

Engineering Development Model

Power Splitter/Combiner

ZB4PD-ED10581/1

4 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		600		1200 MHz
Isolation	600 - 1200 MHz		30	dB
Insertion Loss Above 6.0 dB	600 - 1200 MHz		0.40	dB
Phase Unbalance	600 - 1200 MHz		0.360	deg.
Amplitude Unbalance	600 - 1200 MHz		0.041	dB
VSWR	SUM Port		1.30	(:1)
	OUT Ports		1.30	(:1)

Note: This unit has 4 connectors on the output side.

Connectors 1, 2 , 7, and 8 shown in the photo are replaced by plugs.

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

Functional Diagram



PIN CONNECTIONS	
SUM PORT	
PORT 1	
PORT 2	
PORT 3	
PORT 4	
PORT 5	
PORT 6	
PORT 7	
PORT 8	
NOT USED	

4 Way-0° Power Splitter/Combiner

ZB4PD-ED10581/1

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		1-2	2-3	3-4			S	1	2	3	4
600.0	6.51	6.48	6.51	6.49	0.03	23.63	21.10	24.12	0.24	600.0	1.66	1.12	1.11	1.11	1.10
622.0	6.50	6.47	6.50	6.48	0.03	24.19	21.88	24.71	0.20	622.0	1.62	1.11	1.11	1.10	1.10
644.0	6.47	6.44	6.47	6.45	0.04	24.72	22.72	25.26	0.24	644.0	1.58	1.10	1.10	1.09	1.09
666.0	6.42	6.39	6.43	6.41	0.04	25.30	23.66	25.84	0.24	666.0	1.52	1.09	1.09	1.08	1.08
688.0	6.39	6.36	6.40	6.38	0.04	26.04	24.73	26.57	0.26	688.0	1.45	1.08	1.08	1.08	1.07
710.0	6.35	6.33	6.37	6.33	0.04	26.98	25.95	27.46	0.27	710.0	1.38	1.07	1.07	1.07	1.06
732.0	6.32	6.29	6.33	6.30	0.04	28.14	27.32	28.56	0.31	732.0	1.31	1.06	1.07	1.06	1.05
754.0	6.29	6.26	6.30	6.28	0.03	29.59	28.97	29.89	0.33	754.0	1.24	1.05	1.06	1.06	1.05
776.0	6.26	6.24	6.27	6.25	0.03	31.25	30.85	31.32	0.36	776.0	1.18	1.05	1.06	1.05	1.04
798.0	6.24	6.22	6.26	6.23	0.05	33.13	32.99	32.76	0.37	798.0	1.13	1.04	1.05	1.05	1.04
820.0	6.25	6.23	6.27	6.23	0.04	34.84	35.13	33.81	0.35	820.0	1.10	1.04	1.05	1.05	1.04
824.0	6.23	6.22	6.26	6.22	0.04	35.08	35.44	33.89	0.36	824.0	1.09	1.04	1.05	1.05	1.04
829.0	6.24	6.24	6.27	6.24	0.03	35.32	35.86	33.96	0.29	829.0	1.09	1.04	1.05	1.05	1.04
834.0	6.25	6.23	6.27	6.24	0.04	35.52	36.16	34.03	0.34	834.0	1.09	1.04	1.05	1.05	1.04
839.0	6.24	6.23	6.27	6.23	0.04	35.70	36.20	34.10	0.35	839.0	1.10	1.05	1.05	1.05	1.04
844.0	6.25	6.23	6.26	6.23	0.04	35.77	36.24	34.05	0.40	844.0	1.10	1.05	1.05	1.05	1.04
