MAFL-011060

Vertical Plug-in Diplex Filter
5-65/85-1218MHz

Rev. V2

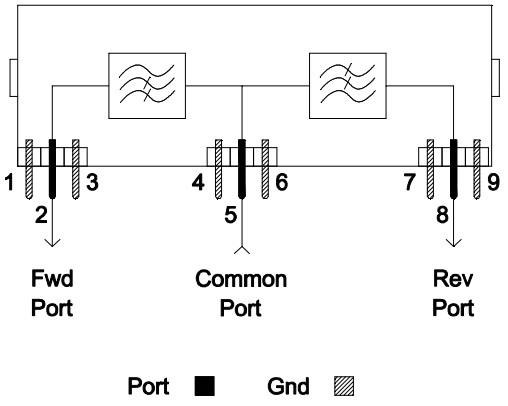
Features

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

Description

MAFL-011060 is a high performance vertical plug-in diplex filter designed specifically for the CATV infrastructure market.

Functional Schematic



Ordering Information

Part Number	Package
MAFL-011060	480

Pin Configuration

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

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Vertical Plug-in Diplex Filter
5-65/85-1218MHz

Rev. V2

Target Electrical Specifications: T_A = 25°C, Z_0 = 75 Ω

Parameter	Units	Min	Typ	Max
Insertion loss				
Reverse Path				
5 - 65 MHz	dB	—	1.0	1.2
Forward Path				
85 - 1218 MHz	dB	—	1.0	1.2
Isolation				
5 - 65 MHz	dB	48	51	—
66 - 84 MHz	dB	37	39	—
85 - 600 MHz	dB	48	51	—
600 - 1000 MHz	dB	45	49	—
1000 - 1218 MHz	dB	40	45	—
Return loss				
Common Port				
5 - 65 MHz	dB	20	22	—
85 - 1218 MHz	dB	20	22	—
Group Delay				
Reverse Path				
62.0 - 63.5 MHz	nSec	—	10.0	—
63.5 - 65.0 MHz	nSec	—	16.0	—
Forward Path				
91.25 - 94.83 MHz	nSec	—	16.0	—
97.25 - 100.83 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.

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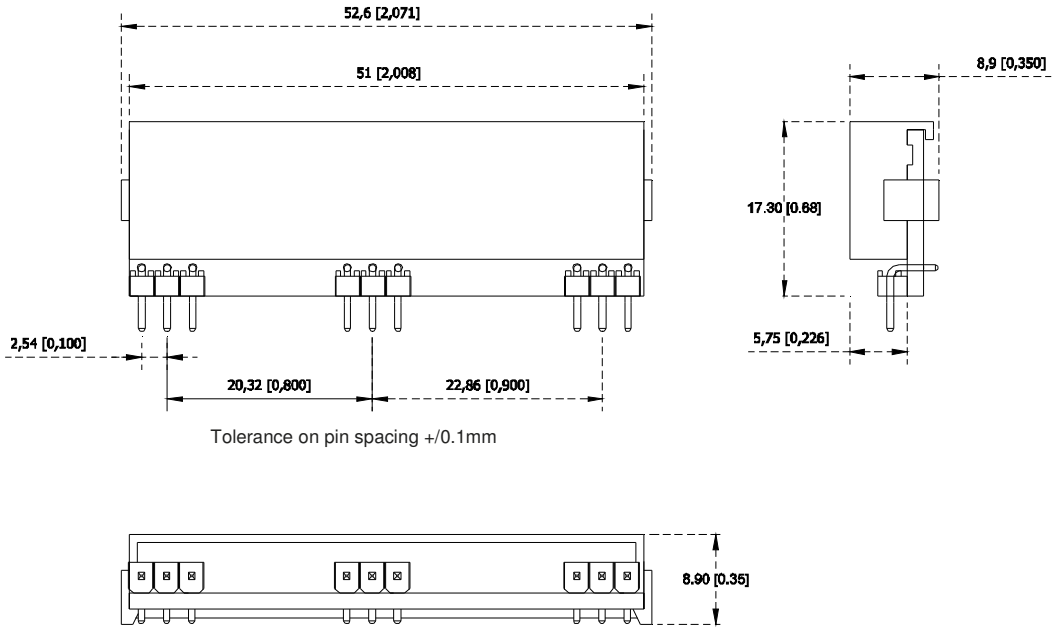
Outline Drawing



