

# SYTFB160KA1S

### 16.0GHz 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**

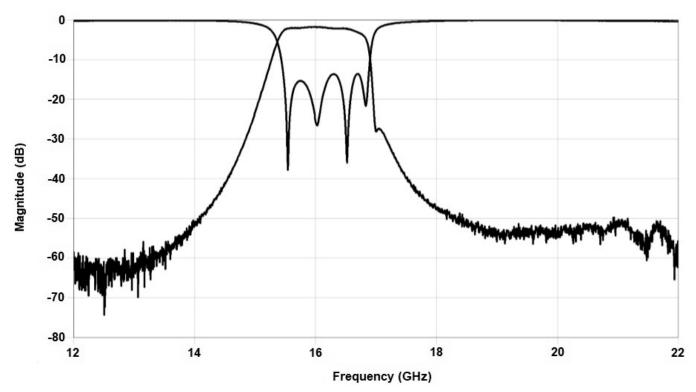
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

#### Specifications\*

Parameter	Frequency Range (GHz)	Min	Тур.	Max
Insertion Loss (dB)	15.75 - 16.25		2.75	3.0
Return Loss (dB)		12.0	15.0	
Low Side Rejection (dB)	DC - 14.25	40.0	45.0	
High Side Rejection (dB)	17.75 - 20.5	40.0	45.0	
CW Input Power** (W)				5
$\theta_{JC} \left( \frac{^{\circ}C}{W} \right)$	15			
Size (L x W x H)	10.16 x 5.08 x 2.36 mm			

<sup>\*</sup>Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ±0.5dB over temperature.

### **Typical Measured Performance**



<sup>\*</sup>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.

<sup>\*\*</sup>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** Units = mm **Top View** 10.16±0.05 CATALOG NUMBER SYTFB160KA1S 5.08±0.05 Side View **End View** (4.98)STAINLESS STEEL COVER 2.11 MON (2.36 MAX) 0.38 CERAMIC FILTER **Bottom View** 0.05 TYP. <u>DETAIL A</u> R 0.140 0.419 R 0.267 1.372 0.533 0.279 2X 2.54 DETAIL A R 0.686

### Notes:

1. Termination Finish:

ENIG: 76-152 μm Au over 1270 μm Ni

2. Maximum Assembly Process Temperature: 250°C

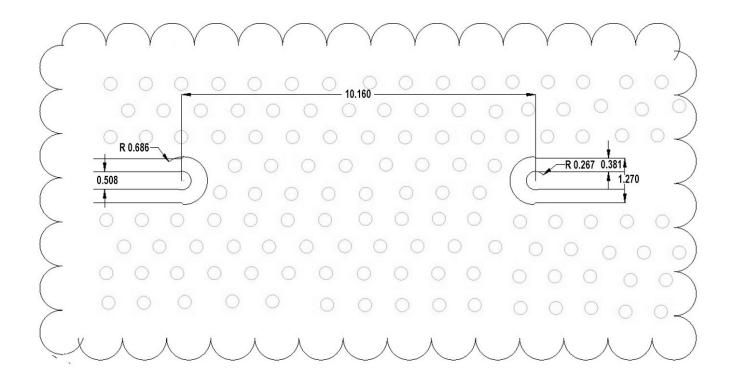
3.Dimension tolerance: ±0.05



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### **Recommended PCB Layout**



Unit = mm

#### Note:

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