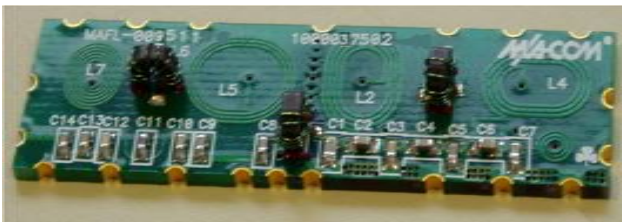


Features

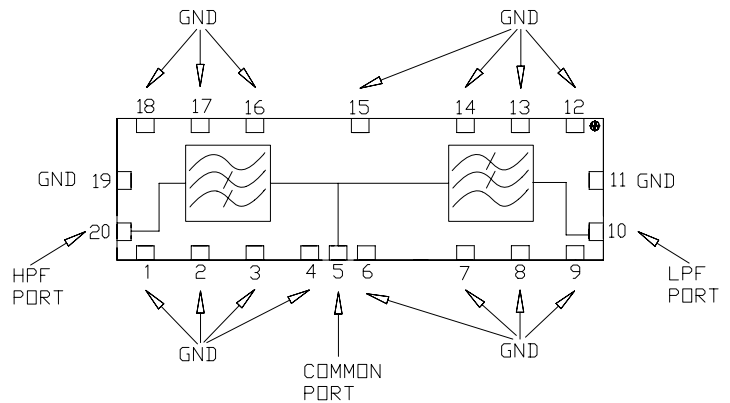
- 75 Ohm
- SMT unit
- Low Cost, Low Profile
- RoHS* Compliant

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

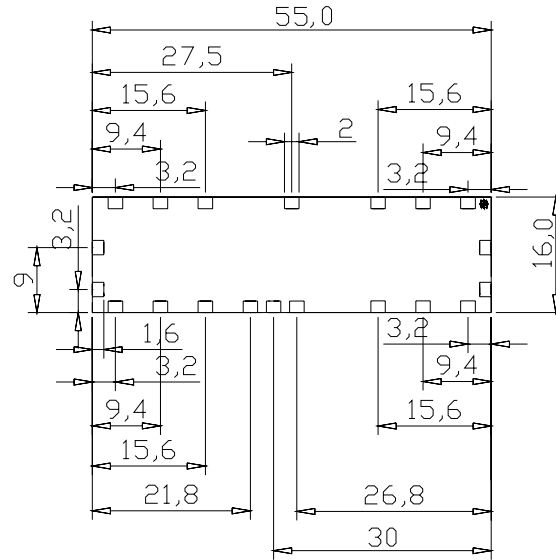
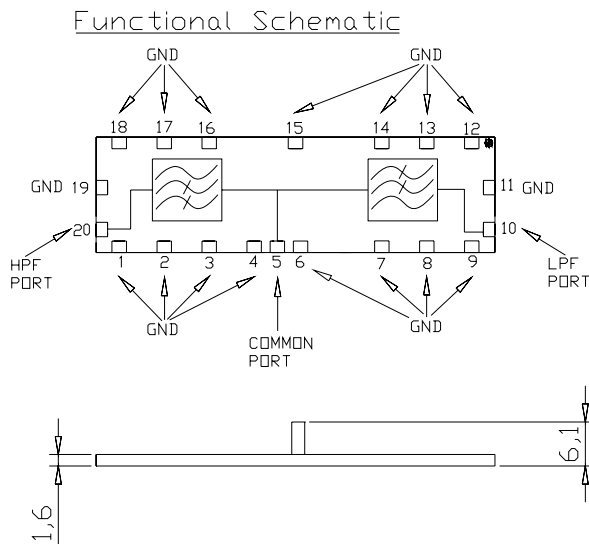
Part Number	Package
MAFL-009511-CD0A10	900

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.

