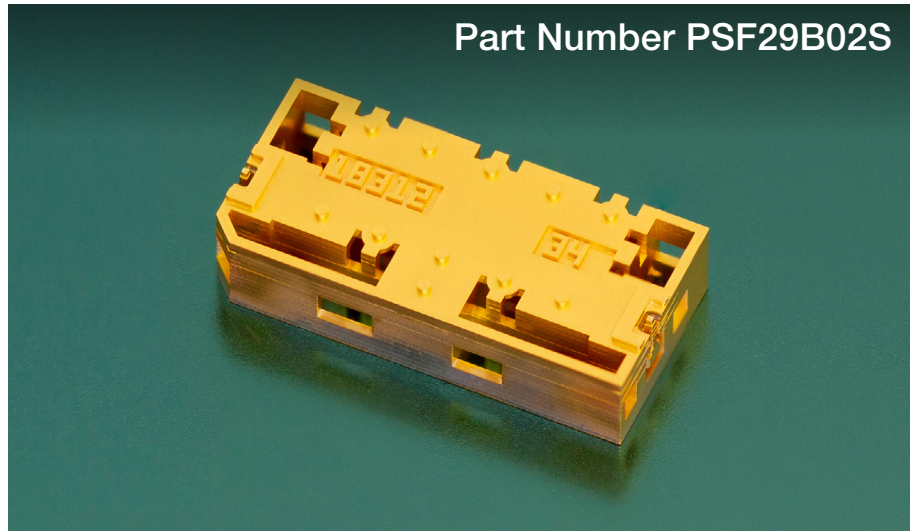


## Features and Benefits

- **Compact Size and Weight**  
-Greater than 10X reduction over traditional technologies
- **Near Ideal Performance**  
-Higher rejection and flatter passbands
- **Precision**  
-Low part-to-part variation
- **Ease of Assembly**  
-Standard SMT processes
- **Lower System BOM Cost**  
-Eliminate extra gain stages and signal cleanup

## Applications

- **Satellite Communications**
- **RF Telemetry**
- **Instrumentation**



# Ka Band Bandpass Filter

**Surface mount millimeter-wave bandpass filter with unrivaled rejection and flatness – in a miniature form factor.**

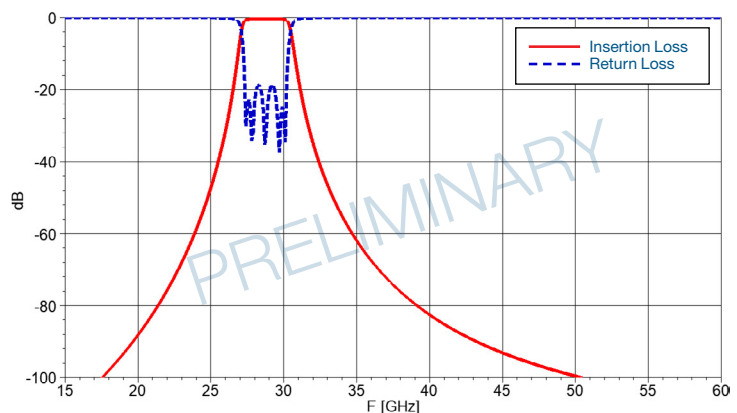
### Description

Nuvotronics PolyStrata® Technology provides high performance filtering in a small form factor. This surface-mount interdigital filter provides high frequency performance with unparalleled flatness.

This PSF29B02S part has a passband of 27.5 GHz – 30 GHz with a characteristic impedance of 50 Ω. The high power, low loss performance of this part is ideal for space or ground applications. This part is compliant with RoHS standards. Tape and reel packaging is available for bulk orders.

