Engineering Development Model

Power Splitter/Combiner ZB8PD-ED10690/1

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.

SMA version shown

CASE STYLE : Z41

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		780		1000	MHz
Isolation	**780 - 1000 MHz**		31		dB
Insertion Loss Above 9.0 dB	**780 - 1000 MHz**		0.50		dB
Phase Unbalance	**780 - 1000 MHz**		2.45		deg.
Amplitude Unbalance	**780 - 1000 MHz**		0.35		dB
VSWR	**SUM Port**		1.20		(:1)
	OUT Ports		1.00		(:1)

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

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

Functional Diagram

8 Way-0° Power Splitter/Combiner ZB8PD-ED10690/1

Typical Performance Data

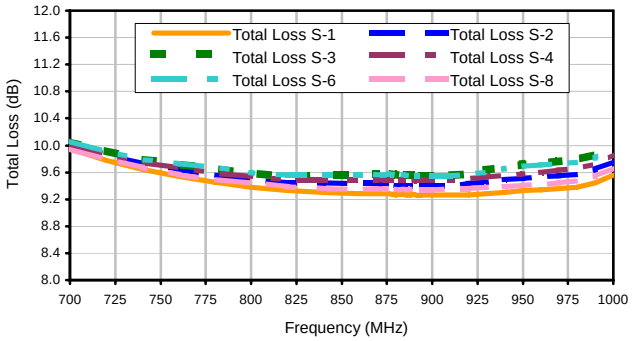
FREQ. (MHz)	TOTAL LOSS[1] (dB)						AMP. UNBAL. (dB)	ISOLATION (dB)				PHASE UNBAL. (deg.)
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-8	2-4	6-8	
700.0	9.95	10.01	10.05	10.01	10.06	9.95	0.23	16.32	26.71	21.09	20.96	2.24
720.0	9.78	9.86	9.92	9.87	9.91	9.80	0.26	17.33	27.20	21.52	21.36	2.34
740.0	9.64	9.73	9.80	9.75	9.80	9.67	0.29	18.39	27.74	22.05	21.85	2.34
760.0	9.54	9.64	9.72	9.67	9.73	9.57	0.29	19.49	28.41	22.67	22.46	2.40
780.0	9.45	9.56	9.65	9.59	9.67	9.49	0.31	20.60	29.10	23.43	23.20	2.42
800.0	9.38	9.49	9.59	9.54	9.60	9.44	0.32	21.72	29.88	24.37	24.12	2.53
820.0	9.33	9.44	9.54	9.49	9.56	9.39	0.32	22.88	30.75	25.56	25.27	2.43
840.0	9.30	9.44	9.55	9.49	9.56	9.36	0.34	24.20	31.75	27.12	26.76	2.30
860.0	9.28	9.43	9.57	9.48	9.57	9.35	0.35	25.74	32.79	29.09	28.68	2.38
869.0	9.28	9.43	9.58	9.49	9.57	9.36	0.36	26.56	33.29	30.21	29.74	2.45
874.0	9.28	9.42	9.58	9.48	9.56	9.35	0.35	27.02	33.55	30.88	30.35	2.42
876.0	9.28	9.42	9.58	9.48	9.58	9.35	0.36	27.22	33.68	31.18	30.63	2.57
878.0	9.27	9.41	9.58	9.48	9.57	9.35	0.36	27.43	33.79	31.45	30.91	2.48
880.0	9.26	9.41	9.56	9.48	9.56	9.35	0.36	27.64	33.89	31.77	31.17	2.52
882.0	9.27	9.40	9.56	9.48	9.56	9.34	0.36	27.83	34.01	32.09	31.47	2.51
884.0	9.27	9.41	9.58	9.48	9.57	9.35	0.35	28.05	34.09	32.44	31.78	2.54
886.0	9.26	9.40	9.57	9.47	9.55	9.34	0.36	28.26	34.25	32.74	32.07	2.61
888.0	9.26	9.40	9.57	9.47	9.56	9.35	0.35	28.49	34.34	33.09	32.39	2.50
890.0	9.27	9.41	9.56	9.47	9.55	9.35	0.37	28.71	34.46	33.46	32.69	2.53
892.0	9.25	9.39	9.56	9.48	9.55	9.35	0.37	28.92	34.56	33.87	33.05	2.48
894.0	9.26	9.40	9.55	9.48	9.55	9.34	0.36	29.13	34.69	34.28	33.39	2.52
900.0	9.26	9.40	9.55	9.48	9.55	9.34	0.36	29.76	35.04	35.58	34.49	2.45
910.0	9.26	9.40	9.56	9.49	9.55	9.35	0.35	30.67	35.51	38.09	36.44	2.28
920.0	9.26	9.43	9.57	9.50	9.57	9.36	0.38	31.08	36.04	40.66	38.10	2.16
930.0	9.28	9.45	9.63	9.53	9.61	9.38	0.38	30.73	36.47	41.85	38.74	2.06
940.0	9.30	9.49	9.67	9.56	9.65	9.39	0.37	29.69	36.80	40.29	37.73	2.07
950.0	9.33	9.51	9.72	9.58	9.69	9.41	0.39	28.21	36.95	37.60	35.95	2.13
960.0	9.34	9.53	9.74	9.60	9.71	9.42	0.40	26.63	37.06	35.23	34.05	2.20
970.0	9.36	9.55	9.77	9.63	9.72	9.44	0.41	25.11	36.91	33.29	32.37	2.40
980.0	9.38	9.57	9.79	9.65	9.75	9.47	0.41	23.70	36.75	31.70	30.93	2.34
990.0	9.44	9.64	9.86	9.73	9.81	9.54	0.42	22.46	36.43	30.42	29.72	2.37
1000.0	9.56	9.76	9.97	9.86	9.92	9.66	0.42	21.37	36.15	29.39	28.73	2.36

