

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

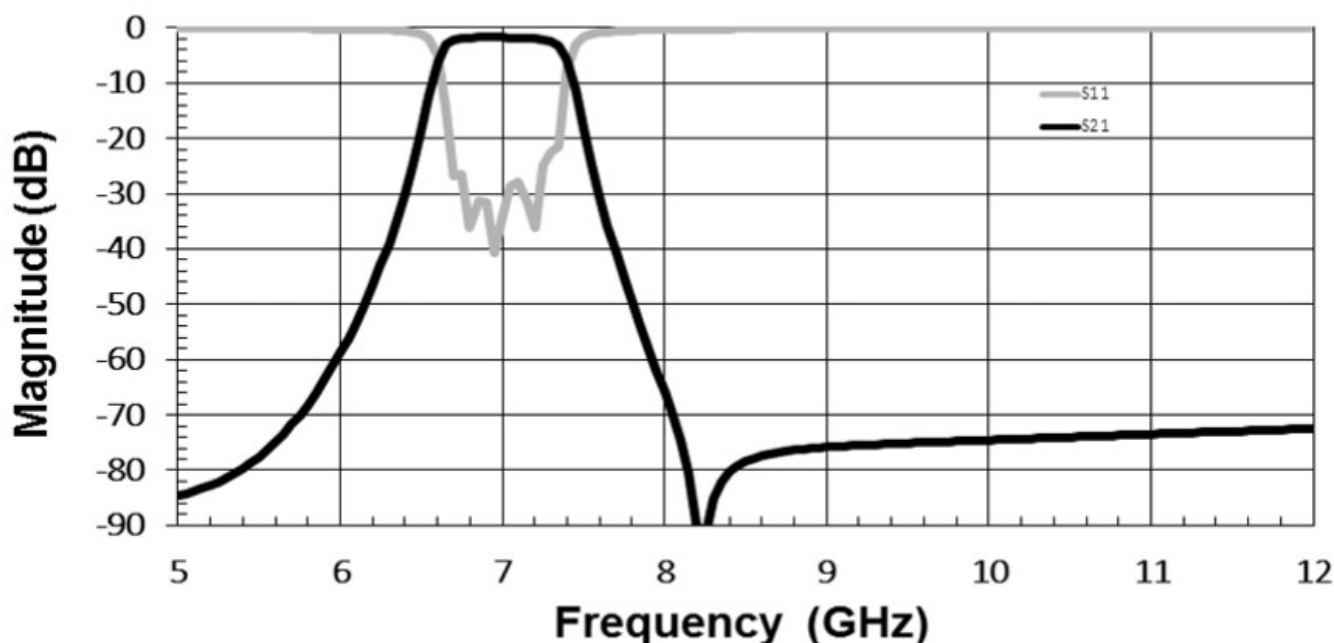
Specifications*

| Parameter | Frequency Range (GHz) | Min | Typ. | Max |
|--|-----------------------|------|------|------|
| Insertion Loss (dB) | 6.7 - 7.25 | | 2.5 | 2.75 |
| Return Loss (dB) | | 10.0 | 15.0 | |
| Low Side Rejection (dB) | DC - 6.16 | 40.0 | 50.0 | |
| High Side Rejection (dB) | 7.82 - 16.0 | 40.0 | 50.0 | |
| 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 5.08 x 3.12 mm | | | |

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ± 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.

