

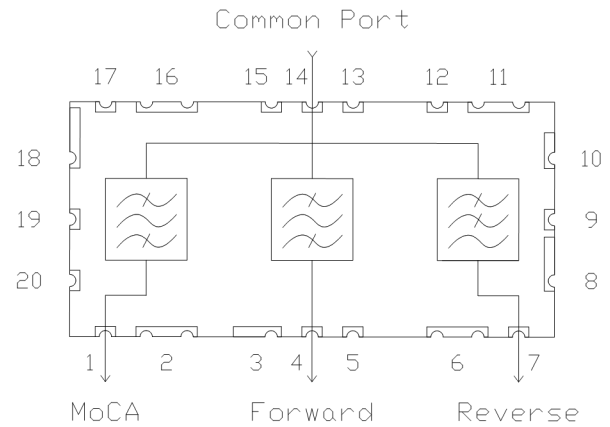
Features

- 75 Ohm
- SMT unit
- RoHS* Compliant

Description

The MAFL-011026 is a low profile, surface mount filter with 3 transmission paths allowing full triplexer operation. The CATV reverse and forward bands are provided along with a further band meeting the MoCA specification. This filter is specifically designed for CATV and MoCA applications.

Functional Schematic



Ordering Information

| Part Number | Package |
|------------------|----------------|
| MAFL-011026 | 200 piece reel |
| MAFL-011026-Tray | 480 piece tray |

Pin Configuration

| Pin Number | Function |
|-------------------------|--------------|
| 1 | MoCA Port |
| 4 | Forward Port |
| 7 | Reverse Port |
| 14 | Common Port |
| 2, 3, 5, 6, 8-13, 15-20 | Ground |

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

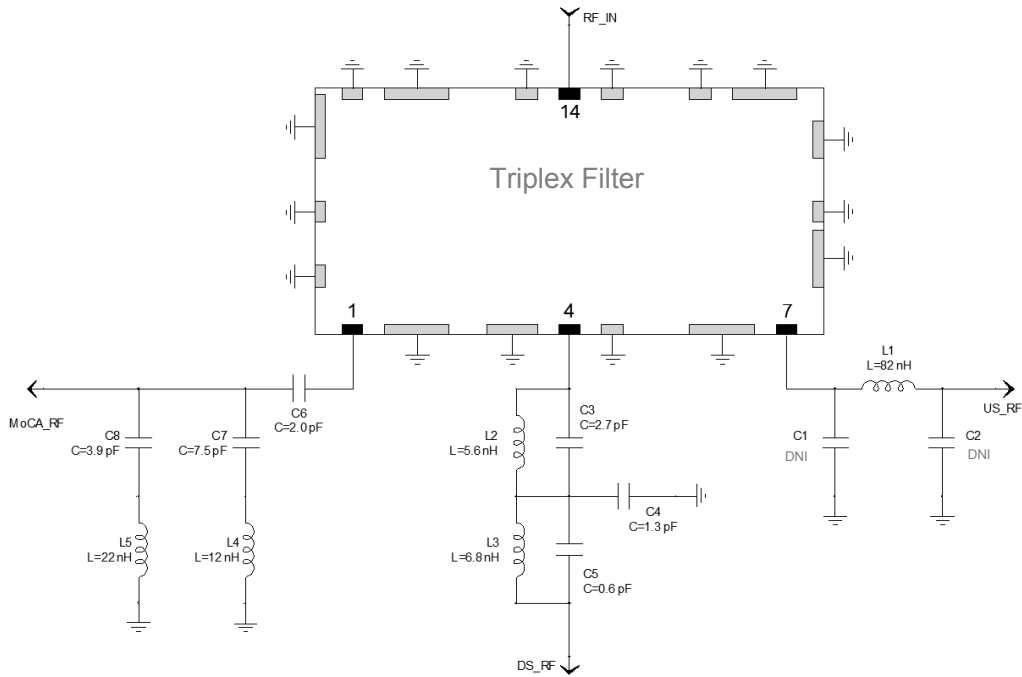
Electrical Specifications: $T_A = +25^\circ\text{C}$, $Z_0 = 75\Omega$

