

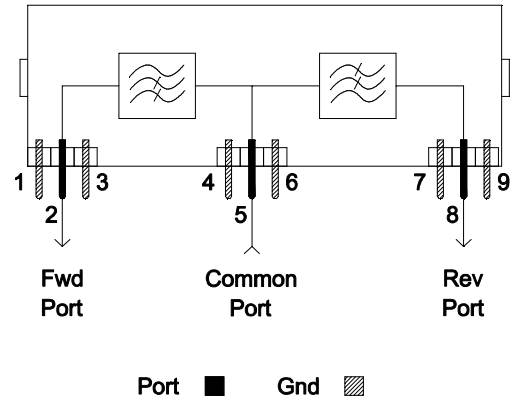
Features

- Plug in Design
- Low Insertion Loss
- Excellent Cross over Isolation
- Excellent Return loss
- RoHS Compliant
- Lead-free

Description

MACOM's MAFL-011061 is a high performance vertical plug-in diplex filter designed specifically for the CATV infrastructure market.

Functional Schematic



Ordering Information

Part Number	Package
MAFL-011061	480

Pin Configuration

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

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

Rev. V1

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

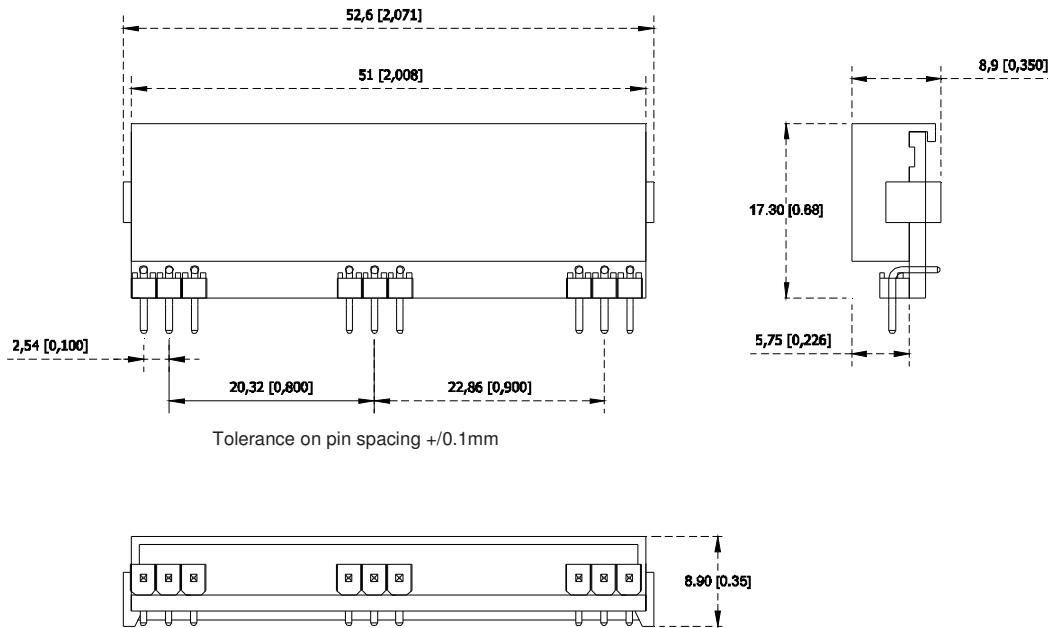
Parameter	Units	Min	Typ	Max
Insertion loss				
Reverse Path 5 - 85 MHz	dB	—	1.0	1.2
Forward Path 102 - 1218 MHz	dB	—	1.0	1.2
Isolation				
5 - 85 MHz	dB	48	51	—
86 - 101 MHz	dB	37	39	—
102 - 600 MHz	dB	48	51	—
600 - 1000 MHz	dB	45	49	—
1000 - 1218 MHz	dB	40	45	—
Return loss				
Common Port 5 - 85 MHz	dB	20	22	—
102 - 1218 MHz	dB	20	22	—
Group Delay				
Reverse Path 82.0 - 83.5 MHz	nSec	—	10.0	—
83.5 - 85.0 MHz	nSec	—	16.0	—
Forward Path 109.275 - 112.855 MHz	nSec	—	16.0	—
115.275 - 118.855 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

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.

