

Features and Benefits

- **Small Size and Lightweight**
- **Near Ideal Performance**
 - Low insertion loss
 - Good phase and amplitude balance
 - Gysel architecture provides graceful degradation
- **Precision**
 - Low part-to-part variation



Applications

- **Satellite Communications**

37.5-42.5 GHz 2-Way Splitter

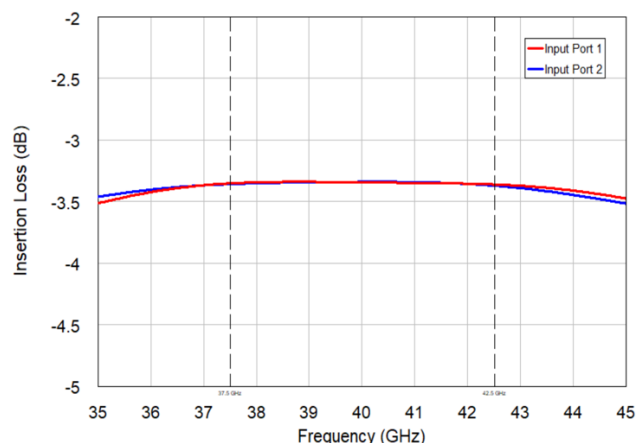
High performance 2-way power splitter for Q band applications.

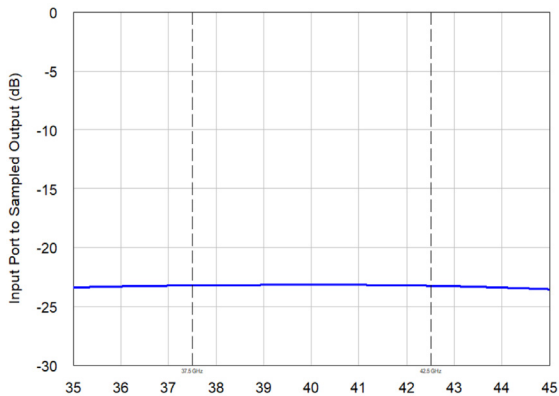
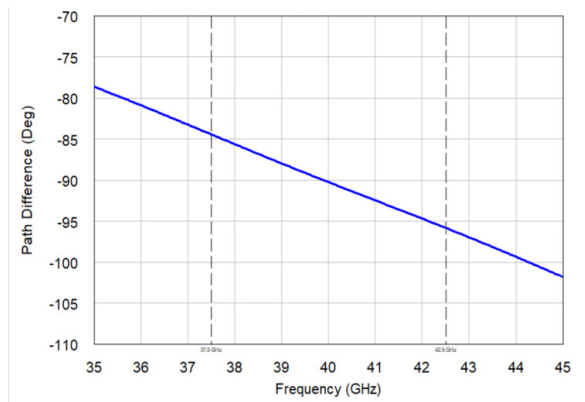
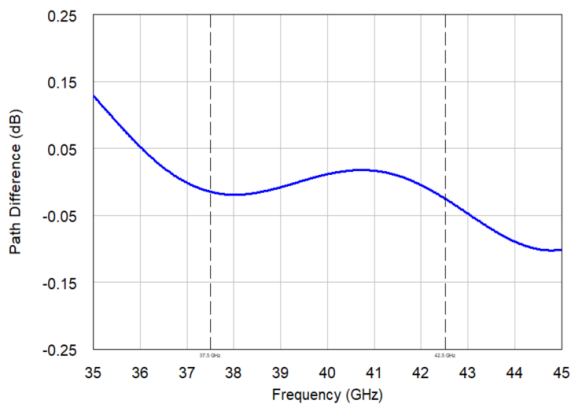
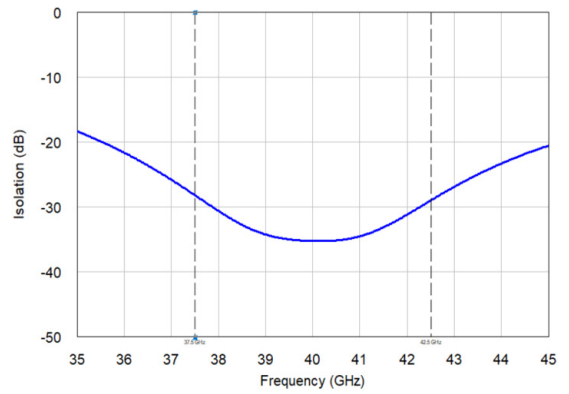
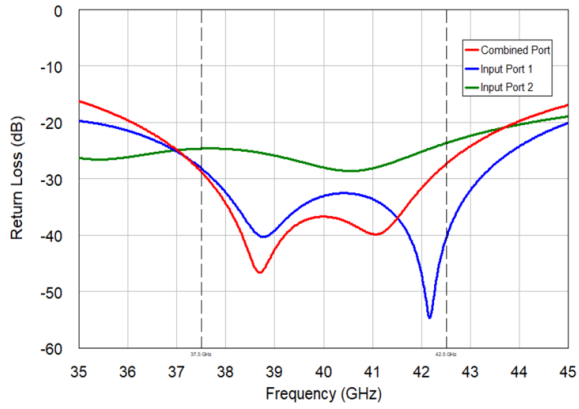
Description

