

Coaxial

# Power Splitter/Combiner

2 Way-0° 50Ω 5 to 500 MHz

ZFSC-2-1+



Generic photo used for illustration purposes only  
CASE STYLE: K18

Connectors	Model
BNC	ZFSC-2-1+
SMA	ZFSC-2-1-S+
N-TYPE	ZFSC-2-1-N+
<b>BRACKET (OPTION "B")</b>	

**+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	0.125W max.

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

## Coaxial Connections

SUM PORT	3
PORT 1	1
PORT 2	2

## Features

- wideband, 5 to 500 MHz
- low insertion loss, 0.3 dB typ.
- excellent isolation, 28 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- good VSWR, 1.2:1 typ.
- rugged shielded case

## Applications

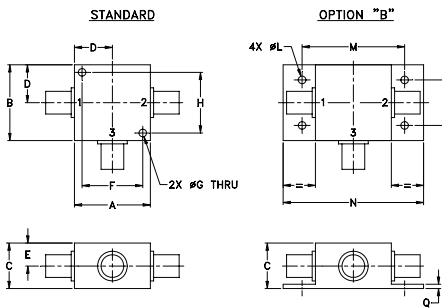
- VHF/UHF
- instrumentation
- communication systems

## Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
$f_L$ - $f_U$																		
5-500	30	25	28	20	25	20	0.2	0.5	0.3	0.6	0.6	0.8	2	4	4	0.15	0.15	0.30

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  $f_U$ ]

## Outline Drawing



## Outline Dimensions (inch/mm)

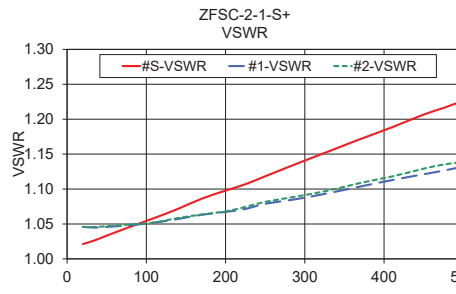
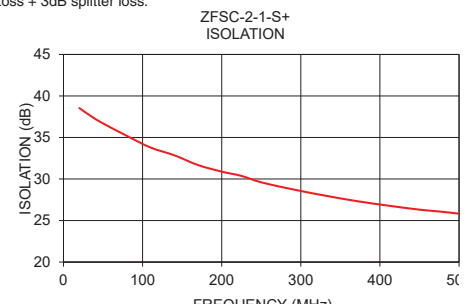
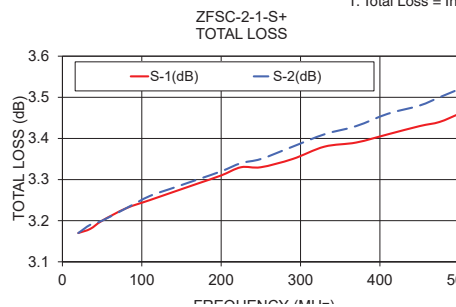
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

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

## Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
20	3.17	3.17	0.00	38.54	0.08	1.02	1.05	1.05
35	3.18	3.19	0.00	37.55	0.05	1.03	1.04	1.05
80	3.23	3.23	0.00	35.20	0.01	1.05	1.05	1.05
140	3.27	3.28	0.01	32.86	0.01	1.07	1.06	1.06
170	3.29	3.30	0.01	31.68	0.03	1.09	1.06	1.06
200	3.31	3.32	0.01	30.89	0.05	1.10	1.07	1.07
225	3.33	3.34	0.02	30.37	0.09	1.11	1.07	1.07
250	3.33	3.35	0.02	29.60	0.08	1.12	1.08	1.08
290	3.35	3.38	0.03	28.75	0.13	1.14	1.09	1.09
330	3.38	3.41	0.03	28.01	0.17	1.15	1.09	1.10
370	3.39	3.43	0.04	27.35	0.21	1.17	1.10	1.11
410	3.41	3.46	0.05	26.80	0.25	1.19	1.11	1.12
450	3.43	3.48	0.05	26.31	0.30	1.21	1.12	1.13
475	3.44	3.50	0.06	26.09	0.32	1.22	1.13	1.14
500	3.46	3.52	0.06	25.83	0.34	1.23	1.13	1.14

1. Total Loss = Insertion Loss + 3dB splitter loss.



## 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.
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