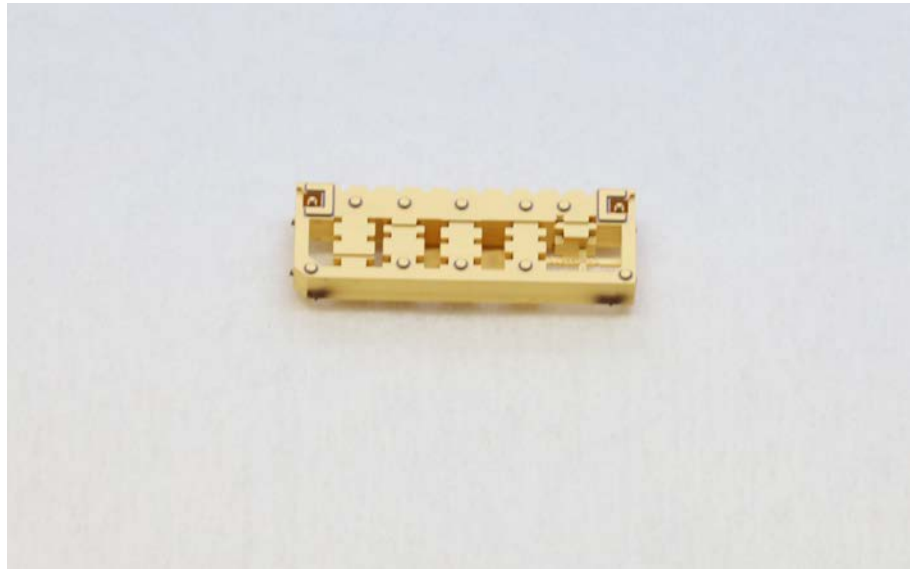


Features and Benefits

- **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**



12 GHz Lowpass Filter

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

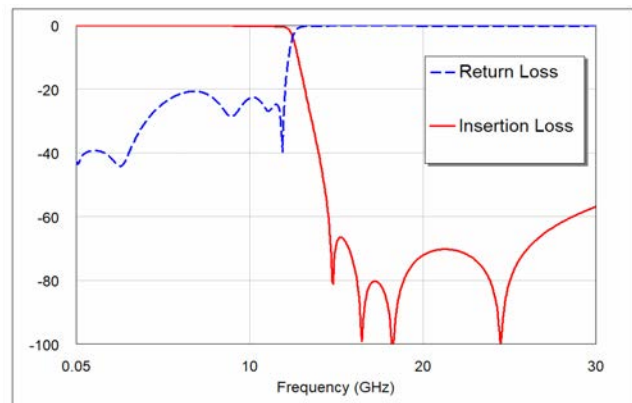
Description

Nuovotronics 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	18	-
Stopband (dB)	14.2 - 40	40	45	-

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



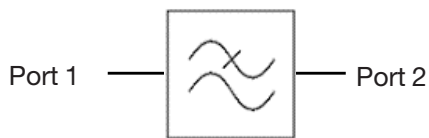
Additional Details

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

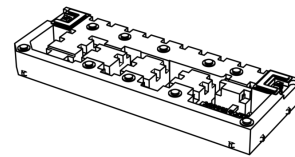
Absolute Maximum Ratings

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

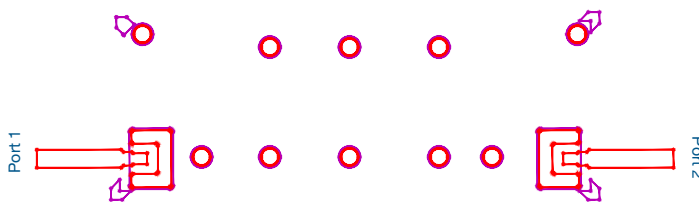
Simplified Block Diagram



Component View



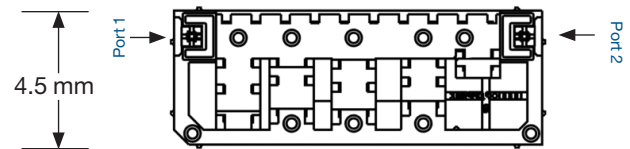
PCB Layout



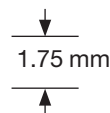
Legend: TOP METAL ■ SOLDER MASK ■ PART OUTLINE ■

Drawings available upon request

Mechanical Drawing



Bottom



Front