

Coaxial Power Splitter/Combiner

ZMSC-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.
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, 33 dB typ.
- rugged shielded case

Applications

- HF
- amateur radio



CASE STYLE: N24

Connectors	Model
SMA	ZMSC-4-2+
BRACKET (OPTION "B")	
BRACKET (OPTION "BR")	

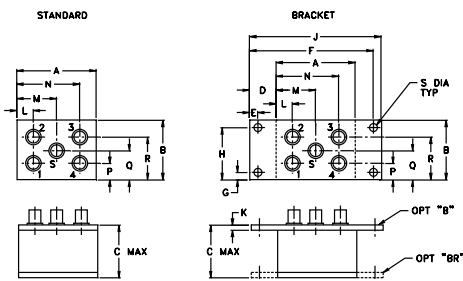
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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
	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
f _L -f _U																		
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]
* At low range frequency band (f_L to 10 f_L), linearly derate maximum power by 13dB.

Outline Drawing



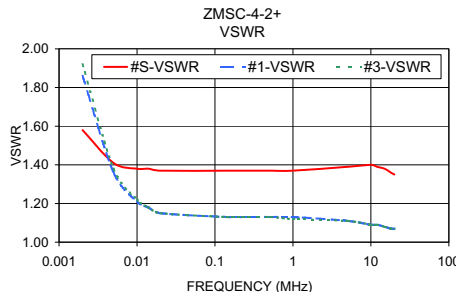
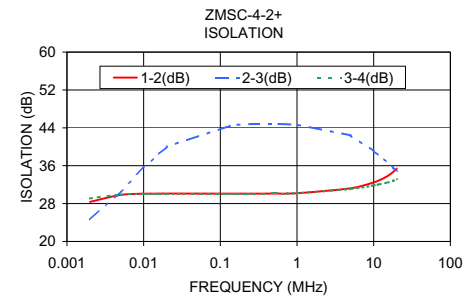
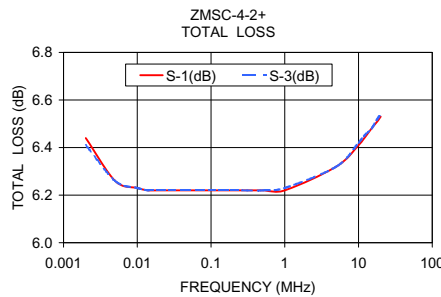
Outline Dimensions (inch/mm)

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

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR	VSWR	VSWR	VSWR	VSWR
	S-1	S-2	S-3	S-4		1-2	2-3	3-4		S	1	2	3	4
0.002	6.440	6.440	6.410	6.410	0.030	28.370	24.590	29.080	0.320	1.580	1.860	1.860	1.920	1.920
0.005	6.260	6.260	6.260	6.260	0.010	29.820	30.590	29.890	0.200	1.410	1.360	1.360	1.380	1.380
0.010	6.230	6.230	6.230	6.220	0.000	30.090	35.540	30.080	0.110	1.380	1.210	1.210	1.220	1.220
0.014	6.220	6.220	6.220	6.220	0.000	30.110	37.820	30.110	0.080	1.380	1.180	1.180	1.180	1.180
0.020	6.220	6.220	6.220	6.220	0.000	30.120	39.980	30.110	0.060	1.370	1.150	1.150	1.150	1.150
0.142	6.220	6.220	6.220	6.220	0.000	30.110	44.600	30.110	0.020	1.370	1.130	1.130	1.130	1.130
0.265	6.220	6.220	6.220	6.220	0.000	30.100	44.820	30.120	0.040	1.370	1.130	1.130	1.130	1.130
0.510	6.220	6.220	6.220	6.220	0.000	30.120	44.840	30.140	0.050	1.370	1.130	1.130	1.130	1.130
1.000	6.220	6.220	6.230	6.220	0.000	30.190	44.690	30.200	0.090	1.370	1.130	1.130	1.120	1.120
5.000	6.320	6.320	6.320	6.320	0.010	31.240	42.390	31.090	0.280	1.390	1.110	1.110	1.110	1.110
10.000	6.410	6.410	6.420	6.410	0.010	32.480	39.090	31.850	0.530	1.400	1.090	1.090	1.090	1.090
12.000	6.440	6.440	6.450	6.440	0.010	32.970	38.030	32.080	0.630	1.390	1.090	1.090	1.090	1.090
15.000	6.480	6.480	6.480	6.480	0.010	33.770	36.690	32.420	0.780	1.380	1.080	1.080	1.080	1.080
18.000	6.510	6.510	6.520	6.520	0.010	34.700	35.550	32.820	0.920	1.360	1.070	1.070	1.070	1.070
20.000	6.530	6.530	6.540	6.540	0.010	35.410	34.890	33.160	1.030	1.350	1.070	1.070	1.070	1.060

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.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/WCLStore/terms.jsp

