

Power Splitter/Combiner

8 Way-0° 50Ω 1800 to 6400 MHz

ZN8PD-642W+



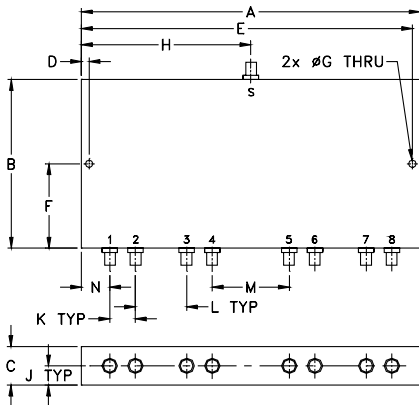
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.875W max.
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S(COM)
PORT 1,2,3,.....,8	1,2,3,.....,8

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
6.60	3.28	.75	.150	6.45	1.64	.144
167.64	83.31	19.05	3.81	163.83	41.66	3.66
H	J	K	L	M	N	wt
3.30	.38	.500	1.000	1.500	0.550	grams
83.82	9.65	12.70	25.4	38.1	13.97	360

electrical schematic



Features

- wideband, 1800 to 6400 MHz
- low insertion loss, 1.5 dB typ.
- low amplitude unbalance, 0.2 dB typ.
- excellent output VSWR, 1.15:1 typ.
- DC PASS from sum port to output ports

Applications

- high band PCS
- UNII
- WIMAX
- WiFi
- bluetooth

Electrical Specifications at 25°C

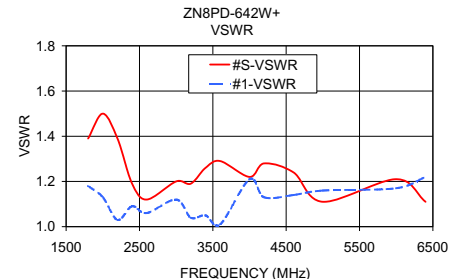
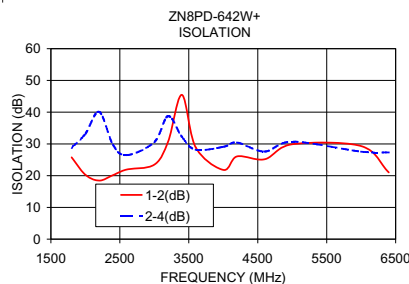
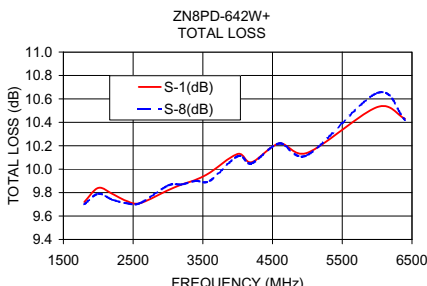
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		1800		6400	MHz
Insertion Loss (above theoretical 9.0 dB)	1800-3200 3200-6400	— —	0.9 1.5	1.4 2.3	dB
Isolation	1800-3200 3200-6400	15 18	20 25	— —	dB
Phase Unbalance	1800-3200 3200-6400	— —	2 5	8 12	Degree
Amplitude Unbalance	1800-3200 3200-6400	— —	0.15 0.30	0.5 0.7	dB
VSWR (Port S)	1800-3200 3200-6400	— —	1.4 1.2	— —	:1
VSWR (Port 1-8)	1800-3200 3200-6400	— —	1.15 1.15	— —	:1

1. Over -55°C to +55°C. Derate linearly to 20% of rating at 100°C

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)						Amp. Unb. (dB)	Isolation (dB)				Phase Unb. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-3	3-4	5-6				
1800.00	9.72	9.67	9.66	9.64	9.77	9.70	0.16	25.78	28.68	26.43	24.46	1.73	1.39	1.18	1.19
2000.00	9.84	9.80	9.83	9.81	9.92	9.79	0.13	20.29	33.24	20.60	19.95	1.89	1.50	1.13	1.15
2200.00	9.79	9.77	9.74	9.72	9.81	9.74	0.14	18.45	40.43	18.75	18.57	1.44	1.39	1.03	1.09
2400.00	9.73	9.74	9.70	9.66	9.80	9.71	0.15	20.16	29.69	19.86	19.97	1.49	1.19	1.09	1.07
2600.00	9.71	9.75	9.73	9.71	9.83	9.71	0.12	21.93	26.40	21.99	22.22	1.40	1.12	1.06	1.04
3000.00	9.82	9.87	9.88	9.84	9.99	9.86	0.17	23.46	30.50	23.32	23.43	1.64	1.20	1.12	1.11
3200.00	9.87	9.90	9.90	9.86	9.99	9.87	0.13	30.75	38.89	28.89	29.31	2.00	1.19	1.04	1.07
3400.00	9.91	9.91	9.90	9.88	10.03	9.90	0.16	45.47	32.14	35.75	37.68	2.11	1.26	1.05	1.02
3600.00	9.97	9.97	9.95	9.96	10.03	9.90	0.13	28.90	28.38	27.91	28.25	2.21	1.29	1.01	1.03
4000.00	10.13	10.19	10.24	10.28	10.34	10.11	0.28	21.81	29.25	20.71	20.89	2.25	1.22	1.21	1.12
4200.00	10.06	10.14	10.15	10.13	10.23	10.05	0.20	26.07	30.25	24.95	23.54	2.48	1.28	1.13	1.07
4600.00	10.22	10.27	10.19	10.13	10.30	10.22	0.18	25.17	27.39	23.49	25.46	3.48	1.24	1.14	1.05
5000.00	10.14	10.17	10.16	10.12	10.35	10.12	0.24	29.89	30.66	32.53	29.80	4.17	1.11	1.16	1.11
6000.00	10.53	10.56	10.49	10.39	10.78	10.65	0.38	29.32	27.33	29.76	29.12	5.23	1.21	1.17	1.15
6400.00	10.43	10.46	10.48	10.49	10.59	10.42	0.23	21.01	27.28	20.87	21.95	5.65	1.11	1.22	1.11

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



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