

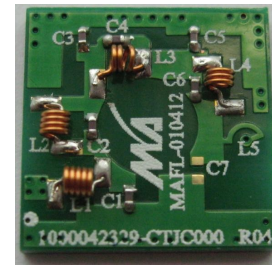
## CATV MoCA Low Pass Filter 5 - 1550 MHz

Rev. V5

### Features

- Surface Mount
- 75 Ohm
- RoHS\* Compliant
- Pb Free
- MoCA Application

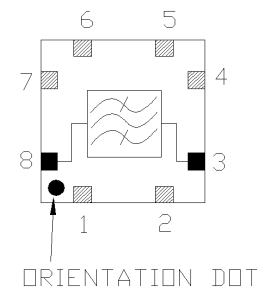
### Product Image



### Description

M/A-COM Technology Solutions' MAFL-010412-CLOAD0 is a surface mount Low Pass Filter unit designed for MoCA applications.

### Functional Schematic



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

Parameter	Units	Min	Typ	Max
<b>Common to Low</b>				
Insertion Loss	5 - 42 MHz	-	0.05	0.15
	42 - 860 MHz	-	0.5	0.8
	860 - 1002 MHz	-	1.5	1.7
Rejection	1130 - 1550 MHz	35	37	-
	<b>Common Port Return Loss</b>			
5 - 600 MHz	dB	13	16	-
600 - 950 MHz	dB	11	14	-
950 - 1002 MHz	dB	12	14	-
<b>Common port voltage transient</b>	V	-	-	200

### Recommended Maximum Ratings

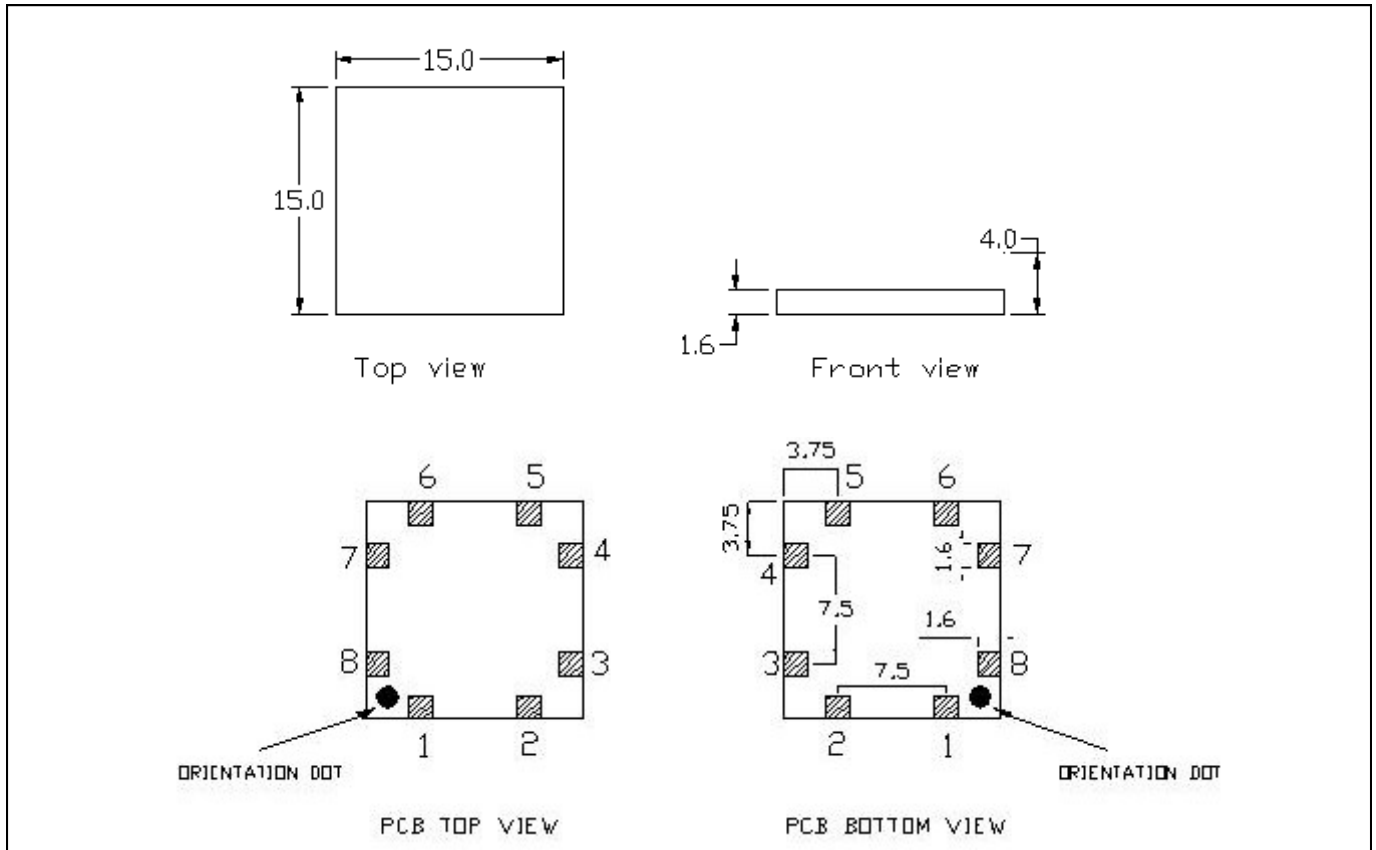
Parameter	Value
Storage Temperature	-40C to +85°C
Operating Temperature	-40C to +85°C
DC Current	30mA
RF Power	+23.9dBm( 250mW)
Transient Voltage	200V

