

Power Splitter/Combiner

8 Way-0° 50Ω 1550 to 2500 MHz

Maximum Ratings

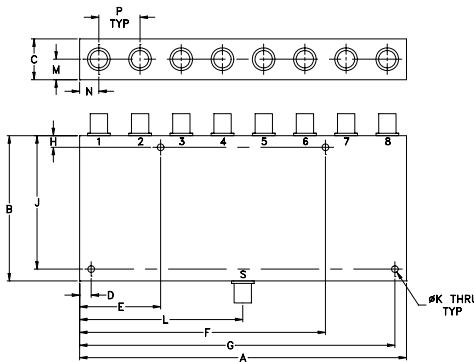
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.875W max.
DC Current	1.2A (150mA for each port)

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

Coaxial Connections

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

Outline Drawing

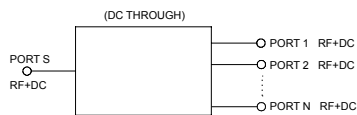


Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
7.06	3.13	.88	.250	1.750	5.310	6.810	.250
179.32	79.50	22.35	6.35	44.45	134.87	172.97	6.35

J	K	L	M	N	P	wt
2.875	.144	3.53	.44	.415	.89	grams
73.03	3.66	89.66	11.18	10.54	22.61	800

Electrical Schematic



Features

- low insertion loss, 0.8 dB typ.
- good isolation, 25 dB typ.
- up to 10W power input
- rugged, shielded case

Applications

- cellular
- PCS/DCS
- communication systems
- GPS

ZB8PD-252-S+



Generic photo used for illustration purposes only

CASE STYLE: Z41

Connectors	Model
SMA	ZB8PD-252-S+

+RoHS Compliant

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

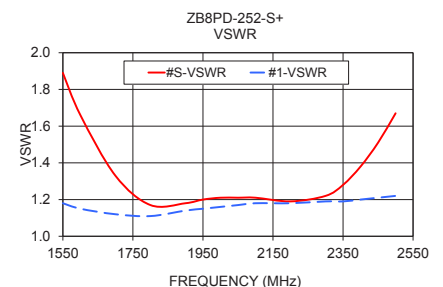
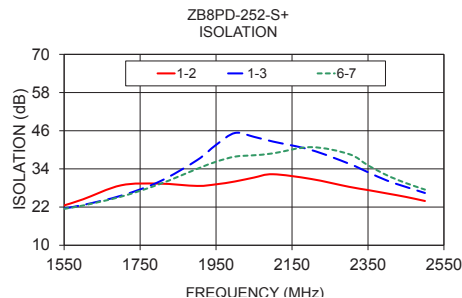
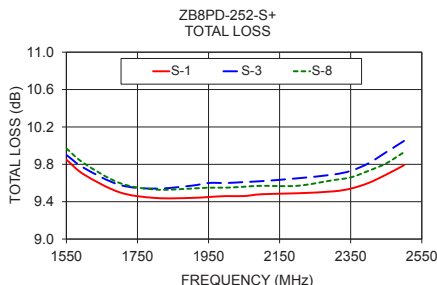
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		1550	—	2500	MHz
Insertion Loss Above 9.0 dB	1550 - 2500	—	0.8	1.5	dB
Isolation	1550 - 2500	19	25	—	dB
Phase Unbalance	1550 - 2500	—	3.2	6.0	Degree
Amplitude Unbalance	1550 - 2500	—	0.3	0.6	dB
VSWR (Port S)	1550 - 2500	—	1.7	2.2	:1
VSWR (Port 1-8)	1550 - 2500	—	1.2	1.4	:1

