

Coaxial

Power Splitter/Combiner

ZFSC-8375

8 Way-0° 75Ω 50 to 90 MHz

Maximum Ratings

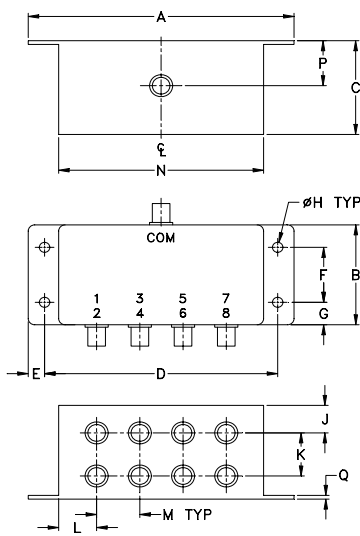
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.62W max.

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

SUM PORT	S(COM)
PORT 1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
4.06	1.60	1.57	3.56	.24	.88	.36	.160
103.12	40.64	39.88	90.42	6.10	22.35	9.14	4.06
J	K	L	M	N	P	Q	wt.
.43	.69	.58	.66	3.13	.79	.13	grams
10.92	17.53	14.73	16.76	79.50	20.07	3.30	200

Features

- good isolation, 30 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- excellent VSWR, 1.15 typ.
- rugged shielded case

Applications

- VHF
- radio communications



BNC version shown
CASE STYLE: R29

Connectors	Model
BNC	ZFSC-8375

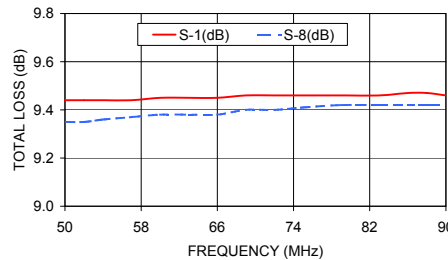
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 9.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ.	Min.	Typ.	Max.	Max.	Max.
50-90	30	25	1.0	1.3	2.0	0.2

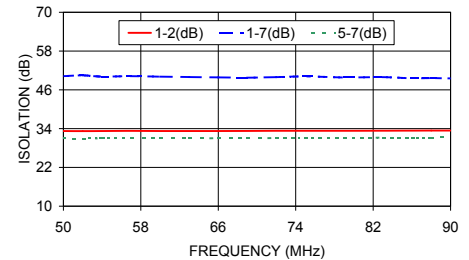
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)						Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	5-7				
50.00	9.44	9.45	9.43	9.45	9.35	9.35	0.10	33.25	50.24	30.97	30.95	0.50	1.14	1.08	1.07
52.00	9.44	9.45	9.44	9.44	9.35	9.35	0.10	33.23	50.49	30.97	30.94	0.52	1.14	1.08	1.07
54.00	9.44	9.45	9.44	9.45	9.36	9.36	0.09	33.26	50.10	31.00	30.98	0.50	1.14	1.08	1.07
57.00	9.44	9.45	9.45	9.44	9.37	9.37	0.08	33.31	50.24	31.00	30.96	0.42	1.14	1.08	1.07
60.00	9.45	9.45	9.45	9.45	9.37	9.38	0.08	33.27	50.09	31.01	30.96	0.38	1.15	1.08	1.07
63.00	9.45	9.44	9.44	9.44	9.38	9.38	0.07	33.27	49.96	31.04	30.99	0.37	1.15	1.08	1.08
66.00	9.45	9.45	9.45	9.45	9.38	9.38	0.07	33.25	49.85	31.08	31.04	0.35	1.15	1.08	1.08
69.00	9.46	9.46	9.45	9.46	9.40	9.40	0.07	33.28	49.76	31.13	31.04	0.36	1.15	1.08	1.08
72.00	9.46	9.46	9.46	9.46	9.40	9.40	0.06	33.32	49.94	31.14	31.08	0.38	1.15	1.08	1.08
75.00	9.46	9.46	9.46	9.47	9.41	9.41	0.06	33.32	50.15	31.19	31.13	0.36	1.15	1.08	1.08
79.00	9.46	9.47	9.45	9.47	9.41	9.42	0.06	33.32	49.84	31.26	31.13	0.40	1.15	1.09	1.08
83.00	9.46	9.46	9.46	9.47	9.42	9.42	0.05	33.36	49.93	31.29	31.20	0.44	1.15	1.09	1.08
86.00	9.47	9.47	9.46	9.47	9.42	9.42	0.05	33.37	49.56	31.34	31.26	0.45	1.15	1.09	1.08
88.00	9.47	9.46	9.46	9.47	9.42	9.42	0.05	33.41	49.63	31.39	31.25	0.49	1.15	1.09	1.08
90.00	9.46	9.46	9.46	9.46	9.42	9.42	0.05	33.41	49.55	31.42	31.30	0.49	1.15	1.09	1.08