SM-161 Case Style

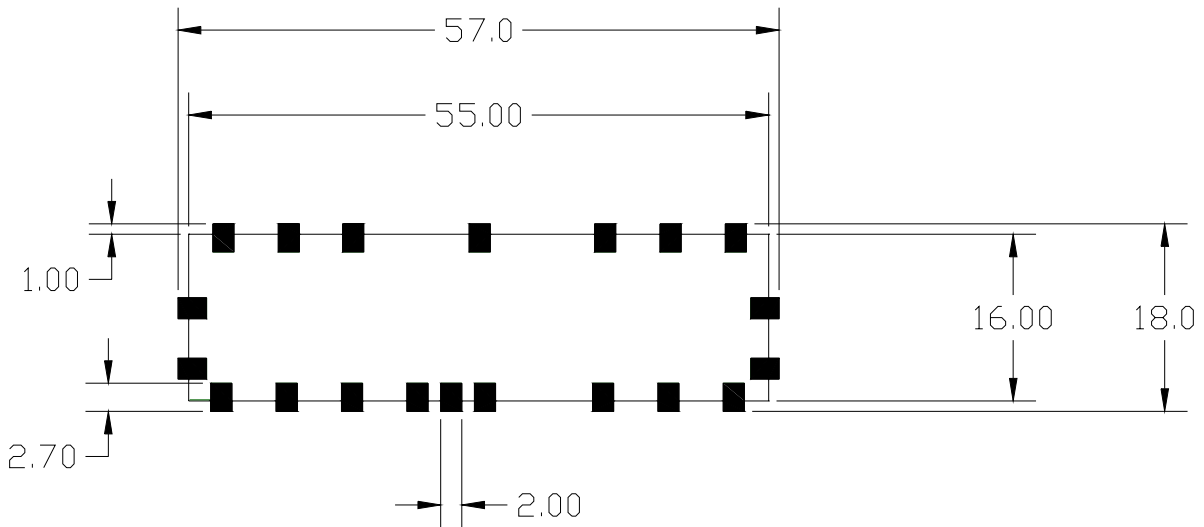
Sm-161 Case Style



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

Maximum coplanarity specification of 0.1mm

Recommended PCB Configuration



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

MAFL-009511-CD0A10



CATV Diplex Filter
5 - 42 / 52 - 1000MHz

M/A-COM Products
Released, Rev. V2

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	-

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 / Fax: 978.366.2266

• **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300

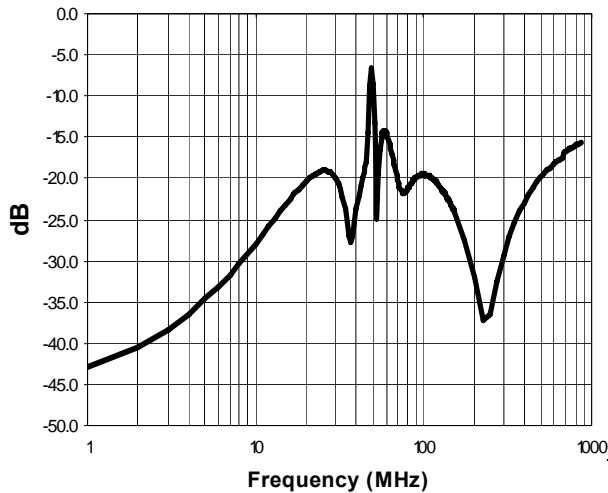
• **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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

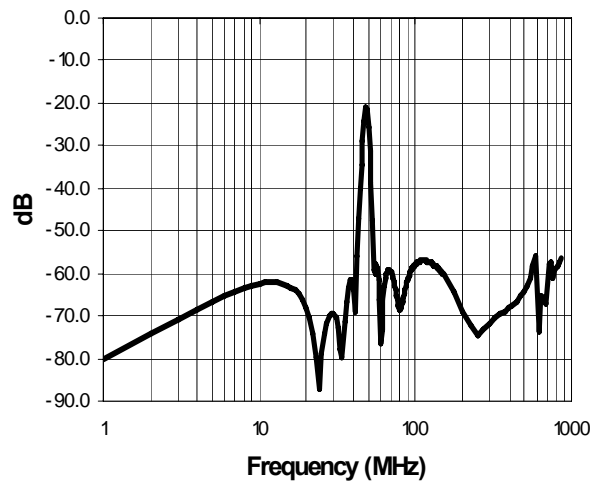
MA-COM Technical Solutions and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Typical Performance Curves

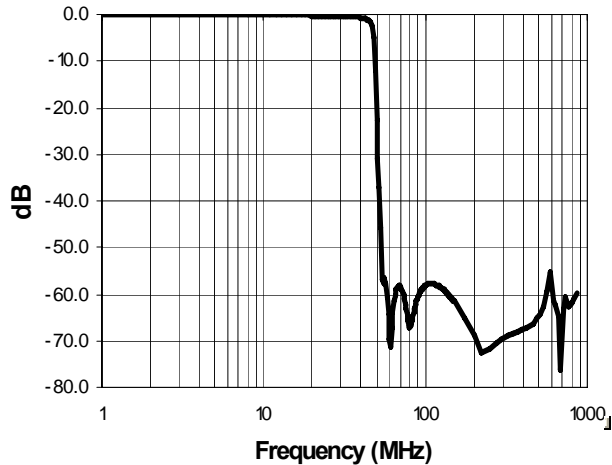
Input Return Loss



Filter Isolation



Low Pass Filter Insertion Loss



High Pass Filter Insertion Loss