849.0	6.25	6.23	6.27	6.23	0.04	35.67	36.21	33.94	0.35	849.0	1.10	1.05	1.05	1.05	1.05
854.0	6.25	6.23	6.26	6.23	0.03	35.64	36.04	33.85	0.34	854.0	1.11	1.05	1.06	1.05	1.05
859.0	6.24	6.22	6.26	6.22	0.04	35.58	35.75	33.74	0.40	859.0	1.12	1.05	1.06	1.05	1.05
864.0	6.24	6.23	6.25	6.23	0.03	35.45	35.36	33.61	0.37	864.0	1.12	1.05	1.06	1.06	1.05
869.0	6.25	6.23	6.25	6.23	0.02	35.32	34.97	33.47	0.39	869.0	1.13	1.05	1.06	1.06	1.05
874.0	6.25	6.23	6.26	6.23	0.03	35.08	34.52	33.30	0.42	874.0	1.14	1.05	1.06	1.06	1.05
879.0	6.25	6.23	6.26	6.23	0.03	34.90	34.04	33.15	0.39	879.0	1.15	1.05	1.06	1.06	1.05
884.0	6.25	6.24	6.27	6.24	0.03	34.71	33.55	33.01	0.38	884.0	1.15	1.05	1.06	1.06	1.05
889.0	6.26	6.24	6.27	6.24	0.03	34.48	33.07	32.88	0.34	889.0	1.16	1.05	1.06	1.06	1.05
894.0	6.27	6.24	6.28	6.25	0.03	34.34	32.56	32.73	0.35	894.0	1.17	1.05	1.06	1.06	1.05
900.0	6.28	6.27	6.30	6.26	0.04	34.04	32.01	32.61	0.35	900.0	1.18	1.06	1.06	1.06	1.05
920.0	6.28	6.28	6.30	6.27	0.04	33.45	30.29	32.20	0.32	920.0	1.20	1.06	1.06	1.06	1.06
940.0	6.29	6.28	6.32	6.27	0.05	32.97	28.69	31.99	0.38	940.0	1.22	1.07	1.07	1.07	1.06
960.0	6.31	6.28	6.32	6.27	0.04	32.63	27.35	31.92	0.37	960.0	1.23	1.07	1.07	1.07	1.07
980.0	6.30	6.29	6.31	6.27	0.04	32.29	26.20	31.95	0.38	980.0	1.23	1.08	1.08	1.08	1.07
1000.0	6.29	6.29	6.31	6.27	0.04	31.72	25.13	31.82	0.39	1000.0	1.22	1.08	1.08	1.08	1.08
1020.0	6.30	6.29	6.33	6.28	0.05	30.88	24.25	31.33	0.40	1020.0	1.20	1.09	1.09	1.09	1.08
1040.0	6.29	6.28	6.31	6.27	0.04	29.55	23.42	30.26	0.41	1040.0	1.17	1.10	1.10	1.10	1.09
1060.0	6.27	6.27	6.31	6.25	0.06	28.02	22.67	28.79	0.40	1060.0	1.15	1.11	1.11	1.11	1.10
1080.0	6.28	6.28	6.31	6.26	0.05	26.35	22.01	27.09	0.44	1080.0	1.14	1.13	1.12	1.12	1.12
1100.0	6.29	6.29	6.32	6.26	0.06	24.66	21.42	25.31	0.41	1100.0	1.15	1.14	1.14	1.14	1.13
1125.0	6.32	6.32	6.34	6.28	0.06	22.70	20.73	23.21	0.48	1125.0	1.21	1.17	1.16	1.16	1.15
1150.0	6.38	6.38	6.40	6.34	0.06	20.93	20.13	21.34	0.46	1150.0	1.30	1.19	1.19	1.18	1.18
1175.0	6.47	6.49	6.50	6.43	0.07	19.36	19.59	19.68	0.46	1175.0	1.43	1.22	1.22	1.21	1.21
1200.0	6.59	6.61	6.62	6.55	0.07	17.99	19.11	18.26	0.45	1200.0	1.57	1.26	1.25	1.25	1.24

