

Surface Mount Power Splitter/Combiner

HPQ-11+
HPQ-11

2 Way-90° 50Ω 980 to 1070 MHz



CASE STYLE: AT577

PRICE: Contact Sales Dept.

+RoHS Compliant

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

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

Features

- low insertion loss, 0.25 dB typ.
- good isolation, 22 dB typ.
- excellent input VSWR, 1.25:1 typ.;
- output VSWR, 1.17 typ.
- aqueous washable

Applications

- cellular
- modulators
- balanced amplifiers

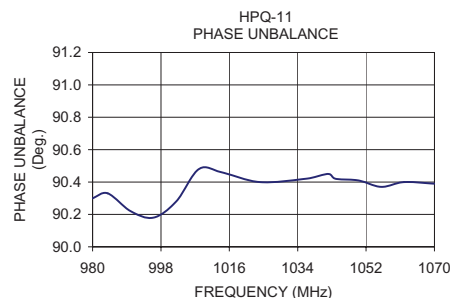
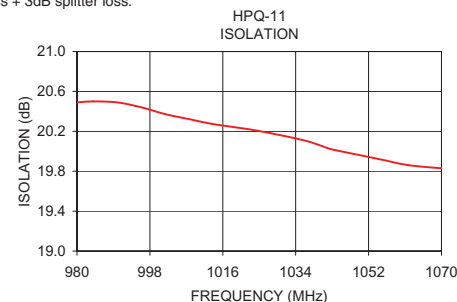
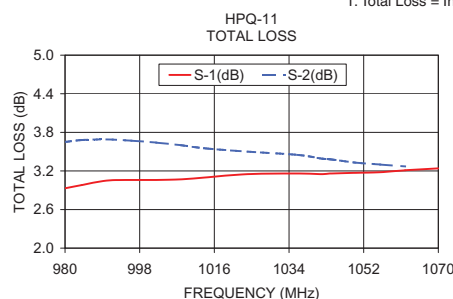
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)
f_L - f_U	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	S-Port Typ. Output Typ.
980-1070	23 18	0.25 0.5	0.5 3.5	0.4 1.2	1.17 1.17

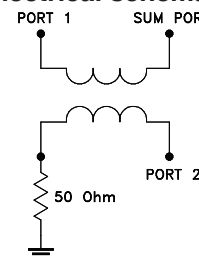
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1 S-2						
980.00	2.93 3.65	0.72	20.49	90.30	1.24	1.16	1.21
984.00	2.98 3.68	0.70	20.50	90.33	1.24	1.16	1.21
990.00	3.05 3.69	0.64	20.49	90.22	1.24	1.16	1.22
996.00	3.06 3.67	0.60	20.44	90.18	1.24	1.17	1.22
1002.00	3.06 3.64	0.58	20.37	90.28	1.24	1.17	1.22
1008.00	3.07 3.60	0.53	20.32	90.48	1.24	1.17	1.22
1014.00	3.10 3.55	0.45	20.27	90.46	1.25	1.17	1.22
1024.00	3.15 3.50	0.35	20.21	90.40	1.25	1.17	1.23
1036.00	3.16 3.45	0.29	20.11	90.42	1.25	1.18	1.23
1042.00	3.15 3.39	0.23	20.03	90.45	1.26	1.18	1.23
1044.00	3.16 3.38	0.22	20.01	90.42	1.26	1.18	1.23
1050.00	3.17 3.33	0.16	19.96	90.41	1.26	1.18	1.23
1056.00	3.18 3.30	0.13	19.91	90.37	1.26	1.18	1.23
1062.00	3.21 3.27	0.06	19.86	90.40	1.26	1.18	1.24
1070.00	3.24 3.25	0.01	19.83	90.39	1.26	1.18	1.24

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



electrical schematic



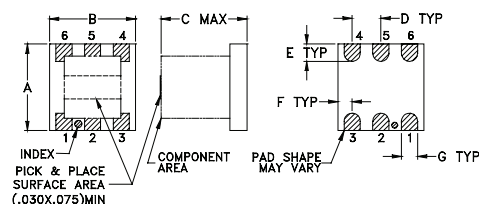
For detailed performance specs & shopping online see web site

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IFIRF MICROWAVE COMPONENTS

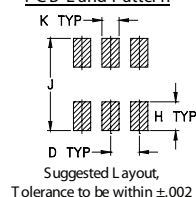
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits 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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

REV. C
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ED-7075
RVN/TD/CP/AM
130313

Outline Drawing



PCB Land Pattern

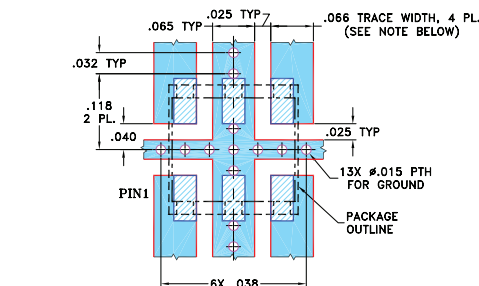


Outline Dimensions (inch)

A	B	C	D	E	F
.200	.200	.200	.075	.050	.025
5.08	5.08	5.08	1.91	1.27	0.64
G	H	J	K	wt	
.026	.070	.220	.035	grams	
0.66	1.78	5.59	0.89	0.15	

Demo Board MCL P/N: TB-43

Suggested PCB Layout (PL-114)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B 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 WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK