

Power Splitter/Combiner

2 Way-0° 50Ω 3500 to 9000 MHz

ZFSC-2-9G+



Generic photo used for illustration purposes only

CASE STYLE: JJJ142

Connectors Model
SMA ZFSC-2-9G+
BRACKET (OPTION "B")

+RoHS Compliant

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

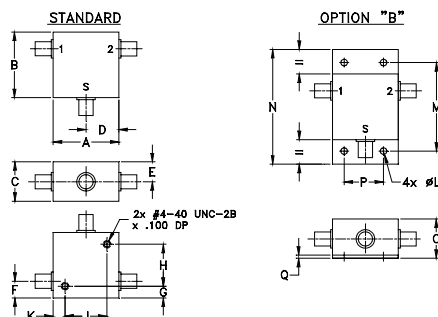
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.
DC Current	800 mA (400mA for each port)
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S
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	.32	.23	.800
31.75	31.75	19.05	16.00	9.65	8.13	5.84	20.32
J	K	L	M	N	P	Q	wt
.800	.23	.125	1.688	2.19	.750	.06	grams
20.32	5.84	3.18	42.88	55.63	19.05	1.52	70.0

Features

- very wideband, 3500 to 9000 MHz
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- rugged shielded case

Applications

- instrumentation
- satellite communications
- defense communications

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)				INSERTION LOSS (dB) ABOVE 3.0 dB				PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	L		U		L		U		L	U	L	U
	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.
3500-9000	18	12	20	12	0.5	1.5	0.6	1.2	7	10	0.3	0.5

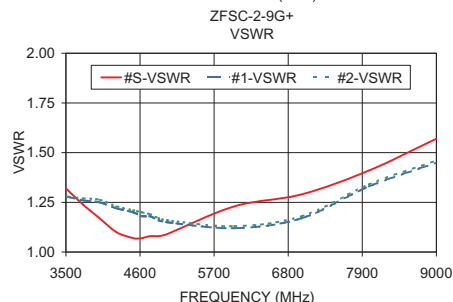
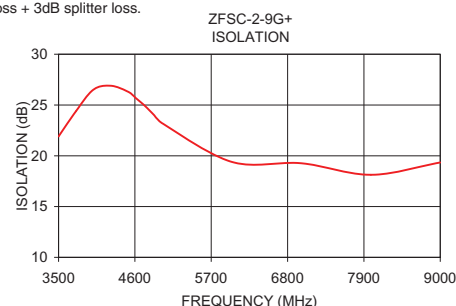
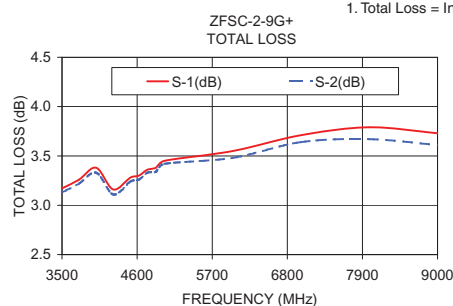
L = f_L to 6 GHz

U = 6 GHz to f_U

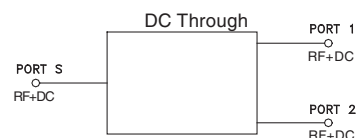
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
3500	3.17	3.13	0.06	21.90	1.29	1.32	1.28	1.28
3750	3.26	3.22	0.06	24.38	1.26	1.24	1.26	1.27
4000	3.38	3.33	0.07	26.50	1.27	1.17	1.25	1.26
4250	3.16	3.11	0.07	26.90	1.52	1.10	1.22	1.23
4500	3.28	3.24	0.05	26.31	1.57	1.07	1.20	1.21
4625	3.30	3.26	0.07	25.61	1.58	1.07	1.18	1.20
4750	3.36	3.33	0.07	24.88	1.64	1.08	1.18	1.19
4875	3.38	3.34	0.06	24.01	1.72	1.08	1.16	1.17
5000	3.45	3.42	0.08	23.18	1.78	1.09	1.15	1.16
6000	3.55	3.48	0.15	19.39	1.96	1.23	1.12	1.13
7000	3.71	3.64	0.13	19.26	2.22	1.29	1.17	1.18
8000	3.79	3.67	0.19	18.13	2.53	1.41	1.33	1.34
9000	3.73	3.61	0.22	19.34	2.54	1.57	1.45	1.46