| Parameter | Test Conditions | Units | Min. | Typ. | Max. |
|--------------------------------|---|-------|----------------------|----------------------|----------------------|
| Reverse Path Insertion Loss | 5 - 85 MHz | dB | — | 1.2 | 1.5 |
| Reverse Path Rejection | 105 - 126 MHz 126 - 1002 MHz 1125 - 1675 MHz 1675 - 3000 MHz | dB | 62 64 60 30 | 70 70 64 50 | — |
| Forward Path Insertion Loss | 105 - 126 MHz 126 - 860 MHz 860 - 1002 MHz | dB | — | 1.50 0.75 2.5 | 2.00 1.50 2.75 |
| Forward Path Rejection | 5 - 85 MHz 1125 - 1675 MHz 1675 - 3000 MHz | dB | 50 43 20 | 52 45 30 | — |
| MoCA Path Insertion Loss | 1125 - 1150 MHz 1150 - 1650 MHz 1650 - 1675 MHz | dB | — | 2.8 2.5 2.5 | 3.0 2.7 3.0 |
| MoCA Path Rejection | 5 - 85 MHz 85 - 1002 MHz 2300 - 3000 MHz | dB | 49 49 25 | 70 55 35 | — |
| Input Return Loss | 5 - 85 MHz 105 - 860MHz 860 - 1002MHz 1125 - 1675 MHz | dB | 16 16 12 12 | 18 18 16 16 | — |
| Isolation - Forward to Reverse | 5 - 38 MHz 38 - 85 MHz 105 - 1002 MHz | dB | 55 43 60 | 58 45 65 | — |
| Isolation - Forward to MoCA | 5 - 85 MHz 105 - 126 MHz 126 - 1002 MHz 1125 - 1675 MHz | dB | 49 49 49 43 | 70 70 53 45 | — |

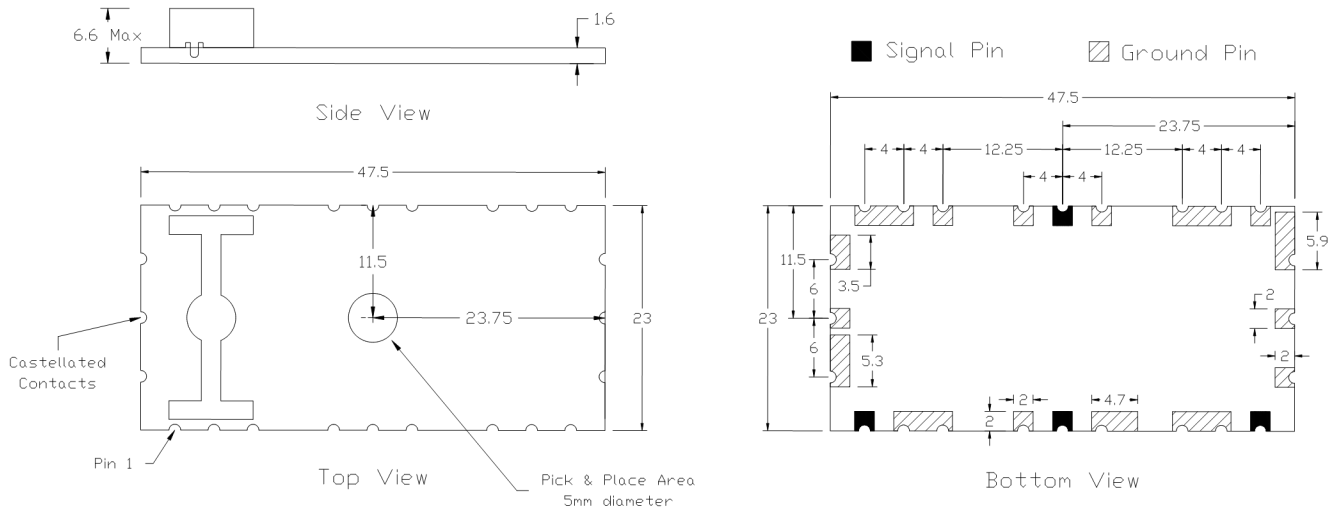
Recommended Maximum Ratings

| Parameter | Absolute maximum |
|-----------------------|------------------|
| RF Power | 250 mW |
| DC Current | 30 mA |
| Operating temperature | -40°C to +85°C |
| Storage temperature | -40°C to +85°C |

