

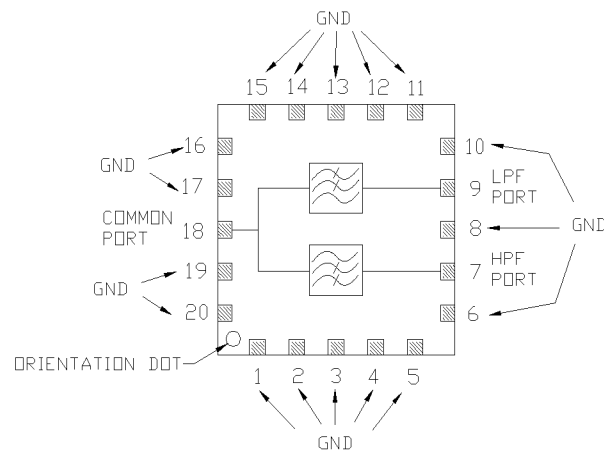
## Features

- 75 Ohm
- SMT unit
- RoHS Compliant and Pb free.

## Description

MAFL-011055 is a Low Cost, surface mount Diplex Filter unit designed for CATV applications, DTV and DBS applications.

## Functional Schematic



## Ordering Information

Part Number	Package
MAFL-011055	200

## Pin Configuration

Function	Pin Number
Common Port	18
Low Pass Port	9
High Pass Port	7
Ground	1 - 6, 8, 10-17, 19, 20
Not connected	-

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

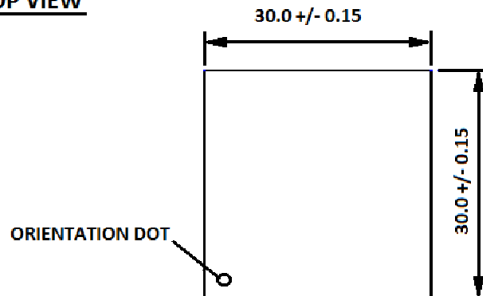
Parameter	Units	Min	Typ	Max
<b>Insertion Loss</b> 5 - 42 MHz	dB	-	0.5	1.3
	54 - 1218 MHz	dB	0.5	1.3
<b>Insertion Loss Flatness</b> 5 - 42 MHz	dB	-	-	0.5
<b>Filter Rejection</b> 5 - 42 MHz	dB	43	50	-
	54 - 1218 MHz	dB	43	50
<b>Filter Return Loss (all ports)</b> 5 - 42 MHz	dB	18	20	-
	54 - 1218 MHz	dB	17	19
<b>Group Delay</b> 38.5 - 42 MHz	nSec	-	-	20
	54 - 57.5 MHz	nSec	-	20

## Recommended Maximum Ratings

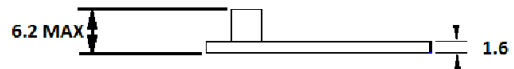
Parameter	Value
Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
DC Current	30mA
RF Power	250mW