FREQ. (MHz)	VSWR (:1)		
	S	1	8
700.0	2.15	1.21	1.22
720.0	1.95	1.19	1.19
740.0	1.77	1.16	1.17
760.0	1.61	1.14	1.14
780.0	1.49	1.12	1.12
800.0	1.39	1.10	1.10
820.0	1.32	1.08	1.08
840.0	1.26	1.06	1.06
860.0	1.20	1.05	1.05
869.0	1.18	1.04	1.04
874.0	1.17	1.04	1.04
876.0	1.16	1.04	1.04
878.0	1.16	1.04	1.04
880.0	1.15	1.04	1.04
882.0	1.15	1.04	1.04
884.0	1.14	1.04	1.03
886.0	1.13	1.03	1.03
888.0	1.13	1.03	1.03
890.0	1.12	1.03	1.03
892.0	1.12	1.03	1.03
894.0	1.11	1.03	1.03
900.0	1.10	1.03	1.02
910.0	1.08	1.03	1.02
920.0	1.08	1.03	1.01
930.0	1.10	1.04	1.02
940.0	1.15	1.05	1.03
950.0	1.21	1.07	1.05
960.0	1.29	1.09	1.07
970.0	1.38	1.11	1.08
980.0	1.48	1.13	1.11
990.0	1.60	1.15	1.13
1000.0	1.74	1.18	1.16

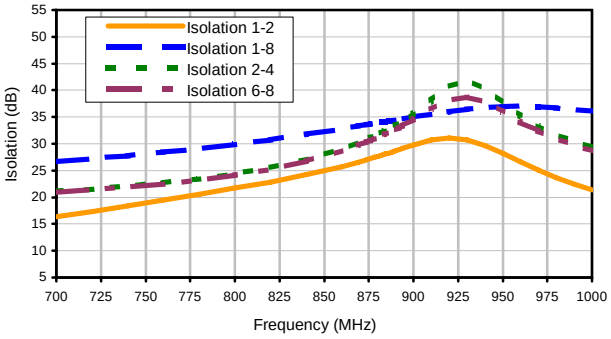
[1]Total Loss = Insertion Loss + 9dB Splitter Loss

