Coaxial

Power Splitter/Combiner

ZFSC-10-1+
ZFSC-10-1

10 Way-0° 50Ω 0.5 to 100 MHz

BNC version shown

CASE STYLE: RR93

Connectors	Model	Price	Qty.
BNC	ZFSC-10-1(+)	$119.95	(1-9)
SMA	ZFSC-10-1-S(+)	$154.95	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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	0.87W max.

Coaxial Connections

SUM PORT	S
PORT 1,2,3,.....,10	1,2,3,.....,10

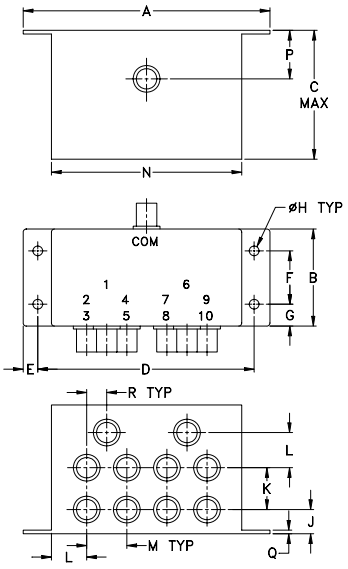
Features

- low insertion loss, 0.4 dB typ.
- high isolation, 30 dB typ.
- rugged shielded case

Applications

- VF/VHF
- radio communication
- instrumentation

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	
4.06	1.60	2.125	3.56	.25	.88	.36	.160	
103.12	40.64	53.98	90.42	6.35	22.35	9.14	4.06	
J	**K**	**L**	**M**	**N**	**P**	**Q**	**R**	**wt.**
.40	.69	.58	.66	3.13	.80	.06	.33	grams
10.16	17.53	14.73	16.76	79.50	20.32	1.52	8.38	350

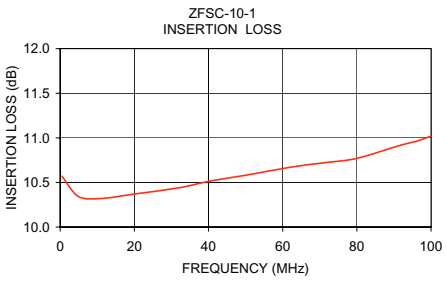
Electrical Specifications

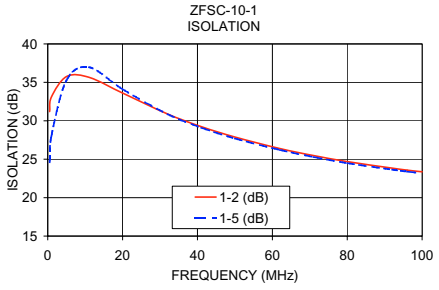
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 10 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
0.5-100	28	20	30	24	27	20	0.5	0.8	0.4	1.0	0.8	1.5	3	6	10	0.2	0.3	0.4

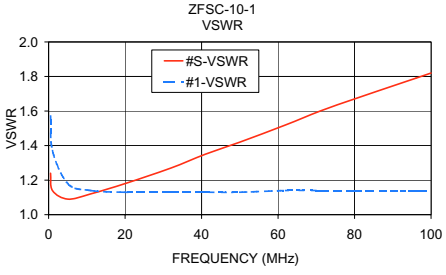
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

Typical Performance Data

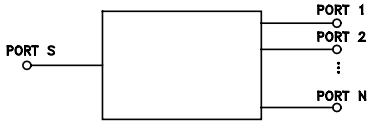
Freq. (MHz)	Insertion Loss (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR 1
			1-2	1-5			
0.50	10.57	0.05	31.20	24.61	0.10	1.24	1.57
1.00	10.54	0.04	33.11	28.09	0.11	1.14	1.37
5.00	10.34	0.04	35.75	35.27	0.38	1.09	1.18
11.00	10.32	0.02	35.66	36.98	0.64	1.12	1.14
20.00	10.37	0.02	33.61	34.11	1.14	1.18	1.13
32.00	10.44	0.01	30.89	30.87	1.72	1.27	1.13
41.00	10.52	0.02	29.24	29.11	2.20	1.35	1.13
50.00	10.58	0.03	27.88	27.70	2.59	1.42	1.13
62.00	10.67	0.03	26.39	26.22	3.16	1.52	1.14
71.00	10.72	0.05	25.48	25.30	3.58	1.60	1.14
80.00	10.77	0.05	24.69	24.50	4.01	1.67	1.14
92.00	10.92	0.07	23.84	23.65	4.53	1.76	1.14
96.00	10.96	0.08	23.58	23.39	4.78	1.79	1.14
100.00	11.02	0.08	23.36	23.17	4.97	1.82	1.14







electrical schematic



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10 Way-0° Power Splitter/Combiner ZFSC-10-1+

