

Coaxial

# Power Splitter/Combiner

**ZN8PD1-53+**

8 Way-0° 50Ω 500 to 5000 MHz

### Maximum Ratings

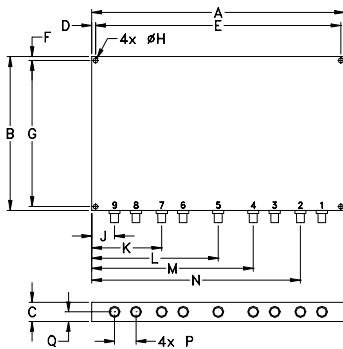
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	1.5W max.

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

### Coaxial Connections

SUM PORT	5
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4
PORT 5	6
PORT 6	7
PORT 7	8
PORT 8	9

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
8.25	5.00	.63	.13	8.000	.13	4.750	.156
209.55	127.00	16.00	3.30	203.20	3.30	120.65	3.96
J	K	L	M	N	P	Q	wt
.74	2.28	4.13	5.27	6.81	.70	.31	grams
18.80	57.91	104.90	133.86	172.97	17.78	7.87	720

### Features

- wideband, 500 to 5000 MHz
- high isolation, 20 dB typ.
- good input matching VSWR, 1.3:1 typ.
- good output matching VSWR, 1.2:1 typ.
- up to 10W power input as splitter

### Applications

- UHF TV
- cellular/ISM/GSM
- satellite distribution
- GPS/L-BAND (MARSAT)
- PCS/DCS/UMTS
- ISM
- MMDS
- SATCOM
- WiMax

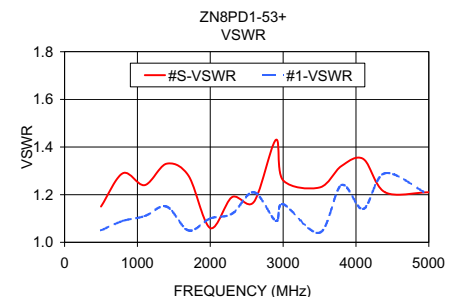
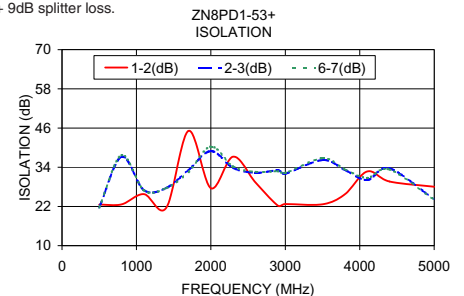
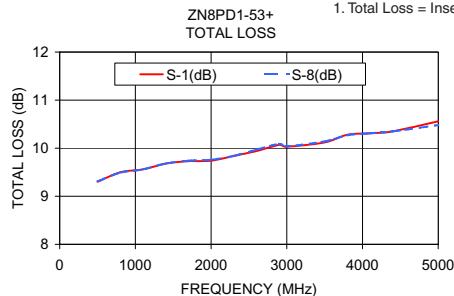
### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 9.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
	Typ.	Min.	Typ.	Max.	Max.	Max.	S Typ.	OUT Typ.
f <sub>L</sub> -f <sub>H</sub>								
500-5000	20	17	1.5	2.0	14	0.5	1.3	1.2

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)						Amplitude Unbalance (dB)	Isolation (dB)				Phase Unbalance (deg.)	VSWR		
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	2-3	3-4	6-7		S	1	8
500.00	9.30	9.29	9.30	9.29	9.30	9.31	0.03	22.56	21.73	22.47	21.69	0.80	1.15	1.05	1.05
800.00	9.50	9.50	9.51	9.51	9.51	9.49	0.02	22.64	37.22	23.18	37.67	1.27	1.29	1.09	1.09
1100.00	9.56	9.56	9.61	9.60	9.61	9.56	0.05	25.77	27.00	24.91	26.95	1.63	1.24	1.11	1.11
1400.00	9.68	9.69	9.67	9.66	9.66	9.68	0.06	21.57	27.65	22.52	27.60	1.96	1.33	1.15	1.15
1700.00	9.73	9.75	9.75	9.72	9.75	9.74	0.05	45.12	33.15	33.94	32.54	2.06	1.28	1.05	1.06
2000.00	9.74	9.75	9.76	9.73	9.76	9.76	0.04	27.61	38.94	26.96	40.33	3.01	1.06	1.10	1.11
2300.00	9.84	9.85	9.91	9.89	9.90	9.84	0.09	37.25	33.82	27.17	34.21	3.29	1.19	1.12	1.11
2600.00	9.94	9.94	9.92	9.89	9.92	9.97	0.08	29.34	32.30	31.94	32.62	3.43	1.17	1.21	1.22
2900.00	10.07	10.05	10.14	10.10	10.13	10.09	0.09	22.25	33.06	20.62	32.79	3.49	1.43	1.09	1.11
3000.00	10.03	10.02	10.07	10.04	10.06	10.04	0.05	22.73	32.06	22.17	32.25	4.17	1.26	1.16	1.18
3500.00	10.12	10.10	10.09	10.07	10.08	10.14	0.08	22.67	36.22	23.83	36.77	4.48	1.23	1.04	1.07
3800.00	10.28	10.25	10.17	10.14	10.18	10.27	0.14	25.72	33.18	29.50	33.37	4.85	1.32	1.24	1.21
4100.00	10.31	10.29	10.33	10.28	10.31	10.31	0.06	32.70	30.12	34.08	30.77	5.81	1.35	1.14	1.12
4400.00	10.35	10.32	10.36	10.33	10.36	10.35	0.06	29.63	33.66	26.58	33.31	5.74	1.21	1.29	1.23
5000.00	10.56	10.42	10.58	10.54	10.57	10.48	0.16	28.03	24.18	21.35	24.12	5.76	1.21	1.20	1.15

1. Total Loss = Insertion Loss + 9dB splitter loss.



### electrical schematic



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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