

### 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

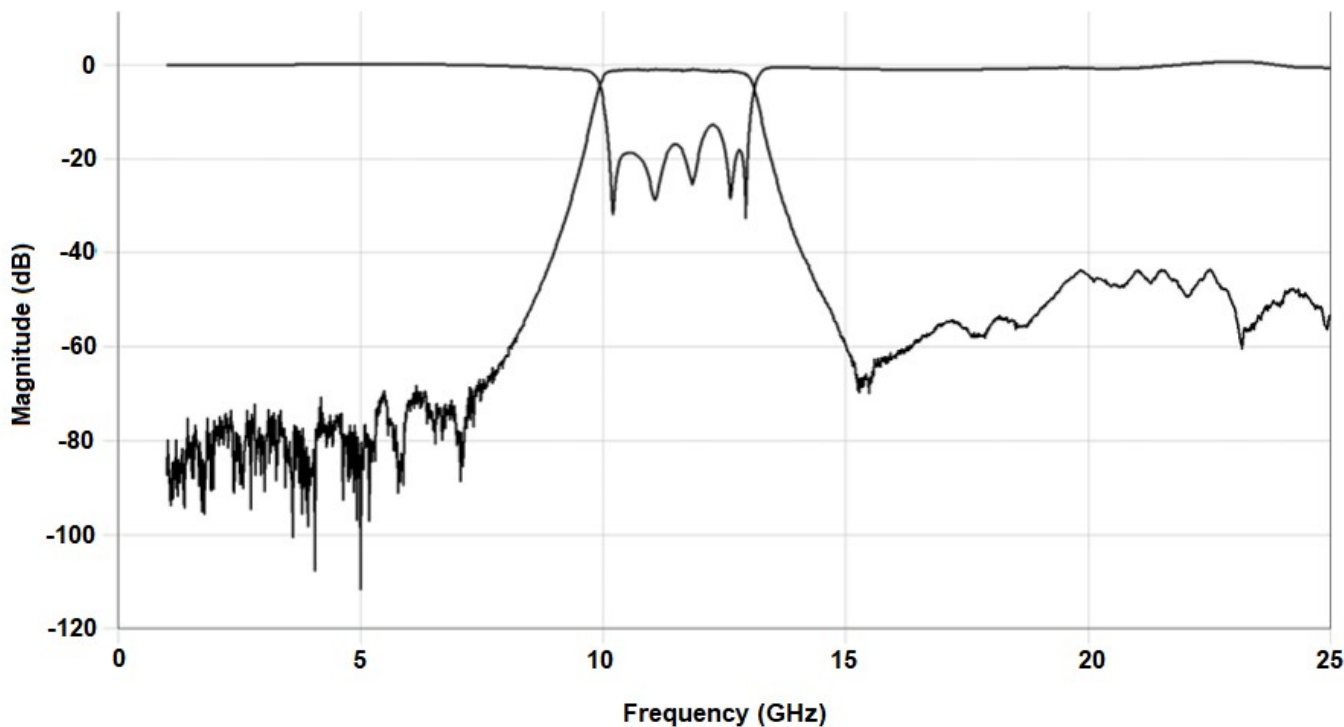
### Specifications\*

| Parameter                                                      | Frequency Range (GHz)  | Min  | Typ. | Max  |
|----------------------------------------------------------------|------------------------|------|------|------|
| Insertion Loss (dB)                                            | 10.2 - 12.2            |      | 1.5  | 2.25 |
| Return Loss (dB)                                               |                        | 10.0 | 15.0 |      |
| Low Side Rejection (dB)                                        | DC - 8.3               | 40.0 | 48.0 |      |
| High Side Rejection (dB)                                       | 14.35 - 24.25          | 40.0 | 48.0 |      |
| CW Input Power** (W)                                           |                        |      |      | 10   |
| $\theta_{JC} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$ | 7.5                    |      |      |      |
| Size (L x W x H)                                               | 10.16 x 3.81 x 2.62 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 50.0Ω CPW ground traces going into the ports at room temperature.

### Yantel Corporation

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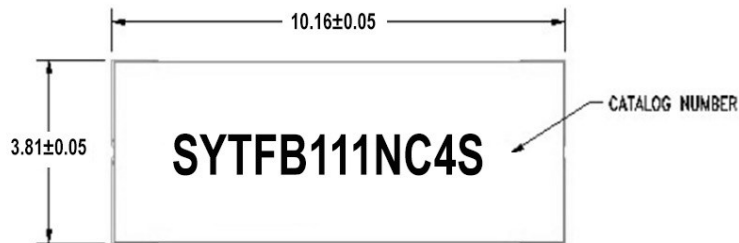
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