Typical Performance Data

Freq. (MHz)	Total Loss¹ (dB)						Amp. Unb. (dB)	Isolation (dB)				VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-3	3-4	6-7			
1550.00	9.85	9.83	9.90	9.94	9.94	9.97	0.14	22.53	21.59	22.15	21.46	1.89	1.18	1.20
1600.00	9.69	9.67	9.76	9.78	9.79	9.81	0.14	24.45	22.66	23.91	22.50	1.66	1.15	1.17
1700.00	9.50	9.49	9.58	9.60	9.60	9.60	0.11	28.84	25.58	28.07	25.28	1.33	1.12	1.13
1800.00	9.44	9.42	9.54	9.55	9.54	9.53	0.13	29.37	29.96	28.94	29.16	1.17	1.11	1.12
1900.00	9.44	9.43	9.57	9.56	9.54	9.54	0.13	28.65	36.75	28.29	34.00	1.18	1.14	1.13
1950.00	9.45	9.45	9.60	9.58	9.55	9.55	0.15	29.15	41.55	28.50	36.25	1.20	1.15	1.14
2000.00	9.46	9.45	9.60	9.59	9.56	9.55	0.15	30.05	45.30	29.13	37.86	1.21	1.16	1.15
2050.00	9.46	9.46	9.61	9.60	9.57	9.56	0.16	31.28	44.07	29.74	38.29	1.21	1.17	1.16
2100.00	9.48	9.48	9.62	9.62	9.58	9.57	0.14	32.32	42.59	30.09	38.88	1.21	1.18	1.17
2200.00	9.49	9.50	9.65	9.64	9.61	9.57	0.16	30.84	39.96	28.71	40.84	1.19	1.18	1.18
2300.00	9.51	9.55	9.69	9.65	9.67	9.63	0.17	28.37	35.64	26.54	38.65	1.22	1.19	1.18
2350.00	9.54	9.59	9.73	9.69	9.71	9.66	0.19	27.35	32.96	25.64	35.12	1.28	1.19	1.18
2400.00	9.60	9.64	9.81	9.76	9.79	9.73	0.21	26.28	30.34	24.78	31.99	1.38	1.20	1.19
2450.00	9.69	9.74	9.93	9.88	9.90	9.81	0.24	25.19	28.33	23.96	29.54	1.51	1.21	1.20
2500.00	9.79	9.85	10.05	10.01	10.02	9.93	0.26	23.91	26.43	22.93	27.49	1.67	1.22	1.21

1. Total Loss = Insertion Loss + 9dB splitter theoretical loss.



Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp



8 Way-0° Power Splitter/Combiner

ZB8PD-252+

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	6-7			S	1	8
1550.0	9.85	9.83	9.90	9.94	9.94	9.97	0.14	22.53	21.59	22.15	21.46	2.07	1550.0	1.89	1.18	1.20
1560.0	9.81	9.80	9.88	9.90	9.92	9.93	0.14	22.92	21.78	22.43	21.65	2.09	1560.0	1.84	1.17	1.19
1570.0	9.77	9.76	9.84	9.86	9.88	9.90	0.14	23.27	21.97	22.81	21.84	2.08	1570.0	1.80	1.17	1.19
1580.0	9.75	9.74	9.82	9.83	9.85	9.87	0.12	23.68	22.23	23.17	22.07	2.06	1580.0	1.75	1.16	1.18
1590.0	9.72	9.71	9.79	9.80	9.82	9.84	0.13	24.07	22.45	23.53	22.30	2.02	1590.0	1.70	1.16	1.18
1600.0	9.69	9.67	9.76	9.78	9.79	9.81	0.14	24.45	22.66	23.91	22.50	2.17	1600.0	1.66	1.15	1.17
1650.0	9.57	9.56	9.65	9.68	9.67	9.68	0.14	26.76	24.00	26.04	23.81	2.24	1650.0	1.47	1.13	1.15
1700.0	9.50	9.49	9.58	9.60	9.60	9.60	0.11	28.84	25.58	28.07	25.28	2.20	1700.0	1.33	1.12	1.13
1750.0	9.45	9.44	9.55	9.55	9.56	9.55	0.12	29.74	27.65	29.07	27.09	2.30	1750.0	1.23	1.11	1.12
1800.0	9.44	9.42	9.54	9.55	9.54	9.53	0.13	29.37	29.96	28.94	29.16	2.35	1800.0	1.17	1.11	1.12
1850.0	9.44	9.44	9.56	9.55	9.53	9.55	0.12	28.82	33.14	28.50	31.52	2.47	1850.0	1.17	1.12	1.12
1900.0	9.44	9.43	9.57	9.56	9.54	9.54	0.13	28.65	36.75	28.29	34.00	2.55	1900.0	1.18	1.14	1.13
1950.0	9.45	9.45	9.60	9.58	9.55	9.55	0.15	29.15	41.55	28.50	36.25	2.54	1950.0	1.20	1.15	1.14
2000.0	9.46	9.45	9.60	9.59	9.56	9.55	0.15	30.05	45.30	29.13	37.86	2.67	2000.0	1.21	1.16	1.15
2050.0	9.46	9.46	9.61	9.60	9.57	9.56	0.16	31.28	44.07	29.74	38.29	2.52	2050.0	1.21	1.17	1.16
2100.0	9.48	9.48	9.62	9.62	9.58	9.57	0.14	32.32	42.59	30.09	38.88	2.64	2100.0	1.21	1.18	1.17
2150.0	9.48	9.49	9.64	9.62	9.60	9.57	0.16	32.04	41.54	29.62	39.86	2.74	2150.0	1.20	1.18	1.17
2200.0	9.49	9.50	9.65	9.64	9.61	9.57	0.16	30.84	39.96	28.71	40.84	2.70	2200.0	1.19	1.18	1.18
2250.0	9.48	9.50	9.66	9.63	9.62	9.60	0.18	29.52	38.12	27.64	40.74	2.79	2250.0	1.19	1.18	1.18
2300.0	9.51	9.55	9.69	9.65	9.67	9.63	0.17	28.37	35.64	26.54	38.65	2.74	2300.0	1.22	1.19	1.18
2350.0	9.54	9.59	9.73	9.69	9.71	9.66	0.19	27.35	32.96	25.64	35.12	2.87	2350.0	1.28	1.19	1.18
2400.0	9.60	9.64	9.81	9.76	9.79	9.73	0.21	26.28	30.34	24.78	31.99	2.88	2400.0	1.38	1.20	1.19
2450.0	9.69	9.74	9.93	9.88	9.90	9.81	0.24	25.19	28.33	23.96	29.54	3.14	2450.0	1.51	1.21	1.20
2500.0	9.79	9.85	10.05	10.01	10.02	9.93	0.26	23.91	26.43	22.93	27.49	3.20	2500.0	1.67	1.22	1.21

