

### 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

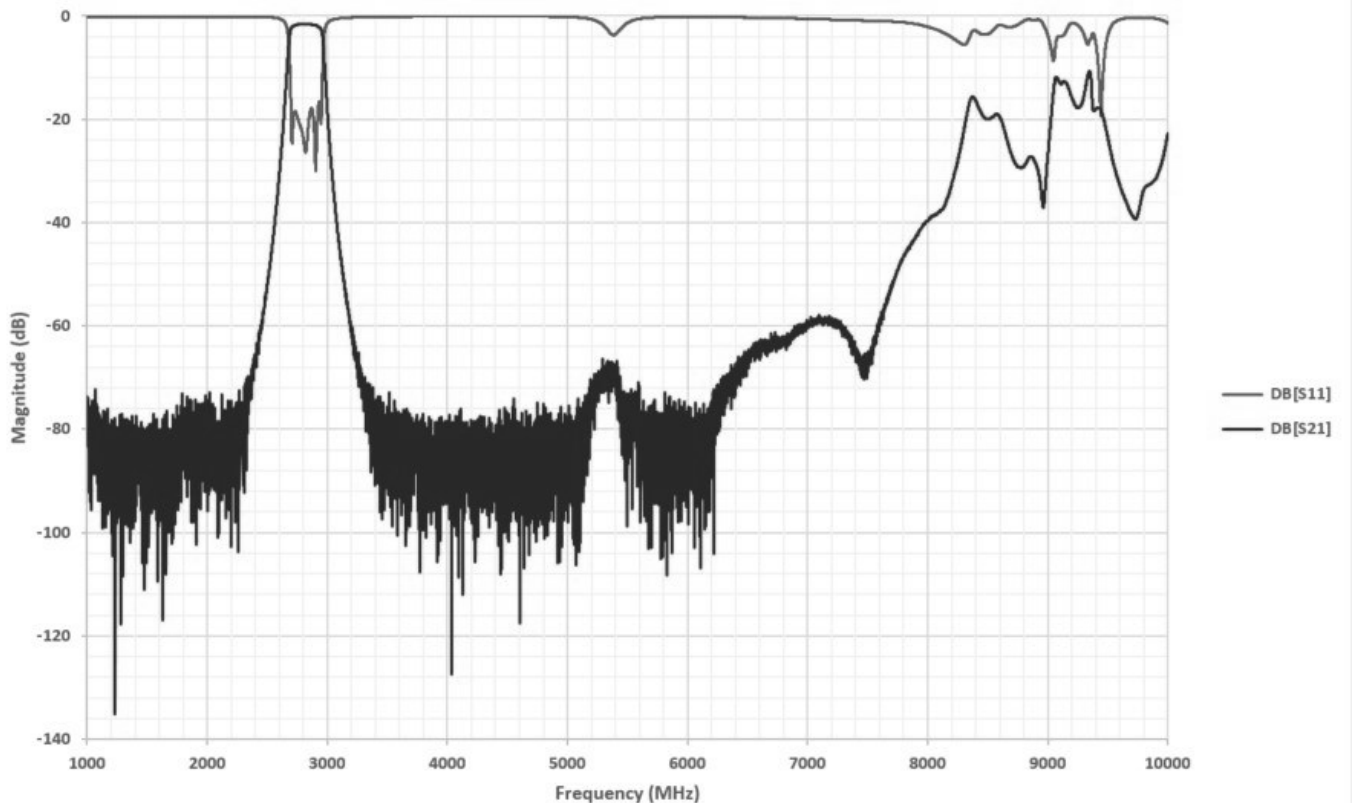
### Specifications\*

| Parameter                                                      | Frequency Range (GHz)  | Min  | Typ. | Max  |
|----------------------------------------------------------------|------------------------|------|------|------|
| Insertion Loss (dB)                                            | 2.7 - 2.9              |      | 1.7  | 2.5  |
| Return Loss (dB)                                               |                        | 15.0 | 18.0 |      |
| Low Side Rejection (dB)                                        | DC - 2.4               | 60.0 | 65.0 |      |
|                                                                | 2.40 - 2.54            | 35.0 |      |      |
| High Side Rejection (dB)                                       | 3.06 - 3.20            | 35.0 | 62.0 |      |
|                                                                | 3.20 - 6.00            | 60.0 |      |      |
| CW Input Power** (W)                                           |                        |      |      | 41.0 |
| $\theta_{JC} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$ | 1.8                    |      |      |      |
| Size (L x W x H)                                               | 30.48 x 8.89 x 4.32 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