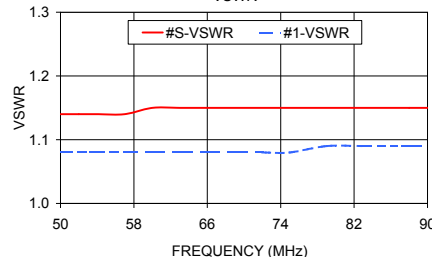
ZFSC-8375 TOTAL LOSS 1. Total Loss = Insertion Loss + 9dB splitter loss.



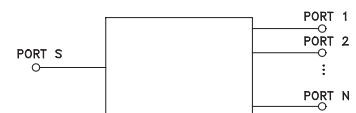
ZFSC-8375 ISOLATION



ZFSC-8375 VSWR



electrical schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp



8 Way-0° Power Splitter/Combiner

ZFSC-8375

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
50.0	9.44	9.45	9.43	9.45	9.35	9.35	0.10	33.25	50.24	30.97	30.95	0.50	50.0	1.14	1.08	1.07
51.0	9.44	9.44	9.44	9.44	9.35	9.35	0.09	33.24	49.78	30.97	30.91	0.50	51.0	1.14	1.08	1.07
52.0	9.44	9.45	9.44	9.44	9.35	9.35	0.10	33.23	50.49	30.97	30.94	0.52	52.0	1.14	1.08	1.07
53.0	9.44	9.44	9.44	9.44	9.35	9.35	0.09	33.24	50.13	30.98	30.96	0.53	53.0	1.14	1.08	1.07
54.0	9.44	9.45	9.44	9.45	9.36	9.36	0.09	33.26	50.10	31.00	30.98	0.50	54.0	1.14	1.08	1.07
55.0	9.44	9.44	9.44	9.44	9.36	9.36	0.08	33.25	49.94	30.98	30.95	0.47	55.0	1.14	1.08	1.07
56.0	9.44	9.44	9.44	9.44	9.36	9.37	0.08	33.24	50.19	30.98	30.96	0.47	56.0	1.14	1.08	1.07
57.0	9.44	9.45	9.45	9.44	9.37	9.37	0.08	33.31	50.24	31.00	30.96	0.42	57.0	1.14	1.08	1.07
58.0	9.44	9.45	9.45	9.45	9.37	9.37	0.08	33.28	49.94	31.00	30.96	0.46	58.0	1.15	1.08	1.07
59.0	9.44	9.45	9.44	9.45	9.37	9.37	0.08	33.27	50.20	31.03	30.96	0.38	59.0	1.15	1.08	1.08
60.0	9.45	9.45	9.45	9.45	9.37	9.38	0.08	33.27	50.09	31.01	30.96	0.38	60.0	1.15	1.08	1.07
61.0	9.45	9.45	9.45	9.45	9.38	9.38	0.07	33.28	50.13	31.04	30.98	0.39	61.0	1.15	1.08	1.08
62.0	9.45	9.44	9.45	9.45	9.38	9.38	0.07	33.27	50.04	31.07	30.98	0.39	62.0	1.15	1.08	1.08
63.0	9.45	9.44	9.44	9.44	9.38	9.38	0.07	33.27	49.96	31.04	30.99	0.37	63.0	1.15	1.08	1.08
64.0	9.45	9.45	9.45	9.45	9.38	9.38	0.07	33.27	50.16	31.04	30.99	0.36	64.0	1.15	1.08	1.08
65.0	9.45	9.45	9.45	9.45	9.39	9.39	0.07	33.35	50.16	31.07	31.03	0.37	65.0	1.15	1.08	1.08
66.0	9.45	9.45	9.45	9.45	9.38	9.38	0.07	33.25	49.85	31.08	31.04	0.35	66.0	1.15	1.08	1.08
67.0	9.45	9.46	9.45	9.46	9.39	9.39	0.06	33.32	50.03	31.09	31.02	0.36	67.0	1.15	1.08	1.08
