MAFL-011003

MoCA Band Pass Filter
500 - 3000 MHz

Rev. V2

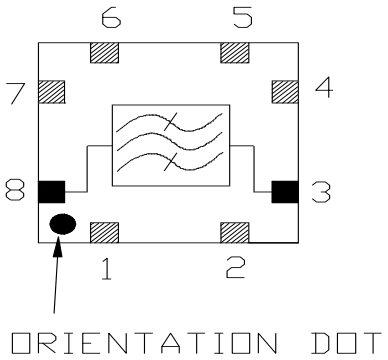
Features

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

Description

M/A-COM Technology Solutions' MAFL-011003 is a surface mount Band Pass Filter unit designed for MoCA applications.

Functional Schematic



Electrical Specifications: Z0 = 75Ω, TA = 25ºC, P_{in} = 0dBm

Parameter	Units	Min	Typ	Max
Common to MoCA / MoCA to Common				
Rejection				
500 - 565 MHz	dB	-35	-37	-
565 - 575 MHz	dB	-28.5	-30	-
950 - 960 MHz	dB	-32	34	-
960 - 3000 MHz	dB	-37	40	-
Insertion Loss				
650 - 875 MHz	dB	-	-1.5	-3
Common Port Return Loss				
650 - 875 MHz	dB	-9.5	-10	-
Output Return Loss				
650 - 875 MHz	dB	-9.5	-10	-

Parameter	Units	Target Max
Pass Band Flatness		
Any 50MHz band from 675 - 850 MHz	dB	0.5 P-P
650-700 MHz	dB	1.5 P-P
825-875 MHz	dB	1.5 P-P

Recommended Maximum Ratings

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

- Full temperature plots are available on request.

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

Pin Configuration

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

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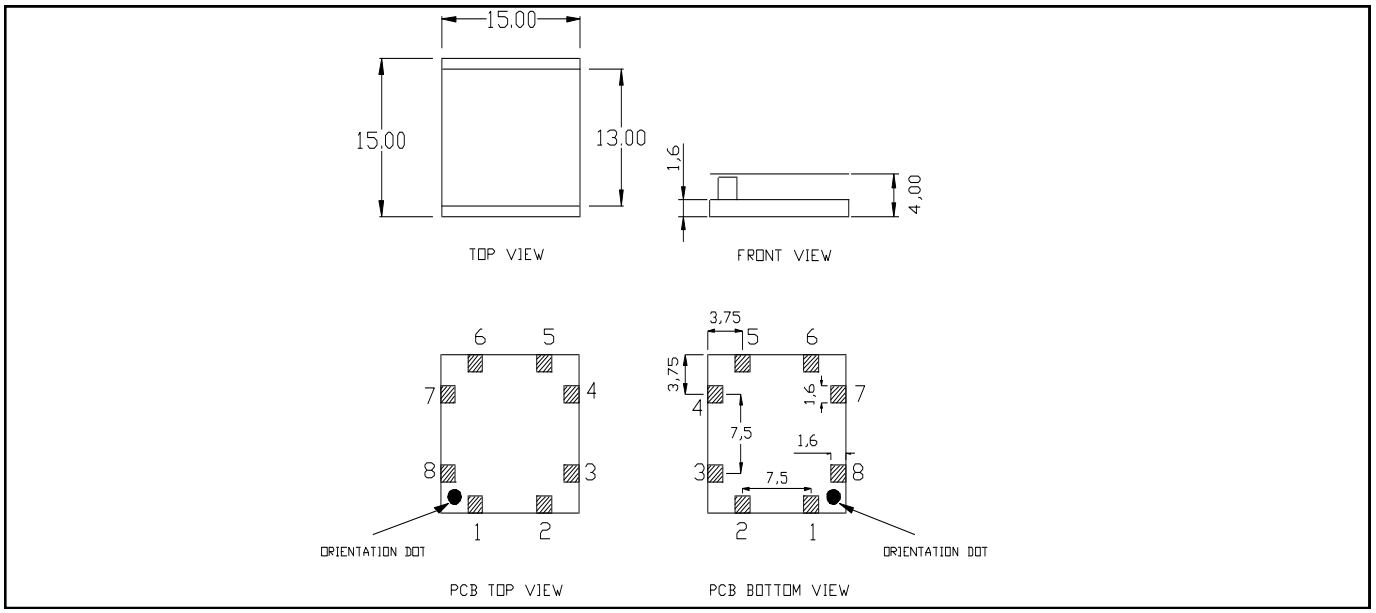
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MoCA Band Pass Filter
500 - 3000 MHz

