

MAFL-010639-CB0AD0



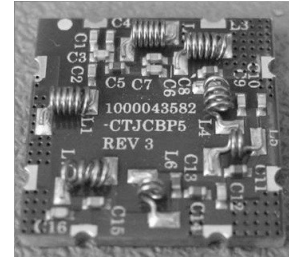
MoCA Band Pass Filter
500 - 3000 MHz

Rev. V6

Features

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

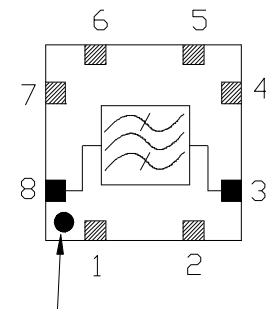
Product Image



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 |
|--|-------|------|------|------|
| Common to MoCA / MoCA to Common Rejection | | | | |
| 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 | - |
| Insertion Loss | | | | |
| 650 - 875 MHz | dB | - | -2.0 | -3.0 |
| Common Port Return Loss | | | | |
| 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 | - |

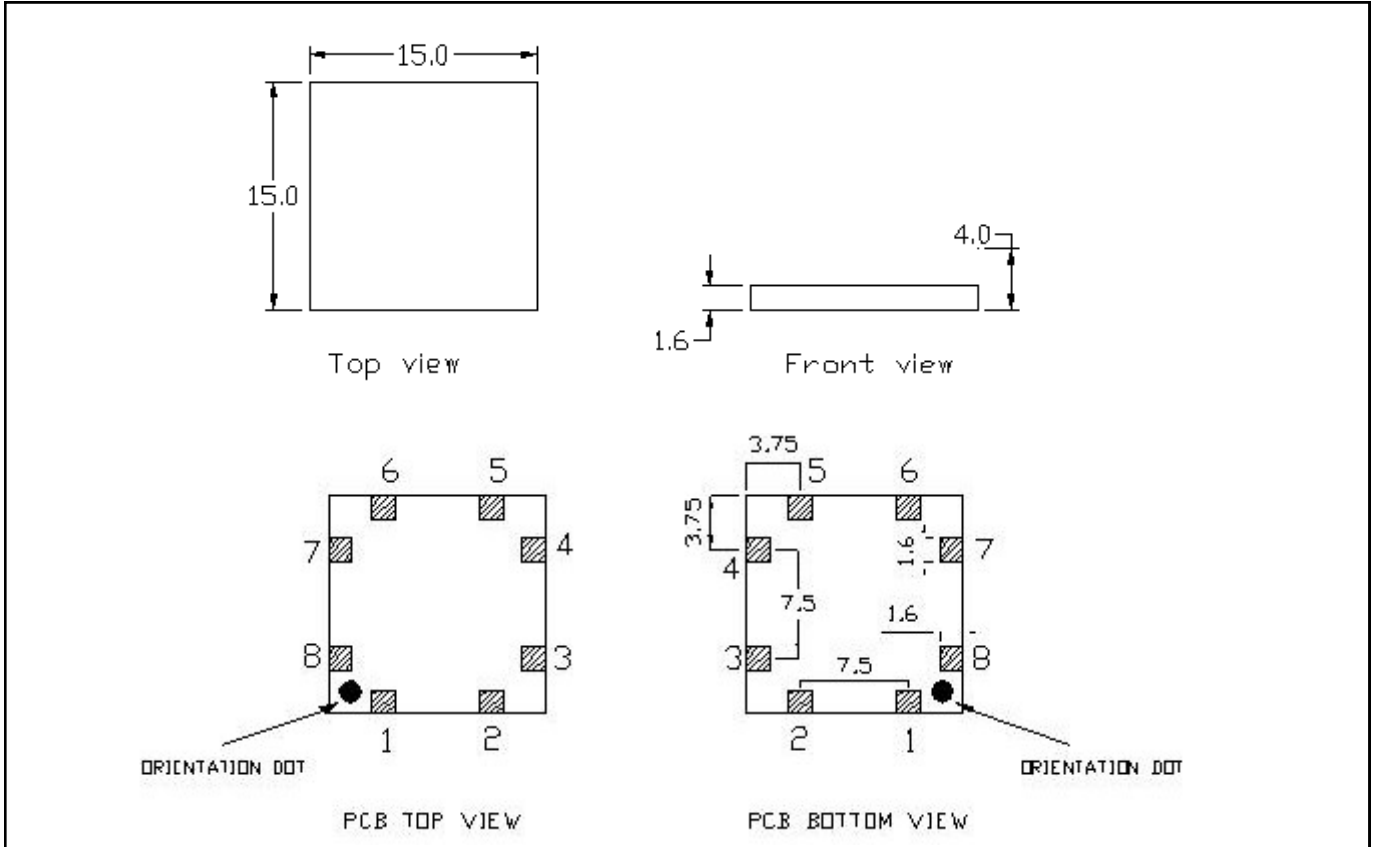
- Restrictions on Hazardous Substances, European Union Directive 2002/95/EC
- Full temperature plots are available on request.