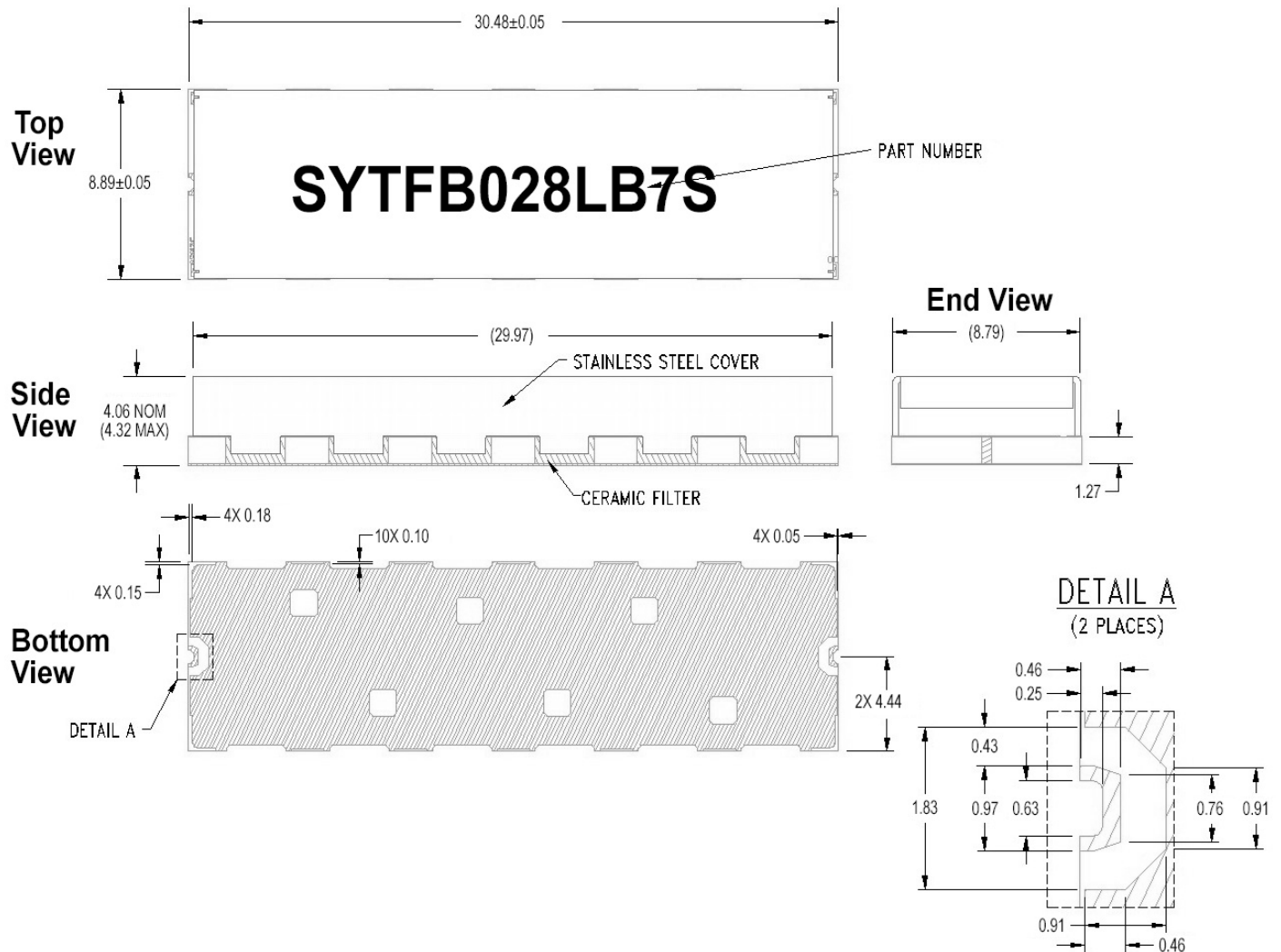
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For detailed performance specs & shopping online see Yantel web site : [www.yantel-corp.com](http://www.yantel-corp.com)

