

Engineering Development Model

Power Splitter/Combiner* 4 Way-0°

ZFSCDC4-ED13203/1

*With coupler

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 : 99-01-1271

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		5		600 MHz
Isolation	5-50 MHz		37	dB
	50-300 MHz		29	dB
	300-600 MHz		29	dB
Insertion Loss Above 6.0 dB	5-50 MHz		1.05	dB
	50-300 MHz		1.20	dB
	300-600 MHz		1.50	dB
Phase Unbalance	5-50 MHz		0.10	deg.
	50-300 MHz		0.25	deg.
	300-600 MHz		0.50	deg.
Amplitude Unbalance	5-50 MHz		0.01	dB
	50-300 MHz		0.01	dB
	300-600 MHz		0.05	dB
Coupling	5-600 MHz		20.4±1	dB
VSWR	SUM Port		1.10	(:1)
	OUT Ports		1.06	(:1)
	COUPLED Port		1.08	(:1)

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

COAXIAL CONNECTIONS	
SUM PORT	J5
PORT 1	J1
PORT 2	J2
PORT 3	J3
PORT 4	J4
COUPLED	J6



P.O. Box 350168, Brooklyn, New York 11235-0000 (718) 934-4500 Fax (718) 332-4951 For detailed performance specs & shopping online see Mini-Circuits web site
The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINICIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS



