

## CATV Diplex Filter 5 - 65 MHz / 88 - 1000 MHz

Rev. V4

### Features

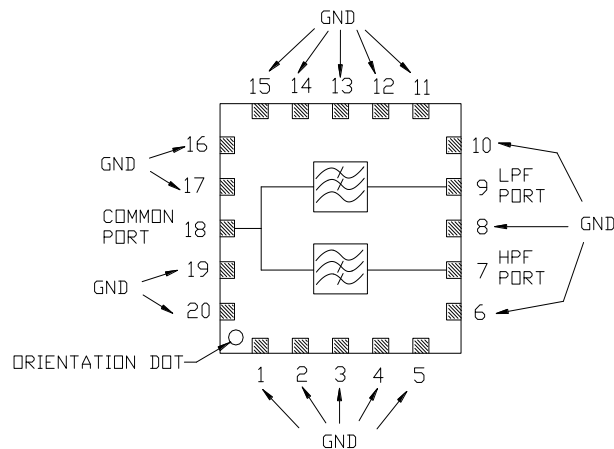
- 75 Ohm
- SMT unit
- RoHS Compliant and lead free

### Description

MAFL-007988-CD0550 is a low cost, non hermetically sealed surface mount diplex filter unit designed for CATV, DTV and DBS applications.



### Functional Schematic



### Ordering Information

Part Number	Package
MAFL-007988-CD0550	50 Piece Reel
MAFL-007988-CD05TB	Customer Test Board

### Pin Configuration

Pin Number	Function
1-6, 8, 10-17, 19, 20	Ground
7	High Pass Port
9	Low Pass Port
18	Common Port

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	5 - 65 MHz	dB	—	0.5	1.0
	88 - 1000 MHz			0.5	1.2
Return Loss	5 - 65 MHz	dB	17	20	—
	55 - 1000 MHz		17	20	
Rejection	5 - 65 MHz	dB	45	50	—
	88 - 1000 MHz		45	50	
Isolation	5 - 65 MHz	dB	45	50	—
	88 - 1000 MHz		45	50	

### Absolute Maximum Ratings<sup>1,2</sup>

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

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

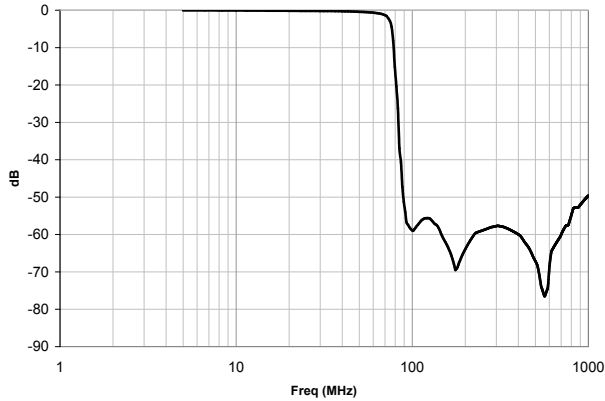
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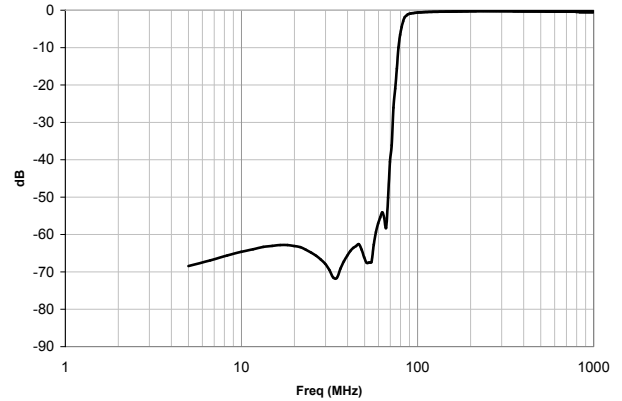
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Typical Performance:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$

