

Power Splitter/Combiner

8 Way-0° 50Ω 7200 to 8400 MHz

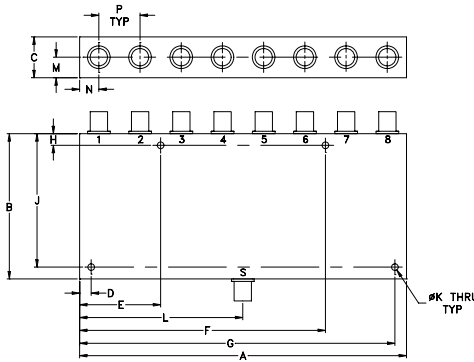
Maximum Ratings

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

Features

- wideband, 7200 to 8400 MHz
- low insertion loss 0.9 dB typ.
- good isolation, 25 dB typ.
- up to 10 power input
- rugged shielded case

Applications

- SHF
- defense communication
- cable TV relay
- instrumentation

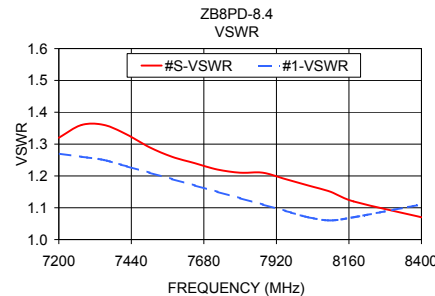
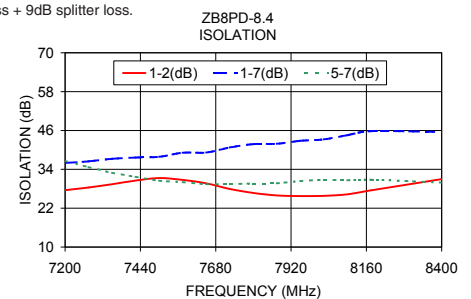
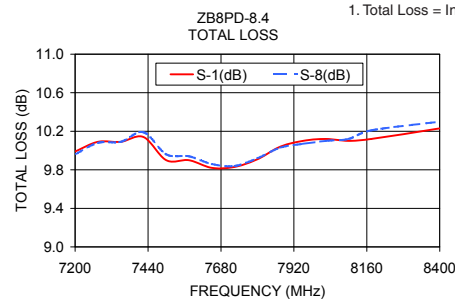
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 9.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
$f_c - f_u$	Typ.	Min.	Typ.	Max.	Max.	Max.
7200-8400	25	20	0.9	1.6	15	0.8

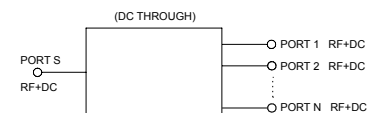
Typical Performance Data

Frequency (MHz)	Total Loss¹ (dB)						Amplitude Unbalance (dB)	Isolation (dB)				VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	5-7			
7200.00	9.99	9.86	9.89	9.97	9.90	9.96	0.13	27.56	35.97	25.40	36.63	1.32	1.27	1.24
7275.00	10.09	9.98	10.01	10.05	10.01	10.08	0.11	28.39	36.47	25.75	34.71	1.36	1.26	1.23
7350.00	10.09	9.98	10.03	10.02	10.05	10.09	0.12	29.42	37.25	26.64	32.95	1.36	1.25	1.22
7425.00	10.14	10.04	10.09	10.09	10.14	10.19	0.15	30.53	37.66	27.75	31.69	1.33	1.23	1.20
7500.00	9.90	9.80	9.84	9.84	9.91	9.96	0.15	31.30	37.87	28.82	30.49	1.29	1.21	1.18
7575.00	9.90	9.80	9.82	9.82	9.88	9.94	0.14	30.74	39.13	29.46	30.06	1.26	1.19	1.15
7650.00	9.82	9.72	9.74	9.72	9.77	9.86	0.14	29.68	39.20	28.73	29.43	1.24	1.17	1.14
7725.00	9.83	9.73	9.74	9.75	9.74	9.84	0.11	27.93	40.74	27.66	29.46	1.22	1.15	1.10
7800.00	9.91	9.81	9.81	9.81	9.80	9.92	0.14	26.71	41.79	26.33	29.64	1.21	1.13	1.09
7875.00	10.04	9.92	9.91	9.92	9.90	10.03	0.16	25.94	41.90	25.43	29.70	1.21	1.11	1.08
7950.00	10.10	9.99	9.96	9.98	9.95	10.07	0.17	25.75	42.81	24.95	30.40	1.19	1.09	1.07
8025.00	10.12	10.02	9.96	10.00	9.98	10.10	0.17	25.81	43.25	25.16	30.74	1.17	1.07	1.05
8100.00	10.10	10.00	9.95	9.99	9.96	10.12	0.16	26.29	44.56	25.49	30.63	1.15	1.06	1.04
8175.00	10.12	10.01	9.98	10.01	9.96	10.21	0.25	27.52	45.80	26.55	30.81	1.12	1.07	1.03
8400.00	10.23	10.13	10.18	10.29	10.13	10.30	0.18	30.99	45.55	33.14	29.92	1.07	1.11	1.04