## Outline Drawing

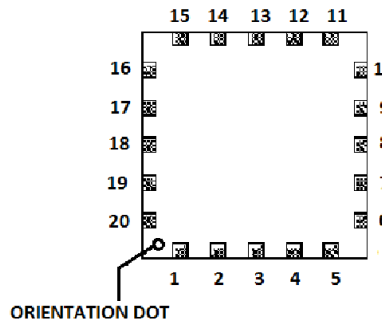
TOP VIEW



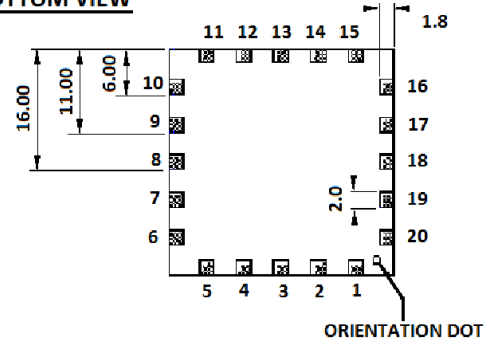
SIDE VIEW



PCB TOP VIEW

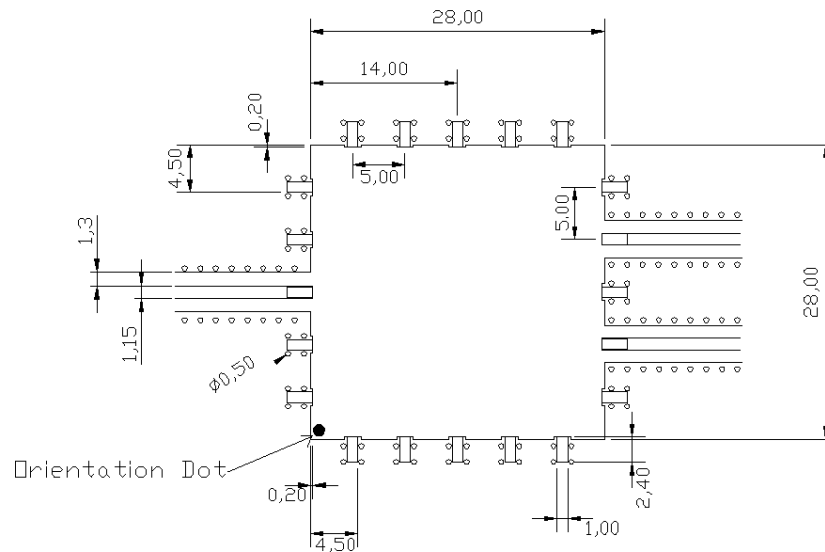


PCB BOTTOM VIEW



Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

## Recommended PCB Configuration



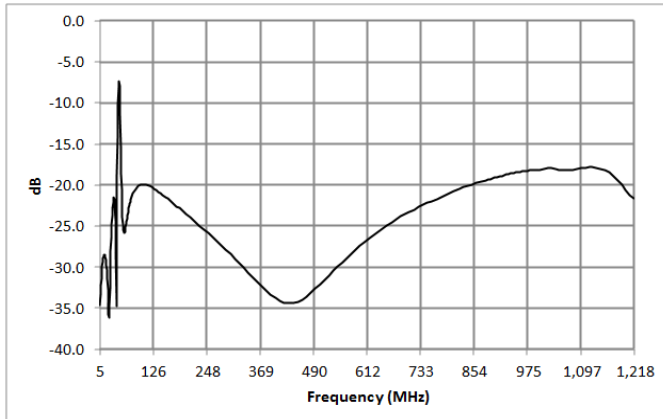
Dimensions in mm. Tolerance: .x ± 0.1, .xx ± 0.05

