

SYTFB099NC4S

10.25GHz 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

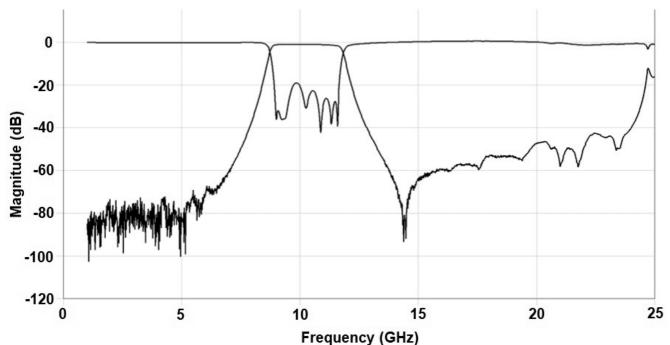
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

Specifications*

Parameter	Frequency Range (GHz)	Min	Тур.	Max
Insertion Loss (dB)	9.0 - 11.0		1.2	2.25
Return Loss (dB)		10.0	18.0	
Low Side Rejection (dB)	DC - 7.35	40.0	48.0	
High Side Rejection (dB)	13.0 - 23.0	40.0	48.0	
CW Input Power** (W)				10
$\theta_{JC} \left(\frac{^{\circ}C}{W} \right)$	7.5			
Size (L x W x H)	0.400 x 0.150 x 0.103 in 10.16 x 3.80 x 2.62 mm			

^{*}Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ±0.5dB over 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.

^{**}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.



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Physical Dimensions

Top View

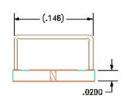
Units = inches



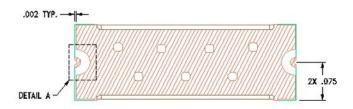
Side View

.088 NOM (.103 MAX)

End View

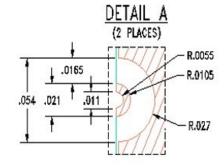


Bottom View



Notes:

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



Tolerances:

For values with 3 decimal places ±0.001 For values with 4 decimal places ±0.0005

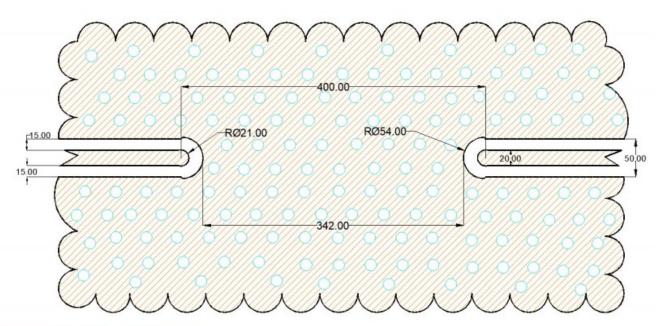


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Recommended PCB Layout

Unit =mils





PWB TOP METAL



PWB DRILL

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

