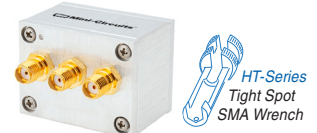


# Power Splitter/Combiner

## ZMSC-2-1+

2 Way-0° 50Ω 0.1 to 400 MHz



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	0.125W max.

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

### Coaxial Connections

SUM PORT	2
PORT 1	1
PORT 2	3

### Features

- wideband, 0.1 to 400 MHz
- low insertion loss, 0.4 dB typ.
- good isolation, 25 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.2 deg. typ.
- rugged shielded case

### Applications

- VHF/UHF
- federal & defense communications
- instrumentation

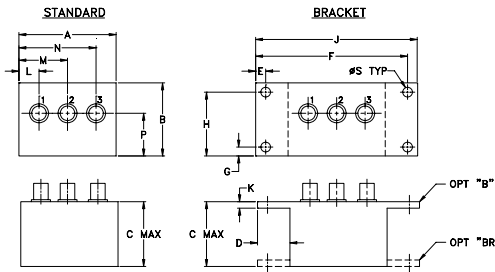
CASE STYLE: M21

Connectors Model  
**SMA ZMSC-2-1+**  
**BRACKET (OPTION "B")**  
**BRACKET (OPTION "BR")**

**+RoHS Compliant**

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

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.50	1.13	1.00	.50	.155	2.345	.138	.987
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07

J	K	L	M	N	P	S	wt
2.50	.10	.31	.75	1.19	.66	.150	grams
63.50	2.54	7.87	19.05	30.23	16.76	3.81	40.0

### 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
f <sub>L</sub> -f <sub>U</sub>	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
0.1-400	20	15	25	20	25	20	0.2	0.5	0.4	0.75	0.6	1.0	2	3	4	0.15	0.20	0.30

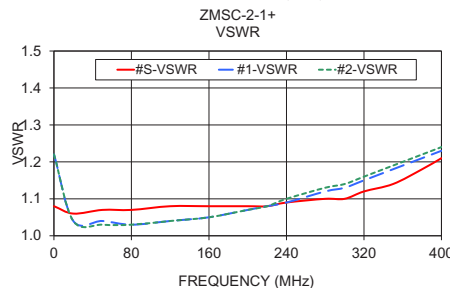
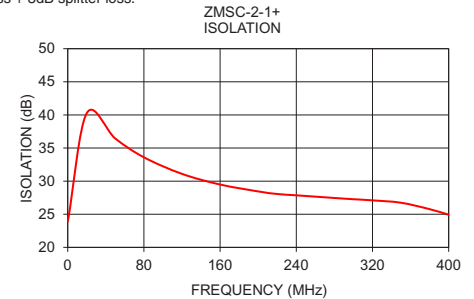
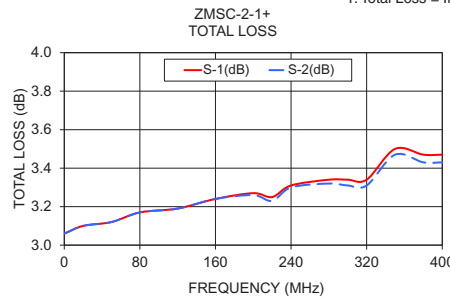
L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

\* At low range frequency band (f<sub>L</sub> to 10 f<sub>L</sub>), linearly derate maximum input power by 13 dB typ.

### 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						
0.10	3.06	3.06	0.00	23.90	0.00	1.08	1.22	1.22
20.00	3.10	3.10	0.00	40.27	0.01	1.06	1.04	1.04
50.00	3.12	3.12	0.00	36.43	0.06	1.07	1.04	1.03
80.00	3.17	3.17	0.00	33.60	0.07	1.07	1.03	1.03
120.00	3.19	3.19	0.00	31.10	0.09	1.08	1.04	1.04
160.00	3.24	3.24	0.01	29.49	0.10	1.08	1.05	1.05
200.00	3.27	3.26	0.01	28.45	0.11	1.08	1.07	1.07
220.00	3.25	3.23	0.02	28.06	0.16	1.08	1.08	1.08
240.00	3.31	3.30	0.01	27.86	0.12	1.09	1.09	1.10
280.00	3.34	3.32	0.02	27.46	0.14	1.10	1.12	1.13
300.00	3.34	3.31	0.03	27.27	0.14	1.10	1.13	1.14
320.00	3.34	3.31	0.03	27.10	0.18	1.12	1.15	1.16
350.00	3.50	3.47	0.03	26.74	0.17	1.14	1.18	1.19
380.00	3.47	3.43	0.04	25.77	0.10	1.18	1.21	1.22
400.00	3.47	3.43	0.04	24.93	0.12	1.21	1.23	1.24

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.
- 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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