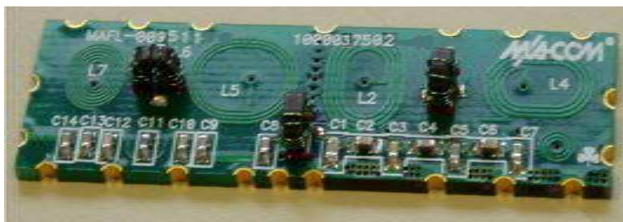


## Features

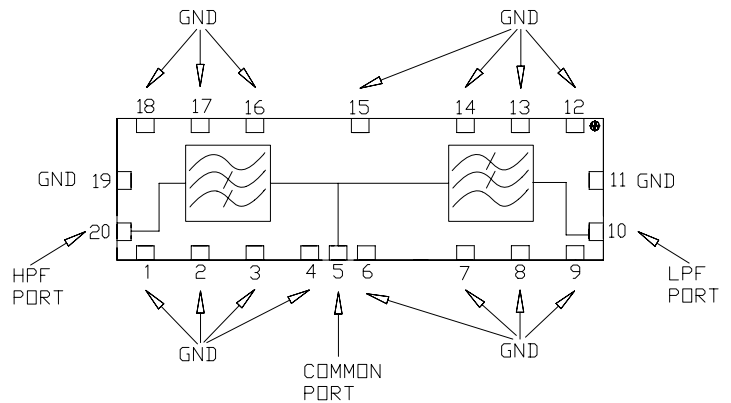
- 75 Ohm
- SMT unit
- Low Cost, Low Profile
- RoHS\* Compliant

## 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 <sup>1,2</sup>

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

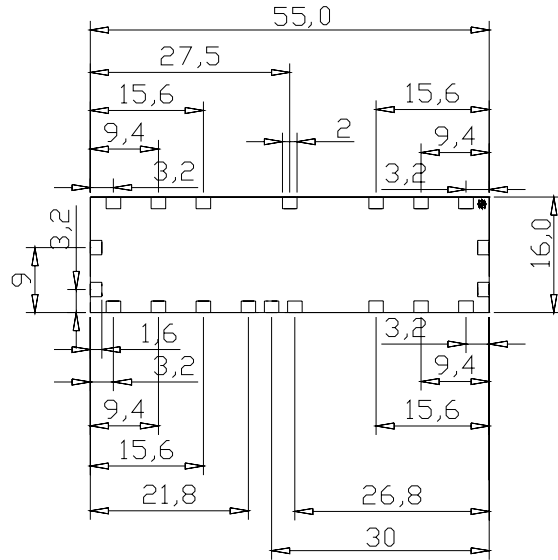
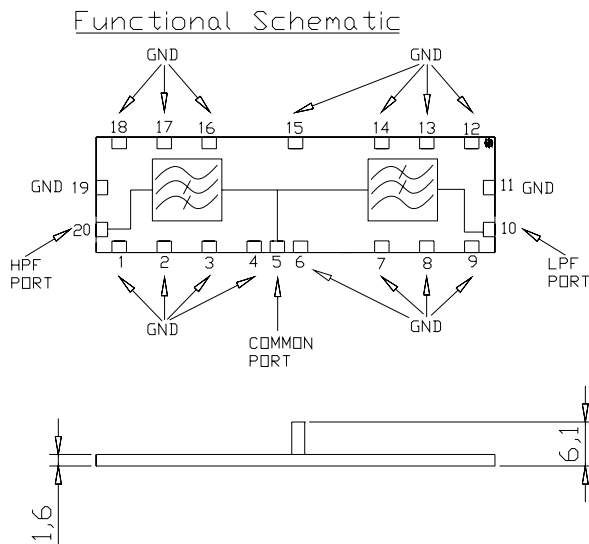
Part Number	Package
MAFL-009511-CD0A10	900