Tolerance on pin spacing +/0.1mm

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

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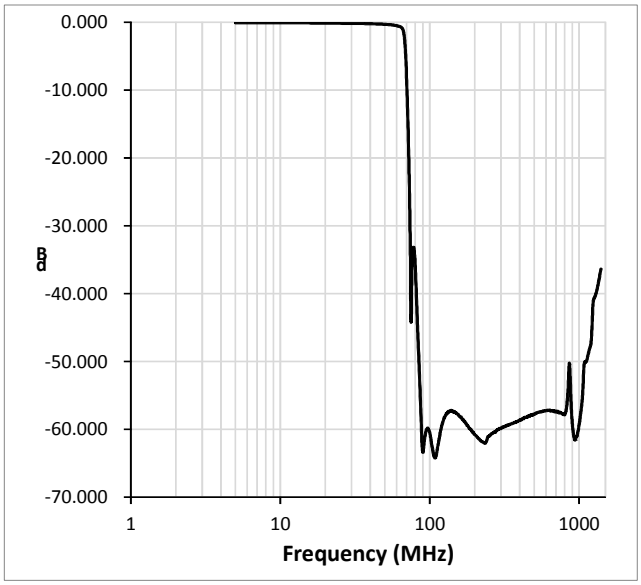
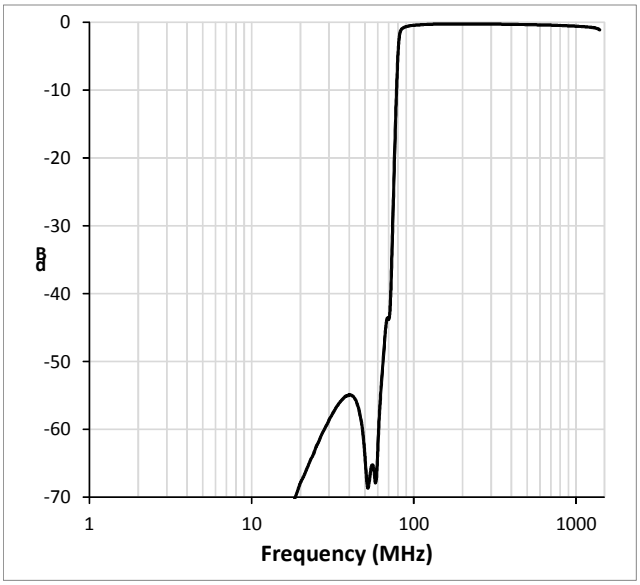
Typical Performance Curves:

