

### 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

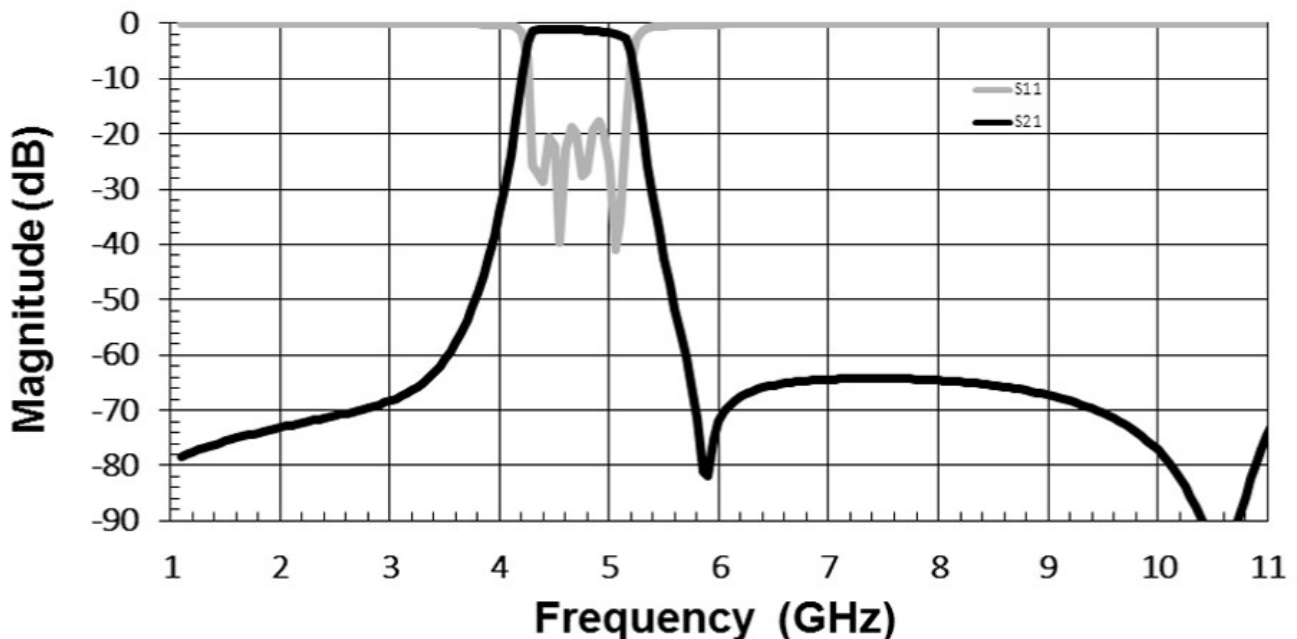
### Specifications\*

| Parameter  | Frequency Range (GHz) | Min | Typ. | Max  |
|--|-----------------------|-----|------|------|
| Insertion Loss (dB)  | 4.4 - 5.0             |     | 2.0  | 2.5  |
| Return Loss (dB)   |                       | 9.5 | 10.0 | 15.0 |
| Low Side Rejection (dB)  | DC - 3.8              |     | 40.0 | 45.0 |
| High Side Rejection (dB)                                       | 5.5 - 11.0            |     | 40.0 | 45.0 |
| CW Input Power** (W)   |                       |     |      | 10   |
| $\theta_{JC} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$ | 7.5                   |     |      |      |
| Size (L x W x H)   | 12.7 x 6.35 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.