REV. X1
ZFSCDC4-ED13203/1
12/11/2008
Page 1 of 1

4 Way-0° Power Splitter/Combiner with Coupler

ZFSCDC4-ED13203/1

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹				AMP. UNBAL. (dB)	ISOLATION			PHASE UNBAL. (deg.)	COUPLING				FREQ. (MHz)	VSWR					
	(dB)					(dB)				(dB)					(:1)					
	J5-J1	J5-J2	J5-J3	J5-J4		J1-J2	J2-J3	J3-J4		J6-J1	J6-J2	J6-J3	J6-J4		J5	J1	J2	J3	J4	J6
5.0	7.15	7.15	7.15	7.15	0.00	53.09	27.41	54.53	0.10	20.14	20.15	20.15	20.15	5.0	1.19	1.12	1.12	1.13	1.13	1.09
10.0	7.03	7.03	7.02	7.03	0.00	45.99	27.99	46.67	0.06	20.05	20.06	20.05	20.05	10.0	1.13	1.08	1.07	1.08	1.08	1.06
20.0	7.00	7.01	7.00	7.00	0.01	41.34	28.24	41.94	0.08	20.02	20.04	20.03	20.03	20.0	1.09	1.05	1.05	1.05	1.05	1.04
30.0	7.01	7.02	7.01	7.01	0.01	38.80	28.31	39.31	0.07	20.03	20.05	20.04	20.03	30.0	1.09	1.05	1.05	1.05	1.05	1.03
40.0	7.03	7.04	7.03	7.03	0.01	36.99	28.34	37.38	0.09	20.04	20.06	20.05	20.05	40.0	1.09	1.05	1.05	1.05	1.05	1.03
50.0	7.05	7.05	7.05	7.05	0.00	35.53	28.35	35.85	0.13	20.06	20.07	20.07	20.06	50.0	1.08	1.05	1.05	1.05	1.05	1.03
60.0	7.07	7.07	7.07	7.07	0.01	34.35	28.37	34.60	0.16	20.08	20.10	20.09	20.09	60.0	1.08	1.05	1.05	1.05	1.05	1.03
70.0	7.09	7.09	7.09	7.09	0.01	33.35	28.38	33.57	0.17	20.11	20.12	20.11	20.11	70.0	1.08	1.05	1.05	1.05	1.05	1.03
80.0	7.11	7.11	7.11	7.11	0.01	32.49	28.38	32.67	0.17	20.13	20.14	20.14	20.13	80.0	1.08	1.05	1.05	1.05	1.05	1.03
90.0	7.12	7.12	7.12	7.12	0.00	31.72	28.36	31.87	0.17	20.15	20.16	20.15	20.15	90.0	1.09	1.05	1.05	1.05	1.05	1.04
100.0	7.13	7.14	7.13	7.13	0.00	31.03	28.32	31.16	0.17	20.16	20.17	20.17	20.16	100.0	1.09	1.05	1.06	1.05	1.05	1.04
110.0	7.14	7.15	7.15	7.15	0.00	30.40	28.30	30.51	0.18	20.18	20.19	20.19	20.17	110.0	1.09	1.06	1.06	1.06	1.05	1.04
120.0	7.16	7.16	7.16	7.17	0.01	29.83	28.29	29.93	0.20	20.20	20.21	20.21	20.20	120.0	1.09	1.06	1.06	1.06	1.05	1.04
130.0	7.18	7.18	7.18	7.18	0.00	29.36	28.32	29.43	0.21	20.22	20.23	20.23	20.22	130.0	1.09	1.06	1.06	1.06	1.05	1.05
140.0	7.18	7.19	7.20	7.20	0.01	28.95	28.35	28.99	0.23	20.23	20.25	20.26	20.24	140.0	1.09	1.06	1.06	1.06	1.05	1.05
150.0	7.20	7.21	7.21	7.21	0.01	28.60	28.39	28.63	0.26	20.26	20.27	20.28	20.26	150.0	1.09	1.06	1.06	1.06	1.05	1.05
160.0	7.22	7.22	7.23	7.22	0.01	28.30	28.43	28.31	0.26	20.28	20.29	20.30	20.28	160.0	1.09	1.06	1.06	1.06	1.05	1.05
170.0	7.23	7.24	7.24	7.24	0.01	28.03	28.46	28.02	0.28	20.30	20.31	20.32	20.29	170.0	1.09	1.06	1.06	1.06	1.05	1.06
180.0	7.24	7.24	7.25	7.24	0.01	27.78	28.49	27.74	0.26	20.31	20.32	20.33	20.30	180.0	1.09	1.06	1.06	1.06	1.06	1.06
200.0	7.25	7.26	7.27	7.26	0.02	27.35	28.60	27.28	0.25	20.34	20.35	20.37	20.33	200.0	1.09	1.06	1.07	1.06	1.06	1.07
250.0	7.30	7.30	7.31	7.31	0.01	26.98	29.36	26.75	0.35	20.43	20.43	20.45	20.41	250.0	1.08	1.06	1.06	1.06	1.06	1.08
300.0	7.33	7.32	7.35	7.35	0.03	27.19	30.60	26.77	0.40	20.49	20.49	20.53	20.50	300.0	1.06	1.05	1.05	1.06	1.07	1.10
350.0	7.35	7.34	7.36	7.35	0.02	27.99	32.66	27.25	0.39	20.57	20.56	20.59	20.55	350.0	1.02	1.03	1.04	1.05	1.06	1.12
400.0	7.39	7.38	7.40	7.39	0.03	29.27	35.44	28.15	0.50	20.67	20.65	20.69	20.66	400.0	1.03	1.02	1.02	1.04	1.05	1.14
450.0	7.42	7.40	7.44	7.43	0.04	30.50	36.83	29.07	0.43	20.77	20.75	20.79	20.75	450.0	1.09	1.02	1.01	1.02	1.04	1.17
500.0	7.51	7.47	7.50	7.49	0.03	31.24	34.15	29.87	0.48	20.93	20.91	20.92	20.87	500.0	1.16	1.04	1.03	1.02	1.02	1.20
550.0	7.59	7.55	7.60	7.59	0.05	30.84	31.07	30.09	0.59	21.09	21.07	21.09	21.06	550.0	1.23	1.06	1.06	1.04	1.02	1.22
600.0	7.70	7.65	7.68	7.67	0.05	29.73	28.78	29.66	0.55	21.28	21.26	21.25	21.20	600.0	1.31	1.09	1.09	1.05	1.03	1.25

