

# Surface Mount Power Splitter/Combiner

## JYPQ-30+ JYPQ-30

2 Way-90° 50Ω 16 to 30 MHz

### Maximum Ratings

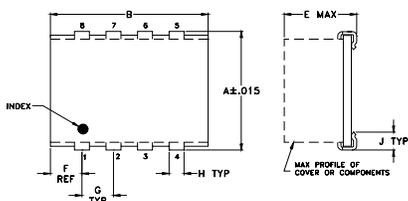
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

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

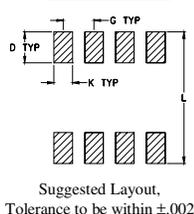
### Pin Connections

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



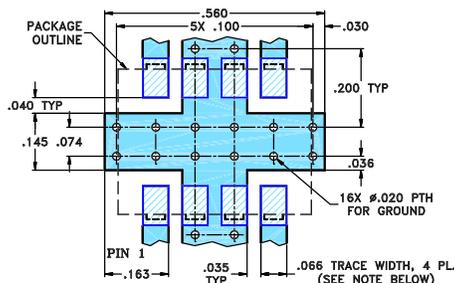
### Outline Dimensions (inch/mm)

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.
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### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

### Features

- low insertion loss, 0.2 dB typ.
- good isolation, 28 dB typ.

### Applications

- HF
- radio communication
- instrumentation
- modulators



CASE STYLE: BJ293

### +RoHS Compliant

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

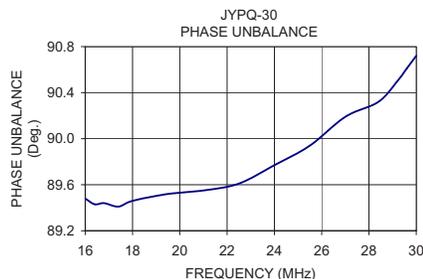
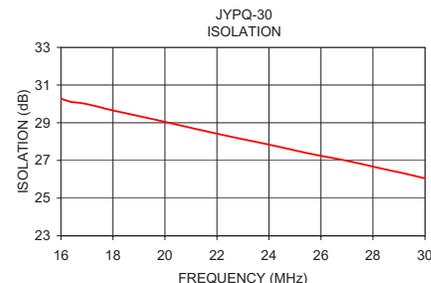
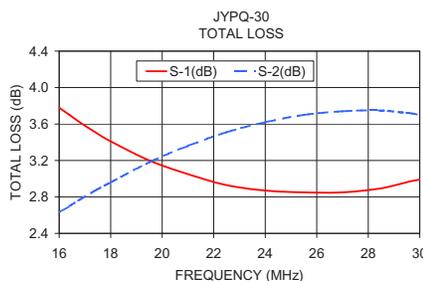
### Electrical Specifications

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.
16-30	28	20	0.2	0.7	3	1.5

### 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						
16.00	3.78	2.63	1.15	30.28	89.48	1.15	1.04	1.14
16.40	3.70	2.70	1.00	30.10	89.43	1.15	1.04	1.14
16.80	3.62	2.77	0.85	30.04	89.44	1.15	1.04	1.15
17.40	3.51	2.87	0.64	29.86	89.41	1.15	1.04	1.15
18.00	3.41	2.96	0.45	29.65	89.46	1.15	1.04	1.15
19.50	3.20	3.18	0.03	29.20	89.52	1.16	1.04	1.15
21.00	3.05	3.36	0.31	28.73	89.55	1.16	1.05	1.16
22.50	2.93	3.51	0.58	28.27	89.61	1.17	1.05	1.16
24.00	2.87	3.62	0.75	27.84	89.77	1.18	1.05	1.17
25.50	2.85	3.70	0.86	27.38	89.94	1.19	1.05	1.18
27.00	2.85	3.74	0.89	26.98	90.19	1.20	1.06	1.18
28.40	2.89	3.75	0.87	26.55	90.32	1.21	1.06	1.19
29.20	2.94	3.73	0.79	26.31	90.50	1.21	1.06	1.20
29.60	2.97	3.72	0.75	26.18	90.61	1.22	1.06	1.20
30.00	2.99	3.70	0.70	26.05	90.72	1.22	1.07	1.21

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



### electrical schematic

