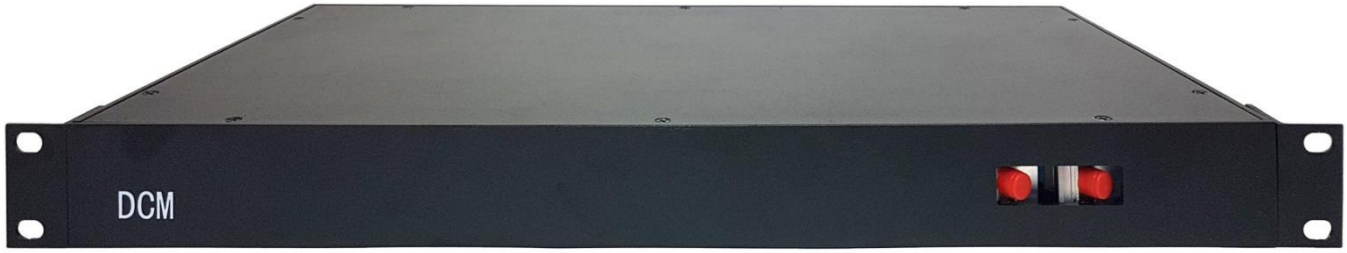

Description

At present, 1550nm wavelength high-power analog optical transmission system is the most widely used system in HFC cable network. But in the long-distance (≥ 100KM) transmission, the problem of fiber dispersion is very prominent, and the degradation of CSO severely limit the further transmission of the signal. Laser spectral width as well as fiber dispersion (CDI) caused by suppression stimulated Brillouin scattering (SBS) and self-phase modulation (SPM) caused by the fiber nonlinear effect are the most important factors which lead to CSO deterioration.

In order to solve the problems raised from the dispersion and self-phase modulation effect, the most common method is to use dispersion compensation fiber (DCF) and linear chirped fiber grating (CFG) to compensate dispersion, and (DCM) dispersion compensation modules. The compensation techniques such as commercial-oriented DCF and chirped fiber gratings are mostly used in digital transmission systems. For analog HFC transmission systems can not copy them. Such as DCF's ability to compensate dispersion is low, large insertion loss, small diameter of core, strong nonlinear effect, it is not suitable for high-power HFC network transmission. CFG production process is very complicated and can only compensate fixed wavelength, flexibility is not enough. DCM module, as a passive component owe wide spectrum has been successfully used in network and achieved good results.

Feature

1), Adapts standard single mode optical fiber SMF-28 (ITU G.652), 1525~1565nm transmission channel

2), Excellent dispersion compensation feature can eliminate the influence to system's index, because of residual dispersion.

3),1525~1565nm transmission channel. 100% dispersion slope compensation.

4), Dispersion compensation value range is 10~120Km optional.

5), Low insertion loss, low polarized mode dispersion.

Technical specification

Type	DIS (km)	Dispersion value /Wavelength (ps/nm)						IL (dB)	WDL (dB)	PMD (dB)
		1525nm		1545nm		1565nm				
		Min	Max	Min	Max	Min	Max	Max	Max	Max
OP-DCM-10	10	-159	-145	-170	-158	-184	-168	2.1	0.5	0.3
OP-DCM-20	20	-315	-293	-337	-319	-364	-340	2.7	0.6	0.4
OP-DCM-40	40	-629	-588-	-673	-640	-727	-682	4.1	0.6	0.5
OP-DCM-60	60	-942	-883	-1009	-960	-1090	-1024	5.5	0.7	0.6
OP-DCM-80	80	-1251	-1183	-1340	-1280	-1448	-1371	6.9	0.8	0.7
OP-DCM-100	100	-1560	-1482	-1671	-1611	-1805	-1718	8.4	0.8	0.8
OP-DCM-120	120	-1868	-1782	-2001	-1937	-2162	-2066	9.8	0.9	0.8

Remark:
1, IL: Insertion Loss (Loss of optical connectors are not contained)
2, WDL: Wavelength dependence Loss
3, PMD: Polarization Mode Dispersion

Wavelength(nm) C-band	1525-1565
Pass power (dBm)	30
Polarization Dependence Loss(dB)	0.1
Optical connector	SC/APC or FC/APC
Return loss (dB)	≤45
Working Temp(deg C)	-30~70
Storage Temp(deg C)	-40~85
Relative Humidity(deg C)	<85
Size (W)×(D)×(H) (")	19×11×1.75