

Engineering Development Model

Power Splitter/Combiner ZB8PD-ED11254/1

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.

CASE STYLE : Z41

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		3000		6500 MHz
Isolation	3000 - 6500 MHz		26	dB
Total Loss Above 9.0 dB	3000 - 6500 MHz		1.30	dB
Phase Unbalance	3000 - 6500 MHz		2.317	deg.
Amplitude Unbalance	3000 - 6500 MHz		0.217	dB
VSWR	SUM Port		1.60	(:1)
	OUT Ports		1.25	(:1)

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

PIN 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

Functional Diagram



8 Way-0° Power Splitter/Combiner

ZB8PD-ED11254/1

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	S-6	S-8		1-2	1-7	3-4	5-6			S	1	8
3000.0	9.91	9.98	10.00	9.93	10.04	9.96	0.12	21.39	33.18	21.73	22.33	1.02	3000.0	1.87	1.09	1.08
3050.0	9.85	9.92	9.94	9.88	9.98	9.89	0.13	24.28	33.67	24.74	25.52	1.07	3050.0	1.76	1.07	1.07
3100.0	9.79	9.86	9.88	9.82	9.92	9.83	0.13	27.05	34.36	27.70	27.96	1.09	3100.0	1.67	1.06	1.07
3200.0	9.74	9.81	9.84	9.77	9.87	9.77	0.13	28.38	35.26	29.00	29.04	1.09	3200.0	1.61	1.06	1.07
3300.0	9.71	9.78	9.81	9.74	9.83	9.74	0.13	28.56	36.23	29.15	29.01	1.01	3300.0	1.60	1.07	1.09
3400.0	9.73	9.81	9.83	9.77	9.85	9.76	0.12	27.66	37.29	28.22	27.88	0.92	3400.0	1.62	1.11	1.13
3500.0	9.76	9.83	9.85	9.80	9.86	9.79	0.10	25.00	38.43	25.43	24.78	0.94	3500.0	1.66	1.17	1.19
3600.0	9.84	9.91	9.93	9.88	9.93	9.85	0.09	22.54	39.82	22.83	22.57	0.88	3600.0	1.68	1.22	1.22
3700.0	9.82	9.90	9.92	9.88	9.92	9.83	0.10	21.69	41.51	22.05	21.87	0.90	3700.0	1.65	1.25	1.24
3800.0	9.84	9.92	9.95	9.91	9.95	9.85	0.12	21.82	43.90	22.32	22.05	0.85	3800.0	1.56	1.26	1.25
3900.0	9.78	9.87	9.92	9.88	9.92	9.79	0.14	22.29	46.79	22.95	22.45	0.97	3900.0	1.43	1.25	1.24
4000.0	9.77	9.88	9.93	9.89	9.95	9.79	0.18	22.71	48.55	23.51	22.76	1.18	4000.0	1.32	1.24	1.23
4100.0	9.75	9.86	9.93	9.87	9.96	9.77	0.22	22.79	49.06	23.66	22.68	1.36	4100.0	1.26	1.23	1.22
4200.0	9.79	9.91	9.99	9.91	10.04	9.81	0.25	22.56	48.53	23.43	22.27	1.48	4200.0	1.23	1.23	1.22
4300.0	9.82	9.95	10.04	9.92	10.10	9.84	0.28	22.05	46.70	22.82	21.63	1.55	4300.0	1.22	1.24	1.22
4400.0	9.86	10.00	10.10	9.95	10.15	9.88	0.29	21.62	43.68	22.22	21.13	1.61	4400.0	1.24	1.24	1.22
4500.0	9.90	10.06	10.17	9.97	10.21	9.92	0.31	21.68	41.24	22.06	21.11	1.54	4500.0	1.29	1.24	1.22