Typical Performance Curves

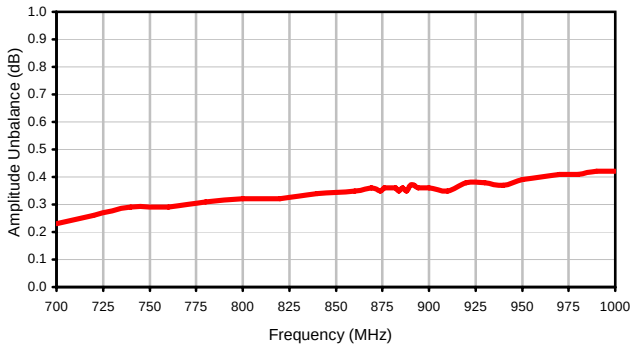
Total Loss



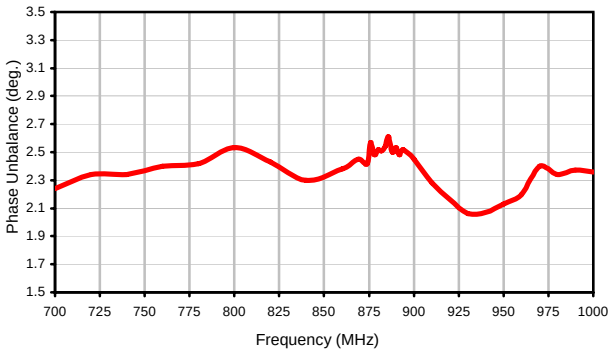
Isolation



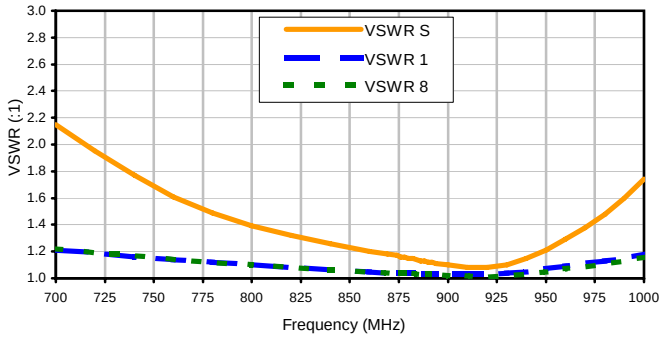
Amplitude Unbalance



Phase Unbalance



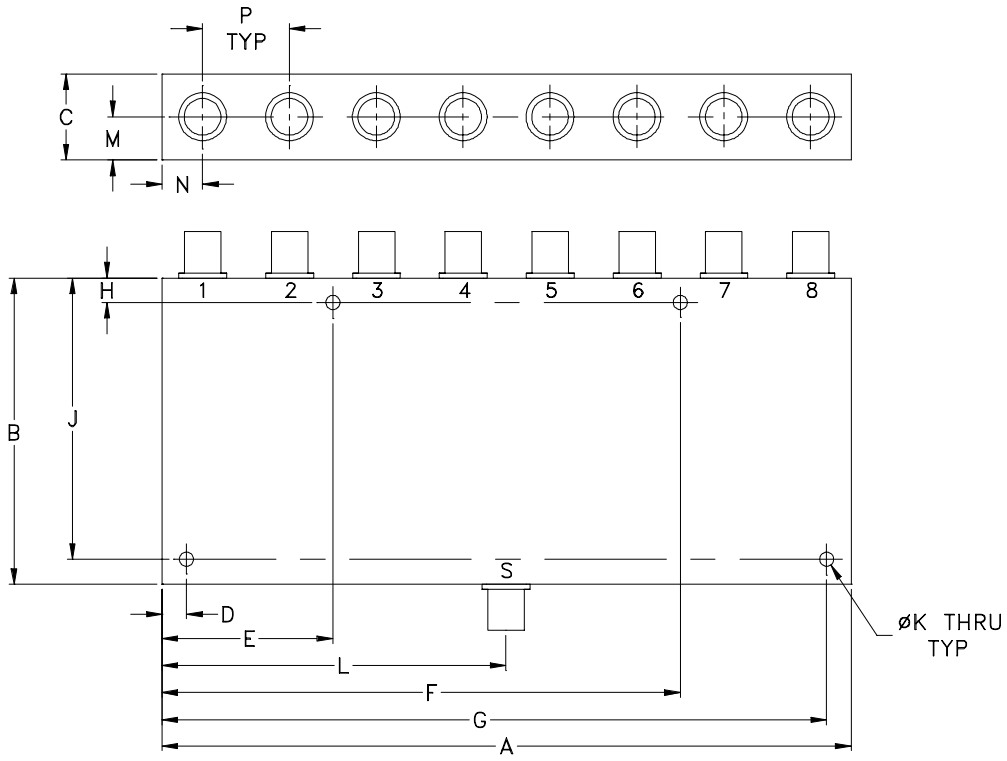
VSWR



Case Style Z

Z41

Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
Z41	7.06 (179.32)	3.13 (79.50)	.88 (22.35)	.250 (6.35)	1.750 (44.45)	5.310 (134.87)	6.810 (172.97)	.250 (6.35)	2.875 (73.03)	.144 (3.66)	3.53 (89.66)	.44 (11.18)	.415 (10.54)

CASE#	P	WT.GRAMS
Z41	.89 (22.61)	800

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.

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INTERNET http://www.minicircuits.com
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
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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