SYTFB097QF0S

10.0GHz Surface Mount Bandpass Filter

Description

Yantel's surface mount catalog bandpass filters utilize Yantel's low loss temperature stable materials which offer small size and minimal performance variation over temperature. The catalog BPF's are offered in a variety of frequency bands, which offers a drop in solution with highly repeatable performance.

Features

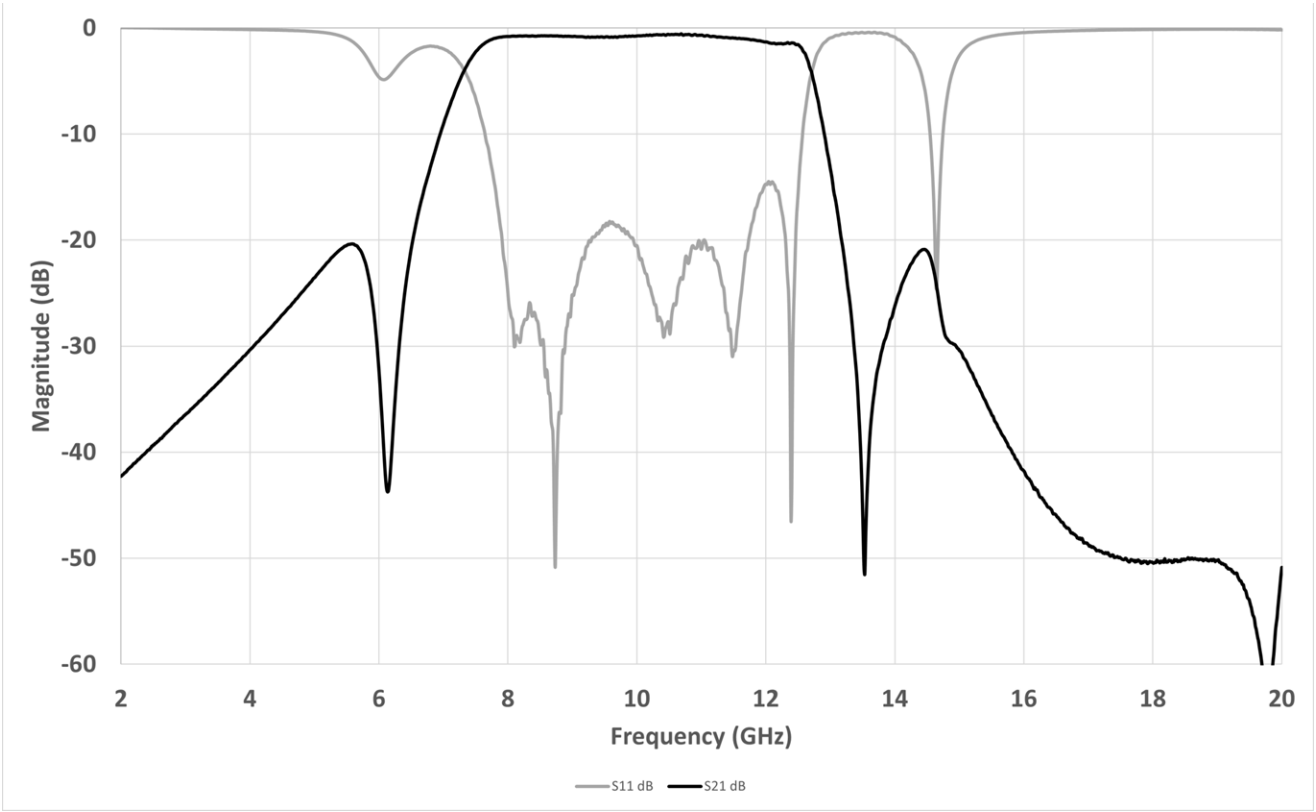
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55˚C to +125˚C
- Characteristic Impedance: 50Ω

Specifications*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	8.0 - 12.0		0.75	1.0
Return Loss (dB)		10.0	12.0	
Low Side Rejection (dB)	2.0 - 6.0	20.0	25.0	
High Side Rejection (dB)	16.0 - 20.0	20.0	25.0	
CW Input Power** (W)				10
θ_{JC} $\left(\frac{°C}{W}\right)$	7.5			
Size (L x W x H)	0.375 x 0.225 x 0.088 in 9.53 x 5.72 x 2.24 mm			

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ±0.5dB over temperature.
**Power rating assumes the component will be mounted to a PCB with good thermally conducting ground vias as outlined in the recommended PCB layout that are connected to an adequate heat sink. Max power is based on 125°C base temperature.