4600.0	9.91	10.09	10.19	9.96	10.23	9.92	0.32	22.41	39.31	22.51	21.66	1.43	4600.0	1.34	1.23	1.21
4700.0	9.93	10.14	10.25	9.97	10.28	9.94	0.34	23.89	37.72	23.61	22.82	1.24	4700.0	1.39	1.21	1.18
4800.0	9.91	10.13	10.24	9.94	10.27	9.91	0.36	25.67	36.32	24.95	24.18	1.21	4800.0	1.43	1.16	1.14
4900.0	9.91	10.13	10.23	9.92	10.27	9.91	0.36	27.13	35.21	26.12	25.38	1.29	4900.0	1.44	1.11	1.10
5000.0	9.87	10.08	10.18	9.86	10.22	9.87	0.36	27.91	34.31	26.85	26.16	1.33	5000.0	1.41	1.05	1.06
5100.0	9.83	10.04	10.12	9.82	10.16	9.84	0.34	27.88	33.61	27.01	26.40	1.36	5100.0	1.34	1.04	1.04
5200.0	9.79	9.98	10.04	9.77	10.08	9.80	0.31	26.88	33.03	26.43	25.94	1.31	5200.0	1.29	1.03	1.04
5300.0	9.78	9.95	9.99	9.75	10.02	9.80	0.27	25.35	32.57	25.42	25.04	1.26	5300.0	1.26	1.03	1.03
5400.0	9.78	9.93	9.95	9.75	9.97	9.81	0.22	23.98	32.20	24.45	24.12	1.31	5400.0	1.25	1.03	1.04
5500.0	9.79	9.91	9.91	9.76	9.93	9.83	0.17	23.14	31.90	23.80	23.44	1.44	5500.0	1.24	1.05	1.05
5600.0	9.80	9.90	9.89	9.79	9.91	9.85	0.15	22.98	31.71	23.54	23.08	1.50	5600.0	1.23	1.07	1.07
5700.0	9.82	9.90	9.88	9.84	9.90	9.88	0.13	23.06	31.67	23.38	22.82	1.63	5700.0	1.21	1.09	1.09
5800.0	9.85	9.91	9.89	9.90	9.90	9.90	0.11	22.79	31.80	22.91	22.31	1.74	5800.0	1.21	1.12	1.12
5900.0	9.89	9.94	9.92	9.98	9.92	9.94	0.13	22.28	32.07	22.24	21.64	1.89	5900.0	1.22	1.16	1.17
6000.0	9.97	10.01	9.99	10.09	9.97	10.00	0.16	21.36	32.44	21.21	20.66	1.98	6000.0	1.24	1.21	1.21
6080.0	10.05	10.09	10.06	10.19	10.03	10.06	0.20	19.97	32.85	19.83	19.38	2.17	6080.0	1.30	1.25	1.25
6140.0	10.12	10.16	10.12	10.29	10.10	10.12	0.24	18.54	33.24	18.48	18.13	2.39	6140.0	1.41	1.27	1.26
6200.0	10.21	10.25	10.20	10.40	10.18	10.20	0.27	17.59	33.59	17.59	17.28	2.53	6200.0	1.50	1.27	1.26
6260.0	10.29	10.33	10.27	10.49	10.25	10.27	0.31	16.85	33.91	16.89	16.60	2.66	6260.0	1.57	1.26	1.25
6320.0	10.32	10.36	10.28	10.53	10.27	10.30	0.34	16.30	34.13	16.35	16.08	2.80	6320.0	1.62	1.24	1.23
6380.0	10.35	10.39	10.29	10.57	10.29	10.33	0.36	15.97	34.32	16.01	15.77	2.96	6380.0	1.63	1.21	1.20
6440.0	10.37	10.42	10.31	10.59	10.31	10.36	0.38	15.81	34.45	15.84	15.59	3.07	6440.0	1.63	1.19	1.18
6500.0	10.37	10.41	10.29	10.59	10.30	10.35	0.40	15.73	34.50	15.74	15.50	3.14	6500.0	1.62	1.17	1.16