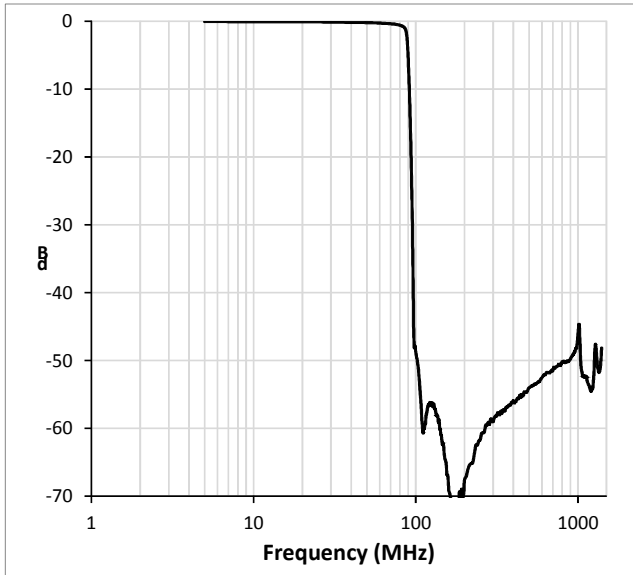
Outline Drawing



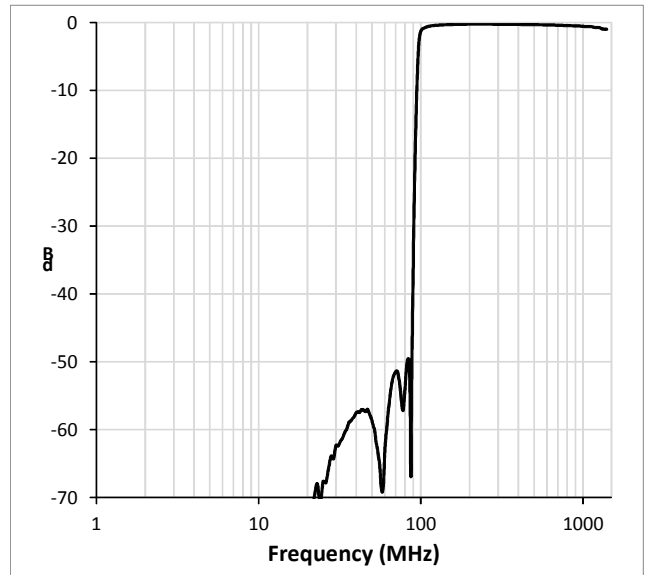
Dimensions in mm [inches] (Tolerance +/-0.3mm unless stated otherwise)

Typical Performance Curves:

