

Engineering Development Model

Power Splitter/Combiner

ZFSC-ED6849/1

12 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 : R67

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		1		550 MHz
Isolation	1 - 10 MHz		34	dB
	10 - 275 MHz		31	dB
	275 - 550 MHz		26	dB
Insertion Loss Above 10.8 dB	1 - 10 MHz		6.57	dB
	10 - 275 MHz		6.71	dB
	275 - 550 MHz		7.11	dB
Phase Unbalance	1 - 10 MHz		0.536	deg.
	10 - 275 MHz		0.774	deg.
	275 - 550 MHz		1.204	deg.
Amplitude Unbalance	1 - 10 MHz		0.123	dB
	10 - 275 MHz		0.073	dB
	275 - 550 MHz		0.198	dB
VSWR	SUM Port		1.16	(:1)
	OUT Ports		1.19	(:1)

Note: Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 85°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
PORT 5	5
PORT 6	6
PORT 7	7
PORT 8	8
PORT 9	9
PORT 10	10
PORT 11	11
PORT 12	12

Functional Diagram



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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)	
			Adjacent	Opposite			S	OUTPUTS
1.0	11.58	0.22	27.19	31.08	0.88	1.0	1.29	1.47
2.0	11.49	0.15	29.63	34.72	0.69	2.0	1.20	1.33
3.0	11.41	0.13	30.99	36.32	0.60	3.0	1.16	1.27
4.0	11.37	0.12	31.87	36.96	0.50	4.0	1.14	1.23
5.0	11.34	0.11	32.45	37.42	0.47	5.0	1.12	1.22
6.0	11.32	0.11	32.87	37.57	0.47	6.0	1.11	1.20
7.0	11.31	0.10	33.13	37.71	0.44	7.0	1.11	1.20
8.0	11.30	0.10	33.33	37.80	0.45	8.0	1.10	1.19
9.0	11.31	0.09	33.47	37.86	0.41	9.0	1.10	1.19
10.0	11.30	0.10	33.58	37.90	0.45	10.0	1.09	1.18
40.0	11.36	0.03	33.39	35.78	0.69	40.0	1.08	1.18
70.0	11.41	0.04	32.40	33.98	0.74	70.0	1.09	1.17
100.0	11.45	0.06	31.34	32.22	0.69	100.0	1.10	1.16
110.0	11.46	0.06	31.00	31.75	0.75	110.0	1.10	1.16
120.0	11.49	0.07	30.66	31.18	0.72	120.0	1.11	1.16
130.0	11.49	0.06	30.30	30.79	0.79	130.0	1.12	1.15
140.0	11.50	0.07	30.00	30.36	0.76	140.0	1.12	1.15
150.0	11.52	0.07	29.74	29.95	0.78	150.0	1.13	1.15
175.0	11.55	0.08	29.04	29.04	0.79	175.0	1.14	1.14
200.0	11.58	0.08	28.50	28.31	0.84	200.0	1.16	1.13
225.0	11.62	0.09	28.04	27.73	0.88	225.0	1.18	1.12
250.0	11.67	0.09	27.70	27.24	0.98	250.0	1.20	1.12
275.0	11.70	0.12	27.36	26.84	0.98	275.0	1.22	1.12
300.0	11.75	0.12	27.11	26.53	0.96	300.0	1.24	1.12
400.0	11.90	0.19	26.65	25.92	0.96	400.0	1.32	1.17
500.0	12.06	0.25	26.39	25.96	1.32	500.0	1.33	1.22
550.0	12.13	0.31	26.12	26.11	1.80	550.0	1.31	1.25