### Pin Configuration

Function	Pin Number
Common Port (Input)	8
Low Pass Port (Output)	3
Ground	1 - 2, 4 - 7
Not connected	-

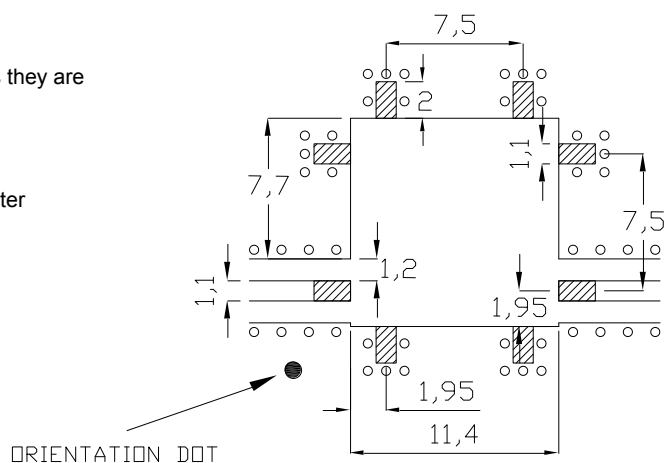
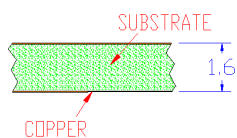
- Restrictions on Hazardous Substances, European Union Directive 2002/95/EC
- Full temperature plots are available on request.

**Outline Drawing: SM-173**



**Recommended PCB Configuration**

- Track dimension = 1.1mm
- Gap dimension = 1.2mm
- It is not recommended to run tracks under the filter unless they are greater than 1.6mm below the base.
- Ground should be 1.6mm below the base of the filter
- Area directly under the filter should be free from copper
- RF shield should be kept a minimum of 6mm above the filter



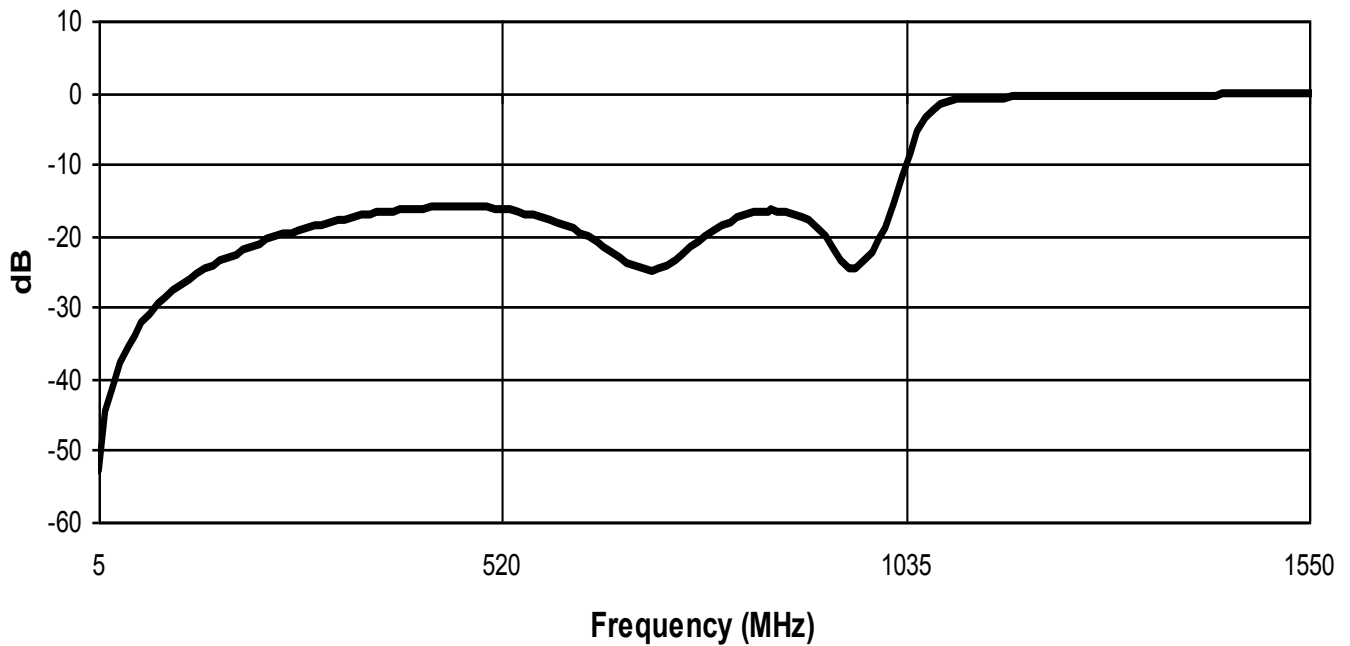
\* Dimensions are millimeters  $\pm 0.1$  unless otherwise specified.