Typical Performance Data

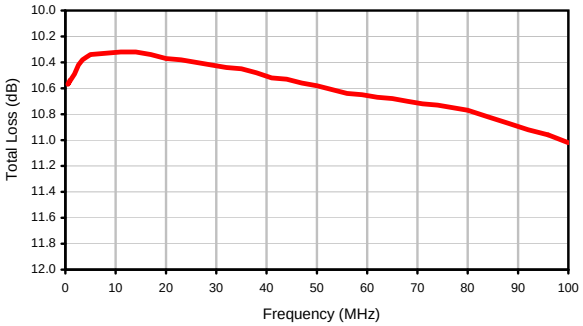
FREQ. (MHz)	TOTAL LOSS[1] (dB)	AMP. UNBAL. (dB)	ISOLATION (dB)		PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)	
			Adjacent	Opposite			S	OUTPUTS
0.5	10.57	0.05	31.20	24.61	0.10	0.5	1.24	1.57
0.6	10.56	0.05	31.85	25.69	0.13	0.6	1.20	1.49
0.7	10.56	0.05	32.33	26.52	0.12	0.7	1.18	1.44
0.8	10.55	0.04	32.65	27.16	0.09	0.8	1.16	1.41
0.9	10.54	0.04	32.91	27.67	0.09	0.9	1.15	1.39
1.0	10.54	0.04	33.11	28.09	0.11	1.0	1.14	1.37
1.8	10.49	0.05	34.03	30.24	0.15	1.8	1.11	1.29
2.6	10.42	0.05	34.63	31.77	0.20	2.6	1.10	1.25
3.4	10.38	0.04	35.13	33.12	0.32	3.4	1.09	1.22
4.2	10.36	0.04	35.50	34.31	0.37	4.2	1.09	1.20
5.0	10.34	0.04	35.75	35.27	0.38	5.0	1.09	1.18
8.0	10.33	0.03	36.01	37.11	0.48	8.0	1.10	1.15
11.0	10.32	0.02	35.66	36.98	0.64	11.0	1.12	1.14
14.0	10.32	0.03	35.03	36.13	0.80	14.0	1.14	1.14
17.0	10.34	0.02	34.33	35.12	1.00	17.0	1.16	1.13
20.0	10.37	0.02	33.61	34.11	1.14	20.0	1.18	1.13
23.0	10.38	0.01	32.88	33.16	1.24	23.0	1.20	1.13
26.0	10.40	0.02	32.17	32.37	1.42	26.0	1.23	1.13
29.0	10.42	0.01	31.52	31.57	1.59	29.0	1.25	1.13
32.0	10.44	0.01	30.89	30.87	1.72	32.0	1.27	1.13
35.0	10.45	0.02	30.31	30.22	1.76	35.0	1.30	1.13
38.0	10.48	0.02	29.76	29.63	1.93	38.0	1.32	1.13
41.0	10.52	0.02	29.24	29.11	2.20	41.0	1.35	1.13
44.0	10.53	0.02	28.75	28.60	2.28	44.0	1.37	1.13
47.0	10.56	0.03	28.30	28.13	2.49	47.0	1.40	1.13
50.0	10.58	0.03	27.88	27.70	2.59	50.0	1.42	1.13
53.0	10.61	0.04	27.47	27.29	2.69	53.0	1.45	1.13
56.0	10.64	0.03	27.08	26.91	2.84	56.0	1.47	1.13
59.0	10.65	0.04	26.74	26.56	3.11	59.0	1.50	1.14
62.0	10.67	0.03	26.39	26.22	3.16	62.0	1.52	1.14
65.0	10.68	0.04	26.08	25.89	3.36	65.0	1.55	1.14
68.0	10.70	0.05	25.77	25.58	3.52	68.0	1.57	1.14
71.0	10.72	0.05	25.48	25.30	3.58	71.0	1.60	1.14
74.0	10.73	0.05	25.19	25.02	3.75	74.0	1.62	1.14
77.0	10.75	0.05	24.92	24.75	3.89	77.0	1.65	1.14
80.0	10.77	0.05	24.69	24.50	4.01	80.0	1.67	1.14
84.0	10.82	0.06	24.38	24.20	4.25	84.0	1.70	1.14
88.0	10.87	0.07	24.10	23.92	4.37	88.0	1.73	1.14
92.0	10.92	0.07	23.84	23.65	4.53	92.0	1.76	1.14
96.0	10.96	0.08	23.58	23.39	4.78	96.0	1.79	1.14
100.0	11.02	0.08	23.36	23.17	4.97	100.0	1.82	1.14

