

# Coaxial Power Splitter/Combiner

## ZMSC-4-1+ ZMSC-4-1

4 Way-0° 50Ω 0.1 to 200 MHz



CASE STYLE: N24  
Connectors Model  
**SMA** ZMSC-4-1(+)  
**BRACKET (OPTION "B") (+)**  
**BRACKET (OPTION "BR") (+)**

**+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	0.250W 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
PORT 4	4

### Features

- high isolation, 30 dB typ.
- rugged shielded case

### Applications

- HF/VHF
- radio communication
- receivers/transmitters

### 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
	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
f <sub>L</sub> -f <sub>U</sub>																		
0.1-200	33	20	30	20	27	20	0.4	0.6	0.5	0.75	0.7	1.0	4	6	8	0.15	0.20	0.25

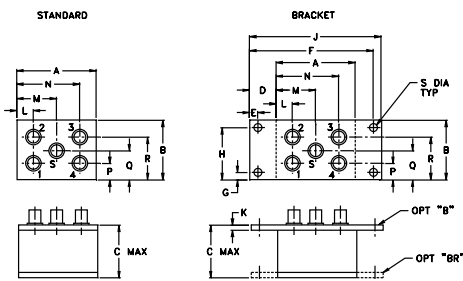
L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

### 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						
0.10	6.17	6.17	6.17	6.16	0.01	28.93	32.05	29.34	0.07	1.27	1.31	1.31	1.32	1.32
0.50	6.20	6.20	6.20	6.20	0.00	29.03	43.97	29.35	0.05	1.24	1.18	1.18	1.19	1.19
1.00	6.19	6.19	6.19	6.18	0.01	28.87	45.99	29.14	0.05	1.25	1.17	1.17	1.17	1.17
10.00	6.20	6.21	6.21	6.21	0.01	29.26	46.44	29.47	0.06	1.27	1.15	1.15	1.15	1.15
31.00	6.29	6.29	6.29	6.29	0.01	29.41	45.20	29.56	0.04	1.28	1.14	1.14	1.14	1.14
52.00	6.34	6.34	6.34	6.35	0.01	29.05	43.18	29.13	0.05	1.28	1.13	1.13	1.13	1.13
80.00	6.35	6.35	6.36	6.36	0.02	28.55	41.17	28.52	0.07	1.26	1.11	1.10	1.10	1.11
100.00	6.40	6.40	6.43	6.43	0.02	28.45	40.30	28.37	0.06	1.24	1.09	1.09	1.09	1.09
118.00	6.40	6.41	6.43	6.44	0.04	28.68	39.86	28.52	0.07	1.21	1.08	1.08	1.07	1.07
130.00	6.40	6.40	6.44	6.44	0.05	29.03	39.76	28.83	0.09	1.19	1.07	1.07	1.06	1.07
154.00	6.45	6.45	6.50	6.51	0.06	30.28	40.30	30.13	0.10	1.14	1.07	1.07	1.06	1.06
176.00	6.49	6.48	6.55	6.57	0.09	32.10	41.55	32.45	0.19	1.09	1.09	1.09	1.08	1.07
184.00	6.50	6.49	6.57	6.59	0.10	32.76	42.38	33.67	0.19	1.08	1.10	1.10	1.09	1.08
192.00	6.51	6.51	6.59	6.62	0.11	33.28	43.49	35.26	0.22	1.07	1.11	1.11	1.10	1.09
200.00	6.52	6.51	6.60	6.63	0.12	33.46	44.99	37.10	0.25	1.06	1.12	1.12	1.11	1.10

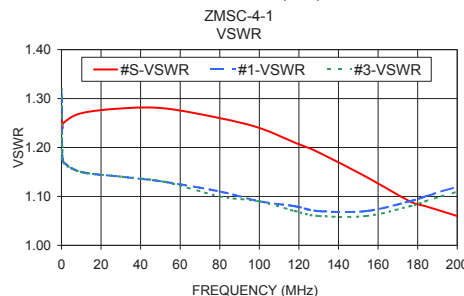
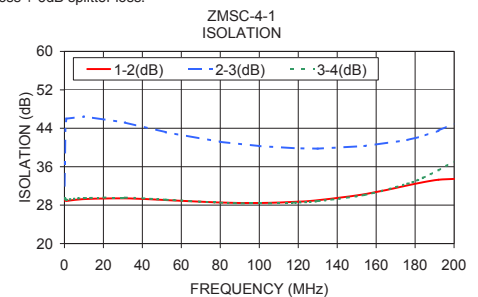
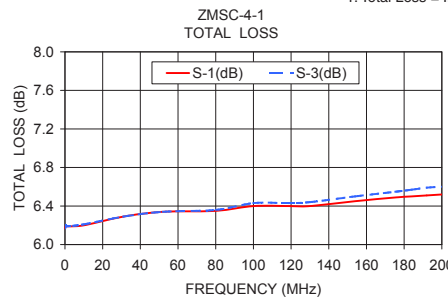
1. Total Loss = Insertion Loss + 6dB splitter loss.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
1.50	1.13	1.00	.50	.155	2.345	.138	.987	2.50
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07	63.50
K	L	M	N	P	Q	R	S	wt
.10	.32	.75	1.18	.31	.56	.81	.150	grams
2.54	8.13	19.05	29.97	7.87	14.22	20.57	3.81	45.0



### 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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