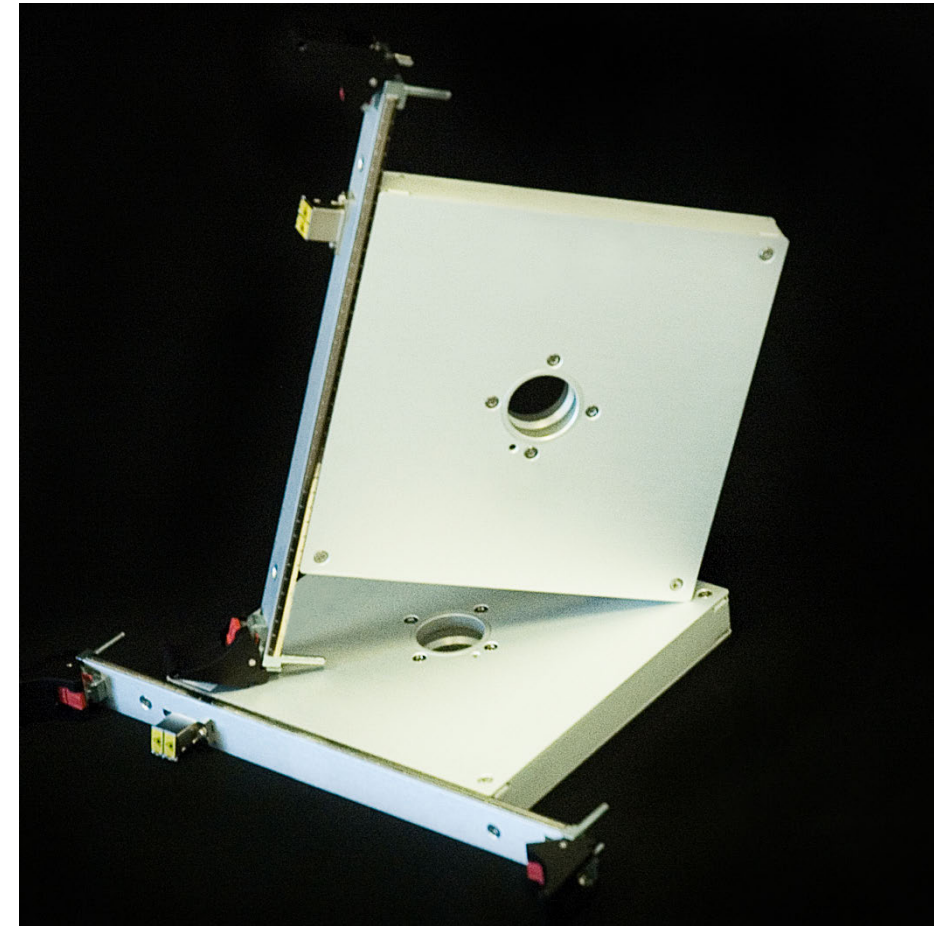
Dispersion Compensation

Dispersion Management

- DSCMs can be delivered in a very small form factor; e.g. on line cards.
- Standard DSCMs feature:
 - Very good dispersion compensation over a wide wavelength range
 - Modulation format and speed independent dispersion compensation,
 - No channelization effects or penalties
 - Low insertion loss
 - Low PMD
 - No power consumption
- Custom specific DSCMs based on dispersion compensating optical fibers offers possibility of matching dispersion with very fine granularity
- Large volume fiber manufacturing and production automation allow for a cost competitive solution
- Mature product, (500,000 units in the field)
- Short lead time

Standard DSCM

- C-band operation
- Compensating G.652 or G.655 fiber
- Ordering guides available
- Standard configurations include:
 - Selection of fiber length to be compensated
 - G.652 up to 150 km, G.655 up to 300 km
 - Connector option
 - All typical connector types
 - Mechanical options
 - Spool, DSCM box or Rack mount



