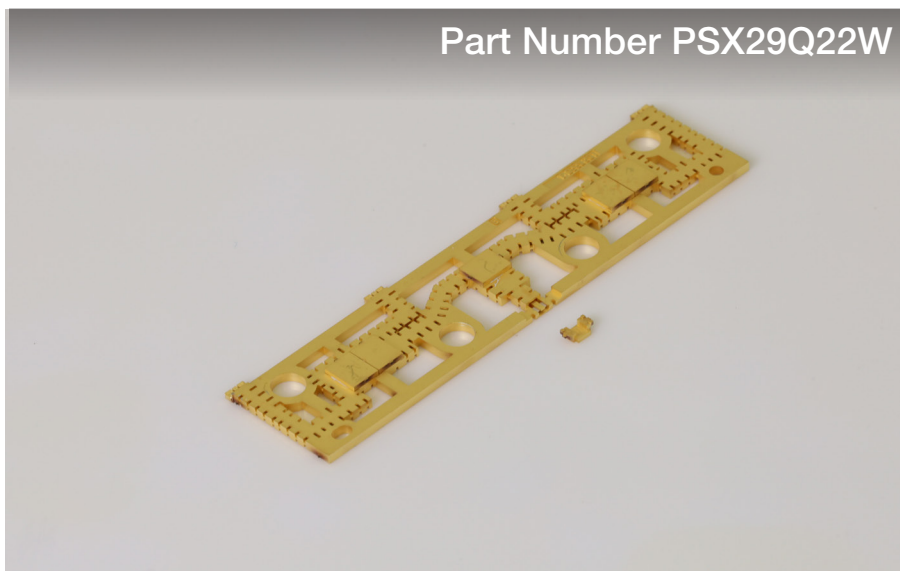


Features and Benefits

- **Small Size and Lightweight**
- **Near Ideal Performance**
 - Low insertion loss
 - Good phase and amplitude balance
- **Precision**
 - Consistent part-to-part performance

Applications

- EW
- Radar
- SIGINT



- **Note:** PSX29Q22W pictured with combined port transition lid (included with combiner)

18-40 GHz 4-Way Combiner

High performance 4-way power combiner for 18-40 GHz applications.

Description

Nuvotronics PolyStrata® Technology provides low loss combining in a small form factor. This 4-way combiner covers 18-40 GHz with 0.5 dB insertion loss. It has four wirebond inputs and a coax output. Excellent amplitude and phase balance will result in best system level performance.

Typical Electrical Performance

Parameter	Frequency Range (GHz)	Min	Typ	Max
Insertion Loss (dB)	18 - 40	-	0.5	0.8
Return Loss, Common Port (dB)		15	18	-
Return Loss, Input Ports (dB)		10	12	-
Isolation (dB)		12	14	-
Phase Balance (deg)		-	+/- 2	+/- 5
Amplitude Balance (dB)		-	+/- 0.1	+/- 0.3
Output Power (W)		-	-	80 ^{1,2}

¹ Conditions:

+85°C base temperature
4X 20W amplifiers at the inputs
No greater than +/- 8 deg total phase imbalance across combiner & amplifiers
1.5:1 maximum load on output

² Failure of an amplifier while operating at > 20W output power at +85°C may result in combiner failure.

