Surface Mount

Power Splitter/Combiner

JYPQ-16

2 Way-90° 50Ω 10 to 16 MHz

Generic photo used for illustration purposes only

CASE STYLE: BJ293

Maximum Ratings

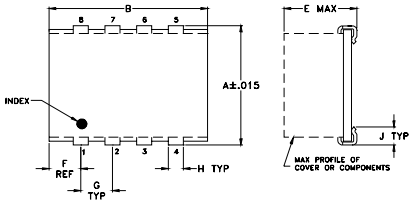
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

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

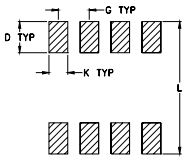
Pin Connections

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



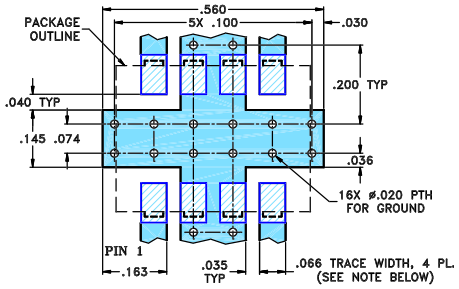
Suggested Layout,
Tolerance to be within ±.002

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:
1. 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.
2. 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

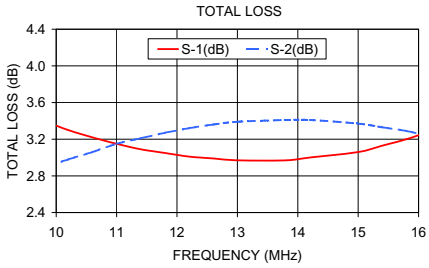
Electrical Specifications

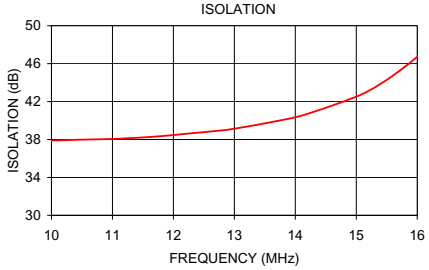
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L-f_U	Typ.	Min.	Typ.	Max.	Max.	Max.
10-16	43	25	0.2	0.6	4	0.9

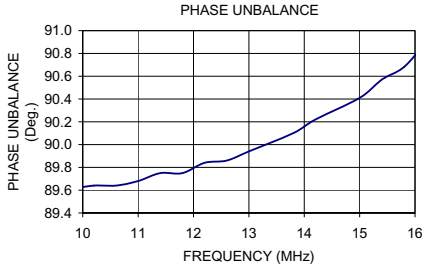
Typical Performance Data

Frequency (MHz)	Total Loss[1] (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

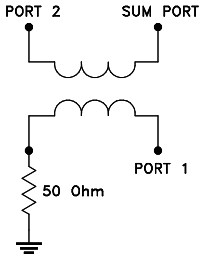
1. Total Loss = Insertion Loss + 3dB splitter loss.







electrical schematic



Notes

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