Engineering Development Model

Power Splitter/Combiner* ZFSCDC8-ED13202/1

8 Way-0°

*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 : 99-01-669

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		5		700	MHz
Isolation	**5-50 MHz**		32		dB
	50-350 MHz		30		dB
	350-700 MHz		24		dB
Insertion Loss Above 9.0 dB	**5-50 MHz**		1.60		dB
	50-350 MHz		1.80		dB
	350-700 MHz		2.30		dB
Phase Unbalance	**5-50 MHz**		0.26		deg.
	50-350 MHz		0.87		deg.
	350-700 MHz		2.68		deg.
Amplitude Unbalance	**5-50 MHz**		0.03		dB
	50-350 MHz		0.02		dB
	350-700 MHz		0.08		dB
Coupling	**5-700 MHz**		20.45±.75		dB
VSWR	**SUM Port**		1.11		(:1)
	OUT Ports		1.10		(: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	J9
PORT 1	J1
PORT 2	J2
PORT 3	J3
PORT 4	J4
PORT 5	J5
PORT 6	J6
PORT 7	J7
PORT 8	J8
COUPLED	J10

8 Way-0° Power Splitter/Combiner with Coupler ZFSCDC8-ED13202/1

Typical Performance Data

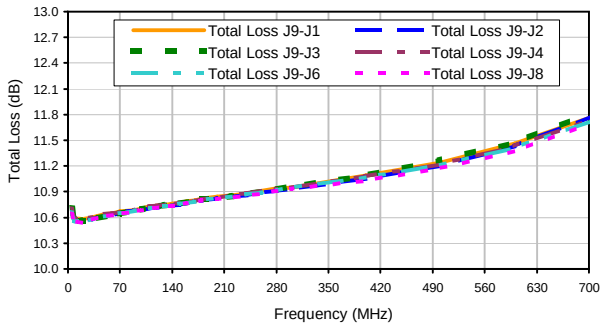
FREQ. (MHz)	TOTAL LOSS[1] (dB)						AMP. UNBAL. (dB)	ISOLATION (dB)				PHASE UNBAL. (deg.)	COUPLING (dB)					
	J9-J1	J9-J2	J9-J3	J9-J4	J9-J6	J9-J8		J1-J2	J2-J4	J5-J7	J6-J8		J10-J1	J10-J2	J10-J3	J10-J4	J10-J6	J10-J8
5.0	10.69	10.69	10.70	10.70	10.66	10.64	0.06	29.29	31.99	31.96	32.64	0.47	20.31	20.31	20.33	20.32	20.27	20.26
7.0	10.63	10.61	10.62	10.63	10.59	10.58	0.04	29.94	32.11	31.83	32.64	0.37	20.26	20.26	20.26	20.26	20.22	20.24
9.0	10.59	10.59	10.58	10.59	10.56	10.56	0.03	30.29	32.17	31.99	32.73	0.30	20.22	20.24	20.23	20.23	20.21	20.20
10.0	10.59	10.57	10.57	10.58	10.55	10.55	0.04	30.37	32.16	32.02	32.83	0.26	20.23	20.22	20.22	20.22	20.21	20.23
20.0	10.58	10.56	10.57	10.58	10.56	10.54	0.03	30.75	32.42	32.51	33.00	0.21	20.23	20.22	20.21	20.22	20.18	20.21
30.0	10.60	10.58	10.59	10.60	10.57	10.57	0.03	30.64	32.53	32.81	33.19	0.11	20.24	20.23	20.23	20.24	20.22	20.22
40.0	10.62	10.60	10.60	10.62	10.59	10.60	0.02	30.53	32.60	32.93	33.17	0.13	20.27	20.26	20.26	20.26	20.23	20.25
50.0	10.64	10.61	10.62	10.64	10.61	10.61	0.02	30.34	32.65	32.98	33.12	0.23	20.28	20.28	20.28	20.29	20.27	20.26
60.0	10.65	10.63	10.64	10.65	10.63	10.63	0.03	30.19	32.55	32.94	33.09	0.32	20.30	20.30	20.29	20.30	20.29	20.28
70.0	10.67	10.65	10.65	10.66	10.65	10.65	0.02	30.00	32.54	32.94	32.99	0.39	20.32	20.31	20.31	20.31	20.31	20.30