¹Total Loss = Insertion Loss + 6dB Splitter Loss



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site www.minicircuits.com

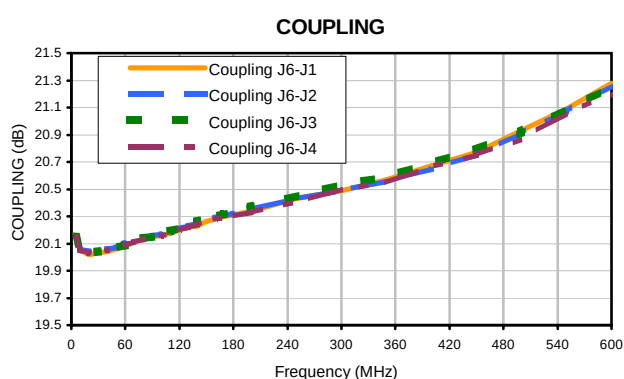
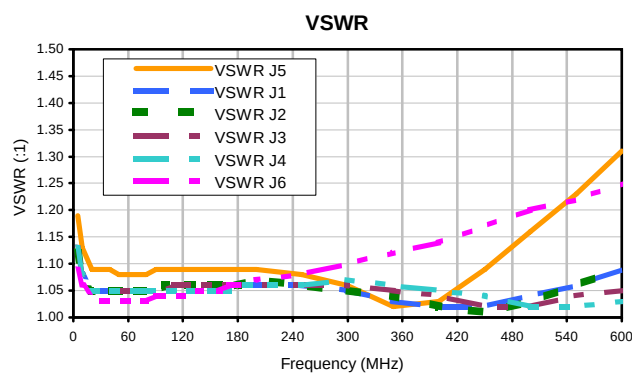
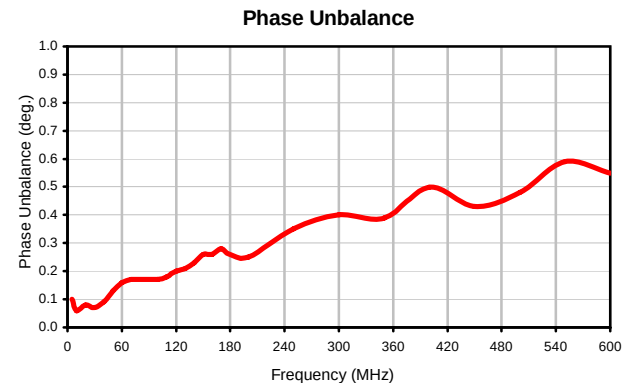
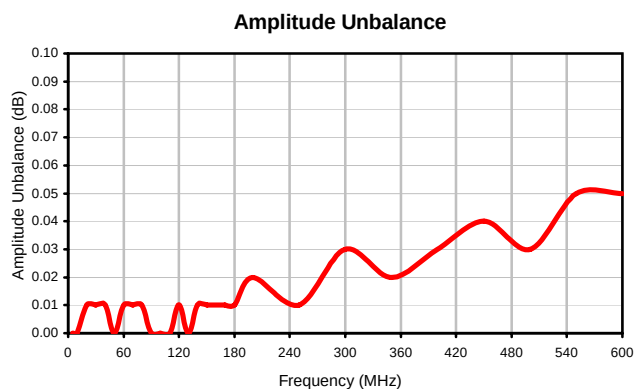
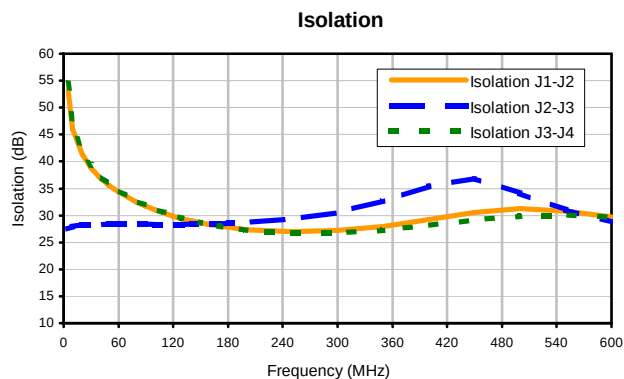
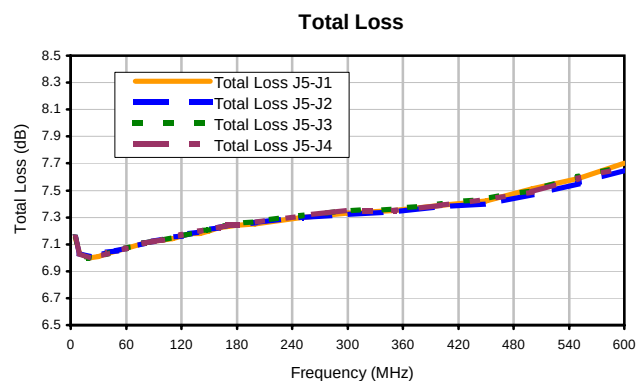


The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

REV. X2
ZFSCDC4-ED13203/1
9/17/2010
Page 1 of 1

Typical Performance Curves





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