

Coaxial

Power Splitter/Combiner

2 Way-0° Resistive 50Ω DC to 4200 MHz

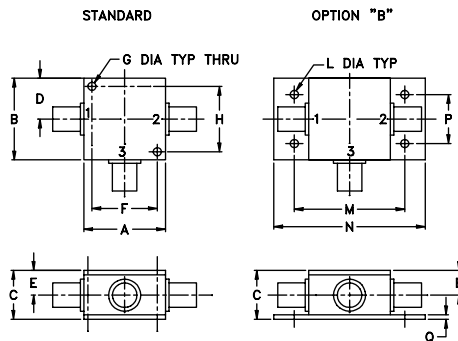
Maximum Ratings

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.

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

Features

- very wideband, DC to 4200 MHz
- low insertion loss, 0.1 dB typ.
- excellent amplitude unbalance, 0.02 dB typ.
- rugged shielded case

Applications

- laboratory
- test set-ups

ZFRSC-42+ ZFRSC-42



CASE STYLE: K18

Connectors	Model	Price	Qty.
SMA	ZFRSC-42-S(+)	\$59.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

+ 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.

Splitter Electrical Specifications

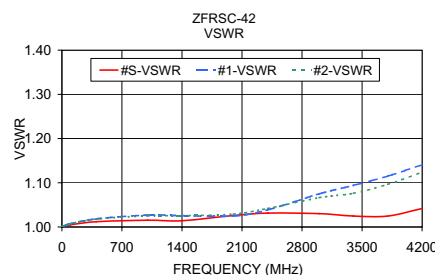
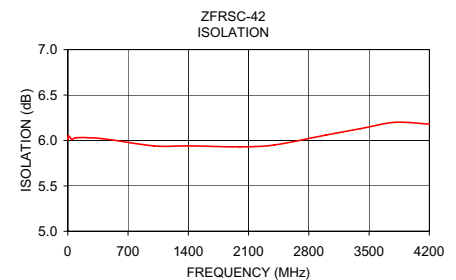
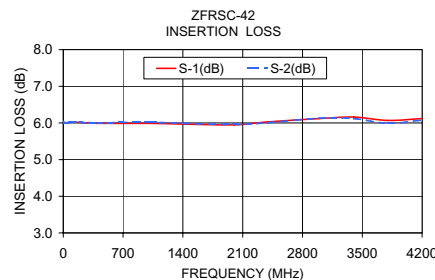
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 6.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L	M	U	L	M	U	L	M	U	L	M	U	L	M	U
f_L - f_U	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
DC-4200	6.2	6.5	7.0	0.1	0.2	0.1	0.5	0.4	1.4	1	3	5	0.1	0.2	0.5

L = low range [f_L to 10 f_L] M = mid range [10 f_L 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 0.75W, 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						
0.05	6.01	6.04	0.03	6.05	0.48	1.00	1.00	1.00
0.50	6.03	6.02	0.01	6.03	0.03	1.00	1.00	1.00
1.00	6.00	6.02	0.02	6.01	0.00	1.00	1.00	1.00
10.00	6.01	6.01	0.00	6.05	0.05	1.00	1.00	1.00
50.00	6.00	6.01	0.01	6.01	0.01	1.00	1.00	1.00
100.00	6.03	6.02	0.01	6.03	0.09	1.00	1.01	1.01
400.00	5.99	6.01	0.02	6.02	0.06	1.01	1.02	1.02
1000.00	5.99	6.02	0.03	5.94	0.63	1.02	1.03	1.03
1400.00	5.97	5.99	0.02	5.94	1.04	1.01	1.03	1.03
2000.00	5.95	5.96	0.01	5.93	1.69	1.03	1.02	1.03
2400.00	6.03	6.01	0.02	5.95	1.96	1.03	1.04	1.04
3000.00	6.12	6.13	0.01	6.06	2.77	1.03	1.07	1.07
3400.00	6.16	6.12	0.04	6.13	3.24	1.02	1.09	1.08
3800.00	6.07	5.99	0.08	6.20	2.70	1.02	1.12	1.10
4200.00	6.12	6.08	0.03	6.18	3.18	1.04	1.14	1.12



electrical schematic



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