¹ Total Loss = Insertion Loss+ 9dB Splitter Loss

REV. X2

ZB8PD-ED11254/1

100629

Page 1 of 1



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant

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



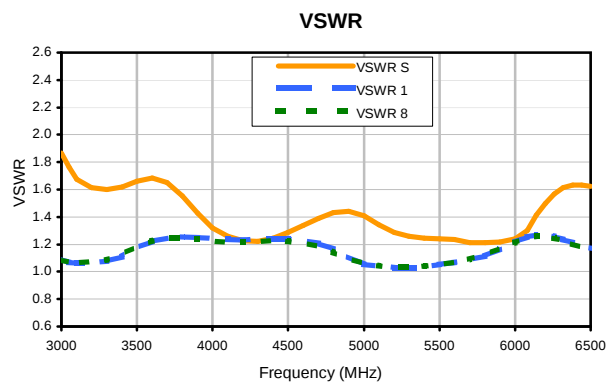
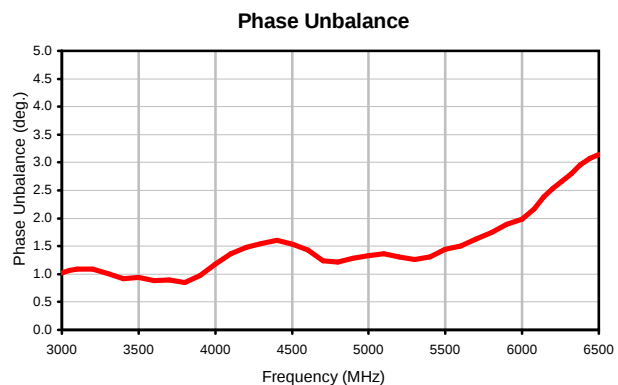
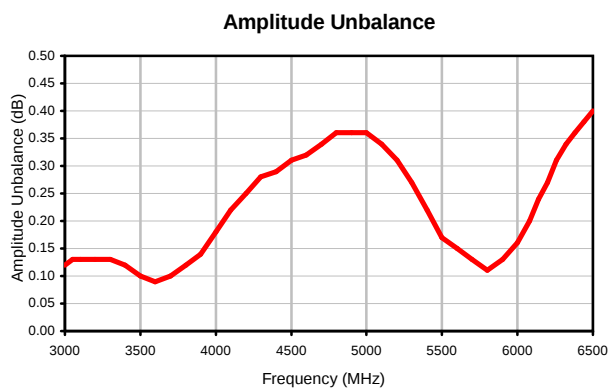
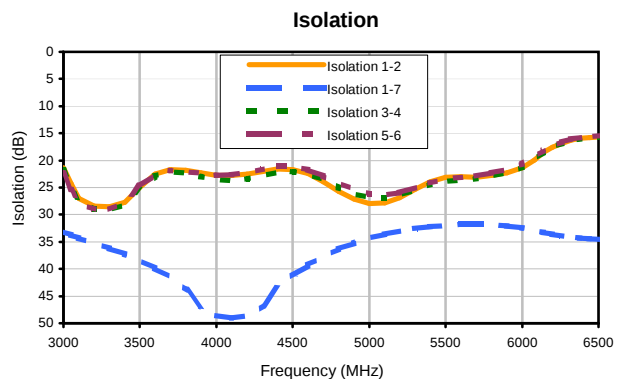
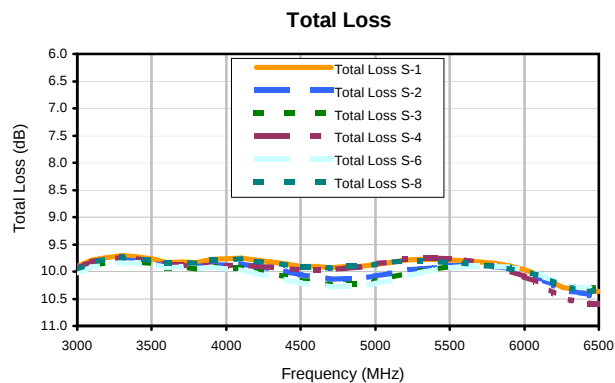
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



8 Way-0° Power Splitter/Combiner

ZB8PD-ED11254/1

Typical Performance Curves



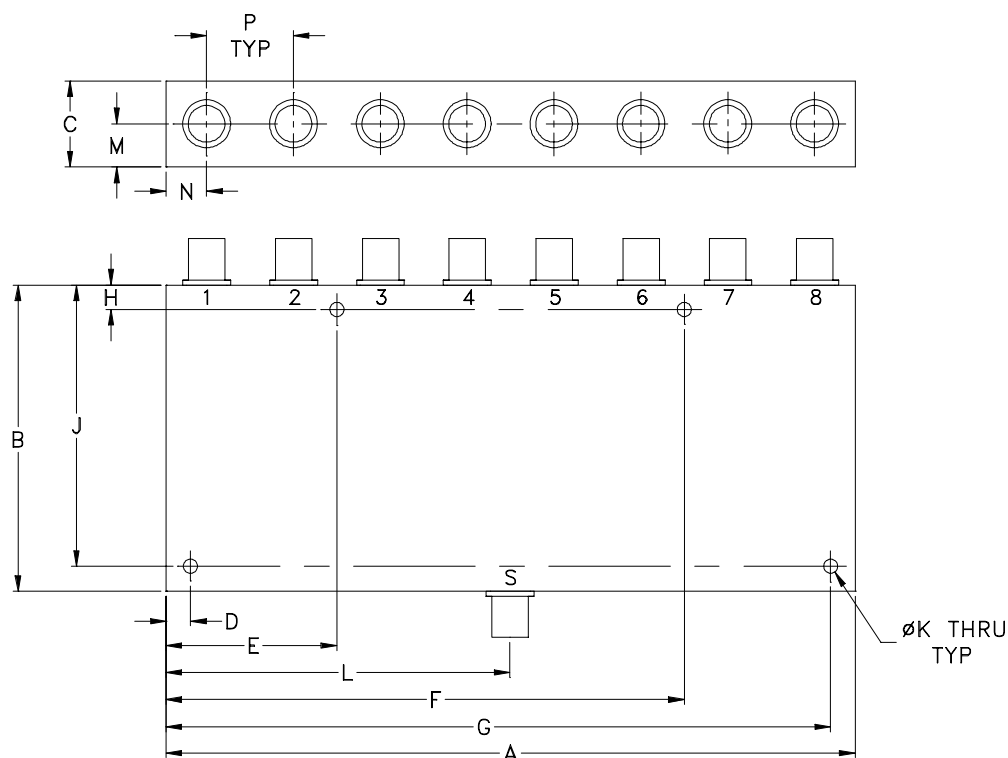
REV. X2
ZB8PD-ED11254/1
100629
Page 1 of 1



Mini-Circuits®
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 minicircuits.com

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. $\pm .03$; 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.



INTERNET <http://www.minicircuits.com>

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

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified



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