

Coaxial

# Power Splitter/Combiner

## ZFRSC-183+

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



### 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<sub>AMB</sub>=25°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 <sub>L</sub> -f <sub>U</sub>	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

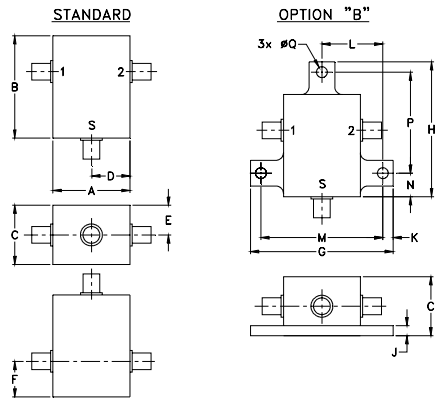
This is a resistive power divider to enable frequency coverage from dc to the highest rated frequency. Since resistive power divider do not provide a high degree of isolation (basically isolation equals the insertion loss between ports), an amplifier such as Mini-Circuits' ZVA series is recommended when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

### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (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

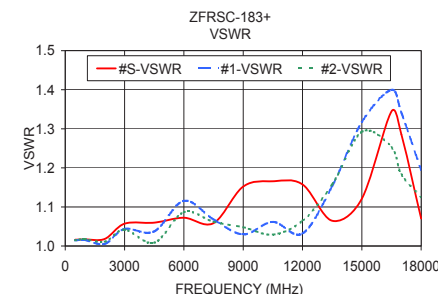
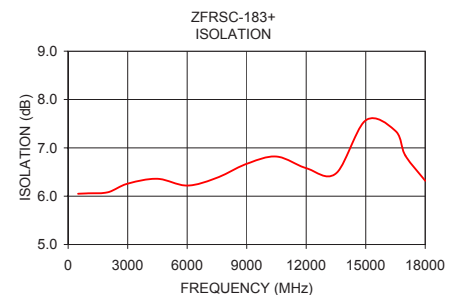
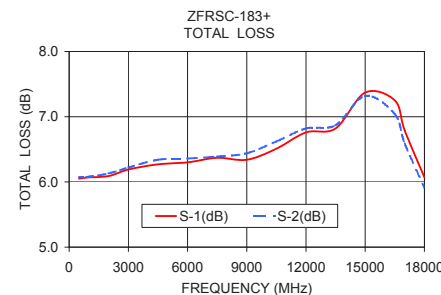
1. Total Loss = Insertion Loss + 6dB splitter loss.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
0.75	1.00	0.58	0.38	0.29	0.35	1.39	1.32
19.05	25.4	14.732	9.65	7.37	8.89	35.31	33.53
J	K	L	M	N	P	Q	wt
0.10	0.10	0.595	1.19	0.23	0.995	0.106	grams
2.54	2.54	15.11	30.23	5.84	25.27	2.69	22.0



### 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.
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