

Engineering Development Model

Power Splitter/Combiner ZN4PD1-ED12277/1

4 Way-0°

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : UU846

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		1800		6400 MHz
Isolation	1800 - 6400 MHz		26	dB
Insertion Loss Above 6.0 dB	1800 - 6400 MHz		0.70	dB
Phase Unbalance	1800 - 6400 MHz		1.170	deg.
Amplitude Unbalance	1800 - 6400 MHz		0.099	dB
VSWR	SUM Port		1.20	(:1)
	OUT Ports		1.15	(:1)

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	3
PORT 1	1
PORT 2	2
PORT 3	4
PORT 4	5

Functional Diagram



4 Way-0° Power Splitter/Combiner ZN4PD1-ED12277/1

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)				AMP. UNBAL. (dB)	ISOLATION (dB)			PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)				
	S-1	S-2	S-3	S-4		1-2	2-3	3-4			S	1	2	3	4
400.0	7.22	7.21	7.25	7.22	0.04	4.98	14.58	14.61	0.30	400.0	2.72	1.58	1.58	1.58	1.58
500.0	6.88	6.86	6.91	6.88	0.04	5.86	15.52	15.54	0.30	500.0	2.25	1.39	1.39	1.40	1.40
600.0	6.57	6.56	6.60	6.57	0.04	7.02	16.21	16.23	0.28	600.0	1.81	1.27	1.27	1.28	1.28
700.0	6.34	6.33	6.37	6.35	0.04	8.45	16.80	16.82	0.25	700.0	1.44	1.19	1.20	1.20	1.20
1000.0	6.39	6.38	6.39	6.37	0.02	14.23	19.08	19.10	0.36	1000.0	1.37	1.18	1.19	1.19	1.18
1200.0	6.72	6.70	6.71	6.69	0.03	17.92	21.43	21.43	0.37	1200.0	1.83	1.23	1.24	1.24	1.24
1400.0	6.90	6.89	6.89	6.87	0.03	19.10	24.41	24.38	0.43	1400.0	2.06	1.29	1.30	1.29	1.30
1600.0	6.84	6.83	6.83	6.81	0.03	19.67	28.02	27.95	0.48	1600.0	1.96	1.33	1.33	1.32	1.34
1800.0	6.65	6.65	6.65	6.62	0.03	21.49	32.61	32.47	0.46	1800.0	1.64	1.32	1.32	1.30	1.32
2000.0	6.48	6.48	6.49	6.45	0.03	23.63	37.44	37.39	0.64	2000.0	1.29	1.25	1.25	1.24	1.25
2200.0	6.43	6.43	6.44	6.39	0.05	23.43	35.91	36.23	0.59	2200.0	1.05	1.17	1.18	1.17	1.16
2400.0	6.46	6.46	6.47	6.42	0.05	21.86	32.38	32.75	0.66	2400.0	1.11	1.12	1.14	1.13	1.12
2500.0	6.47	6.47	6.49	6.43	0.06	21.32	31.16	31.52	0.79	2500.0	1.14	1.14	1.15	1.14	1.13
2700.0	6.54	6.53	6.54	6.48	0.06	21.17	29.48	29.87	0.71	2700.0	1.14	1.20	1.21	1.19	1.18
2900.0	6.71	6.70	6.71	6.65	0.06	22.08	28.54	28.96	0.70	2900.0	1.15	1.24	1.24	1.23	1.21
3100.0	6.82	6.82	6.84	6.75	0.08	24.02	28.95	29.31	0.40	3100.0	1.21	1.26	1.25	1.25	1.22
