

Horizontal Plug-in Diplex Filter 5-204/258-1218MHz

Rev. V2

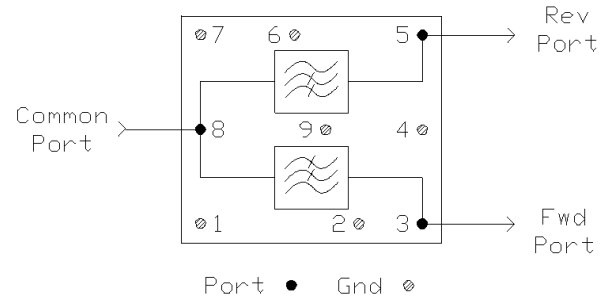
Features

- Plug in Design
- Low Insertion Loss
- Excellent Cross over Isolation
- Excellent Return loss
- RoHS compliant
- Lead Free

Description

MACOM's MAFL-011054 is a high performance horizontal plug-in diplex filter designed specifically for the CATV infrastructure market.

Functional Schematic



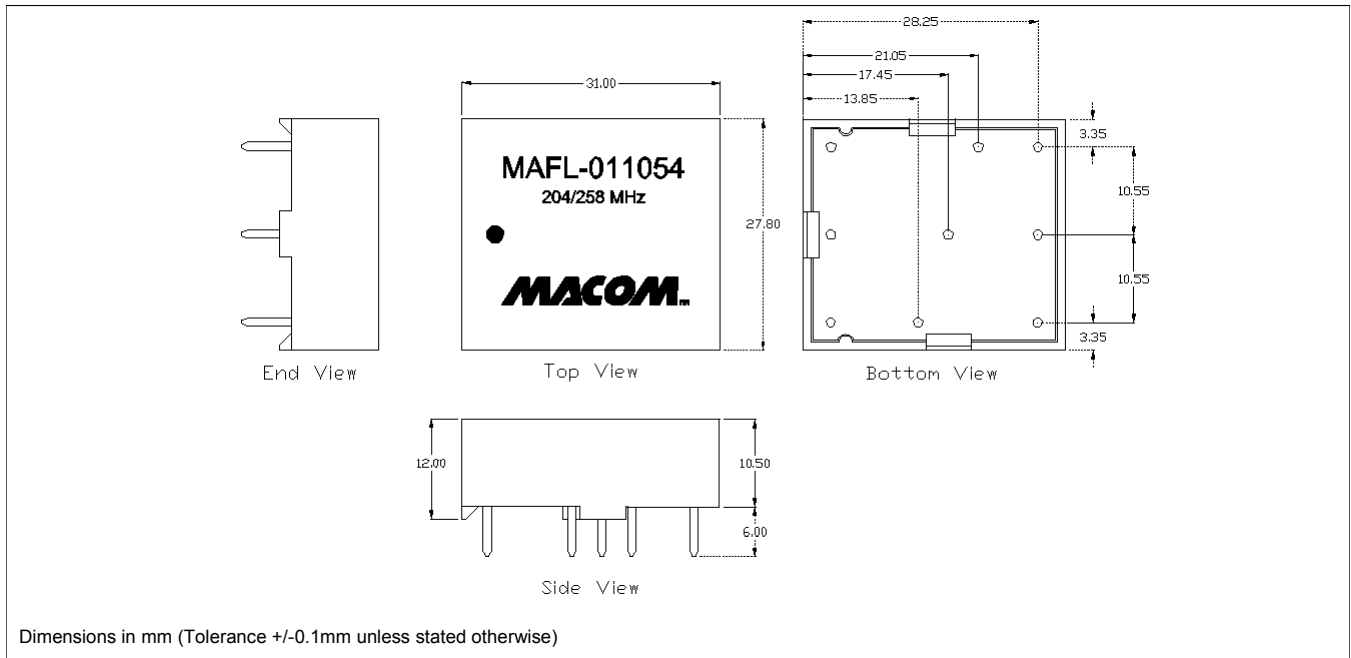
Ordering Information

Part Number	Package
MAFL-011054	200pcs per Box

Pin Configuration

Pin No.	Function
1,2,4,6,7,9	Ground
3	Forward Path Port
5	Reverse Path Port
8	Common Port

Outline Drawing



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

Parameter	Units	Min	Typ	Max
Insertion loss				
5-204 MHz	dB	—	1.0	1.2
258-1218 MHz	dB	—	1.0	1.2
Isolation				
5-204 MHz	dB	48	51	—
204-258 MHz	dB	38	41	—
258-600 MHz	dB	48	51	—
600-1002 MHz	dB	45	49	—
1002-1218 MHz	dB	40	45	—
Return loss Common Port				
5-204 MHz	dB	22	24	—
258-750 MHz	dB	22	24	—
750-1218 MHz	dB	19	21	—
Group Delay				
Forward Path				
259.2625 - 262.85 MHz	nSec	—	10.0	—
265.2625 - 268.85 MHz	nSec	—	8.0	—
271.2625 - 274.85 MHz	nSec	—	6.0	—
Reverse Path				
201.0 - 202.5 MHz	nSec	—	8.0	—
202.5 - 204.0 MHz	nSec	—	10.0	—

