

# MAFL-010639-CB0AD0



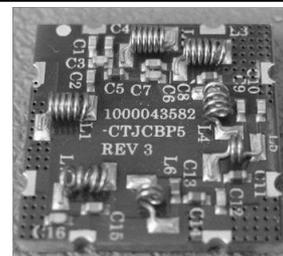
**MoCA Band Pass Filter**  
500 - 3000 MHz

Rev. V6

## Features

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

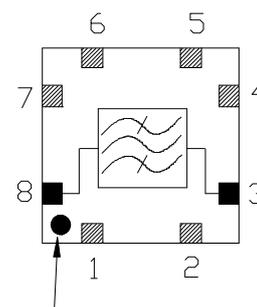
## Product Image



## Description

M/A-COM Technology Solutions' MAFL-010639-CB0AD0 is a surface mount Band Pass Filter unit designed for MoCA applications.

## Functional Schematic



ORIENTATION DOT

**Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$**

Parameter	Units	Min	Typ	Max
<b>Common to MoCA / MoCA to Common Rejection</b>				
500 - 565 MHz	dB	-35	-38	-
565 - 575 MHz	dB	-30	-32	-
950 - 960 MHz	dB	-32	-36	-
960 - 1220 MHz	dB	-34	-40	-
1220-2000 MHz	dB	-37	-42	-
2000 - 2500 MHz	dB	-35	-40	-
2600 - 3000 MHz	dB	-30	-33	-
<b>Insertion Loss</b>				
650 - 875 MHz	dB	-	-2.0	-3.0
<b>Common Port Return Loss</b>				
650 - 875 MHz	dB	-9.5	-10	-

## 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
MoCA Port (Output)	3
Ground	1 - 2, 4 - 7
Not connected	-

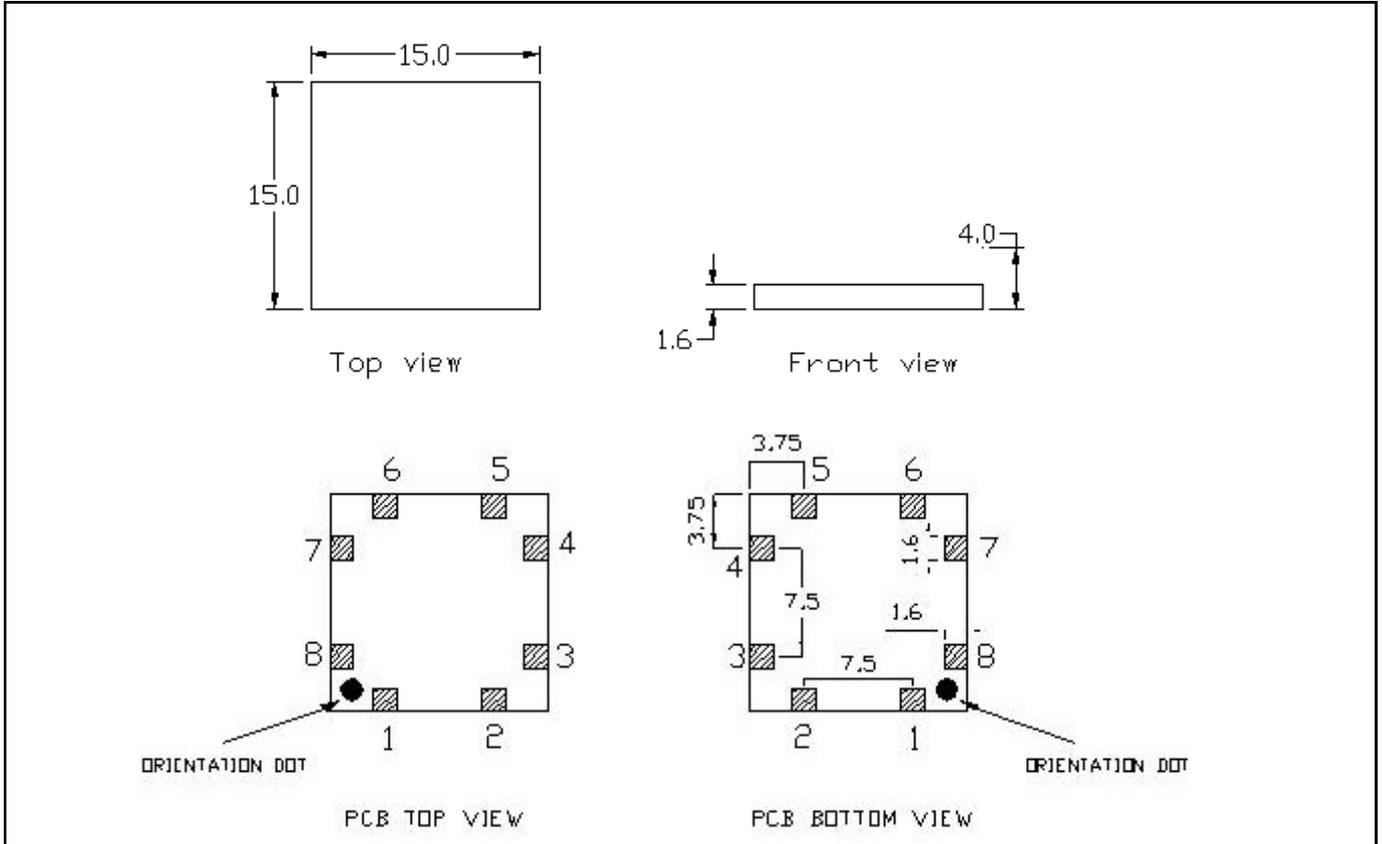
- Restrictions on Hazardous Substances, European Union Directive 2002/95/EC
- Full temperature plots are available on request.

