Surface Mount

Power Splitter/Combiner

JYPQ-160

2 Way-90° 50Ω 105 to 160 MHz

Generic photo used for illustration purposes only

CASE STYLE: BJ293

Maximum Ratings

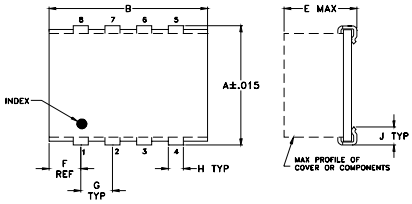
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

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

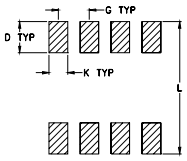
Pin Connections

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



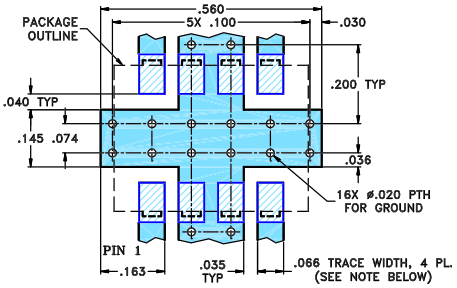
Suggested Layout,
Tolerance to be within ±.002

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, 0.25 dB typ.
- good isolation, 24 dB typ.

Applications

- VHF
- signal processing
- modulators
- image rejection mixers

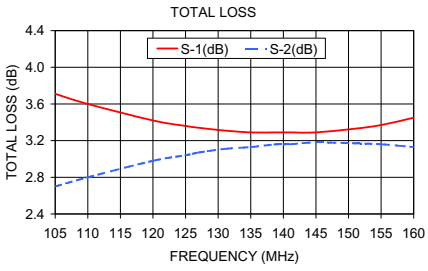
Electrical Specifications

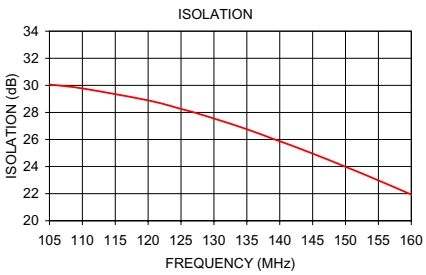
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L-f_U	Typ.	Min.	Typ.	Max.	Max.	Max.
105-160	24	17	0.25	0.6	3	1.5

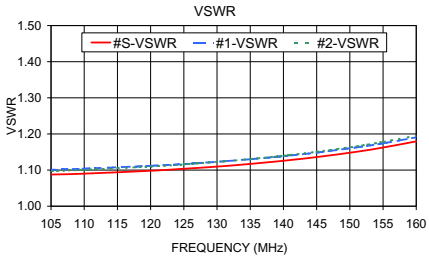
Typical Performance Data

Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
105.00	3.71	2.70	1.01	30.06	89.85	1.088	1.101	1.097
110.00	3.60	2.80	0.79	29.77	89.92	1.090	1.104	1.101
120.00	3.42	2.98	0.45	28.89	90.09	1.098	1.112	1.110
125.00	3.36	3.04	0.32	28.26	90.15	1.104	1.117	1.116
127.00	3.34	3.07	0.28	28.00	90.22	1.106	1.119	1.118
131.00	3.31	3.11	0.20	27.40	90.29	1.111	1.124	1.124
135.00	3.29	3.13	0.16	26.76	90.36	1.117	1.130	1.131
139.00	3.29	3.16	0.12	26.05	90.49	1.124	1.137	1.138
141.00	3.29	3.16	0.12	25.70	90.54	1.128	1.140	1.142
145.00	3.29	3.18	0.12	24.96	90.68	1.136	1.148	1.151
151.00	3.33	3.17	0.16	23.79	90.89	1.151	1.163	1.166
155.00	3.37	3.16	0.21	22.98	91.12	1.162	1.174	1.178
160.00	3.45	3.13	0.32	21.94	91.37	1.179	1.191	1.195

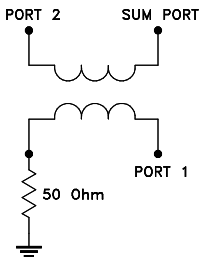
1. Total Loss = Insertion Loss + 3dB splitter loss.







electrical schematic



Notes

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