

Engineering Development Model

Power Splitter/Combiner 8 Way-0°

ZFSC-ED6960A/1

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.



CASE STYLE : R29

Please click "Back", and then click "Contact Us" for Applications support.

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		1		924	MHz
Isolation	1 - 10 MHz		34		dB
	10 - 462 MHz		34		dB
	462 - 924 MHz		27		dB
Insertion Loss Above 9.0 dB	1 - 10 MHz		0.75		dB
	10 - 462 MHz		0.70		dB
	462 - 924 MHz		1.55		dB
Phase Unbalance	1 - 10 MHz		0.10		deg.
	10 - 462 MHz		0.60		deg.
	462 - 924 MHz		3.30		deg.
Amplitude Unbalance	1 - 10 MHz		0.02		dB
	10 - 462 MHz		0.03		dB
	462 - 924 MHz		0.16		dB
VSWR	SUM Port		1.21		(:1)
	OUT Ports		1.36		(:1)

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

PIN CONNECTIONS	
SUM PORT	COM
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4
PORT 5	5
PORT 6	6
PORT 7	7
PORT 8	8

Functional Diagram



8 Way-0° Power Splitter/Combiner

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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	S-6	S-8		1-2	1-8	2-4	6-8			S	1	8
0.5	9.99	10.00	10.00	10.00	10.01	10.00	0.03	28.62	33.52	29.85	25.92	0.15	0.5	1.57	1.64	1.63
0.6	9.96	9.97	9.96	9.96	9.98	9.98	0.03	29.50	34.03	30.85	27.03	0.21	0.6	1.47	1.59	1.58
0.7	9.94	9.94	9.94	9.95	9.96	9.96	0.02	30.16	34.51	31.44	27.81	0.14	0.7	1.40	1.56	1.55
0.8	9.94	9.93	9.93	9.93	9.95	9.95	0.03	30.65	34.93	31.79	28.38	0.17	0.8	1.35	1.53	1.53
0.9	9.92	9.93	9.92	9.93	9.94	9.94	0.02	31.00	35.32	31.97	28.76	0.12	0.9	1.32	1.51	1.51
1.0	9.92	9.92	9.93	9.92	9.94	9.95	0.03	31.28	35.73	32.12	29.07	0.09	1.0	1.29	1.49	1.49
2.0	9.82	9.83	9.82	9.83	9.83	9.85	0.03	32.43	38.65	33.36	31.03	0.07	2.0	1.19	1.40	1.40
3.0	9.74	9.75	9.74	9.75	9.75	9.75	0.01	32.91	40.48	34.59	32.55	0.12	3.0	1.15	1.36	1.37
4.0	9.68	9.69	9.69	9.69	9.70	9.70	0.02	33.25	41.66	35.54	33.78	0.10	4.0	1.12	1.34	1.35
5.0	9.66	9.66	9.66	9.67	9.67	9.67	0.01	33.48	42.43	36.19	34.68	0.10	5.0	1.10	1.33	1.34
14.0	9.62	9.62	9.61	9.61	9.62	9.63	0.02	33.95	43.97	37.96	37.34	0.14	14.0	1.06	1.31	1.31
23.0	9.62	9.62	9.62	9.62	9.62	9.62	0.01	33.96	43.49	38.07	37.81	0.07	23.0	1.06	1.31	1.31
32.0	9.63	9.63	9.63	9.63	9.63	9.64	0.02	33.85	42.95	38.00	37.82	0.18	32.0	1.06	1.31	1.32