Application Schematic



Outline Dimensions

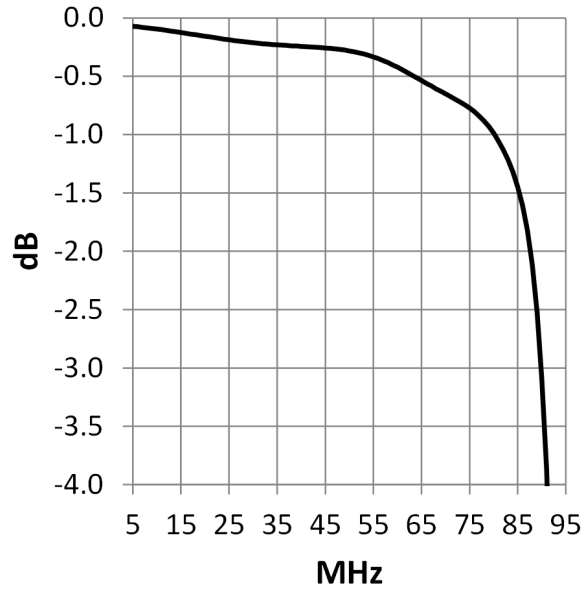


Dimensions are in millimetres.

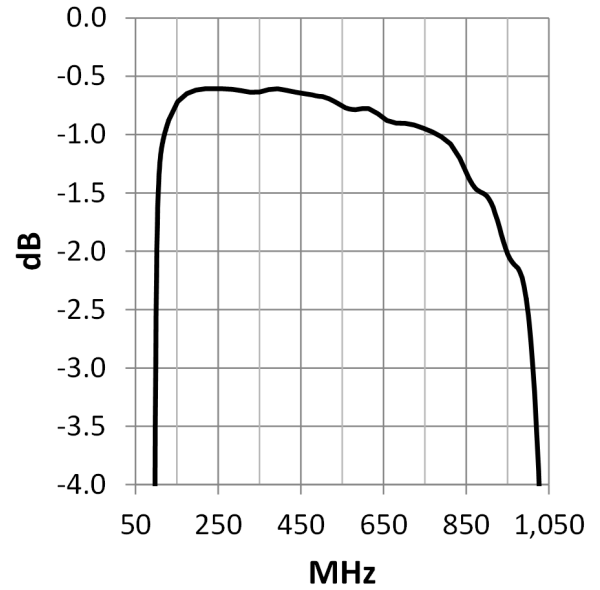
Tolerance: $.x \pm 0.1$ mm, except where specified.