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



electrical schematic



Notes

- A. 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.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
 C. 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



ZB8PD-8.4



Generic photo used for illustration purposes only

SMA version shown
 CASE STYLE: Z41

Connectors	Model
SMA	ZB8PD-8.4-S
N-TYPE	ZB8PD-8.4-N

8 Way-0° Power Splitter/Combiner

ZB8PD-8.4

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)						AMP. UNBAL. (dB)	ISOLATION (dB)				FREQ. (MHz)	VSWR (:1)		
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-8	3-4	5-7		S	1	8
7200.0	9.99	9.86	9.89	9.97	9.90	9.96	0.13	27.56	35.97	25.40	36.63	7200.0	1.32	1.27	1.24
7275.0	10.09	9.98	10.01	10.05	10.01	10.08	0.11	28.39	36.47	25.75	34.71	7275.0	1.36	1.26	1.23
7350.0	10.09	9.98	10.03	10.02	10.05	10.09	0.12	29.42	37.25	26.64	32.95	7350.0	1.36	1.25	1.22
7425.0	10.14	10.04	10.09	10.09	10.14	10.19	0.15	30.53	37.66	27.75	31.69	7425.0	1.33	1.23	1.20
7500.0	9.90	9.80	9.84	9.84	9.91	9.96	0.15	31.30	37.87	28.82	30.49	7500.0	1.29	1.21	1.18
7575.0	9.90	9.80	9.82	9.82	9.88	9.94	0.14	30.74	39.13	29.46	30.06	7575.0	1.26	1.19	1.15
7650.0	9.82	9.72	9.74	9.72	9.77	9.86	0.14	29.68	39.20	28.73	29.43	7650.0	1.24	1.17	1.14
7725.0	9.83	9.73	9.74	9.75	9.74	9.84	0.11	27.93	40.74	27.66	29.46	7725.0	1.22	1.15	1.10
7800.0	9.91	9.81	9.81	9.81	9.80	9.92	0.14	26.71	41.79	26.33	29.64	7800.0	1.21	1.13	1.09
7875.0	10.04	9.92	9.91	9.92	9.90	10.03	0.16	25.94	41.90	25.43	29.70	7875.0	1.21	1.11	1.08
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8025.0	10.12	10.02	9.96	10.00	9.98	10.10	0.17	25.81	43.25	25.16	30.74	8025.0	1.17	1.07	1.05
8100.0	10.10	10.00	9.95	9.99	9.96	10.12	0.16	26.29	44.56	25.49	30.63	8100.0	1.15	1.06	1.04
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8400.0	10.23	10.13	10.18	10.29	10.13	10.30	0.18	30.99	45.55	33.14	29.92	8400.0	1.07	1.11	1.04

