

### 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

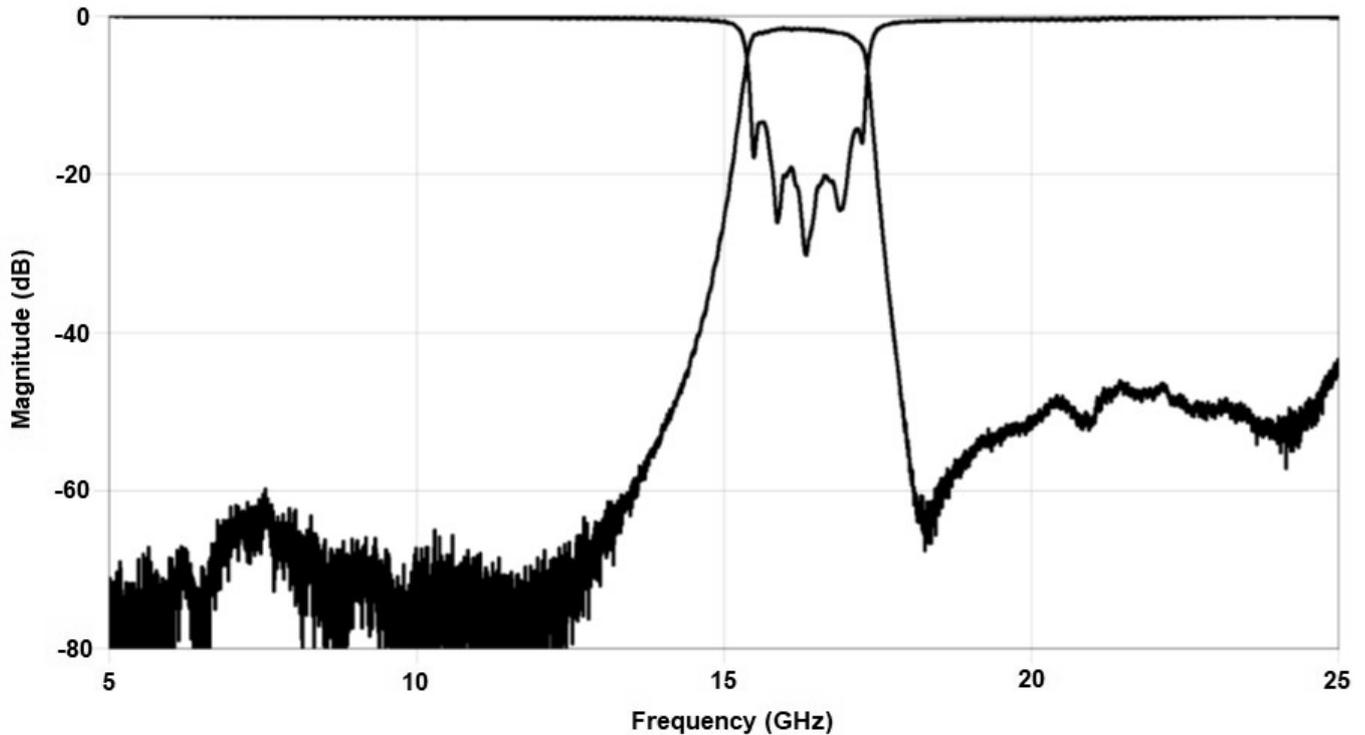
### Specifications\*

| Parameter  | Frequency Range (GHz)  | Min | Typ. | Max |
|--|------------------------|-----|------|-----|
| Insertion Loss (dB)  | 16.0 - 17.0            |     | 2.75 | 3.0 |
| Return Loss (dB)   |                        | 12  | 15   |     |
| Low Side Rejection (dB)  | DC – 14.5              | 40  | 45   |     |
| High Side Rejection (dB)                                       | 18.0 - 25.0            | 40  | 45   |     |
| CW Input Power** (W)   |                        |     |      | 5   |
| $\theta_{jc} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$ | 15                     |     |      |     |
| Size (L x W x H)   | 10.16 x 5.08 x 2.36 mm |     |      |     |

\*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary  $\pm 0.5$ 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 50.00ohm CPW ground traces going into the ports at room temperature.

