

## CATV Diplex Filter 5-85 / 102-1218MHz

Rev. V1

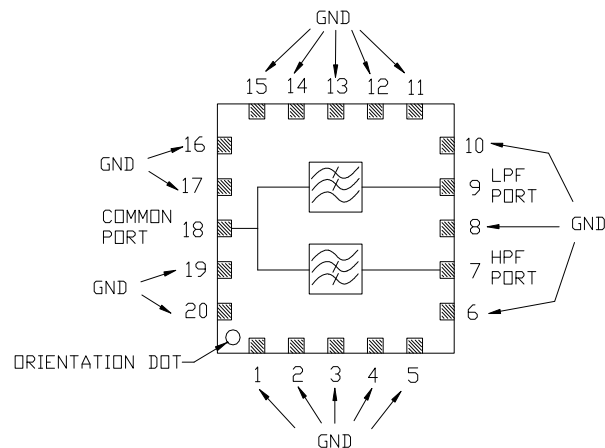
### Features

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

### Description

MAFL-011057 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-011057	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: $T_A = 25^\circ\text{C}$ , $Z_0 = 75\Omega$

Parameter	Units	Min	Typ	Max
<b>Insertion Loss</b> 5 - 85 MHz	dB	-	0.5	1.5
102 - 1218 MHz	dB		0.5	1.5
<b>Insertion Loss Flatness</b> 5 - 85 MHz	dB	-	-	0.8
<b>Filter Rejection</b> 5 - 85 MHz	dB	43	50	-
102 - 1218 MHz	dB	43	50	-
<b>Filter Return Loss (all ports)</b> 5 - 85 MHz	dB	17	19	-
102 - 1218 MHz	dB	16	18	-
<b>Group Delay</b> 81.5 - 85 MHz	nSec	-	-	20
102 - 105.5 MHz	nSec	-	-	20

### Recommended Maximum Ratings

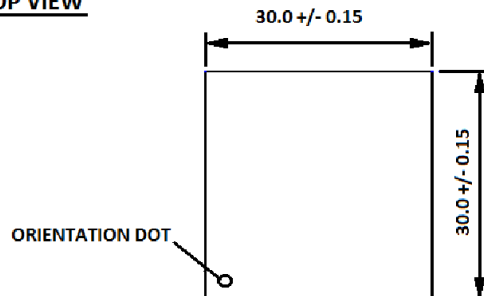
Parameter	Value
Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
DC Current	30mA
RF Power	250mW

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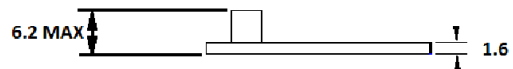
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### Outline Drawing

