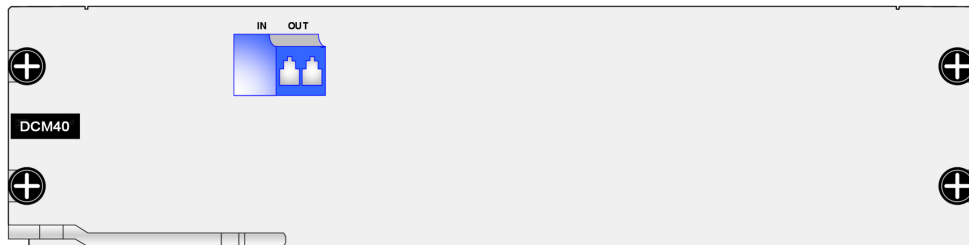


## DCM: dispersion compensation Module board

DCM is the negative dispersion optical fiber, which is a new kind of single mode optical fiber designed for current G.652 & G.655 standard single-mode optical fiber; the dispersion of G.652 optical fiber in the vicinity of 1550nm wavelength is positive (17-20) ps/nm (km), and the dispersion of G.655 standard optical fiber in the vicinity of 1550nm wavelength is positive (4-6) ps/nm (km), with a positive dispersion slope. So we need to add dispersion compensation fiber with negative dispersion into the optical fiber to carry out the dispersion compensation and make sure that the total dispersion of the whole optical fiber line is near zero. Thus high speed, large capacity and long distance communication can be realized.

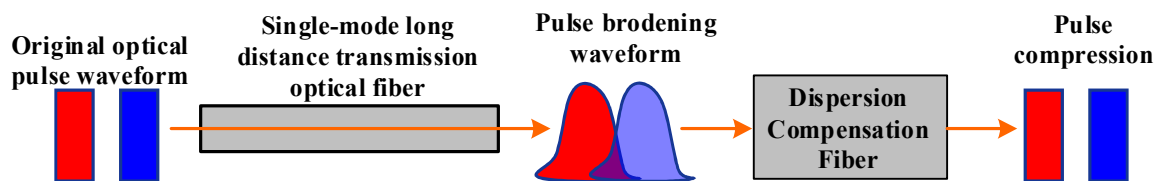
### Product Panel



### Dispersion Compensation Principle

Dispersion is one of the transmission properties of optical fiber, and the optical pulse signal will be broadened in time after transmission in the fiber for a distance, which produces inter-symbol interference, thus increasing the error rate and affecting the quality of communication.

- ◆ The higher the data rate is, more easily the inter-symbol interference will occur
- ◆ The longer the transmission distance is, more easily the inter-symbol interference will occur
- ◆



### Product specification

Product Model	DCM20	DCM40	DCM60	DCM80	DCM100
Equivalent G.652 compensation distance	20km	40km	60km	80km	100km
1545nm wavelength dispersion(ps/nm)	-340±20	-670±30	-1000±40	-1340±50	-1670±60

1545nm wavelength relative dispersion slope	0.004±20%(nm-1)				
Insertion loss	≤3.6 dB	≤4.8 dB	≤6.8 dB	≤8.7 dB	≤9.7 dB
Polarization mode dispersion	≤0.6 ps	≤0.9 ps	≤1 ps	≤1 ps	≤1 ps
Nominal single-wave input optical power	≤0 dBm				