

CATV Diplex Filter 50 - 870 / 975 - 1525 / 2000 - 3000MHz

MAFL-007898-CD0AC0

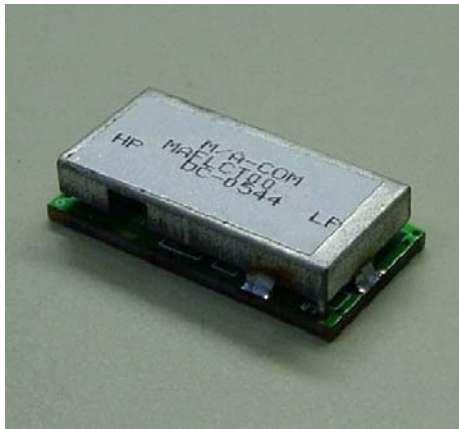
V1

Features

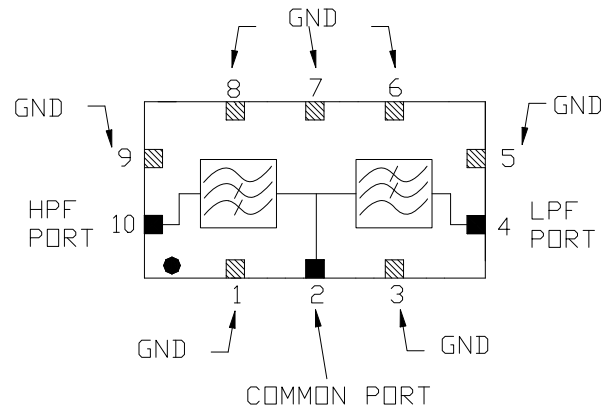
- 75 Ohm
- SMT unit
- RoHS* Compliant

Description

M/A-COM's MAFL-007898-CD0AC0 is a surface mount diplex filter unit designed for MoCA applications.



Functional Schematic



Pin Configuration

Function	Pin Number
Common Port	2
Low Pass Port	4
High Pass Port	10
Ground	1, 3, 5 - 9
Not connected	-

Absolute Maximum Ratings ^{1,2}

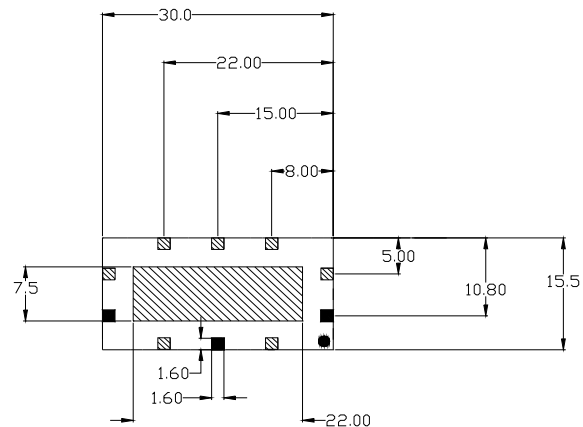
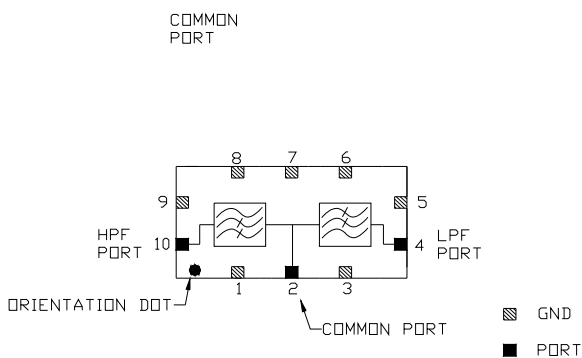
Parameter	Absolute Maximum
RF Power	250mW
DC Current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

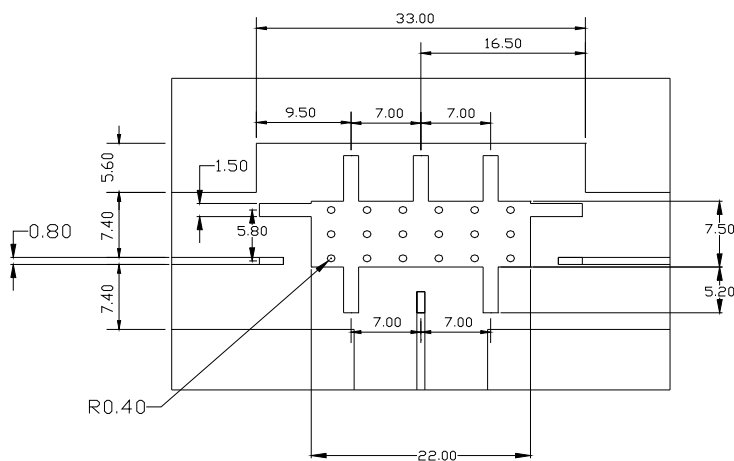
* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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Top view of the package showing dimensions and markings. The package is rectangular with a width of 30.0 ± 0.1 mm and a height of 15.5 ± 0.1 mm. The markings on the package are: M/A-COM, MAFL-00xxxx, DATE CODE, HP (Heat Pad), and LP (Lead Pad). The orientation dot is located at the bottom left corner.



Recommended PCB Configuration



Dimensions in mm. Tolerance: .x \pm 0.1, .xx \pm 0.05

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

Parameter	Test Conditions	Units	Min	Typ	Max
Frequency Range	50 - 870 / 975 - 1525 / 2000 - 3000	MHz			
Common to Low Insertion Loss	50 - 750MHz 750 - 870MHz	dB dB		0.9 1.8	1.5 2.5
Stopband Rejection	975 - 1025MHz 1025 - 1350MHz 1350 - 1525MHz 1790 - 2100MHz	dB dB dB dB	35 40 37 20	42 45 42 30	- - - -
Common to High Insertion Loss	975 - 1525MHz	dB	-	1.2	2.5
Stopband Rejection	50 - 750MHz 750 - 870MHz 2000 - 3000MHz	dB dB dB	40 34 15	45 40 20	- - -
Low to High Isolation	50 - 750MHz 750 - 870MHz 975 - 1025MHz 1025 - 1350MHz 1350 - 1525MHz	dB dB dB dB dB	40 34 35 40 37	45 40 42 45 30	- - - - -
Common Port Return Loss	50 - 300MHz 301 - 600MHz 601 - 870MHz 975 - 1525MHz	dB dB dB dB	13 12 10 10	15 15 15 14	- - - -

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Typical Performance Curves

