

# Surface Mount Power Splitter/Combiner

## JYPQ-16

2 Way-90° 50Ω 10 to 16 MHz



CASE STYLE: BJ293  
PRICE: \$14.95 ea. QTY (1-9)

### Maximum Ratings

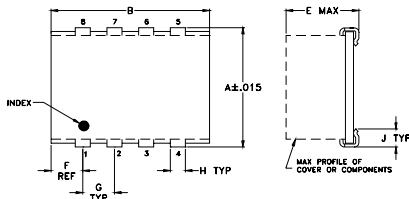
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

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

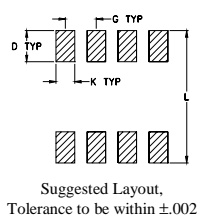
### Pin Connections

SUM PORT	8
PORT 1 (+90°)	1
PORT 2 (0°)	4
GROUND	2,3,6,7
50 OHM TERM EXTERNAL	5

### Outline Drawing



### PCB Land Pattern



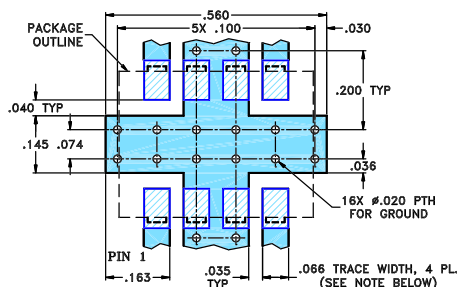
### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.395	.500	--	.100	.230	.100	.100
10.03	12.70	--	2.54	5.84	2.54	2.54

H	J	K	L	wt
.047	.065	.065	.425	grams
1.19	1.65	1.65	10.80	0.80

### Demo Board MCL P/N: TB-216 Suggested PCB Layout (PL-100)



- NOTE:**
- TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS .030" ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
  - DENOTES PCB COPPER LAYOUT
  - DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

### Features

- low insertion loss, 0.2 dB typ.
- high isolation, 43 dB typ.

### Applications

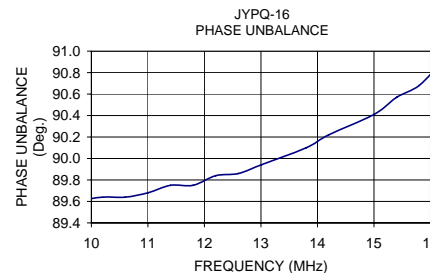
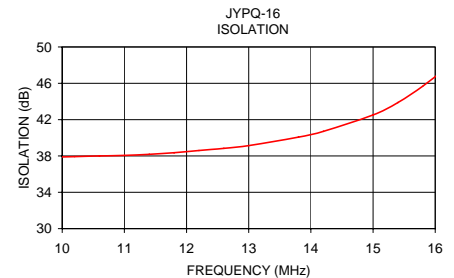
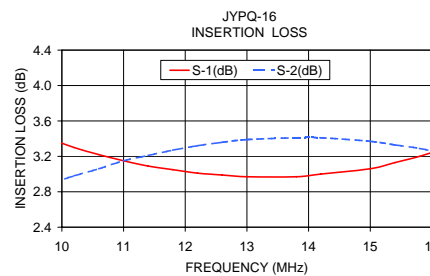
- HF
- radio communication
- modulators
- balanced amplifiers

### Electrical Specifications

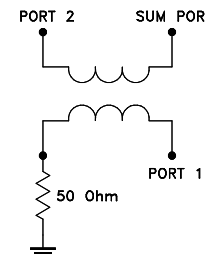
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs less 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
$f_L$ - $f_U$						
10-16	43	25	0.2	0.6	4	0.9

### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
9.80	3.40	2.89	0.51	37.87	89.61	1.04	1.04	1.04
10.20	3.30	2.98	0.33	37.93	89.64	1.04	1.03	1.04
10.60	3.22	3.06	0.16	38.00	89.64	1.04	1.03	1.04
11.00	3.15	3.15	0.30	38.06	89.68	1.04	1.03	1.04
11.40	3.09	3.21	0.12	38.18	89.75	1.04	1.03	1.04
11.80	3.05	3.27	0.23	38.36	89.75	1.04	1.03	1.04
12.20	3.01	3.32	0.32	38.60	89.84	1.04	1.03	1.04
12.60	2.99	3.36	0.37	38.84	89.86	1.04	1.03	1.04
13.00	2.97	3.39	0.42	39.14	89.94	1.04	1.03	1.04
13.80	2.97	3.41	0.44	40.08	90.10	1.04	1.03	1.04
14.20	3.00	3.41	0.41	40.71	90.22	1.04	1.03	1.04
15.00	3.06	3.37	0.31	42.52	90.41	1.04	1.03	1.04
15.40	3.13	3.33	0.21	43.88	90.57	1.04	1.03	1.04
15.80	3.20	3.29	0.09	45.69	90.68	1.04	1.03	1.04
16.20	3.29	3.23	0.06	47.81	90.90	1.05	1.03	1.05



### electrical schematic



For detailed performance specs & shopping online see web site

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