

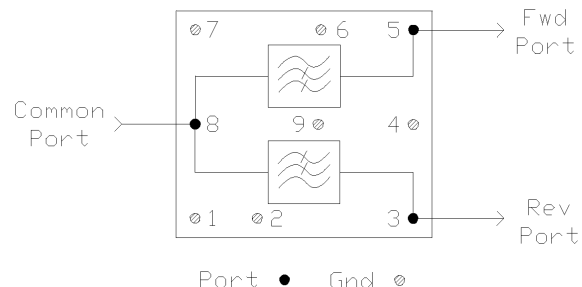
## Features

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

## Description

MAFL-011053 is a high performance horizontal plug-in diplex filter designed specifically for the CATV infrastructure market.

## Functional Schematic



## Ordering Information

Part Number	Package
MAFL-011053	200pcs per Box

## Pin Configuration

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

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

Rev. V1

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

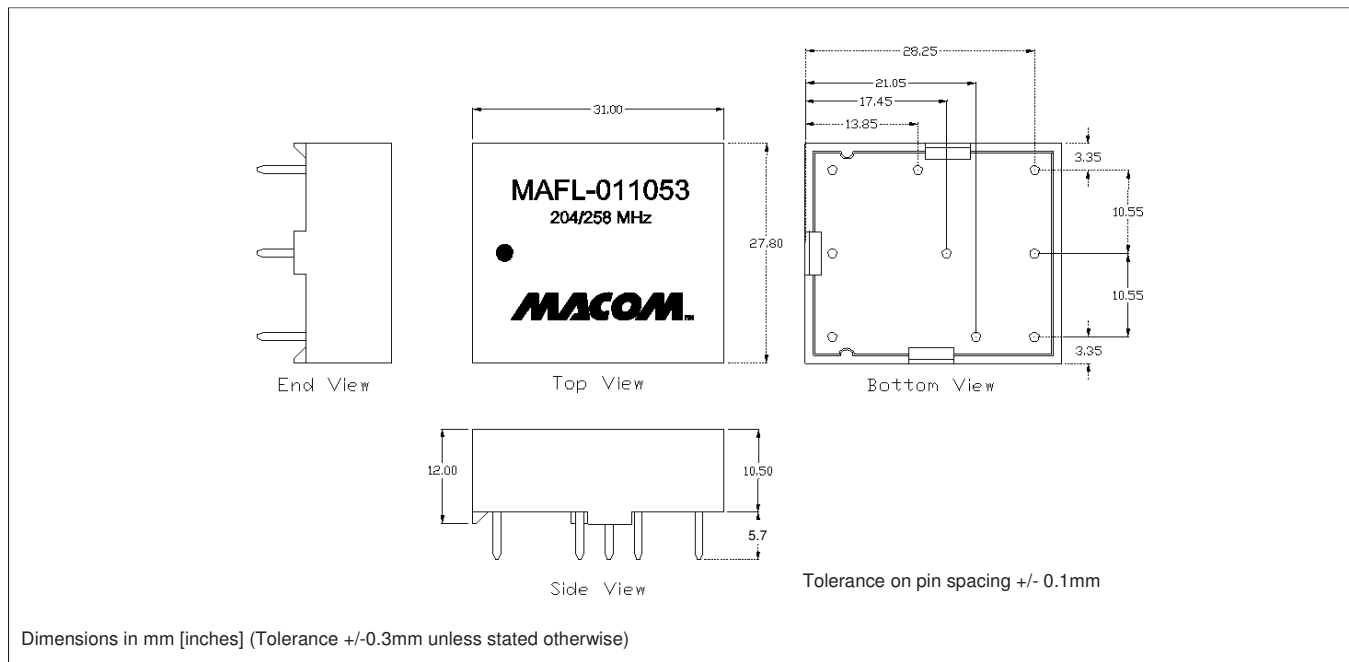
Parameter	Units	Min	Typ	Max
<b>Insertion loss</b>				
5-204 MHz	dB	—	1.0	1.2
258-1218 MHz	dB	—	1.0	1.2
<b>Isolation</b>				
5-204 MHz	dB	48	51	—
204-258 MHz	dB	38	41	—
258-600 MHz	dB	48	51	—
600-1002 MHz	dB	45	49	—
1002-1218 MHz	dB	40	45	—
<b>Return loss Common Port</b>				
5-204 MHz	dB	22	24	—
258-750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

