



Short Slot Hybrid Power Dividers

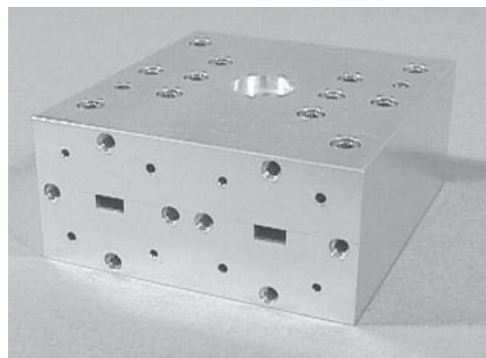
QSP

Characteristics

- ◆ Small
- ◆ Compact
- ◆ Negligible Coupling Variation

Product Description

QuinStar Technology's short slot hybrid is a narrow wall 3 dB coupler, available in standard waveguide sizes from 18 to 110 GHz. This compact, four-port device is inherently matched and well-suited for balanced mixers and power splitting circuits. There is a 90 degree phase difference between the two output signals, while the fourth port is isolated from the input.

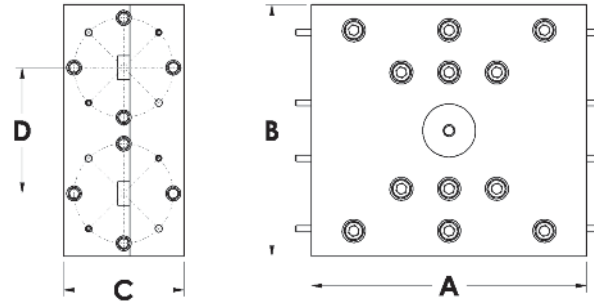


The QSP series short slot hybrids are power dividers (3 dB couplers) that can be used in waveguide bridge circuits, image-reject and single sideband mixers, phase shifters, and power splitters where 90 degree phase shift between output power ports is required.

Specifications

FREQUENCY BAND	Ku	K	Ka	Q	U	V	E	W
Insertion Loss (dB) Max.	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9
VSWR Max.	1.35	1.35	1.35	1.35	1.5	1.5	1.5	1.5
Isolation (dB) Min.	20	20	20	20	20	20	20	18
Bandwidth (GHz)	2	2	3	3	4	4	5	7

Outline Drawings/Mechanical Specifications



FREQUENCY BAND	OUTLINE DIMENSIONS, inches/mm			
	C	A	B	D
K	3.75/95.3	2.47/62.7	1.12/28.5	1.38/35.1
Ka	3.75/95.3	2.47/62.7	1.12/28.5	1.38/35.1
Q	2.60/66.0	2.37/60.2	1.14/29.0	1.18/30.2
U	2.60/66.0	2.37/60.2	1.14/29.0	1.18/30.2
V	2.45/62.2	1.75/44.5	1.0/25.4	0.90/22.86
E	2.45/62.2	1.75/44.5	1.0/25.4	0.90/22.86
W	2.45/62.2	1.75/44.5	1.0/25.4	0.90/22.86

*Contact QuinStar for Ku band dimensions

Ordering Information

Model Number **QSP -**

A B CD EF

waveguide band designator

- Y = Ku-band
- K = K-band
- A = Ka-band
- Q = Q-band
- V = V-band
- E = E-band
- W = W-band
- U = U-band

bandwidth (rounded to nearest GHz)

center frequency (rounded to nearest GHz)

options

- 0 = standard product
- C = custom product