### Yantel Corporation

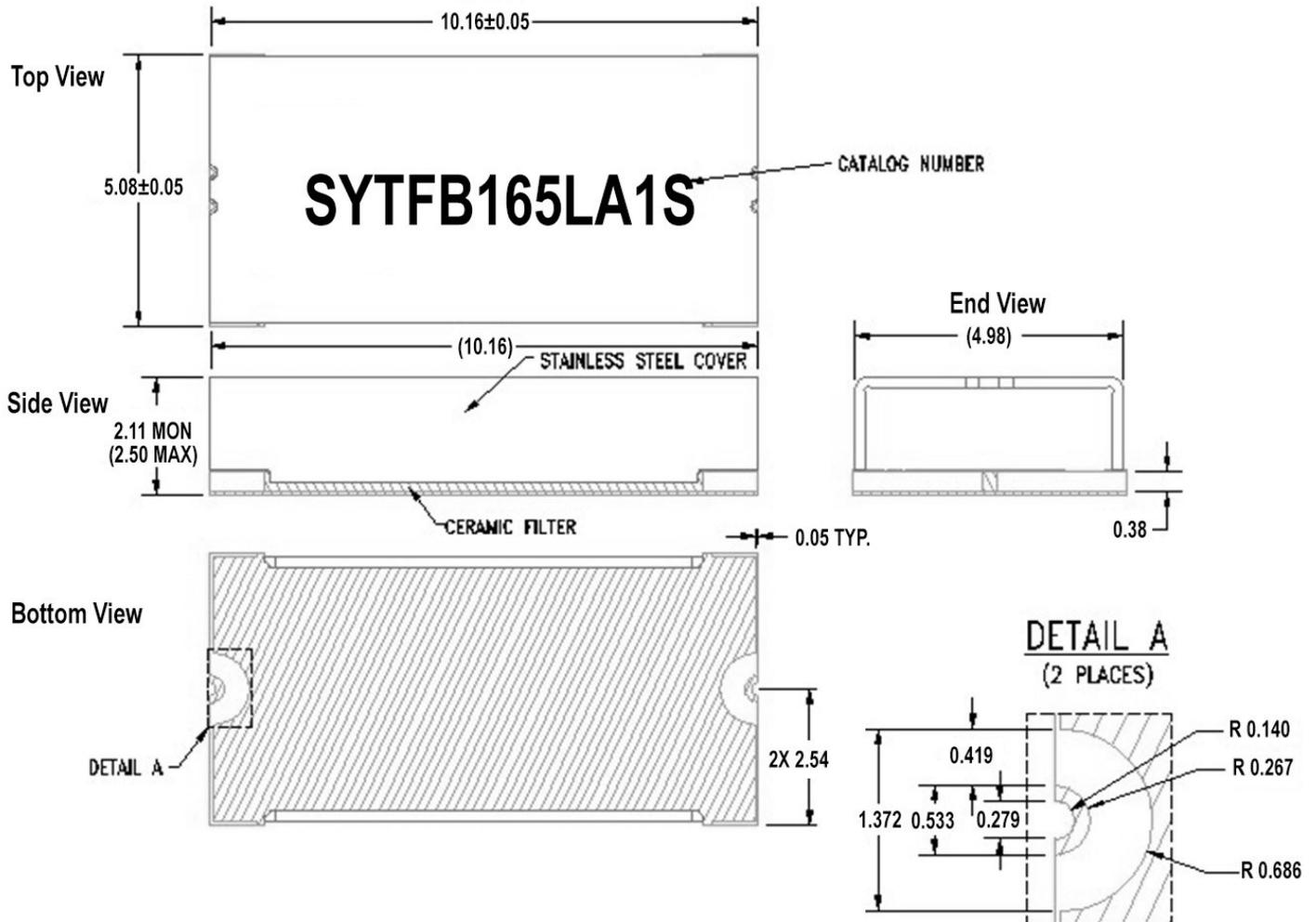
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For detailed performance specs & shopping online see Yantel web site : [www.yantel-corp.com](http://www.yantel-corp.com)