Dispersion compensation of SMF G.652 – Small Form Factor

Fiber Parameters

Low Loss MicroDK

| Parameter @ 1550 nm | |
|--|---------------|
| Fiber Dimensions (μm) | 90/145 |
| Fiber Dispersion ($\text{ps}/\text{nm}/\text{km}$) | -170 |
| Fiber Loss (dB/km) | 0.56 |
| FOM ($\text{ps}/\text{nm}/\text{dB}$) | 300 |
| Relative Dispersion Slope ($1/\text{nm}$) | 0.0028-0.0042 |
| Coiling Diameter (mm) | 50 |
| Splice Loss per End (dB) | 0.3 |
| Typical IL for 100 km G.652 Compensation (dB) | 6.3 |
| Effective Area (μm^2) | 16 |

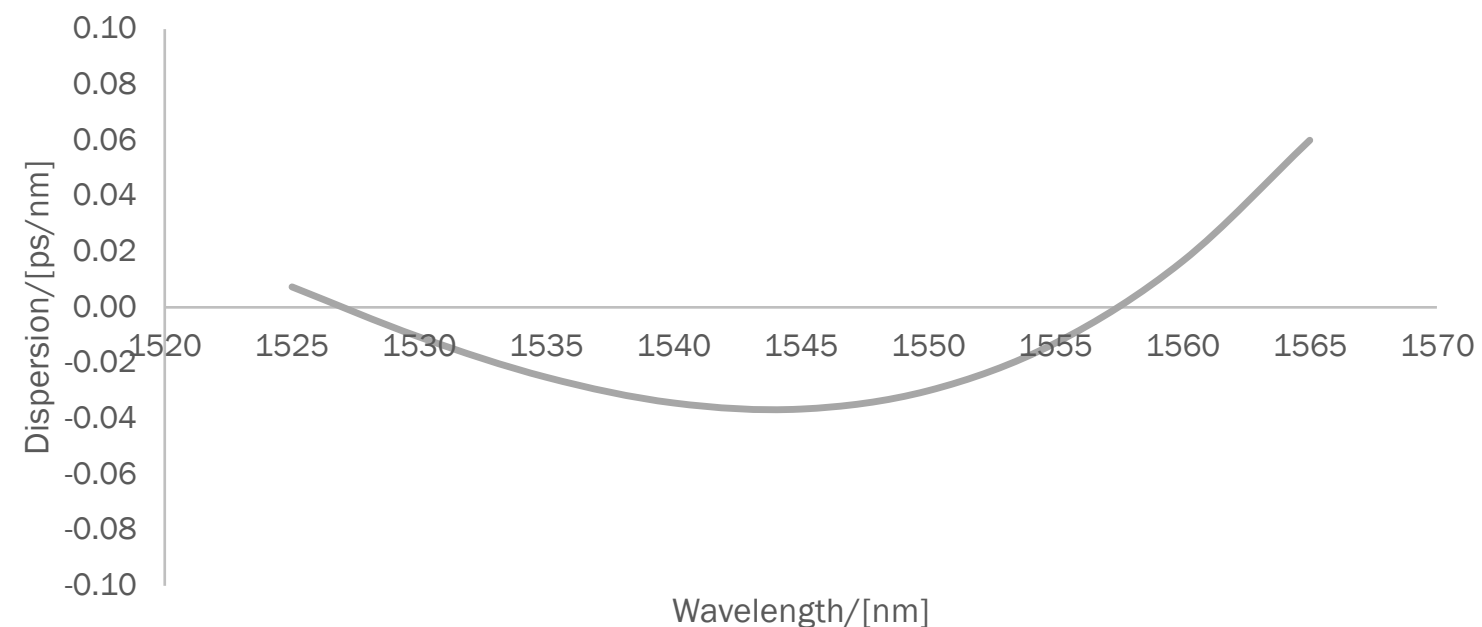
DSCM for Compensation of G.652 (e.g. OFS AllWave, Corning SMF-28, etc.) C-band 1528–1565 nm

Module Parameters

DSCM – 50

| Parameter @ 1550 nm | |
|--|----------------|
| Dispersion (ps/nm) | -853 |
| Insertion loss (dB) | 3,4 |
| PMD (ps) | 0,22 |
| Delay (μs) | 25,0 |
| | |
| FIT rate (failures per billion device hours) | 5 |
| | |
| Spool Dimensions (Diameter * height) | 110 mm * 23 mm |

Residual dispersion
Compensating 50 km of SMF G.652



THANK YOU
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