SYTFB119MB1S

11.9GHz Surface Mount Bandpass Filter

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

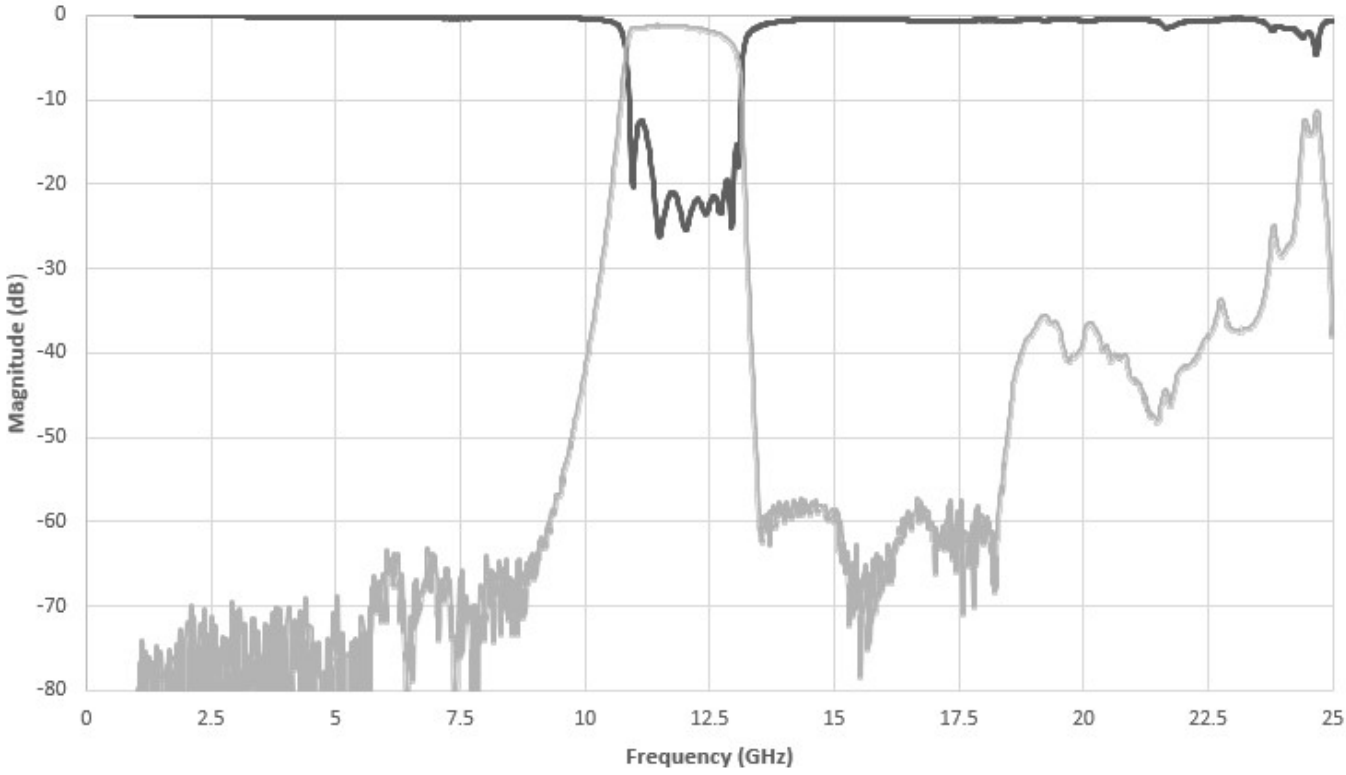
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55˚C to +125˚C
- Characteristic Impedance: 50Ω

Specifications*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	10.95 - 12.75		3.0	3.75
Return Loss (dB)		10	14	
Low Side Rejection (dB)	DC – 9.8	40	45	
High Side Rejection (dB)	13.75 - 20.0	40	45	
CW Input Power** (W)				5
θ_{JC} $\left(\frac{°C}{W}\right)$	15			
Size (L x W x H)	0.450 x 0.200 x 0.098 in 11.43 x 5.0 x 2.49 mm			