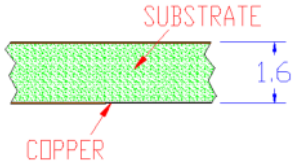
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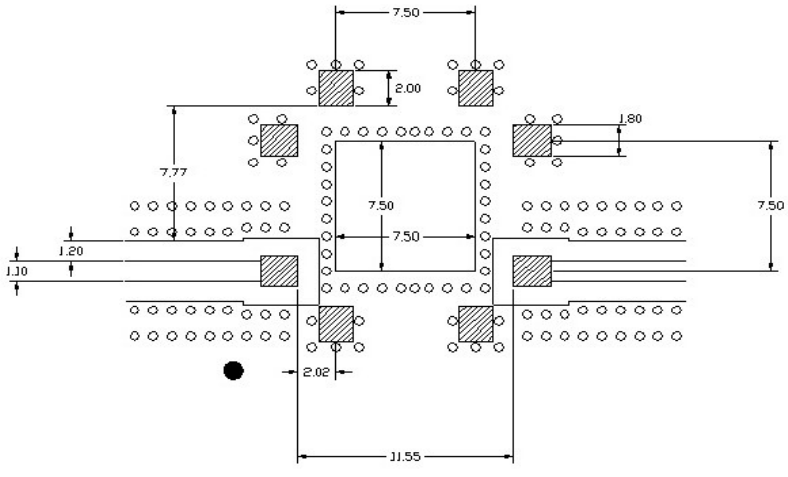
Outline Drawing:



