

Features

- 75 Ohm
- SMT unit
- RoHS* Compliant
- Pb Free

Description

- M/A-COM Technology Solutions's MAFL-010256-CB0AD0 is a surface mount Band-Pass Filter unit designed for MoCA applications.

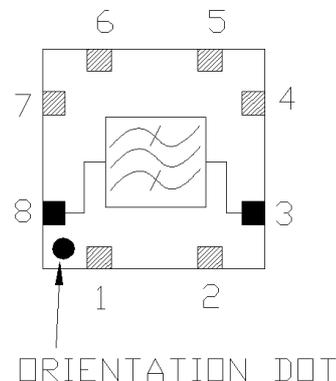
Product Image



Pin Configuration

Function	Pin Number
Input Port	8
Band-Pass Port	3
Ground	1, 2, 4 - 7
Not connected	-

Functional Schematic



Recommended Maximum Ratings^{1 2}

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

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

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

Parameter	Unit	Typ	Min	Max
Insertion Loss 1125 - 1550 MHz	dB	1.7	-	2.0
Stopband Rejection 5 - 300 MHz	dB	53	50	-
300 - 800 MHz	dB	44	40	-
800 - 1002 MHz	dB	40	38	-
2250 - 3000 MHz	dB	35	33	-
Input Port Return Loss 1125 - 1200 MHz	dB	12.5	11	-
1200 - 1550 MHz	dB	11	10	-

¹ * Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

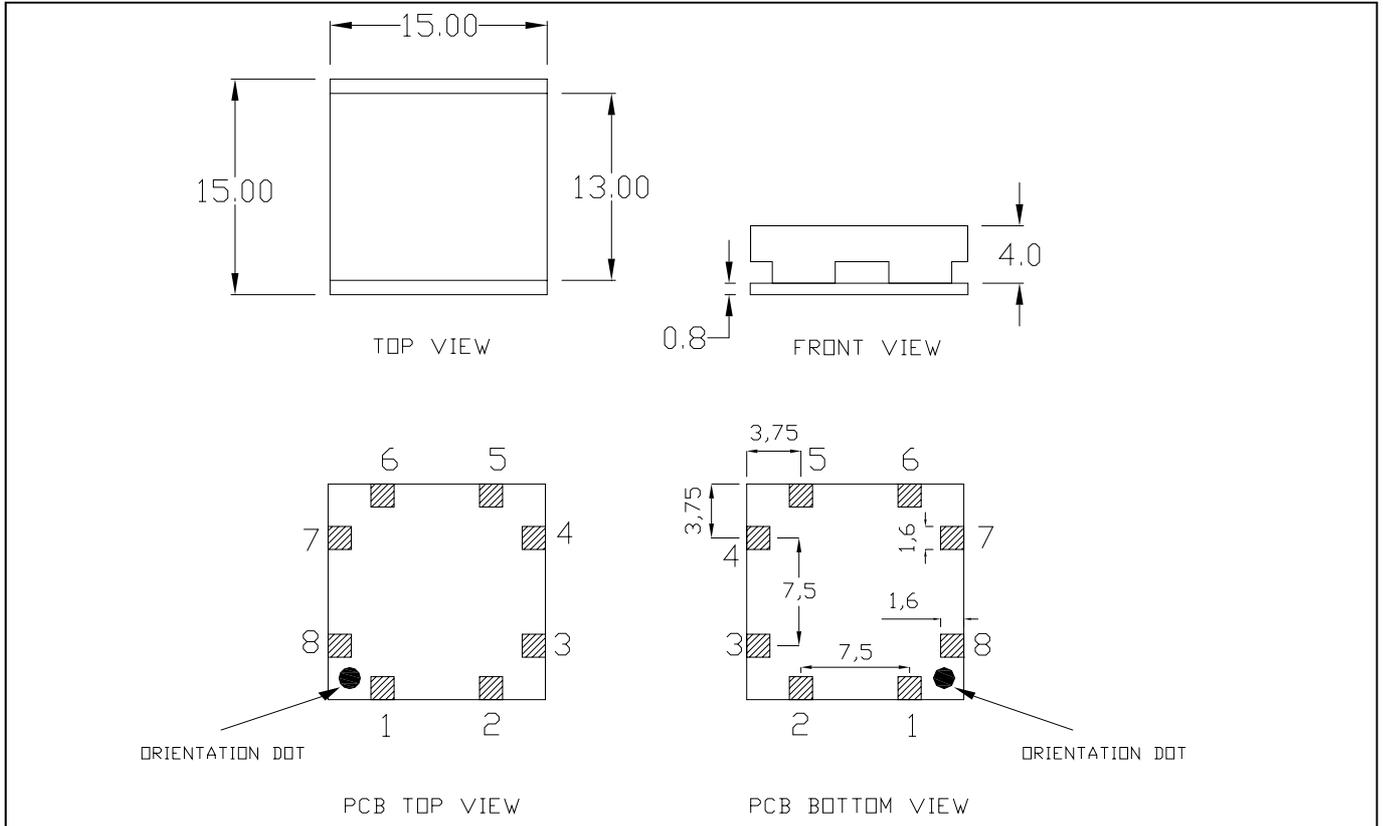
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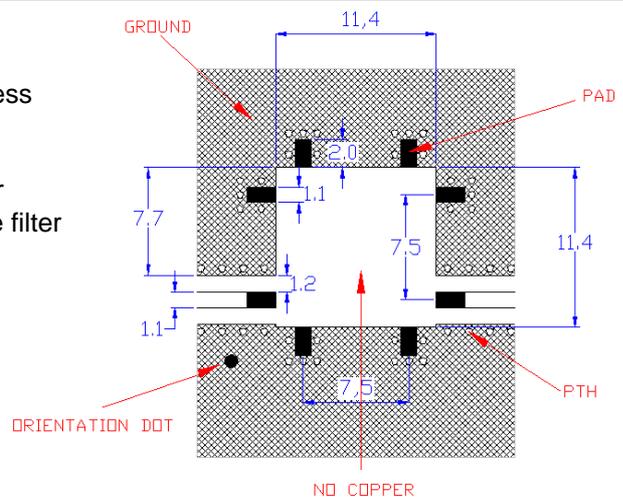
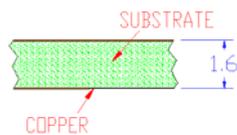
Outline Drawing: SM-173



