

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

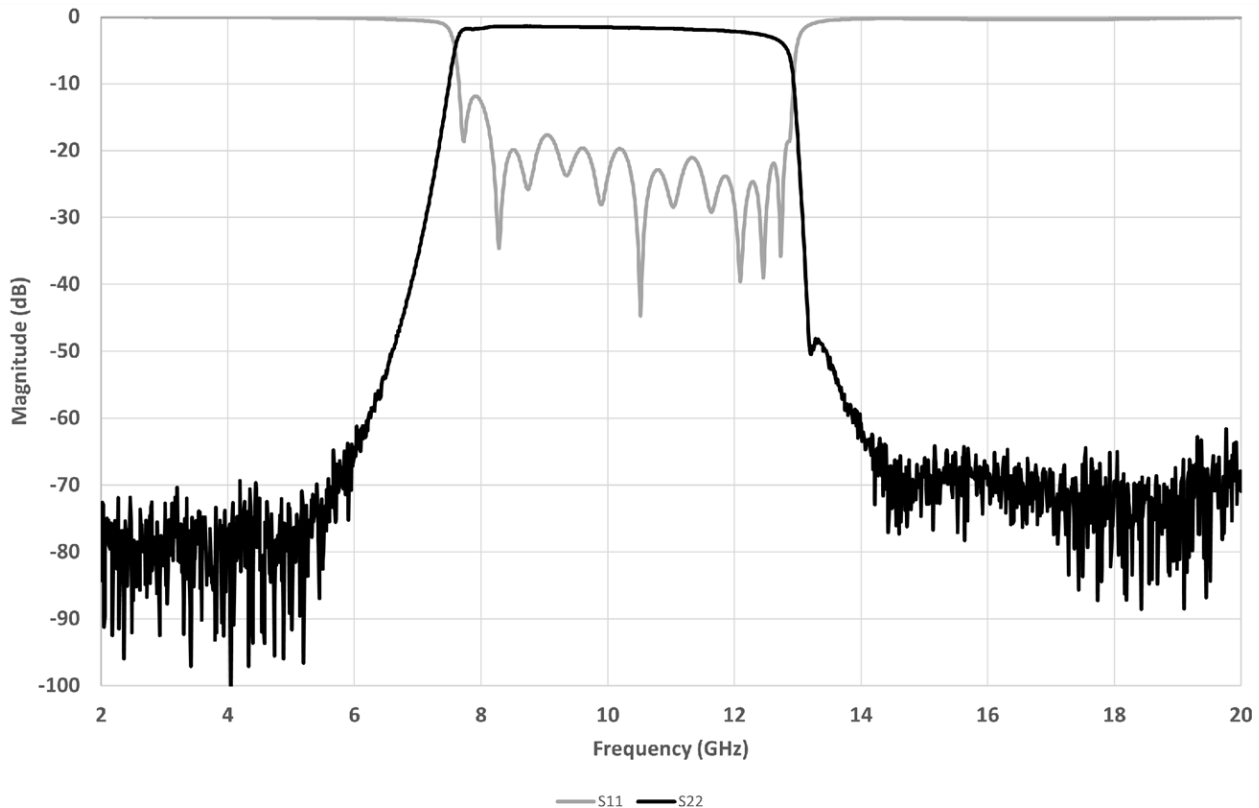
Specifications*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	8.0 - 12.0		3.0	3.0
Return Loss (dB)		10.0	10.0	
Low Side Rejection (dB)	2.0 - 6.5	40.0	45.0	
High Side Rejection (dB)	13.50 - 20.0	40.0	45.0	
CW Input Power** (W)				10
$\theta_{jc} \left(\frac{^{\circ}C}{W} \right)$	7.5			
Size (L x W x H)	0.450 x 0.180 x 0.143 in 11.43 x 4.57 x 3.63 mm			

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ± 0.5 dB 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 50.00hm CPW ground traces going into the ports at room temperature.

