

# Coaxial Power Splitter/Combiner

## ZFSC-3-13

3 Way-0° 50Ω 1 to 200 MHz



### Maximum Ratings

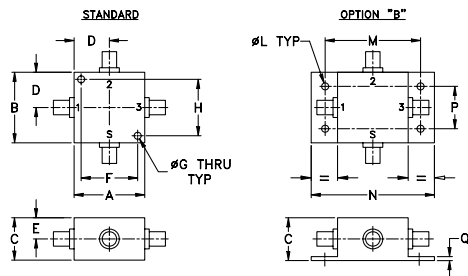
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.375W max.

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.000	.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	75.0

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

### Features

- low insertion, 0.35 dB typ.
- very high isolation, 48 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- excellent VSWR, 1.1:1 typ.
- rugged shielded case

### Applications

- VHF
- instrumentation
- radio communication system

BNC version shown

CASE STYLE: J17

Connectors	Model	Price	Qty.
BNC	ZFSC-3-13	\$51.95	(1-9)
SMA	ZFSC-3-13-S	\$56.95	(1-9)
N-TYPE	ZFSC-3-13-N	\$56.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

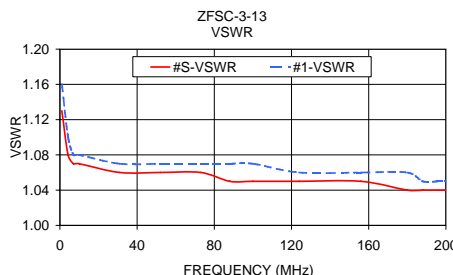
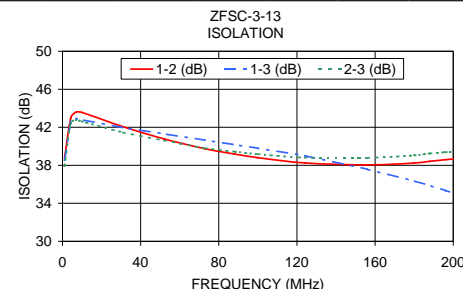
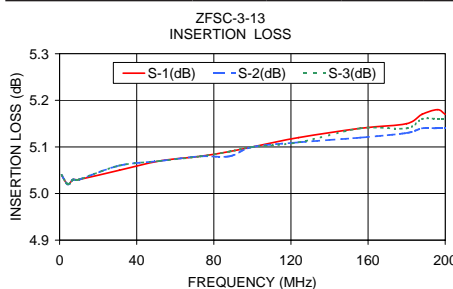
### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)					INSERTION LOSS (dB) ABOVE 4.8 dB					PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)				
	L		M		U	L		M		U	L	M	U	L	M	U		
$f_L$ - $f_U$	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
1-200	45	30	48	35	37	30	0.25	0.5	0.35	0.6	0.35	0.6	1.0	3.0	5.0	0.1	0.2	0.2

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  $f_U$ ]

### Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
1.00	5.04	5.04	5.04	0.01	38.69	38.54	37.91	0.02	1.13	1.16	1.17	1.17
4.20	5.02	5.02	5.02	0.00	42.98	42.61	42.44	0.03	1.08	1.10	1.10	1.10
7.00	5.03	5.03	5.03	0.00	43.60	42.94	42.77	0.01	1.07	1.08	1.08	1.08
10.00	5.03	5.03	5.03	0.00	43.56	42.80	42.63	0.05	1.07	1.08	1.08	1.08
31.00	5.05	5.06	5.06	0.01	42.06	41.96	41.46	0.07	1.06	1.07	1.07	1.07
52.00	5.07	5.07	5.07	0.00	40.78	41.32	40.62	0.17	1.06	1.07	1.07	1.07
73.00	5.08	5.08	5.08	0.01	39.74	40.65	39.81	0.21	1.06	1.07	1.07	1.07
88.00	5.09	5.08	5.09	0.01	39.19	40.18	39.45	0.25	1.05	1.07	1.07	1.07
100.00	5.10	5.10	5.10	0.00	38.80	39.80	39.18	0.30	1.05	1.07	1.06	1.07
124.00	5.12	5.11	5.11	0.01	38.25	39.02	38.81	0.36	1.05	1.06	1.06	1.07
156.00	5.14	5.12	5.14	0.02	38.04	37.59	38.79	0.42	1.05	1.06	1.05	1.07
180.00	5.15	5.13	5.14	0.02	38.24	36.35	39.05	0.44	1.04	1.06	1.05	1.07
188.00	5.17	5.14	5.16	0.02	38.42	35.88	39.25	0.48	1.04	1.05	1.05	1.06
196.00	5.18	5.14	5.16	0.03	38.59	35.35	39.38	0.51	1.04	1.05	1.05	1.06
200.00	5.17	5.14	5.16	0.03	38.67	35.10	39.44	0.51	1.04	1.05	1.04	1.06



### electrical schematic



**Mini-Circuits®**  
 ISO 9001 ISO 14001 AS 9100 CERTIFIED  
 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)  
 IFIRF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

REV. OR  
 M94793  
 ZFSC-3-13  
 HY/TD/CP  
 090826