* Dimensions are millimeters ± 0.2 unless otherwise specified., Drawing not to scale.

Recommended PCB Configuration

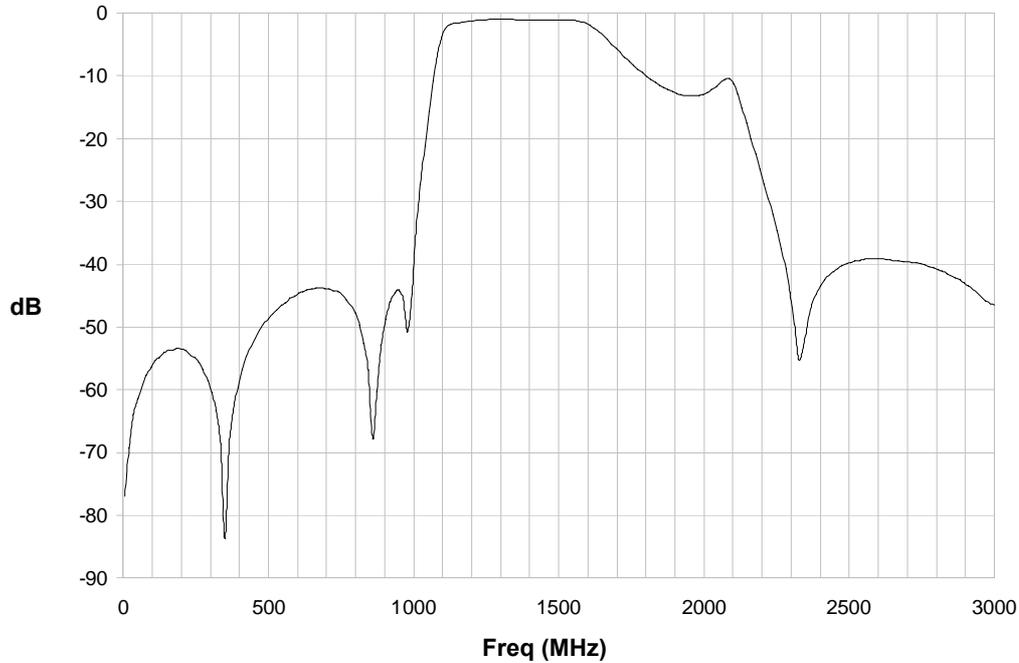
- Track dimension = 1.1mm
- Gap dimension = 1.2mm
- It is not recommended to run tracks under the filter unless they are greater than 1.6mm below the base.
- Ground should be 1.6mm below the base of the filter
- Area directly under the filter should be free from copper
- RF shield should be kept a minimum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



