

Surface Mount Power Splitter/Combiner

JYPQ-160+ JYPQ-160

2 Way-90° 50Ω 105 to 160 MHz



CASE STYLE: BJ293

+RoHS Compliant

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



Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500

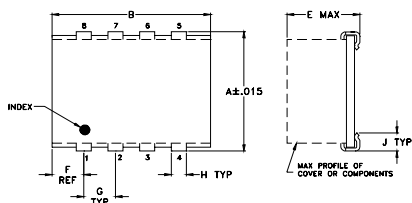
Maximum Ratings

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.	

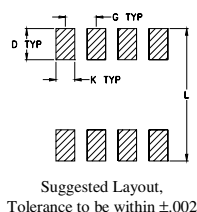
Pin Connections

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

Outline Drawing



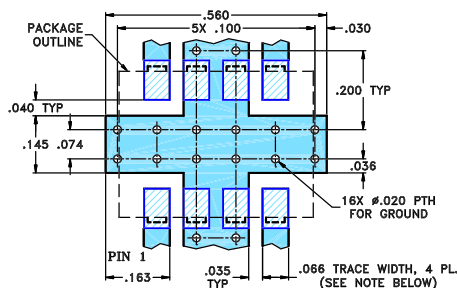
PCB Land Pattern



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

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

Features

- low insertion loss, 0.25 dB typ.
- good isolation, 24 dB typ.

Applications

- VHF
- signal processing
- modulators
- image rejection mixers

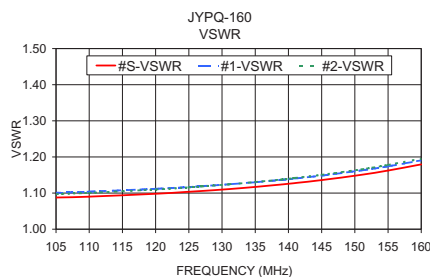
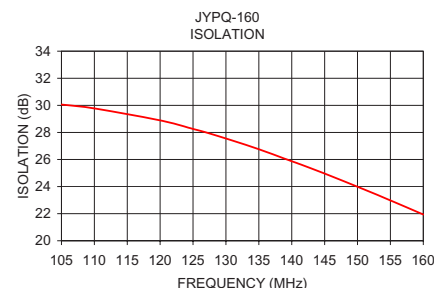
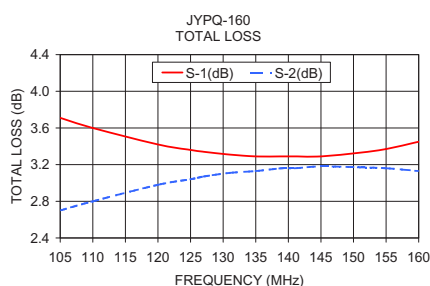
Electrical Specifications

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

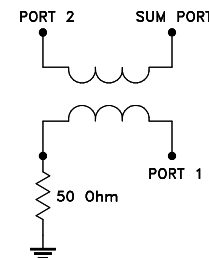
Typical Performance Data

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



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