Engineering Development Model

Power Splitter/Combiner ZN8PD-ED14937

8 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.

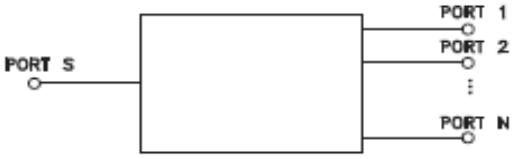
CASE STYLE : UU1676

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		2000		11000	MHz
Isolation			22		dB
Insertion Loss Above 9.0 dB			1.3		dB
Phase Unbalance			6.0		deg.
Amplitude Unbalance			0.4		dB
VSWR	**SUM Port**		1.30		(:1)
	OUT Ports		1.33		(:1)

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

COAXIAL CONNECTIONS	
SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4
PORT 5	5
PORT 6	6
PORT 7	7
PORT 8	8

electrical schematic



8 Way-0° Power Splitter/Combiner ZN8PD-ED14937

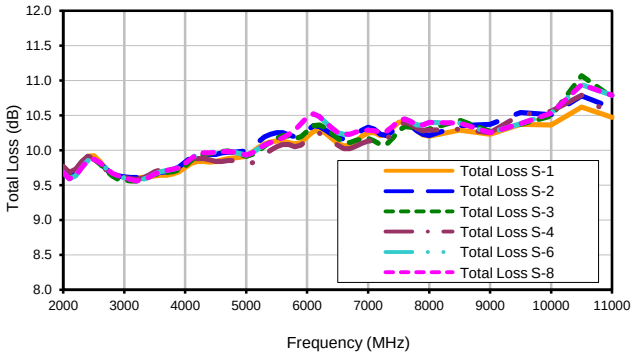
Typical Performance Data

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	S-6	S-8		1-2	1-3	3-4	5-6			S	1	8
2000.0	9.76	9.75	9.75	9.77	9.68	9.71	0.09	17.49	24.49	28.33	19.30	1.68	2000.0	1.53	1.14	1.14
2100.0	9.66	9.65	9.64	9.68	9.59	9.61	0.11	17.98	24.91	29.22	20.04	1.62	2100.0	1.34	1.17	1.16
2200.0	9.70	9.70	9.68	9.73	9.63	9.65	0.12	18.43	25.15	30.18	20.64	1.56	2200.0	1.41	1.20	1.18
2300.0	9.82	9.81	9.78	9.84	9.75	9.78	0.11	19.09	25.49	31.19	21.32	1.50	2300.0	1.61	1.23	1.20
2400.0	9.91	9.91	9.87	9.91	9.85	9.88	0.07	20.30	26.24	32.21	22.37	1.45	2400.0	1.73	1.23	1.20
2500.0	9.92	9.91	9.87	9.89	9.87	9.90	0.06	22.28	27.55	33.24	23.67	1.42	2500.0	1.72	1.22	1.19
2600.0	9.84	9.83	9.80	9.81	9.82	9.84	0.04	24.99	29.59	34.39	24.44	1.44	2600.0	1.60	1.18	1.16
2700.0	9.73	9.73	9.71	9.72	9.74	9.76	0.06	27.38	32.45	35.77	24.04	1.52	2700.0	1.44	1.14	1.13
2800.0	9.66	9.66	9.63	9.66	9.67	9.70	0.08	27.41	35.10	37.44	23.03	1.69	2800.0	1.32	1.10	1.11
2900.0	9.63	9.63	9.58	9.62	9.63	9.67	0.09	26.26	34.53	39.41	22.29	1.95	2900.0	1.26	1.06	1.08
3000.0	9.61	9.62	9.57	9.61	9.60	9.66	0.09	25.68	31.91	41.40	22.10	2.22	3000.0	1.21	1.03	1.06
3100.0	9.60	9.61	9.56	9.59	9.58	9.64	0.08	25.82	29.83	42.66	22.22	2.42	3100.0	1.14	1.02	1.04
3200.0	9.60	9.61	9.56	9.58	9.56	9.63	0.07	25.93	28.59	42.68	22.11	2.57	3200.0	1.05	1.02	1.04
3300.0	9.61	9.62	9.59	9.60	9.58	9.65	0.07	24.92	28.08	41.58	21.26	2.69	3300.0	1.07	1.04	1.06
3400.0	9.62	9.65	9.62	9.64	9.61	9.67	0.06	23.06	28.20	40.04	19.91	2.84	3400.0	1.16	1.06	1.08
3500.0	9.63	9.67	9.65	9.69	9.66	9.69	0.06	21.34	28.87	38.51	18.63	3.01	3500.0	1.21	1.06	1.09
3600.0	9.64	9.68	9.67	9.72	9.69	9.69	0.09	20.19	30.07	37.04	17.76	3.27	3600.0	1.21	1.05	1.08