Recommended PCB layout & 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



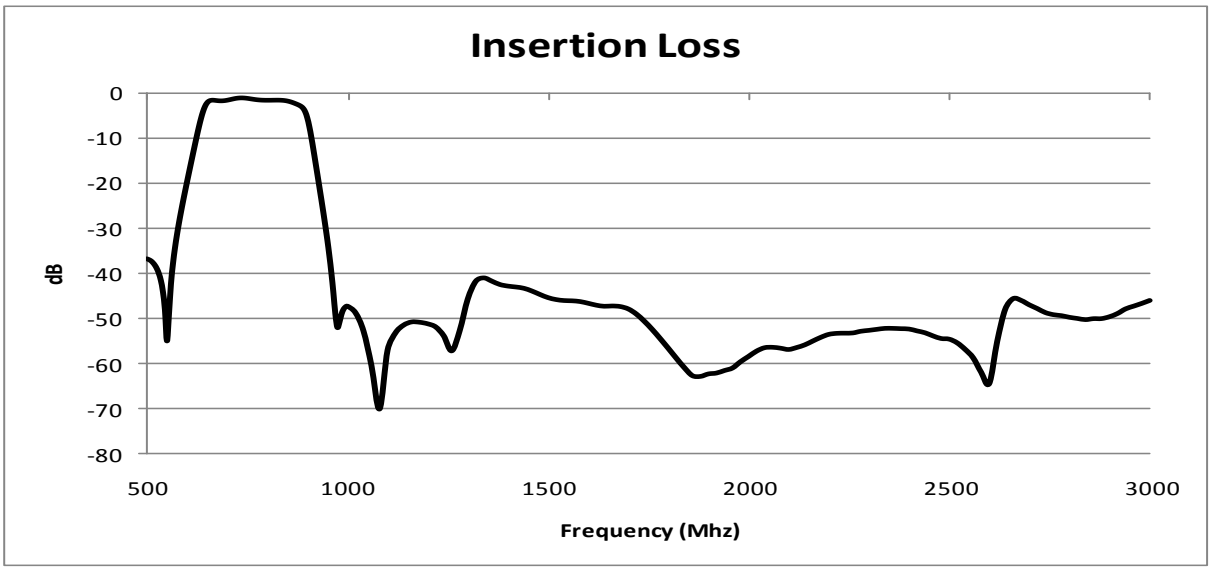


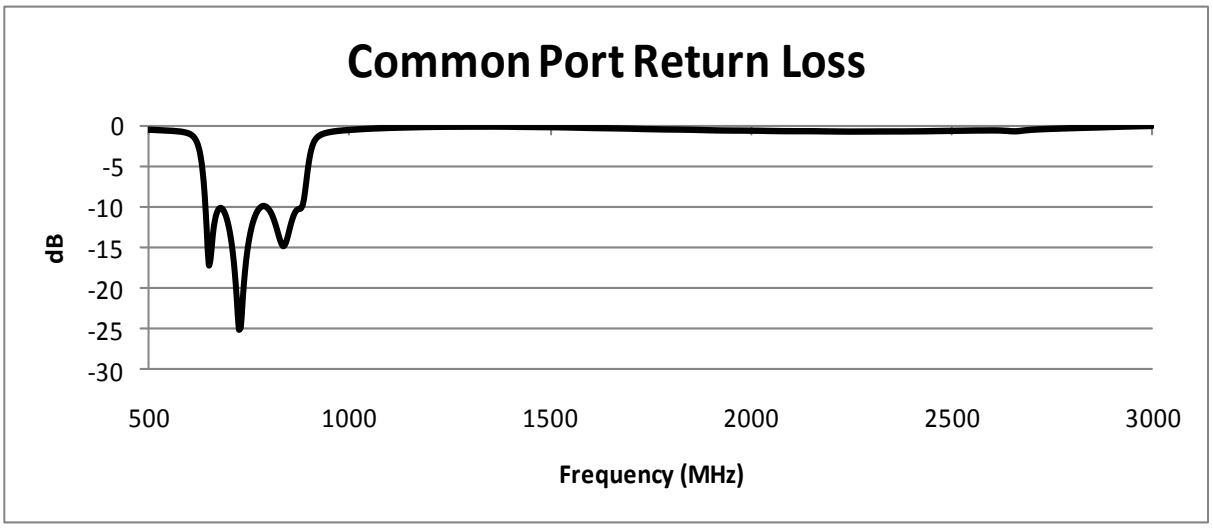
1. Dimensions in mm.
2. Tolerance: ±0.1mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1 µm gold over 3 to 6 µm nickel

