

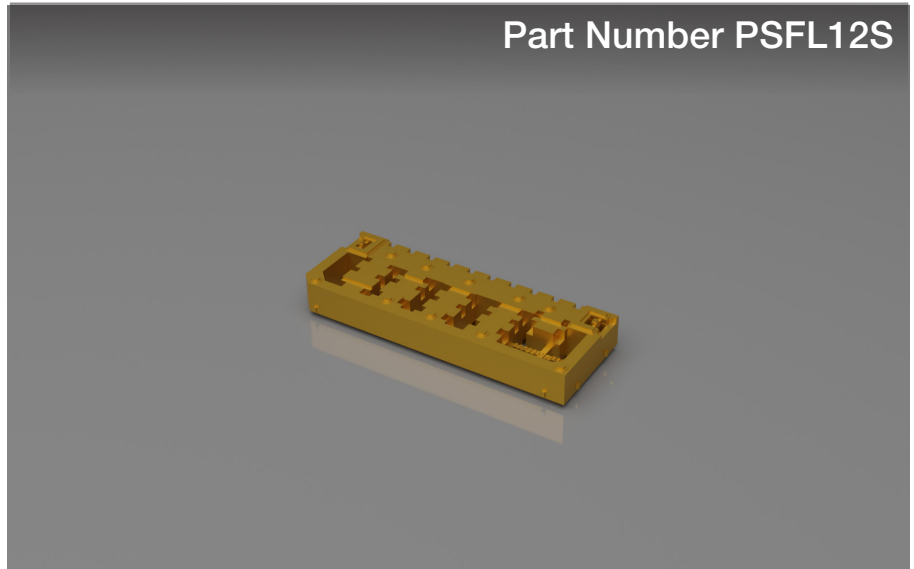
## Features and Benefits

- **Small Size and Lightweight**  
-Weight: 0.38g
- **Near Ideal Performance**  
-Low insertion loss and high rejection
- **Precision**  
-Low part-to-part variation
- **Ease of Assembly**  
-Standard SMT processes

## Applications

- **Satellite Communications**
- **Defense**
- **Test & Measurement**
- **Telecom**

Part Number PSFL12S



# 12 GHz Lowpass Filter

## X-Band, Surface-Mount Filter in a miniature size.

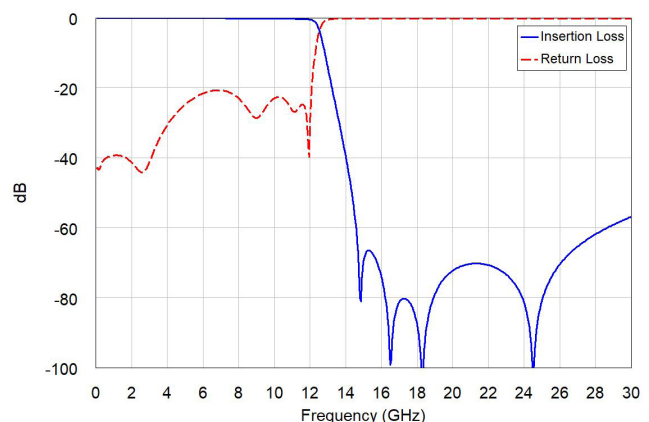
### Description

Nuvotronics PolyStrata® Technology offers a high performance filter in a small form factor (12.5 x 4.5mm) with an insertion loss of <0.75dB below 12GHz and > 37dB rejection above 14GHz. This device is ideal for commercial satcom, defense and test & measurement for both Rx and Tx applications.

## Typical Electrical Performance\*

Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	DC - 12	-	0.75	1.1
Passband Return Loss (dB)	DC - 12	15	20	-
Stopband (dB)	14 - 40	37	40	-

\*The specifications above are valid at ambient temperature. Insertion loss performance over -40°C to 85°C may vary by +/- 0.2 dB.



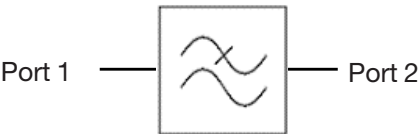
Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSFL12S
Standard Packaging	Gel Pak
Alternative Packaging Available	Tape and Reel
Component Termination Finish	Immersion Gold
Export Certifications	TBD

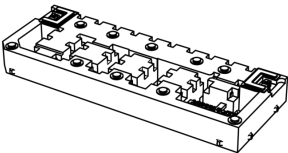
Absolute Maximum Ratings

Power	5W
Operating Temp	-55°C to 125°C
Solder Reflow	260°C max. for 10 seconds, 3 cycles
Epoxy Attach	150°C max. for 90 minutes

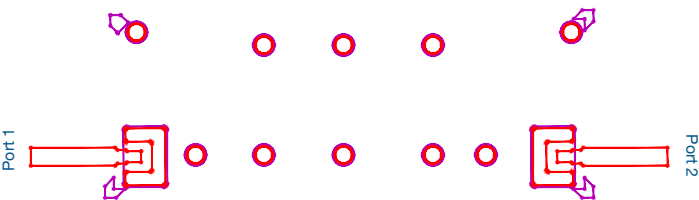
Simplified Block Diagram



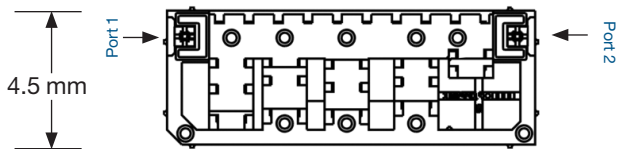
Component View



PCB Layout



Mechanical Drawing




12.5 mm

Bottom



Front

Legend: TOP METAL  SOLDER MASK  PART OUTLINE 

Drawings available upon request