3700.0	9.64	9.69	9.68	9.73	9.71	9.69	0.11	19.64	31.64	35.78	17.38	3.53	3700.0	1.15	1.04	1.05
3800.0	9.66	9.72	9.69	9.73	9.73	9.70	0.10	19.66	33.14	34.84	17.45	3.68	3800.0	1.07	1.03	1.01
3900.0	9.69	9.76	9.72	9.74	9.75	9.72	0.08	20.18	33.82	34.28	17.87	3.66	3900.0	1.07	1.05	1.04
4000.0	9.75	9.83	9.77	9.78	9.81	9.77	0.08	21.13	33.33	33.96	18.57	3.49	4000.0	1.14	1.08	1.09
4100.0	9.81	9.90	9.85	9.84	9.88	9.84	0.09	22.47	32.34	33.81	19.48	3.26	4100.0	1.18	1.12	1.14
4200.0	9.84	9.95	9.92	9.88	9.95	9.88	0.10	24.14	31.33	33.73	20.52	3.04	4200.0	1.17	1.15	1.18
4300.0	9.84	9.95	9.94	9.88	9.96	9.87	0.12	25.98	30.23	33.55	21.63	2.92	4300.0	1.14	1.18	1.22
4400.0	9.83	9.94	9.95	9.86	9.96	9.88	0.13	27.57	29.36	33.20	22.58	2.87	4400.0	1.16	1.20	1.25
4500.0	9.84	9.94	9.97	9.84	9.97	9.90	0.13	28.80	28.72	32.85	23.34	2.87	4500.0	1.22	1.22	1.26
4600.0	9.86	9.96	9.98	9.84	9.98	9.94	0.14	30.06	28.36	32.54	24.07	2.92	4600.0	1.26	1.23	1.27
4700.0	9.88	9.97	9.99	9.85	9.98	9.96	0.13	32.22	28.27	32.41	25.23	2.96	4700.0	1.27	1.24	1.30
4800.0	9.89	9.97	9.96	9.85	9.97	9.97	0.12	36.85	28.38	32.47	27.28	2.98	4800.0	1.25	1.27	1.32
5000.0	9.91	9.99	9.91	9.81	9.93	10.01	0.20	34.61	29.63	32.93	40.77	3.18	5000.0	1.23	1.32	1.37
5100.0	9.97	10.04	9.94	9.82	9.96	10.07	0.25	28.19	30.99	33.22	36.01	3.45	5100.0	1.28	1.34	1.38
5200.0	10.04	10.12	9.99	9.87	10.02	10.13	0.26	24.60	33.06	33.40	28.40	3.70	5200.0	1.33	1.33	1.37
5300.0	10.09	10.19	10.06	9.93	10.07	10.15	0.26	22.34	36.34	33.62	24.66	4.04	5300.0	1.37	1.30	1.33
5400.0	10.12	10.23	10.12	10.00	10.11	10.14	0.23	20.99	41.71	34.09	22.56	4.38	5400.0	1.39	1.26	1.26
5500.0	10.13	10.25	10.17	10.05	10.14	10.12	0.20	20.43	44.81	34.93	21.51	4.80	5500.0	1.36	1.20	1.19
5600.0	10.13	10.25	10.21	10.08	10.18	10.12	0.17	20.53	38.48	35.84	21.35	5.09	5600.0	1.31	1.16	1.13
5700.0	10.11	10.22	10.20	10.08	10.23	10.11	0.15	21.30	34.37	36.84	21.97	5.32	5700.0	1.21	1.13	1.11
5800.0	10.09	10.19	10.17	10.05	10.29	10.13	0.24	22.49	32.00	36.98	23.30	5.53	5800.0	1.10	1.13	1.12
5900.0	10.11	10.21	10.19	10.07	10.38	10.18	0.31	23.98	30.35	36.49	25.31	5.87	5900.0	1.03	1.14	1.13
6000.0	10.19	10.28	10.27	10.15	10.47	10.23	0.33	25.08	29.47	35.44	27.44	6.40	6000.0	1.12	1.15	1.15
6100.0	10.27	10.35	10.35	10.22	10.52	10.28	0.30	25.22	29.08	34.70	28.68	6.63	6100.0	1.22	1.16	1.16
6200.0	10.29	10.34	10.36	10.24	10.48	10.26	0.25	24.60	29.29	34.29	28.42	6.47	6200.0	1.28	1.16	1.16
