

Features

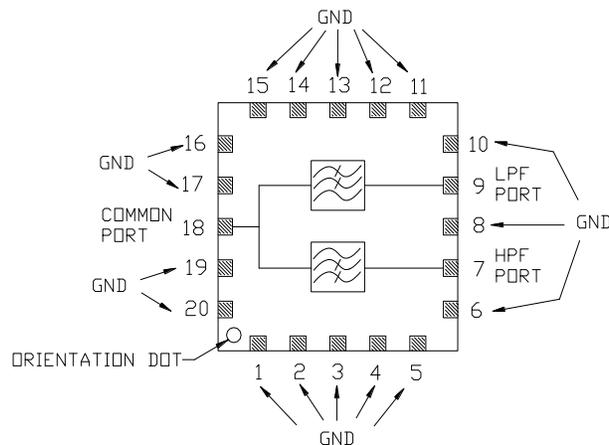
- 75 Ohm
- SMT unit
- RoHS Compliant and lead free

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^{1,2}

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.

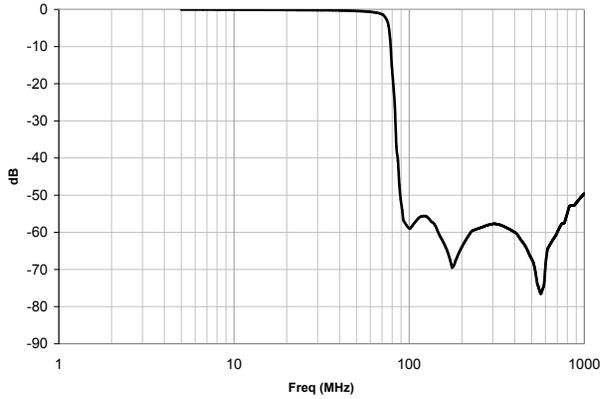
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CATV Diplex Filter
5 - 65 MHz / 88 - 1000 MHz