41.0	9.64	9.64	9.64	9.64	9.65	9.65	0.01	33.70	42.54	37.84	37.68	0.19	41.0	1.06	1.31	1.32
50.0	9.65	9.66	9.67	9.66	9.67	9.67	0.02	33.42	42.18	37.52	37.38	0.20	50.0	1.07	1.31	1.32
75.0	9.70	9.70	9.70	9.70	9.71	9.71	0.01	32.69	41.33	36.80	36.65	0.31	75.0	1.08	1.32	1.32
100.0	9.73	9.74	9.73	9.74	9.74	9.74	0.02	31.83	40.45	36.00	35.80	0.40	100.0	1.10	1.32	1.32
150.0	9.78	9.78	9.80	9.80	9.80	9.80	0.03	30.16	38.91	34.62	34.31	0.59	150.0	1.14	1.32	1.33
200.0	9.83	9.83	9.83	9.83	9.84	9.83	0.02	28.72	37.47	33.73	33.23	0.72	200.0	1.16	1.32	1.33
250.0	9.88	9.89	9.90	9.90	9.90	9.90	0.04	27.62	36.30	33.42	32.63	0.85	250.0	1.18	1.32	1.33
300.0	9.89	9.90	9.91	9.92	9.93	9.91	0.04	26.77	35.26	33.70	32.43	1.13	300.0	1.18	1.32	1.33
350.0	9.98	9.99	10.00	10.01	10.00	10.00	0.04	26.21	34.58	34.73	32.81	1.31	350.0	1.16	1.31	1.33
420.0	10.02	10.04	10.05	10.07	10.05	10.06	0.05	25.72	33.73	38.30	34.04	1.58	420.0	1.12	1.31	1.33
490.0	10.05	10.08	10.09	10.12	10.10	10.09	0.07	25.50	33.14	49.53	35.70	1.86	490.0	1.07	1.31	1.33
560.0	10.11	10.13	10.15	10.17	10.15	10.14	0.07	25.49	32.79	40.13	35.58	2.17	560.0	1.07	1.31	1.33
630.0	10.16	10.21	10.23	10.26	10.20	10.19	0.10	25.52	32.71	32.22	32.49	2.48	630.0	1.15	1.31	1.34
700.0	10.28	10.34	10.37	10.41	10.31	10.30	0.13	25.44	32.89	27.74	28.87	2.81	700.0	1.26	1.33	1.35
732.0	10.32	10.39	10.42	10.45	10.34	10.33	0.13	25.34	32.96	26.16	27.35	2.85	732.0	1.31	1.34	1.36
764.0	10.35	10.44	10.47	10.51	10.37	10.37	0.16	25.19	33.02	24.72	25.90	3.08	764.0	1.35	1.35	1.37
796.0	10.49	10.58	10.61	10.65	10.50	10.49	0.17	25.07	33.27	23.52	24.68	3.45	796.0	1.40	1.37	1.39
828.0	10.57	10.65	10.70	10.74	10.56	10.57	0.18	24.82	33.41	22.33	23.44	3.71	828.0	1.44	1.39	1.41
860.0	10.65	10.75	10.77	10.83	10.62	10.61	0.22	24.55	33.47	21.20	22.22	4.09	860.0	1.49	1.42	1.44
892.0	10.92	11.03	11.05	11.08	10.86	10.87	0.24	24.39	33.74	20.29	21.27	4.51	892.0	1.54	1.45	1.47
924.0	11.03	11.14	11.17	11.22	10.99	11.00	0.25	23.98	33.71	19.23	20.17	5.00	924.0	1.61	1.49	1.50
956.0	11.20	11.34	11.34	11.41	11.15	11.17	0.28	23.45	33.73	18.27	19.17	5.62	956.0	1.70	1.52	1.55
988.0	11.64	11.79	11.79	11.85	11.57	11.63	0.32	22.98	33.90	17.56	18.47	6.36	988.0	1.82	1.57	1.60
1020.0	11.91	12.05	12.07	12.11	11.87	11.91	0.28	22.11	33.83	16.67	17.63	7.23	1020.0	1.99	1.62	1.66

