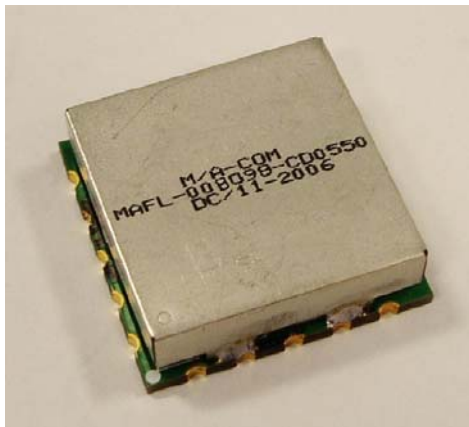


Features

- 75 Ohm
- Surface Mount
- RoHS* Compliant
- RoHS version of MAFLES0083
- Technology used in this product is patent pending

Description

M/A-COM's MAFL-008098-CD0550 is a low cost, non hermetically sealed Diplex Filter unit designed for CATV applications.

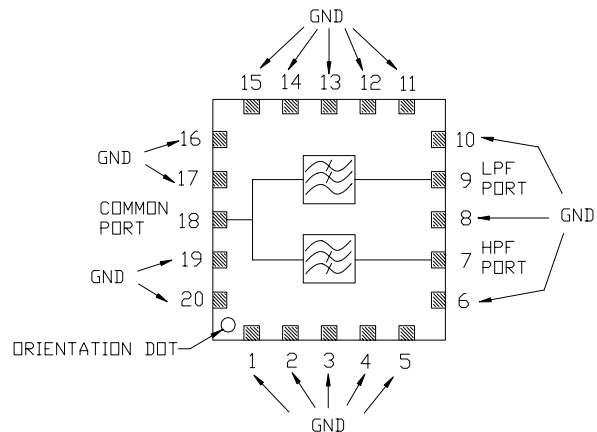


Absolute Maximum Ratings ^{1,2}

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

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

Functional Schematic



Pin Configuration

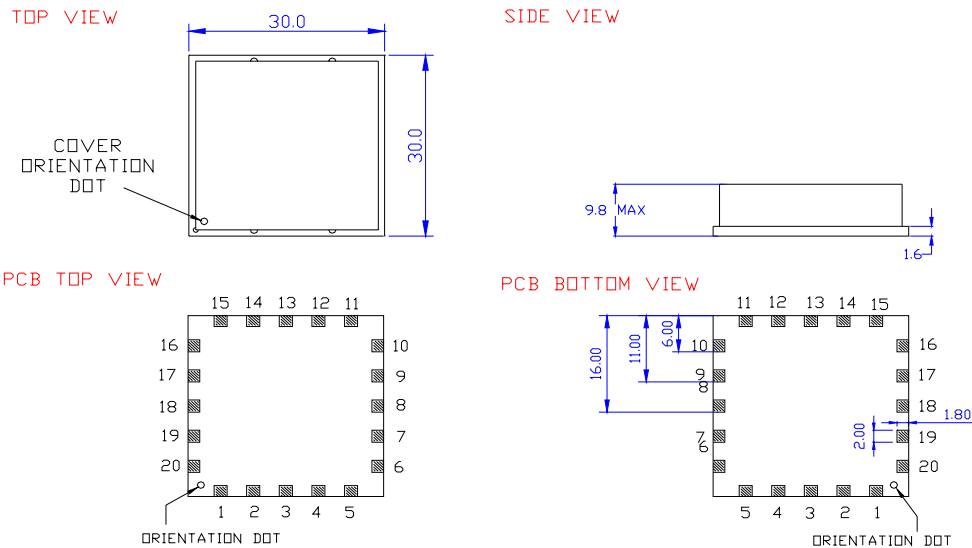
Function	Pin Number
Common Port	18
Low Pass Port	9
High Pass Port	7
Ground	1-6, 8, 10-17, 19, 20
Not connected	-

Ordering Information

Part Number	Package
MAFL-008098-CD0550	50 Piece Reel
MAFL-008098-CD05TB	Customer Test Board

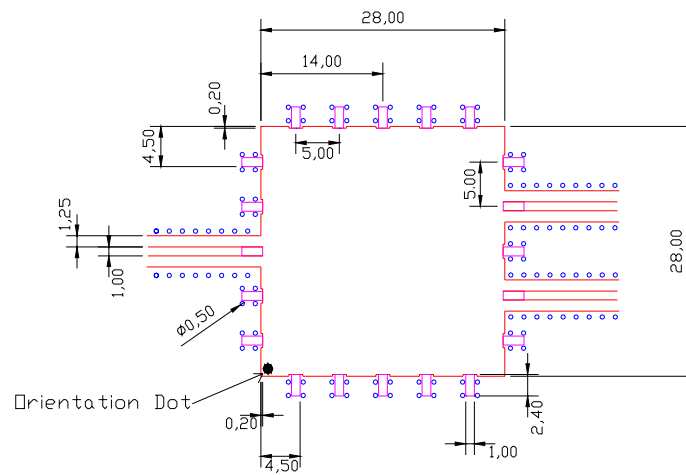
* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