## Physical Dimensions

Units = mm

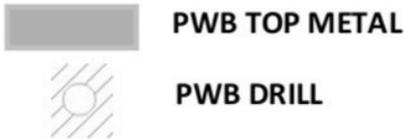
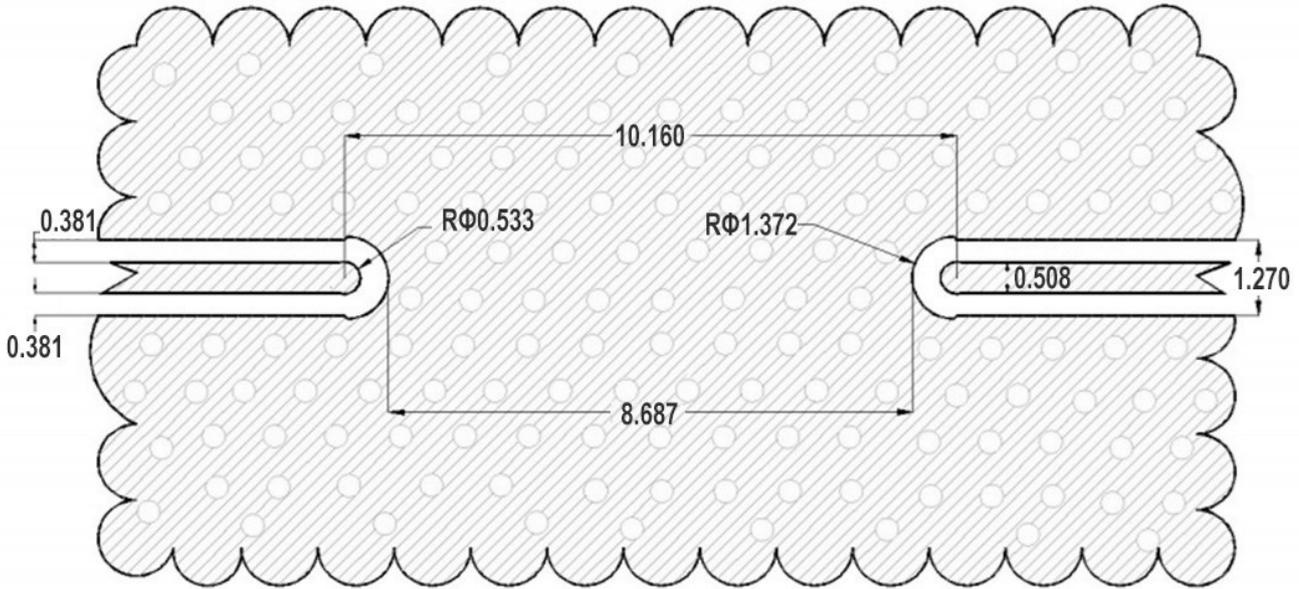


### Notes :

1. Termination Finish:  
 ENIG: 76-152 μm Au over 1270 μm Ni
2. Maximum Assembly Process Temperature: 250°C
3. Dimension tolerance: ±0.05

**Recommended PCB Layout**

Unit =mm


**PCB RECOMMENDED STACKUP**

Filter is matched to RF layer stackup seen below

Dimensions are specified below in mm (not to scale)

- Board material : RO4350b
- Board material design dk : 3.66
- CPWG : 0.51mm trace width,0.38mm gaps