## Typical Electrical Performance

Parameter	Value
Insertion Loss, 27.5 GHz to 30 GHz	< 1 dB
Return Loss, 27.5 GHz to 30 GHz	> 15 dB
Rejection at 0 to 16.9 GHz	> 20 dB
Rejection at 16.9 to 17.8 GHz	> 50 dB
Rejection at 17.8 to 20.2 GHz	> 50 dB
Rejection at 20.2 to 21.2 GHz	> 60 dB
Rejection at 31.3 to 31.8 GHz	> 20 dB
Rejection at 42.5 to 60 GHz	> 40 dB



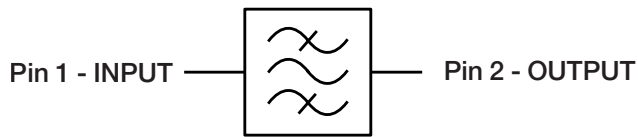
### Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
EDS Sensitivity	None
Moisture Sensitivity	MSL3
Ordering Information	1018312
Standard Packaging	Tape and Reel Conforms to BCA173-A
Alternative Packaging Available	Gel-coated Substrate Carrier Waffle pack
Component Termination Finish	Immersion Silver, Immersion Gold

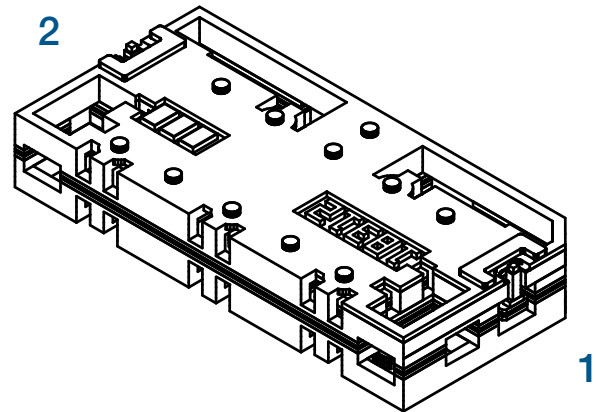
### Absolute Maximum Ratings

Power	2W CW
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

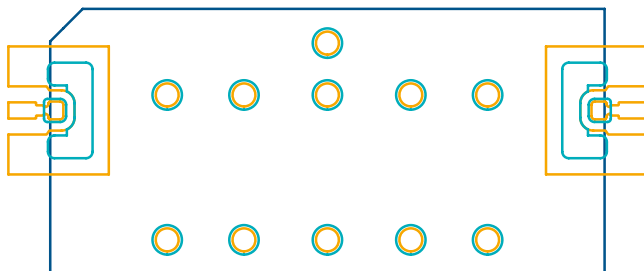
### Simplified Block Diagram



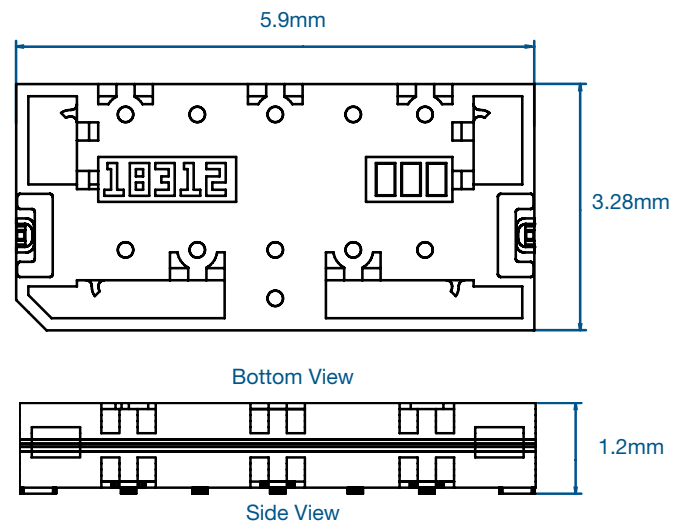
### Component View



### PCB Layout



### Mechanical Drawing



Legend: TOP METAL ■ SOLDER MASK ■ PART OUTLINE ■

Drawings available upon request