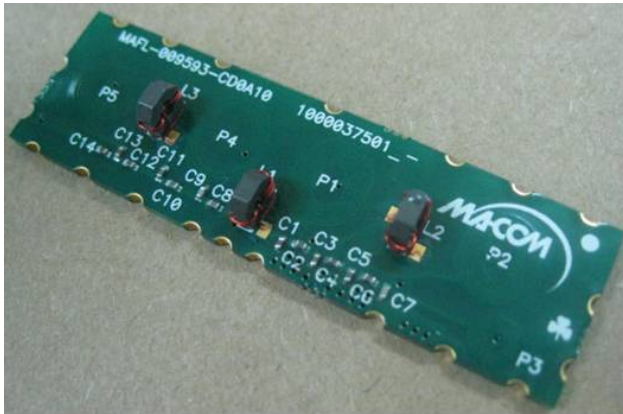


Features

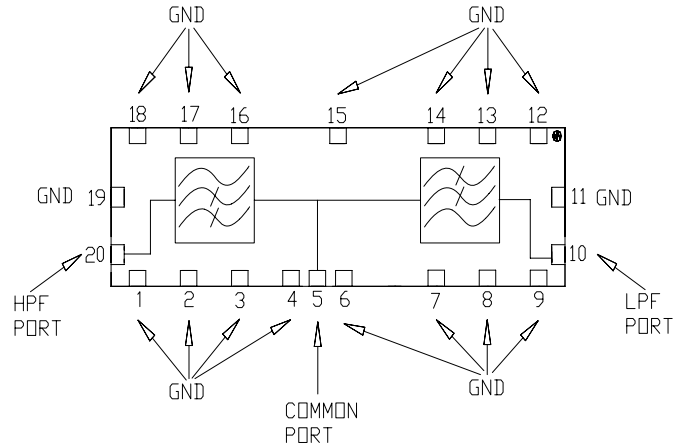
- 75 Ohm
- SMT Unit
- Low Cost, Low Profile
- RoHS* Compliant
- Lead Free
- 30 units per tray

Description

M/A-COM's MAFL-009593-CD0A10 is a low cost, low profile diplex filter designed for use in CATV set-top box, cable modem and D-PON applications.



Functional Block Diagram



Pin Configuration

Function	Pin Number
Common Port	5
HPF Port	20
LPF Port	10
Ground	1-4, 6-9, 11-19

Absolute 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

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.

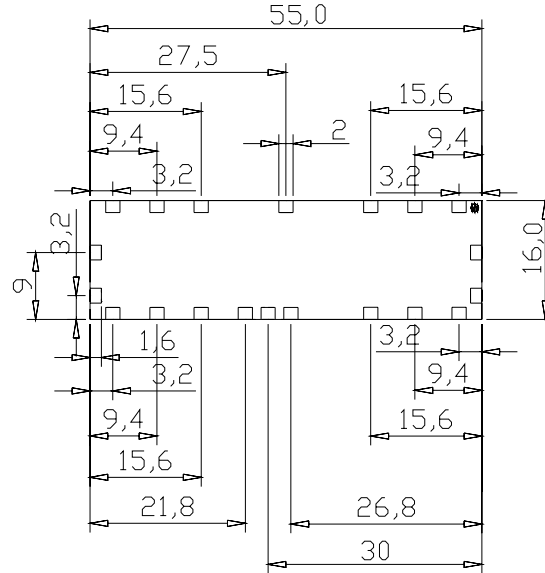
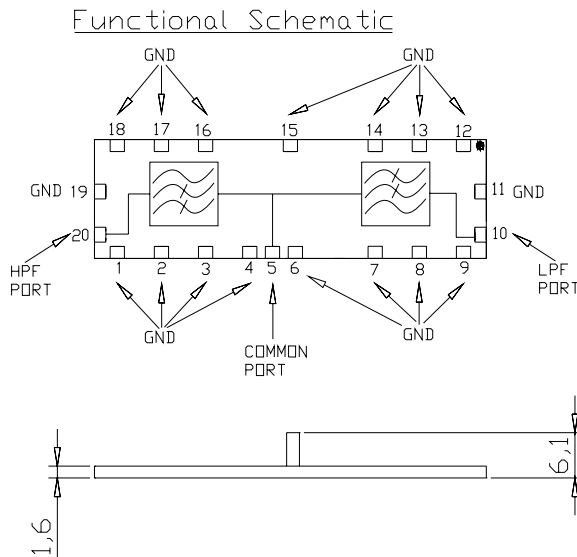
Ordering Information

