

# Surface Mount Power Splitter/Combiner

## JSPQW-100A+ JSPQW-100A

2 Way-90° 50Ω 30 to 100 MHz



### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

SUMPORT	1
PORT 1 (0°)	7
PORT 2 (+90°)	8
GROUND	2,3,4,5,6,9,10,11,12,13,14

### Features

- low insertion loss, 0.5 dB typ.
- excellent isolation, 41 dB typ.
- aqueous washable

### Applications

- VHF
- signal processing
- modulators
- instrumentation
- balanced amplifiers

CASE STYLE: BK276  
PRICE: \$19.95 ea. QTY (1-9)

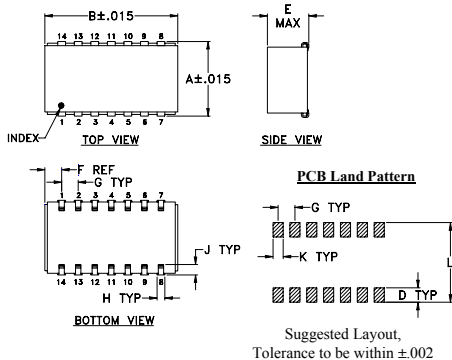
+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site  
for RoHS Compliance methodologies and qualifications.

### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.		
$f_L$ - $f_U$					Max.	Max.
30-100	41	30	0.5	1.1	4	0.6

### Outline Drawing



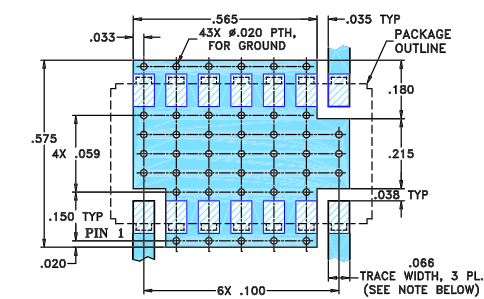
### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.450	.803	--	.100	.250	.102	.100
11.43	20.40	--	2.54	6.35	2.59	2.54

H	J	K	L	wt
.047	.065	.065	.470	grams
1.19	1.65	1.65	11.94	3.0

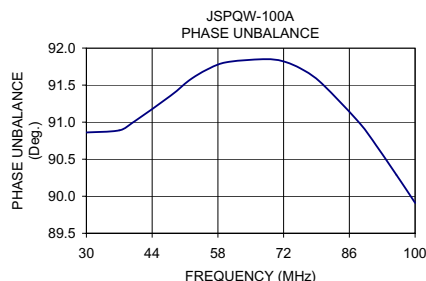
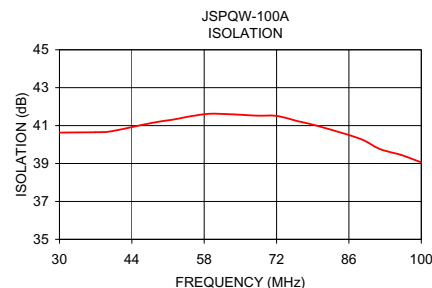
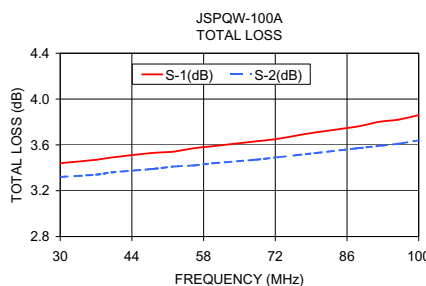
### Demo Board MCL P/N: TB-217 Suggested PCB Layout (PL-099)



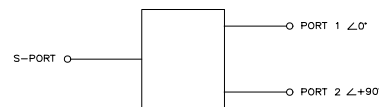
### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
30.00	3.44	3.32	0.12	40.63	90.86	1.07	1.23	1.18
37.00	3.47	3.34	0.13	40.65	90.89	1.06	1.22	1.19
40.00	3.49	3.36	0.13	40.70	91.00	1.06	1.21	1.20
48.00	3.53	3.39	0.14	41.15	91.36	1.06	1.19	1.21
52.00	3.54	3.41	0.13	41.32	91.57	1.06	1.18	1.22
56.00	3.57	3.42	0.15	41.52	91.72	1.07	1.17	1.22
60.00	3.59	3.44	0.15	41.63	91.81	1.09	1.17	1.23
68.00	3.63	3.47	0.16	41.53	91.85	1.13	1.18	1.24
72.00	3.65	3.49	0.17	41.51	91.82	1.15	1.19	1.25
76.00	3.68	3.51	0.18	41.24	91.71	1.17	1.21	1.26
80.00	3.71	3.53	0.18	40.98	91.53	1.20	1.23	1.27
88.00	3.76	3.57	0.20	40.32	91.00	1.25	1.28	1.29
92.00	3.80	3.59	0.21	39.76	90.66	1.28	1.30	1.30
96.00	3.82	3.61	0.21	39.46	90.29	1.30	1.33	1.32
100.00	3.86	3.64	0.22	39.06	89.91	1.33	1.36	1.33

1. Total Loss = Insertion Loss + 3dB splitter loss.



### electrical schematic



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