3300.0	6.75	6.75	6.77	6.68	0.08	28.77	30.43	30.61	1.10	3300.0	1.23	1.25	1.23	1.23	1.20
3500.0	6.64	6.66	6.68	6.58	0.10	38.33	32.54	32.49	1.66	3500.0	1.16	1.18	1.17	1.17	1.15
3700.0	6.58	6.62	6.62	6.52	0.10	36.35	35.69	35.37	1.66	3700.0	1.07	1.10	1.10	1.09	1.09
3900.0	6.57	6.61	6.61	6.50	0.12	34.55	39.74	39.34	1.58	3900.0	1.01	1.04	1.04	1.04	1.05
4100.0	6.57	6.62	6.64	6.52	0.12	38.92	40.56	41.29	1.54	4100.0	1.04	1.02	1.01	1.03	1.04
4300.0	6.67	6.69	6.69	6.60	0.09	34.85	37.86	38.78	1.43	4300.0	1.11	1.03	1.02	1.03	1.07
4500.0	6.74	6.72	6.73	6.67	0.07	28.57	36.06	36.85	1.34	4500.0	1.19	1.06	1.06	1.05	1.09
4700.0	6.82	6.77	6.78	6.74	0.08	26.40	34.84	35.55	1.43	4700.0	1.22	1.10	1.11	1.09	1.12
4900.0	6.86	6.80	6.80	6.78	0.09	26.41	33.47	34.21	1.71	4900.0	1.18	1.11	1.13	1.12	1.12
5100.0	7.00	6.93	6.94	6.90	0.10	26.41	31.57	32.29	1.65	5100.0	1.16	1.11	1.12	1.12	1.10
5300.0	7.07	7.04	7.05	6.96	0.11	24.11	29.43	30.05	1.54	5300.0	1.21	1.11	1.11	1.11	1.08
5500.0	7.00	7.05	7.05	6.88	0.17	21.50	27.37	27.81	1.58	5500.0	1.28	1.12	1.12	1.14	1.09
5700.0	6.90	6.98	6.98	6.76	0.21	20.24	25.26	25.45	1.68	5700.0	1.30	1.16	1.16	1.19	1.13
5900.0	6.85	6.91	6.91	6.72	0.19	19.87	23.47	23.43	1.36	5900.0	1.25	1.19	1.17	1.21	1.18
6000.0	6.89	6.92	6.90	6.74	0.18	19.46	22.75	22.64	1.20	6000.0	1.20	1.20	1.17	1.21	1.20
6200.0	7.10	7.06	7.05	6.98	0.13	17.87	21.69	21.47	0.88	6200.0	1.26	1.22	1.16	1.20	1.22
6400.0	7.47	7.37	7.36	7.35	0.12	16.58	20.95	20.67	0.96	6400.0	1.57	1.27	1.19	1.22	1.26
6600.0	7.91	7.79	7.79	7.82	0.12	16.06	20.26	19.92	1.15	6600.0	1.88	1.32	1.23	1.24	1.32
6800.0	8.02	7.92	7.92	7.92	0.10	14.92	19.45	19.04	1.42	6800.0	2.02	1.31	1.25	1.24	1.33
7000.0	7.59	7.55	7.58	7.53	0.05	13.02	18.73	18.30	1.63	7000.0	1.76	1.29	1.24	1.22	1.31
7200.0	7.04	7.10	7.16	7.02	0.14	10.86	18.41	17.99	1.54	7200.0	1.20	1.26	1.21	1.19	1.27
7400.0	7.00	7.19	7.22	6.99	0.23	8.73	18.76	18.36	1.47	7400.0	1.43	1.29	1.25	1.23	1.28
7600.0	7.57	7.87	7.84	7.52	0.36	7.46	19.54	19.21	1.27	7600.0	2.22	1.56	1.53	1.49	1.54
7800.0	8.16	8.56	8.46	8.08	0.48	7.42	19.91	19.61	0.92	7800.0	2.82	2.03	2.06	1.99	2.02
8000.0	8.30	8.72	8.63	8.25	0.48	8.79	19.02	18.70	1.06	8000.0	2.84	2.71	2.85	2.74	2.75