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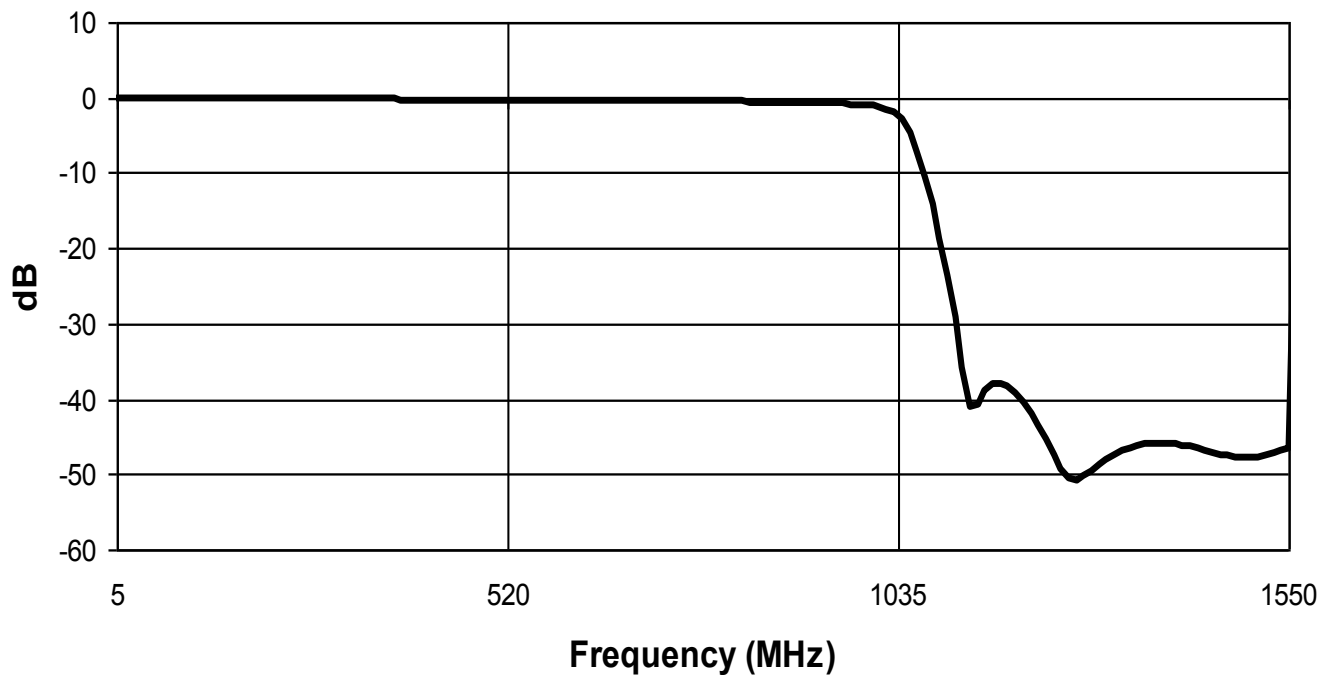
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Typical Performance Curves at +25°C

### Return Loss



### Insertion Loss



## CATV MoCA Low Pass Filter 5 - 1550 MHz

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Parameter	Units	Value
Qty per reel	-	500
Reel Size	mm	330
Tape Width	mm	32.00
Pitch	mm	20.00
Ao	mm	15.30
Bo	mm	15.30
Ko	mm	3.70
Orientation	-	F20
Reference Application Note ANI-019 for orientation		

Part Number	Description
MAFL -010412-CLOAD0	Tape & Reel

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125