¹ Total Loss = Insertion Loss+ 9dB Splitter Loss



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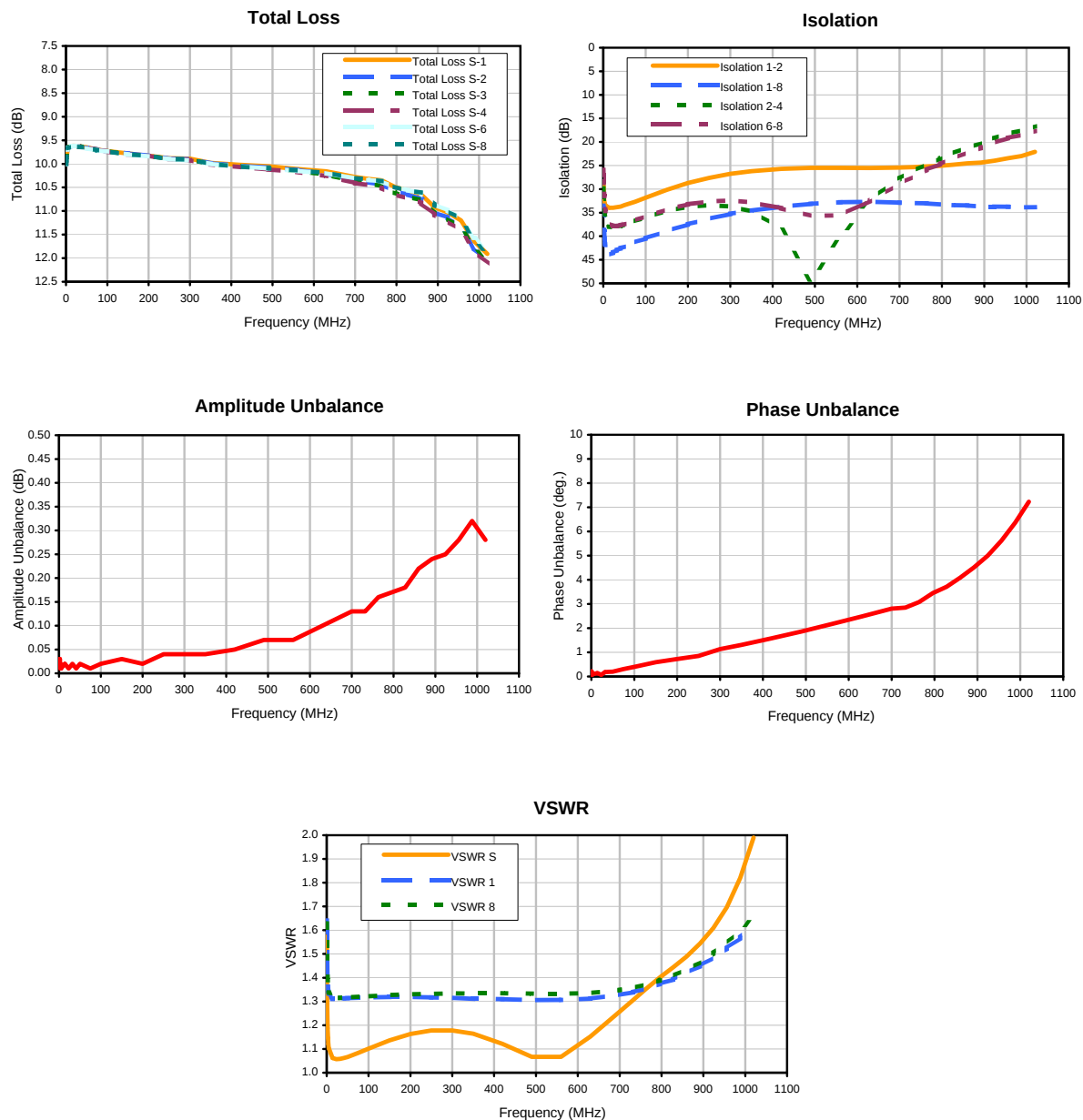
REV. X2
ZFSC-ED6960A/1
100629
Page 1 of 1



8 Way-0° Power Splitter/Combiner

ZFSC-ED6960A/1

Typical Performance Curves



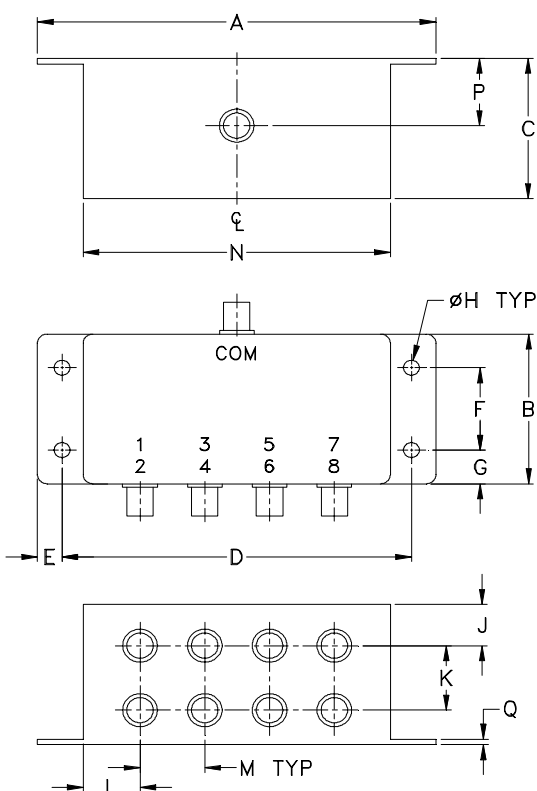
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Page 1 of 1



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Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
R29	4.06 (103.12)	1.60 (40.64)	1.57 (39.88)	3.56 (90.42)	.24 (6.10)	.88 (22.35)	.36 (9.14)	.160 (4.06)	.43 (10.92)	.69 (17.53)	.58 (14.73)	.66 (16.76)	3.13 (79.50)

CASE#	P	Q	WT. GRAMS
R29	.79 (20.07)	.13 (3.18)	200.0

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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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