[1] Total Loss = Insertion Loss+ 10dB Splitter Loss

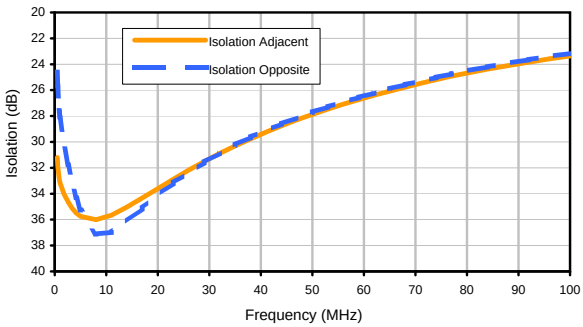
10 Way-0° Power Splitter/Combiner ZFSC-10-1+

Typical Performance Curves

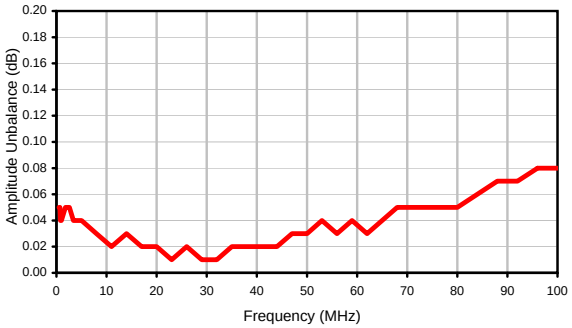
Total Loss



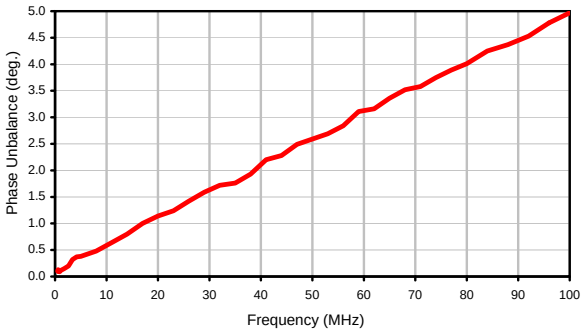
Isolation



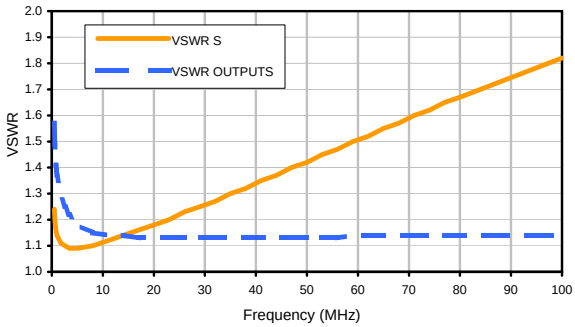
Amplitude Unbalance



Phase Unbalance



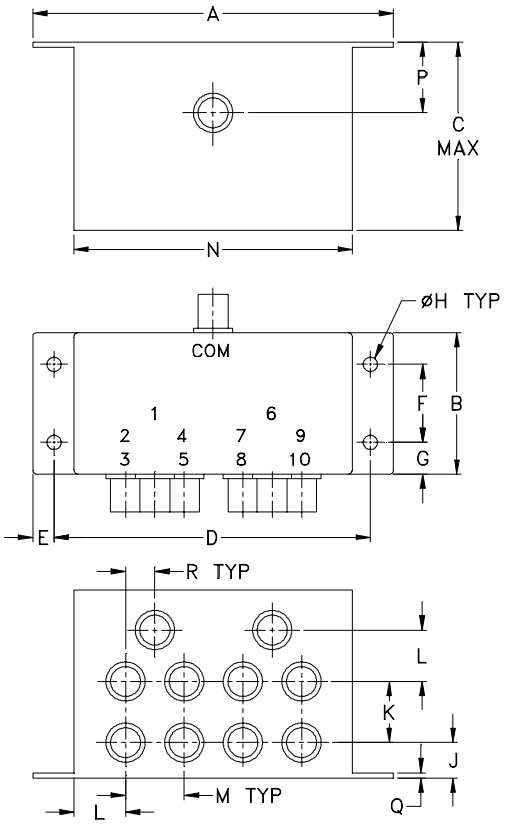
VSWR



Case Style RR

RR93

Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
RR93	4.06 (103.12)	1.60 (40.64)	2.125 (53.98)	3.56 (90.42)	.25 (6.35)	.88 (22.35)	.36 (9.14)	.160 (4.06)	.40 (10.16)	.69 (17.53)	.58 (14.73)	.66 (16.76)	3.13 (79.50)

CASE#	P	Q	R	WT. GRAMS
RR93	.80 (20.32)	.06 (1.52)	.33 (8.38)	350.0

Dimensions are in inches (mm). Tolerances: 2 Pl. ± .03; 3 Pl. ± .015

Notes:

1. Case material: Aluminum alloy.
2. Case finish:
   For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.

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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