Nuvotronics PolyStrata® Technology provides high performance splitting in a small form factor. This 2-way splitter covers 37.5 - 42.5 GHz with 0.3 dB typical insertion loss. It has two wirebond inputs and a wirebond output. Excellent amplitude and phase balance will result in best system level performance. There is a nominal 90 degree phase difference between the paths which is designed to mate with our PSX40D05W combiner. The Gysel architecture provides graceful degradation in the event of an amplifier failure or a mismatch in the combined amplifier stages.

Typical Electrical Performance

Parameter	Frequency Range (GHz)	Min	Typ	Max
Insertion Loss (dB)	37.5 - 42.5	-	0.3	0.5
Return Loss (dB)		15	20	-
Isolation (dB)		25	30	-
Phase Difference (deg)		-83	-90	-97
Amplitude Balance (dB)		-	+/- 0.02	+/- 0.05
Coupled Output (dB)		20.3	20	19.7





Additional Details

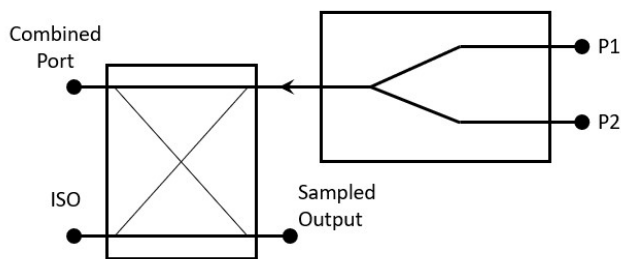
Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSX40D05V2W
Alternative Packaging Available	Waffle Pack
Component Termination Finish	Immersion Silver, Immersion Gold
Export Certifications	TBA

Absolute Maximum Ratings

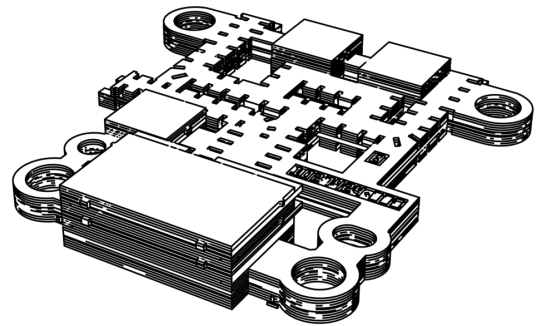
Power	Minimum 80W CW (Combined Output)*
Operating Temp	-55°C to 85°C
Solder Reflow	260°C max. for 10 seconds, 3 cycles
Epoxy Attach	150°C max. for 90 minutes

*Power handling will vary depending on balance between the amplifiers and supports one amplifier failing.

Simplified Block Diagram



Component View



Mechanical Drawing

