Coaxial

Power Splitter/Combiner

8 Way-0° 50Ω 0.5 to 175 MHz

ZFSC-8-1+
ZFSC-8-1



Generic photo used for illustration purposes only

CASE STYLE: R29

Connectors	Model
BNC	ZFSC-8-1+
SMA	ZFSC-8-1-S(+)

+RoHS Compliant

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

Maximum Ratings

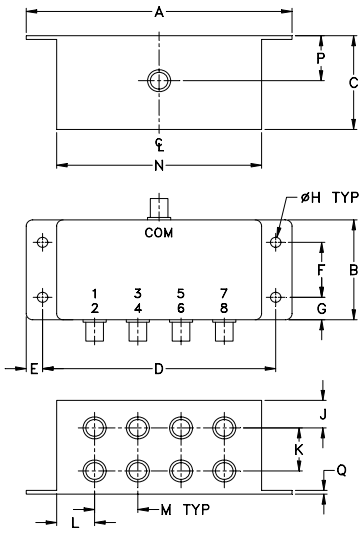
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.62W max.

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

- low insertion loss, 0.8 dB typ.
- high isolation, 30 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- rugged shielded case

Applications

- HF/VHF
- radio communication
- instrumentation

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 9.0 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.
0.5-175	30	25	30	20	25	18	0.8	1.2	0.8	1.2	1.0	1.6	1.0	2.5	5.0	0.2	0.2	0.3

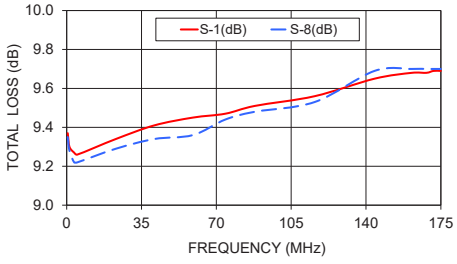
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

Typical Performance Data

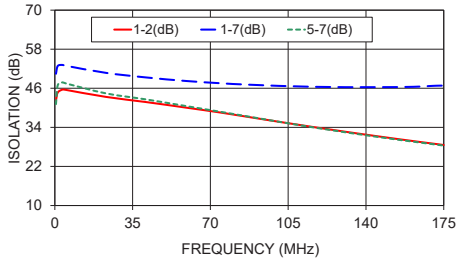
Freq. (MHz)	Total Loss[1] (dB)						Amplitude Unbalance (dB)	Isolation (dB)				VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	5-7			
0.50	9.37	9.37	9.37	9.38	9.37	9.35	0.05	42.28	50.46	40.88	41.14	1.36	1.13	1.15
1.30	9.30	9.29	9.31	9.31	9.29	9.28	0.03	44.69	52.85	45.42	46.94	1.37	1.08	1.09
3.50	9.27	9.25	9.26	9.26	9.25	9.22	0.05	45.61	53.16	46.49	47.81	1.40	1.05	1.05
5.00	9.26	9.25	9.27	9.25	9.24	9.22	0.05	45.50	52.91	46.27	47.48	1.40	1.04	1.04
23.00	9.34	9.32	9.35	9.32	9.34	9.29	0.05	43.35	50.73	43.83	44.43	1.41	1.03	1.03
41.00	9.41	9.33	9.41	9.35	9.39	9.34	0.07	41.77	49.33	42.26	42.58	1.39	1.04	1.04
59.00	9.45	9.34	9.45	9.35	9.42	9.36	0.11	40.06	48.24	40.68	40.54	1.37	1.06	1.06
74.20	9.47	9.38	9.48	9.37	9.48	9.44	0.11	38.58	47.56	39.14	38.81	1.36	1.07	1.08
88.00	9.51	9.41	9.50	9.39	9.52	9.48	0.13	37.09	47.08	37.71	37.21	1.35	1.09	1.09
116.00	9.56	9.45	9.58	9.42	9.57	9.53	0.17	34.12	46.45	34.64	34.02	1.35	1.12	1.13
144.00	9.65	9.57	9.67	9.55	9.71	9.69	0.16	31.37	46.34	31.78	31.18	1.36	1.16	1.17
161.40	9.68	9.59	9.69	9.56	9.73	9.70	0.17	29.77	46.45	30.13	29.59	1.37	1.18	1.19
168.20	9.68	9.59	9.70	9.56	9.73	9.70	0.17	29.17	46.67	29.49	29.00	1.38	1.19	1.20
171.60	9.69	9.60	9.71	9.57	9.74	9.70	0.17	28.88	46.78	29.18	28.70	1.38	1.20	1.20
175.00	9.69	9.61	9.72	9.58	9.73	9.70	0.16	28.57	46.82	28.88	28.40	1.38	1.20	1.21

1. Total Loss = Insertion Loss + 9dB splitter loss.

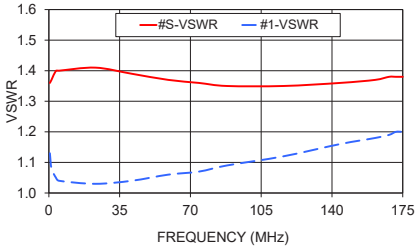
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TOTAL LOSS



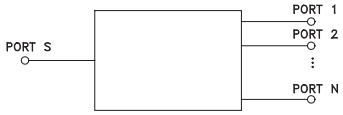
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ISOLATION



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VSWR



electrical schematic



Notes

A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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