



COAXIAL

# Power Splitter/Combiner

ZX10-2-20-S+

Mini-Circuits

2 Way-0° 50Ω 200 to 2000 MHz

## FEATURES

- Low insertion loss, 0.8 dB typ.
- Excellent amplitude unbalance
- Very good phase unbalance
- Small size
- Low cost
- Protected under U.S. Patent 6,790,049 & 6,963,255

## APPLICATIONS

- PCN/PCS
- Cellular/GSM
- VHF/UHF receivers/transmitters



Generic photo used for illustration purposes only

Model No.	ZX10-2-20-S+
Case Style	FL905
Connectors	SMA-Female

### +RoHS Compliant

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

## ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range		200		2000	MHz
Insertion Loss Above 3 dB	200-2000	—	0.8	2.2	dB
	800-1000	—	0.5	0.9	
	500-1500	—	0.5	1.3	
	1500-2000	—	1.6	2.2	
Isolation	200-2000	16	20	—	dB
	800-1000	17	22	—	
	500-1500	17	22	—	
	1500-2000	17	20	—	
Phase Unbalance	200-2000	—	—	6.0	Degree
	800-1000	—	—	2.0	
	500-1500	—	—	4.0	
	1500-2000	—	—	6.0	
Amplitude Unbalance	200-2000	—	0.4	0.6	dB
	800-1000	—	0.3	0.4	
	500-1500	—	0.4	0.5	
	1500-2000	—	0.4	0.6	

## MAXIMUM RATINGS

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation (as a combiner)	0.125W max.

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

## ELECTRICAL SCHEMATIC



REV. K  
ECO-012765  
ZX10-2-20-S+  
WP/CP/AM  
220419





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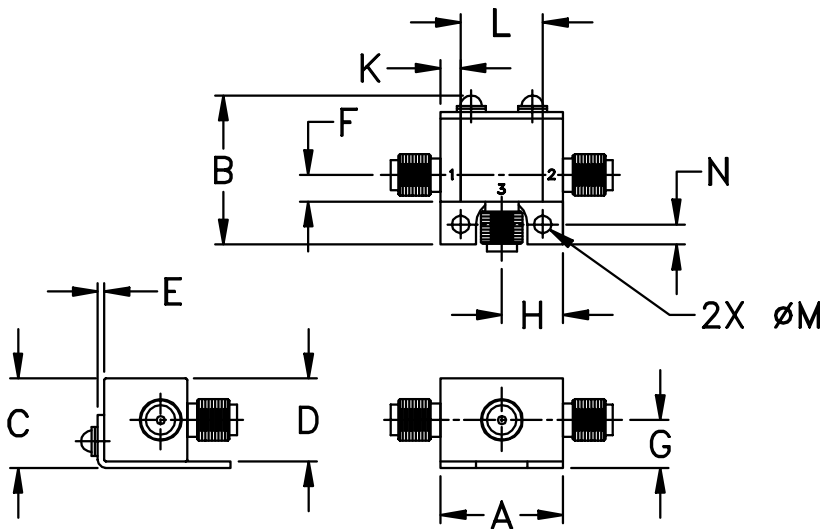
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## COAXIAL CONNECTIONS

Sum Port	3
Port 1-2	1-2

## OUTLINE DRAWING



## OUTLINE DIMENSIONS (INCH/MM)

A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37
H	J	K	L	M	N	wt
.37	--	.122	.496	.106	.122	grams
9.40	--	3.10	12.60	2.69	3.10	20.0

