

Engineering Development Model

Power Splitter/Combiner

ZC4PD-ED12541/1

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 : Z184

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		1600		2200 MHz
Isolation	1600 - 2200 MHz		25	dB
Insertion Loss Above 6.0 dB	1600 - 2200 MHz		0.40	dB
Phase Unbalance	1600 - 2200 MHz		2.928	deg.
Amplitude Unbalance	1600 - 2200 MHz		0.051	dB
VSWR	SUM Port		1.20	(:1)
	OUT Ports		1.15	(:1)

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°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

Functional Diagram



4 Way-0° Power Splitter/Combiner

ZC4PD-ED12541/1

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
1500.0	6.22	6.20	6.19	6.16	0.06	17.71	21.61	17.81	1.56	1500.0	1.11	1.04	1.07	1.08	1.03
1520.0	6.22	6.20	6.19	6.16	0.06	18.15	21.89	18.24	1.57	1520.0	1.11	1.04	1.07	1.08	1.03
1540.0	6.22	6.21	6.19	6.16	0.06	18.59	22.18	18.69	1.58	1540.0	1.11	1.04	1.07	1.08	1.03
1560.0	6.22	6.21	6.20	6.16	0.06	19.07	22.49	19.16	1.61	1560.0	1.11	1.03	1.07	1.08	1.03
1580.0	6.23	6.22	6.20	6.17	0.06	19.57	22.80	19.65	1.61	1580.0	1.12	1.03	1.07	1.08	1.02
1600.0	6.23	6.22	6.21	6.17	0.06	20.09	23.13	20.17	1.62	1600.0	1.12	1.04	1.07	1.08	1.03
1620.0	6.23	6.22	6.21	6.17	0.06	20.65	23.47	20.74	1.62	1620.0	1.13	1.04	1.07	1.07	1.03
1640.0	6.23	6.23	6.21	6.18	0.06	21.24	23.83	21.33	1.62	1640.0	1.13	1.04	1.07	1.07	1.03
1660.0	6.23	6.23	6.22	6.18	0.05	21.88	24.21	21.97	1.66	1660.0	1.13	1.03	1.07	1.07	1.02
1680.0	6.24	6.24	6.22	6.18	0.06	22.57	24.60	22.66	1.66	1680.0	1.14	1.03	1.07	1.07	1.02
1700.0	6.24	6.24	6.22	6.19	0.06	23.32	25.01	23.41	1.69	1700.0	1.14	1.04	1.07	1.07	1.02
1720.0	6.24	6.25	6.23	6.19	0.06	24.14	25.45	24.23	1.69	1720.0	1.14	1.04	1.07	1.07	1.03
1740.0	6.24	6.25	6.23	6.19	0.06	25.05	25.91	25.16	1.68	1740.0	1.14	1.04	1.07	1.07	1.03
1760.0	6.24	6.25	6.23	6.19	0.06	26.07	26.41	26.18	1.70	1760.0	1.14	1.04	1.07	1.07	1.03
1780.0	6.24	6.26	6.23	6.19	0.07	27.23	26.93	27.35	1.69	1780.0	1.14	1.04	1.08	1.07	1.03
1800.0	6.24	6.26	6.23	6.19	0.07	28.58	27.49	28.72	1.71	1800.0	1.15	1.04	1.08	1.07	1.03
1820.0	6.24	6.26	6.24	6.19	0.07	30.18	28.08	30.36	1.70	1820.0	1.15	1.05	1.08	1.07	1.03
