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

Rev. V2

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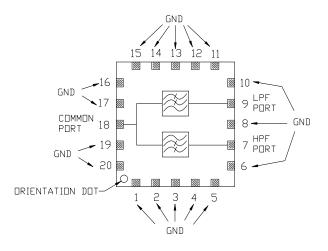
### Features

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

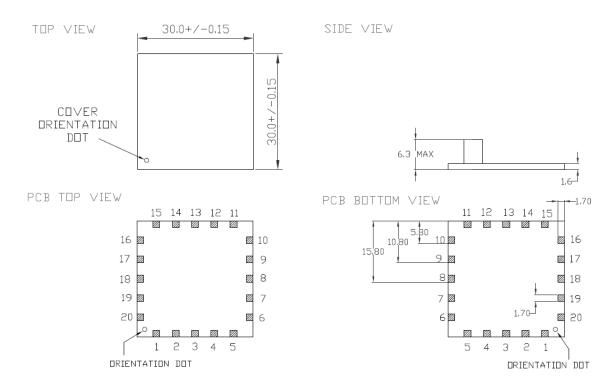
Parameter	Units	Min	Тур	Max
Insertion Loss 5 - 85 MHz	dB	-	0.5	1.5
102 - 1218 MHz	dB		0.5	1.5
Insertion Loss Flatness 5 - 85 MHz	dB	-	-	0.8
Filter Rejection 5 - 85 MHz	dB	43	50	-
102 - 1218 MHz	dB	43	50	-
Filter Return Loss (all ports) 5 - 85 MHz	dB	17	19	-
102 - 1218 MHz	dB	16	18	-
Group Delay 81.5 - 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		

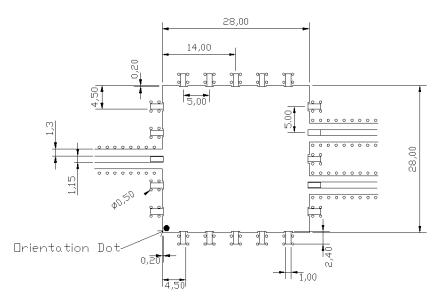
## CATV Diplex Filter 5-85 / 102-1218MHz

## **Outline Drawing**



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

## **Recommended PCB Configuration**



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

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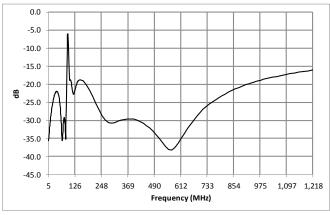
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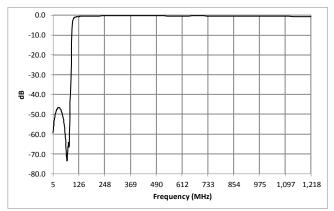
## **CATV** Diplex Filter 5-85 / 102-1218MHz

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

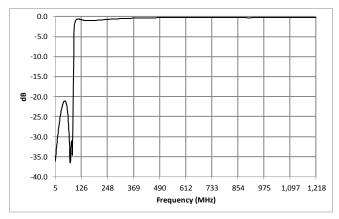
### Input Port Return Loss



## High Pass Filter Insertion Loss

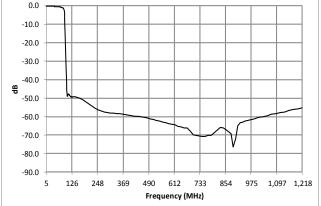


#### Low Pass port Return Loss

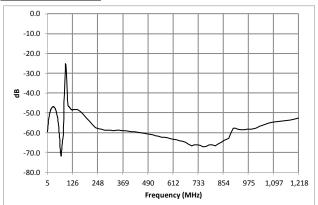


### 0.0 -10.0 -20.0 -30.0 -40.0 뜅 -50.0 -60.0 -70.0

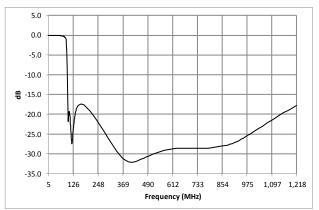
### Low Pass Filter Insertion Loss



## Filter Isolation



## 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		
Ко	mm	6.4		
Orientation	-	F30		
Reference Application Note ANI-019 for orientation				

4.00±0.1(Po) ¢1.5 +0.1 (Do)-0.5±0.05(T) 2.00±0.1(P2)  $\oplus \oplus \oplus$ ₽ ф 4  $\oplus$  $\oplus$  $\oplus$  $\oplus$ φφ  $\oplus$ 0 ¢ 1.75±0.1(E) 26.2±0.1(F) 30.30±0.1(Bo) 56.0±0.3CW) ŧ 52,4±0.1(F2) Ø2.0±0.1(D1) in 000 ÷ 6.40±0.1(Ko) В 4.00 40.00±0.1(P1) Section B-B 30.30±0.1(Ao) 5 USER FEED DIRECTION 0.2REF 75±0.05 1,55±0.05 Section A-A A DETAIL

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