

SYTFL185XF4S

18.5 GHz Surface Mount Lowpass Filter

Description

Yantel's surface mount catalog low pass filters utilize Yantel's high dielectric ceramic materials to provide small size and minimal performance variation over temperature. The catalog LPF's are offered with the same footprint in a variety of frequency bands to provide a drop in solution with highly repeatable performance.

Features

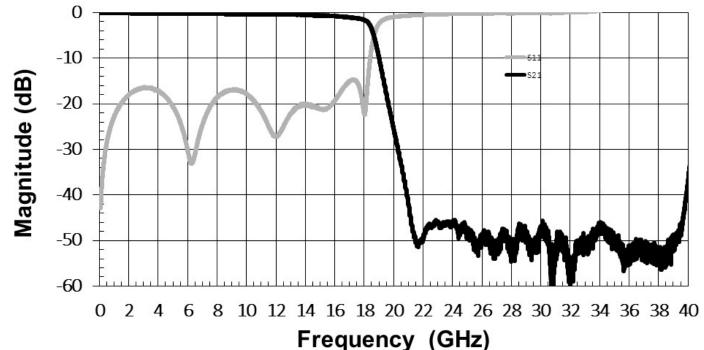
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

Specifications*

Parameter	Frequency Range (GHz)	Min	Тур.	Max
Insertion Loss (dB)	DC - 18		1.5	2.2
Return Loss (dB)		14.0		
High Side Rejection (dB)	20.5 – 40	25.0	30.0	
CW Input Power** (W)				8.8
$\theta_{JC} \left(\frac{^{\circ}C}{W} \right)$	8.5			
Size (L x W x H)	0.220 x 0.140 x 0.093 in 5.59 x 3.56 x 2.36 mm			

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

Typical Measured Performance



*Typical de-embedded measured performance mounted on a connectorized test fixture. DEB is 0.254mm RO4350B with 50.00hm CPW ground traces going into the ports at room 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.



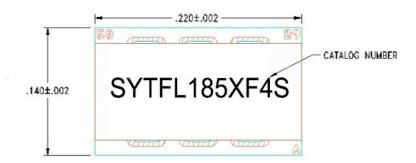
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Physical Dimensions

Top View

Units = inches



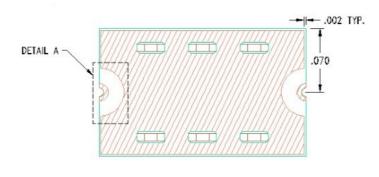
Side View

.078 NOM (.093 MAX) CERAMIC FILTER

End View (.106)

.0100

Bottom View



DETAIL A (2 PLACES) R.010 .054 .020 .010 R.027

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

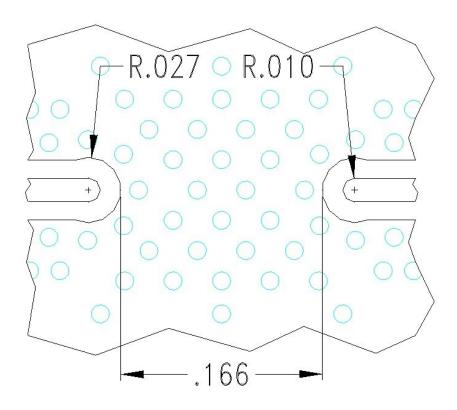


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Recommended PCB Layout

Unit = inches



Note:

- 50Ω trace dimensions are application specific.
- Ensure adequate grounding beneath the part.