

Coaxial

Power Splitter/Combiner

2 Way-0° Resistive 50Ω DC to 18000 MHz

ZFRSC-183-S+



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)	0.16W max.
Internal Dissipation	0.08W max.
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2

Features

- very wideband, DC to 18000 MHz
- very good phase unbalance, 1 deg. typ.
- excellent amplitude unbalance, 0.1 dB typ.
- rugged shielded case

Applications

- laboratory
- test set-ups

CASE STYLE: JJJ245

Connectors Model

SMA ZFRSC-183-S+

BRACKET (OPTION "B")

+RoHS Compliant

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

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
f_L-f_U	Typ.	Typ.	Typ.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.
DC-18000	6.2	6.5	7.0	0.3 0.7	0.7 1.25	1.0 —	4	7	10	0.2	0.5	0.5

L = DC-6000 MHz M = 6000-12000 MHz U = 12000-18000 MHz

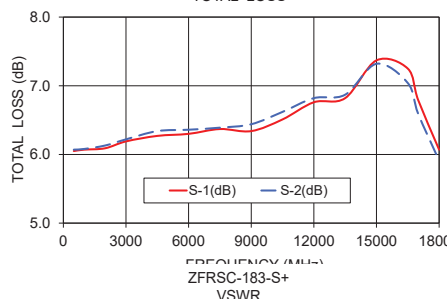
This is a resistive power divider to enable frequency coverage from dc to the highest rated frequency. Since resistive power divider do not provide a high degree of isolation (basically isolation equals the insertion loss between ports), an amplifier such as Mini-Circuits' ZVA series is recommended when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

Typical Performance Data

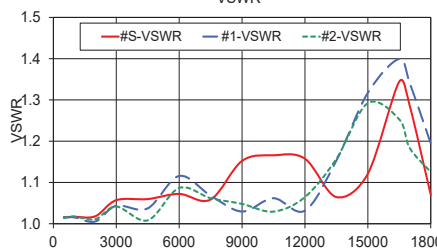
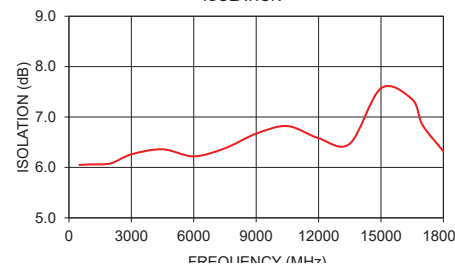
Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
500.00	6.05	6.07	0.01	6.05	0.01	1.02	1.01	1.01
1000.00	6.07	6.08	0.02	6.06	0.08	1.02	1.02	1.02
2000.00	6.09	6.13	0.04	6.08	0.26	1.02	1.01	1.01
3000.00	6.19	6.22	0.02	6.26	0.28	1.06	1.04	1.04
4500.00	6.27	6.34	0.07	6.36	0.05	1.06	1.04	1.01
6000.00	6.30	6.36	0.07	6.22	0.01	1.07	1.12	1.09
7500.00	6.37	6.39	0.03	6.38	0.08	1.06	1.07	1.06
9000.00	6.34	6.44	0.10	6.67	0.22	1.15	1.03	1.05
10500.00	6.51	6.62	0.11	6.82	0.10	1.17	1.06	1.03
12000.00	6.76	6.82	0.05	6.58	0.91	1.16	1.03	1.06
13500.00	6.82	6.87	0.05	6.47	0.18	1.06	1.15	1.16
15000.00	7.37	7.32	0.05	7.57	0.01	1.12	1.32	1.29
16500.00	7.25	7.04	0.21	7.35	0.78	1.34	1.40	1.25
17000.00	6.79	6.59	0.19	6.84	0.59	1.29	1.34	1.18
18000.00	6.07	5.91	0.15	6.32	0.57	1.07	1.19	1.13

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

ZFRSC-183-S+
TOTAL LOSS



ZFRSC-183-S+
ISOLATION



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/VCLStore/terms.jsp



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