

Surface Mount Power Splitter/Combiner

HPQ-08+ HPQ-08

2 Way-90° 50Ω 680 to 790 MHz



Maximum Ratings

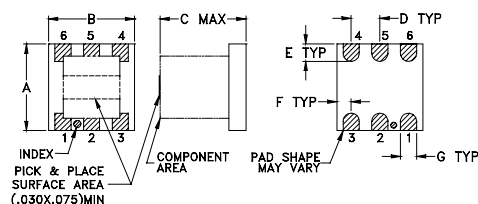
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

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

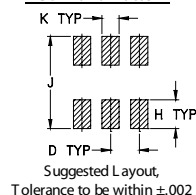
Pin Connections

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

Outline Drawing



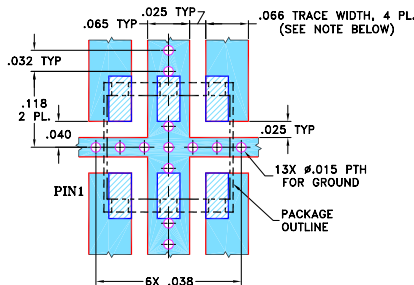
PCB Land Pattern



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:**
- 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.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
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Features

- low insertion loss, 0.25 dB typ.
- good isolation, 24 dB typ.
- excellent input VSWR, 1.1:1 typ.; output VSWR, 1.2:1 typ.
- aqueous washable

Applications

- UHF
- balanced amplifiers
- modulators

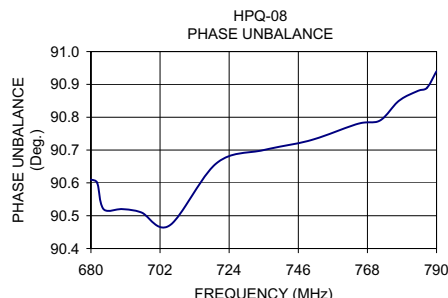
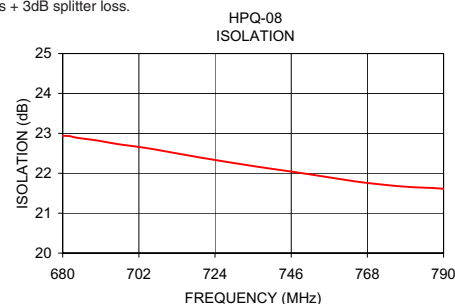
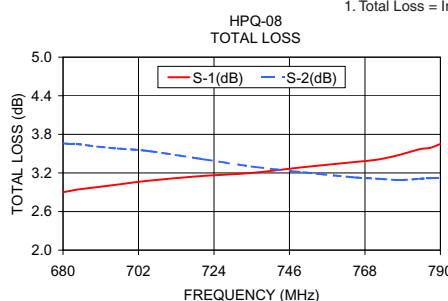
Electrical Specifications

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 _L -f _U	24	18	0.25	0.4	0.8	3.0	0.6	1.6	1.10	1.20

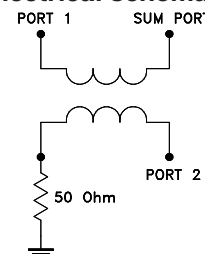
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
680.00	2.90	3.66	0.76	22.94	90.61	1.19	1.17	1.15
682.00	2.92	3.65	0.73	22.93	90.60	1.20	1.17	1.15
684.00	2.94	3.65	0.71	22.89	90.52	1.20	1.17	1.15
690.00	2.98	3.61	0.62	22.82	90.52	1.20	1.17	1.15
696.00	3.02	3.58	0.56	22.73	90.51	1.20	1.17	1.15
705.00	3.08	3.54	0.45	22.62	90.47	1.20	1.17	1.15
720.00	3.15	3.42	0.27	22.39	90.66	1.20	1.17	1.16
735.00	3.20	3.30	0.10	22.18	90.70	1.21	1.18	1.16
750.00	3.29	3.21	0.08	21.99	90.73	1.21	1.18	1.16
765.00	3.37	3.13	0.24	21.79	90.78	1.22	1.18	1.16
772.00	3.41	3.11	0.29	21.72	90.79	1.22	1.19	1.17
778.00	3.48	3.09	0.39	21.67	90.85	1.22	1.19	1.17
784.00	3.57	3.11	0.46	21.64	90.88	1.22	1.19	1.17
787.00	3.59	3.12	0.47	21.63	90.89	1.22	1.19	1.17
790.00	3.65	3.12	0.53	21.61	90.94	1.22	1.19	1.17

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



electrical schematic



For detailed performance specs & shopping online see web site



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