6300.0	10.24	10.29	10.32	10.20	10.40	10.21	0.23	24.16	30.07	34.22	27.71	5.97	6300.0	1.31	1.16	1.16
6400.0	10.17	10.23	10.24	10.13	10.32	10.15	0.21	24.46	31.59	34.40	27.70	5.39	6400.0	1.27	1.18	1.17
6500.0	10.10	10.18	10.17	10.07	10.25	10.12	0.24	25.81	33.82	34.91	28.84	5.11	6500.0	1.20	1.22	1.21
6600.0	10.06	10.16	10.12	10.02	10.23	10.10	0.27	28.67	36.99	35.62	31.44	5.06	6600.0	1.09	1.27	1.26
6700.0	10.07	10.18	10.11	10.02	10.23	10.12	0.30	34.38	39.41	36.30	35.15	5.12	6700.0	1.07	1.34	1.31
6800.0	10.13	10.23	10.14	10.06	10.26	10.15	0.34	46.07	37.84	36.93	35.27	5.27	6800.0	1.15	1.38	1.35
6900.0	10.20	10.29	10.16	10.10	10.28	10.18	0.35	34.21	34.50	37.44	31.79	5.41	6900.0	1.21	1.40	1.36
7000.0	10.25	10.33	10.17	10.13	10.29	10.18	0.32	29.68	31.83	38.17	29.47	5.38	7000.0	1.22	1.41	1.35
7100.0	10.25	10.30	10.13	10.13	10.28	10.16	0.25	28.01	29.86	39.34	28.64	5.18	7100.0	1.19	1.41	1.34
7200.0	10.21	10.23	10.08	10.11	10.26	10.16	0.18	28.22	28.58	41.15	29.01	5.03	7200.0	1.18	1.42	1.34
7300.0	10.23	10.21	10.08	10.15	10.27	10.21	0.18	29.56	27.97	43.51	29.69	4.99	7300.0	1.26	1.45	1.37
7400.0	10.32	10.27	10.17	10.26	10.34	10.32	0.16	29.66	27.89	46.01	28.37	5.34	7400.0	1.39	1.49	1.40
7500.0	10.40	10.35	10.28	10.36	10.42	10.42	0.14	27.30	28.23	46.71	25.67	5.74	7500.0	1.49	1.51	1.43
7600.0	10.42	10.38	10.34	10.40	10.45	10.46	0.15	24.67	28.89	45.07	23.41	6.06	7600.0	1.52	1.51	1.42
7700.0	10.36	10.35	10.33	10.37	10.41	10.41	0.16	22.62	29.99	41.79	21.78	6.27	7700.0	1.45	1.48	1.40
7800.0	10.28	10.28	10.29	10.31	10.36	10.35	0.16	21.25	31.80	39.04	20.70	6.21	7800.0	1.35	1.41	1.35
7900.0	10.22	10.23	10.28	10.28	10.36	10.31	0.19	20.57	34.78	36.82	20.24	6.14	7900.0	1.26	1.35	1.30
8000.0	10.20	10.21	10.30	10.29	10.40	10.29	0.22	20.59	40.14	35.50	20.44	6.39	8000.0	1.23	1.33	1.27
8500.0	10.29	10.35	10.43	10.30	10.39	10.29	0.24	35.90	30.56	33.93	30.70	5.72	8500.0	1.33	1.60	1.49
9000.0	10.23	10.37	10.27	10.25	10.25	10.23	0.15	26.13	26.00	32.38	23.71	6.47	9000.0	1.20	1.43	1.36
9500.0	10.37	10.54	10.37	10.51	10.38	10.45	0.17	22.84	43.02	32.47	21.77	8.02	9500.0	1.37	1.27	1.22
10000.0	10.36	10.51	10.49	10.56	10.53	10.44	0.22	26.38	24.40	36.09	24.54	8.13	10000.0	1.36	1.37	1.26
10500.0	10.62	10.78	11.07	10.79	10.94	10.61	0.48	18.98	31.68	33.83	17.71	7.08	10500.0	1.67	1.60	1.47
11000.0	10.47	10.61	10.76	10.50	10.79	10.66	0.32	27.95	27.65	30.03	28.65	7.25	11000.0	1.43	1.34	1.30