Typical Performance Curves

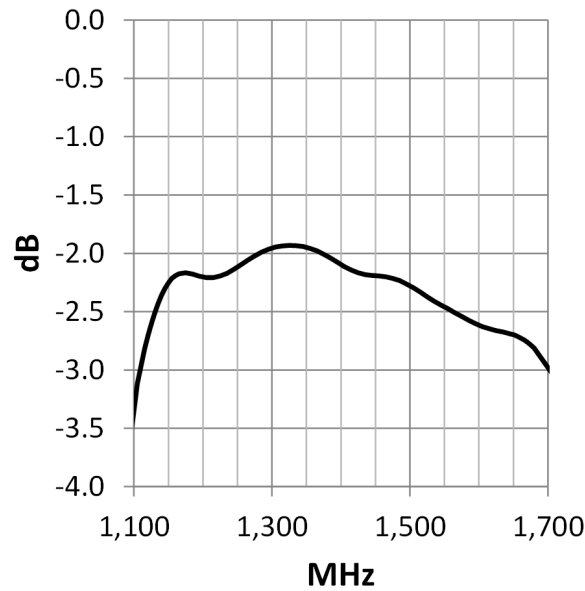
Reverse Insertion Loss



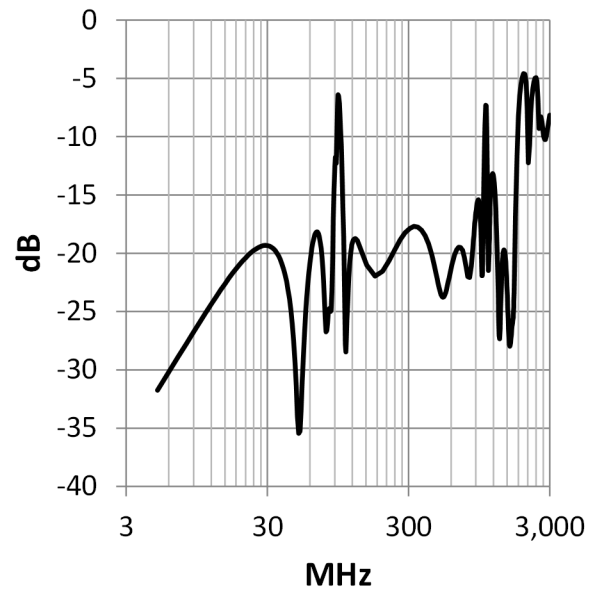
Forward Insertion Loss



MoCA Insertion Loss

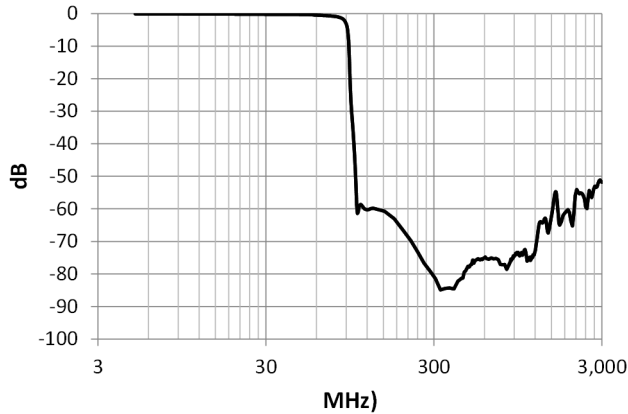


Common Port Return Loss

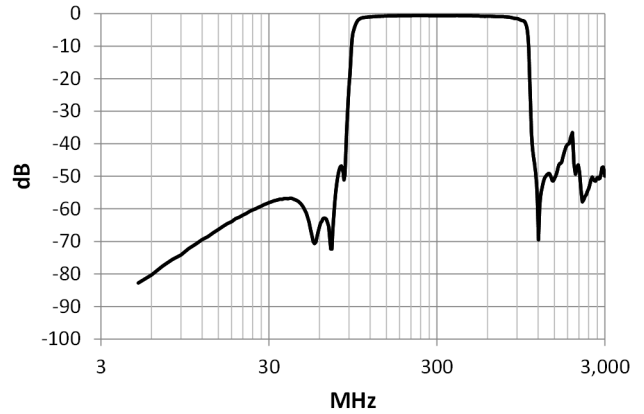


Typical Performance Curves

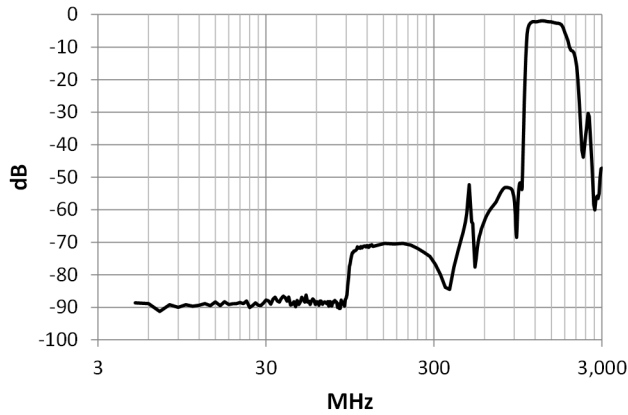
Reverse Path



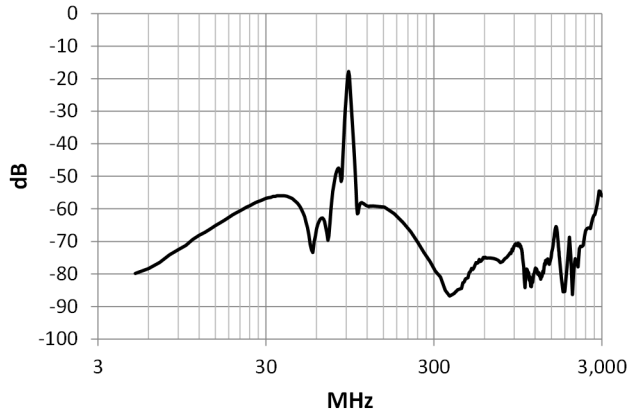
Forward Path



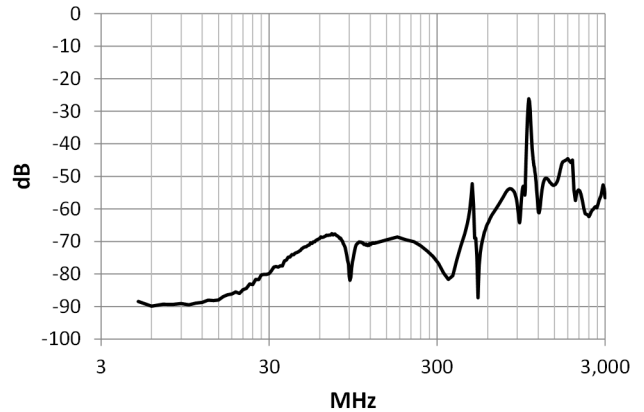
MoCA Path



Reverse to Forward Isolation