¹Total Loss = Insertion Loss + 9dB Splitter Loss



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IF/RF MICROWAVE COMPONENTS

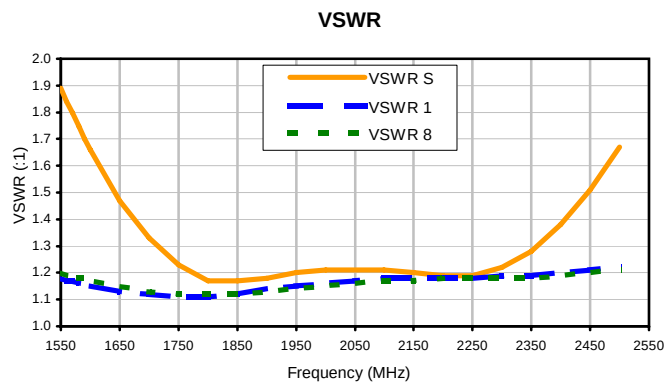
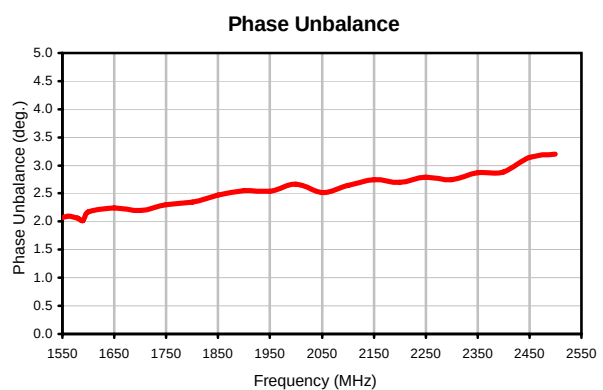
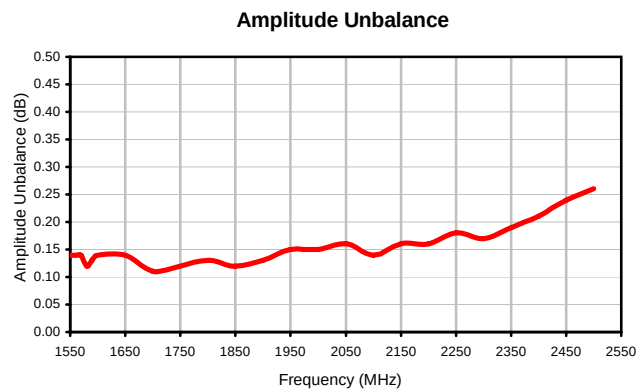
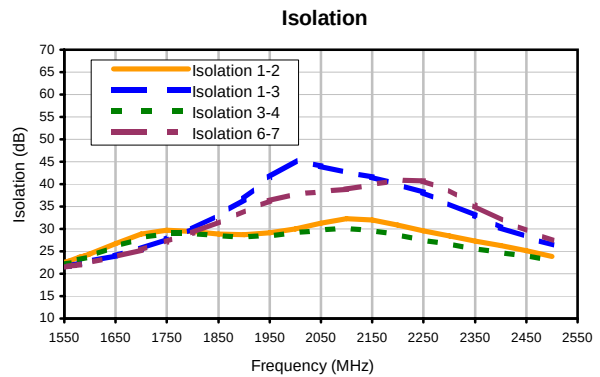
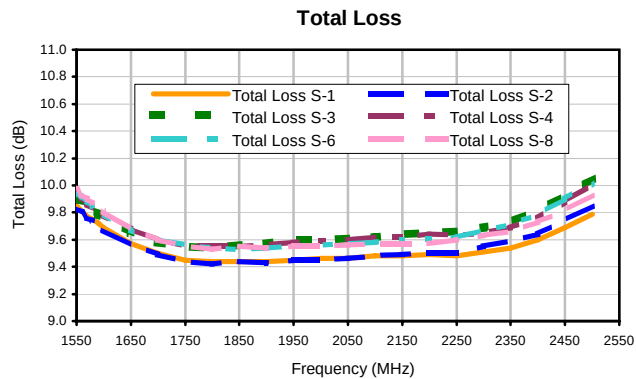