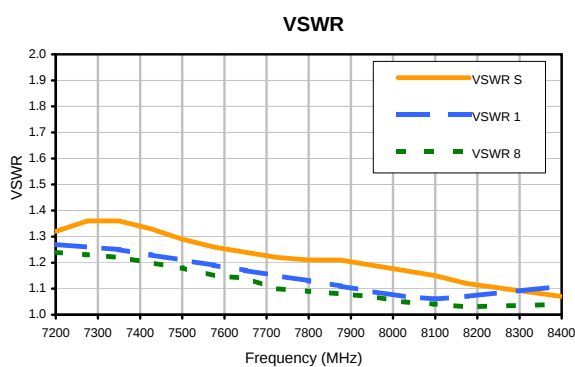
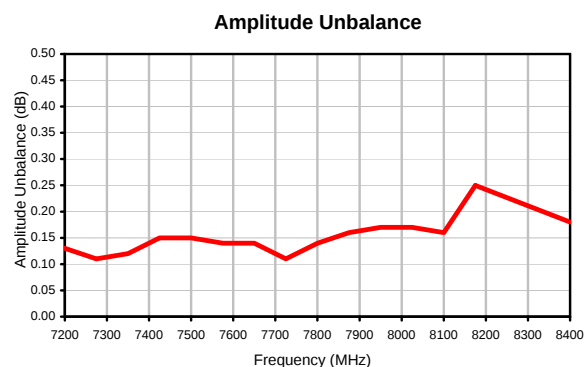
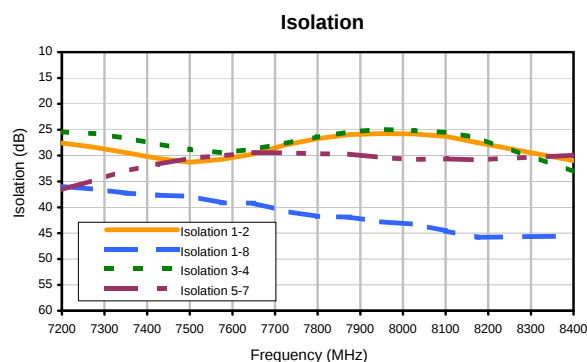
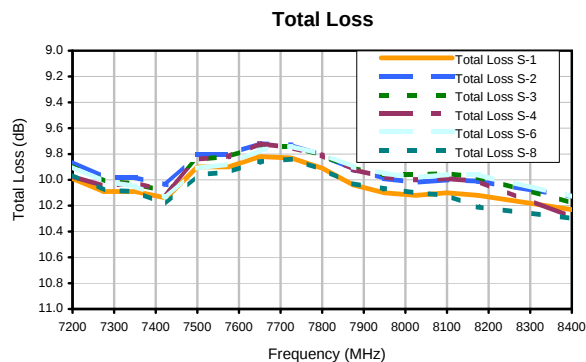
¹ Total Loss = Insertion Loss+ 9dB Splitter Loss

REV. X2
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8 Way-0° Power Splitter/Combiner

ZB8PD-8.4

Typical Performance Curves



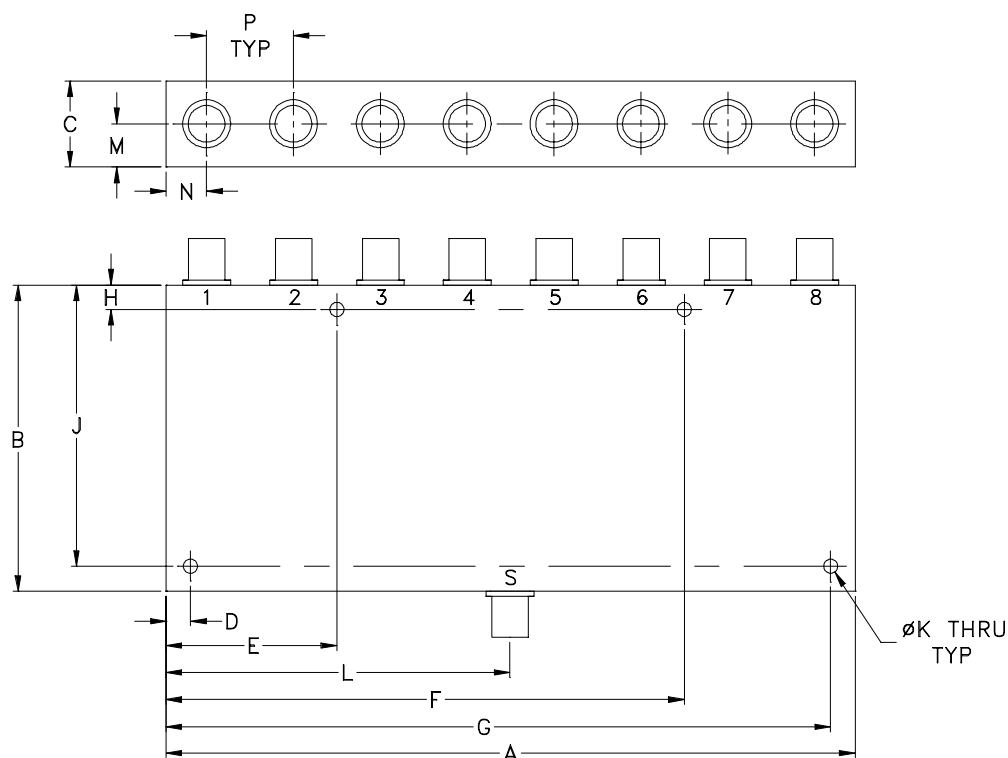
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Outline Dimensions



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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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