

# Power Splitter/Combiner

## ZFSCJ-2-2-S

2 Way-180° 50Ω 0.01 to 20 MHz



Generic photo used for illustration purposes only

CASE STYLE: K18

Connectors Model

SMA ZFSCJ-2-2-S

BRACKET (OPTION "B")

### 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.

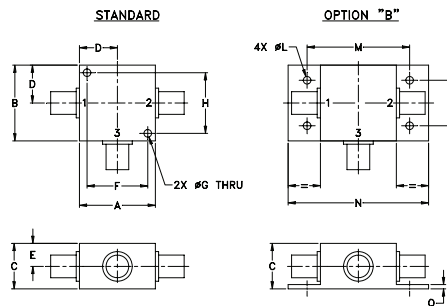
At low range frequency band ( $f_L$  to  $10 f_L$ ), linearly derate maximum input power by 13 dB.

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

### Coaxial Connections

SUMPORT	3
PORT 1	1
PORT 2	2

### 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

### Features

- low insertion loss, 0.2 dB typ.
- high isolation, 30 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- good VSWR, 1.15:1 typ.
- rugged shielded case

### Applications

- HF
- signal processing
- radio communication

### 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.
$f_L$ - $f_U$																		
0.01-20	35	25	30	25	25	18	0.3	0.8	0.2	0.5	0.3	0.6	1*	2	2.5	0.1	0.1	0.2

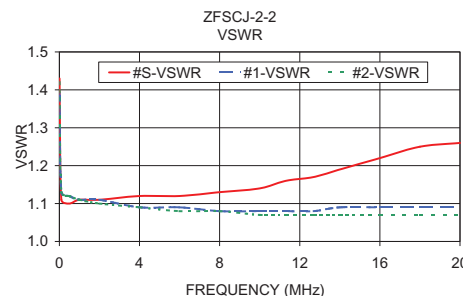
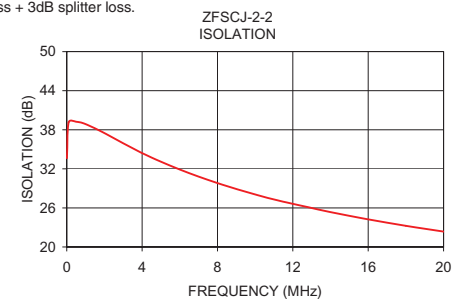
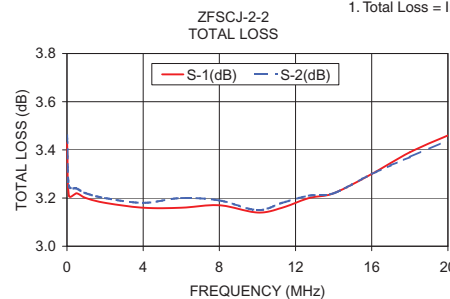
L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

\* Phase unbalance is 3 degrees max from  $f_L$  to  $3f_L$

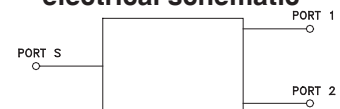
### Typical Performance Data

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						
0.01	3.43	3.46	0.03	33.63	180.30	1.43	1.39	1.42
0.10	3.21	3.25	0.04	39.14	180.30	1.11	1.13	1.13
0.50	3.22	3.24	0.02	39.23	180.20	1.10	1.12	1.12
1.00	3.20	3.22	0.02	38.87	180.20	1.11	1.11	1.11
2.00	3.18	3.20	0.02	37.49	180.20	1.11	1.11	1.10
4.00	3.16	3.18	0.03	34.41	180.10	1.12	1.09	1.09
6.00	3.16	3.20	0.04	31.89	180.00	1.12	1.09	1.08
8.00	3.17	3.19	0.02	29.81	180.00	1.13	1.08	1.08
10.00	3.14	3.15	0.01	28.07	180.00	1.14	1.08	1.07
11.30	3.16	3.18	0.02	27.08	179.90	1.16	1.08	1.07
12.70	3.20	3.21	0.01	26.18	179.90	1.17	1.08	1.07
14.00	3.22	3.22	0.00	25.35	179.80	1.19	1.09	1.07
16.00	3.30	3.30	0.00	24.24	179.70	1.22	1.09	1.07
18.00	3.39	3.37	0.02	23.24	179.60	1.25	1.09	1.07
20.00	3.46	3.44	0.02	22.36	179.50	1.26	1.09	1.07

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



### electrical schematic



### Notes

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