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

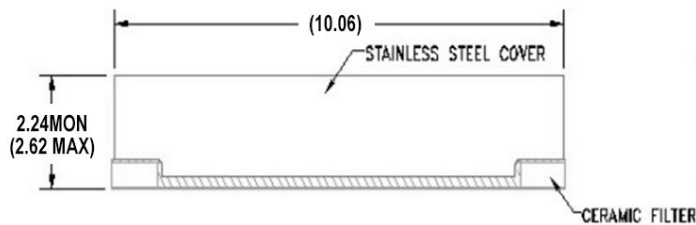
### Physical Dimensions

Units = mm

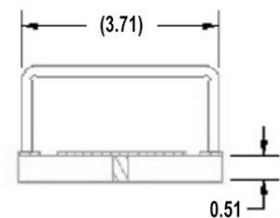
#### Top View



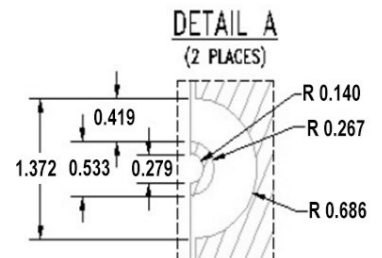
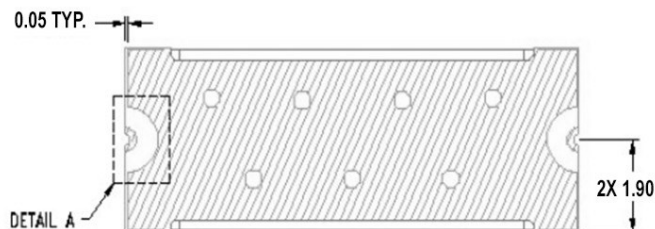
#### Side View



#### End View



#### Bottom View

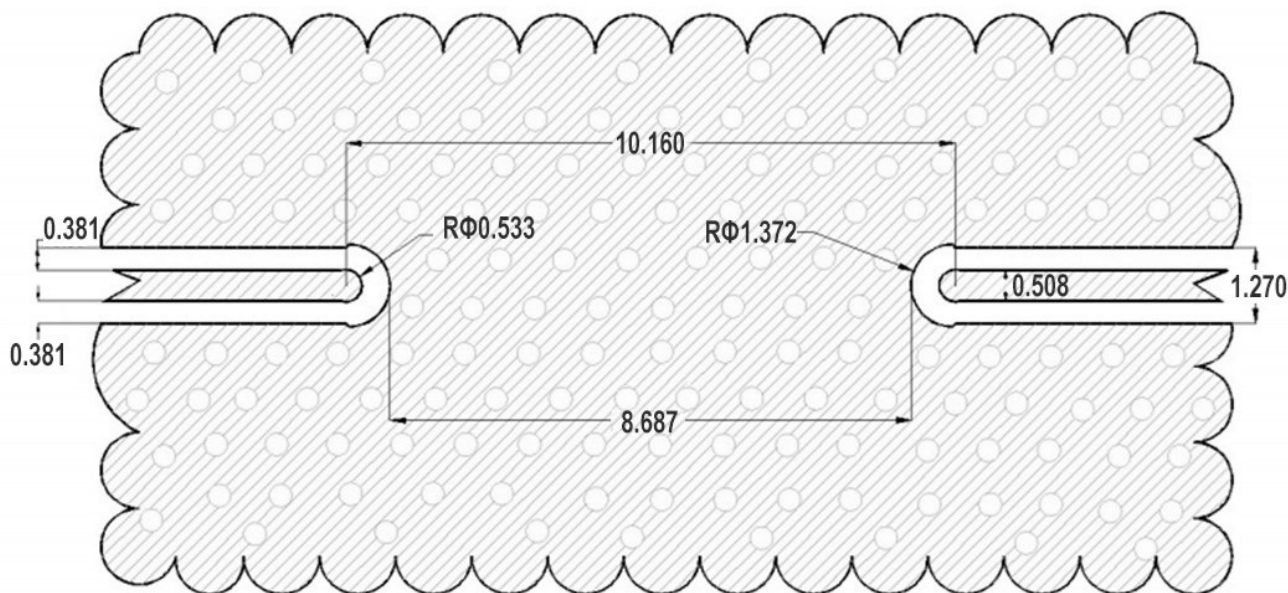


### Notes :

1. Termination Finish:  
ENIG: 76-152  $\mu\text{m}$  Au over 1270  $\mu\text{m}$  Ni
2. Maximum Assembly Process Temperature: 250°C
3. Dimension tolerance:  $\pm 0.05$

### Recommended PCB Layout

Unit =mm



 **PWB TOP METAL**



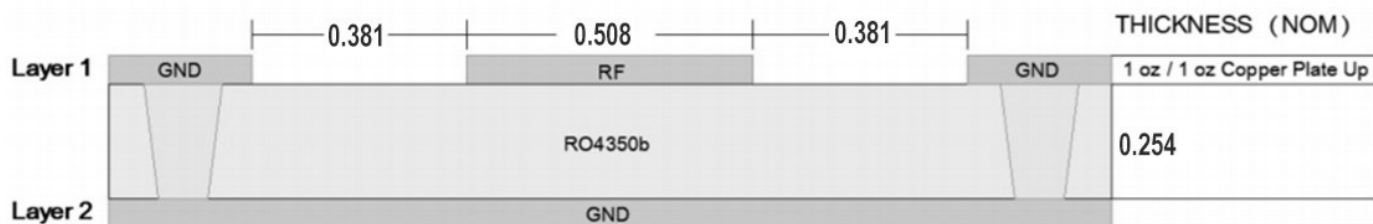
**PWB DRILL**

### 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



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