Part Number	Package
MAFL-009593-CD0A10	900

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

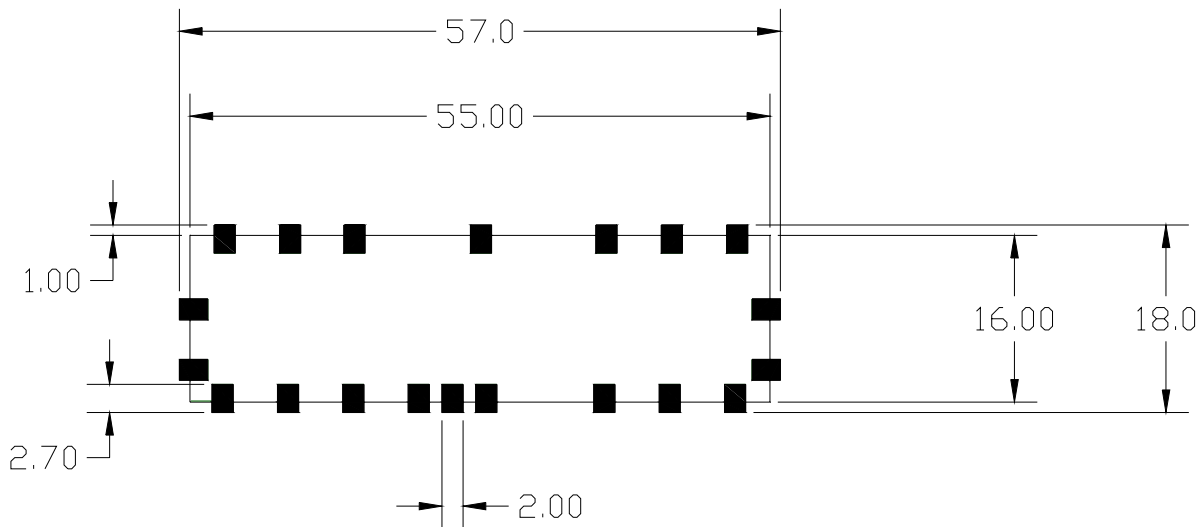
SM-161 Case Style

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

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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.

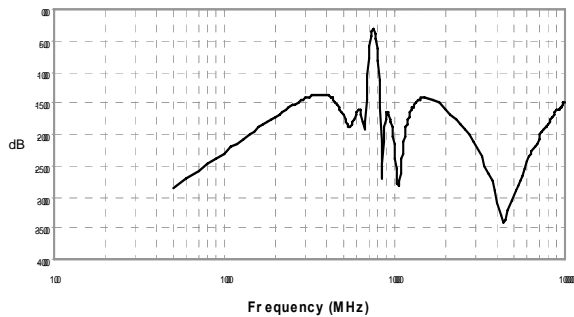
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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$

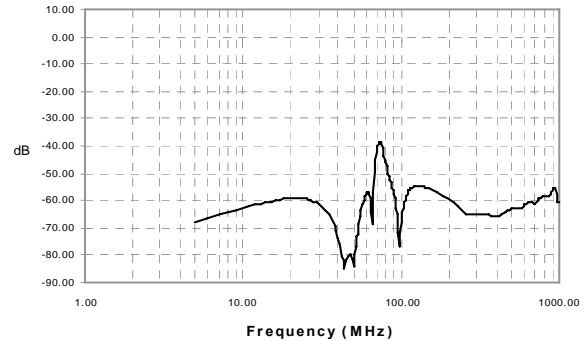
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	5-65 / 86-1000	MHz	-	-	-
Low Pass Insertion Loss	5-55 MHz 56-65 MHz	dB	-	0.5 0.9	0.8 1.25
High Pass Insertion Loss	86-89 MHz 90-100 MHz 101-1000 MHz	dB	-	1 0.7 0.5	1.25 1.1 0.8
Filter Isolation	5-57 MHz 58-65 MHz	dB	55 53	60 57	-
Filter Isolation	86-104 MHz 105-260 MHz 261-520 MHz 521-1000 MHz	dB	50 52 60 52	55 56 64 57	-
Input Return Loss	5-10 MHz 11-65 MHz 86-290 MHz 291-700 MHz 701-1000 MHz	dB	20 12 12 18 12	23 15 16 20 15	-

Typical Performance Curves

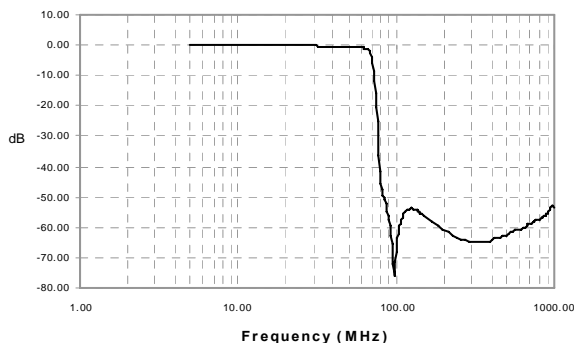
Input Return Loss



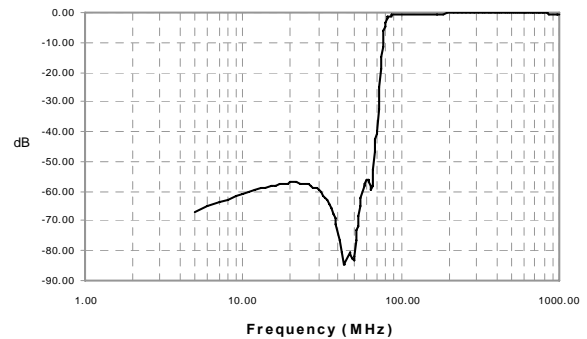
Isolation



Low Pass Filter Insertion Loss



High Pass Filter Insertion Loss



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