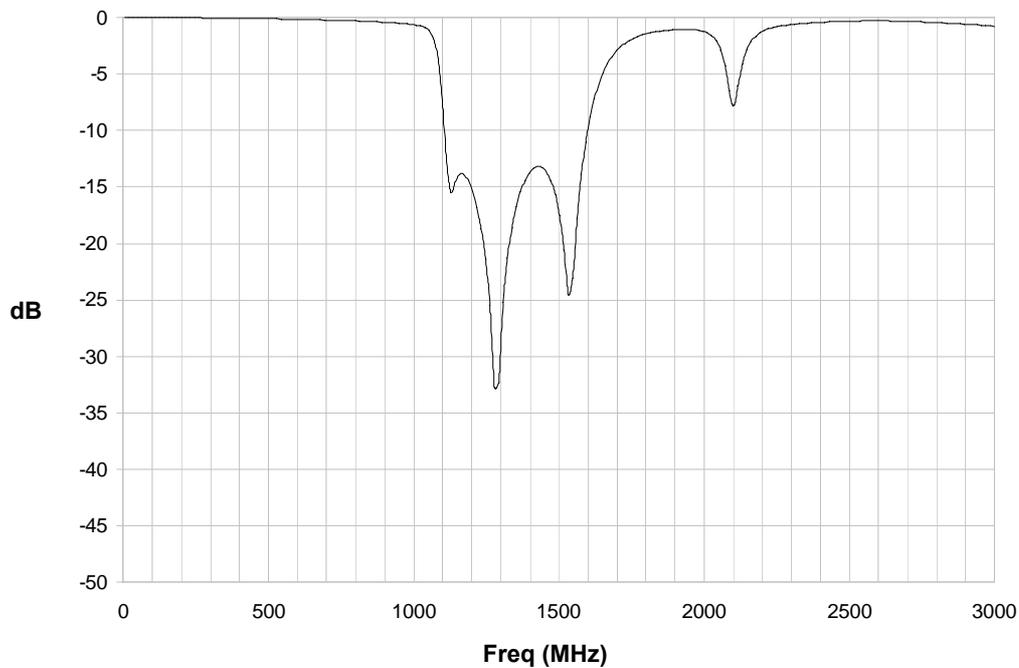
* Dimensions are millimeters ± 0.1 unless otherwise specified.

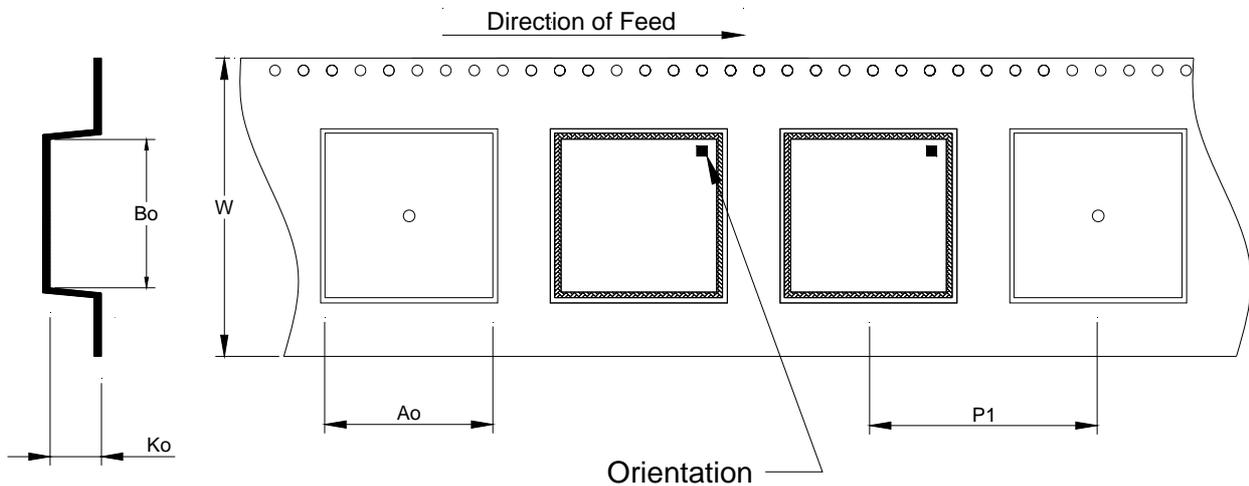
Typical Performance Curves at +25°C

Insertion Loss



Return Loss





Item	Dimension
Ao	15.40mm +/- 0.1mm
Bo	15.40mm +/- 0.1mm
Ko	5.40mm +/- 0.1mm
W	32.00mm +/- 0.3mm
P1	20.00mm +/- 0.1mm

Ordering Information

Part Number	Package
MAFL-010256-CB0AD0	500pcs Reel
MAFL-010256-CB0ATB	Customer Evaluation Board