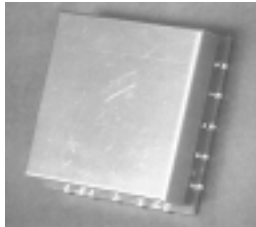


E-Series Diplexer 5 – 870 MHz

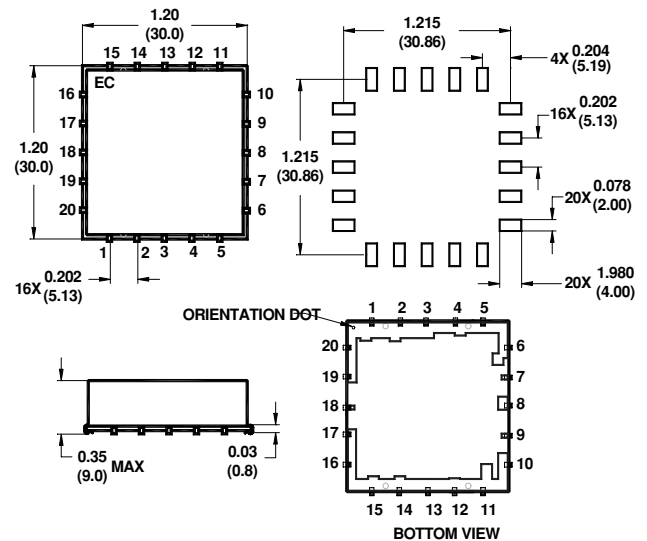


Features

- Surface Mount
- Impedance 75 Ohms Nominal



SM-85 Package



Description

M/A-COM's EDF-2 is a Low Cost, Non Hermetically Sealed Diplex Filter unit designed for CATV applications.

Electrical Specifications @ 25°C

Parameter	Units	Minimum	Typical	Maximum
Frequency Range	5 - 870 MHz			
Low Pass Cutoff	40 MHz	—	—	—
Low Pass Reject	51 MHz	—	—	—
High Pass Cutoff	51 MHz	—	—	—
High Pass Reject	40 MHz	—	—	—
Insertion Loss				
Low Pass 5 - 40 MHz PassBand	dB	—	0.5	1.0
Low Pass 51 - 870 MHz StopBand	dB	45.0	—	—
High Pass 5 - 40 MHz StopBand	dB	50.0	—	—
High Pass 51 - 870 MHz PassBand	dB	—	0.5	1.5
Insertion Loss Flatness *				
5 - 40 MHz	dB	—	—	0.5
51 - 870 MHz	dB	—	—	0.5
Crossover Band Isolation				
40 - 51 MHz	dB	30	35	—
Return Loss Input Port				
5 - 40 MHz	dB	20	21	—
51 - 870 MHz	dB	18	21	—
Return Loss Low Pass Port				
5 - 40 MHz	dB	20	21	—
Return Loss High Pass Port				
51 - 870 MHz	dB	18	21	—

Note *: Flatness is defined as any response change within a 10 MHz frequency span therefore the flatness spec is intended to mean that no change of 0.5dB, within a 10 MHz frequency span anywhere in the pass band of a diplex filter will be permitted.

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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Storage Temperature	-20°C to +85°C

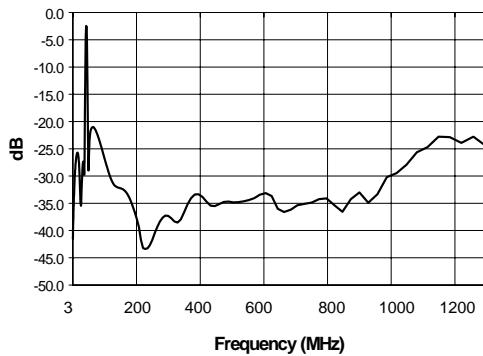
Additional Specifications	Group Delay (nSec)
	33.5 - 35 MHz = 5.0
	38.5 - 40 MHz = 15.0
	55.25 - 58.83 MHz = 15
	61.25 - 64.83 MHz = 6.5
	67.25 - 70.83 MHz = 4.0

Functional Configuration

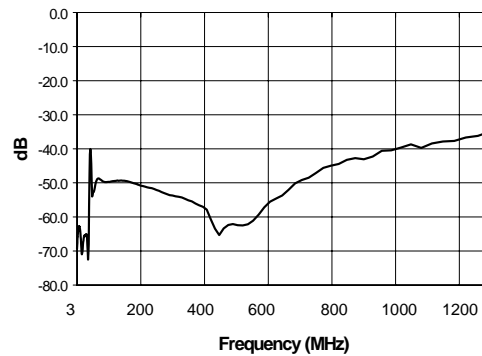
Function	Pin No.
Input	18
Low Pass	9
High Pass	7
Ground	1 - 6, 8, 10 - 17, 19, 20
Not Connected	—

Typical Performance @ +25°C

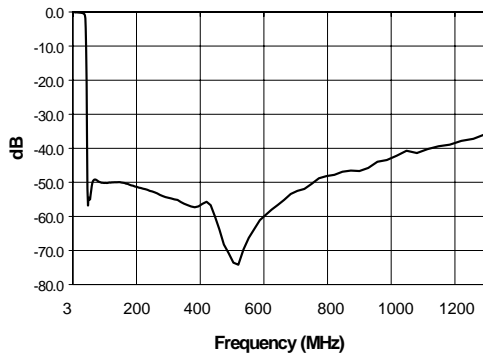
Input Return Loss



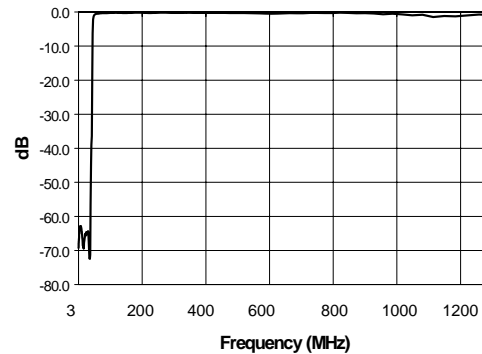
Isolation



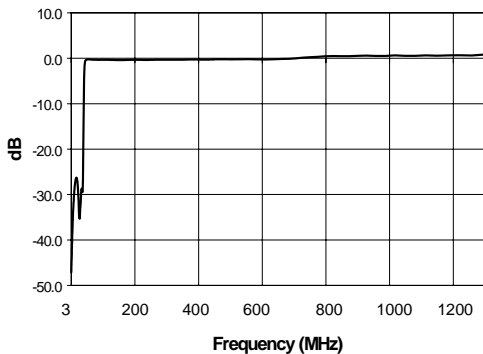
Low Pass Filter Insertion Loss



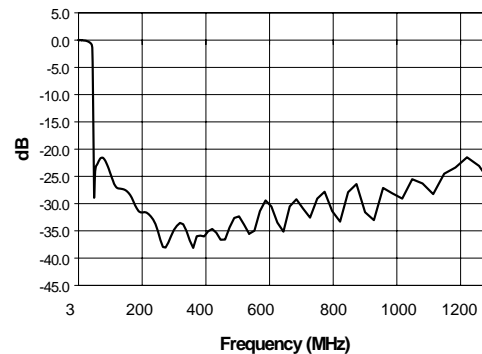
High Pass Filter Insertion Loss



Low Pass Filter Output Return Loss



High Pass Filter Output Return Loss



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