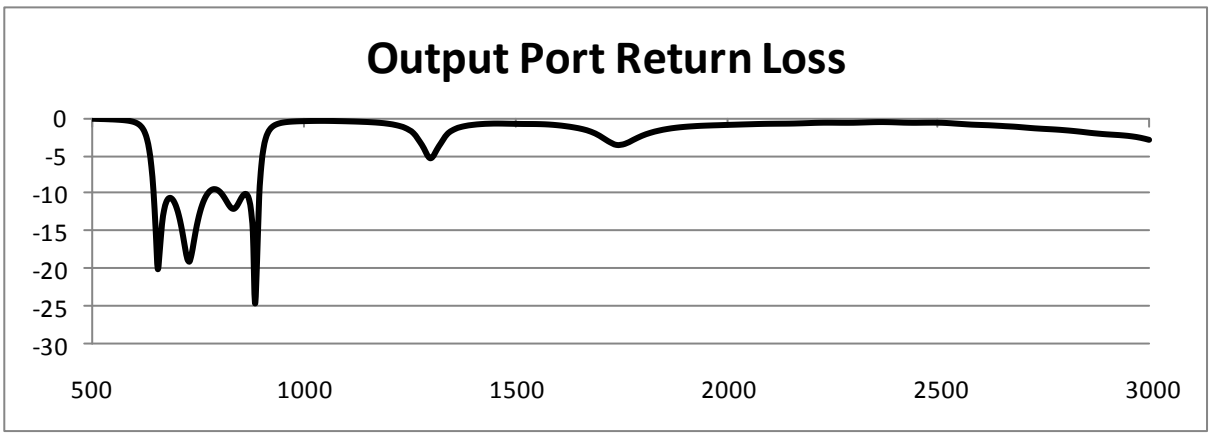
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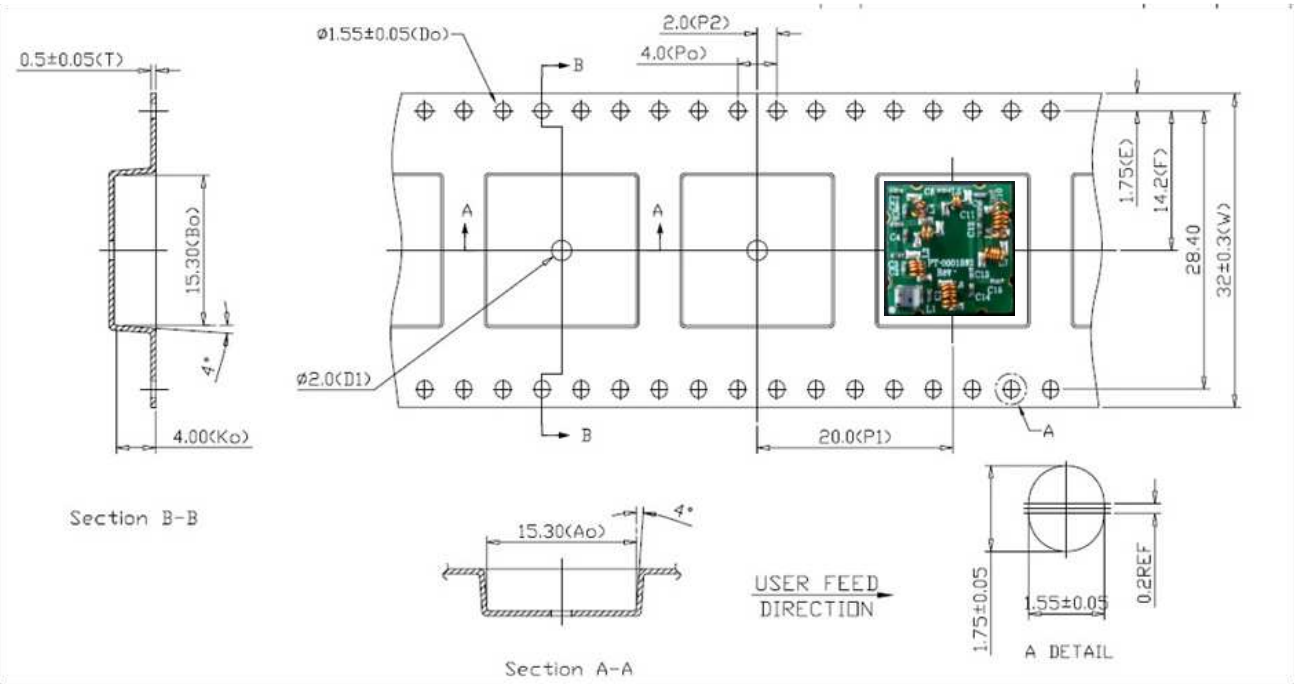
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Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	500
Reel size	mm	330

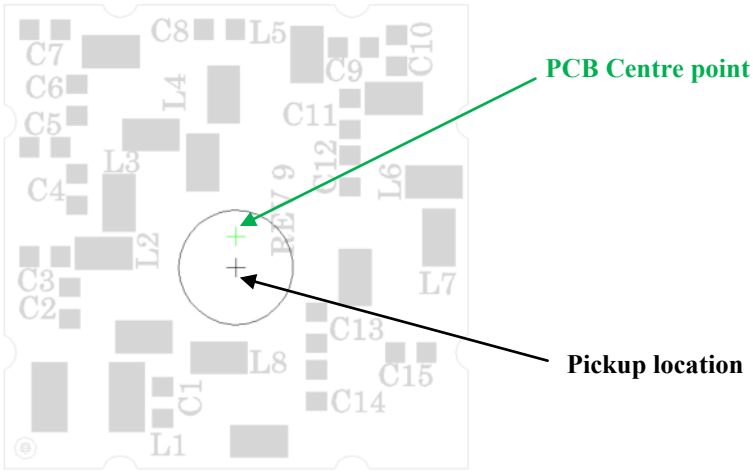
Ordering Information

Part Number	Description
MAFL-011003	Tape & Reel
MAFL-011003-TB	Customer Evaluation Board



Recommended Pick up location

The pickup location must be offset from the centre of the part by 1mm in 1 axis due to the location of the surface mount components.



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