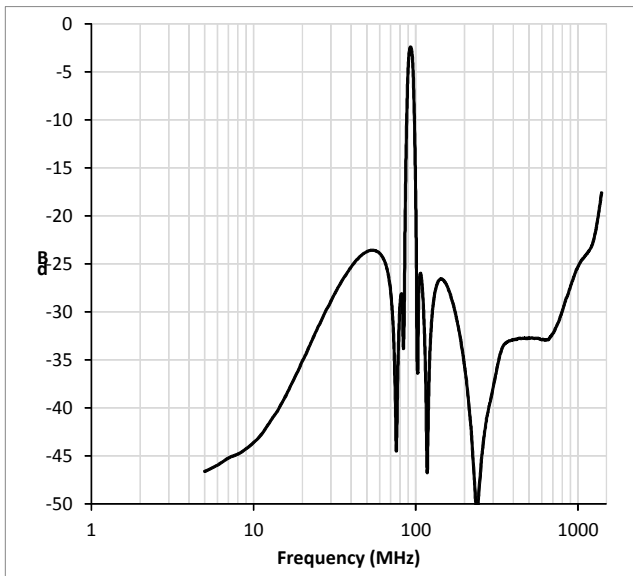
Low Pass Filter



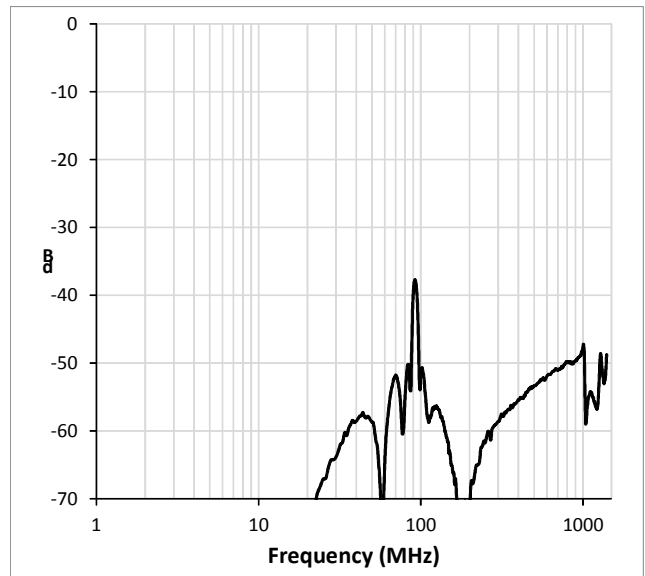
High Pass Filter



Common Port Return Loss



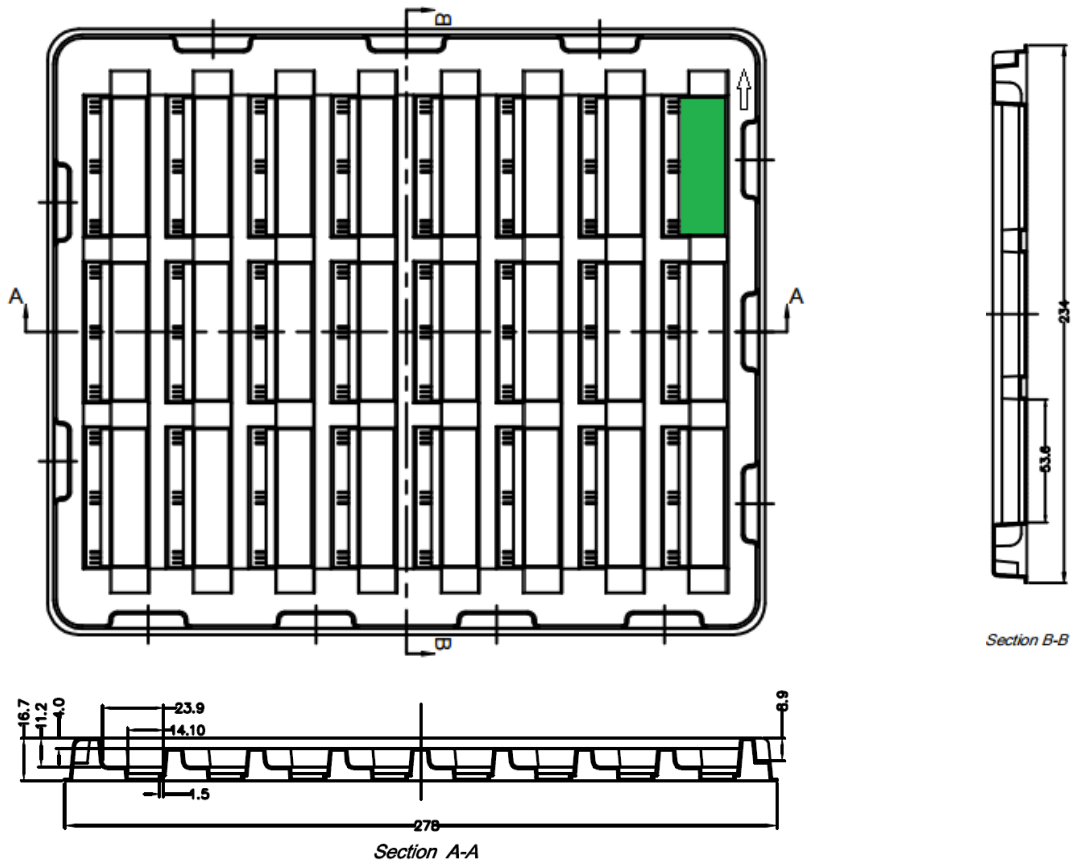
Isolation



Tray Information

Parameter	Units	Value
Min Order Qty	-	480
Tray Length	mm	278
Tray Width	mm	234
Tray Height	mm	16.7
Orientation	-	See below

Consecutive trays will be stacked alternately at 180°



Dimensions are in millimetres.

Tolerance: $.x \pm 0.1$ mm, except where specified.

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