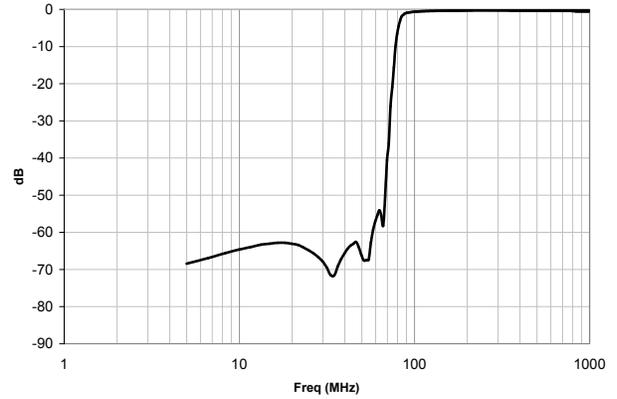
Rev. V4

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

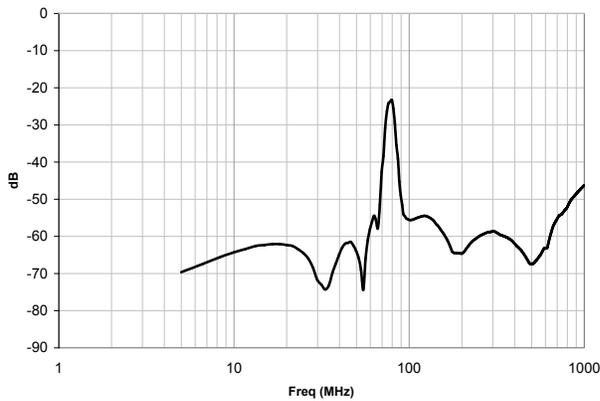
Low Pass Filter Insertion Loss



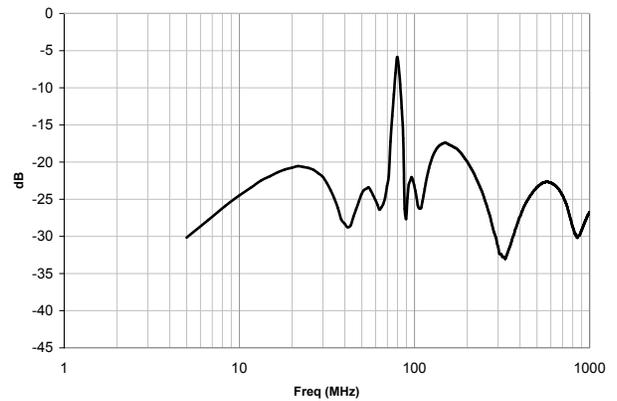
High Pass Filter Insertion Loss



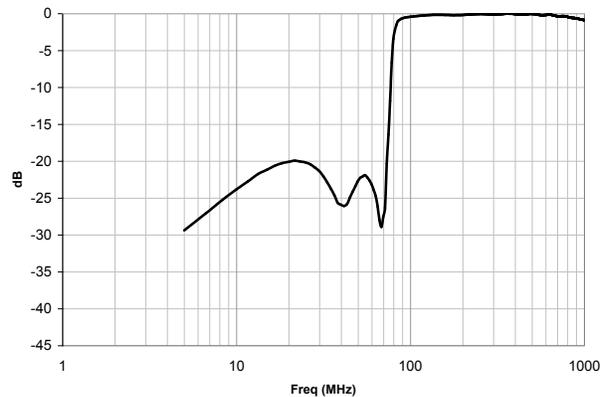
Low Side to High Side Isolation



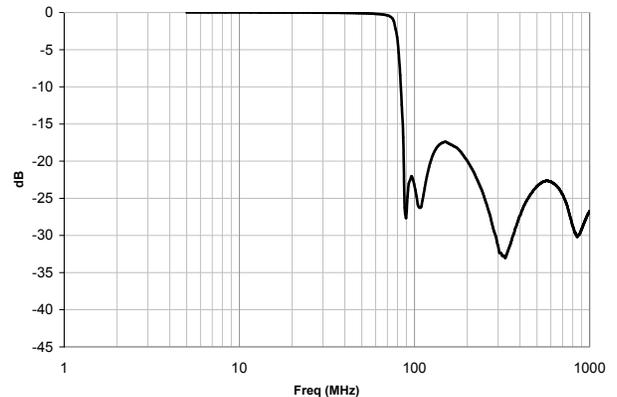
Input Port Return Loss



Low Pass Port Return Loss



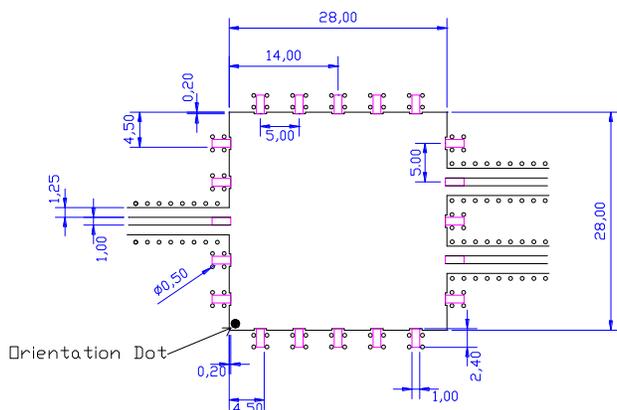
High Pass Port Return Loss



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

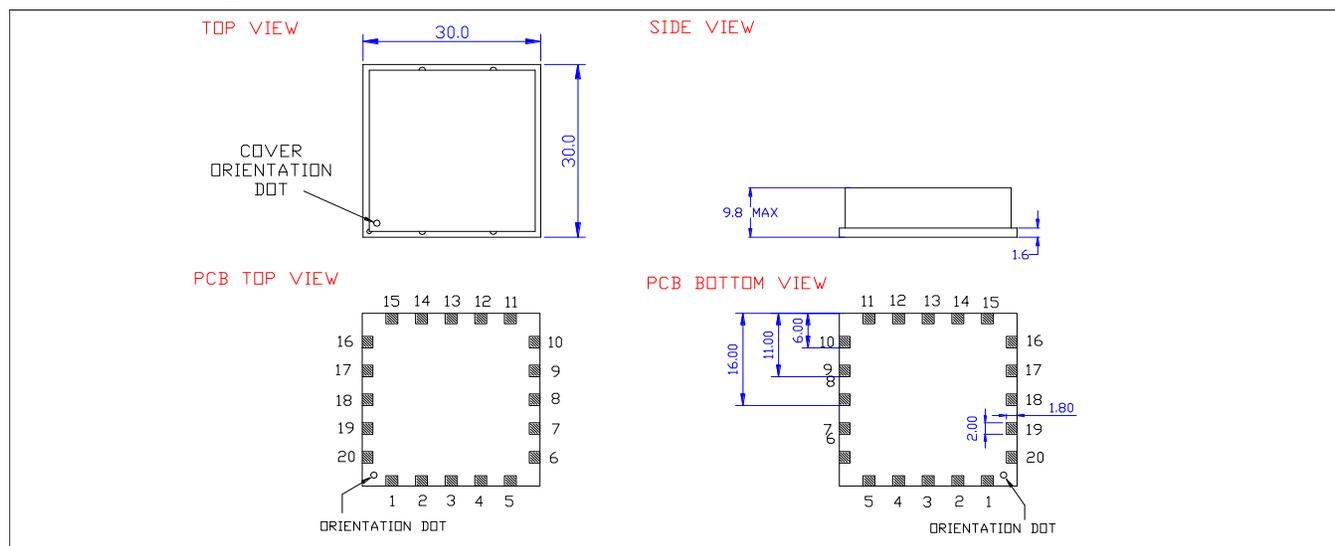
Rev. V4

Recommended PCB Configuration



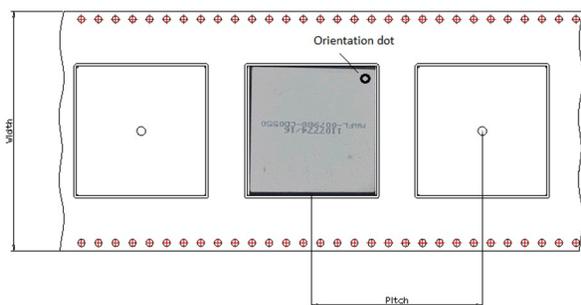
Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

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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