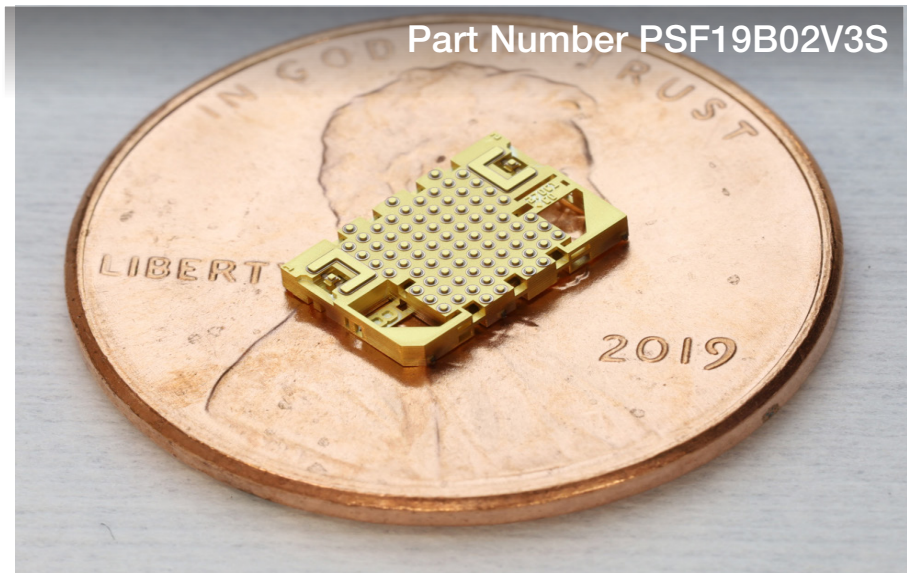


## Features and Benefits

- **Small Size and Lightweight**
- **Near Ideal Performance**  
-Low insertion loss and good rejection
- **Precision**  
-Low part-to-part variation
- **Ease of Assembly**  
-Standard SMT processes

## Applications

- **Satellite Communications**



# 17.8-20.2 GHz Bandpass Filter

## Surface mount K band filter in a miniature form factor.

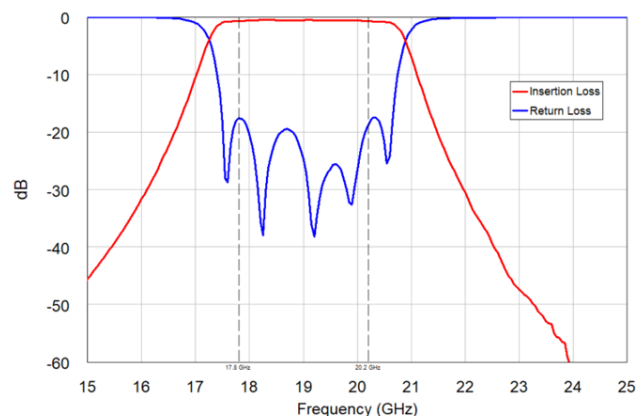
### Description

Nuvotronics PolyStrata® Technology provides high performance filtering in a small form factor (7.23mm x 4.68mm x 1.1mm). The PSF19B02V3S surface-mount interdigital filter provides low insertion loss and high rejection. Typical insertion loss performance is < 1 dB across the 17.8 - 20.2 GHz band. This part is ideal for space or ground applications. The filter is compliant with standard SMT assembly processes. Tape and reel packaging is available for bulk orders.

## Typical Electrical Performance\*

Parameter	Frequency Range (GHz)	Min	Typ	Max
Insertion Loss (dB)	17.8 - 20.2	-	1	1.3
Return Loss (dB)		12	15	-
Rejection (dB)	DC - 16.7	14	16	-
	23 - 27.5	-	30	-
	27.5 - 31	-	75	-
	35.4 - 40.4	-	50	-

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



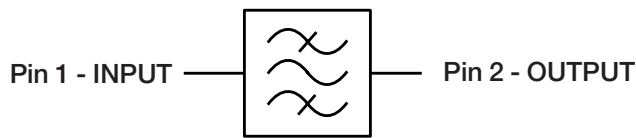
### Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSF19B02V3S
Standard Packaging	Tape and Reel
Alternative Packaging Available	Waffle Pack
Component Termination Finish	Immersion Silver, Immersion Gold
Export Certifications	5A991.a

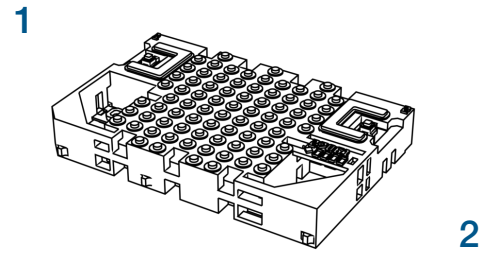
### Absolute Maximum Ratings

Power	TBD
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

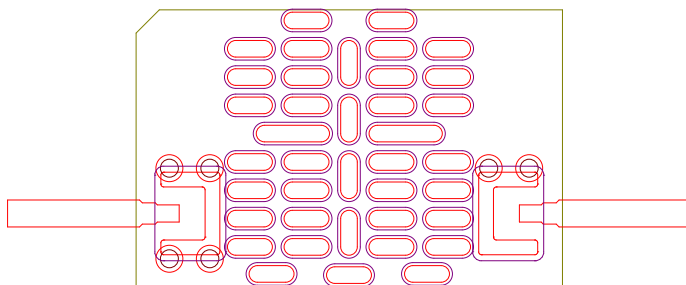
### Simplified Block Diagram



### Component View



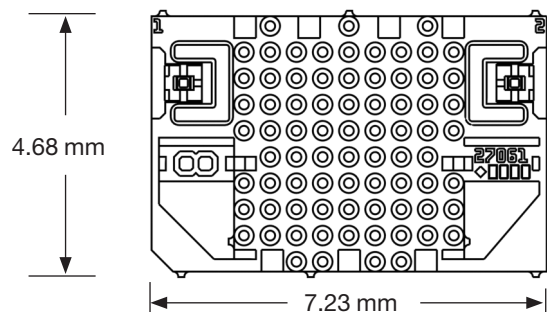
### PCB Layout



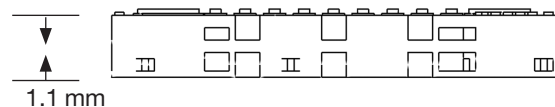
Legend: TOP METAL ■ SOLDER MASK ■ PART OUTLINE ■

Drawings available upon request

### Mechanical Drawing



Bottom



Front