SM-85 Case Style



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

Recommended PCB Configuration



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

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

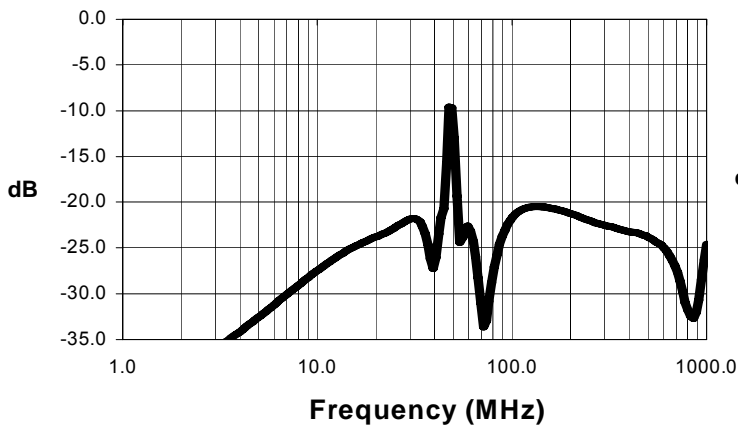
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	5 – 900 MHz	MHz			
Low Pass Cutoff	42 MHz	MHz	-	-	-
Low Pass Reject	54 MHz	MHz	-	-	-
High Pass Cutoff	54 MHz	MHz	-	-	-
Insertion Loss					
Pass Band	5 – 42 MHz	MHz	-	0.5	1.2
Pass Band	54 – 900 MHz	MHz	-	0.5	1.1
Insertion Loss Flatness	5 – 42 MHz	MHz	-	-	0.5
Isolation					
Stop Band	5 – 42 MHz	MHz	45	50	-
Stop Band	54 – 900 MHz	MHz	45	50	-
Return Loss Input Port					
	5 – 42 MHz	MHz	18	21	-
	54 – 900 MHz	MHz	18	21	-
Return Loss Low Pass Port	5 – 42 MHz	MHz	18	21	-
Return Loss High Pass Port	54 – 900 MHz	MHz	18	21	-

Additional Specifications

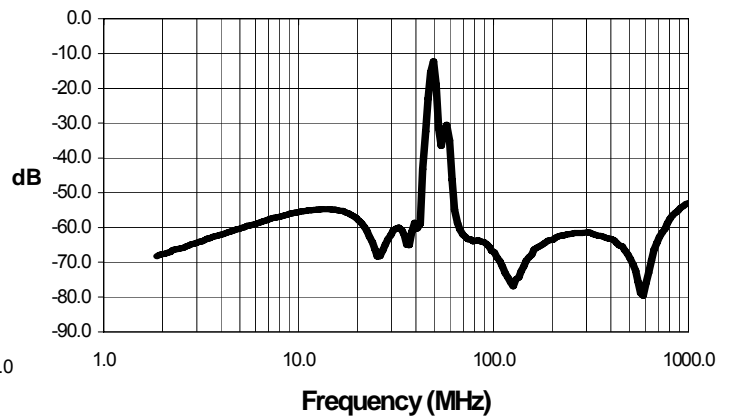
Group Delay (nSec)
38.5 – 42 MHz \leq 20ns
54 – 57.5 MHz \leq 20ns

Typical Performance

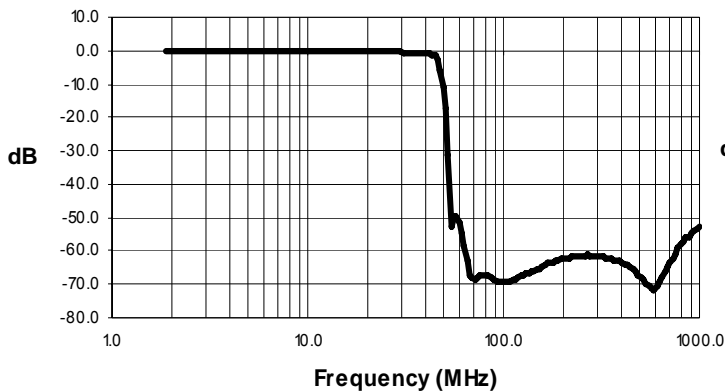
Input Return Loss



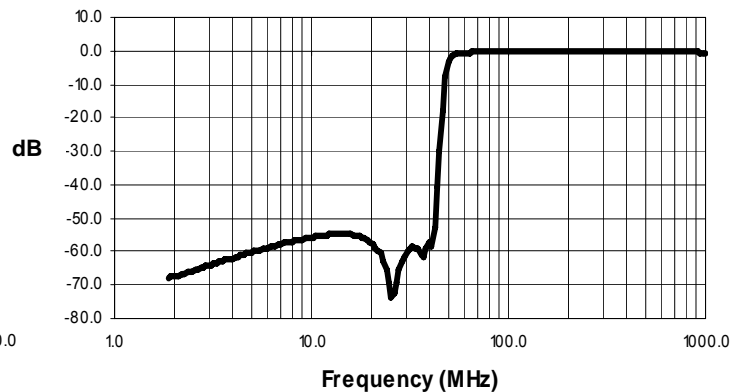
Filter Isolation



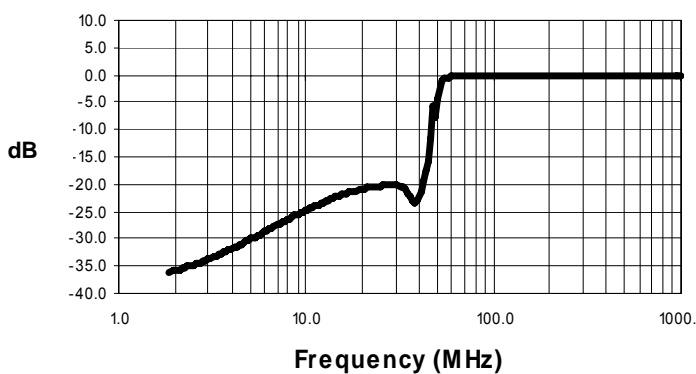
Low Pass Filter Insertion Loss



High Pass Filter Insertion Loss



Low Pass Filter Output Return Loss



High Pass Filter Output Return Loss