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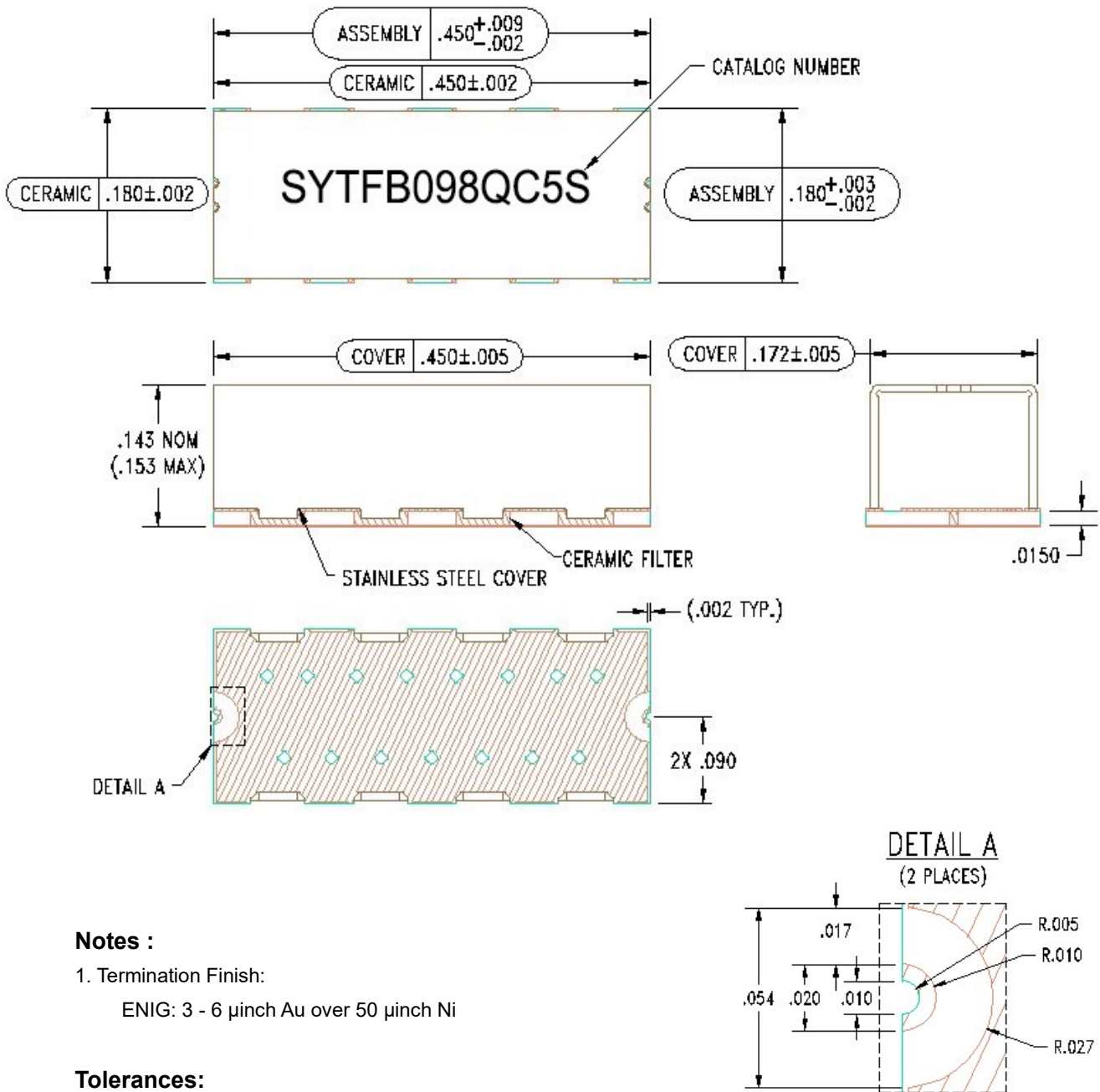
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For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com

Physical Dimensions

Units = inches


Notes :

1. Termination Finish:

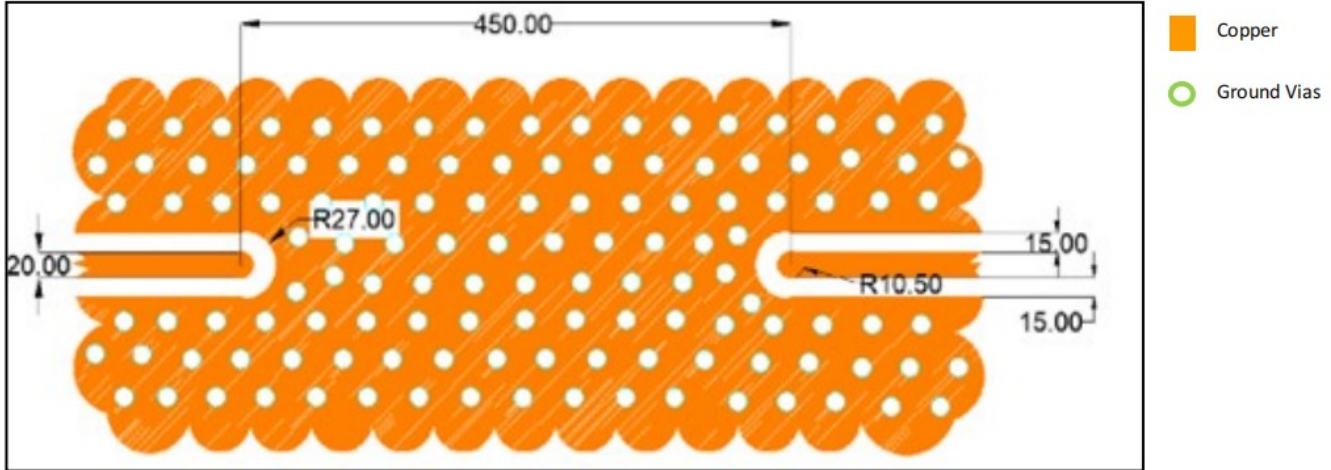
 ENIG: 3 - 6 μ inch Au over 50 μ inch Ni

Tolerances:

 For values with 3 decimal places ± 0.001

 For values with 4 decimal places ± 0.0005

Recommended PCB Layout

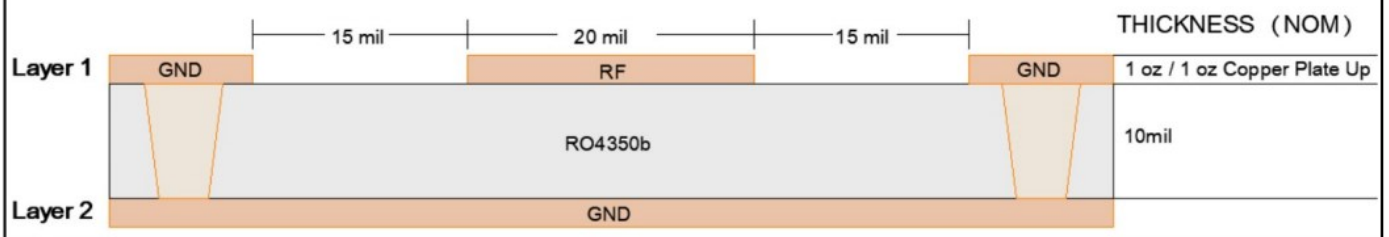


PCB RECOMMENDED STACKUP

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



Unit =mils

Note:

- 50Ω trace dimensions are application specific.
- 50Ω trace dimensions are designed for 10mil thick R04350B Rogers Board .
- Ensure adequate grounding beneath the part.