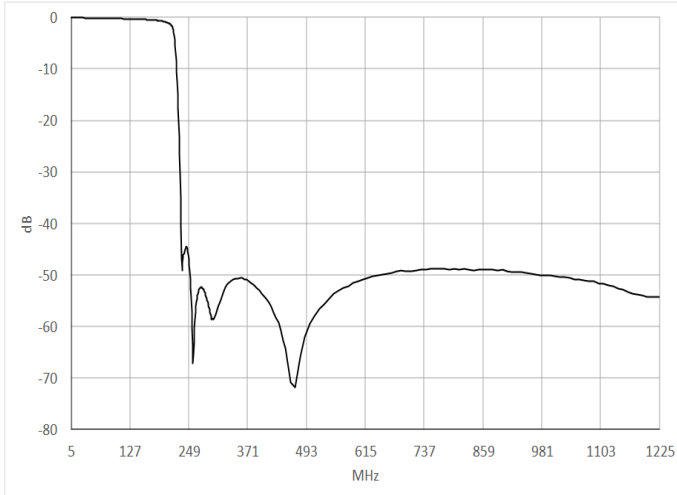
Recommended Maximum Ratings^{1,2}

Parameter	Absolute maximum
RF power	250mW
DC current	30mA
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C

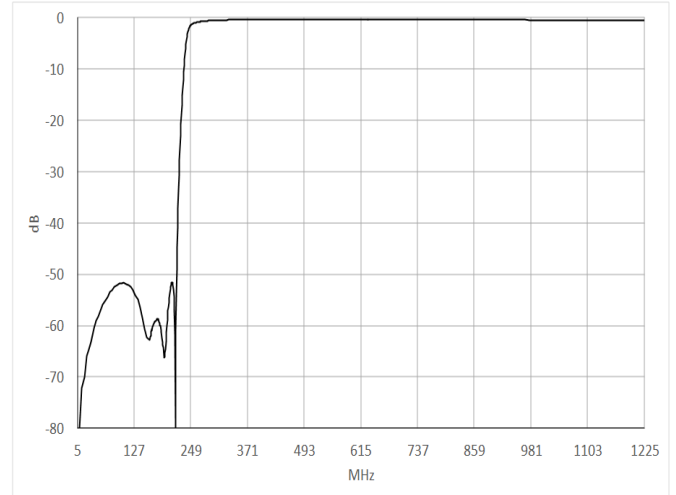
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- MACOM does not recommend sustained operation near these survivability limits.

Typical Performance Curves:

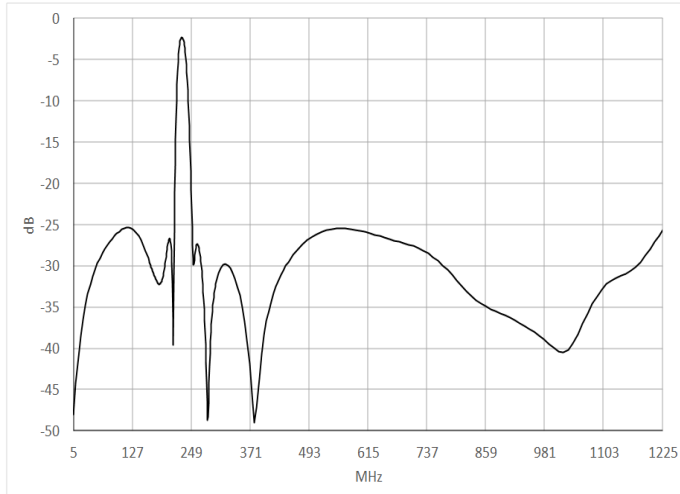
Low Pass Filter



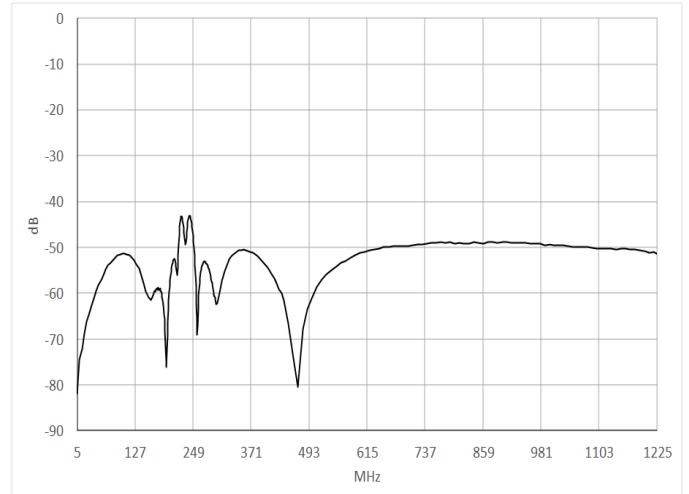
High Pass Filter



Common Port Return Loss



Isolation



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