¹ Total Loss = Insertion Loss+ 6dB Splitter Loss

REV. X2

ZN4PD1-ED12277/1

110112

Page 1 of 1



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



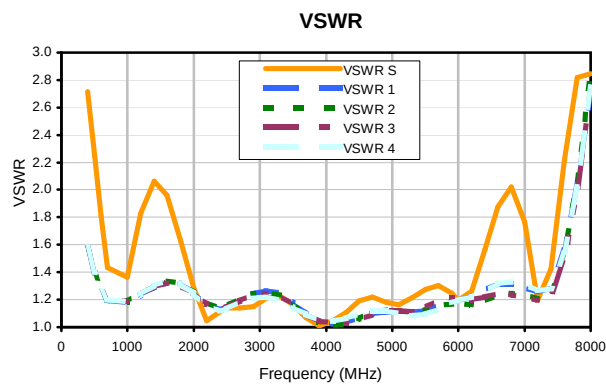
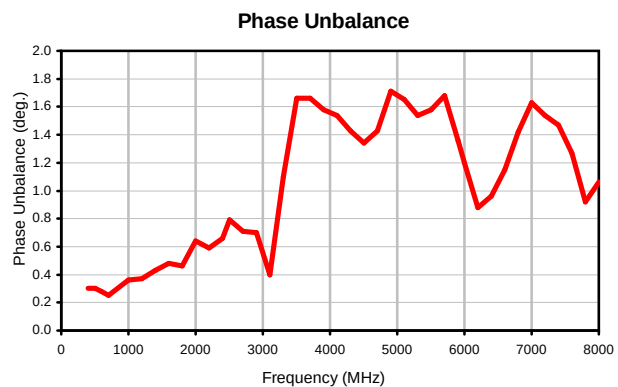
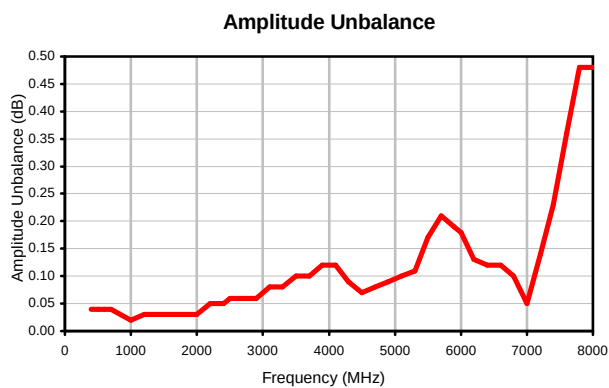
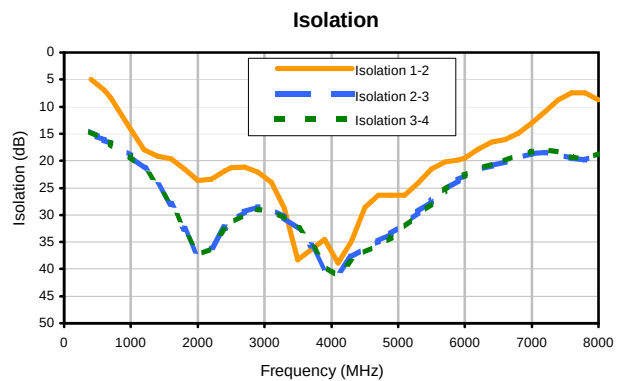
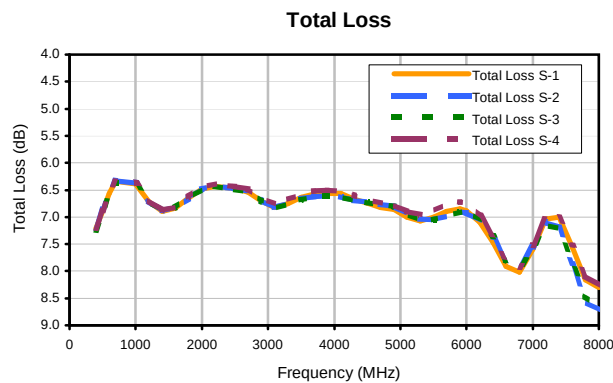
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



4 Way-0° Power Splitter/Combiner

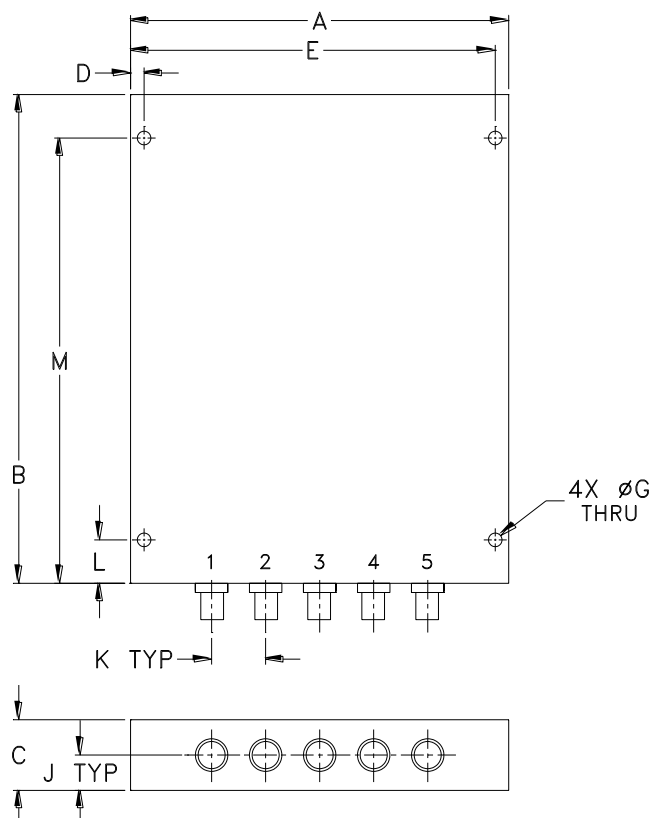
ZN4PD1-ED12277/1

Typical Performance Curves



Outline Dimensions

UU846



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
UU846	3.50 (88.90)	4.50 (114.30)	.65 (16.51)	.125 (3.18)	3.375 (85.73)	-- --	.125 (3.18)	-- --	.33 (8.38)	.50 (12.70)	.400 (10.16)	4.100 (104.14)	288

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Refer to the individual model data sheet for the type of connectors available.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I