High Power, DC Pass

Power Splitter/Combiner

ZN4PD1-63LW+

4 Way-0° 50Ω 30W 500 to 6000 MHz



CASE STYLE: UU846-5

Connectors	Model
SMA	ZN4PD1-63LW-S+

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

Maximum Ratings

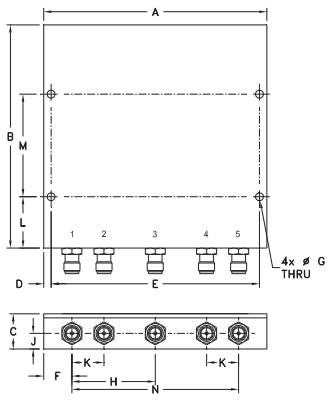
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
DC Current	1.0 A (250mA for each port)

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

Coaxial Connections

SUM PORT	3
PORT 1	1
PORT 2	2
PORT 3	4
PORT 4	5

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
3.48	3.48	.55	.115	3.250	.44	.125
88.39	88.39	13.97	2.92	82.55	11.18	3.18

H	J	K	L	M	N	wt
1.30	.24	.500	.80	1.0	2.6	grams
33.02	6.10	12.70	20.32	25.40	66.04	190

Features

- power handling up to 30 W
- wide frequency band, 500 to 6000 MHz
- very low insertion loss, 0.6 dB typ.
- low amplitude unbalance 0.15 dB typ.
- low phase unbalance 2 deg. typ.

Applications

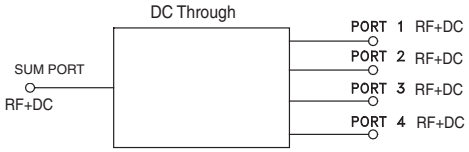
- ISM
- test and measurement
- lab
- LTE
- WiFi
- bluetooth

Electrical Specifications

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency			500		6000	**MHz**
Insertion Loss (above theoretical 6.0 dB)		500-3000 3000-6000	— —	0.4 0.6	0.9 1.2	**dB**
Isolation		500-600 600-6000	16 18	19 23	— —	**dB**
Phase Unbalance		500-6000	—	2	6	**Degree**
Amplitude Unbalance		500-6000	—	0.15	0.4	**dB**
VSWR (Port S)		500-600 600-6000	— —	1.3 1.25	1.5 1.4	**:1**
VSWR (Port 1-4)		500-6000	—	1.15	1.25	**:1**
Power Handling[3]	**As Splitter[1]**	500-6000	—	—	30	**W**
	As Combiner[2]	500-6000	—	—	0.5	

1. All outputs must terminate 50 ohm (VSWR 1.2:1 or better)
2. As a combiner of non-coherent signals, max. power is 0.5Watt per port.
3. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 60°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 10°C/W.

Electrical Schematic

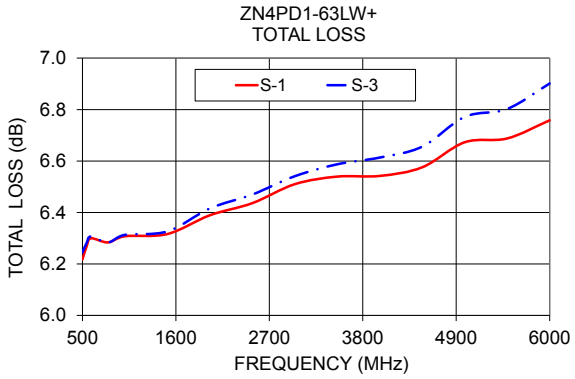


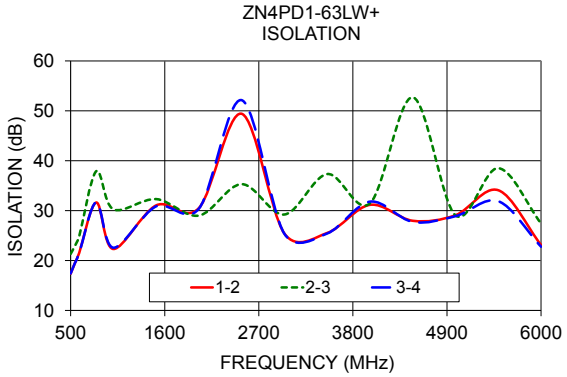
Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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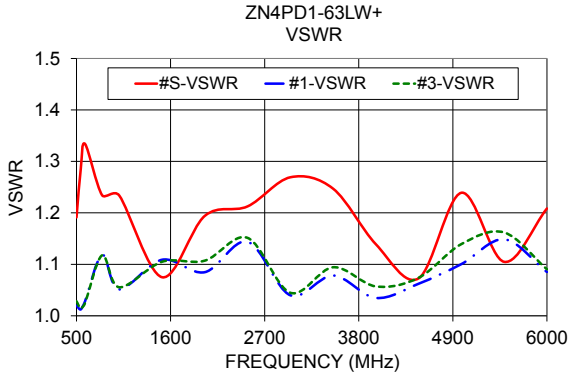
Typical Performance Data

Freq. (MHz)	Total Loss[1] (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (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						
500.0	6.22	6.23	6.25	6.25	0.03	17.36	21.33	17.41	0.14	1.19	1.02	1.02	1.03	1.03
550.0	6.27	6.28	6.28	6.30	0.03	19.48	22.94	19.50	0.22	1.29	1.01	1.01	1.01	1.01
600.0	6.30	6.31	6.31	6.34	0.04	21.51	24.86	21.47	0.22	1.33	1.03	1.02	1.02	1.02
800.0	6.28	6.30	6.28	6.33	0.04	31.63	37.91	31.69	0.34	1.23	1.12	1.12	1.12	1.13
1000.0	6.31	6.33	6.31	6.36	0.06	22.32	30.26	22.57	0.35	1.23	1.05	1.05	1.06	1.06
1500.0	6.32	6.34	6.33	6.38	0.06	31.06	32.32	30.86	0.47	1.07	1.11	1.12	1.10	1.12
2000.0	6.39	6.43	6.42	6.46	0.07	30.53	29.01	30.41	0.57	1.19	1.08	1.10	1.11	1.11
2500.0	6.44	6.48	6.47	6.52	0.08	49.40	35.30	52.13	0.70	1.21	1.14	1.15	1.15	1.17
3000.0	6.51	6.57	6.54	6.60	0.09	25.39	29.23	25.34	0.80	1.27	1.04	1.05	1.04	1.05
3500.0	6.54	6.61	6.59	6.64	0.10	25.53	37.33	25.43	0.85	1.25	1.08	1.09	1.09	1.08
4000.0	6.54	6.63	6.61	6.66	0.12	31.16	31.47	31.80	0.95	1.14	1.03	1.05	1.06	1.05
4500.0	6.58	6.68	6.66	6.70	0.12	27.97	52.70	27.74	1.02	1.07	1.06	1.07	1.07	1.07
5000.0	6.67	6.79	6.77	6.81	0.13	29.09	29.05	28.89	1.10	1.24	1.10	1.13	1.14	1.12
5500.0	6.69	6.82	6.80	6.84	0.16	34.09	38.51	31.89	1.12	1.10	1.15	1.16	1.16	1.17
6000.0	6.76	6.91	6.90	6.93	0.17	23.10	27.42	22.77	1.24	1.21	1.09	1.09	1.09	1.11

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







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