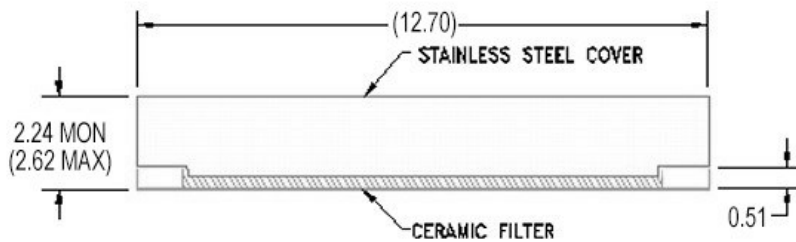
### Physical Dimensions

Units = mm

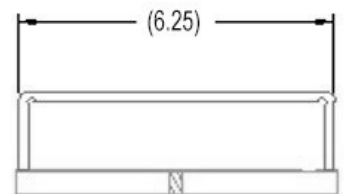
#### Top View



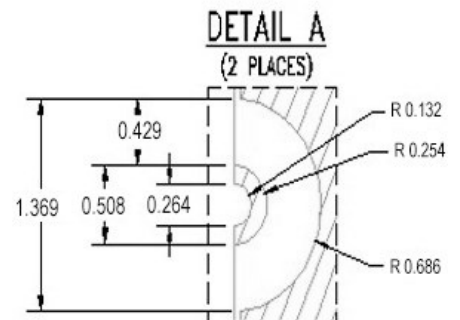
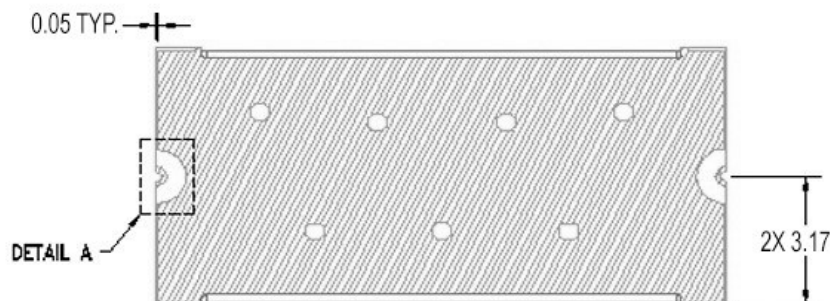
#### Side View



#### End View



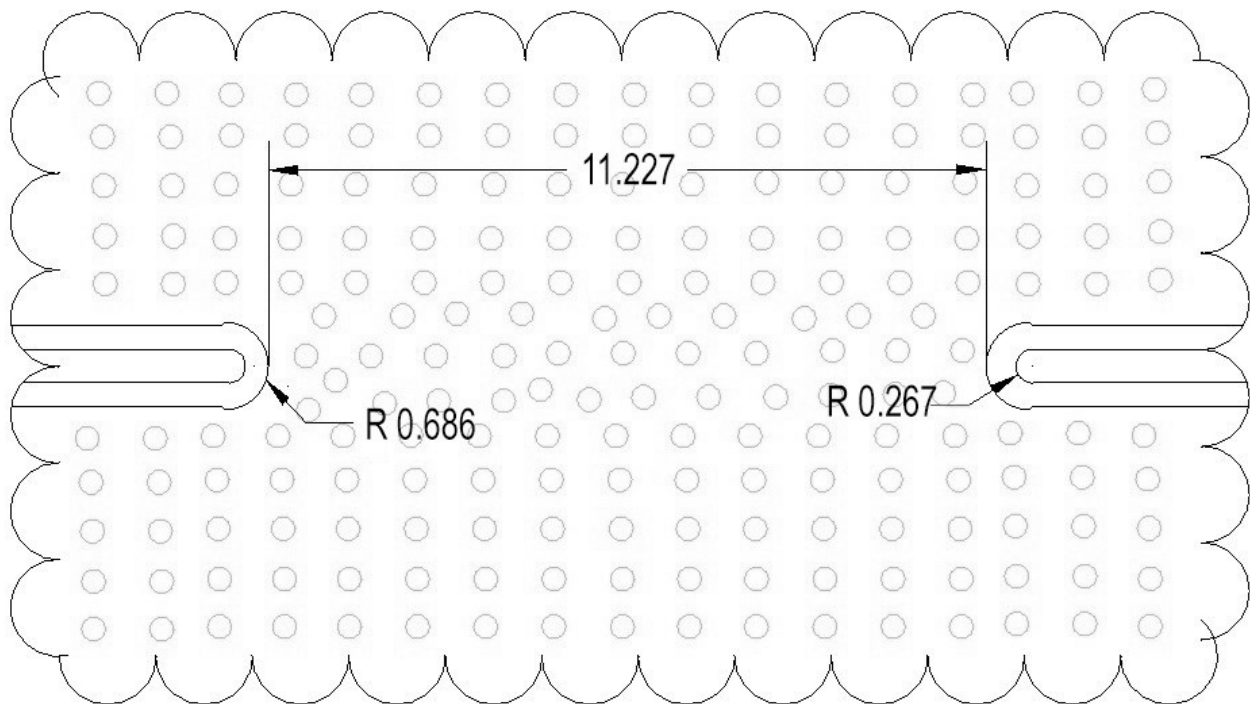
#### Bottom View



#### Notes :

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

### Recommended PCB Layout



Units = mm

**Note:**

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