

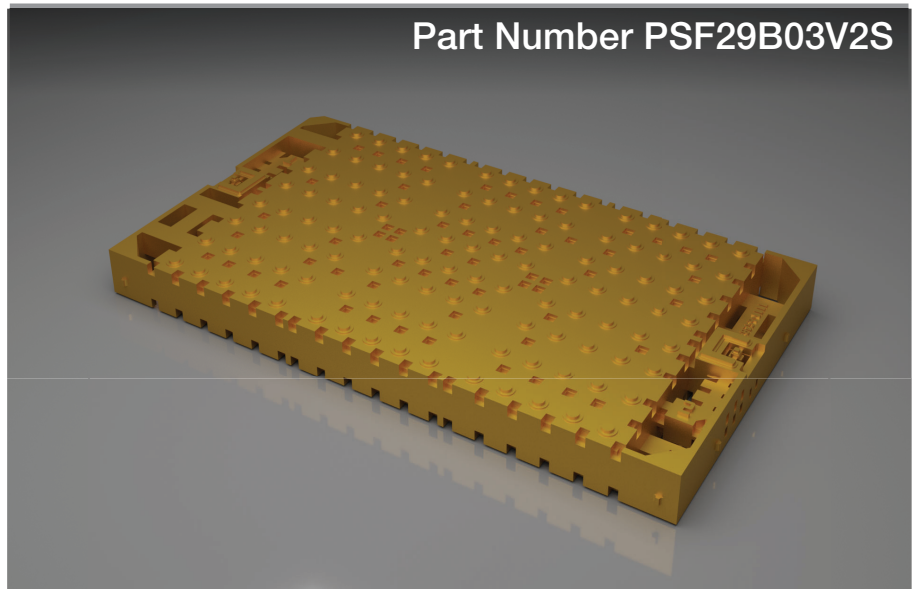
Features and Benefits

- **Small Size and Lightweight**
- **Near Ideal Performance**
-Ultra low insertion loss and good rejection
- **Precision**
-Low part-to-part variation
- **Ease of Assembly**
-Standard SMT processes
- **Characteristic Impedance**
-50Ω

Applications

- **Satellite Communications**

Part Number PSF29B03V2S



27.5-31 GHz Bandpass Filter

Surface mount Ka band filter in a miniature form factor.

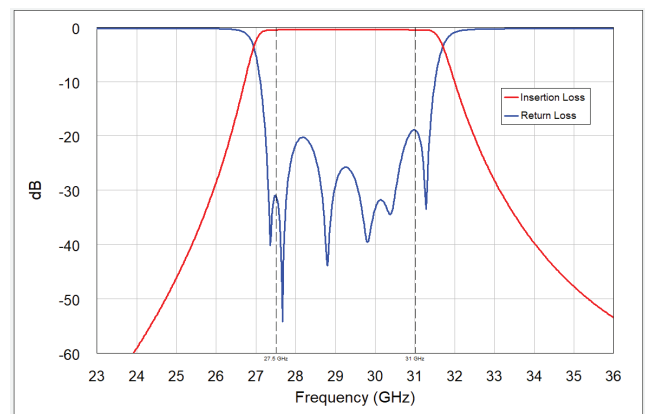
Description

Nuvotronics PolyStrata® Technology provides high performance filtering in a small form factor (20.06mm x 11.20mm x 1.5mm). The PSF29B03V2S surface-mount interdigital filter provides ultra low insertion loss and high rejection. Typical insertion loss performance is < 0.5 dB across the 27.5 - 31 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) | 27.5 - 31 | - | 0.5 | 0.7 |
| Return Loss (dB) | | 12 | 15 | - |
| Rejection (dB) | 17.7 - 21.2 | 80 | 84 | - |
| | 37.5 - 42 | 40 | 50 | - |

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



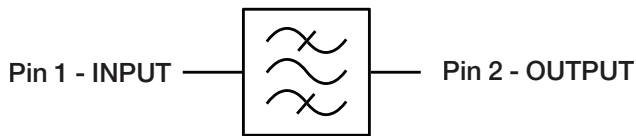
Additional Details

| Special Handling / Storage Instructions | |
|---|----------------------------------|
| Storage | IAW IPC-4553A |
| ESD Sensitivity | None |
| Ordering Information | PSF29B03V2S |
| Standard Packaging | Tape and Reel |
| Alternative Packaging Available | Waffle Pack |
| Component Termination Finish | Immersion Silver, Immersion Gold |
| Export Certifications | 5A991.a |

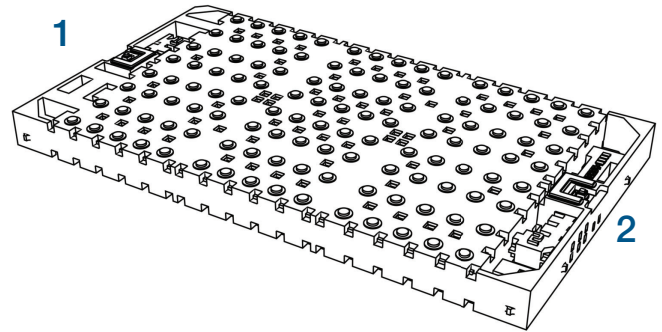
Absolute Maximum Ratings

| | |
|----------------|-------------------------------------|
| 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 |

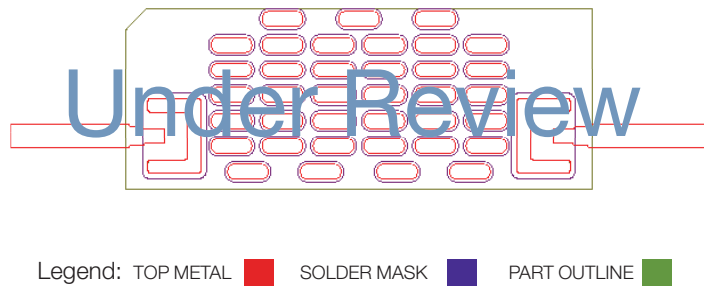
Simplified Block Diagram



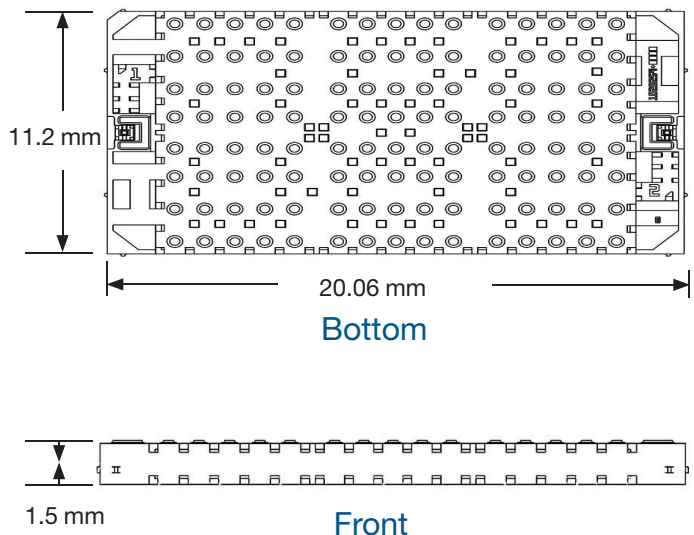
Component View



PCB Layout



Mechanical Drawing



Drawings available upon request