

Surface Mount Power Splitter/Combiner

2 Way-90° 50Ω 480 to 600 MHz

HPQ-06W+
HPQ-06W



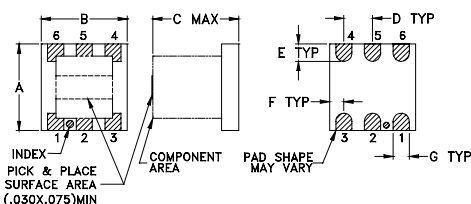
Maximum Ratings

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

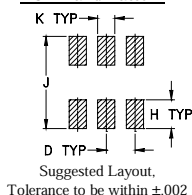
Pin Connections

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

Outline Drawing



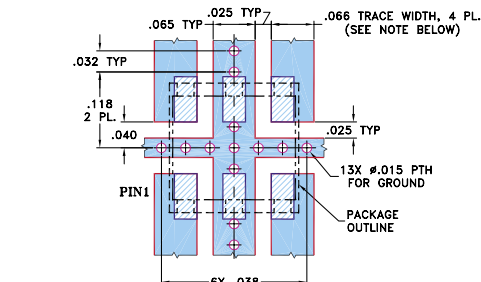
PCB Land Pattern



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 RO4350B 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion loss, 0.2 dB typ.
- good isolation, 26 dB typ.
- aqueous washable

Applications

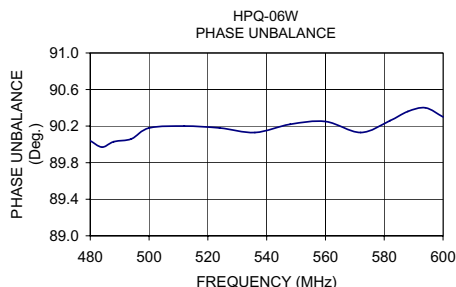
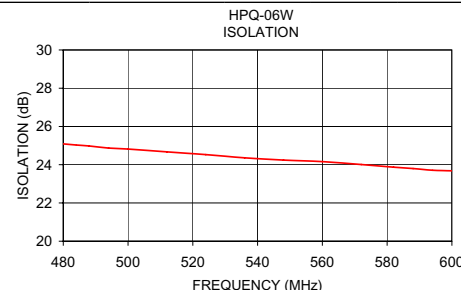
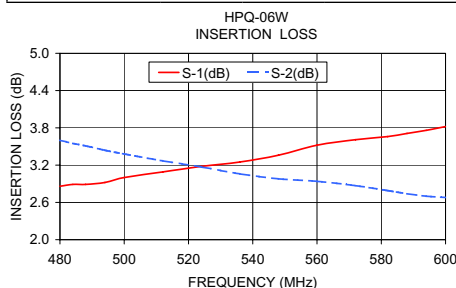
- UHF
- image reject mixers
- modulators

Electrical Specifications

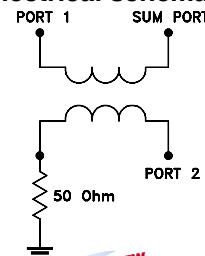
FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of Coupled Outputs less 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)
f_L - f_U	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	S-Port Typ. Output Typ.
480-600	26 18	0.2 0.4	0.6 3.0	0.9 1.6	1.10 1.12

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2					
480.00	2.86	3.60	0.74	25.09	90.04	1.13	1.11
484.00	2.89	3.55	0.67	25.03	89.97	1.13	1.11
488.00	2.89	3.51	0.62	24.98	90.03	1.13	1.12
494.00	2.92	3.44	0.51	24.87	90.06	1.14	1.12
500.00	3.00	3.38	0.39	24.82	90.18	1.14	1.12
512.00	3.09	3.27	0.19	24.67	90.20	1.14	1.12
524.00	3.18	3.17	0.00	24.53	90.18	1.14	1.13
536.00	3.25	3.06	0.19	24.36	90.13	1.15	1.13
548.00	3.36	2.98	0.38	24.24	90.22	1.15	1.13
560.00	3.52	2.94	0.58	24.16	90.25	1.16	1.14
572.00	3.61	2.87	0.74	24.01	90.13	1.16	1.14
582.00	3.66	2.79	0.87	23.87	90.26	1.16	1.14
588.00	3.71	2.74	0.97	23.80	90.36	1.16	1.14
594.00	3.76	2.70	1.06	23.71	90.40	1.17	1.15
600.00	3.82	2.68	1.14	23.68	90.30	1.17	1.15



electrical schematic



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