

# SYTFB070NC5S

## 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

	0 -	
	-10 -	
	-20 -	
le (dB	-30 -	
ð	-40 -	
ij	-50 -	
Magnitude (dB)	-60 -	
	-70 -	
	-80 -	
		E
	-90 -	
		5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10
		Frequency (GHz)

**Typical Measured Performance** 

7.0GHz Surface Mount Bandpass Filter

### Specifications\*

Parameter	Frequency Range (GHz)	Min	Тур.	Мах	
Insertion Loss (dB)	6.45 - 7.55		1.7	2.25	
Return Loss (dB)	6.45 - 7.55	10.0	18.0		
Low Side Rejection (dB)	DC - 5.8	40.0	45.0		
High Side Rejection (dB)	8.2 - 17.0	40.0	50.0		
CW Input Power** (W)				10	
$\theta_{JC} \left(\frac{^{\circ}C}{W}\right)$	7.5				
Size (L x W x H)		0.500 x 0.200 x 0.095 in 12.70 x 5.08 x 2.41 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.

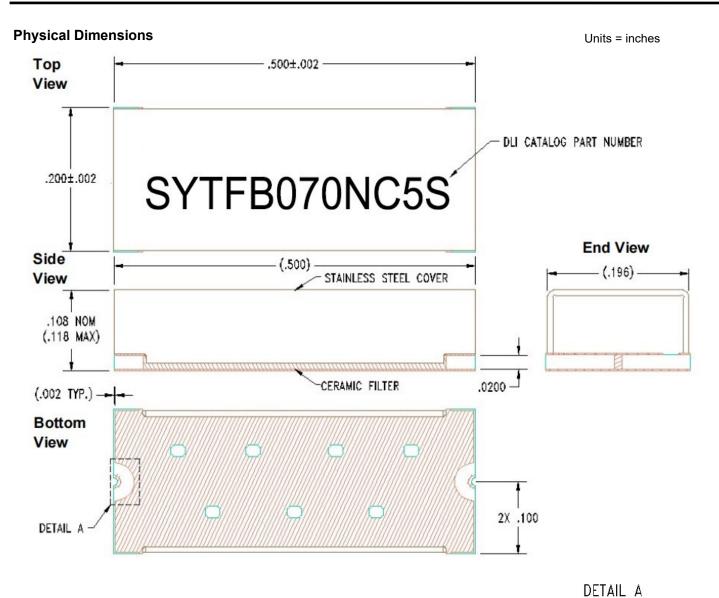
\*Typical de-embedded measured performance mounted on a connectorized test fixture. DEB is 0.254mm RO4350B with 50.00hm CPW ground traces going into the ports at room temperature.

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#### 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  $\pm 0.001$ For values with 4 decimal places  $\pm 0.0005$  (2 PLACES)

.0165

.011

.021

- t

.054

R.0055

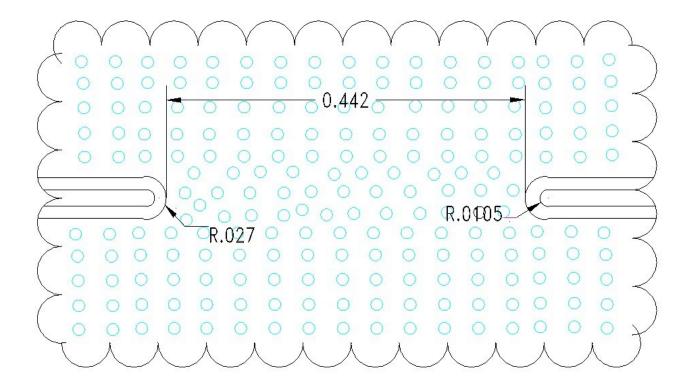
R.0105

R.027



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# **Recommended PCB Layout**



Units = inches

## Note:

- $50\Omega$  trace dimensions are application specific.
- Ensure adequate grounding beneath the part.