

Coaxial

# Power Splitter/Combiner

## ZSC-4-2+

4 Way-0° 50Ω 0.002 to 20 MHz

### Maximum Ratings

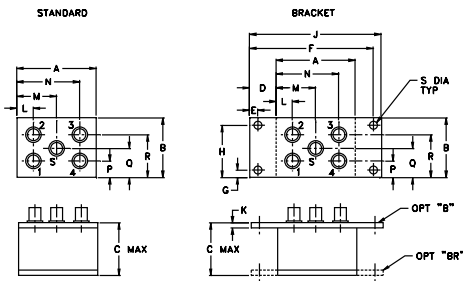
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.250W max.

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

SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
2.25	1.38	1.24	.50	.150	3.100	.138	1.238	3.25
57.15	35.05	31.50	12.70	3.81	78.74	3.51	31.45	82.55
K	L	M	N	P	Q	R	S	wt
.10	.48	1.13	1.78	.36	.69	1.01	.150	grams
2.54	12.19	28.70	45.21	9.14	17.53	25.65	3.81	92.0

### Features

- high isolation, 33 dB typ.
- rugged shielded case

### Applications

- HF
- amateur radio



Generic photo used for illustration purposes only

CASE STYLE: N27  
Connectors Model  
BNC ZSC-4-2+  
BRACKET(OPTION "B")  
BRACKET(OPTION "BR")

+RoHS Compliant

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

### Electrical Specifications

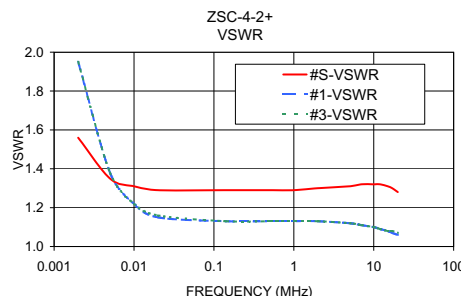
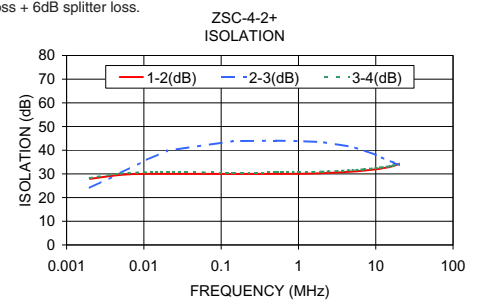
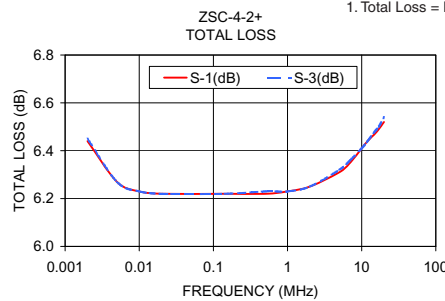
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 6.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
$f_L$ - $f_U$	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
0.002-20	30	20	33	25	33	25	0.45	0.75	0.3	0.5	0.7	1.0	4	6	8	0.15	0.20	0.25

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  $f_U$ ]

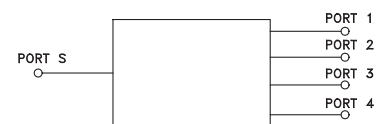
### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
0.002	6.44	6.44	6.45	6.45	0.02	27.93	24.11	28.25	0.19	1.56	1.95	1.95	1.95	1.95
0.005	6.27	6.26	6.27	6.28	0.02	29.59	30.37	30.18	0.20	1.35	1.38	1.38	1.38	1.38
0.010	6.23	6.23	6.23	6.23	0.00	29.99	35.42	30.62	0.07	1.31	1.22	1.22	1.22	1.22
0.020	6.22	6.22	6.22	6.22	0.00	30.05	39.79	30.68	0.04	1.29	1.15	1.15	1.16	1.16
0.142	6.22	6.22	6.22	6.22	0.00	29.99	43.85	30.60	0.01	1.29	1.13	1.13	1.13	1.13
0.510	6.22	6.22	6.23	6.23	0.00	30.03	44.02	30.63	0.01	1.29	1.13	1.13	1.13	1.13
1.000	6.23	6.23	6.23	6.23	0.00	30.08	43.85	30.70	0.01	1.29	1.13	1.13	1.13	1.13
2.000	6.25	6.25	6.25	6.25	0.00	30.28	43.48	30.89	0.05	1.30	1.13	1.13	1.13	1.13
5.000	6.31	6.32	6.32	6.32	0.01	30.97	41.40	31.57	0.10	1.31	1.12	1.12	1.12	1.12
7.000	6.35	6.36	6.36	6.36	0.01	31.39	39.96	31.93	0.13	1.32	1.11	1.11	1.11	1.11
10.000	6.41	6.41	6.41	6.41	0.01	31.96	38.03	32.42	0.17	1.32	1.10	1.10	1.10	1.10
12.000	6.44	6.43	6.44	6.44	0.01	32.32	36.92	32.73	0.21	1.32	1.09	1.09	1.09	1.09
15.000	6.47	6.47	6.48	6.48	0.01	32.92	35.57	33.21	0.26	1.31	1.08	1.08	1.08	1.08
17.000	6.49	6.49	6.50	6.51	0.02	33.38	34.77	33.59	0.30	1.30	1.07	1.07	1.08	1.08
20.000	6.52	6.52	6.54	6.54	0.02	34.22	33.73	34.31	0.35	1.28	1.06	1.06	1.07	1.07

1. Total Loss = Insertion Loss + 6dB 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.
- 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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