

Horizontal Plug-in Diplex Filter 5 - 85 / 102 - 1218 MHz

Rev. V2

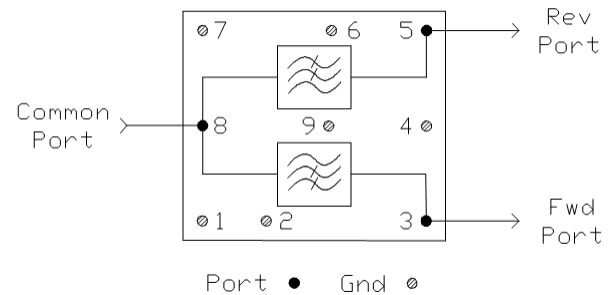
Features

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

Description

MACOM's MAFL-011052 is a high performance horizontal plug-in diplex filter designed specifically for the CATV infrastructure market.

Functional Schematic



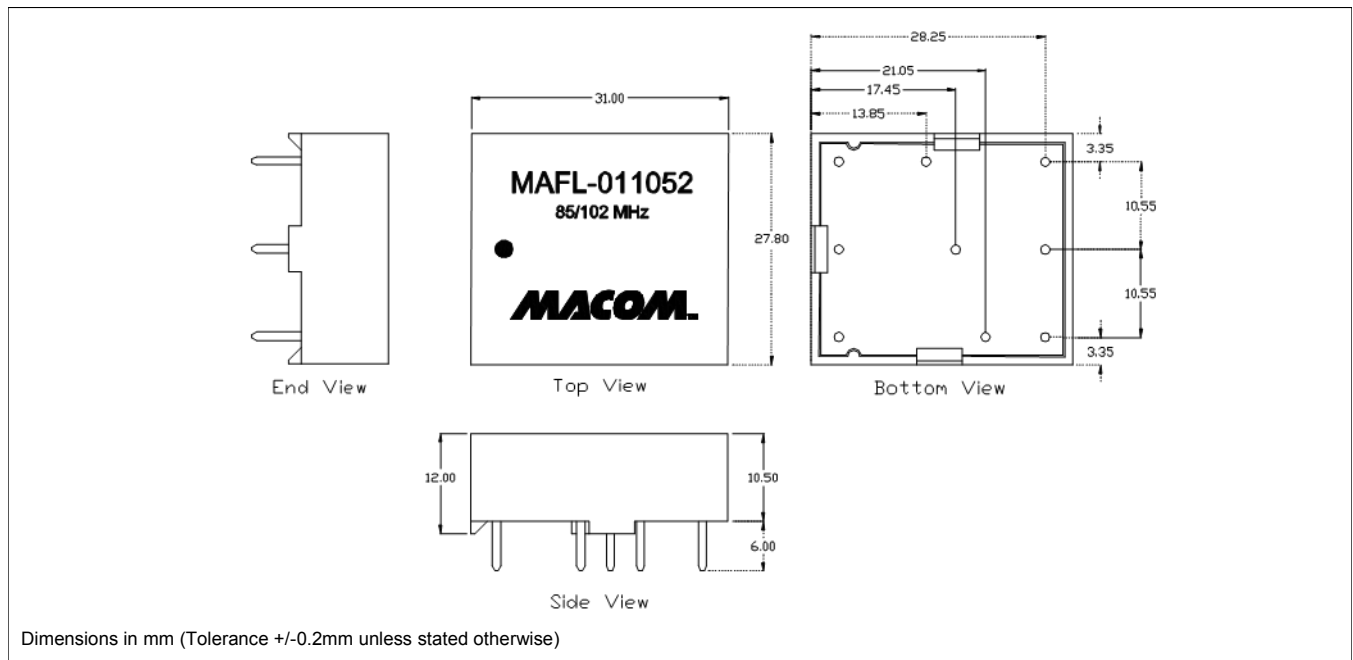
Ordering Information

Part Number	Package
MAFL-011052	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				
Reverse Path				
5 - 85 MHz	dB	—	1.0	1.2
Forward Path				
102 - 105 MHz	dB	—	1.4	1.6
105 - 1218 MHz	dB	—	1.0	1.2
Isolation				
5 - 85 MHz	dB	48	51	—
85 - 105 MHz	dB	38	41	—
105 - 1002 MHz	dB	45	51	—
1002 - 1218 MHz	dB	40	45	—
Return Loss				
Common Port				
5 - 85 MHz	dB	22	24	—
105 - 750 MHz	dB	22	24	—
750 - 1218 MHz	dB	19	21	—
Group Delay				
Reverse Path				
83.5 - 85.0 MHz	nSec	—	8.0	—
82.0 - 83.5 MHz	nSec	—	6.0	—
Forward Path				
109.275 - 112.855 MHz	nSec	—	10.0	—
115.275 - 118.855 MHz	nSec	—	8.0	—
121.2625 - 124.843 MHz	nSec	—	6.0	—