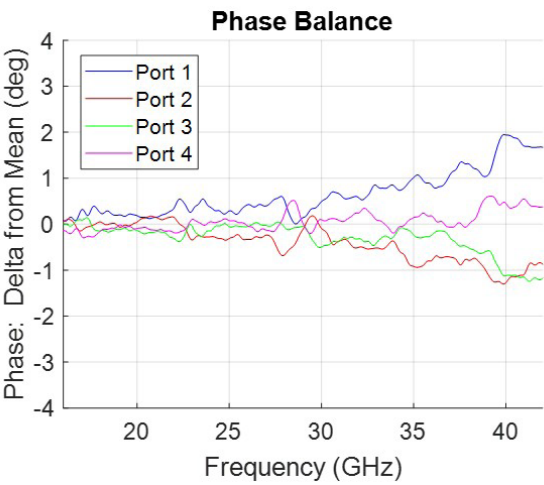
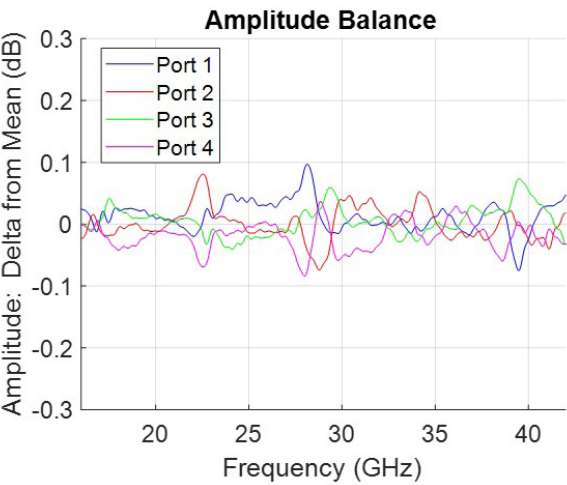
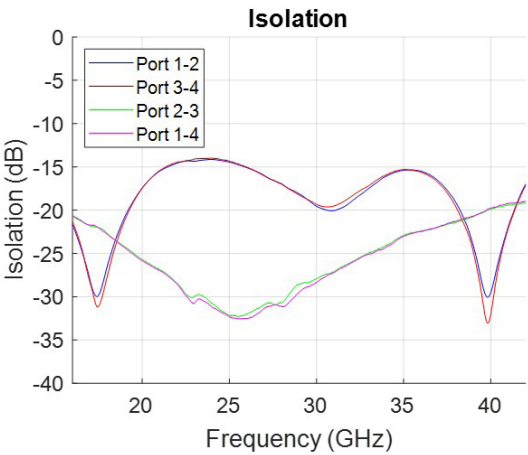
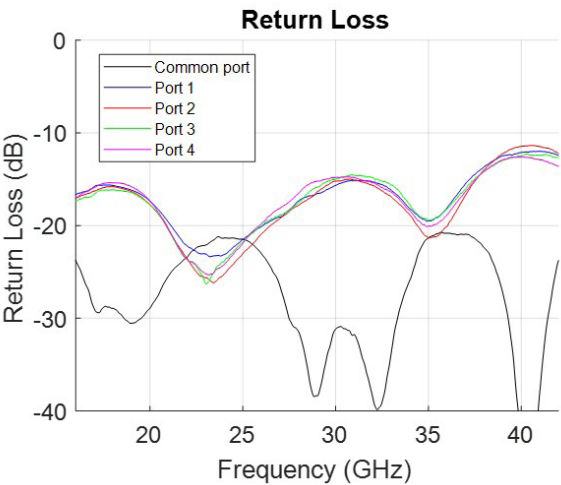


Additional Details

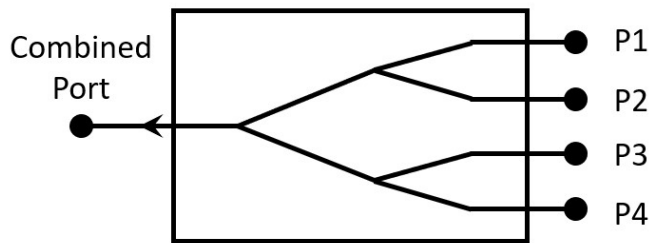
Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSX29Q22W
Alternative Packaging Available	Gel Pack
Component Termination Finish	Immersion Gold
Export Certifications	EAR99

Absolute Maximum Ratings

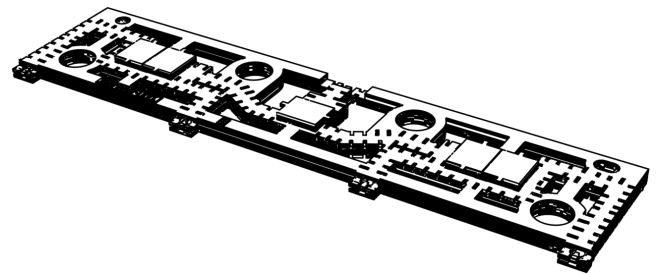
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +150°C
Solder Reflow	260°C max. for 10 seconds, 3 cycles
Epoxy Attach	150°C max. for 90 minutes



Simplified Block Diagram



Component View



Mechanical Drawing

DIMENSIONS ARE MILLIMETERS