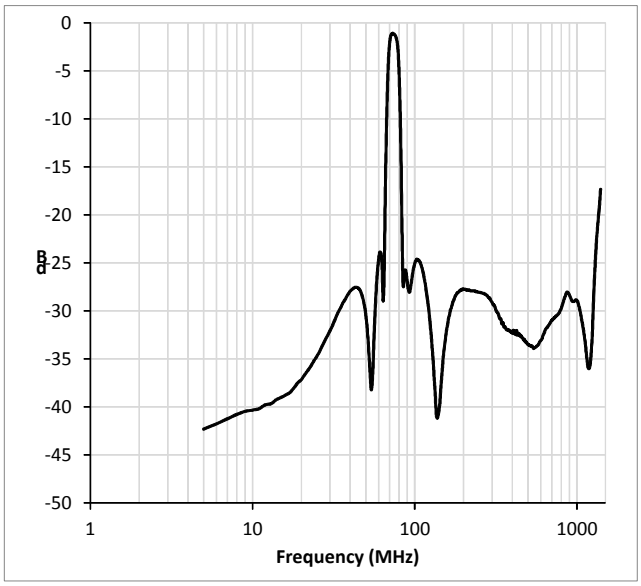
Low Pass Filter



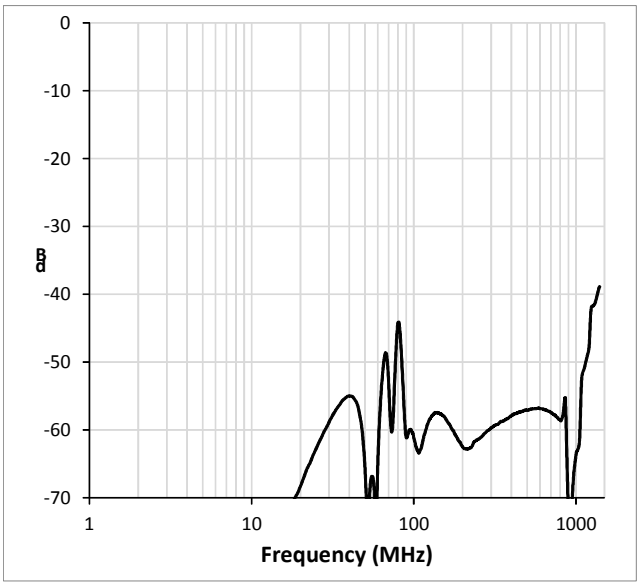
High Pass Filter



Common Port Return Loss



Isolation



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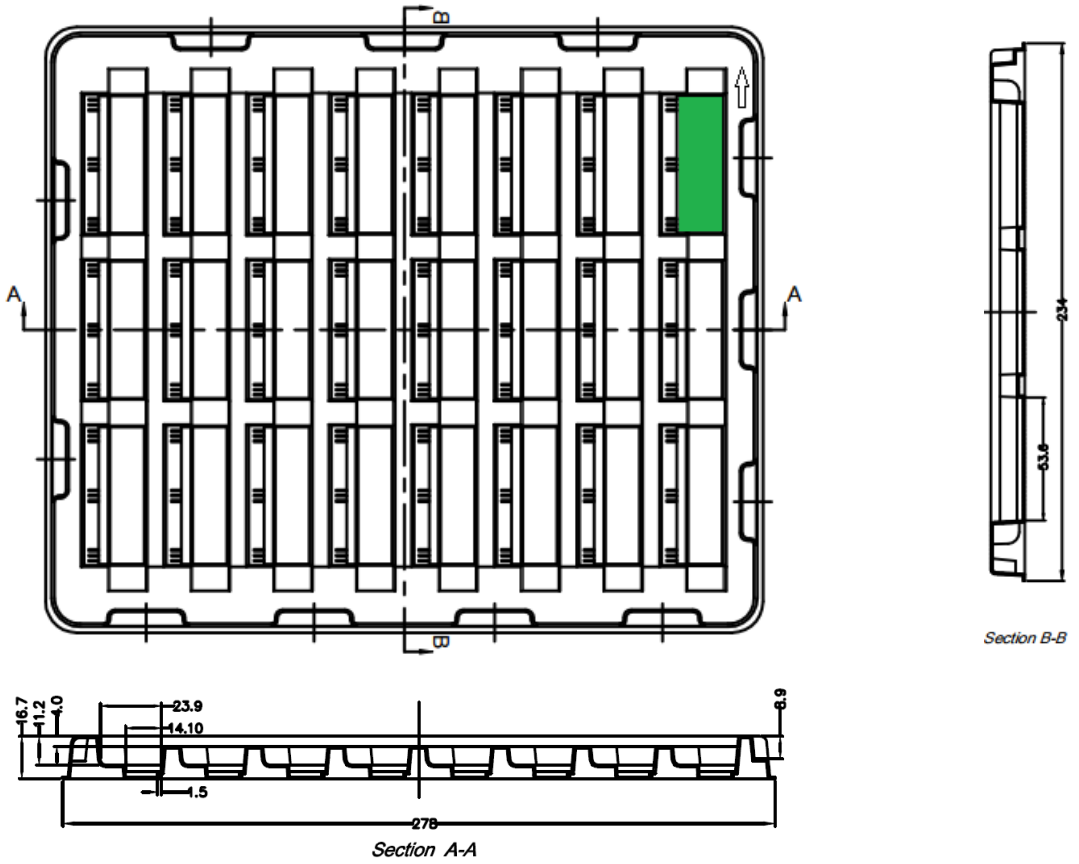
Tray Information

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 ± 0.1 mm, except where specified.

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