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary ±0.5dB 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



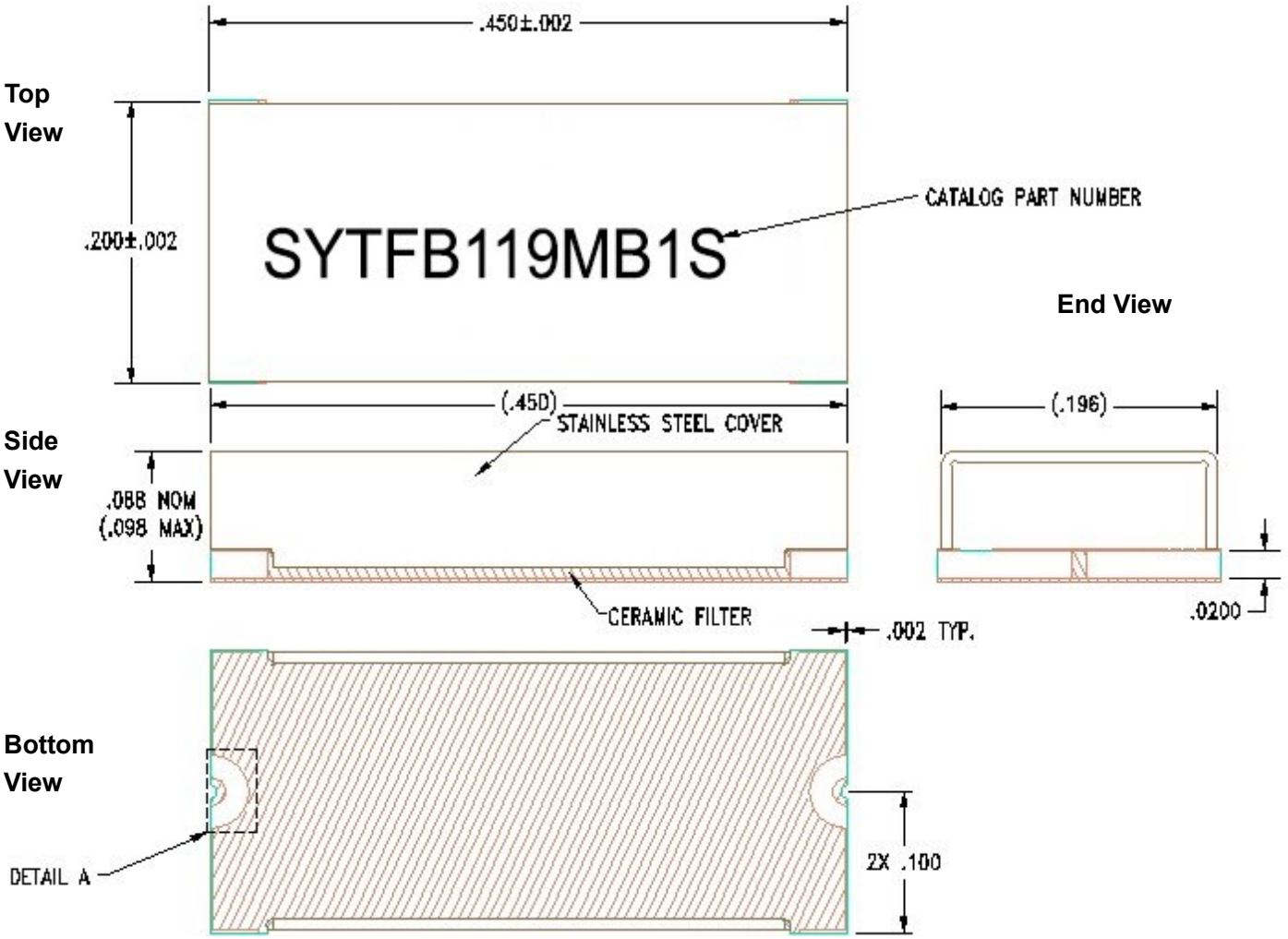
*Typical de-embedded measured performance mounted on a connectorized test fixture. DEB is 0.254mm RO4350B with 50.0Ohm CPW ground traces going into the ports at room temperature.

