CATV Diplex Filter 5-65 / 88-1218MHz



Rev. V1

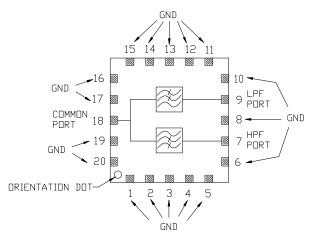
Features

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

Description

MAFL-011056 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-011056	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	-		

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit www.macom.com for additional data sheets and product information.

1



CATV Diplex Filter 5-65 / 88-1218MHz

Rev. V1

Electrical Specifications: T_A = 25 °C, Z₀ = 75Ω

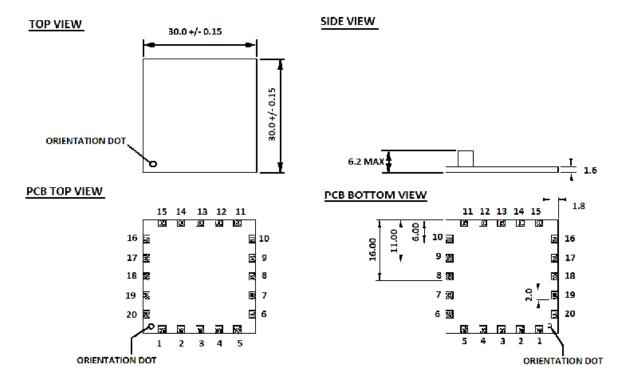
Parameter	Units	Min	Тур	Max
Insertion Loss 5 - 65 MHz	dB	-	0.5	1.3
88 - 1218 MHz	dB		0.5	1.3
Insertion Loss Flatness 5 - 65 MHz	dB	-	-	0.5
Filter Rejection 5 - 65 MHz	dB	43	50	-
88 - 1218 MHz	dB	43	50	-
Filter Return Loss (all ports) 5 - 65 MHz	dB	18	20	-
88 - 1218 MHz	dB	17	20	-
Group Delay 61.5 - 65 MHz	nSec	-	-	20
88 - 91.5 MHz	nSec	-	-	20

Recommended Maximum Ratings

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

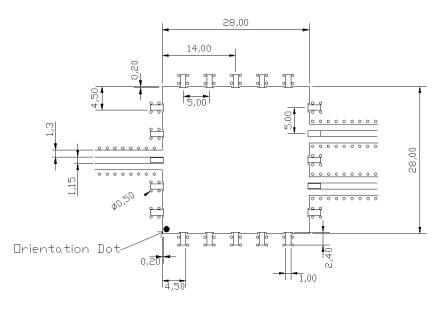
CATV Diplex Filter 5-65 / 88-1218MHz

Outline Drawing



Dimensions in mm. Tolerance: $.x \pm 0.1$, $.xx \pm 0.05$

Recommended PCB Configuration



Dimensions in mm. Tolerance: $.x \pm 0.1$, $.xx \pm 0.05$

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit <u>www.macom.com</u> for additional data sheets and product information.

3

Rev. V1

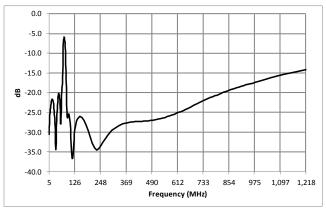




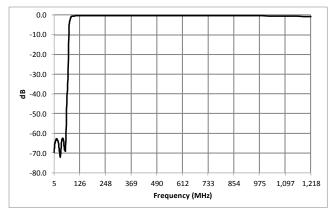
CATV Diplex Filter 5-65 / 88-1218MHz

Typical Performance: $T_A = 25 °C$, $Z_0 = 75 \Omega$

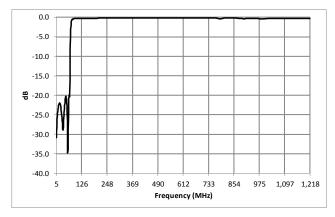
Input Port Return Loss



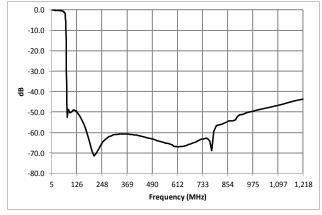
High Pass Filter Insertion Loss



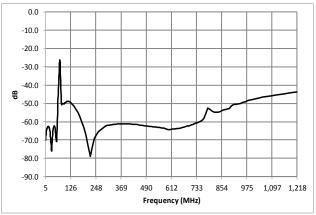
Low Pass port Return Loss



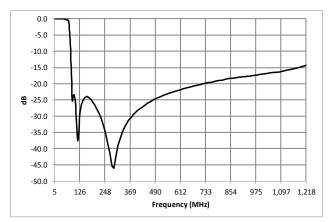
Low Pass Filter Insertion Loss



Filter Isolation



High Pass port Return Loss



4

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit <u>www.macom.com</u> for additional data sheets and product information.

Rev. V1

CATV Diplex Filter 5-65 / 88-1218MHz

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	
Во	mm	30.3	
Ко	mm	6.4	
Orientation	-	F30	
Reference Application Note ANI-019 for orientation			

4.00±0.1(Po) Ø1.5 +0.1 (Do) 0.5±0.05(T) 2.00±0.1(P2) $\oplus \oplus \oplus$ ₽ ¢ 0 \oplus \oplus \oplus \oplus $\oplus \dot{\oplus} \dot{\oplus}$ \oplus 1.75±0.1(E> 26.2±0.1(F) (Bo) 56.0±0.3CW) ŧ 30.30±0.1 52,4±0.1(F2) Ø2.0±0.1(D1) in 000 • 6.40±0.1(Ko) → B 4.00 40.00±0.1(P1) Section B-B 30.30±0.1(Ao) 5 USER FEED DIRECTION 0.2REF .75±0.05 1.55±0.05 Section A-A A DETAIL

5

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit <u>www.macom.com</u> for additional data sheets and product information.

масом

Rev. V1

CATV Diplex Filter 5-65 / 88-1218MHz



Rev. V1

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 estoppels 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.

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit www.macom.com for additional data sheets and product information.

For further information and support please visit: <u>https://www.macom.com/support</u>

6