¹ Total Loss = Insertion Loss + 10.8dB Splitter Loss

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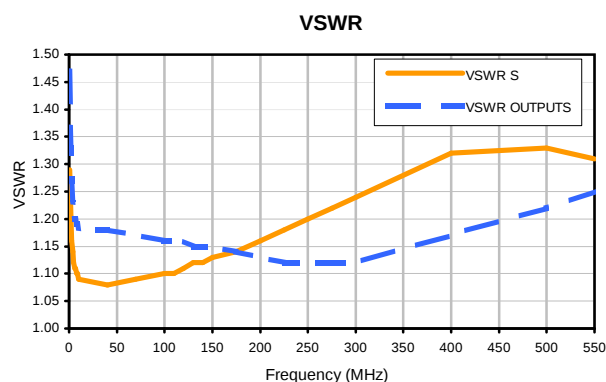
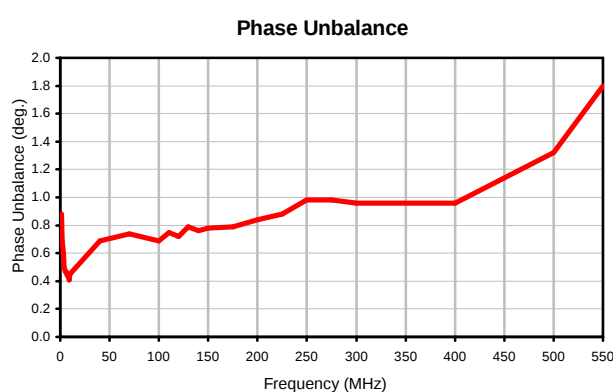
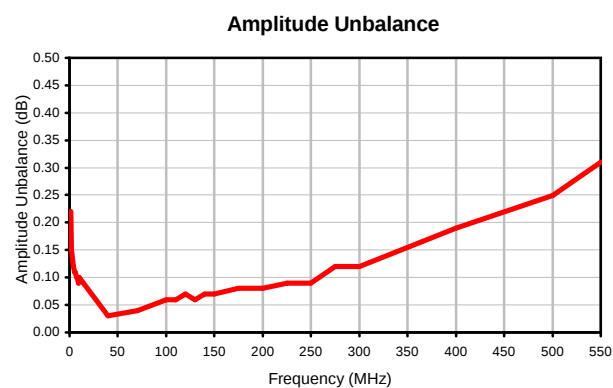
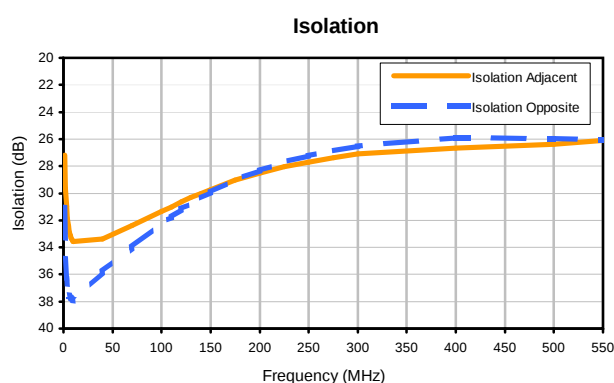
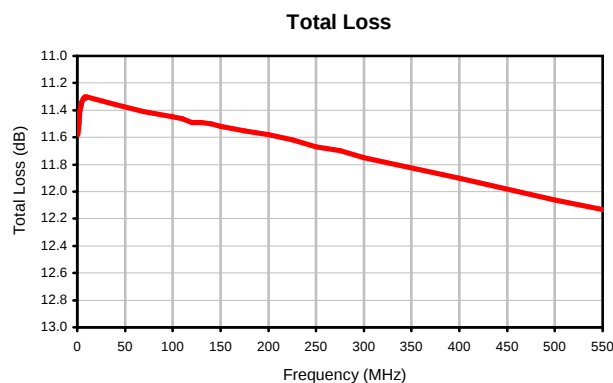
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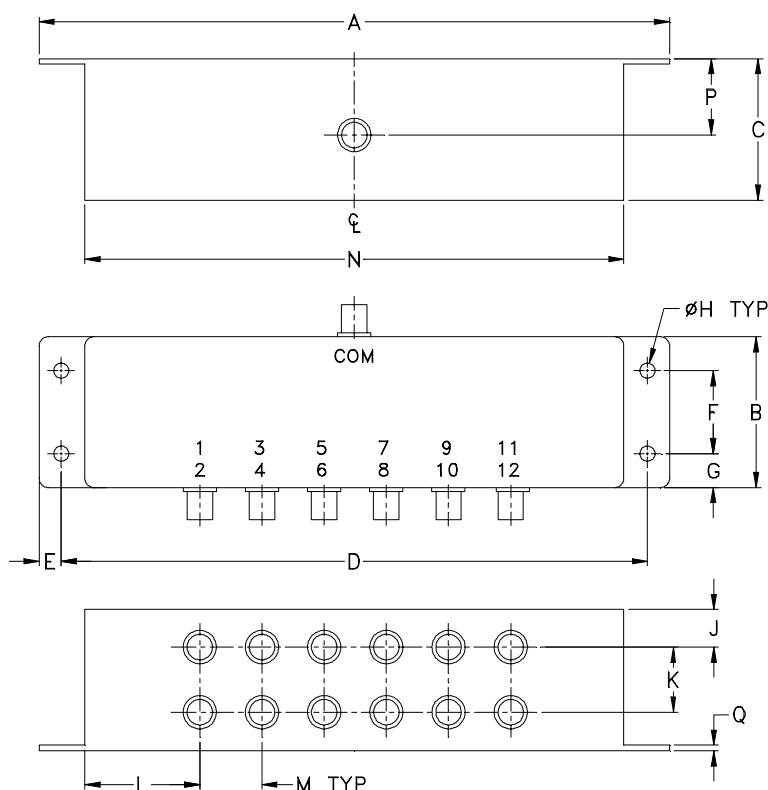
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Typical Performance Curves



Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
R67	6.69 (169.93)	1.60 (40.64)	1.50 (38.10)	6.22 (157.99)	.24 (6.10)	.88 (22.35)	.36 (9.14)	.160 (4.06)	.40 (10.16)	.69 (17.53)	1.22 (30.99)	.66 (16.76)	5.72 (145.29)

CASE#	P	Q	WT. GRAMS
R67	.81 (20.57)	.06 (1.53)	310.0

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