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 ZB8PD-252+
 5/9/2012
 Page 1 of 1

8 Way-0° Power Splitter/Combiner

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Typical Performance Curves



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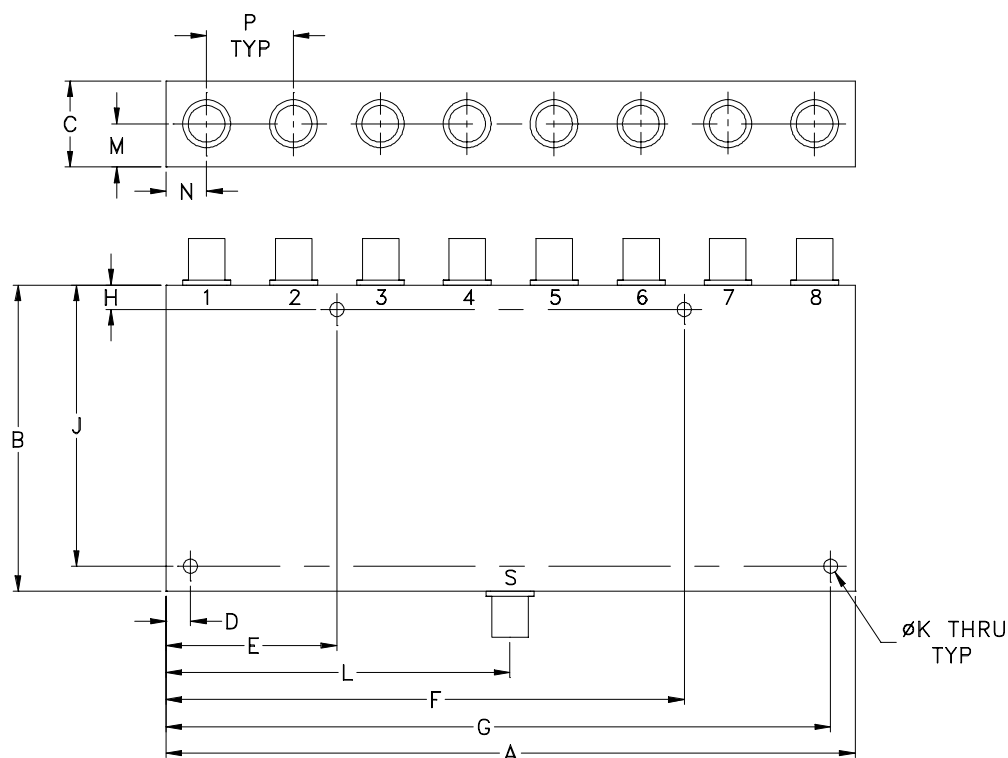


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REV. OR
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Page 1 of 1

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.



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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