

### 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

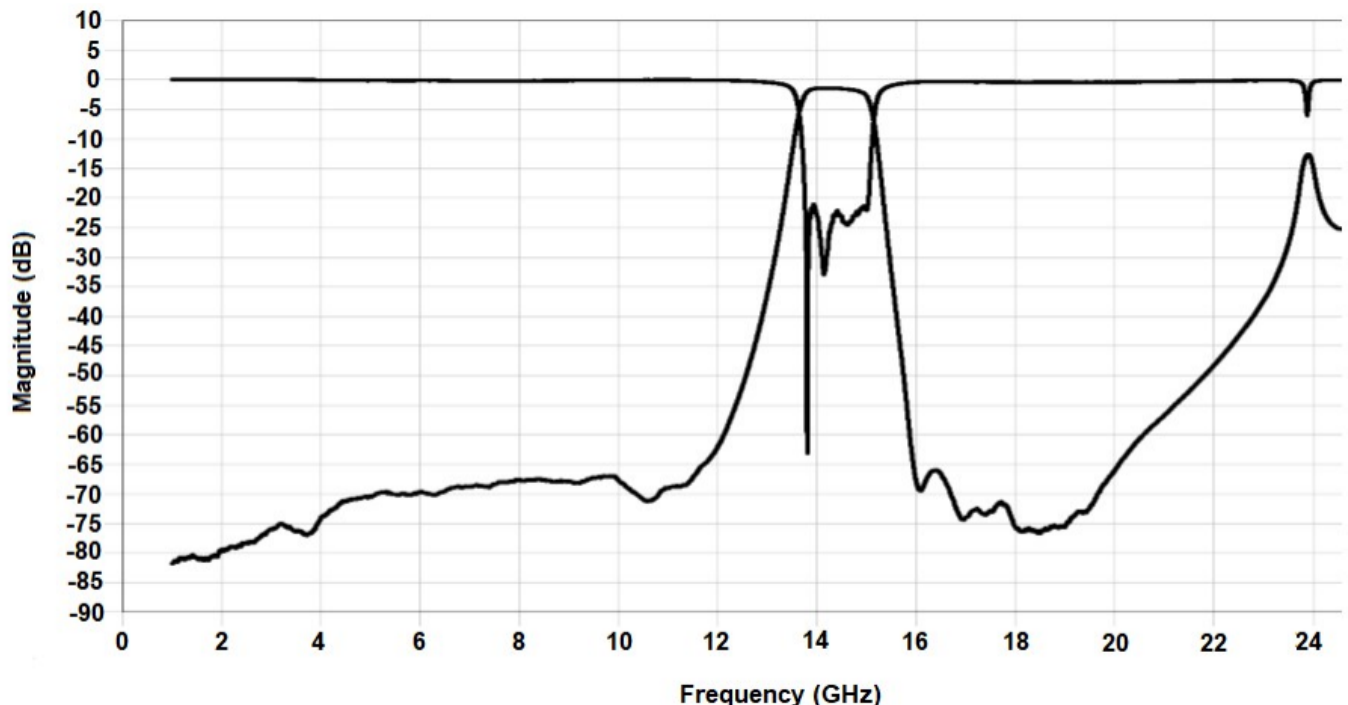
### Specifications\*

| Parameter                                                      | Frequency Range (GHz)  | Min  | Typ. | Max |
|----------------------------------------------------------------|------------------------|------|------|-----|
| Insertion Loss (dB)                                            | 14.1 - 14.9            | 2.75 | 3.0  | 3.5 |
| Return Loss (dB)                                               |                        | 10.0 | 14.0 |     |
| Low Side Rejection (dB)                                        | DC - 11.75             | 60.0 | 65.0 |     |
| High Side Rejection (dB)                                       | 16.5 - 19.5            | 60.0 | 65.0 |     |
| CW Input Power** (W)                                           |                        |      |      | 5   |
| $\theta_{JC} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$ | 15                     |      |      |     |
| Size (L x W x H)                                               | 13.97 x 5.84 x 2.36 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.