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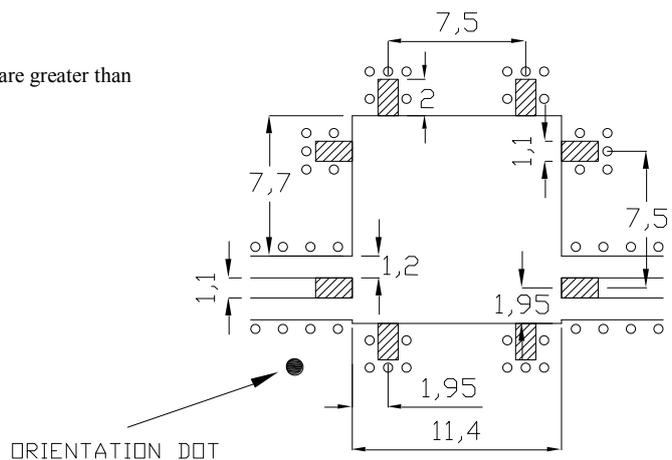
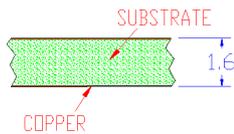
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**Outline Drawing:**



**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

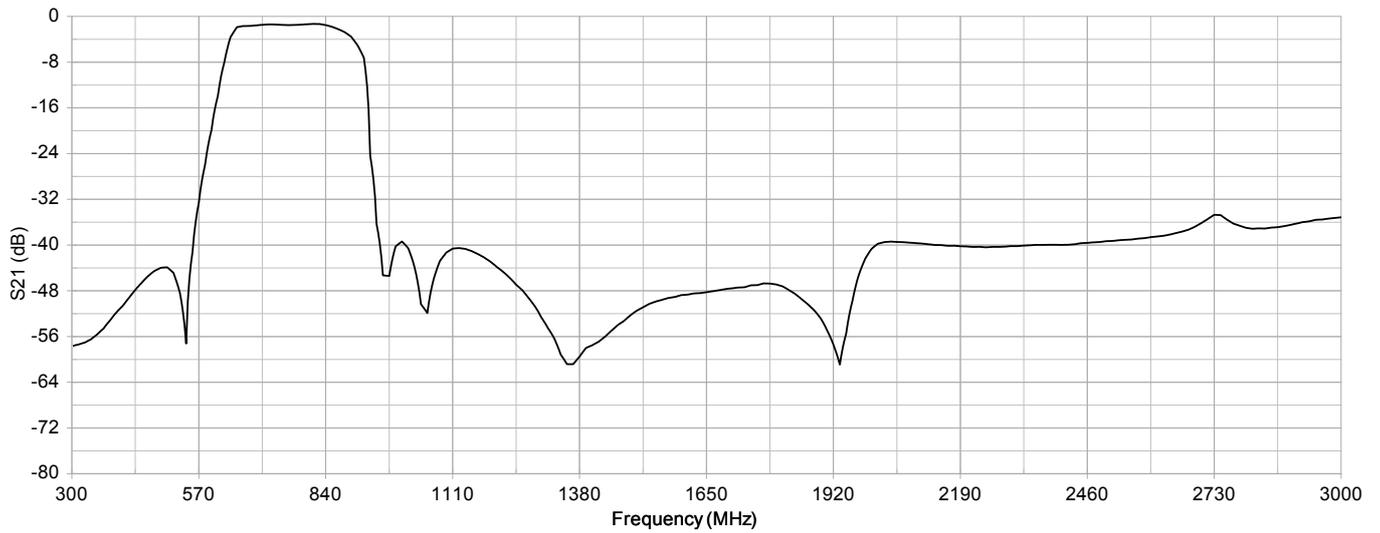


1. Dimensions in mm.
