

CATV Diplex Filter 5-85 / 102-1218MHz

Rev. V1

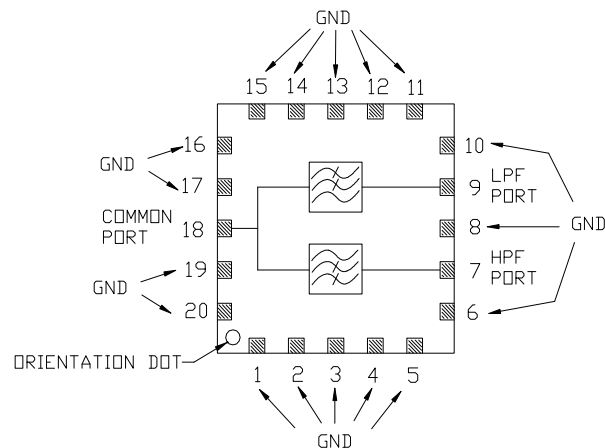
Features

- 75 Ohm
- SMT unit
- RoHS Compliant and Pb free

Description

MAFL-011057 is a Low Cost, surface mount Diplex Filter unit designed for CATV applications, DTV and DBS applications.

Functional Schematic



Ordering Information

Part Number	Package
MAFL-011057	200

Pin Configuration

Function	Pin Number
Common Port	18
Low Pass Port	9
High Pass Port	7
Ground	1 - 6, 8, 10-17, 19, 20
Not connected	-

CATV Diplex Filter
5-85 / 102-1218MHz

Rev. V1

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

Parameter	Units	Min	Typ	Max
Insertion Loss 5 - 85 MHz	dB	-	0.5	1.5
102 - 1218 MHz	dB		0.5	1.5
Insertion Loss Flatness 5 - 85 MHz	dB	-	-	0.8
Filter Rejection 5 - 85 MHz	dB	43	50	-
102 - 1218 MHz	dB	43	50	-
Filter Return Loss (all ports) 5 - 85 MHz	dB	17	19	-
102 - 1218 MHz	dB	16	18	-
Group Delay 81.5 - 85 MHz	nSec	-	-	20
102 - 105.5 MHz	nSec	-	-	20

Recommended Maximum Ratings

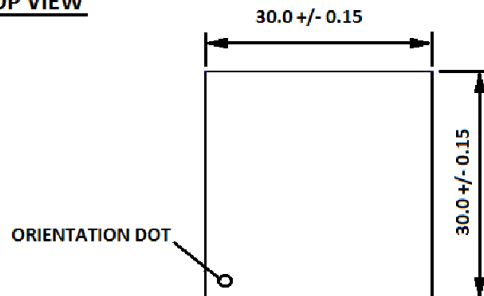
Parameter	Value
Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
DC Current	30mA
RF Power	250mW

