



SURFACE MOUNT

Power Splitter/Combiner

AD6PS-1+

Mini-Circuits

6 Way-0° 50Ω 2 to 250 MHz

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 size



Generic photo used for illustration purposes only

CASE STYLE: CJ725

+RoHS Compliant

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

APPLICATIONS

- VHF-TV
- Aircraft Communications

ELECTRICAL SPECIFICATIONS

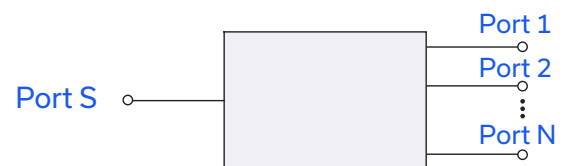
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range	—	2	—	250	MHz
Insertion Loss above 7.8 dB	2 - 20	—	0.2	0.6	dB
	20 - 125	—	0.2	1.0	
	125 - 250	—	0.6	1.5	
Isolation	2 - 20	17	35	—	dB
	20 - 125	20	30	—	
	125 - 250	20	27	—	
Phase Unbalance	2 - 20	—	—	2	Degree
	20 - 125	—	—	6	
	125 - 250	—	—	9	
Amplitude Unbalance	2 - 20	—	—	0.3	dB
	20 - 125	—	—	0.4	
	125 - 250	—	—	0.6	

ABSOLUTE MAXIMUM RATINGS

Parameter	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.

ELECTRICAL SCHEMATIC



REV. L
ECO-019621
AD6PS-1+
MCL NY
231012





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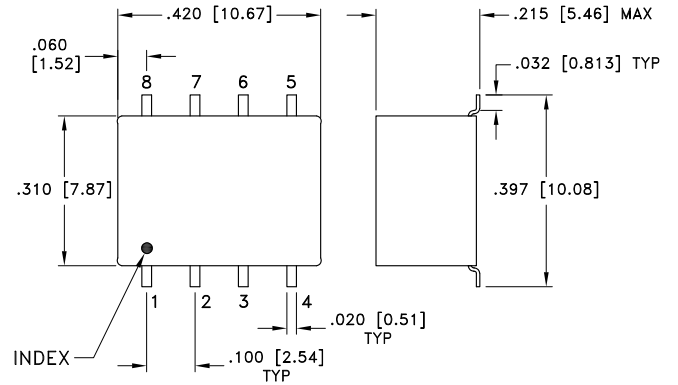
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PIN CONNECTIONS

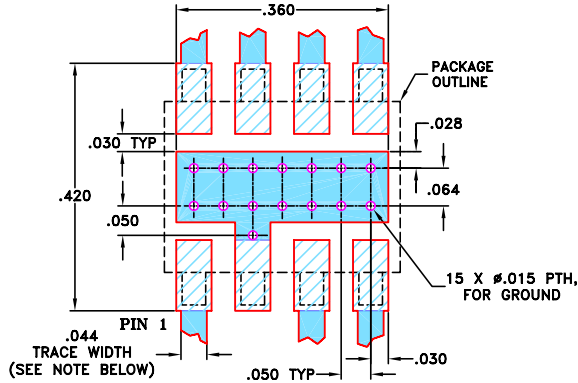
SUM PORT	1
PORT 1	8
PORT 2	7
PORT 3	6
PORT 4	5
PORT 5	4
PORT 6	3
GROUND	2

OUTLINE DRAWING



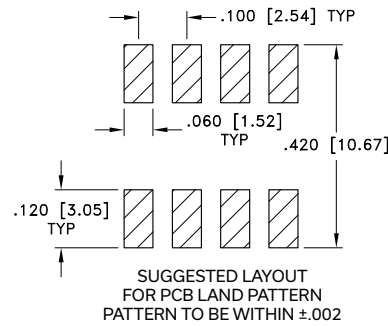
PRODUCT MARKING: N/A

DEMO BOARD MCL P/N: TB-84
SUGGESTED PCB LAYOUT (PL-089)



NOTE: TRACE WIDTH IS SHOWN FOR ROGERS R04350 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



METALLIZATION

Weight: .40 gram
Dimensions are in inches [mm]. Tolerances: 2 Pl. ±.01; 3Pl. ±.005 Inch

- Notes:
1. Case material: Plastic.
 2. Termination Finish: Tin plate over Nickel plate.

TAPE & REEL INFORMATION: F10



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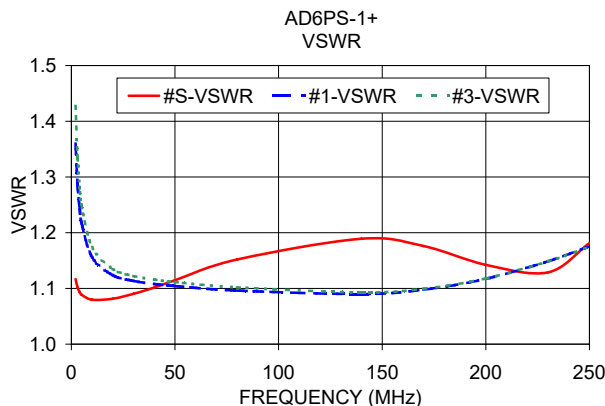
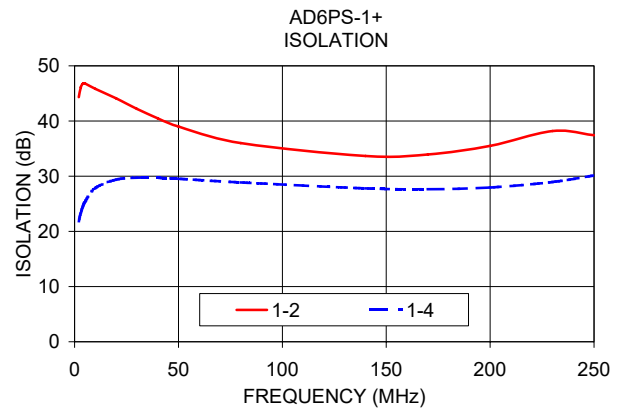
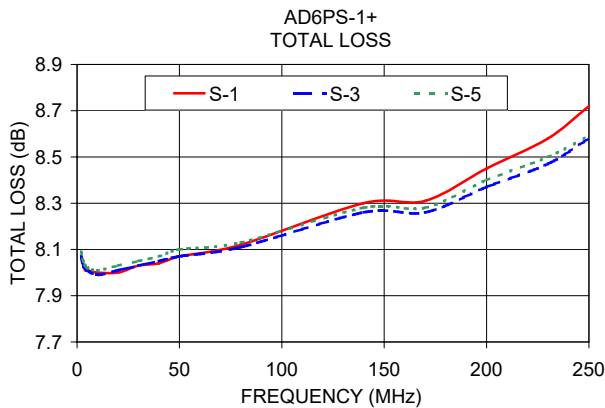
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TYPICAL PERFORMANCE DATA

Frequency (MHz)	Total Loss ¹ (dB)			Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (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

1. Total Loss = Insertion Loss + 7.8dB splitter loss.



- NOTES**
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 - B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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