

# Surface Mount Power Splitter/Combiner

## HPQ-15W+ HPQ-15W

2 Way-90° 50Ω 1240 to 1460 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

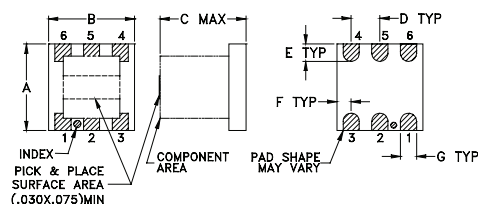
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

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

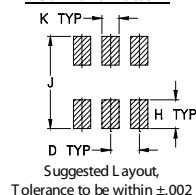
### Pin Connections

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

### Outline Drawing



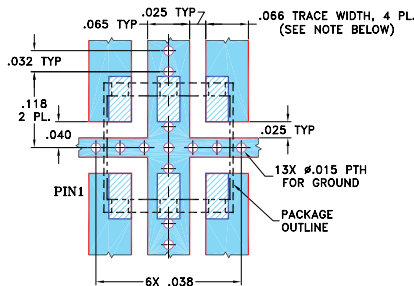
### PCB Land Pattern



### Outline Dimensions (inch/mm)

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

### Features

- low insertion loss, 0.3 dB typ.
- excellent input & output VSWR, 1.2:1 typ.
- aqueous washable

### Applications

- satellite distribution
- modulators
- balanced amplifiers

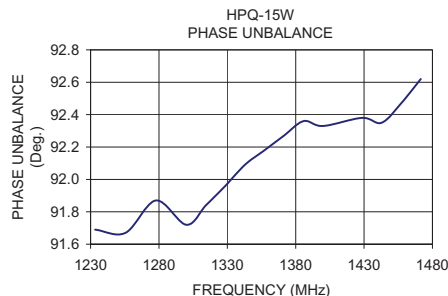
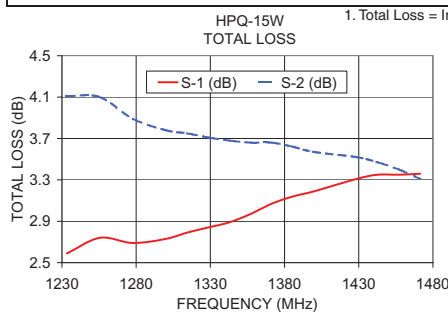
### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		VSWR (:1)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	S-Port Typ.	Output Typ.
f <sub>L</sub> -f <sub>U</sub>										
1240-1460	19	15	0.3	0.6	1.8	5.0	0.8	1.6	1.22	1.22

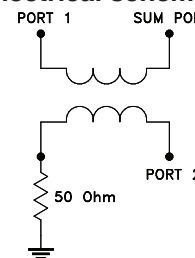
### Typical Performance Data

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						
1233.33	2.59	4.11	1.51	17.61	91.69	1.20	1.21	1.26
1255.55	2.74	4.10	1.36	17.51	91.67	1.21	1.22	1.26
1277.77	2.69	3.89	1.20	17.26	91.87	1.22	1.23	1.27
1300.00	2.73	3.78	1.05	17.10	91.72	1.23	1.23	1.28
1314.28	2.79	3.75	0.96	17.03	91.84	1.23	1.24	1.28
1328.57	2.84	3.71	0.87	16.94	91.96	1.24	1.25	1.29
1342.85	2.89	3.68	0.79	16.85	92.09	1.24	1.25	1.29
1357.14	2.97	3.66	0.69	16.79	92.18	1.25	1.26	1.29
1371.42	3.07	3.66	0.59	16.75	92.27	1.26	1.27	1.30
1385.71	3.14	3.62	0.48	16.68	92.36	1.27	1.28	1.31
1400.00	3.19	3.57	0.38	16.60	92.33	1.28	1.29	1.31
1428.57	3.31	3.52	0.21	16.49	92.38	1.30	1.31	1.33
1442.85	3.35	3.47	0.12	16.40	92.35	1.31	1.31	1.33
1457.14	3.35	3.40	0.05	16.28	92.47	1.32	1.32	1.33
1471.42	3.36	3.31	0.04	16.17	92.62	1.32	1.33	1.34

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



### electrical schematic



For detailed performance specs & shopping online see web site

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