Typical Measured Performance



***Typical de-embedded measured performance mounted on a connectorized test fixture. DEB is 0.254mm RO4350B with 50.0Ohm CPW ground traces going into the ports at room temperature.**

Yantel Corporation
Add：No.308-322,3F,Building 1,Juchuang Jingu Innovation Park,Wenyuan Road 35,Xili Street,Nanshan,Shenzhen,China
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533
For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com

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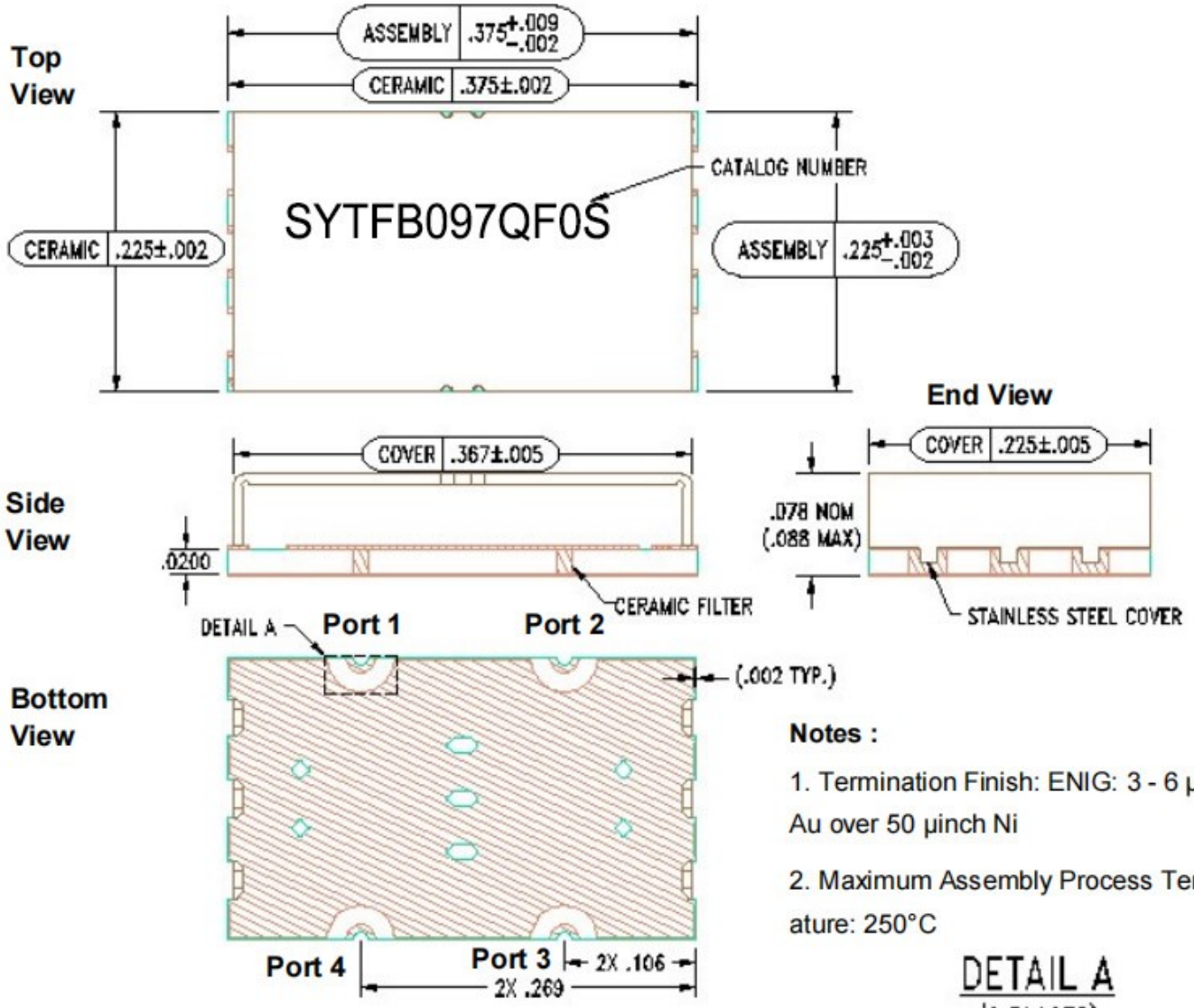
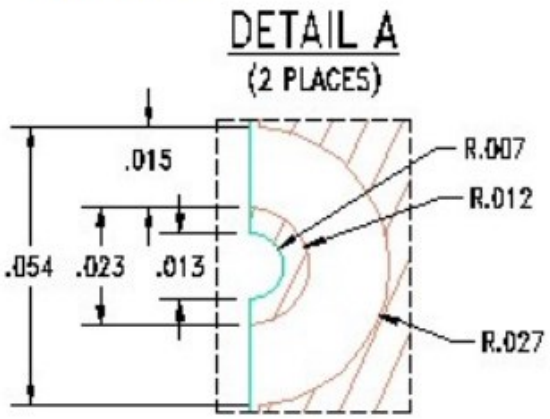
Physical Dimensions

Units = inches



Notes :

1. Termination Finish: ENIG: 3 - 6 µinch Au over 50 µinch Ni
2. Maximum Assembly Process Temperature: 250°C



Differential Filter Port Configurations				
This part is symmetrical and will function the same				
	Input 1	Output 1	Input 2	Output 2
Option 1	Port 1	Port 4	Port 2	Port 3
Option 2	Port 3	Port 2	Port 4	Port 1

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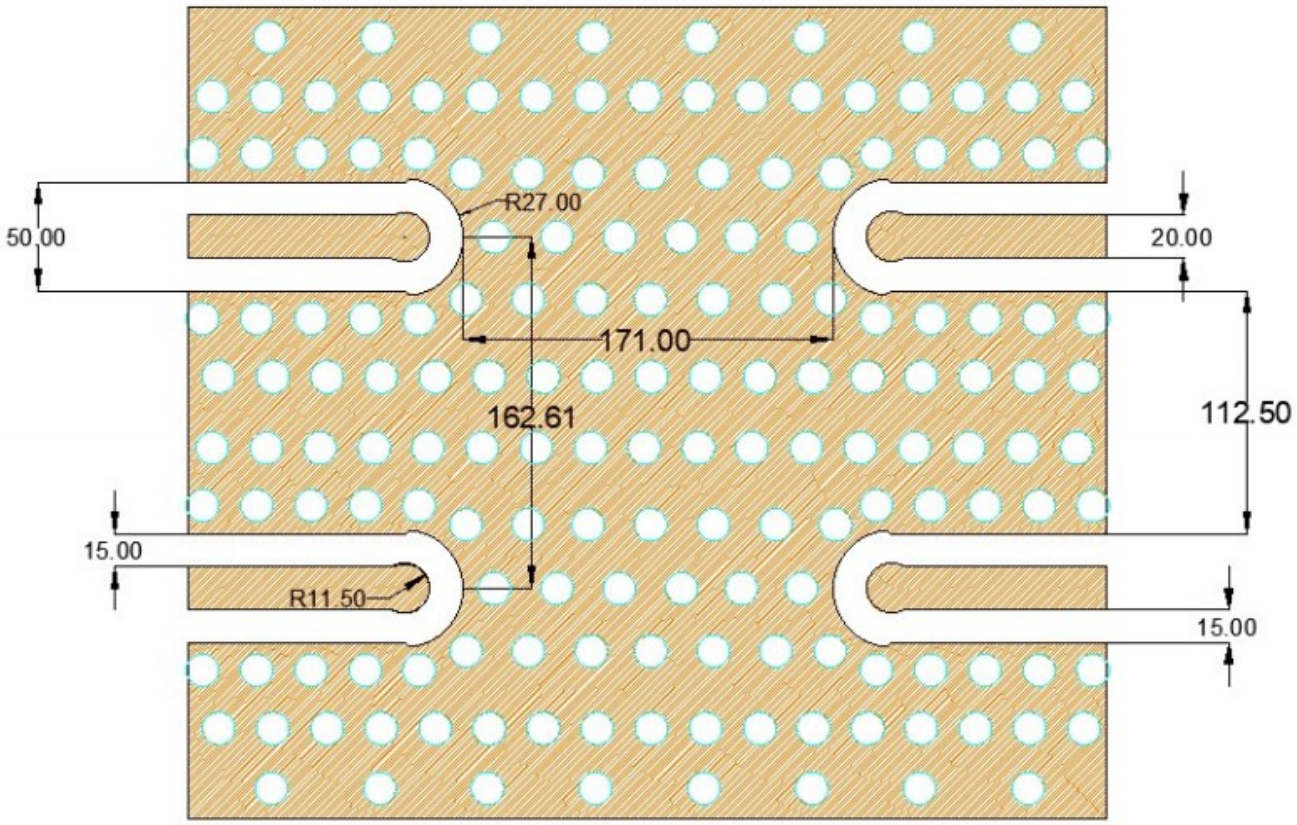
Recommended PCB Layout

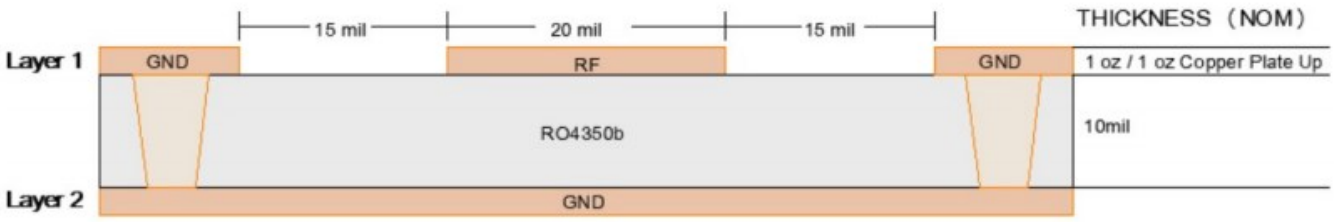
Unit =mils



PCB RECOMMENDED STACKUP

Filter is matched to RF layer stackup seen below
Dimensions are specified below in inches (not to scale)

Board material	:	RO4350b
Board material design dk	:	3.66
CPWG	:	20mil trace width, 15mil gaps



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