CATV Diplex Filter 5-85 / 102-1218MHz

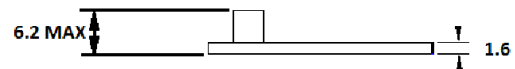
Rev. V1

Outline Drawing

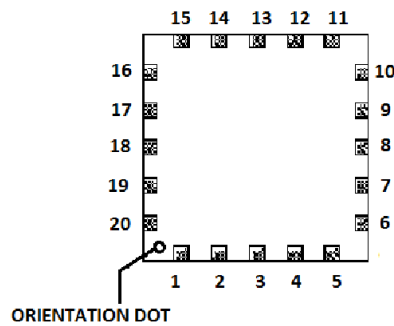
TOP VIEW



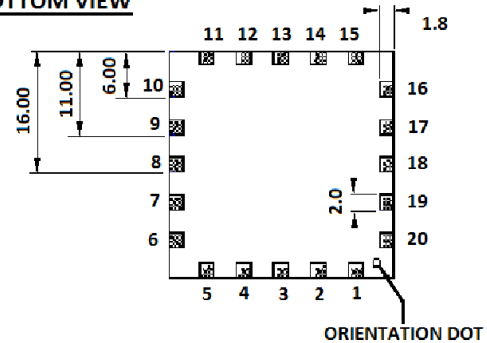
SIDE VIEW



PCB TOP VIEW

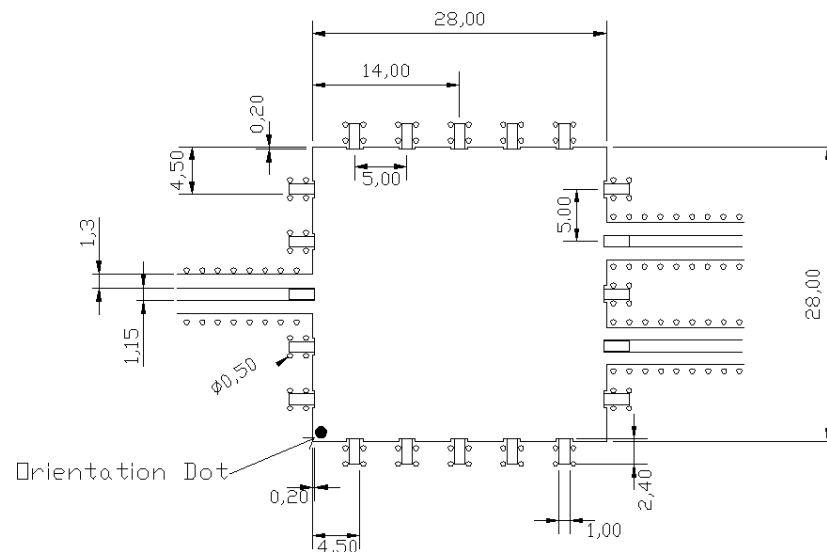


PCB BOTTOM VIEW



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

Recommended PCB Configuration



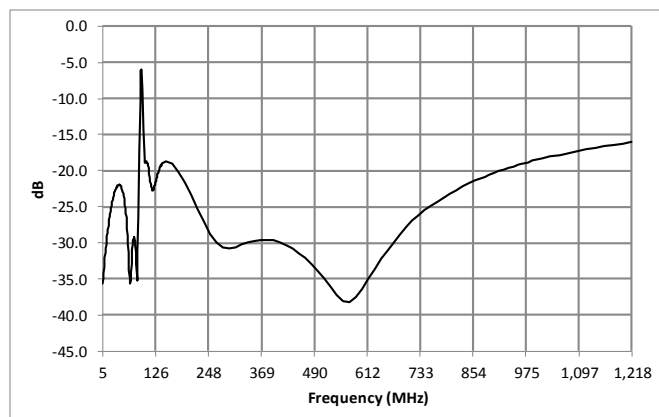
Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

