

Coaxial

Power Splitter/Combiner

2 Way-0° Resistive 50Ω DC to 2000 MHz

ZFRSC-2050+
ZFRSC-2050



BNC version shown
CASE STYLE: K18

Connectors Model
BNC ZFRSC-2050(+)
N-TYPE ZFRSC-2050-N(+)
BRACKET (OPTION "B")

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

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

Maximum Ratings

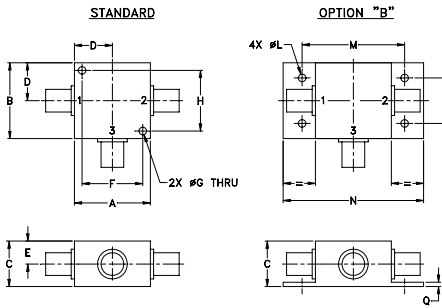
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.75W max.
Internal Dissipation	0.375W max.

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	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

For option B with N-type connectors, dimension "C" increases to 0.94 inches.

Features

- wideband, DC to 2000 MHz
- low insertion loss, 6.5 dB typ.
- excellent amplitude unbalance, 0.02 dB typ.
- rugged shielded case

Applications

- laboratory
- test set-ups

Electrical Specifications

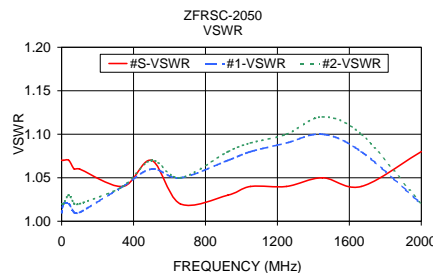
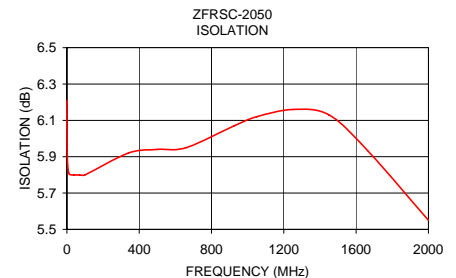
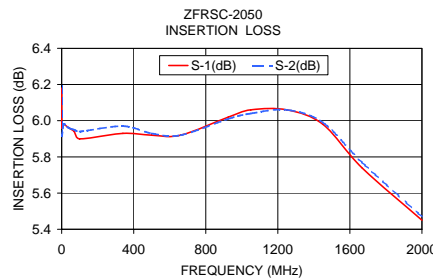
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 6.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L	M	U	L		M		U		L	M	U	L	M	U
	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
DC-2000	6.2	6.6	7.0	0.1	0.2	0.3	0.6	0.5	1.4	1	2	5	0.1	0.2	0.5

L = low range [DC-100 MHz] M = mid range [100 MHz to $f_c/2$] U = upper range [$f_c/2$ to f_u]

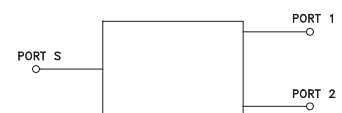
This is a resistive power divider to enable frequency coverage from dc to the highest rated frequency. Since resistive power divider do not provide a high degree of isolation (basically isolation equals the insertion loss between ports), an amplifier such as Mini-Circuits' ZFL series is recommended when high isolation is required. Matched power rating 0.75W, internal load dissipation 0.375W.

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						
0.03	6.18	6.19	0.01	6.21	0.07	1.07	1.02	1.02
1.00	5.96	5.92	0.04	5.95	0.06	1.07	1.01	1.02
10.00	5.98	5.98	0.00	5.81	0.12	1.07	1.02	1.02
40.00	5.96	5.96	0.00	5.80	0.15	1.07	1.02	1.03
70.00	5.94	5.95	0.01	5.80	0.21	1.06	1.01	1.02
100.00	5.90	5.94	0.04	5.80	0.17	1.06	1.01	1.02
340.00	5.93	5.97	0.04	5.92	0.00	1.04	1.04	1.04
500.00	5.92	5.93	0.01	5.94	0.01	1.07	1.06	1.07
660.00	5.92	5.92	0.00	5.95	0.13	1.02	1.05	1.05
925.00	6.02	6.01	0.01	6.07	0.48	1.03	1.07	1.08
1050.00	6.06	6.04	0.02	6.12	0.57	1.04	1.08	1.09
1250.00	6.06	6.06	0.00	6.16	0.94	1.04	1.09	1.10
1450.00	5.98	5.99	0.01	6.13	1.12	1.05	1.10	1.12
1666.67	5.74	5.77	0.03	5.93	1.11	1.04	1.08	1.10
2000.00	5.45	5.47	0.02	5.55	1.34	1.08	1.02	1.02



electrical schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

minicircuits.com

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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

REV. A
M118431
ZFRSC-2050
HY/TD/CP/AM
080626