Coaxial

Power Splitter/Combiner

ZFRSC-123+

2 Way-0° Resistive 50Ω DC to 12000 MHz

CASE STYLE: JJJ245

Connectors	Model	Price	Qty.
SMA	ZFRSC-123-S+	$74.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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.

Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2

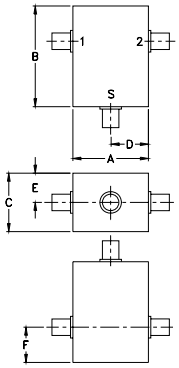
Features

- very wideband, DC to 12000 MHz
- very good phase unbalance, 1 deg. typ.
- excellent amplitude unbalance, 0.1 dB typ.
- rugged shielded case

Applications

- laboratory
- IP3 test set-ups

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	wt
.75	1.00	.58	.38	.29	.35	grams
19.05	25.40	14.73	9.65	7.37	8.89	22.0

Electrical Specifications T_{AMB}=25°C

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 6.0 dB				PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	L	U	L		U		L	U	L	U
f_L-f_U	Typ.	Typ.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.
DC-12000	19.5	19.5	3.5	4.0	3.5	4.0	3	5	0.25	0.4

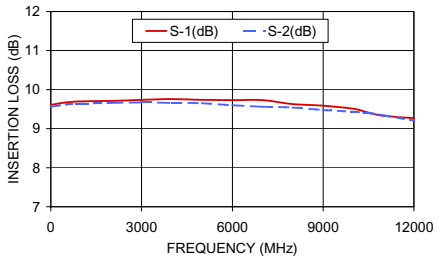
L = DC-6000 MHz U = 6000-12000 MHz

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)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1.00	9.61	9.56	0.05	19.32	0.06	1.01	1.00	1.01
500.00	9.67	9.62	0.05	19.32	0.07	1.02	1.01	1.01
1000.00	9.70	9.64	0.06	19.32	0.21	1.02	1.01	1.01
2000.00	9.71	9.66	0.05	19.29	0.48	1.02	1.01	1.01
3000.00	9.74	9.67	0.07	19.34	0.61	1.04	1.02	1.01
4000.00	9.76	9.66	0.10	19.50	0.78	1.05	1.04	1.02
5000.00	9.74	9.65	0.09	19.62	1.20	1.06	1.05	1.04
6000.00	9.73	9.60	0.13	19.56	1.60	1.06	1.06	1.06
7000.00	9.73	9.56	0.17	19.24	1.46	1.07	1.07	1.07
8000.00	9.63	9.54	0.09	19.12	1.56	1.09	1.12	1.07
9000.00	9.59	9.48	0.11	19.60	2.82	1.15	1.10	1.06
10000.00	9.51	9.43	0.07	20.10	2.52	1.21	1.05	1.03
10500.00	9.41	9.40	0.01	20.05	2.37	1.22	1.03	1.01
11000.00	9.33	9.34	0.00	19.69	2.67	1.23	1.04	1.01
12000.00	9.27	9.21	0.07	18.66	2.79	1.20	1.02	1.05

ZFRSC-123+
INSERTION LOSS



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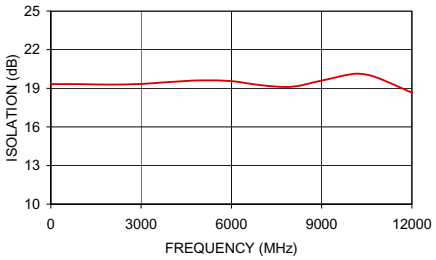
ISOLATION



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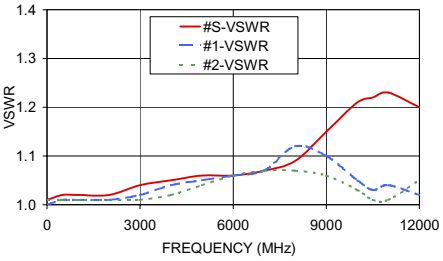
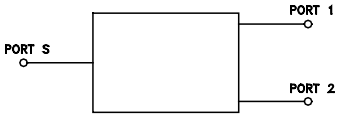
VSWR



electrical schematic



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