DYNAMIC BAND EQUALIZER

DiCon's Dynamic Band Equalizers (DBE) are integrated opto-electronic modules which are used to equalize power levels in four or more WDM bands. DBE modules monitor and adjust the power level in ITU WDM bands using a simple parallel electronic interface. DBE Modules are based on DiCon's field-proven, GR-1221 qualified MEMS Attenuator, thin film Band WDM, and Fused Coupler technologies.

FEATURES

- Low in-to-out insertion loss
- Integrated power monitoring and level control
- Upgradeable in groups of four bands
- Ideal for metro applications

APPLICATIONS

Dynamic Band Equalizers are ideally suited for band-level power equalization at the input stage of amplifiers used in metropolitan WDM networks. DBE's can also be used for band level power pre-emphasis or gain control within both long haul and metro terminal equipment.

DiCon
FIBEROPTICS, INC

OPTICAL SPECIFICATIONS[1,2]

Input power range	-25 to +11 dBm	
Number of bands	4 per module	
Gap passband[3]	1 (100 GHz) channel	
Insertion loss	IN → OUT	5.0 dB max.
	IN → UPGRADE OUT	2.0 dB max.
	UPGRADE IN → OUT	2.0 dB max.
Attenuation range	IN → OUT	20 dB max.
Flatness	IN → OUT	0.7 dB max.
	IN → UPGRADE OUT	0.1 dB max.
	UPGRADE IN → OUT	0.1 dB max.
Isolation	IN → OUT	30 dB min.
	IN → UPGRADE OUT	12 dB min.
	UPGRADE IN → OUT	12 dB min.
Polarization dependent loss	0 - 15 dB Attenuation	0.2 dB max.
	15 - 20 dB Attenuation	0.3 dB max.
Polarization mode dispersion	0.1 ps max.	
Back-reflection	-45 dB max.	
Fiber type	Corning SMF-28, tight buffer	
Operating temperature	0°C to +65°C	
Storage temperature	-40°C to +85°C	

1. All specifications referenced without connectors.
2. Based on 2% FBT.
3. Other gap passbands by request.

ELECTRICAL SPECIFICATIONS

Electrical connector	Samtec TSSH-110-01-T-D-RA
VOA DC drive voltage	0 - 5 VDC
VOA voltage damage threshold	10 VDC max.
VOA resistance[1]	100 Kohms min.
VOA capacitance[1]	2 pF typ.
VOA power consumption[1]	10 µWatt max.
Photodiode dark current[2]	1 nA max., T = 23°C, -5V bias
	15 nA max., T = 70°C, -5V bias
Photodiode bias voltage	-14V min., -2V max.
Photodiode linearity	+/- 15%
Photodiode shunt resistance[2]	10 Mohms min.
Photodiode frequency bandwidth	1500 MHz max.
Photodiode capacitance[2]	8 pF max., at -5V bias

1. Per VOA, 4 total.
2. Per PIN photodiode, 4 total.

ORDERING INFORMATION

DBE - 4 - ☐ - ☐ - ☐ - ☐ - ☐

Passband Width

X	Specify X GHz

Passband Spacing

X	Specify X GHz

Lowest Band Center Wavelength

XXX.X	Specify value btw: 1520.0 - 1600.0 nm

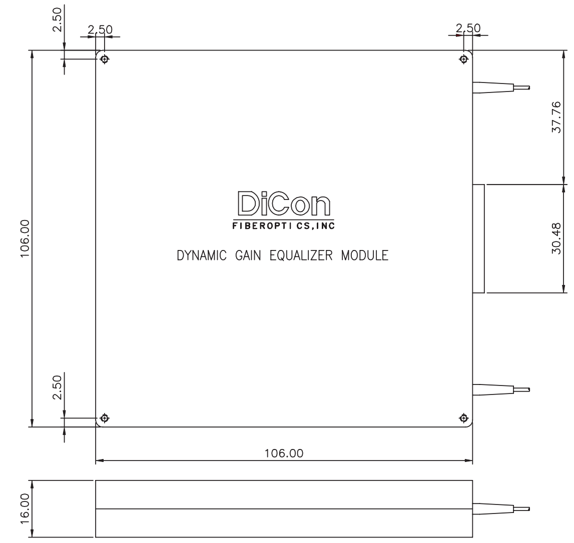
Connector Type

FC	FC/SPC
FC/APC	FC/APC
FC/UPC	FC/UPC
SC	SC/SPC
SC/APC	SC/APC
SC/UPC	SC/UPC
ST	ST/SPC
ST/UPC	ST/UPC
LC	LC/UPC
N	None

Pigtail Length

1	1 meter
X	Specify X meters

HOUSING DIMENSIONS



Units: mm