

Power Splitter/Combiner

2 Way-0° Resistive 50Ω DC to 10000 MHz

ZX10R-14-S+



CASE STYLE: FL905

Connectors	Model
SMA	ZX10R-14-S+

+RoHS Compliant

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

Maximum Ratings

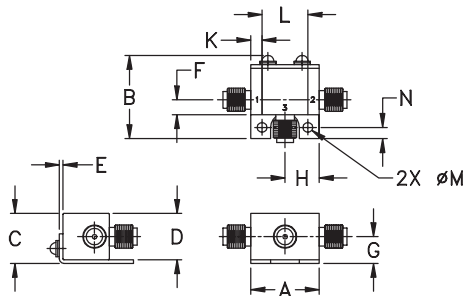
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.16W max.
Internal Dissipation	0.08W max.

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

- very wideband, DC to 10000 MHz
- very good phase unbalance, 1 deg. typ.
- excellent amplitude unbalance, 0.02 dB typ.
- rugged shielded case

Applications

- laboratory
- test set-ups

Electrical Specifications $T_{AMB}=25^{\circ}\text{C}$

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	L	M	U
f_L-f_U	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
DC-10000	6.0	6.0	6.0	0.1	0.2	0.5	1.0	1.5	1.8	1	3	6	0.1	0.2	0.3

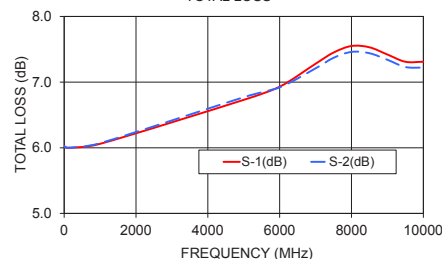
L = low range [DC-1000 MHz] M = mid range [1000 MHz to $f_U/2$] U = upper range [$f_U/2$ to f_U]

This is a resistive power divider to enable frequency coverage from dc to the highest rated frequency. Since resistive power divider do not provide a high degree of isolation (basically isolation equals the insertion loss between ports), an amplifier such as Mini-Circuits' ZFL series is recommended when high isolation is required. Matched power rating 0.16W, internal load dissipation 0.08W.

Typical Performance Data

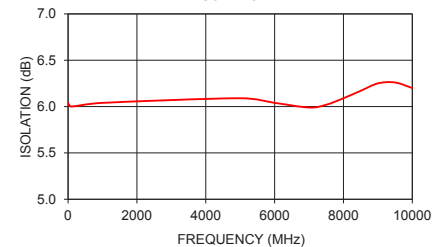
Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
0.03	6.03	6.02	0.01	6.04	0.09	1.00	1.00	1.00
0.10	6.01	6.01	0.00	6.02	0.01	1.00	1.00	1.00
1.00	6.00	6.01	0.01	6.01	0.00	1.00	1.00	1.00
10.00	6.02	6.02	0.00	6.03	0.14	1.02	1.02	1.02
100.00	6.00	6.00	0.00	6.00	0.06	1.00	1.00	1.01
1000.00	6.06	6.07	0.01	6.04	0.44	1.01	1.01	1.00
5000.00	6.73	6.77	0.04	6.09	1.20	1.22	1.17	1.16
6000.00	6.93	6.92	0.01	6.04	1.34	1.25	1.21	1.20
7000.00	7.28	7.21	0.06	5.99	1.78	1.26	1.19	1.21
7500.00	7.45	7.37	0.08	6.02	2.08	1.24	1.19	1.21
8000.00	7.55	7.46	0.09	6.09	2.39	1.22	1.20	1.22
8500.00	7.53	7.44	0.09	6.17	2.70	1.20	1.21	1.24
9000.00	7.42	7.34	0.08	6.25	2.91	1.19	1.21	1.24
9500.00	7.31	7.23	0.08	6.26	3.06	1.20	1.17	1.22
10000.00	7.31	7.22	0.09	6.20	3.18	1.23	1.12	1.17

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TOTAL LOSS

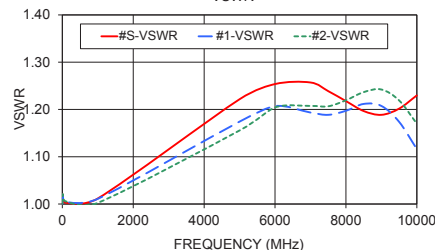


1. Total Loss = Insertion Loss + 6dB splitter loss.

ZX10R-14-S+
ISOLATION



ZX10R-14-S+
VSWR



electrical schematic



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/MCLStore/terms.jsp



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