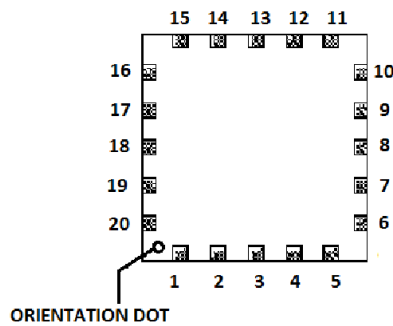
TOP VIEW



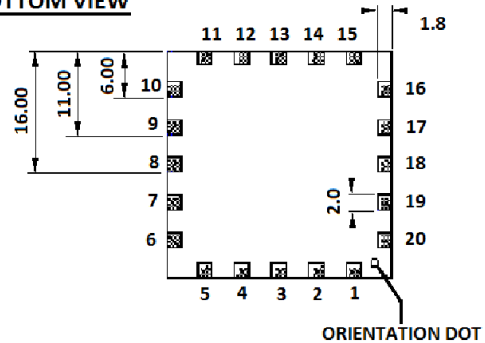
SIDE VIEW



PCB TOP VIEW

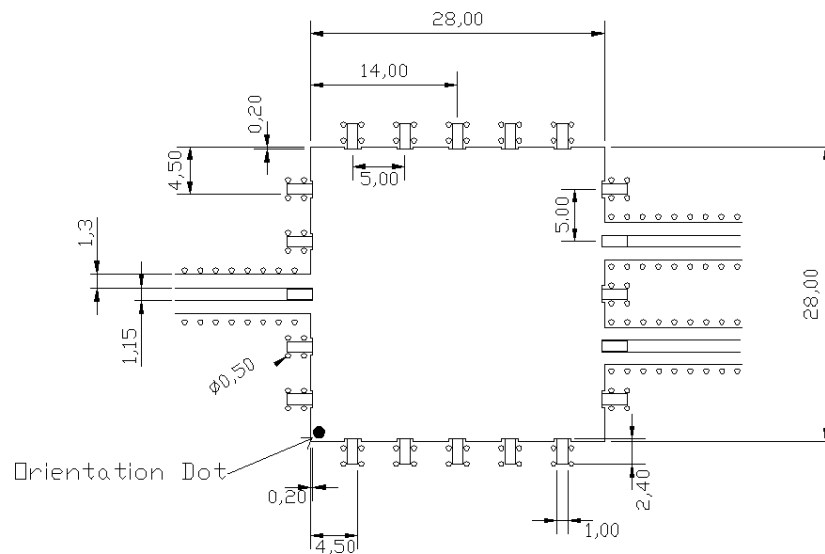


PCB BOTTOM VIEW



Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

### Recommended PCB Configuration



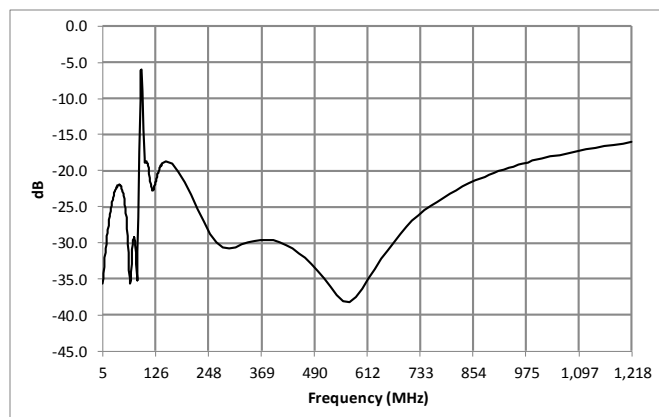
Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

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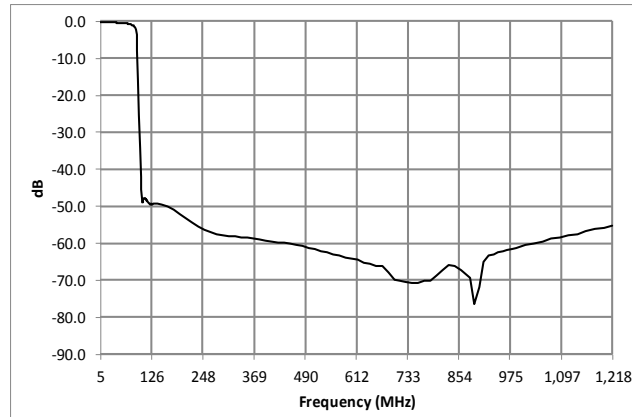
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Typical Performance:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$