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

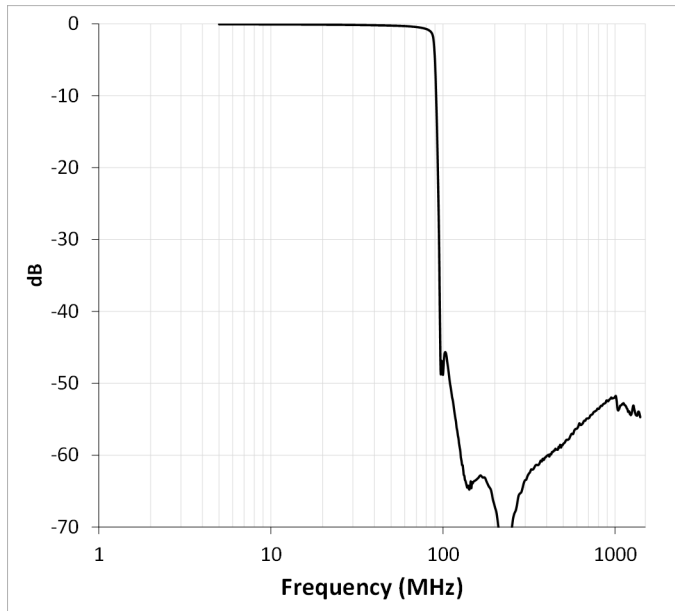
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- MACOM does not recommend sustained operation near these survivability limits.

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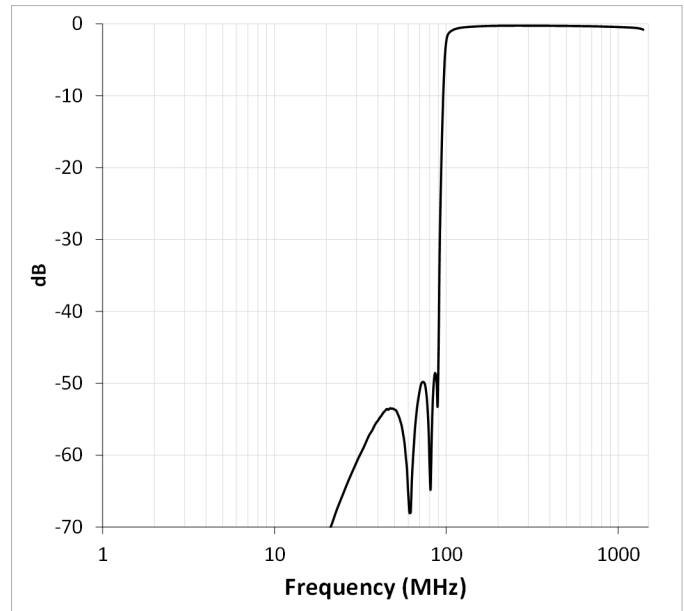
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Typical Performance Curves:

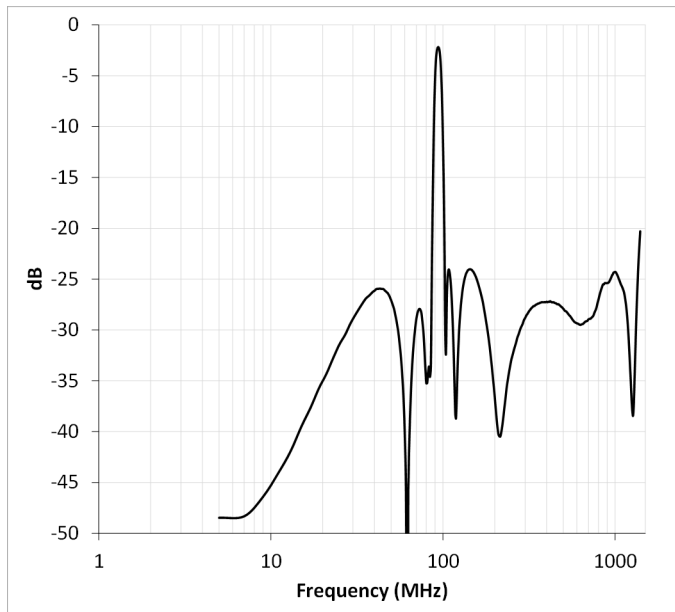
Low Pass Filter



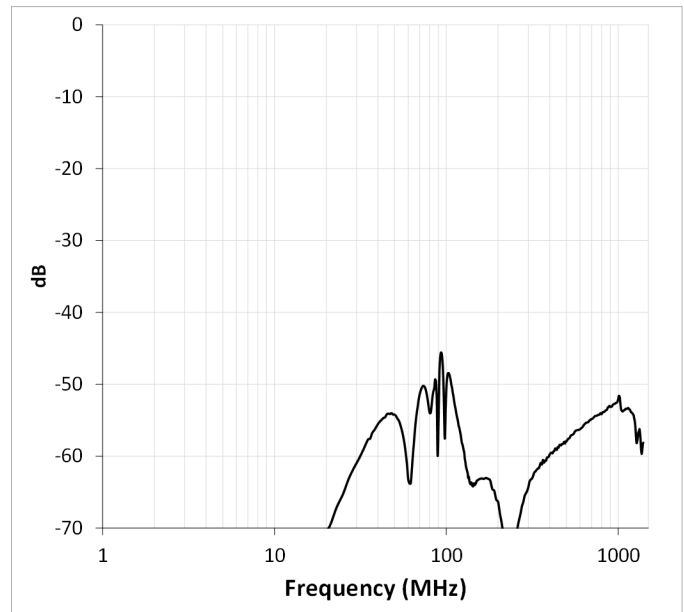
High Pass Filter



Common Port Return Loss



Isolation



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