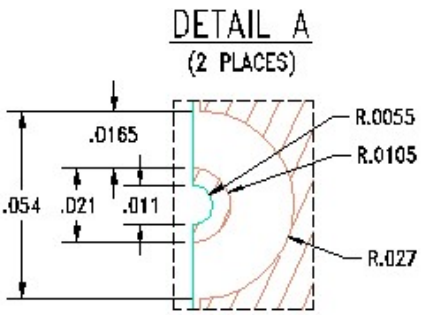
SYTFB119MB1S

11.9GHz Surface Mount Bandpass Filter

Physical Dimensions

Units = inches





Notes :

1. Termination Finish:

   ENIG: 3 - 6 µinch Au over 50 µinch Ni

2. Maximum Assembly Process Temperature: 250°C

Tolerances:

For values with 3 decimal places ±0.001

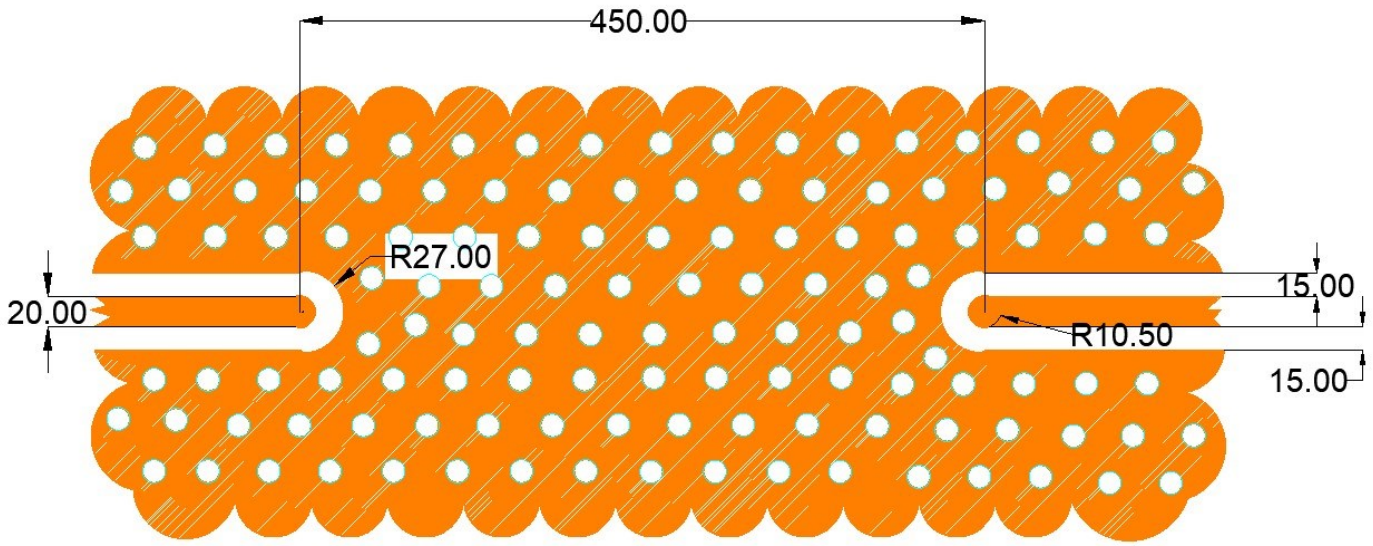
For values with 4 decimal places ±0.0005

SYTFB119MB1S

11.9GHz Surface Mount Bandpass Filter

Recommended PCB Layout

Unit =mils



PWB TOP METAL

PWB DRILL

PCB RECOMMENDED STACKUP

Filter is matched to RF layer stackup seen below
Dimensions are specified below in inches (not to scale)

Board material	:	RO4350b
Board material design dk	:	3.66
CPWG	:	20mil trace width, 15mil gaps