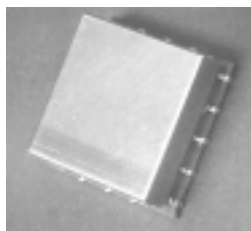


## E-Series Diplexer 5 – 860 MHz

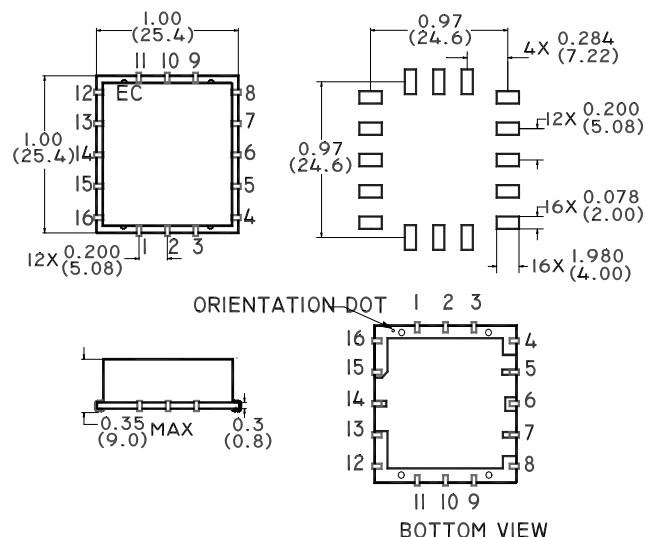


### Features

- Surface Mount
- Impedance 75 Ohms Nominal



### SM-82 Package



### Description

M/A-COM's EDF-1 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 - 860 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 - 860 MHz StopBand  | dB          | 40.0    | 50.0    | —       |
| High Pass 5 - 40 MHz StopBand   | dB          | 40.0    | 50.0    | —       |
| High Pass 51 - 860 MHz PassBand | dB          | —       | 1.0     | 2.0     |
| Insertion Loss Flatness *       |             |         |         |         |
| 5 - 40 MHz                      | dB          | —       | —       | 0.5     |
| 51 - 860 MHz                    | dB          | —       | —       | 0.5     |
| Crossover Band Isolation        |             |         |         |         |
| 40 - 51 MHz                     | dB          | 30      | 35      | —       |
| Return Loss Input Port          |             |         |         |         |
| 5 - 40 MHz                      | dB          | 14      | 18      | —       |
| 51 - 860 MHz                    | dB          | 14      | 18      | —       |
| Return Loss Low Pass Port       |             |         |         |         |
| 5 - 40 MHz                      | dB          | 14      | 18      | —       |
| Return Loss High Pass Port      |             |         |         |         |
| 51 - 860 MHz                    | dB          | 14      | 18      | —       |

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

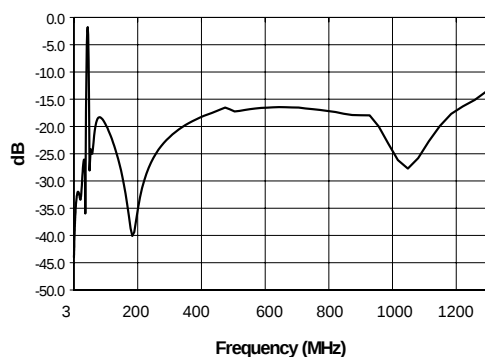
| Parameter           | Absolute Maximum |
|---------------------|------------------|
| RF Power            | 250 mW           |
| DC Current          | 30 mA            |
| Storage Temperature | -20°C to +85°C   |

## Functional Configuration

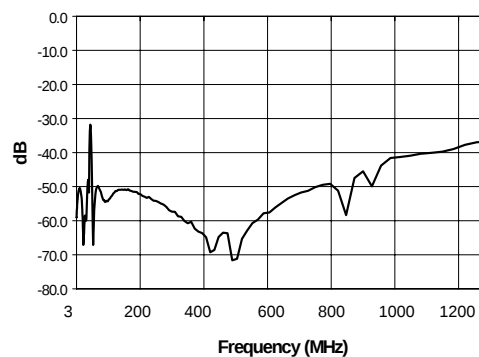
| Function      | Pin No.                  |
|---------------|--------------------------|
| Input         | 14                       |
| Low Pass      | 7                        |
| High Pass     | 5                        |
| Ground        | 15, 16, 1 - 4, 6, 8 - 13 |
| Not Connected | —                        |

## Typical Performance @ +25°C

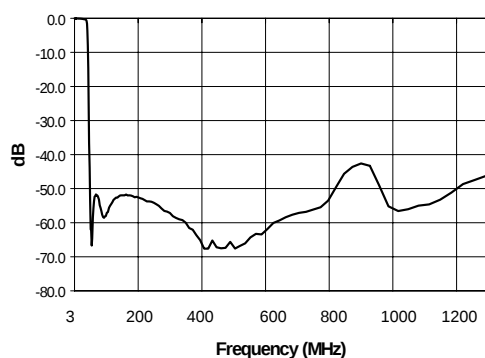
Input Return Loss



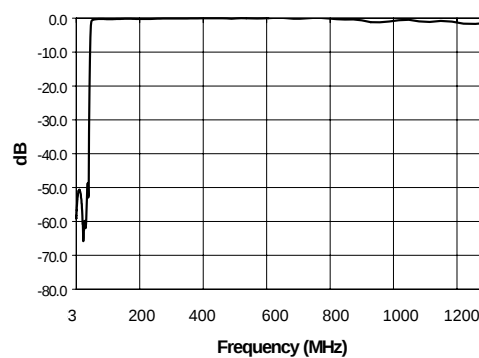
Isolation



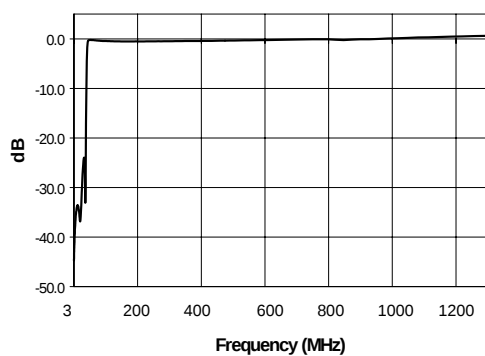
Low Pass Filter Insertion Loss



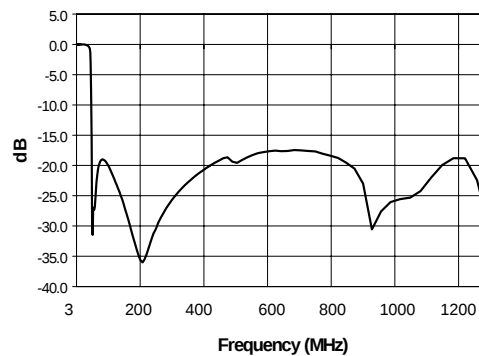
High Pass Filter Insertion Loss



Low Pass Filter Output Return Loss



High Pass Filter Output Return Loss



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