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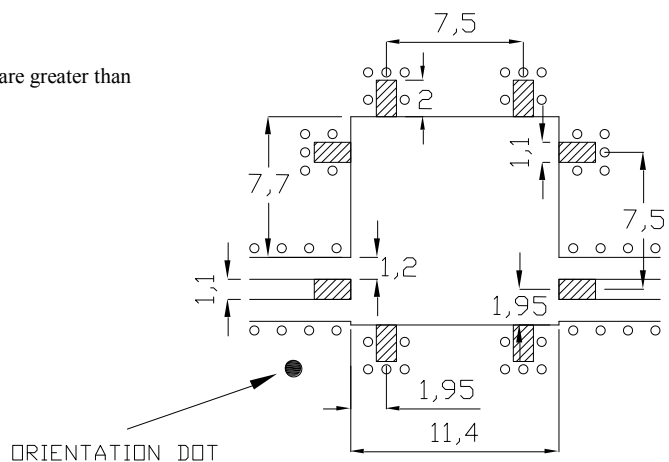
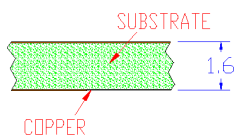
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Outline Drawing:



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

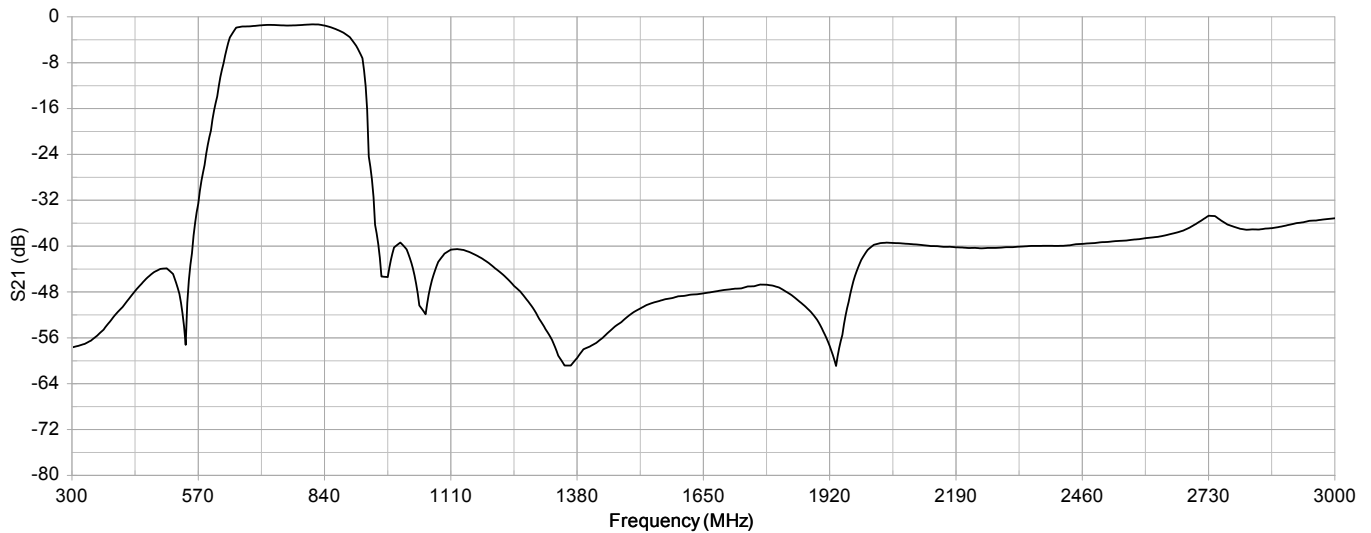


1. Dimensions in mm.
2. Tolerance: ± 0.1 mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 μ m gold over 3 to 6 μ m nickel

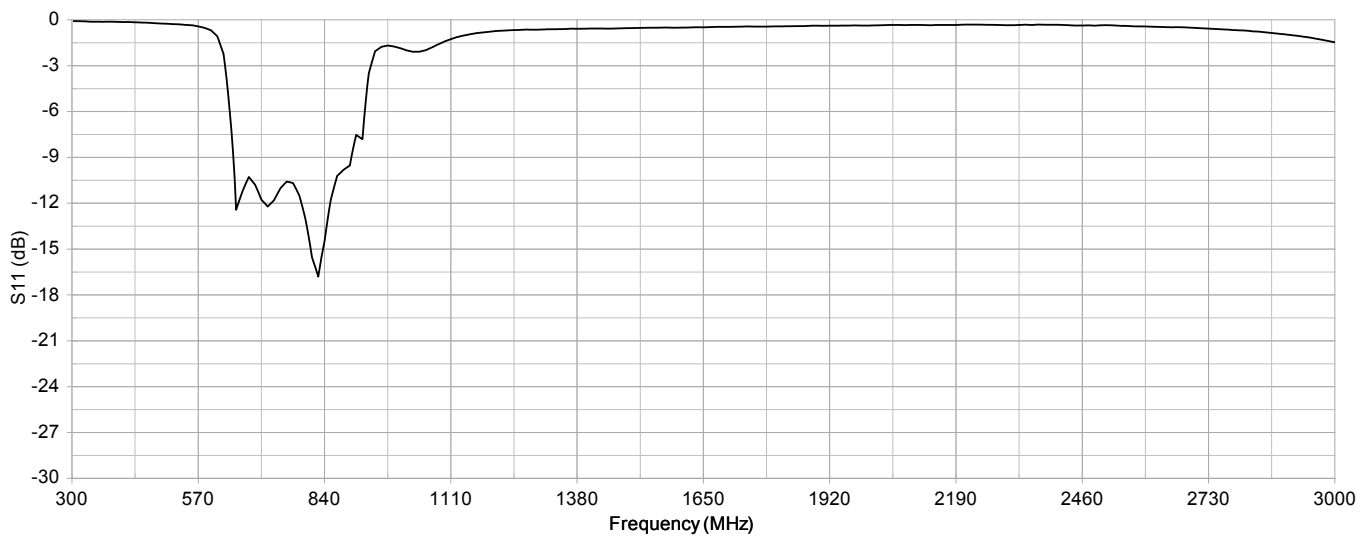
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Typical Performance Curves at +25°C

Insertion Loss



Common Port Return Loss



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