

Coaxial

Power Splitter/Combiner

3 Way-0° 50Ω 1 to 500 MHz
ZFSC-3-1+

Generic photo used for illustration purposes only

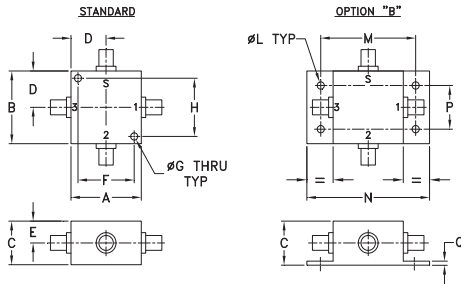
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.375W max.
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
1.25	1.25	.75	.63	.38	1.000	.125	1.000	
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40	
J	K	L	M	N	P	Q	wt	
--	--	.125	1.688	2.18	.75	.07	grams	
--	--	3.18	42.88	55.37	19.05	1.78	75.0	

For option B with N-Type connectors, dimension "C" increases to 0.94 inches.

Features

- wideband, 1 to 500 MHz
- low insertion loss, 0.5 dB typ.
- high isolation, 30 dB typ.
- rugged, shielded case

Applications

- VHF/UHF
- instrumentation
- communication system

CASE STYLE: J17

Connectors	Model
BNC	ZFSC-3-1+
SMA	ZFSC-3-1-S+
N-TYPE	ZFSC-3-1-N+
BRACKET (OPTION "B")	

+RoHS Compliant

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

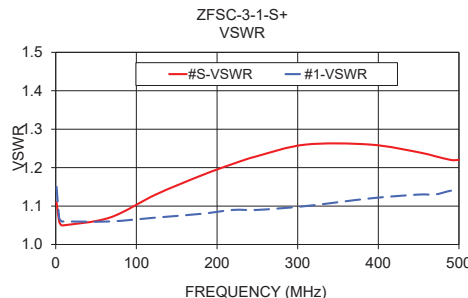
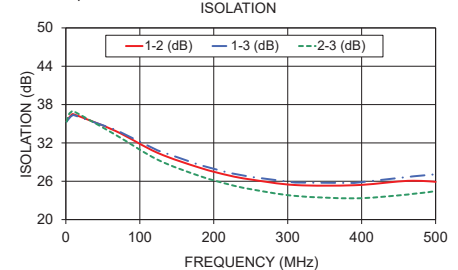
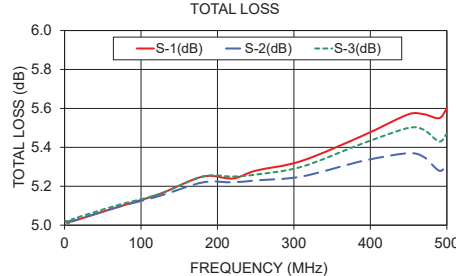
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 4.8 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	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.	L	Max.	M	Max.	U	Max.
1-500	30	20	30	20	25	18	0.4	0.75	0.5	0.9	0.8	1.2	2.0		3.0		4.0	

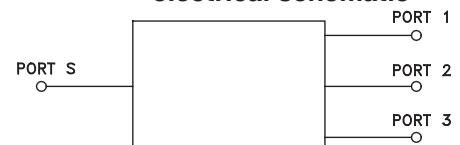
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
1.00	5.02	5.02	5.02	0.00	35.42	35.35	35.32	0.03	1.11	1.15	1.15	1.15
4.20	5.01	5.02	5.01	0.01	35.93	35.81	36.47	0.03	1.06	1.07	1.07	1.07
7.00	5.02	5.02	5.01	0.00	36.31	36.18	36.81	0.07	1.05	1.06	1.06	1.06
10.00	5.02	5.02	5.03	0.01	36.50	36.38	36.98	0.10	1.05	1.06	1.06	1.06
67.00	5.09	5.09	5.10	0.01	33.88	34.07	33.28	0.56	1.07	1.06	1.06	1.07
124.00	5.16	5.15	5.16	0.01	30.45	30.83	29.38	1.09	1.13	1.07	1.08	1.08
181.00	5.25	5.22	5.25	0.02	28.12	28.54	26.82	1.49	1.18	1.08	1.09	1.10
220.00	5.24	5.22	5.25	0.03	26.92	27.33	25.52	1.71	1.21	1.09	1.10	1.11
250.00	5.28	5.23	5.26	0.06	26.28	26.69	24.76	1.91	1.23	1.09	1.11	1.12
310.00	5.33	5.25	5.30	0.08	25.41	25.80	23.71	2.16	1.26	1.10	1.12	1.15
390.00	5.46	5.33	5.42	0.14	25.38	25.74	23.33	2.50	1.26	1.12	1.13	1.17
450.00	5.57	5.37	5.50	0.20	25.97	26.51	23.79	2.80	1.24	1.13	1.12	1.19
470.00	5.57	5.35	5.49	0.22	26.08	26.78	24.04	3.14	1.23	1.13	1.12	1.19
490.00	5.55	5.28	5.43	0.27	26.00	26.98	24.29	3.41	1.22	1.14	1.12	1.19
500.00	5.60	5.31	5.47	0.29	25.91	27.09	24.49	3.49	1.22	1.14	1.12	1.19

ZFSC-3-1-S+
1. Total Loss = Insertion Loss + 4.8dB splitter loss.
ZFSC-3-1-S+


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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