80.0	10.68	10.67	10.67	10.68	10.66	10.66	0.02	29.79	32.34	32.90	32.92	0.39	20.33	20.32	20.32	20.33	20.30	20.31
90.0	10.69	10.68	10.69	10.69	10.68	10.68	0.01	29.61	32.36	32.78	32.79	0.47	20.36	20.36	20.35	20.35	20.32	20.33
100.0	10.71	10.69	10.70	10.71	10.70	10.69	0.02	29.40	32.23	32.63	32.71	0.55	20.36	20.36	20.36	20.36	20.35	20.36
110.0	10.73	10.71	10.72	10.73	10.71	10.70	0.02	29.16	32.14	32.52	32.64	0.58	20.39	20.38	20.37	20.37	20.37	20.36
120.0	10.74	10.72	10.73	10.74	10.72	10.72	0.02	28.92	32.01	32.39	32.49	0.63	20.39	20.40	20.39	20.38	20.38	20.38
130.0	10.75	10.74	10.75	10.75	10.74	10.74	0.02	28.68	31.89	32.23	32.33	0.73	20.40	20.41	20.40	20.39	20.38	20.39
140.0	10.76	10.74	10.76	10.76	10.75	10.74	0.02	28.42	31.78	32.14	32.22	0.75	20.41	20.40	20.42	20.41	20.40	20.41
150.0	10.77	10.75	10.77	10.77	10.76	10.75	0.02	28.22	31.62	32.01	32.01	0.88	20.43	20.43	20.42	20.41	20.42	20.40
160.0	10.79	10.77	10.78	10.78	10.77	10.77	0.02	27.94	31.50	31.80	31.90	0.93	20.44	20.44	20.43	20.42	20.42	20.41
170.0	10.80	10.78	10.79	10.79	10.78	10.78	0.02	27.65	31.36	31.65	31.75	0.96	20.44	20.45	20.43	20.42	20.43	20.43
180.0	10.82	10.80	10.82	10.81	10.81	10.80	0.02	27.47	31.21	31.49	31.59	1.04	20.47	20.46	20.47	20.46	20.45	20.45
200.0	10.84	10.82	10.83	10.83	10.82	10.81	0.02	27.00	30.91	31.14	31.27	1.17	20.48	20.47	20.49	20.49	20.47	20.47
220.0	10.86	10.84	10.85	10.86	10.84	10.83	0.03	26.53	30.64	30.84	30.98	1.24	20.50	20.50	20.50	20.49	20.48	20.48
240.0	10.88	10.86	10.88	10.88	10.87	10.85	0.03	26.10	30.38	30.49	30.75	1.35	20.54	20.51	20.52	20.52	20.51	20.51
260.0	10.91	10.89	10.90	10.91	10.89	10.88	0.03	25.67	30.03	30.16	30.49	1.45	20.54	20.54	20.54	20.53	20.53	20.51
280.0	10.94	10.91	10.93	10.93	10.92	10.91	0.03	25.27	29.77	29.78	30.22	1.61	20.57	20.56	20.57	20.55	20.56	20.55
300.0	10.95	10.93	10.96	10.95	10.95	10.93	0.03	24.88	29.45	29.48	29.98	1.70	20.58	20.57	20.58	20.58	20.57	20.57
400.0	11.09	11.05	11.09	11.08	11.07	11.03	0.06	23.23	28.35	28.14	28.93	2.23	20.67	20.65	20.69	20.66	20.66	20.63
500.0	11.24	11.20	11.27	11.22	11.21	11.17	0.09	21.76	27.78	27.41	28.11	2.68	20.80	20.78	20.80	20.76	20.78	20.72
600.0	11.46	11.43	11.48	11.43	11.41	11.37	0.11	20.28	27.11	26.78	27.19	3.17	20.97	20.97	20.99	20.93	20.94	20.89
700.0	11.76	11.77	11.81	11.73	11.72	11.69	0.12	18.81	25.85	25.80	26.42	3.61	21.24	21.29	21.26	21.23	21.24	21.18

