

### 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

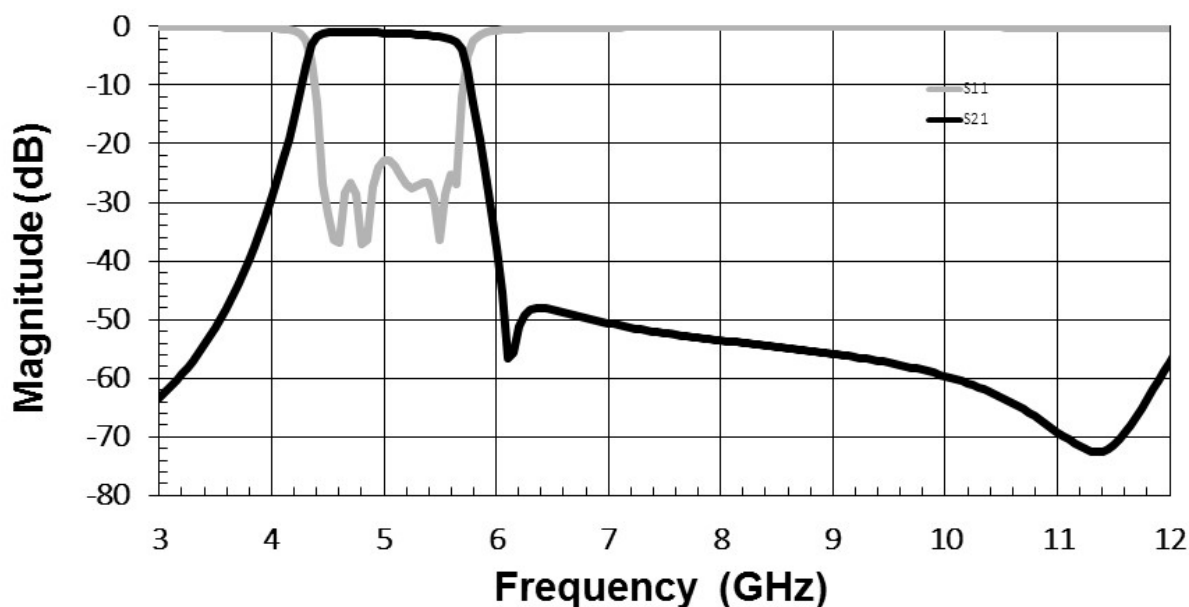
### Specifications\*

| Parameter  | Frequency Range (GHz) | Min | Typ. | Max  |
|--|-----------------------|-----|------|------|
| Insertion Loss (dB)  | 4.5 - 5.5             |     | 2.0  | 2.25 |
| Return Loss (dB)   |                       |     | 12.0 | 10.0 |
| Low Side Rejection (dB)  | DC - 3.65             |     | 45.0 | 40.0 |
| High Side Rejection (dB)                                       | 6.15 - 12.0           |     | 42.0 | 40.0 |
| CW Input Power** (W)   |                       |     |      | 15   |
| $\theta_{JC} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$ | 5                     |     |      |      |
| Size (L x W x H)   | 8.89 x 5.08 x 2.50 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.