1840.0	6.24	6.27	6.24	6.19	0.08	32.11	28.72	32.33	1.71	1840.0	1.15	1.05	1.08	1.07	1.04
1850.0	6.24	6.27	6.24	6.19	0.08	33.25	29.04	33.50	1.72	1850.0	1.15	1.05	1.08	1.07	1.04
1860.0	6.24	6.27	6.24	6.19	0.08	34.50	29.39	34.83	1.73	1860.0	1.15	1.06	1.09	1.07	1.04
1880.0	6.24	6.28	6.25	6.19	0.08	37.44	30.12	38.00	1.74	1880.0	1.15	1.06	1.09	1.08	1.04
1900.0	6.25	6.29	6.25	6.20	0.09	40.18	30.91	41.14	1.77	1900.0	1.15	1.06	1.10	1.08	1.05
1920.0	6.26	6.30	6.26	6.21	0.09	39.87	31.74	40.60	1.80	1920.0	1.16	1.07	1.10	1.08	1.06
1940.0	6.27	6.31	6.27	6.22	0.09	36.89	32.62	37.19	1.82	1940.0	1.17	1.08	1.10	1.08	1.06
1960.0	6.29	6.33	6.29	6.23	0.09	33.96	33.55	34.10	1.86	1960.0	1.17	1.08	1.11	1.09	1.07
1980.0	6.31	6.35	6.32	6.26	0.09	31.62	34.51	31.69	1.90	1980.0	1.19	1.09	1.11	1.09	1.07
1990.0	6.33	6.37	6.33	6.28	0.09	30.65	34.98	30.69	1.90	1990.0	1.19	1.09	1.12	1.09	1.08
2000.0	6.35	6.39	6.35	6.30	0.09	29.79	35.47	29.84	1.92	2000.0	1.20	1.09	1.12	1.10	1.08
2020.0	6.41	6.44	6.40	6.35	0.08	28.36	36.54	28.41	1.90	2020.0	1.21	1.10	1.13	1.10	1.09
2040.0	6.46	6.47	6.43	6.39	0.08	27.22	38.13	27.28	1.83	2040.0	1.22	1.11	1.13	1.11	1.10
2060.0	6.46	6.48	6.44	6.40	0.08	26.14	40.71	26.20	1.73	2060.0	1.23	1.11	1.14	1.11	1.10
2080.0	6.43	6.47	6.43	6.37	0.10	25.03	44.59	25.10	1.68	2080.0	1.24	1.11	1.14	1.12	1.10
2100.0	6.40	6.45	6.41	6.34	0.11	23.98	50.19	24.03	1.67	2100.0	1.26	1.12	1.15	1.12	1.11
2120.0	6.38	6.44	6.40	6.32	0.12	23.02	50.95	23.06	1.69	2120.0	1.28	1.12	1.16	1.13	1.12
2140.0	6.37	6.45	6.40	6.31	0.13	22.15	46.07	22.18	1.70	2140.0	1.32	1.14	1.17	1.14	1.13
2160.0	6.38	6.46	6.42	6.32	0.14	21.37	42.47	21.39	1.75	2160.0	1.35	1.15	1.18	1.15	1.14
2180.0	6.38	6.47	6.43	6.32	0.15	20.66	39.87	20.68	1.75	2180.0	1.38	1.16	1.19	1.16	1.16
2200.0	6.40	6.50	6.45	6.34	0.16	20.01	37.98	20.03	1.79	2200.0	1.42	1.17	1.20	1.17	1.16
2250.0	6.45	6.57	6.53	6.40	0.17	18.61	34.65	18.62	1.92	2250.0	1.53	1.20	1.24	1.20	1.20
2275.0	6.49	6.62	6.57	6.44	0.18	18.01	33.47	18.02	1.95	2275.0	1.60	1.22	1.25	1.22	1.22
2300.0	6.54	6.67	6.63	6.48	0.19	17.46	32.49	17.47	2.02	2300.0	1.66	1.24	1.27	1.24	1.24

