

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

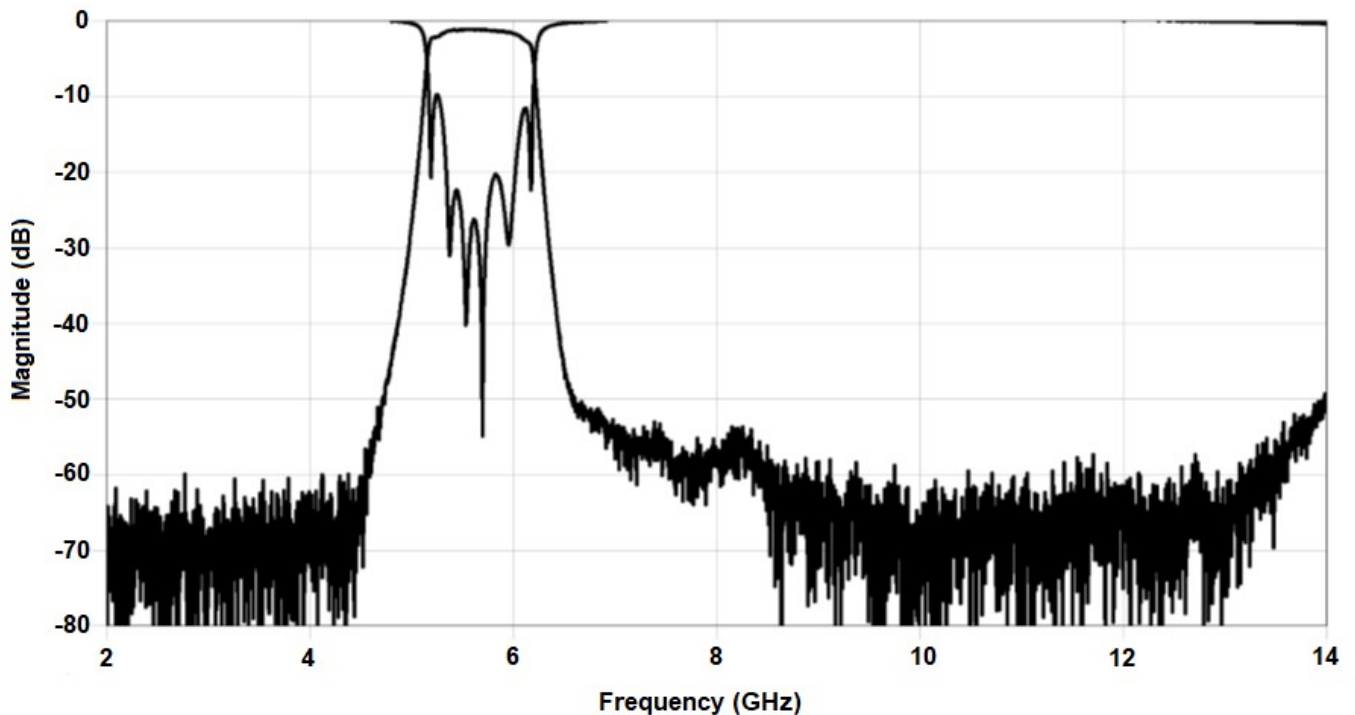
Specifications*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	11.25 - 12.75		1.75	2.5
Return Loss (dB)		10.0	14.0	
Low Side Rejection (dB)	DC - 9.5	40.0	45.0	
High Side Rejection (dB)	14.5 - 24.0	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)	10.16 x 3.81 x 2.62 mm			

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary $\pm 0.5\text{dB}$ 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 50.00ohm CPW ground traces going into the ports at room temperature.

