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CATV Diplex Filter 5-85 / 102-1218MHz

Rev. V1

MACOM

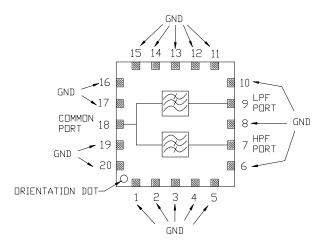
Features

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

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Electrical Specifications: $T_A = 25 °C$, $Z_0 = 75 \Omega$

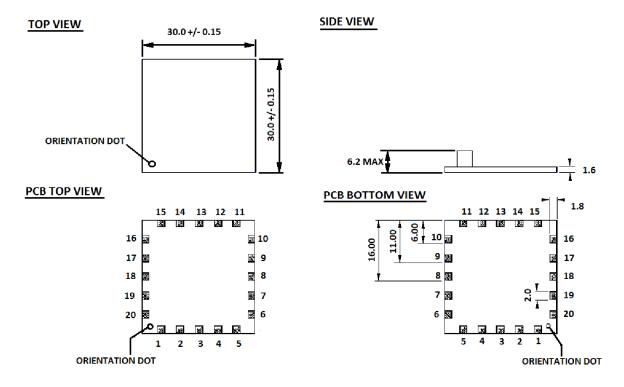
Parameter	Units	Min	Тур	Max
Insertion Loss 5 - 85 MHz	dB	-	0.5	1.5
102 - 1218 MHz	dB		0.5	1.5
Insertion Loss Flatness 5 - 85 MHz	dB	-	-	0.8
Filter Rejection 5 - 85 MHz	dB	43	50	-
102 - 1218 MHz	dB	43	50	-
Filter Return Loss (all ports) 5 - 85 MHz	dB	17	19	-
102 - 1218 MHz	dB	16	18	-
Group Delay 81.5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

Recommended Maximum Ratings

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

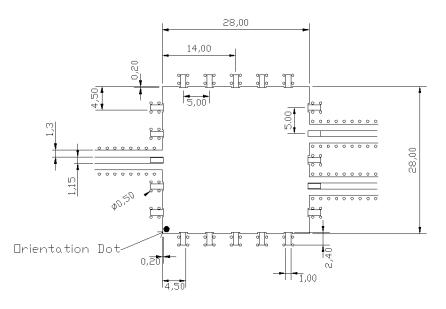
CATV Diplex Filter 5-85 / 102-1218MHz

Outline Drawing



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

Recommended PCB Configuration



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

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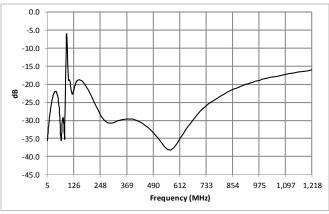
Rev. V1



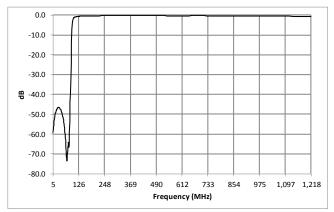
CATV Diplex Filter 5-85 / 102-1218MHz

Typical Performance: $T_A = 25 \degree C$, $Z_0 = 75\Omega$

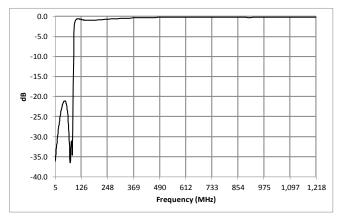
Input Port Return Loss



High Pass Filter Insertion Loss



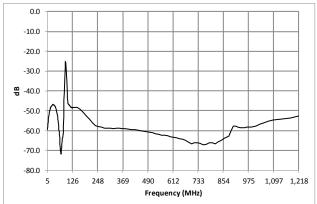
Low Pass port Return Loss



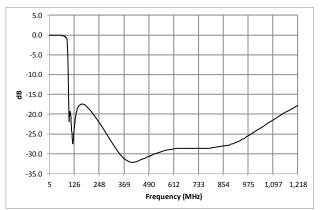


Low Pass Filter Insertion Loss





High Pass port Return Loss



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CATV Diplex Filter 5-85 / 102-1218MHz

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) Ø1.5 +0.1 (Do>-0.5±0.05(T) 2.00±0.1(P2) $\oplus \oplus \oplus$ ₽ ¢ ф \oplus $\oplus \oplus$ \oplus $\oplus \dot{\oplus} \dot{\oplus}$ \oplus 1.75±0.1(E> 26.2±0.1(F) (Bo) 56.0±0.3CW) ŧ 30.30±0.1 52,4±0.1(F2) Ø2.0±0.1(D1) in 000 • 6.40±0.1(Ko) → B 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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Rev. V1

CATV Diplex Filter 5-85 / 102-1218MHz



Rev. V1

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