

CATV Diplex Filter 5 - 42 / 54 - 1000MHz

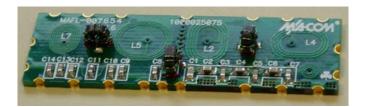
Rev. V5

Features

- 75 Ohm
- SMT unit
- Low Cost, Low Profile
- RoHS* Compliant

Description

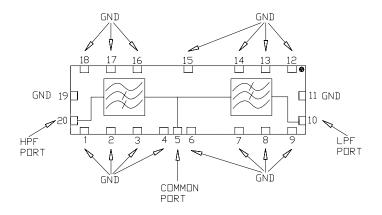
M/A-COM's MAFL-007654-CD0A10 is a low cost, low profile diplex filter designed for use in CATV settop-box and cable modem applications.



Recommended Maximum Ratings 1,2

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

Functional Schematic



Pin configuration

Function	Pin Number			
Common Port	5			
Low Pass Port	10			
Output Port	20			
Ground	1-4, 6-9, 11-19			
Not connected	-			

Ordering Information

Part Number	Package	
MAFL-007654-CD0A10	900	

ADVANCED: Data Sheets contain information regarding a product MA-COM Technical Solutions is considering for development. Performance is based on target specifications, simulated results, and/ or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product MA-COM Technical Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

• India Tel: +91.80.43537383

• China Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

^{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.

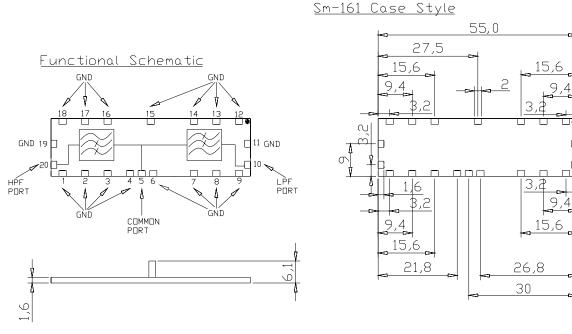
^{*} Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.



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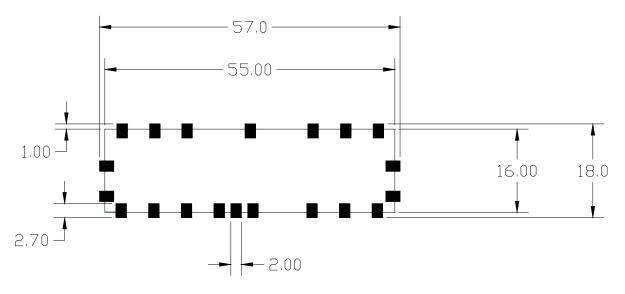
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SM-161 Case Style



Dimensions in mm. Tolerance: $.x \pm 0.1$, $.xx \pm 0.05$ Maximum coplanarity specification of 0.1mm

Recommended PCB Configuration



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

2

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

Parameter	Test Conditions	Units	Min	Тур	Max
Frequency Range	5 - 42MHz / 54 - 1000MHz				
Insertion Loss	5 - 42MHz	dB	-	-0.5	-1.1
Rejection	54 - 60MHz 60 - 200MHz	dB dB	-53 -55	-55 -58	-
Insertion Loss	54 - 60MHz 60 - 1000MHz	dB dB	-	-1.1 -0.5	-1.3 -1.1
Filter Isolation	5 - 39.5MHz 39.5 - 42MHz	dB dB	-55 -48	-62 -55	-
Filter Isolation	54 - 60MHz 60 - 500MHz 500 - 860MHz 860 - 1000MHz	dB dB db dB	-53 -55 -50 -45	-55 -58 -55 -50	- - -
Input Return Loss	5 - 42MHz	dB	-14	-17	-
Input Return Loss	54 - 64MHz 64 - 74MHz 74 - 650MHz 650 - 1000MHz	dB dB dB dB	-10 -12 -15 -14	-14 16 20 16	- - -

^{3.} LFP rejection measured at 53.25MHz to guarantee 53dB min. rejection

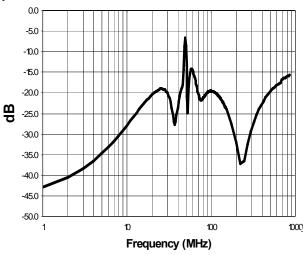


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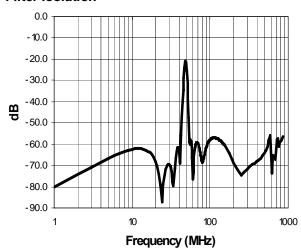
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Typical Performance Curves

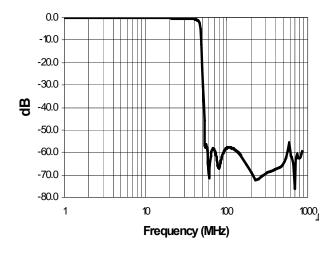
Input Return Loss



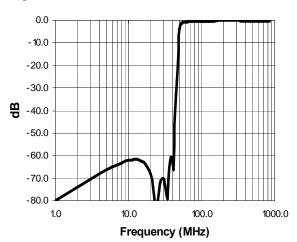
Filter Isolation



Low Pass Filter Insertion Loss



High Pass Filter Insertion Loss



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