

DC Pass

# Power Splitter/Combiner

ZN4PD-642W-S+

4 Way-0° 50Ω 1600 to 6400 MHz

## Maximum Ratings

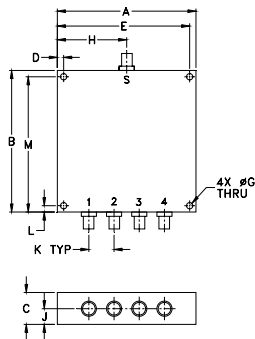
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	1.2W max.
DC Current (each port)	1A max.

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

## Coaxial Connections

SUMPORT	S
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4

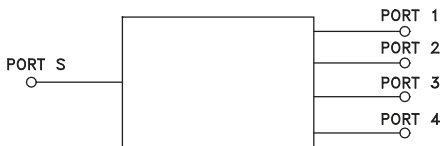
## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
2.75	2.80	.63	.125	2.625	—	.125
69.85	71.12	16.00	3.18	66.68	—	3.18
H	J	K	L	M	wt	
1.38	.31	.500	.125	2.675	grams	
35.05	7.87	12.70	3.18	67.95	140	

## Electrical Schematic



## Features

- wideband, 1600 to 6400 MHz
- low insertion loss, 1.0 dB typ.
- low amplitude unbalance, 0.1 dB typ.
- low phase unbalance, 2deg. typ.
- excellent output VSWR, 1.15:1 typ.
- DC Pass from sum port to all output ports

## Applications

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



Generic photo used for illustration purposes only

CASE STYLE: UU182

Connectors	Model
SMA	ZN4PD-642W-S+

**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

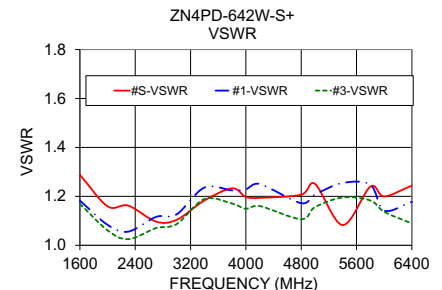
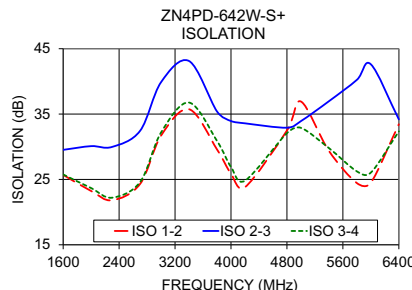
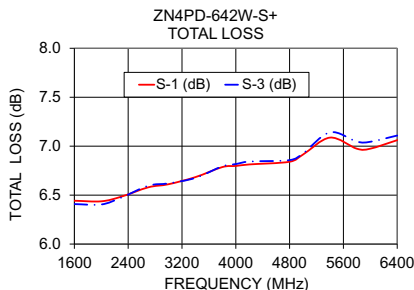
## Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		1600		6400	MHz
<b>Insertion Loss</b> (above theoretical 6.0 dB)	1600 - 4200 4200 - 6400	—	0.7 1.0	1.2 1.6	dB
<b>Isolation</b>	1600 - 4200 4200 - 6400	17 18	23 25	—	dB
<b>Phase Unbalance</b>	1600 - 4200 4200 - 6400	—	2 4	5 8	Degree
<b>Amplitude Unbalance</b>	1600 - 4200 4200 - 6400	—	0.1 0.2	0.4 0.7	dB
<b>VSWR (Port S)</b>	1600 - 4200 4200 - 6400	—	1.25 1.2	—	:1
<b>VSWR (Port 1-4)</b>	1600 - 4200 4200 - 6400	—	1.2 1.15	—	:1

## Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)				Amp. Unb. (dB)	Isolation (dB)			Phase Unb. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
1600	6.44	6.41	6.42	6.43	0.03	25.70	29.53	25.76	0.98	1.29	1.18	1.16	1.17	1.16
2000	6.44	6.40	6.42	6.43	0.03	23.23	30.09	23.68	1.19	1.16	1.08	1.06	1.06	1.06
2300	6.48	6.48	6.46	6.47	0.03	21.81	29.98	22.21	1.42	1.16	1.06	1.02	1.03	1.02
2700	6.58	6.60	6.57	6.56	0.03	24.31	32.44	24.60	1.45	1.10	1.12	1.06	1.07	1.07
3000	6.61	6.62	6.60	6.58	0.04	31.71	39.88	32.19	1.67	1.10	1.13	1.07	1.09	1.09
3400	6.68	6.68	6.66	6.64	0.04	35.74	43.12	36.76	1.99	1.18	1.24	1.17	1.19	1.18
3800	6.79	6.79	6.77	6.72	0.07	29.58	35.39	30.88	2.21	1.23	1.22	1.16	1.17	1.15
4000	6.80	6.82	6.78	6.74	0.08	25.87	33.94	26.91	2.25	1.20	1.23	1.15	1.15	1.14
4200	6.81	6.84	6.79	6.75	0.10	23.81	33.58	24.81	2.30	1.19	1.25	1.16	1.16	1.15
4800	6.84	6.86	6.86	6.81	0.05	32.49	32.91	32.09	2.57	1.21	1.17	1.07	1.11	1.10
5000	6.91	6.93	6.94	6.89	0.05	36.92	33.92	32.89	2.63	1.25	1.21	1.11	1.16	1.14
5400	7.09	7.14	7.12	7.07	0.07	29.36	36.97	29.80	3.02	1.08	1.25	1.17	1.20	1.18
5800	6.97	7.05	7.01	6.92	0.13	24.44	40.24	26.23	3.46	1.24	1.25	1.18	1.18	1.19
6000	6.97	7.04	7.02	6.95	0.10	24.50	42.61	26.05	3.78	1.20	1.14	1.14	1.14	1.15
6400	7.06	7.11	7.09	7.05	0.06	33.44	34.19	32.35	4.55	1.24	1.18	1.06	1.09	1.08

1. Total Loss = Insertion Loss + 6dB splitter loss.



### Notes

- 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.
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