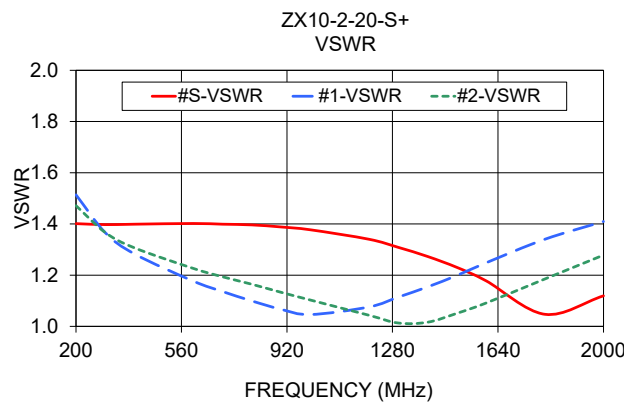
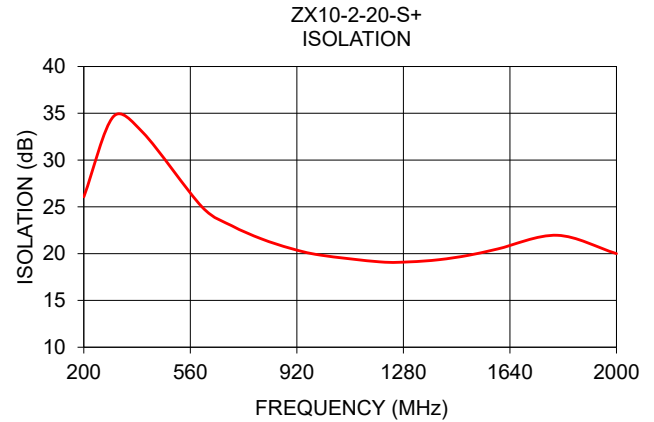
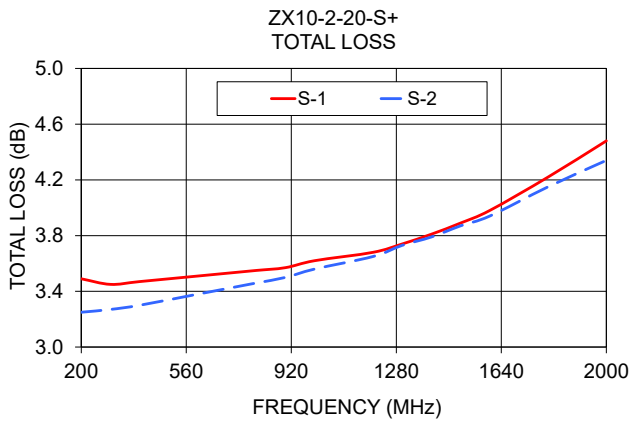




### TYPICAL PERFORMANCE DATA

Freq. (MHz)	Insertion Loss <sup>1</sup> (dB)		Ampl. Unbal. (dB)	Isolation (dB)	Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
200.00	3.49	3.25	0.25	26.07	1.50	1.40	1.51	1.47
300.00	3.45	3.27	0.19	34.65	0.82	1.40	1.37	1.37
400.00	3.47	3.30	0.17	32.93	0.41	1.40	1.28	1.31
600.00	3.51	3.38	0.14	24.97	0.06	1.40	1.18	1.23
700.00	3.53	3.42	0.11	22.98	0.20	1.40	1.14	1.19
800.00	3.55	3.46	0.10	21.58	0.31	1.40	1.10	1.16
900.00	3.57	3.50	0.07	20.55	0.37	1.39	1.07	1.13
1000.00	3.62	3.56	0.06	19.84	0.41	1.38	1.05	1.10
1200.00	3.68	3.65	0.03	19.12	0.51	1.34	1.08	1.04
1300.00	3.74	3.73	0.01	19.12	0.56	1.31	1.11	1.01
1400.00	3.81	3.79	0.01	19.35	0.38	1.27	1.15	1.02
1500.00	3.89	3.87	0.02	19.82	0.11	1.23	1.20	1.05
1600.00	3.98	3.94	0.02	20.51	0.14	1.18	1.25	1.09
1800.00	4.22	4.15	0.07	21.96	0.89	1.05	1.34	1.19
2000.00	4.48	4.34	0.14	20.00	2.24	1.12	1.41	1.28

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



- NOTES**
- A. 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.
  - B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
  - C. 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/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)