

CATV Diplex Filter

50 - 870 / 950 - 1550 / 2000 - 3000 MHz

M/A-COM Products

Rev. V1

Features

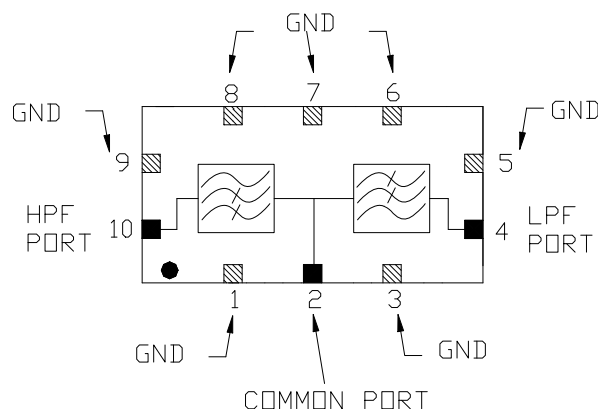
- 75 Ohm
- SMT unit
- RoHS Compliant

Description

M/A-COM's MAFL-008195-CD0AC0 is a surface mount diplex filter unit designed for MoCA applications.



Functional Schematic



Pin Configuration

Function	Pin Number
Common Port	2
Low Pass Port	4
High Pass Port	10
Ground	1, 3, 5 - 9
Not connected	-

Absolute Maximum Ratings ^{1,2}

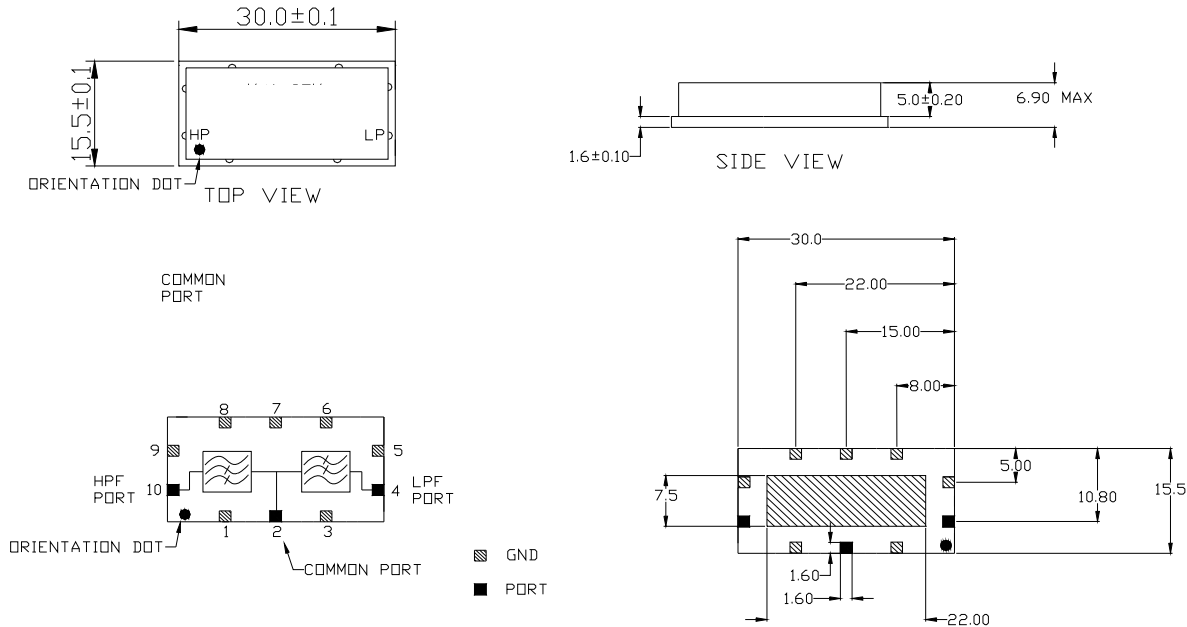
Parameter	Absolute Maximum
RF Power	250mW
DC Current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

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.

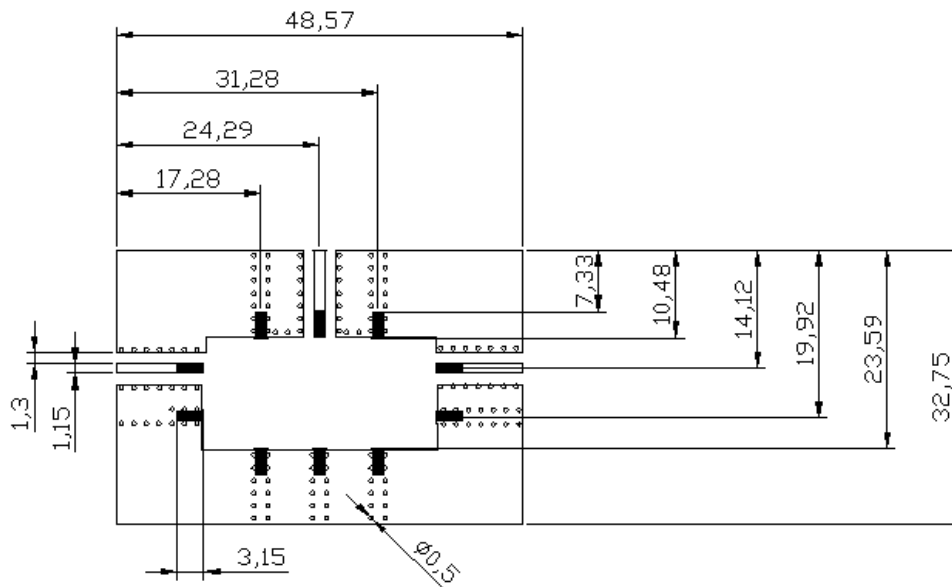
CATV Duplex Filter
50 - 870 / 950 - 1550 / 2000 - 3000 MHz