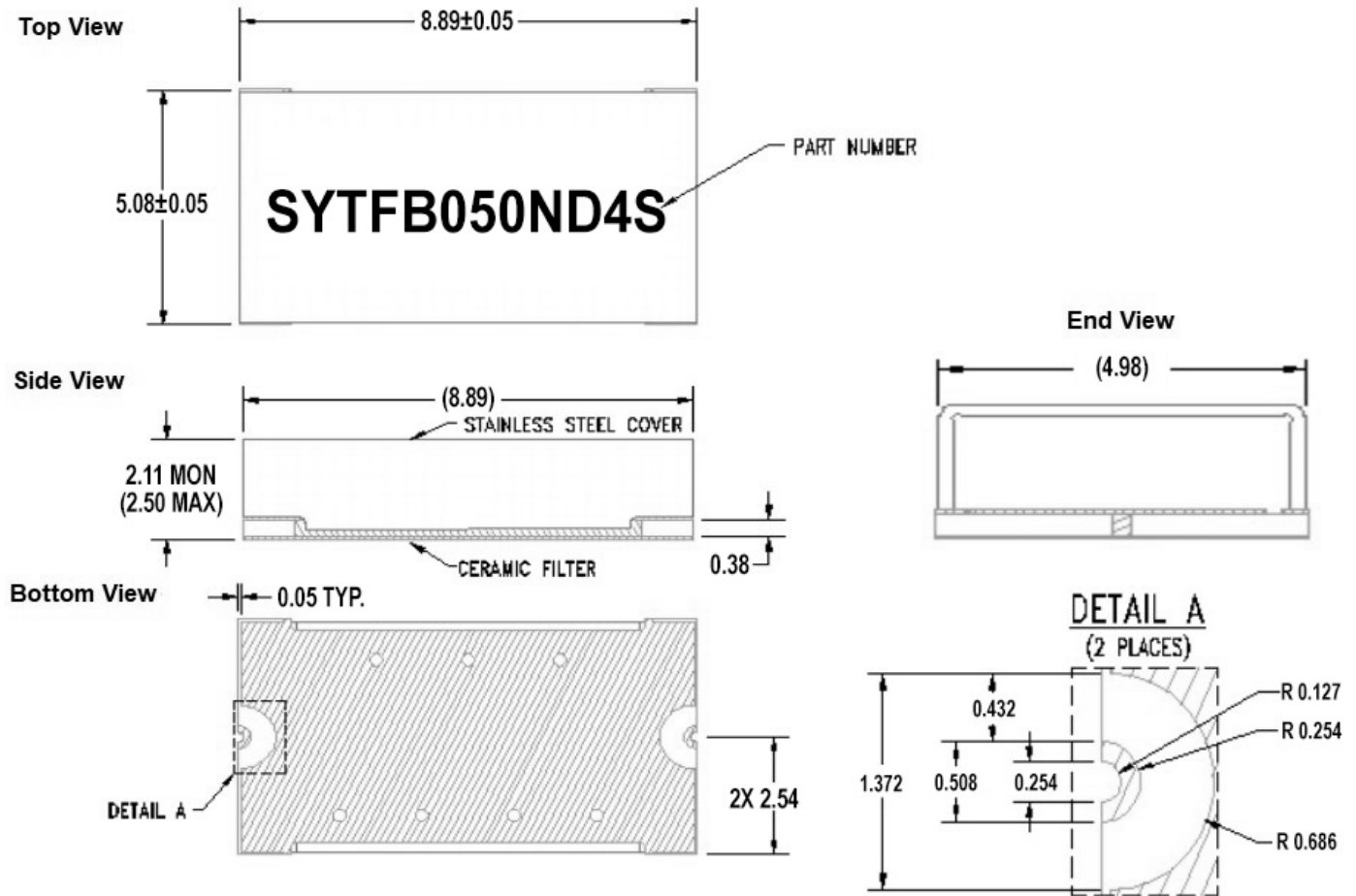
### Typical Measured Performance



\*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

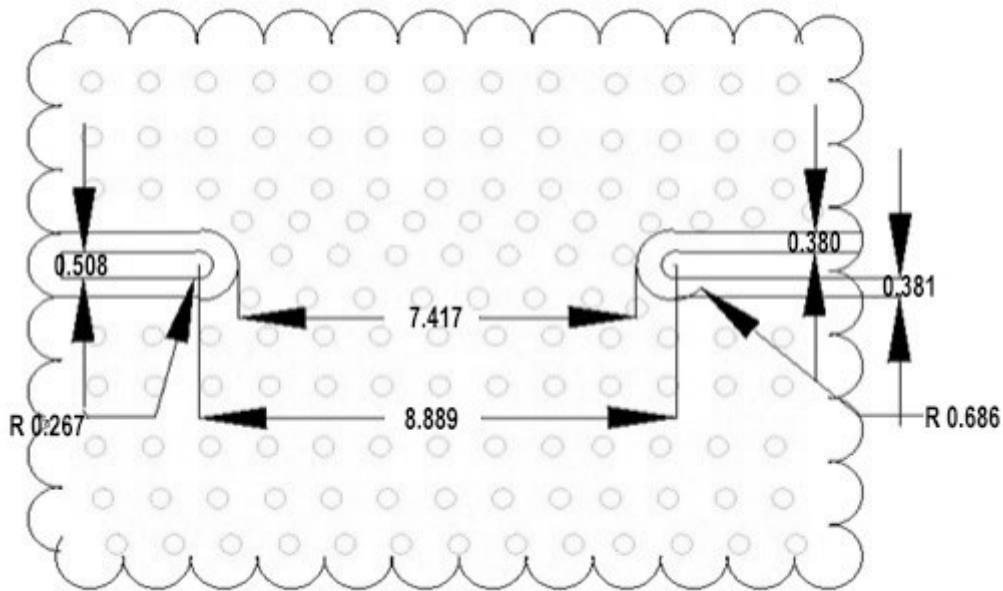
Units = mm



### 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

**Note:**

Units = mm

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