68.0	9.46	9.45	9.45	9.45	9.39	9.39	0.07	33.30	50.33	31.11	31.05	0.39	68.0	1.15	1.08	1.08
69.0	9.46	9.46	9.45	9.46	9.40	9.40	0.07	33.28	49.76	31.13	31.04	0.36	69.0	1.15	1.08	1.08
70.0	9.46	9.46	9.45	9.46	9.39	9.40	0.07	33.29	49.96	31.11	31.09	0.38	70.0	1.15	1.08	1.08
71.0	9.45	9.46	9.45	9.45	9.39	9.40	0.06	33.35	50.03	31.14	31.07	0.36	71.0	1.15	1.08	1.08
72.0	9.46	9.46	9.46	9.46	9.40	9.40	0.06	33.32	49.94	31.14	31.08	0.38	72.0	1.15	1.08	1.08
73.0	9.46	9.46	9.45	9.46	9.40	9.40	0.06	33.33	49.86	31.14	31.05	0.36	73.0	1.15	1.08	1.08
74.0	9.46	9.46	9.45	9.46	9.40	9.41	0.06	33.36	49.99	31.15	31.09	0.38	74.0	1.15	1.08	1.08
75.0	9.46	9.46	9.46	9.47	9.41	9.41	0.06	33.32	50.15	31.19	31.13	0.36	75.0	1.15	1.08	1.08
76.0	9.46	9.47	9.45	9.47	9.41	9.41	0.06	33.34	49.82	31.21	31.13	0.38	76.0	1.15	1.08	1.08
77.0	9.46	9.47	9.46	9.47	9.41	9.41	0.06	33.39	49.93	31.20	31.11	0.40	77.0	1.15	1.08	1.08
78.0	9.46	9.46	9.45	9.46	9.41	9.41	0.06	33.37	49.97	31.25	31.13	0.39	78.0	1.15	1.09	1.08
79.0	9.46	9.47	9.45	9.47	9.41	9.42	0.06	33.32	49.84	31.26	31.13	0.40	79.0	1.15	1.09	1.08
80.0	9.46	9.46	9.46	9.46	9.41	9.41	0.05	33.34	50.14	31.28	31.12	0.39	80.0	1.15	1.09	1.08
81.0	9.46	9.47	9.46	9.47	9.42	9.42	0.05	33.38	49.61	31.27	31.18	0.41	81.0	1.15	1.09	1.08
82.0	9.46	9.46	9.46	9.47	9.41	9.41	0.06	33.34	49.60	31.28	31.17	0.45	82.0	1.15	1.09	1.08
83.0	9.46	9.46	9.46	9.47	9.42	9.42	0.05	33.36	49.93	31.29	31.20	0.44	83.0	1.15	1.09	1.08
84.0	9.46	9.46	9.46	9.47	9.42	9.42	0.05	33.38	49.81	31.31	31.25	0.46	84.0	1.15	1.09	1.08
85.0	9.47	9.47	9.46	9.47	9.42	9.42	0.05	33.38	49.88	31.35	31.23	0.46	85.0	1.15	1.09	1.08
86.0	9.47	9.47	9.46	9.47	9.42	9.42	0.05	33.37	49.56	31.34	31.26	0.45	86.0	1.15	1.09	1.08
87.0	9.47	9.47	9.47	9.47	9.43	9.42	0.05	33.37	49.56	31.35	31.26	0.46	87.0	1.15	1.09	1.08
88.0	9.47	9.46	9.46	9.47	9.42	9.42	0.05	33.41	49.63	31.39	31.25	0.49	88.0	1.15	1.09	1.08
89.0	9.47	9.47	9.47	9.47	9.43	9.43	0.04	33.46	49.57	31.42	31.30	0.49	89.0	1.15	1.09	1.08
90.0	9.46	9.46	9.46	9.46	9.42	9.42	0.05	33.41	49.55	31.42	31.30	0.49	90.0	1.15	1.09	1.08