CATV Duplex Filter 5-85 / 102-1218MHz

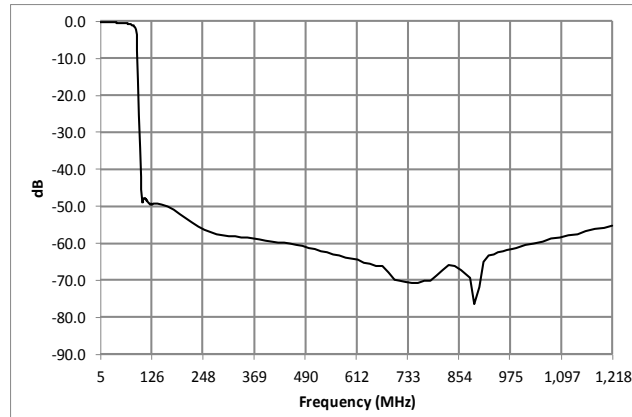
Rev. V1

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

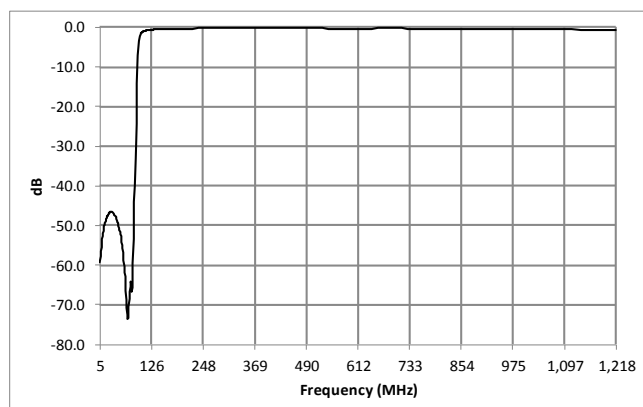
Input Port Return Loss



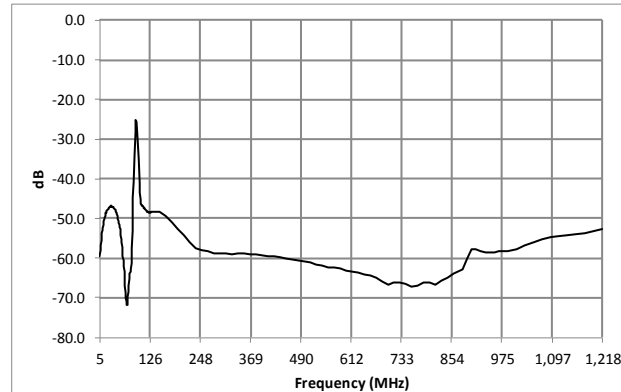
Low Pass Filter Insertion Loss



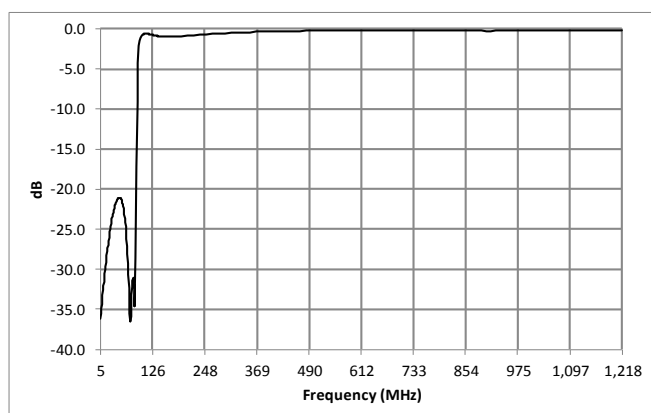
High Pass Filter Insertion Loss



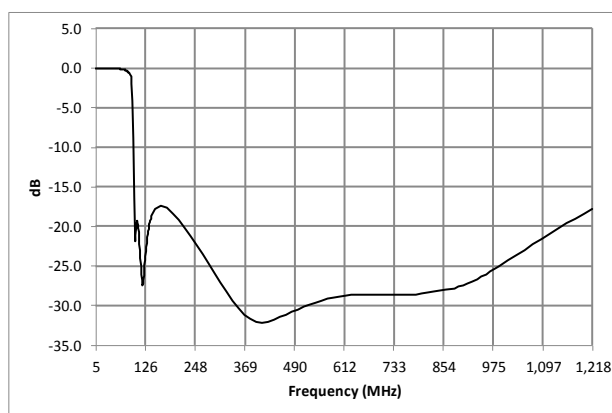
Filter Isolation



Low Pass port Return Loss



High Pass port Return Loss

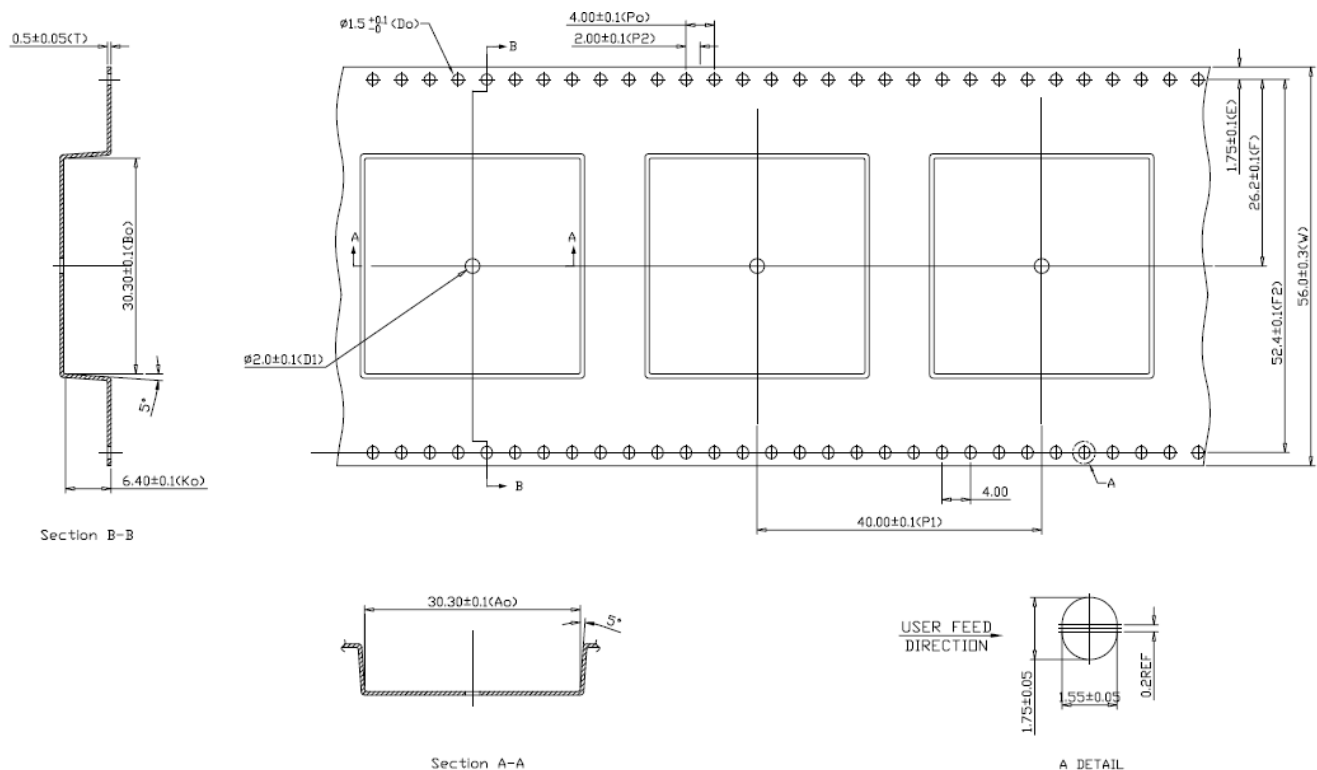


CATV Duplex Filter 5-85 / 102-1218MHz

Rev. V1

Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	200
Reel Size	mm	330
Tape Width	mm	56.00
Pitch	mm	40.00
Ao	mm	30.3
Bo	mm	30.3
Ko	mm	6.4
Orientation	-	F30
Reference Application Note ANI-019 for orientation		



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.