

Features and Benefits

- **Small Size and Lightweight (0.15g)**
- **Near Ideal Performance**
-Low insertion loss and good rejection
- **Precision**
-Low part-to-part variation
- **Ease of Assembly**
-Standard SMT processes

Applications

- EW
- Test & Measurement



18 GHz Low Pass, 22 GHz High Pass Diplexer

Diplexer in a miniature SMT package with wire-bond launches.

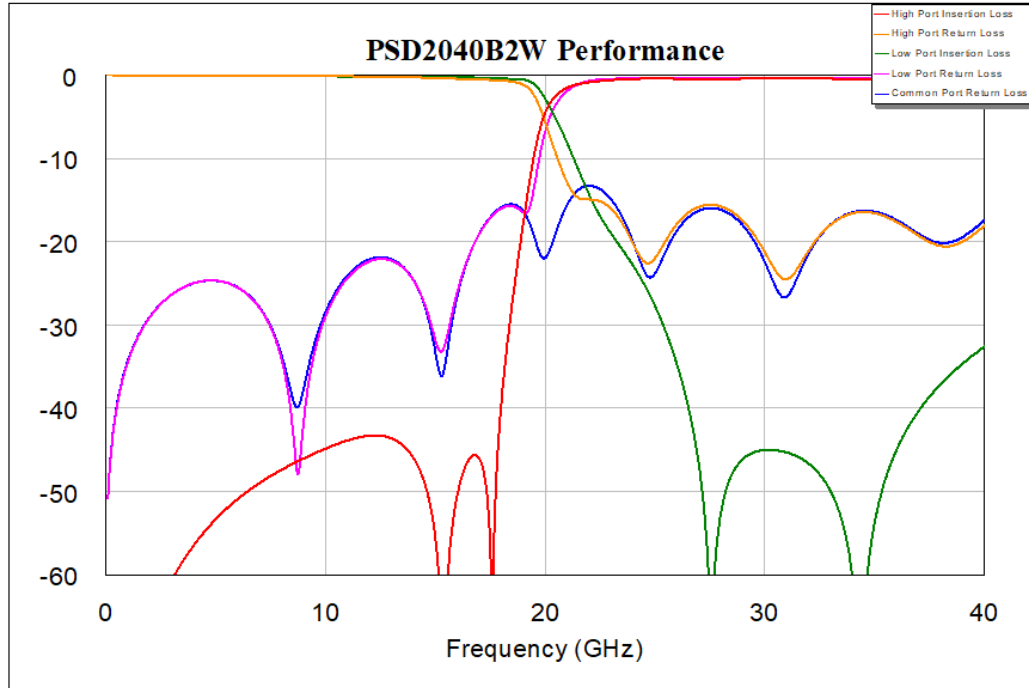
Description

Nuvotronics PolyStrata® Technology offers a high-performance diplexer in a small, **8.5mm x 4.6mm x 1.37mm** SMT package. The Diplexer is a low-loss (<1dB), high rejection filter (30 to 40dBc rejection) in a low-pass & high-pass configuration with a cross-over frequency of 20.2 GHz. The diplexer utilizes a ground-signal-ground wire-bondable launch. The diplexer is supplied in Gel-Paks or Tape & Reel containers.

Typical Electrical Performance*

Common Port					Low Port					High Port				
Parameter	Frequency Range (GHz)	Min	Typ	Max	Parameter	Frequency Range (GHz)	Min	Typ	Max	Parameter	Frequency Range (GHz)	Min	Typ	Max
Return Loss (dB)	DC - 40	13	-	-	Passband Insertion Loss (dB)	DC - 18	-	-	0.5	Passband Insertion Loss (dB)	22 - 40	-	-	1
					Passband Return Loss (dB)	DC - 18	15	-	-	Passband Return Loss (dB)	22 - 40	15	-	-
					Stopband (dBc)	25.4 - 40	30	-	-	Stopband (dBc)	DC - 18.3	30	-	-
					Stopband (dBc)	26.6 - 37	40	-	-	Stopband (dBc)	DC - 17.9	40	-	-

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



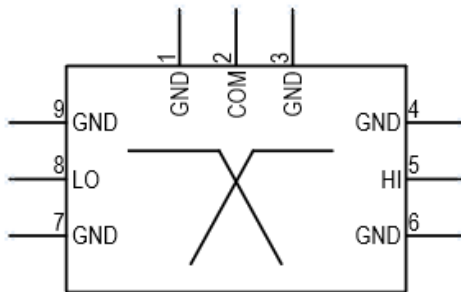
Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSD2040B2W
Standard Packaging	Tape and Reel
Alternative Packaging Available	Waffle Pack
Component Termination Finish	Immersion Silver, Immersion Gold
Export Certifications	TBA

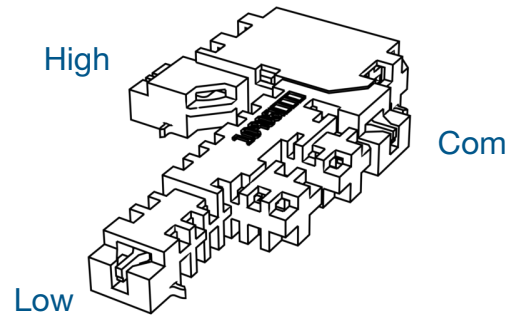
Absolute Maximum Ratings

Power	Maximum 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

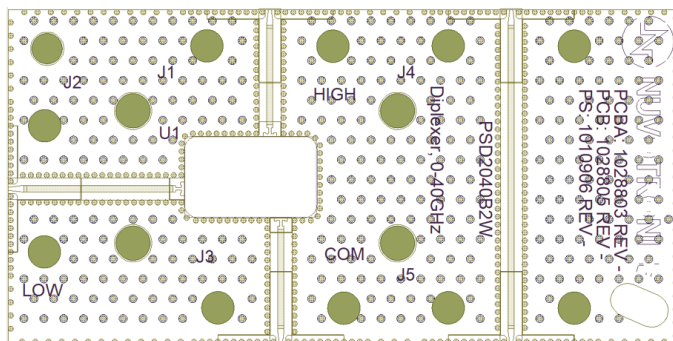
Simplified Block Diagram



Component View



PCB Layout



Drawings available upon request

Mechanical Drawing