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

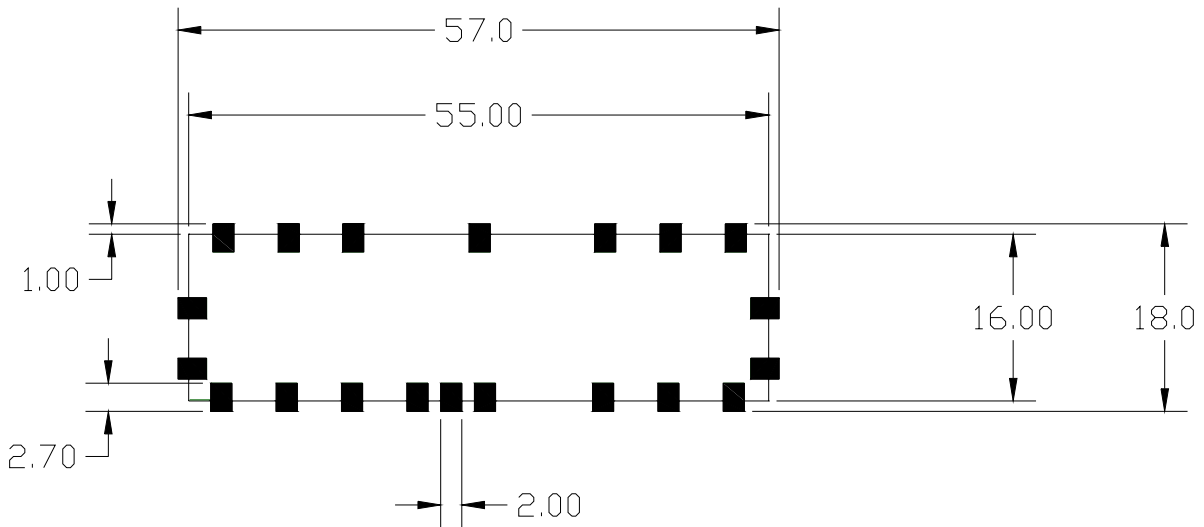
Sm-161 Case Style



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

**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.

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

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# 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	-

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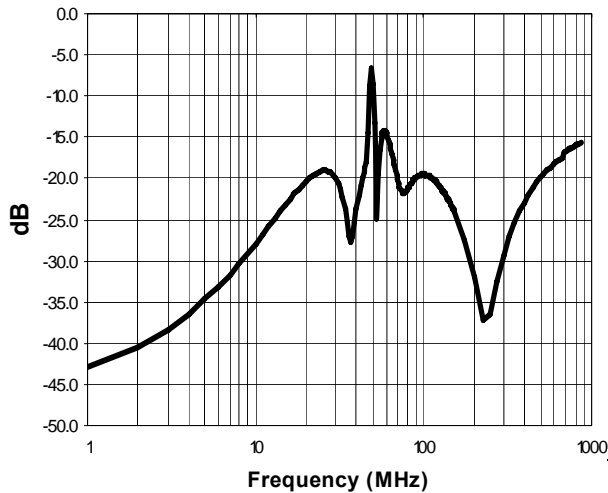
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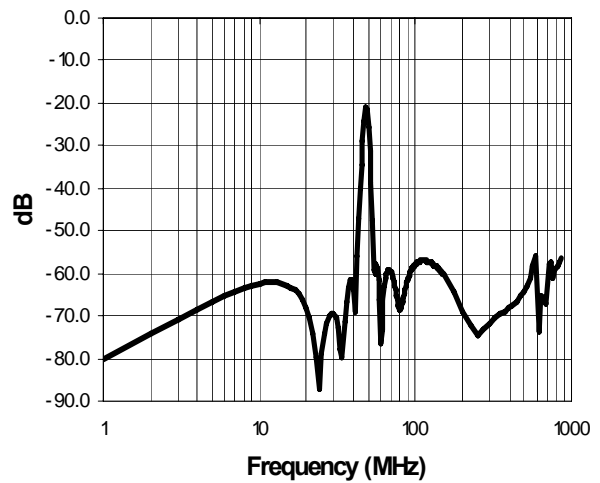
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## Typical Performance Curves

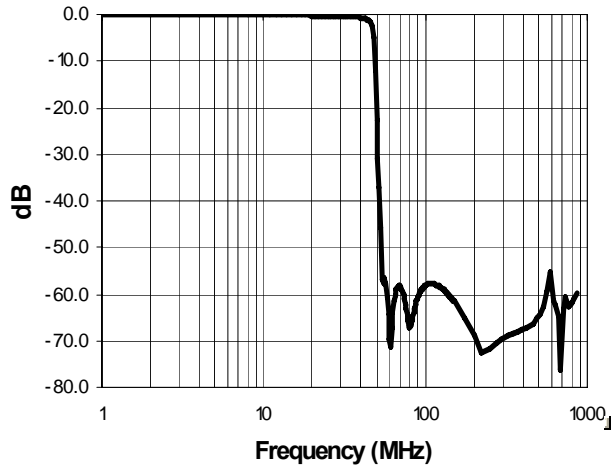
**Input Return Loss**



**Filter Isolation**



**Low Pass Filter Insertion Loss**



**High Pass Filter Insertion Loss**