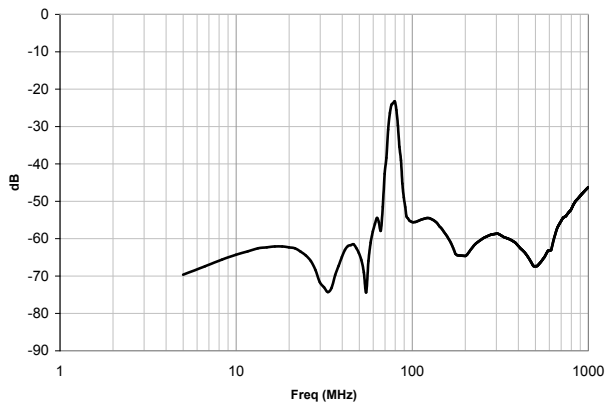
### Low Pass Filter Insertion Loss



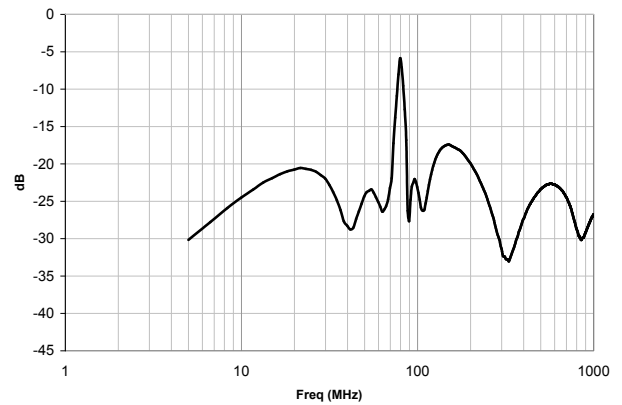
### High Pass Filter Insertion Loss



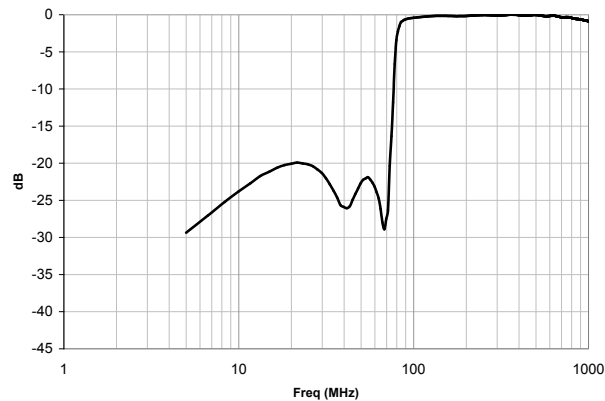
### Low Side to High Side Isolation



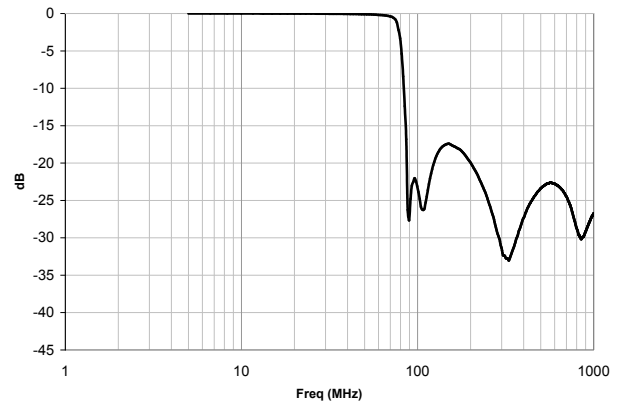
### Input Port Return Loss



### Low Pass Port Return Loss



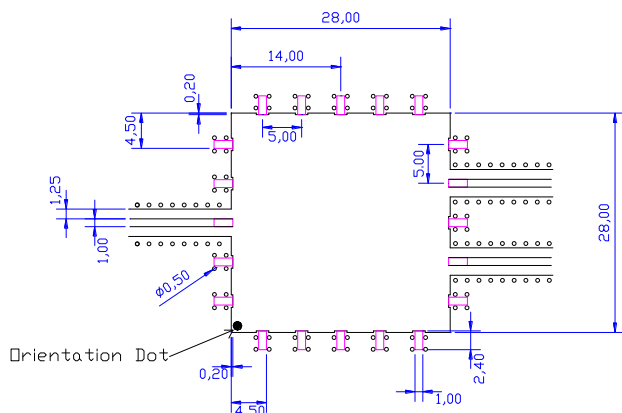
### High Pass Port Return Loss



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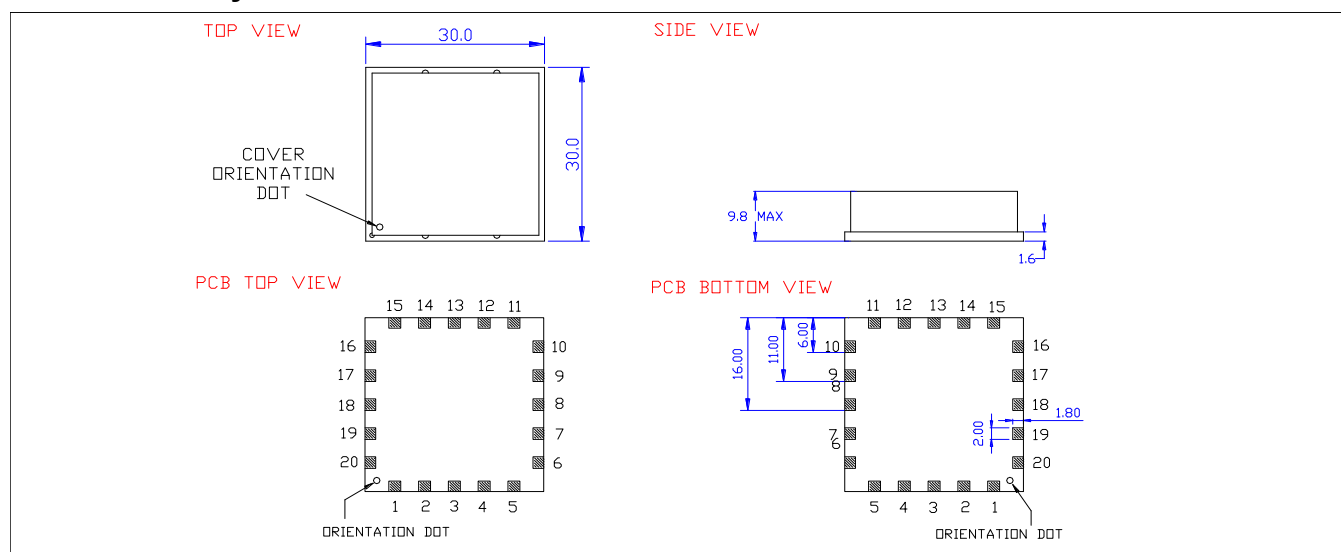
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### Recommended PCB Configuration



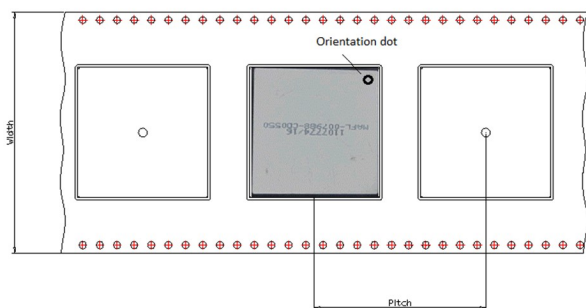
Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

### SM-85 Case Style



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

### Carrier Tape Orientation



### Tape & Reel Information

Parameter	Units	Value
Qty per reel	pcs	50
Reel size	mm	330
Tape Width	mm	56
Pitch	mm	40
Orientation	-	F20
Reference Application Note ANI-019 for orientation		

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