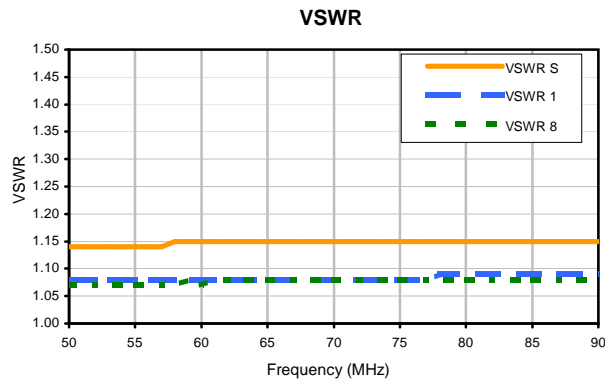
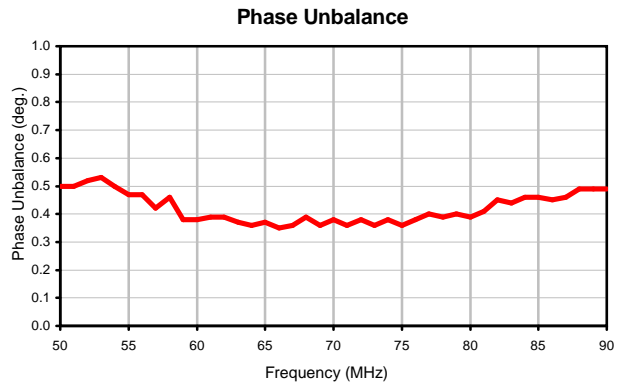
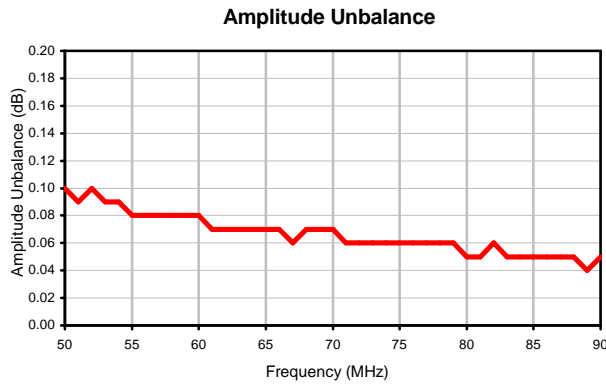
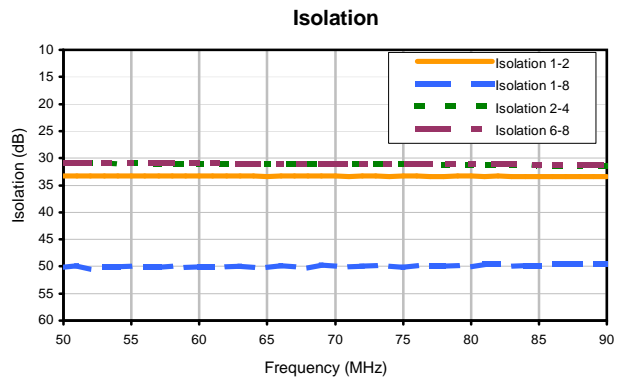
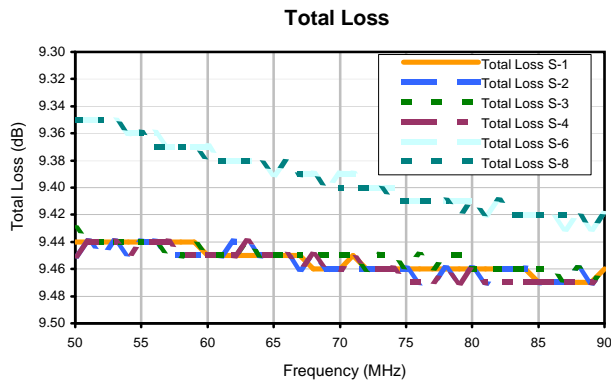
¹ Total Loss = Insertion Loss+ 9dB Splitter Loss



8 Way-0° Power Splitter/Combiner

ZFSC-8375

Typical Performance Curves



REV. X2
ZFSC-8375
100627
Page 1 of 1



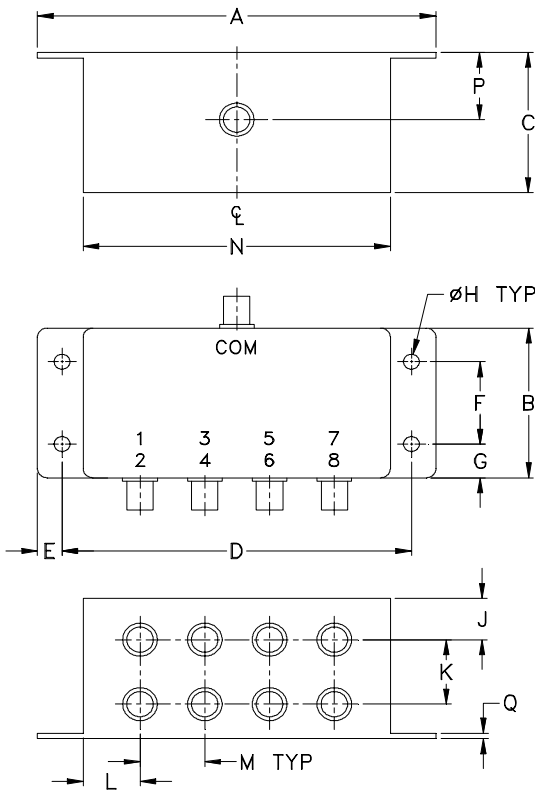
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Outline Dimensions



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.



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

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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