

CATV Diplex Filter 5-42 / 54-1218MHz

Rev. V2

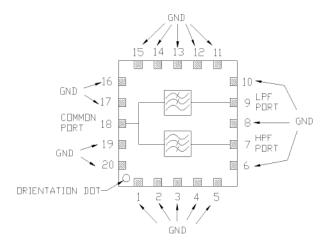
Features

- 75 Ohm
- SMT unit
- · RoHS Compliant and Pb free.

Description

MAFL-011055 is a Low Cost, surface mount Diplex Filter unit designed for CATV applications, DTV and DBS applications.

Functional Schematic



Ordering Information

| Part Number | Package |
|-------------|---------|
| MAFL-011055 | 200 |

Pin Configuration

| Function | Pin Number | | |
|----------------|-------------------------|--|--|
| Common Port | 18 | | |
| Low Pass Port | 9 | | |
| High Pass Port | 7 | | |
| Ground | 1 - 6, 8, 10-17, 19, 20 | | |
| Not connected | - | | |

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Electrical Specifications: $T_A = 25$ °C, $Z_0 =$

| Parameter | Units | Min | Тур | Max |
|---|-------|-----|-----|-----|
| Insertion Loss 5 - 42 MHz | dB | - | 0.5 | 1.3 |
| 54 - 1218 MHz | dB | | 0.5 | 1.3 |
| Insertion Loss Flatness 5 - 42 MHz | dB | - | - | 0.5 |
| Filter Rejection 5 - 42 MHz | dB | 43 | 50 | - |
| 54 - 1218 MHz | dB | 43 | 50 | - |
| Filter Return Loss (all ports) 5 - 42 MHz | dB | 18 | 20 | - |
| 54 - 1218 MHz | dB | 17 | 19 | - |
| Group Delay 38.5 - 42 MHz | nSec | - | - | 20 |
| 54 - 57.5 MHz | nSec | - | - | 20 |

Recommended Maximum Ratings

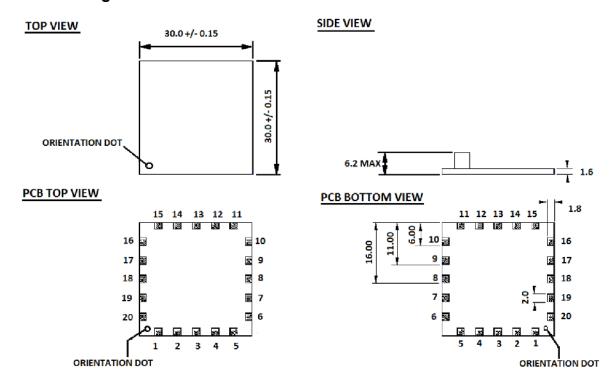
| Parameter | Value | | |
|-----------------------|----------------|--|--|
| Storage Temperature | -40°C to +85°C | | |
| Operating Temperature | -40°C to +85°C | | |
| DC Current | 30mA | | |
| RF Power | 250mW | | |



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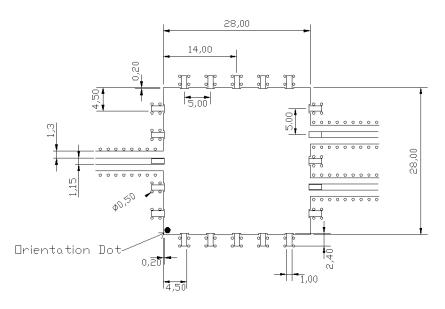
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Outline Drawing



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

Recommended PCB Configuration



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

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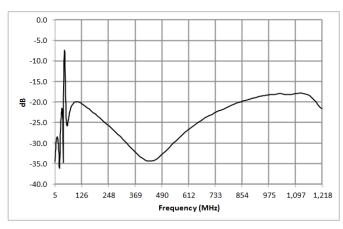


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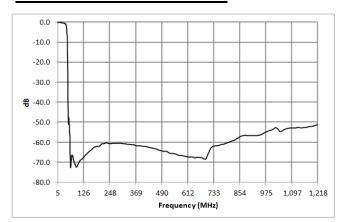
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Typical Performance: $T_A = 25^{\circ}C$, $Z_0 = 75\Omega$

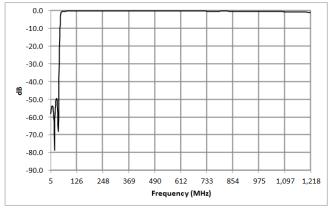
Input Port Return Loss



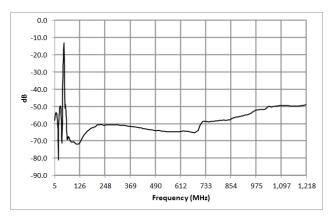
Low Pass Filter Insertion Loss



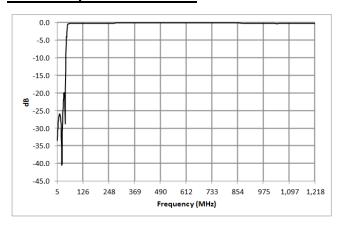
High Pass Filter Insertion Loss



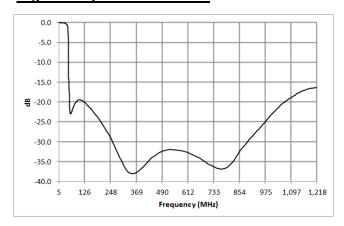
Filter Isolation



Low Pass port Return Loss



High Pass port Return Loss



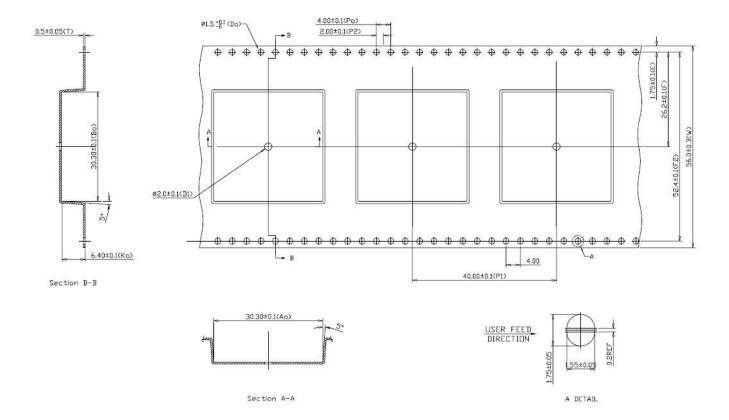


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Tape & Reel Information

| Parameter | Units | Value | | |
|--|-------|-------|--|--|
| Qty per reel | - | 200 | | |
| Reel Size | mm | 330 | | |
| Tape Width | mm | 56.00 | | |
| Pitch | mm | 40.00 | | |
| Ao | mm | 30.3 | | |
| Во | mm | 30.3 | | |
| Ko | mm | 6.4 | | |
| Orientation | - | F30 | | |
| Reference Application Note ANI-019 for orientation | | | | |



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