¹ Total Loss = Insertion Loss + 6dB Splitter Loss

REV. X2

ZB4PD-ED10581/1

100707

Page 1 of 1



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



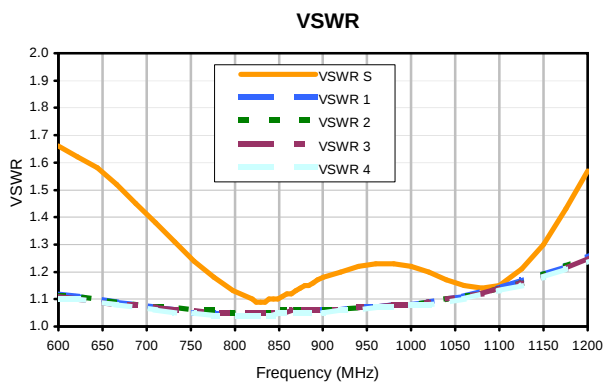
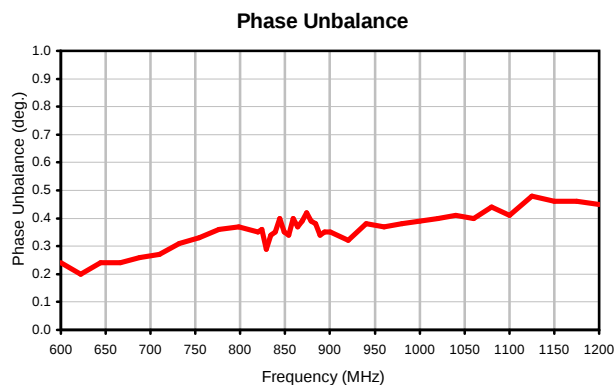
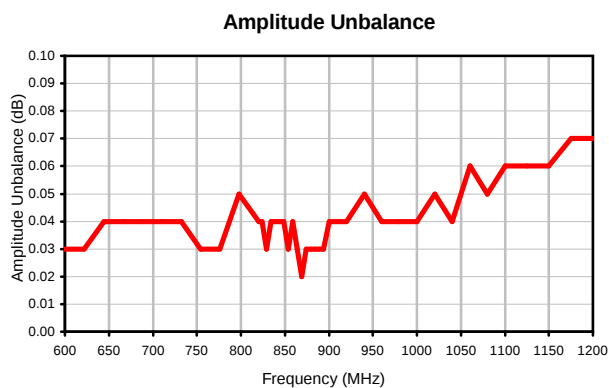
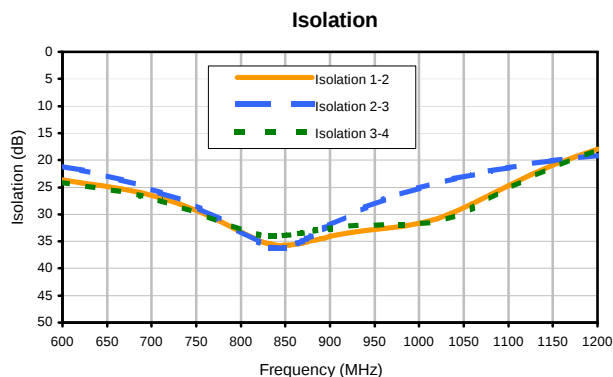
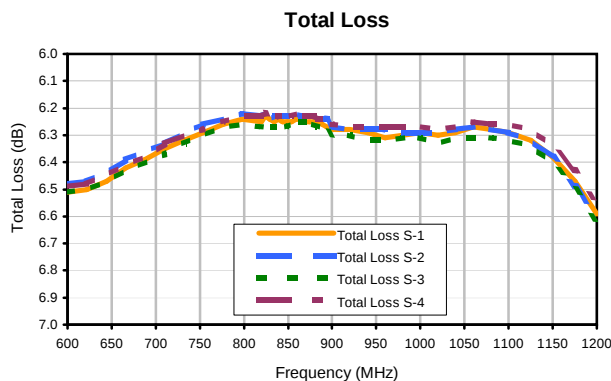
The Design Engineers Search Engine finds the model you need, instantly • For detailed performance specs & shopping online see



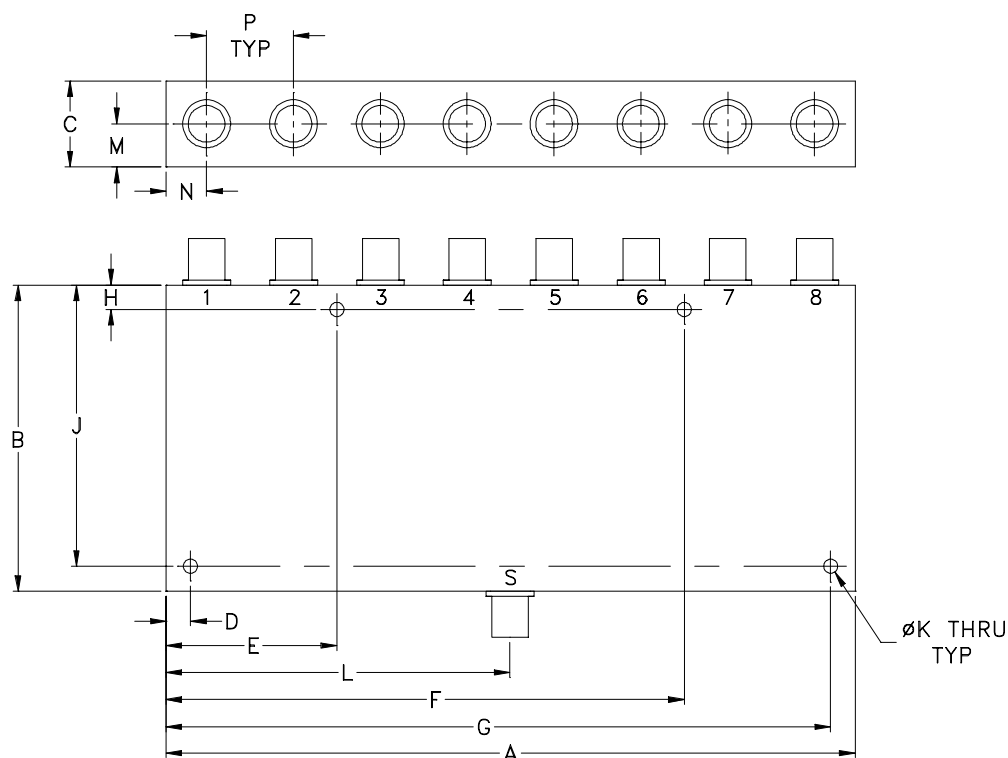
4 Way-0° Power Splitter/Combiner

ZB4PD-ED10581/1

Typical Performance Curves



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
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I