

# Power Splitter/Combiner

## ZX10-2-98-S+

2 Way-0° 50Ω 4750 to 9800 MHz

### Maximum Ratings

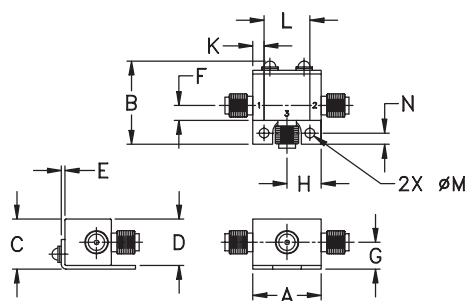
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1.0W max.
Internal Dissipation (as a combiner)	0.125W max.
DC Current	500 mA (250mA for each port)
DC Current	1.0A (500mA for each port)

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

### Coaxial Connections

SUM PORT	3
PORT 1	1
PORT 2	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

### Features

- low insertion loss, 0.3 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

- SHF
- communications
- defense
- cable tv relay

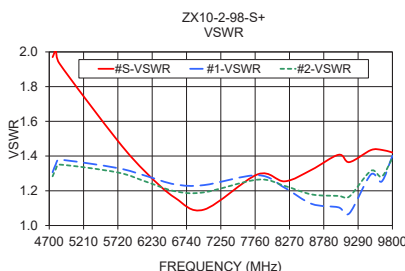
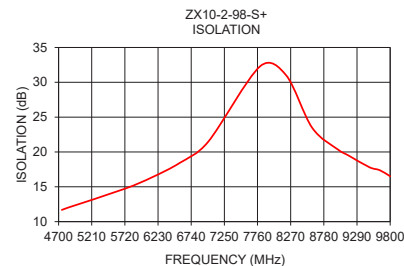
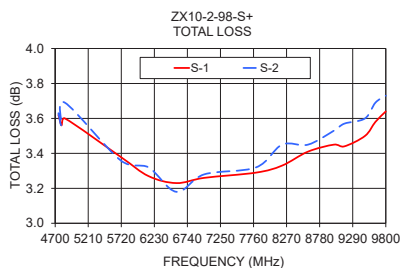
### Electrical Specifications (T<sub>AMB</sub>=25°C)

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
f <sub>c</sub> -f <sub>u</sub>						
4750-9800	23	10	0.3	1.2	9.0	0.5
7000-9000	23	18	0.3	0.8	8.0	0.4

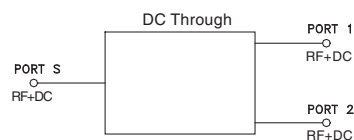
### Typical Performance Data

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						
4750.00	3.62	3.63	0.01	11.68	0.03	1.97	1.31	1.28
4800.00	3.56	3.56	0.01	11.85	0.16	2.01	1.35	1.33
4850.00	3.60	3.69	0.09	12.02	0.20	1.93	1.38	1.35
5710.00	3.38	3.36	0.03	14.69	0.09	1.49	1.33	1.31
6140.00	3.27	3.32	0.05	16.37	0.09	1.30	1.29	1.25
6570.00	3.23	3.18	0.05	18.46	0.22	1.16	1.24	1.20
7000.00	3.26	3.28	0.02	21.45	0.22	1.09	1.23	1.19
7800.00	3.29	3.32	0.03	32.30	0.26	1.29	1.29	1.26
8200.00	3.33	3.45	0.12	31.01	0.02	1.25	1.22	1.23
8600.00	3.41	3.45	0.05	23.48	0.52	1.32	1.12	1.18
9000.00	3.45	3.53	0.08	20.33	0.98	1.41	1.10	1.17
9160.00	3.44	3.57	0.13	19.49	0.70	1.37	1.07	1.17
9480.00	3.50	3.60	0.10	17.81	0.50	1.43	1.29	1.31
9640.00	3.58	3.69	0.11	17.38	0.85	1.44	1.25	1.28
9800.00	3.64	3.73	0.09	16.51	1.35	1.42	1.40	1.39

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

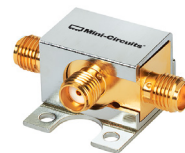


### electrical schematic



### 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.
- The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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CASE STYLE: FL905

Connectors	Model
SMA	ZX10-2-98-S+

### +RoHS Compliant

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