## 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**
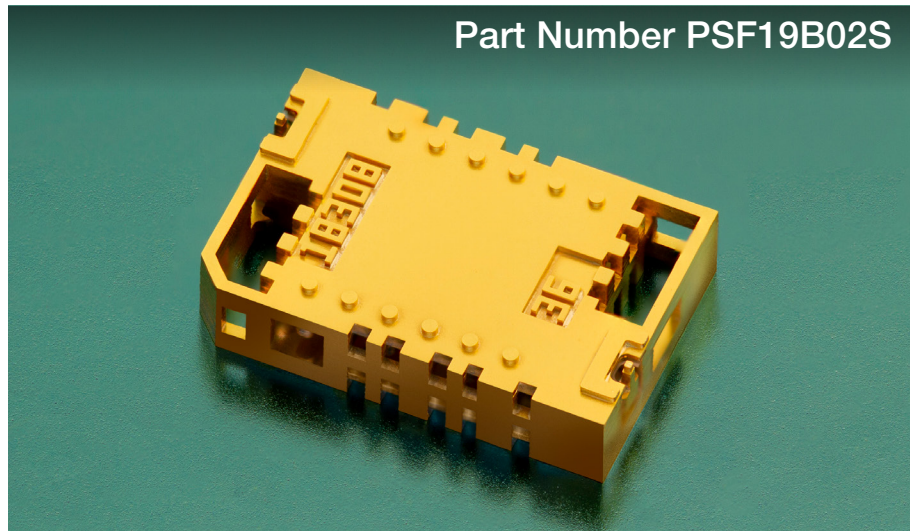
Part Number PSF19B02S

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 PSF19B02S part has a passband of 17.7 GHz – 20.2 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, 17.7 GHz to 20.2 GHz	< 2 dB
Return Loss, 17.7 GHz to 20.2 GHz	> 15 dB
Rejection at 0 to 16.24 GHz	> 40 dB
Rejection at 22.2 to 24 GHz	> 30 dB
Rejection at 25 to 50 GHz	> 40 dB

Part Name PSF19B02S

NUVOTRONICS
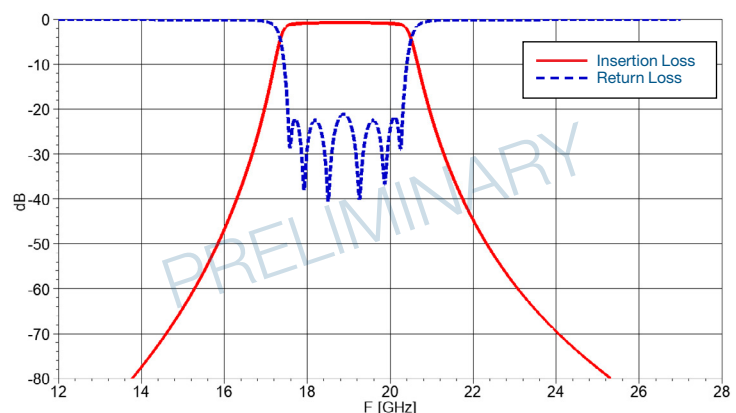
Additional Details

| Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
EDS Sensitivity	None
Moisture Sensitivity	MSL3
Ordering Information	1018308
Standard Packaging	Tape and Reel Conforms to EIA-481 lastest revision
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

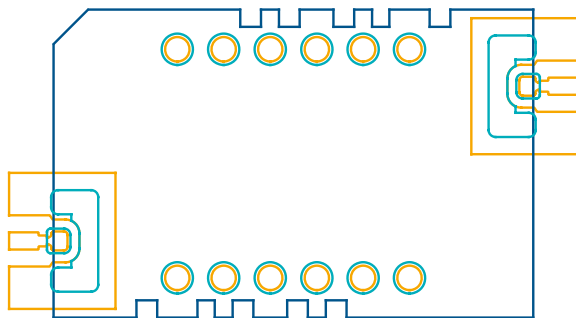## Simplified Block Diagram

Pin 1 - INPUT ——[≈≈]—— Pin 2 - OUTPUT
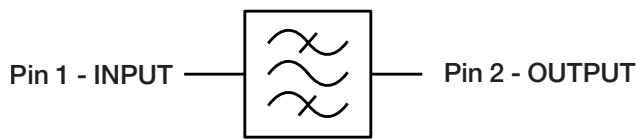
Component View
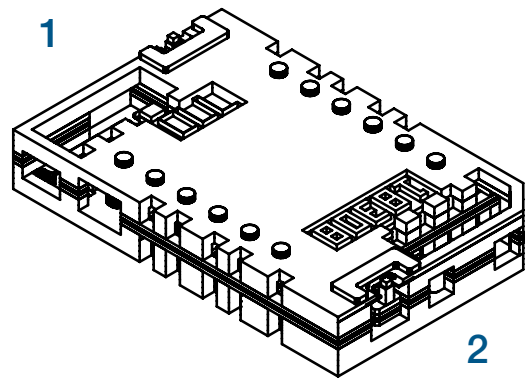
PCB Layout

Legend: TOP METAL ■   SOLDER MASK ■   PART OUTLINE ■

Drawings available upon request

Mechanical Drawing

7.0mm
4.25mm

Bottom View

1.7mm

Side View