## Recommended Maximum Ratings<sup>1,2</sup>

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

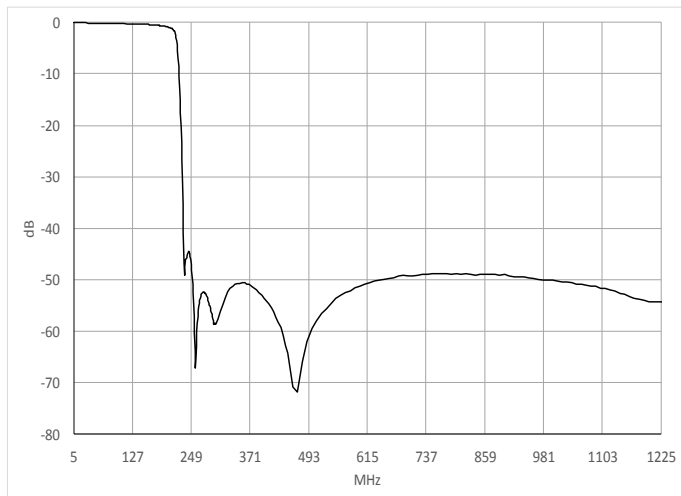
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

## Outline Drawing

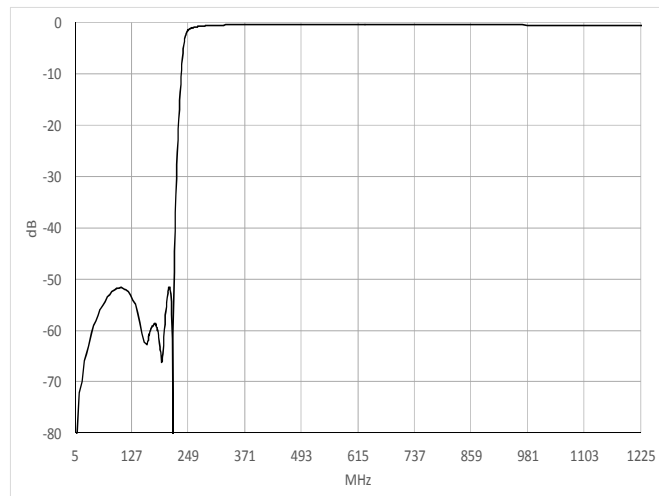


## Typical Performance Curves:

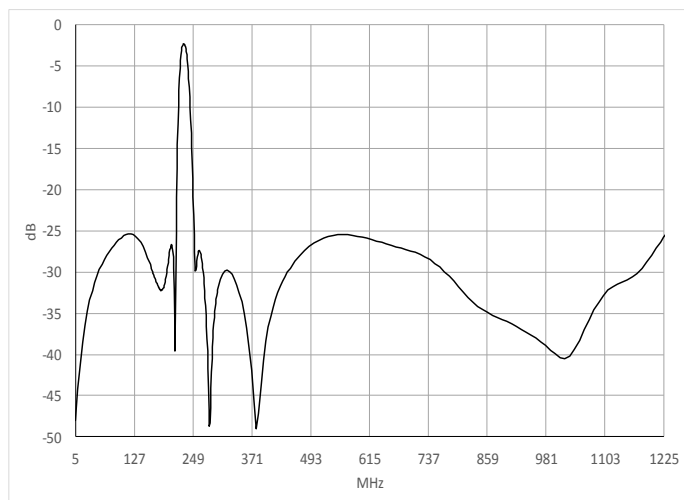
### Low Pass Filter



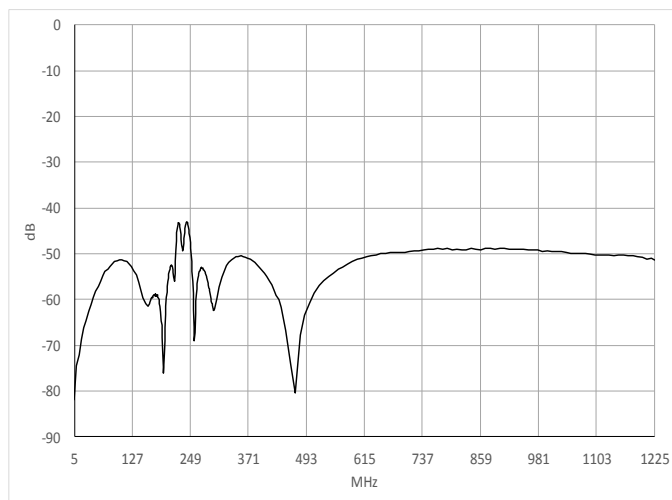
### High Pass Filter



### Common Port Return Loss



### Isolation



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