2. Tolerance:  $\pm 0.1$ mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1  $\mu$ m gold over 3 to 6  $\mu$ m nickel

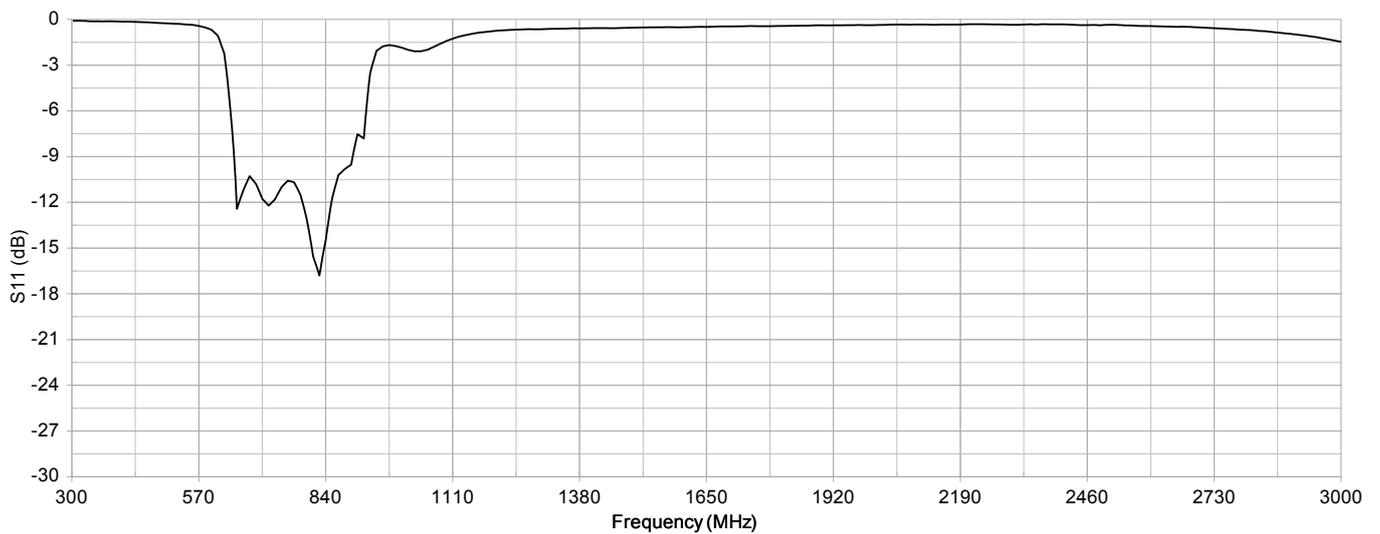
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## Typical Performance Curves at +25°C

### Insertion Loss



### Common Port Return Loss





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