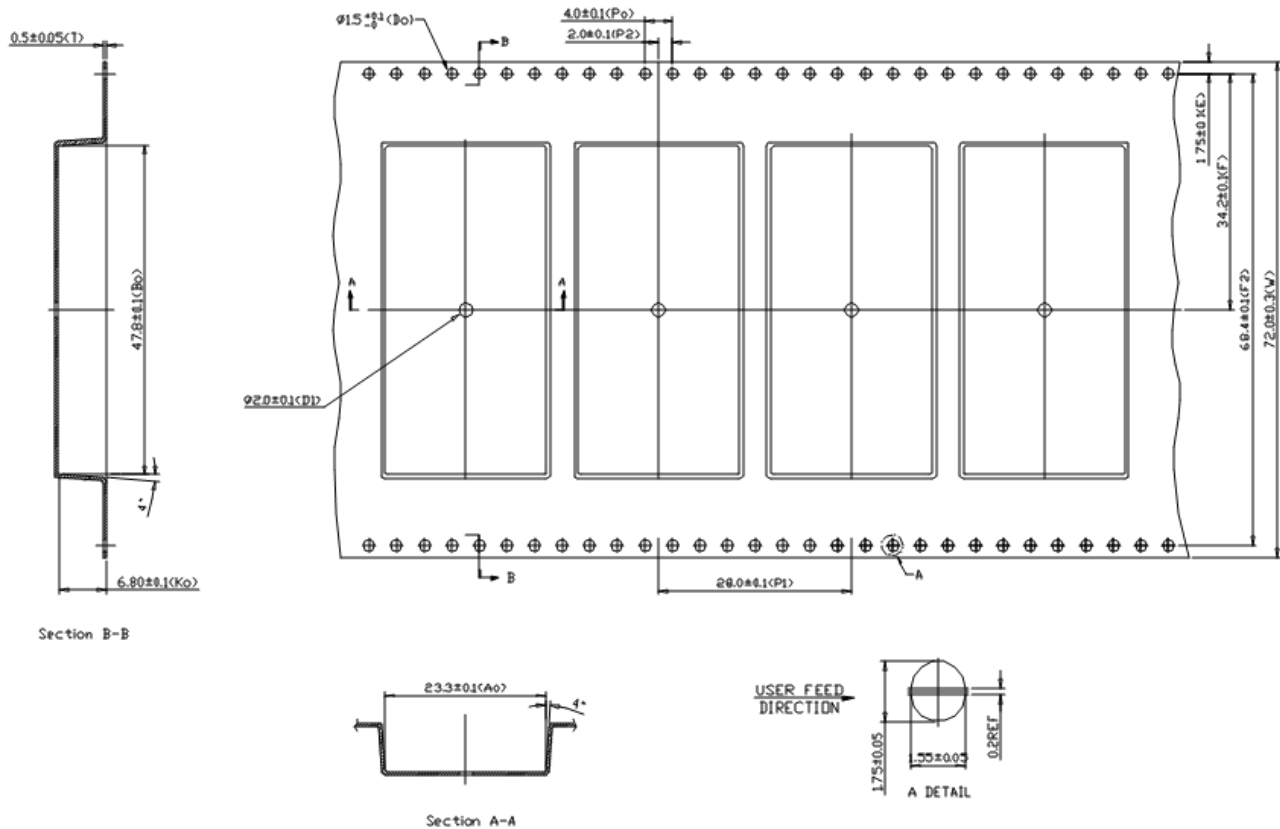


Forward to MoCA Isolation



Tape & Reel Information

| Parameter | Units | Value |
|--|-------|-------|
| Qty per reel | - | 200 |
| Reel Size | mm | 330 |
| Tape Width | mm | 72.0 |
| Pitch | mm | 28.0 |
| Ao | mm | 23.3 |
| Bo | mm | 47.8 |
| Ko | mm | 6.8 |
| Orientation | - | F54 |
| Reference Application Note ANI-019 for orientation | | |



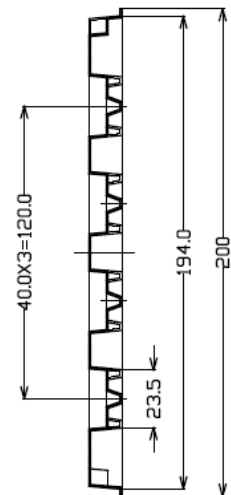
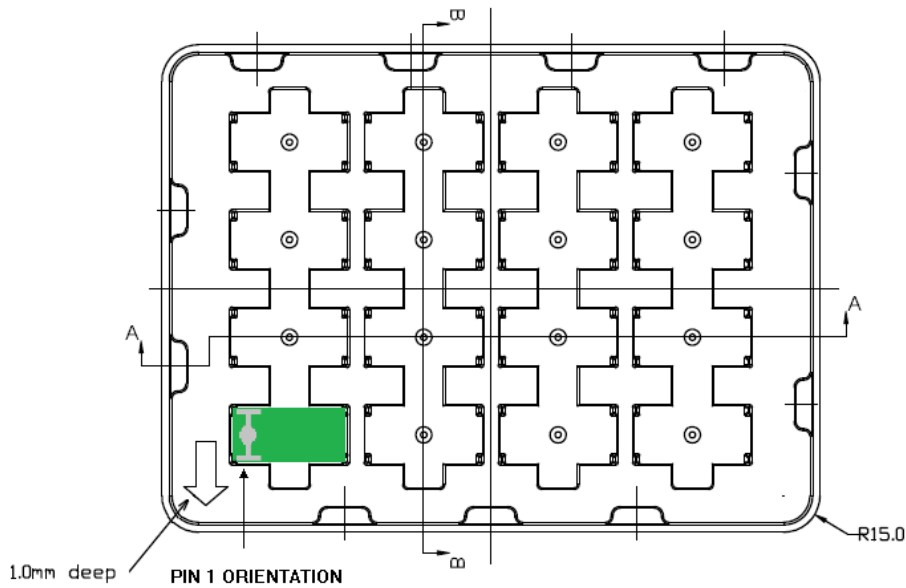
Dimensions are in millimetres.

Tolerance: $.x \pm 0.1$ mm, except where specified.

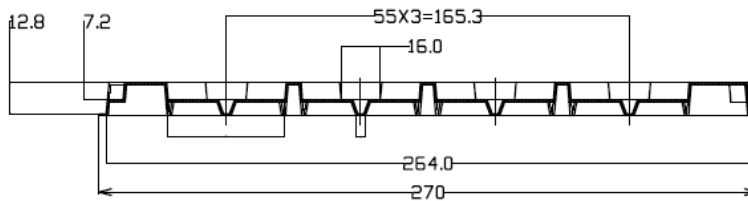
7

Tray Information

| Parameter | Units | Value |
|---|-------|-----------|
| Min Order Qty | - | 480 |
| Tray Length | mm | 270 |
| Tray Width | mm | 200 |
| Height | mm | 20.8 |
| Ao | mm | 35 |
| Bo | mm | 50 |
| Ko | mm | 14.4 |
| Orientation | - | See below |
| Consecutive trays will be stacked alternately at 180° | | |



Section B-B



Section A-A

Dimensions are in millimetres.

Tolerance: $.x \pm 0.1$ mm, except where specified.