

Power Splitter/Combiner

HT-AD4PS-1+



4 Way-0° 50Ω 1 to 500 MHz

electrical schematic



Features

- wideband, 1-500 MHz
- high isolation, 30 dB typ.
- good input port matching VSWR, 1.12 typ.
- good output port matching VSWR, 1.10 typ.
- small surface mount package

Applications

- VHF-TV
- aircraft communications

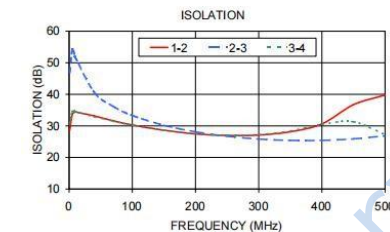
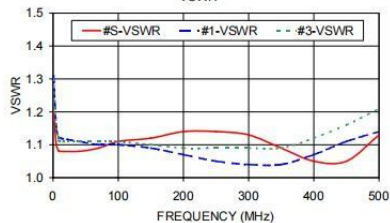
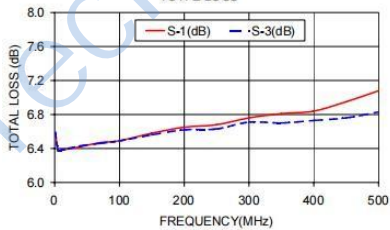
Transformer Electrical Specifications

Freq. range (MHz)	Isolation(dB)		Insertion Loss (dB) Above 6.0 dB.		Phase Unbalance (Degrees)		Amplitude Unbalance (dB)	
	min	max	min	max	min	Max.	min	Max.
1-500	18	32	0.4	1.8	2	7	0.4	0.8

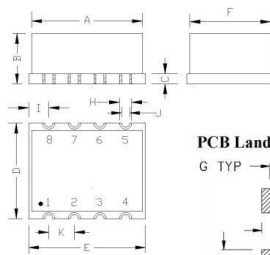
Typical Performance Data (TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Freq.(M Hz)	Total Loss (dB)			Amp. Unbal. (dB)	Isolation(dB)			Phase Unbal. (deg.)	VSWRS			
	S-1	S-2	S-3		1-2	2-3	3-4		S	1	2	3
1	6.59	6.59	6.59	0.01	28.61	46.82	30.70	0.02	1.20	1.31	1.31	1.30
5	6.38	6.42	6.38	0.04	33.63	54.15	34.52	0.05	1.10	1.15	1.15	1.15
9	6.37	6.42	6.37	0.05	34.35	52.09	34.63	0.08	1.08	1.12	1.12	1.12
10	6.38	6.42	6.38	0.04	34.41	51.62	34.60	0.09	1.08	1.12	1.12	1.11
40	6.42	6.47	6.43	0.04	33.14	40.57	32.89	0.28	1.08	1.11	1.11	1.11
70	6.47	6.50	6.46	0.04	31.60	36.15	31.47	0.52	1.09	1.10	1.11	1.11
100	6.49	6.53	6.49	0.04	30.28	33.28	30.23	0.71	1.11	1.10	1.10	1.11
150	6.58	6.61	6.56	0.05	28.63	30.21	28.64	1.04	1.12	1.09	1.10	1.10
200	6.65	6.68	6.62	0.05	27.48	28.12	27.52	1.47	1.14	1.07	1.08	1.09
250	6.68	6.71	6.63	0.09	26.98	26.73	27.02	1.66	1.14	1.05	1.07	1.09
300	6.76	6.80	6.71	0.10	27.10	25.83	27.23	1.99	1.13	1.04	1.06	1.09
350	6.81	6.83	6.70	0.15	28.13	25.41	28.36	2.08	1.09	1.04	1.06	1.09
400	6.84	6.90	6.73	0.21	30.62	25.41	30.49	2.21	1.05	1.07	1.08	1.12
450	6.95	6.98	6.76	0.26	36.71	25.89	31.30	2.54	1.05	1.11	1.11	1.16
500	7.08	7.15	6.83	0.38	39.78	26.85	27.20	3.34	1.13	1.14	1.15	1.21

TOTAL LOSS



Outline Drawing



PCB Land Pattern

Suggested Layout,
Tolerance to be within ±0.2

Outline Dimensions: Unit (mm)

A	10.00	G	2.54
B	5.00	H	1.21
C	1.00	I	2.00
D	9.5	J	0.80
E	10.10	K	2.54
F	8.00	M	2.0
N	1.52	P	10.67

Pin Connections

SUM PORT	2 (input)
PORT 1	8 (output1)
PORT 2	7 (output2)
PORT 3	6 (output3)
PORT 4	5 (output3)
GROUND	1, 3, 4

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5 W max.
Internal Dissipation	0.25W max.
Permanent damage may occur if any of these limits are exceeded.	