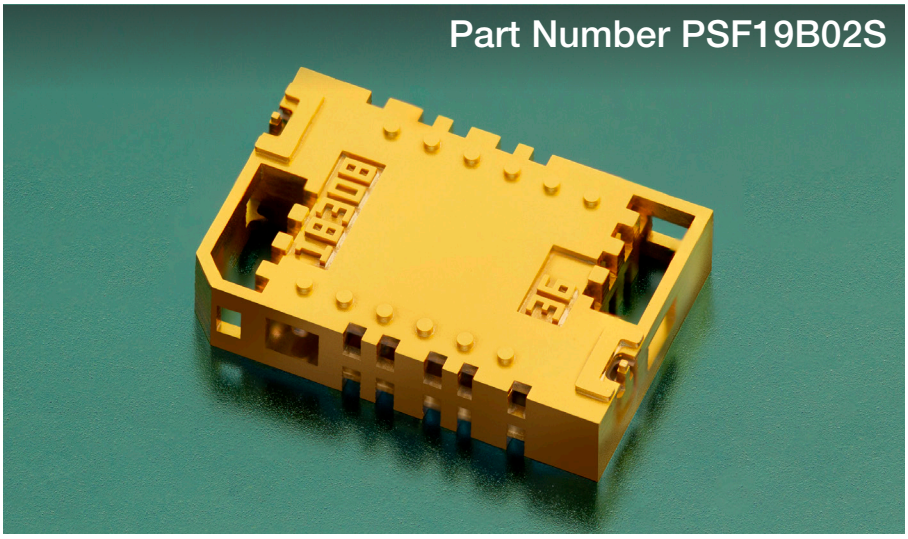
Features and Benefits

- **Compact Size and Weight**
- **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**



K Band Bandpass Filter

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

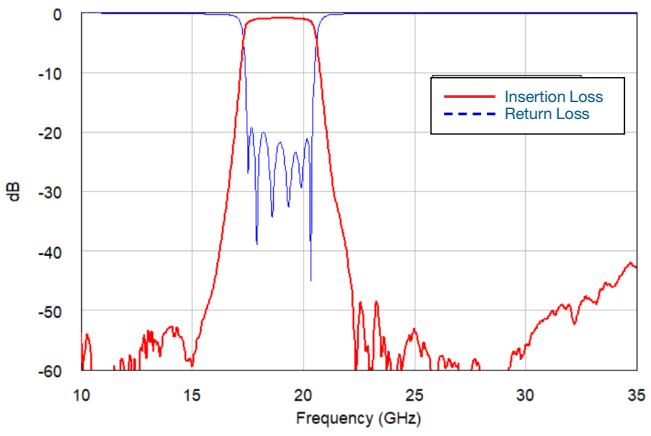
Description

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	Frequency Range (GHz)	Min	Typical	Max
Insertion Loss (dB)	17.7—20.2	—	1.2	2.5
Return Loss (dB)		15	18	—
Rejection (dB)	DC—16.24	35	40	—
	25—40	40	46	—
	40—60	30	36	—



Part Name PSF19B02S

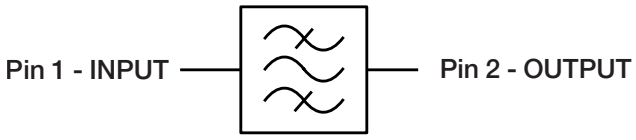
Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Moisture Sensitivity	MSL1
Ordering Information	PSF19B02S
Standard Packaging	PSF19B02SWP (Waffle Pack)
Alternative Packaging Available	Tape and Reel Conforms to EIA-481 lastest revision
Component Termination Finish	Immersion Silver, Immersion Gold
Export Classification	9A515.y.3

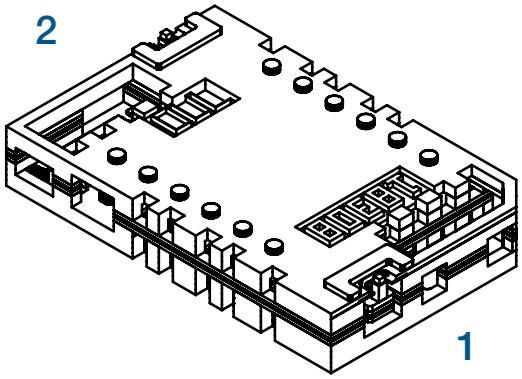
Absolute Maximum Ratings

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

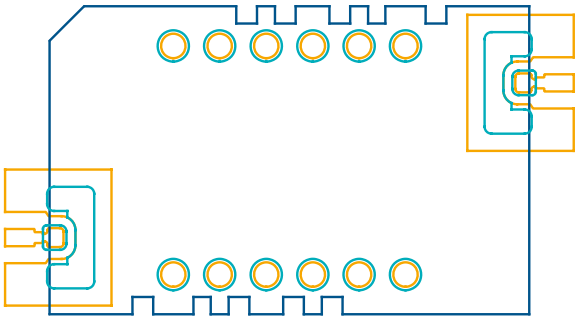
Simplified Block Diagram



Component View



PCB Layout



Legend: TOP METAL SOLDER MASK PART OUTLINE

Drawings available upon request

Mechanical Drawing