FREQ. (MHz)	VSWR (:1)			
	J9	J1	J8	J10
5.0	1.14	1.19	1.19	1.18
7.0	1.10	1.15	1.15	1.14
9.0	1.08	1.13	1.13	1.12
10.0	1.07	1.12	1.12	1.11
20.0	1.03	1.09	1.09	1.08
30.0	1.02	1.09	1.09	1.08
40.0	1.02	1.09	1.09	1.08
50.0	1.02	1.09	1.09	1.08
60.0	1.02	1.09	1.09	1.08
70.0	1.03	1.09	1.09	1.08
80.0	1.04	1.08	1.08	1.08
90.0	1.04	1.08	1.08	1.08
100.0	1.05	1.08	1.08	1.08
110.0	1.05	1.08	1.07	1.08
120.0	1.06	1.08	1.07	1.07
130.0	1.06	1.08	1.07	1.07
140.0	1.07	1.08	1.06	1.07
150.0	1.08	1.08	1.06	1.07
160.0	1.09	1.07	1.06	1.07
170.0	1.10	1.07	1.05	1.06
180.0	1.10	1.07	1.04	1.06
200.0	1.12	1.06	1.04	1.05
220.0	1.13	1.06	1.03	1.05
240.0	1.14	1.06	1.03	1.04
260.0	1.16	1.05	1.04	1.04
280.0	1.17	1.04	1.05	1.03
300.0	1.18	1.03	1.07	1.02
400.0	1.24	1.02	1.14	1.02
500.0	1.30	1.07	1.21	1.05
600.0	1.35	1.14	1.25	1.10
700.0	1.36	1.23	1.25	1.16

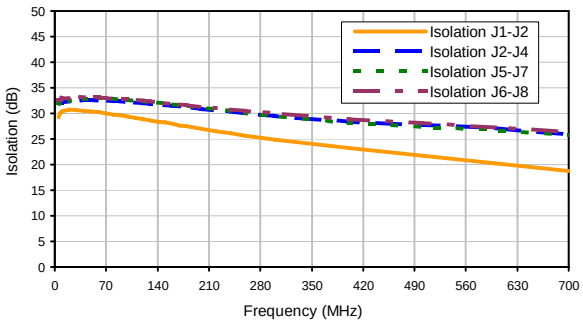
[1]Total Loss = Insertion Loss + 9dB Splitter Loss

Typical Performance Curves

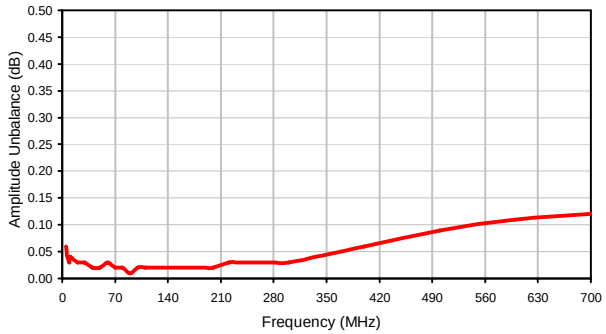
Total Loss



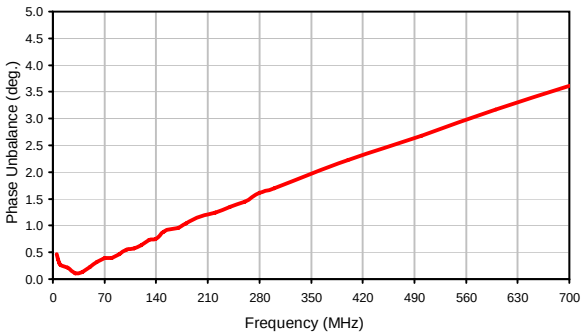
Isolation



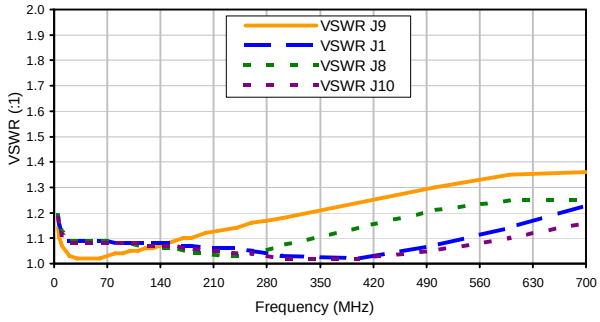
Amplitude Unbalance



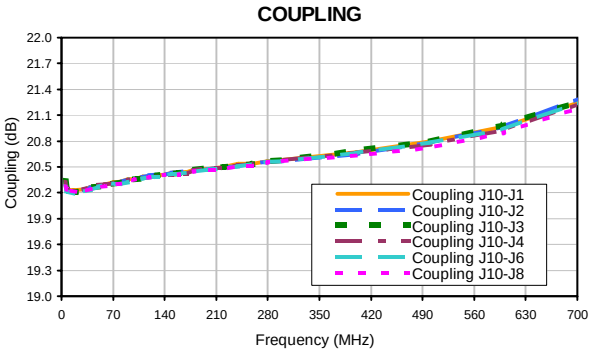
Phase Unbalance



VSWR



COUPLING



Mini-Circuits

Environmental Specifications ENV28

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