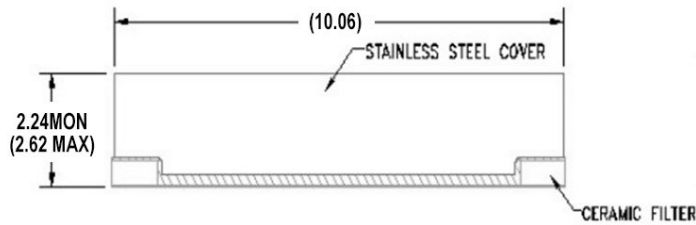
Physical Dimensions

Units = inches

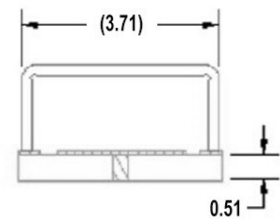
Top View



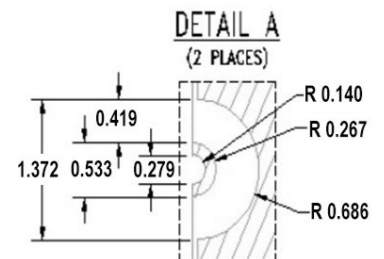
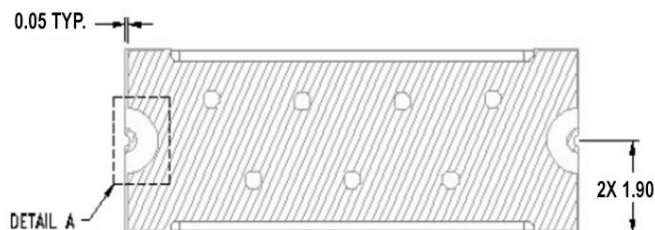
Side View



End View



Bottom View

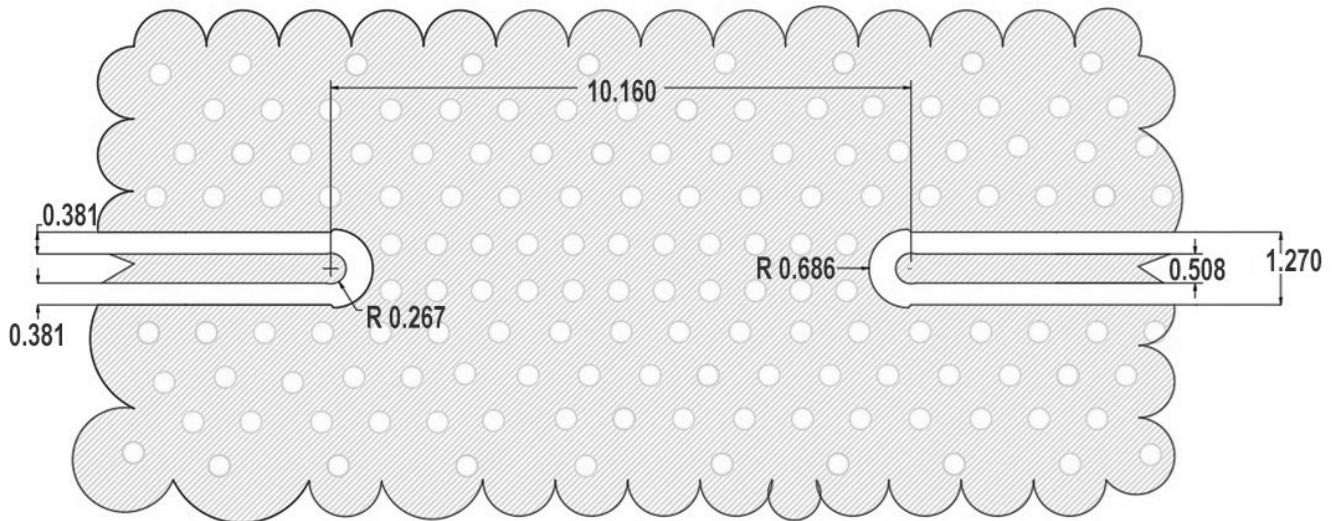


Notes :

- Termination Finish:
ENIG: 76-152 μm Au over 1270 μm Ni
- Maximum Assembly Process Temperature: 250°C
- 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

