

CATV Diplex Filter 5 - 864 / 1128 - 1525 MHz

Rev. V3

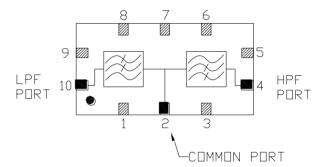
Features

- 75 Ohm
- SMT unit
- RoHS* Compliant

Description

 M/A-COM Technology Solutions MAFL-009217-CD0AC0 is a surface mount diplex filter unit designed for MoCA applications.

Functional Schematic



Product Image



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 |

Pin Configuration

| Function | Pin Number |
|----------------|-------------|
| Common Port | 2 |
| Low Pass Port | 10 |
| High Pass Port | 4 |
| Ground | 1, 3, 5 - 9 |
| Not connected | - |

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

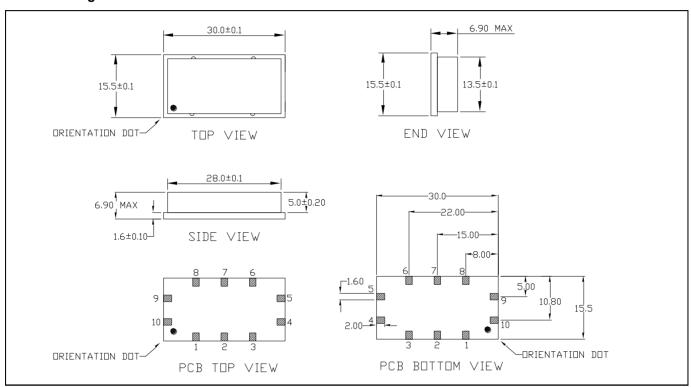
^{*} Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.



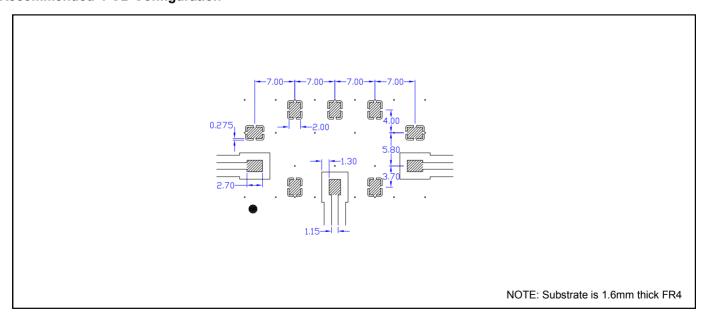
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Outline Drawing: SM-172



Recommended PCB Configuration



Dimensions in mm. Tolerance: $.x \pm 0.1$, $.xx \pm 0.05$ unless otherwise noted



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

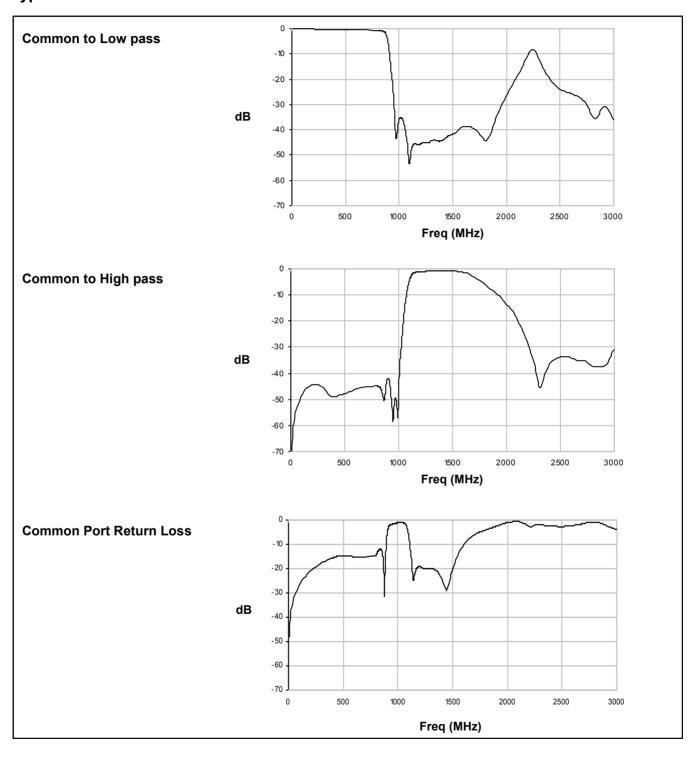
| Parameter | Units | Min | Тур | Max |
|-------------------------------|-------|-----|-----|-----|
| Common to Low | | | | |
| Insertion Loss | | | | |
| 5 - 750 MHz | dB | - | 0.5 | 1.0 |
| 750 -864 MHz | dB | - | 1.0 | 1.5 |
| Rejection | | | | |
| 977 - 1023 MHz | dB | 30 | 35 | - |
| 1128 - 1525 MHz | dB | 37 | 44 | - |
| Common to High | | | | |
| Insertion Loss | | | | |
| 1128 - 1525 MHz | dB | - | 1.5 | 2.0 |
| Rejection | | | | |
| 5 - 750 MHz | dB | 40 | 44 | - |
| 750 - 864 MHz | dB | 37 | 45 | - |
| 977 - 1023 MHz | dB | 30 | 43 | - |
| 2300 - 2400 MHz | dB | 30 | 34 | - |
| 2400 - 3000 MHz | dB | 20 | 25 | - |
| Common Port Return Loss | | | · | |
| 5 - 864 MHz | dB | 12 | 14 | - |
| 1128 - 1525 MHz | dB | 12 | 18 | - |
| Common Port Voltage Transient | V | - | - | 200 |



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Typical Performance Curves at +25°C

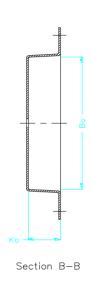


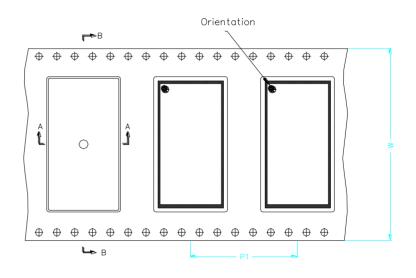


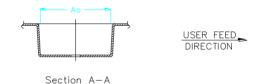
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Tape Specification







| Item | Dimension | |
|------|-------------------|--|
| Ao | 15.80mm +/- 0.1mm | |
| Во | 30.30mm +/- 0.1mm | |
| Ko | 7.20mm +/- 0.1mm | |
| W | 44.00mm +/- 0.3mm | |
| P1 | 24.00mm +/- 0.1mm | |

Ordering Information

| Part Number | Package |
|--------------------|--------------|
| MAFL-009217-CD0AC0 | 200 pcs Reel |
| | |



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