M/A-COM Products
Rev. V1

SM-172 Case Style



Recommended PCB Configuration



NOTE: Substrate is 1.6mm thick FR4

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

2

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology 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 M/A-COM Technology 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: +91.80.4155721 • **China** Tel: +86.21.2407.1588
Visit www.macontech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

CATV Diplex Filter
50 - 870 / 950 - 1550 / 2000 - 3000 MHz

M/A-COM Products
Rev. V1

Electrical Specifications: $T_A = 25^{\circ}\text{C}$, $Z_0 = 75\Omega$ ¹

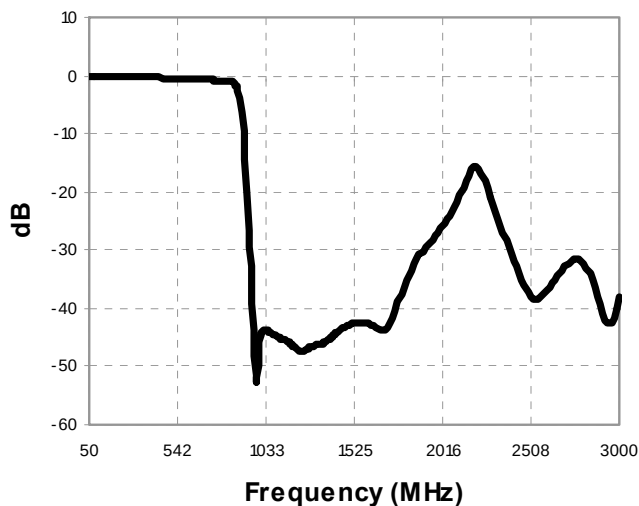
Parameter	Test Conditions	Units	Min	Typ	Max
Frequency Range	50 - 870 / 950 - 1550 / 2000 - 3000	MHz			
Common to Low Insertion Loss	50 - 870MHz	dB	-	1.5	2.5
Common to Low Stop band Rejection	950 - 975MHz	dB	30	37	-
	975 - 1055 MHz	dB	35	40	-
	1055 - 1550MHz	dB	40	45	-
	1790 - 2100MHz	dB	20	30	-
Common to High Stop band Rejection	50 - 860MHz	dB	40	44	-
	860 - 870MHz	dB	37.5	39	-
Common to High Insertion Loss	950 - 1125MHz	dB	-	2.0	2.75
	1125 - 1550MHz	dB	-	1.0	2.0
Common to High Stop band Rejection	2000 - 3000MHz	dB	17.5	22	-
Common Port Return Loss	50 - 300MHz	dB	16	25	-
	300 - 600MHz	dB	14	18	-
	600 - 870MHz	dB	12	14	-
	950 - 1400MHz	dB	14	20	-
	1400 - 1550MHz	dB	10	12	-

CATV Diplex Filter
50 - 870 / 950 - 1550 / 2000 - 3000 MHz

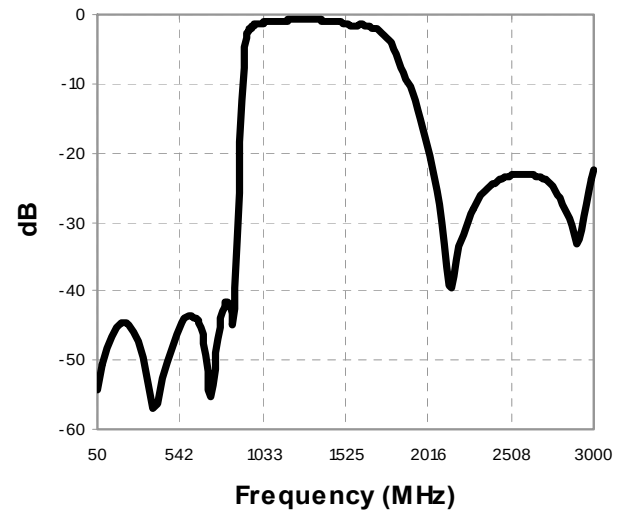
M/A-COM Products
Rev. V1

Typical Performance Curves

Common to Low Pass Filter



Common to High Pass Filter



Common Port Return Loss