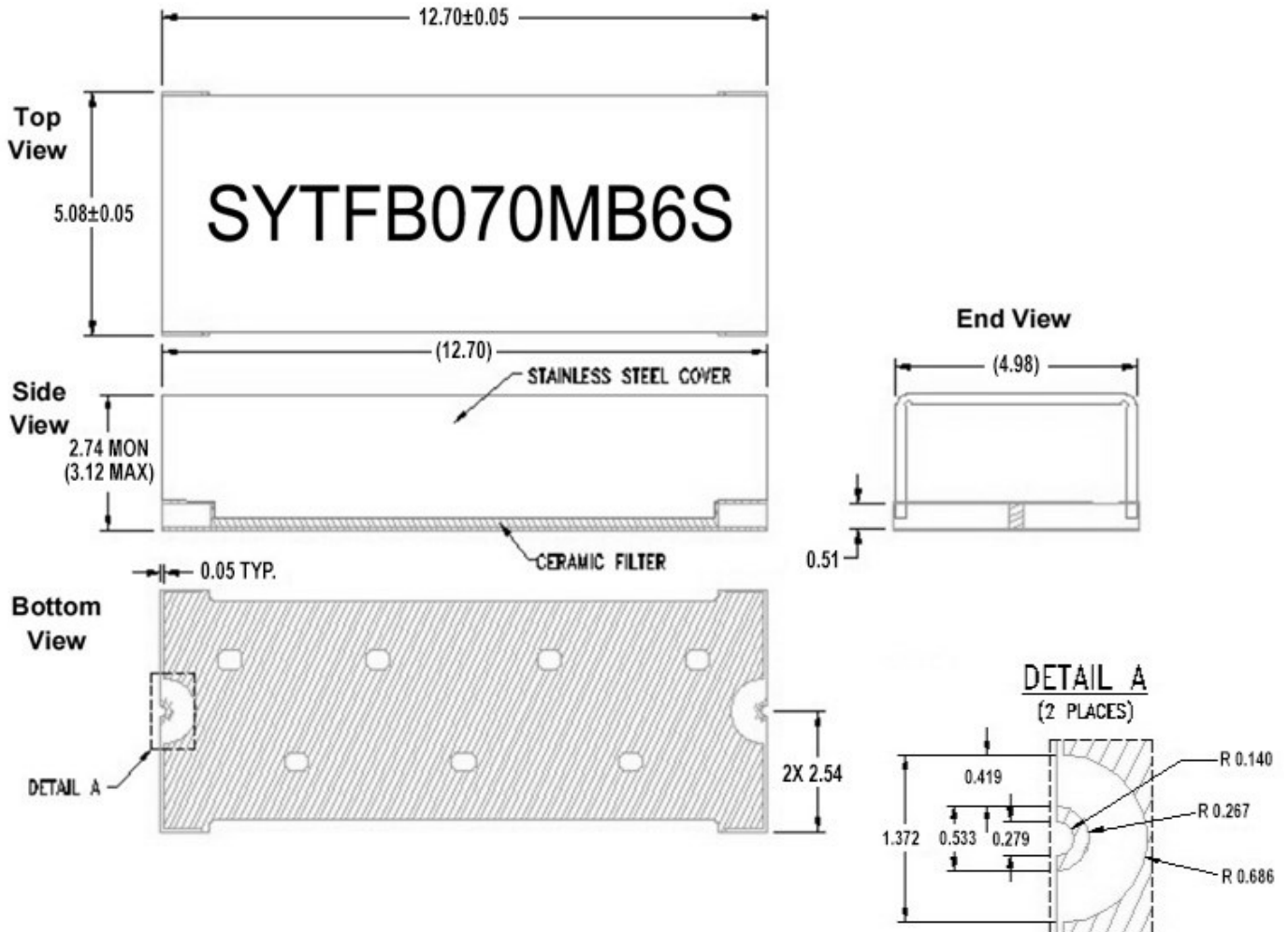
Typical Measured Performance



*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

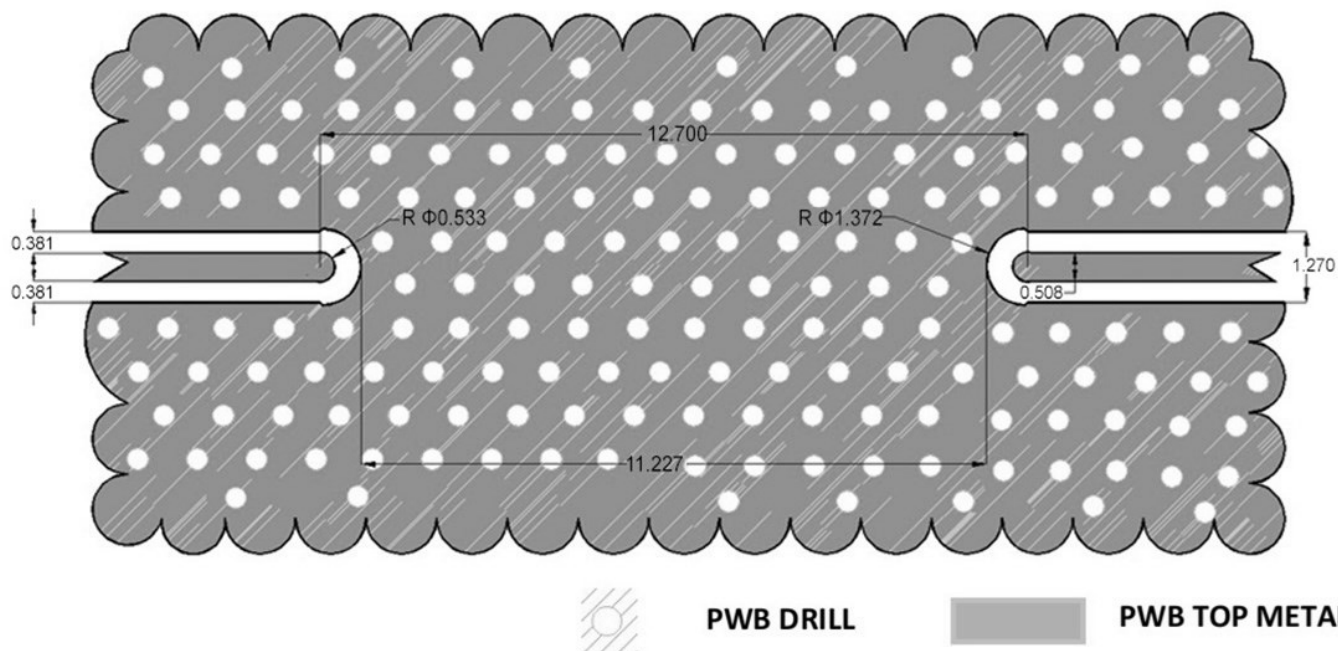


Notes :

1. Termination Finish:
 ENIG: 76-152 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