¹ Total Loss = Insertion Loss + 6dB Splitter Loss

REV. X2

ZC4PD-ED12541/1

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



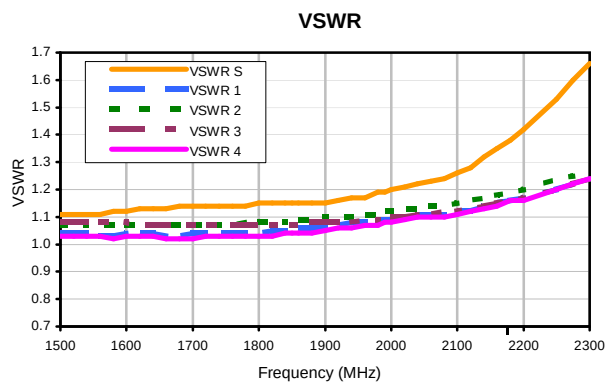
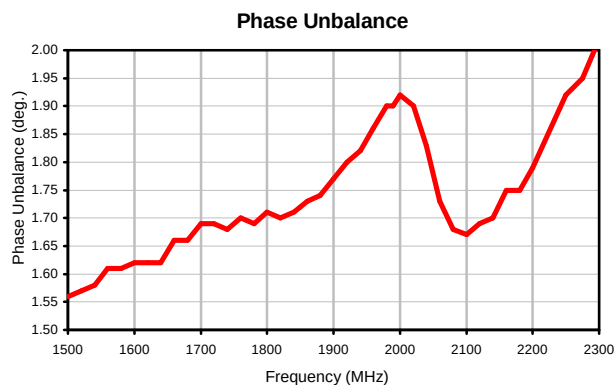
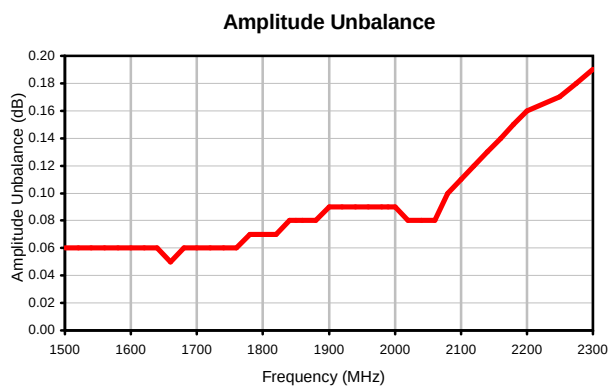
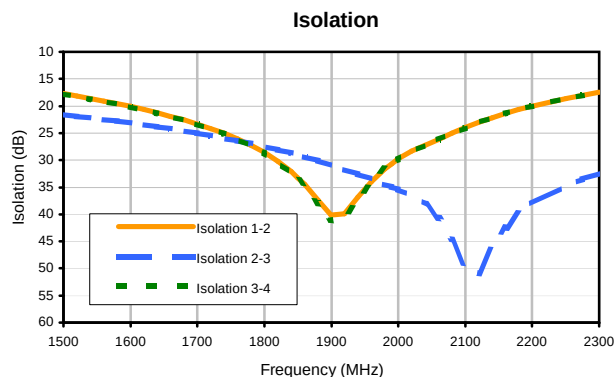
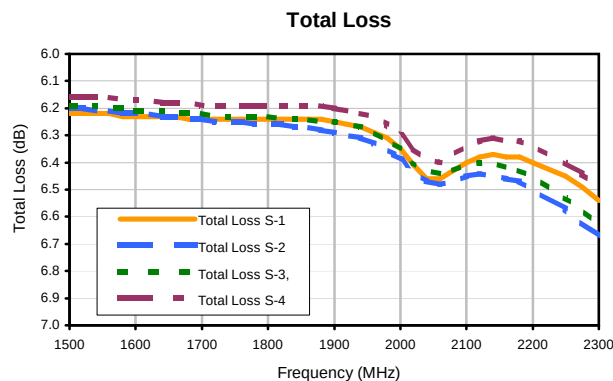
The Design Engineers Search Engine finds the model you need, instantly • For detailed performance specs & shopping online see



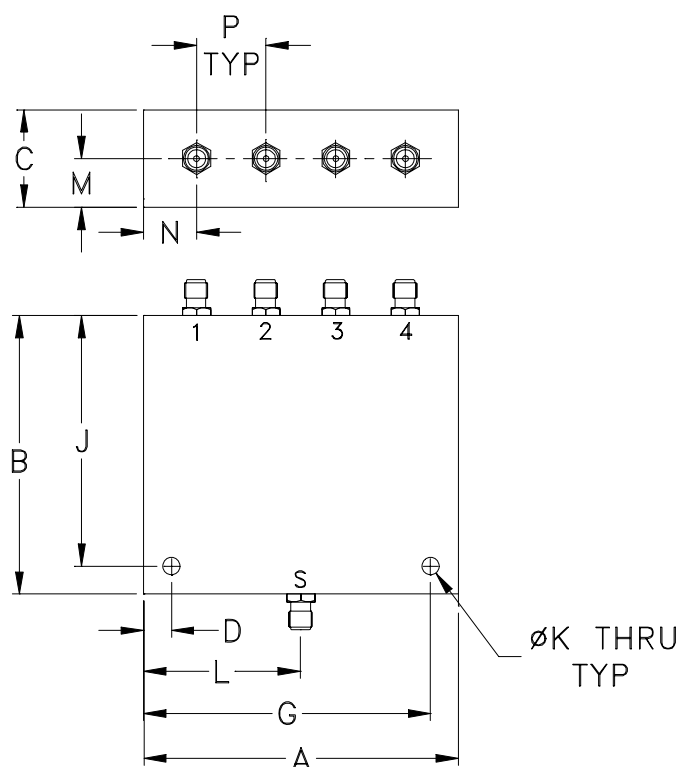
4 Way-0° Power Splitter/Combiner

ZC4PD-ED12541/1

Typical Performance Curves



Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
Z184	2.26 (57.40)	2.00 (50.80)	.70 (17.78)	.200 (5.08)	--	--	2.060 (52.32)	--	1.800 (45.72)	.125 (3.17)	1.13 (28.70)	.35 (8.89)	.38 (9.65)

CASE#	P	WT.GRAMS
Z184	.500 (12.70)	59

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.



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

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

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



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