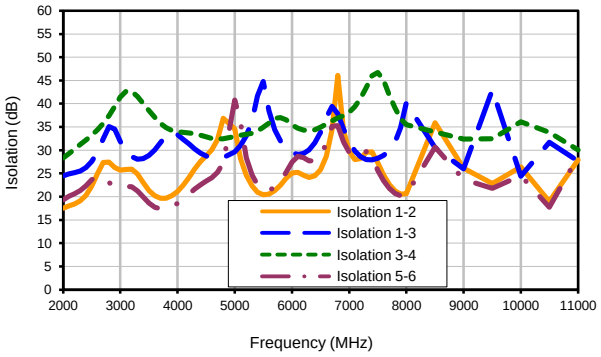
[1]Total Loss = Insertion Loss + 9dB Splitter Loss

Typical Performance Curves

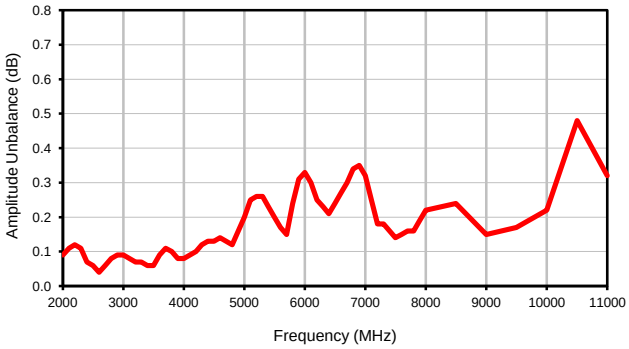
Total Loss



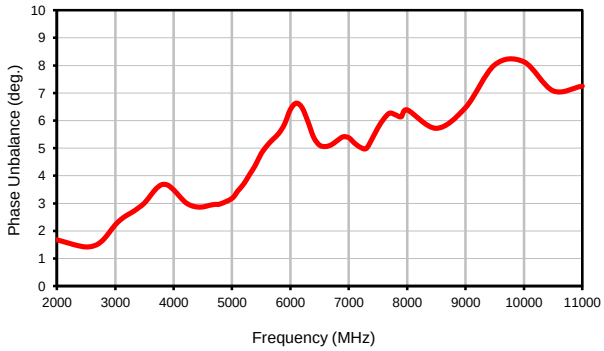
Isolation



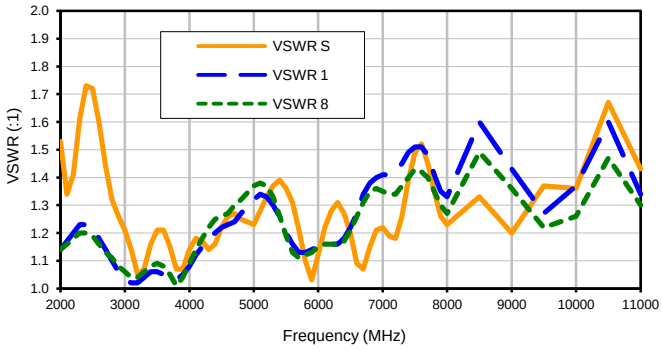
Amplitude Unbalance



Phase Unbalance



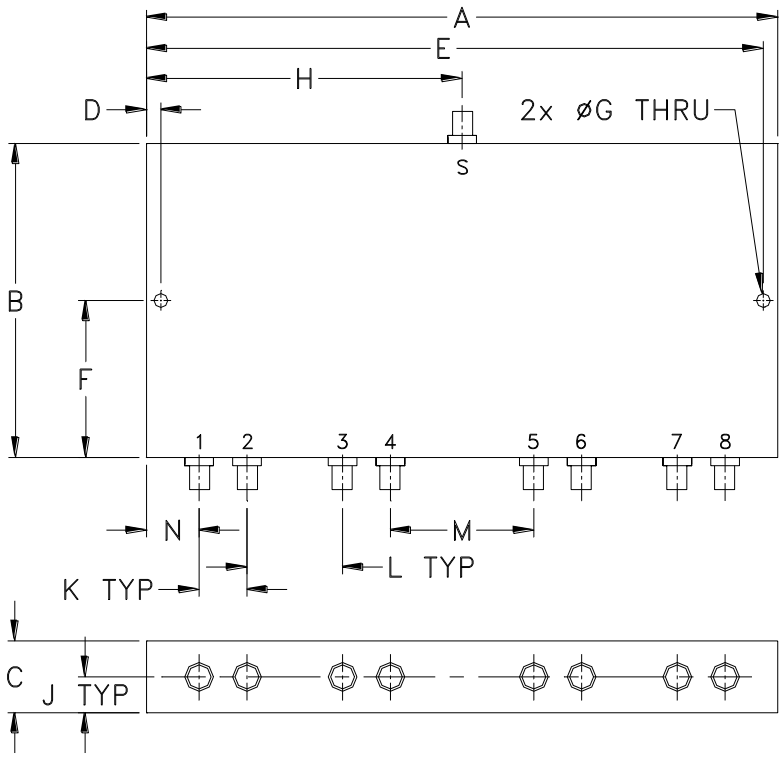
VSWR



Case Style UU

Outline Dimensions

UU1676



CASE#	A	B	C	D	E	F	G	H	J	K	L
UU1676	6.60 (167.64)	3.28 (83.31)	.75 (19.05)	.150 (3.81)	6.45 (163.83)	1.64 (41.66)	.144 (3.66)	3.30 (83.82)	.38 (9.53)	.500 (12.70)	1.000 (25.40)

CASE#	M	N	WT. GRAMS
UU1676	1.500 (38.10)	.550 (13.97)	360

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

Notes:

1. Case material: Aluminum alloy.
2. Case finish:
   For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.

Mini-Circuits

Environmental Specifications ENV29

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