

Surface Mount

Power Splitter/Combiner

AD6PS-1+

6 Way-0° 50Ω 2 to 250 MHz

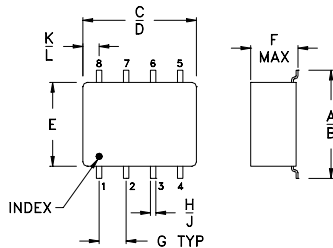
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.5W max.
Permanent damage may occur if any of these limits are exceeded.	

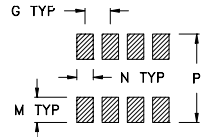
Pin Connections

SUM PORT	1
PORT 1	8
PORT 2	7
PORT 3	6
PORT 4	5
PORT 5	4
PORT 6	3
GROUND	2

Outline Drawing



PCB Land Pattern

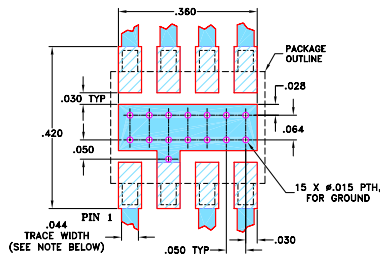


Suggested Layout,
Tolerance to be within ±0.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	
.345	.400	.385	.435	.310	.215	.100	
8.76	10.16	9.78	11.05	7.87	5.46	2.54	
H	J	K	L	M	N	P	wt
.015	.025	.035	.075	.120	.060	.420	grams
0.38	0.64	0.89	1.91	3.05	1.52	10.67	0.45

Demo Board MCL P/N: TB-84 Suggested PCB Layout (PL-089)



NOTE: TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015", COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wideband, 2 to 250 MHz
- high isolation, 30 dB typ.
- good input port matching VSWR, 1.20 typ.
- good output port matching VSWR, 1.10 typ.
- small surface mount package

Applications

- VHF-TV

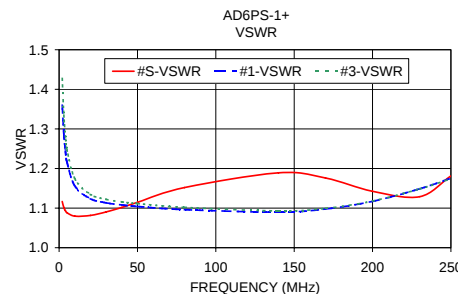
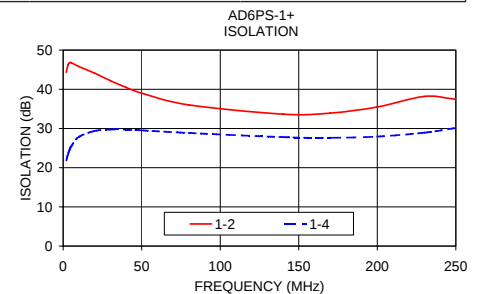
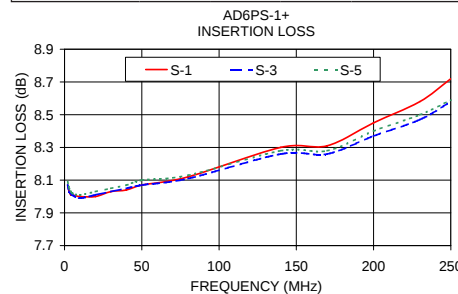
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 7.8 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L	M	U	L	M	U	L	M	U	L	M	U
f _L -f _U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Max.	Max.	Max.	Max.	Max.	Max.
2-250	35	17	30	20	27	20	0.2	0.6	0.2	1.0	0.6	1.5
	2	6	9	0.3	0.4	0.6						

L = 2-20 MHz M = 20-125 MHz U = 125-250 MHz

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)			Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbal. (deg.)	VSWR S	VSWR OUTPUTS
	S-1	S-3	S-5		Adjacent	Opposite			
2.00	8.07	8.07	8.09	0.02	44.32	21.86	0.17	1.12	1.43
3.00	8.03	8.03	8.05	0.02	46.13	23.38	0.15	1.10	1.33
4.00	8.01	8.02	8.03	0.02	46.77	24.50	0.14	1.09	1.28
5.00	8.01	8.01	8.02	0.01	46.81	25.38	0.22	1.09	1.25
10.00	8.00	7.99	8.01	0.02	45.82	27.85	0.32	1.08	1.17
20.00	8.00	8.01	8.03	0.03	44.12	29.38	0.52	1.08	1.13
30.00	8.03	8.03	8.05	0.02	42.21	29.73	0.80	1.09	1.12
40.00	8.04	8.05	8.07	0.03	40.48	29.69	0.98	1.10	1.12
50.00	8.07	8.07	8.10	0.03	39.00	29.54	1.28	1.11	1.11
80.00	8.12	8.11	8.13	0.03	36.01	28.87	2.03	1.15	1.10
140.00	8.30	8.26	8.28	0.04	33.66	27.80	3.30	1.19	1.09
170.00	8.31	8.26	8.28	0.06	33.93	27.65	3.95	1.18	1.10
200.00	8.45	8.37	8.40	0.08	35.49	27.95	4.50	1.14	1.12
230.00	8.58	8.47	8.50	0.11	38.19	28.94	4.94	1.13	1.15
250.00	8.72	8.58	8.59	0.17	37.43	30.14	5.29	1.18	1.17



electrical schematic



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