## CATV Diplex Filter 5-42 / 54-1218MHz

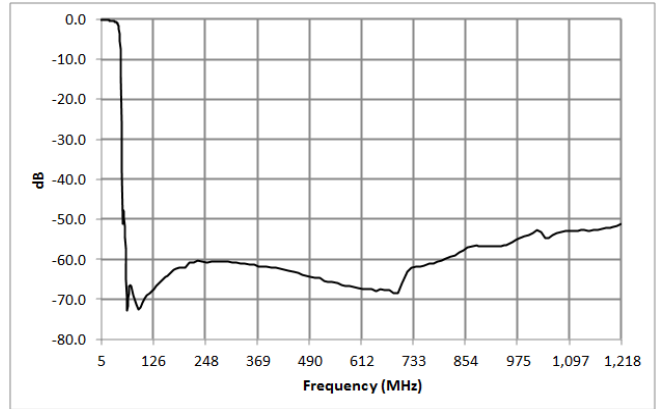
Rev. V2

Typical Performance:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$

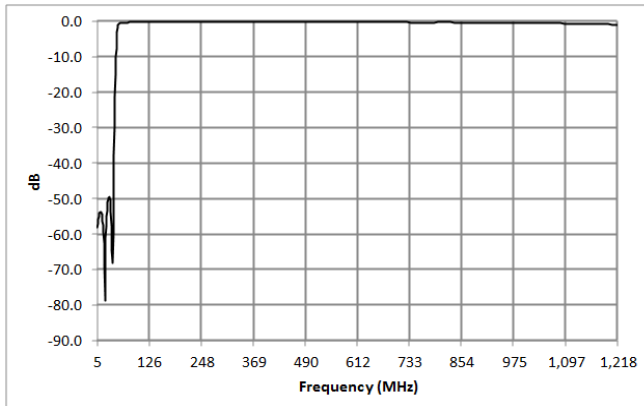
### Input Port Return Loss



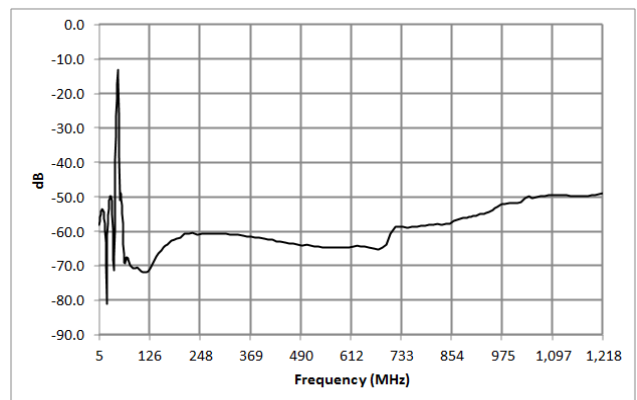
### Low Pass Filter Insertion Loss



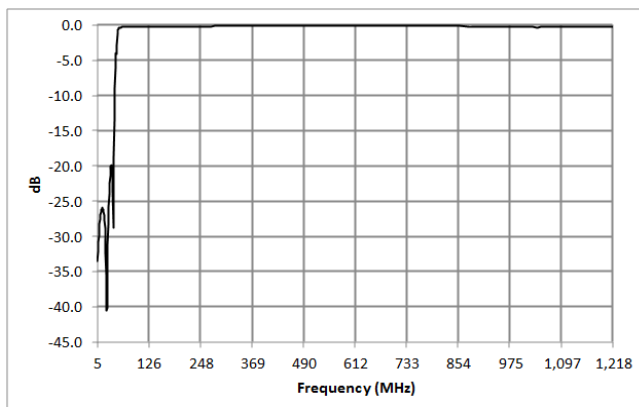
### High Pass Filter Insertion Loss



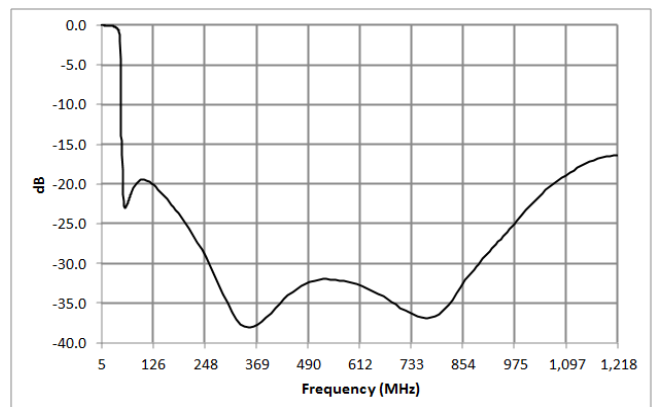
### Filter Isolation



### Low Pass port Return Loss

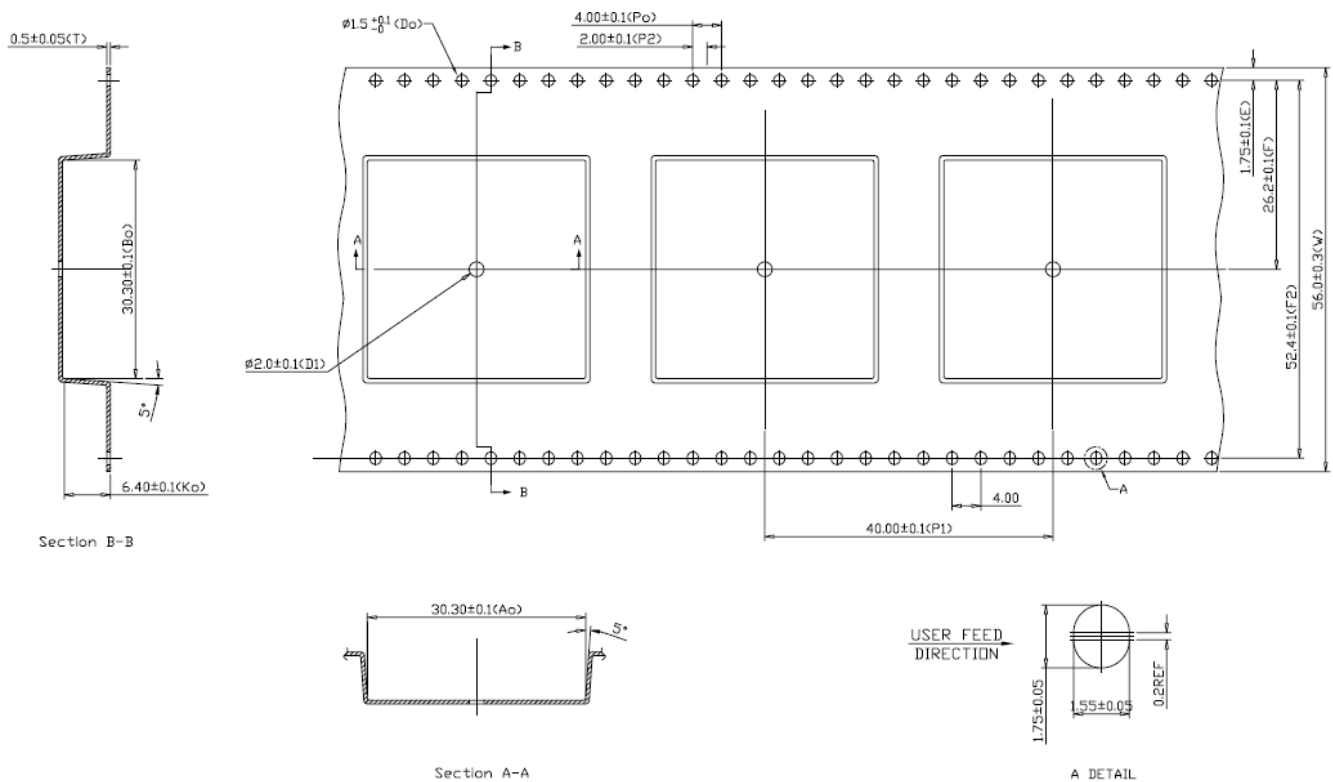


### High Pass port Return Loss



### Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	200
Reel Size	mm	330
Tape Width	mm	56.00
Pitch	mm	40.00
Ao	mm	30.3
Bo	mm	30.3
Ko	mm	6.4
Orientation	-	F30
Reference Application Note ANI-019 for orientation		



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