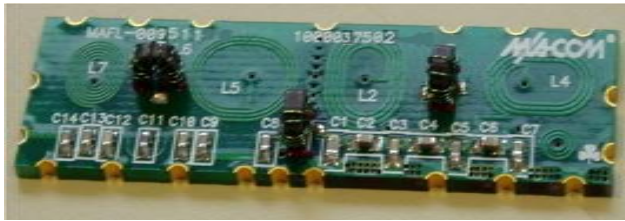


Features

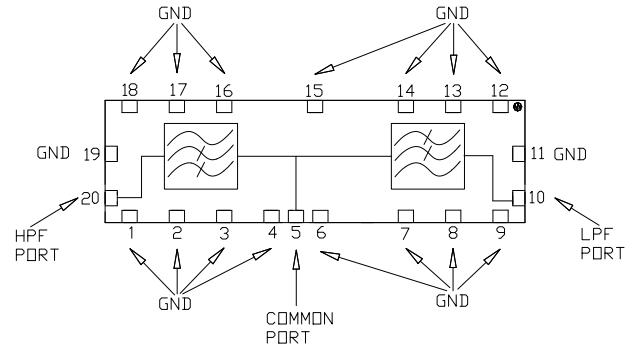
- 75 Ohm
- SMT unit
- Low Cost, Low Profile
- RoHS* Compliant

Description

M/A-COM's MAFL-009511-CD0A10 is a low cost, low profile diplex filter designed for use in CATV set-top-box, cable modem and D-PON applications.



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	-

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

Ordering Information

Part Number	Package
MAFL-009511-CD0A10	900

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.

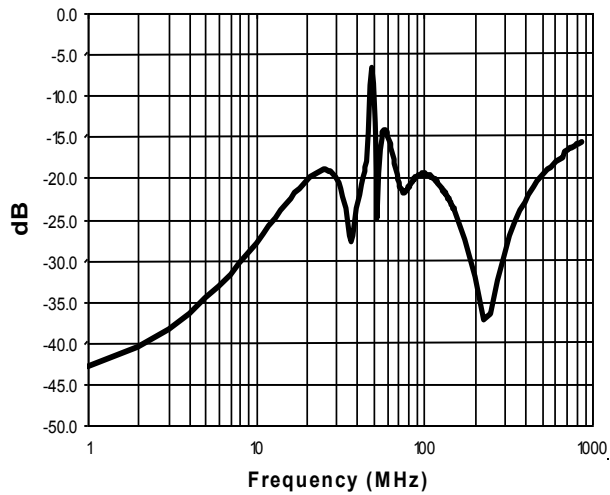
* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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

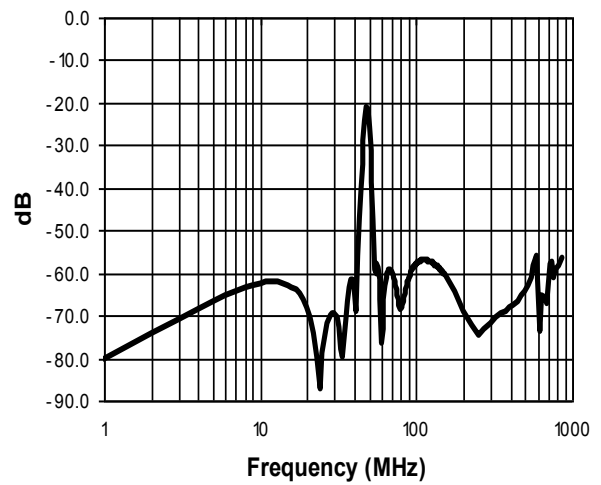
Parameter	Test Conditions	Units	Min	Typ	Max
Frequency Range	5 - 42MHz / 52 - 1000MHz				
Insertion Loss	5 - 42MHz	dB	-	-0.5	-1.1
Insertion Loss	52 - 60MHz	dB	-	-1.1	-1.3
	60 - 1000MHz	dB	-	-0.5	-1.1
Filter Isolation	5 - 39.5MHz	dB	-55	-62	-
	39.5 - 42MHz	dB	-48	-55	-
Filter Isolation	52 - 60MHz	dB	-50	-55	-
	60 - 500MHz	dB	-55	-58	-
	500 - 860MHz	dB	-50	-55	-
	860 - 1000MHz	dB	-45	-50	-
Input Return Loss	5 - 42MHz	dB	-14	-17	-
Input Return Loss	52 - 64MHz	dB	-10	-14	-
	64 - 74MHz	dB	-12	-16	-
	74 - 650MHz	dB	-15	-20	-
	650 - 1000MHz	dB	-14	-16	-

Typical Performance Curves

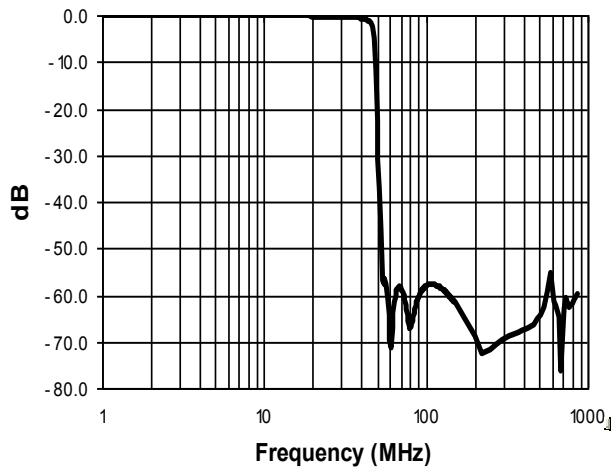
Input Return Loss



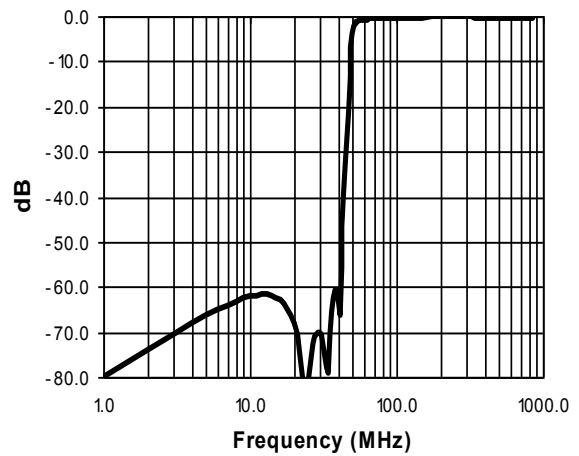
Filter Isolation



Low Pass Filter Insertion Loss



High Pass Filter Insertion Loss



M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.