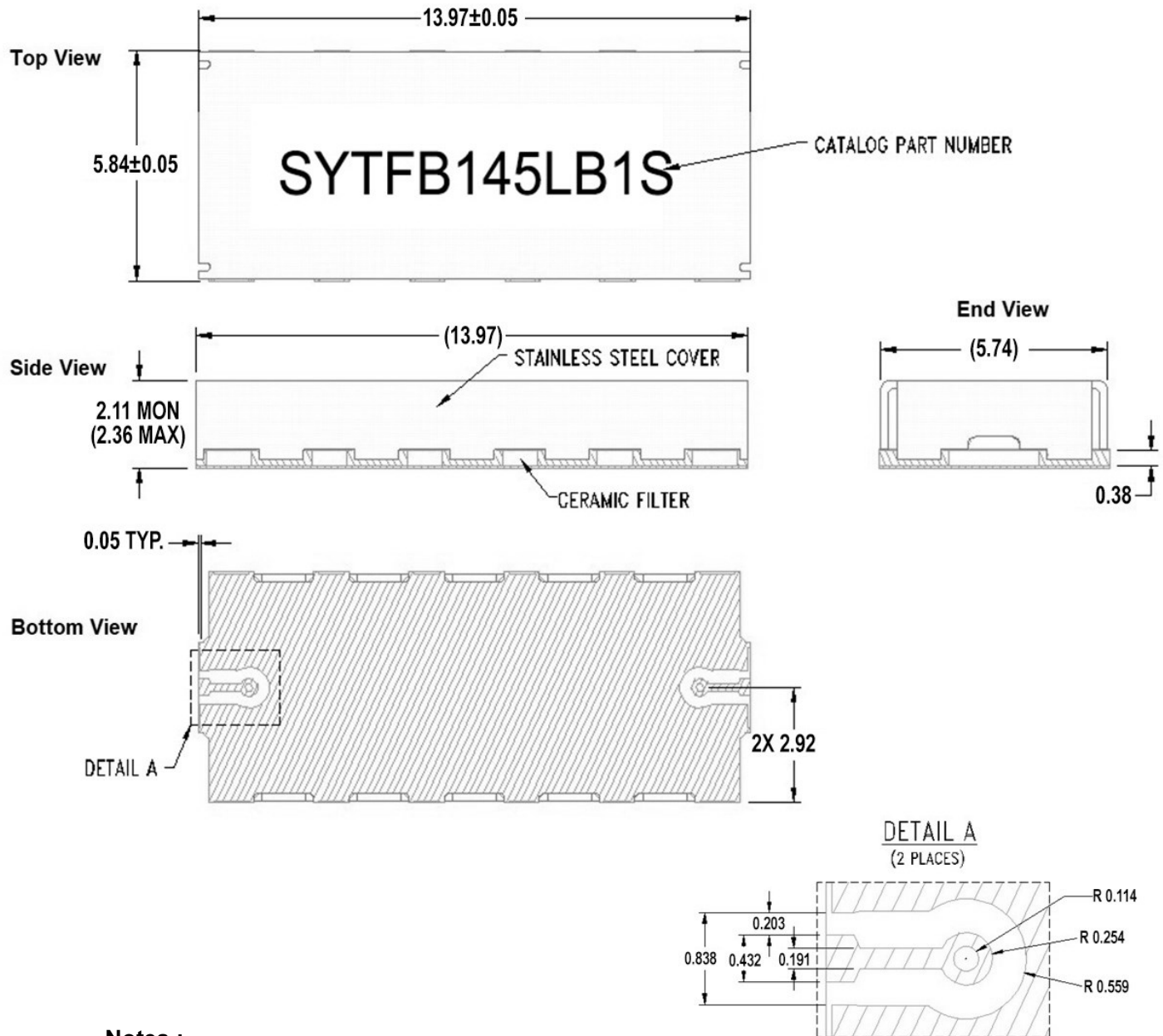
### Typical Measured Performance



\*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:  $\pm 0.05$

### Yantel Corporation

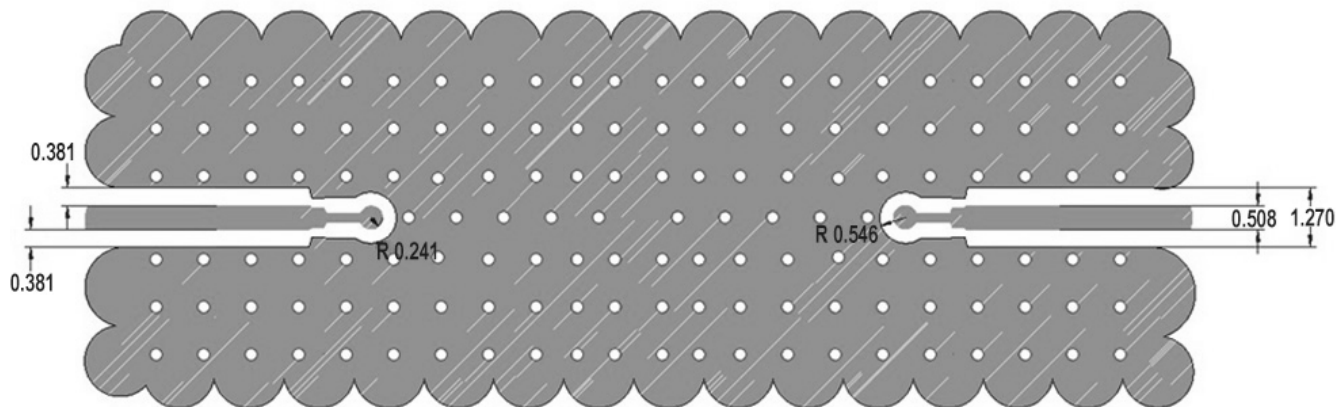
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For detailed performance specs & shopping online see Yantel web site : [www.yantel-corp.com](http://www.yantel-corp.com)

### 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