### Physical Dimensions

Units = mm



### Notes :

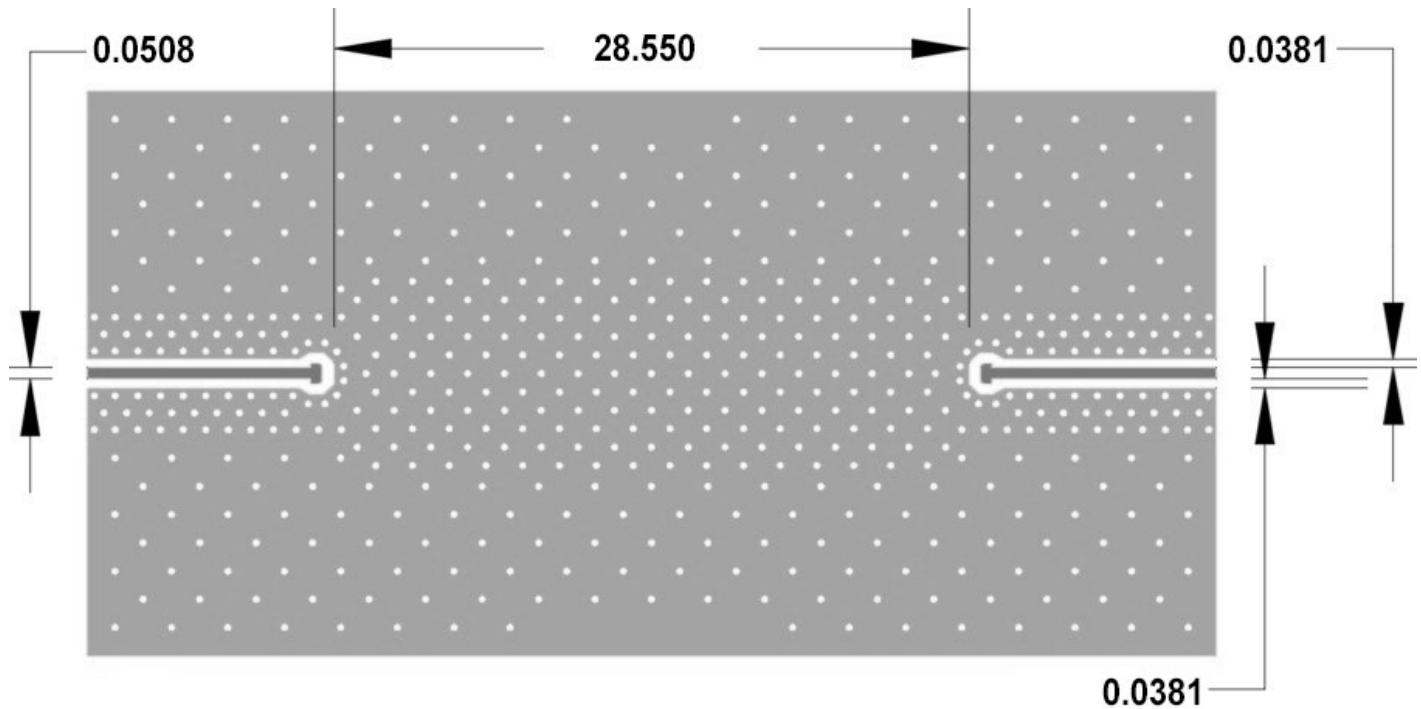
1. Termination Finish:

ENIG: 76-152  $\mu$ m Au over 1270  $\mu$ m Ni

2. Maximum Assembly Process Temperature: 250°C

3. Dimension tolerance:  $\pm 0.05$

### Recommended PCB Layout



#### Note:

Unit = mm

Parameters of the Recommended PCB:

- 0.254mm Roger Board RO4350B
- 3.66 dK, Board Material design
- Dimensions of 50.0 Ohm CPWG :
  - 0.508mm RF trace width
  - 0.381mm spacing