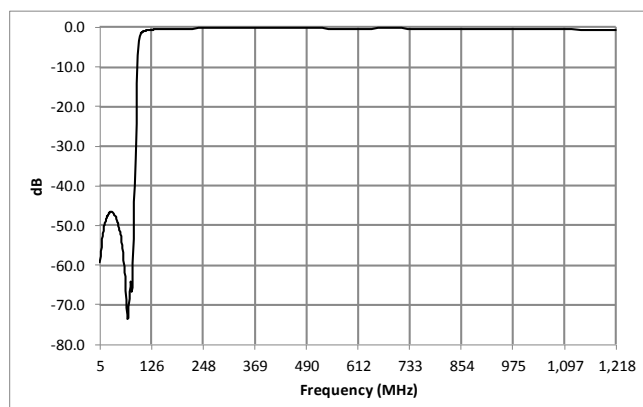
### Input Port Return Loss



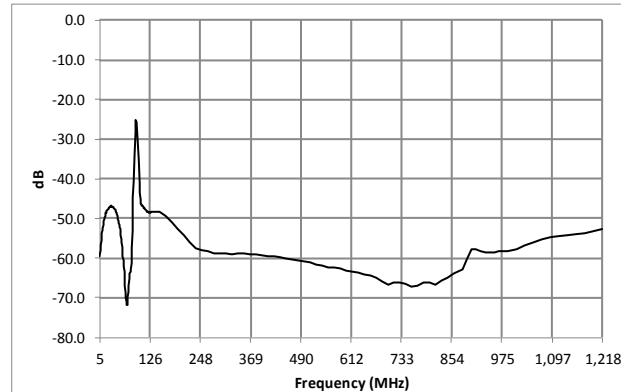
### Low Pass Filter Insertion Loss



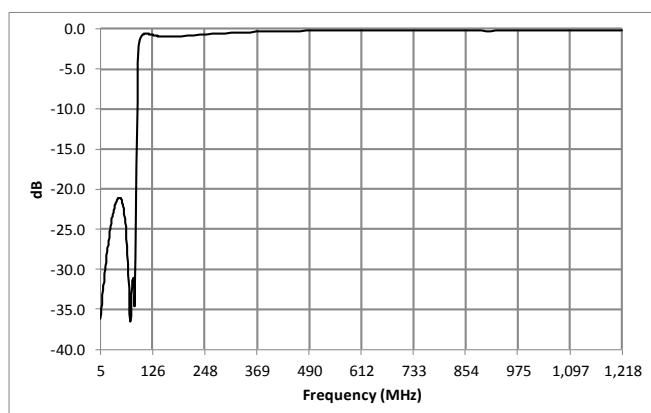
### High Pass Filter Insertion Loss



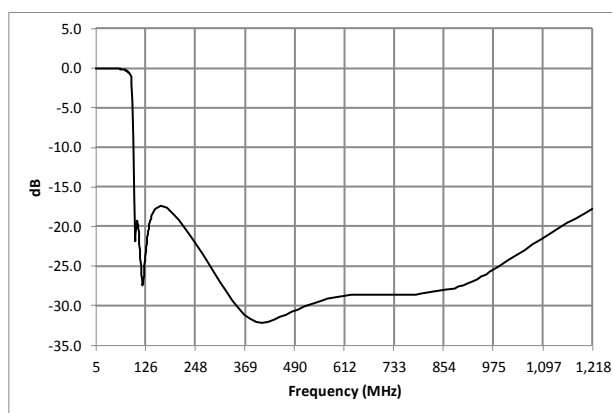
### Filter Isolation



### Low Pass port Return Loss



### High Pass port Return Loss

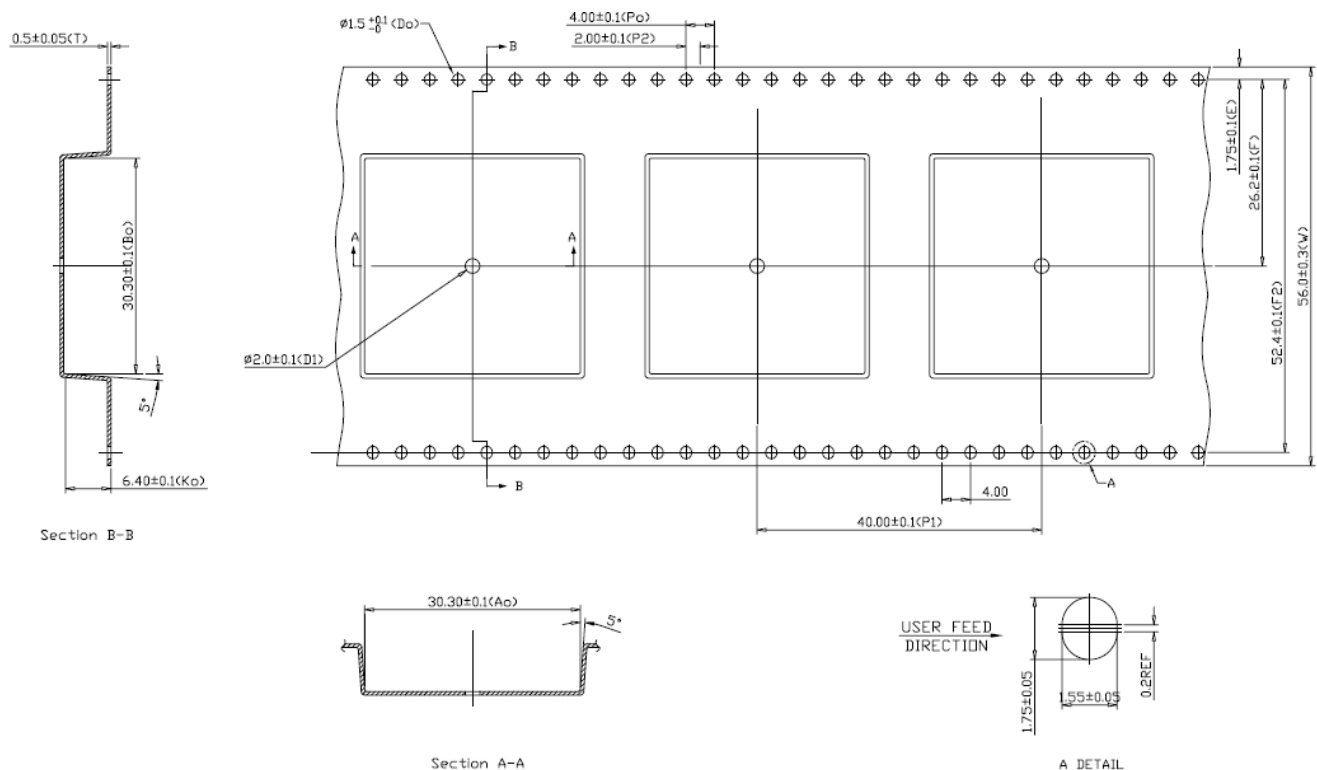


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### Tape & Reel Information

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



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