1. Total Loss = Insertion Loss + 3dB splitter loss.



electrical schematic



Notes

- A. 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.
B. 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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Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS ¹		AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)	PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
3500.0	3.17	3.13	0.06	21.90	1.29	3500.0	1.32	1.28	1.28
3750.0	3.26	3.22	0.06	24.38	1.26	3750.0	1.24	1.26	1.27
4000.0	3.38	3.33	0.07	26.50	1.27	4000.0	1.17	1.25	1.26
4250.0	3.16	3.11	0.07	26.90	1.52	4250.0	1.10	1.22	1.23
4500.0	3.28	3.24	0.05	26.31	1.57	4500.0	1.07	1.20	1.21
4625.0	3.30	3.26	0.07	25.61	1.58	4625.0	1.07	1.18	1.20
4750.0	3.36	3.33	0.07	24.88	1.64	4750.0	1.08	1.18	1.19
4875.0	3.38	3.34	0.06	24.01	1.72	4875.0	1.08	1.16	1.17
5000.0	3.45	3.42	0.08	23.18	1.78	5000.0	1.09	1.15	1.16
6000.0	3.55	3.48	0.15	19.39	1.96	6000.0	1.23	1.12	1.13
7000.0	3.71	3.64	0.13	19.26	2.22	7000.0	1.29	1.17	1.18
8000.0	3.79	3.67	0.19	18.13	2.53	8000.0	1.41	1.33	1.34
9000.0	3.73	3.61	0.22	19.34	2.54	9000.0	1.57	1.45	1.46

¹Total Loss = Insertion Loss + 3dB Splitter Loss



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IF/RF MICROWAVE COMPONENTS

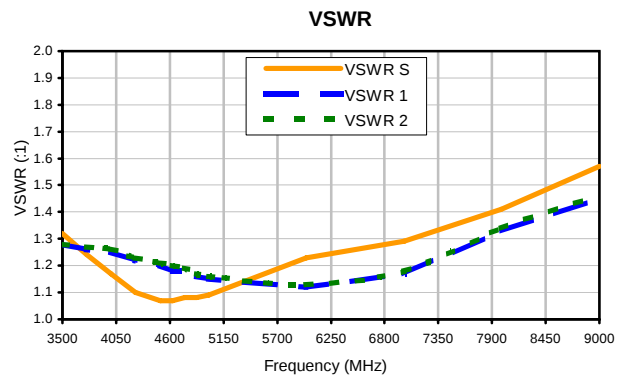
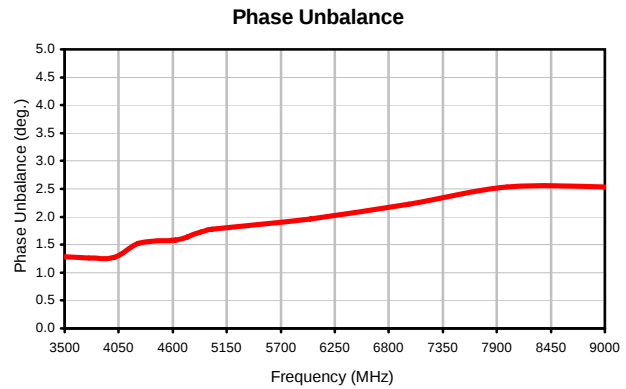
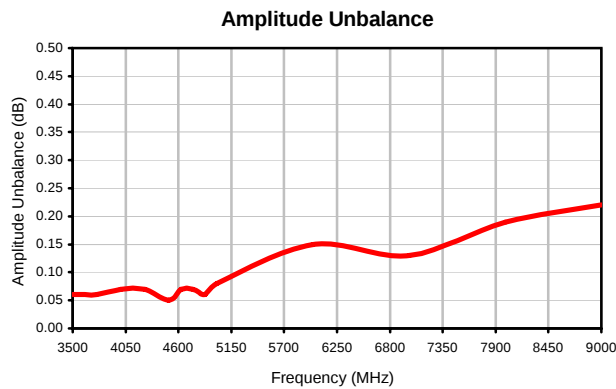
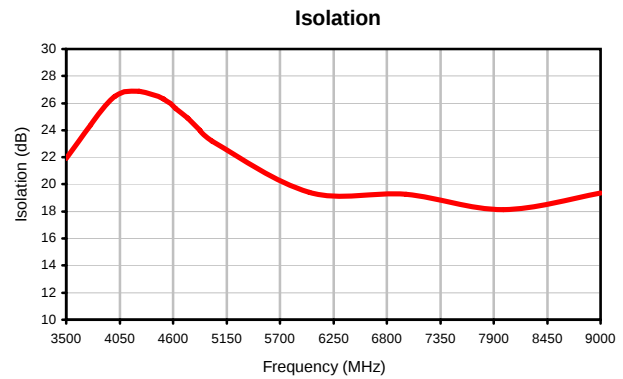
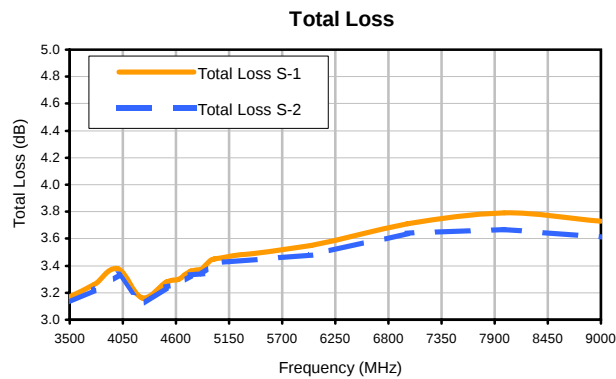


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Typical Performance Curves



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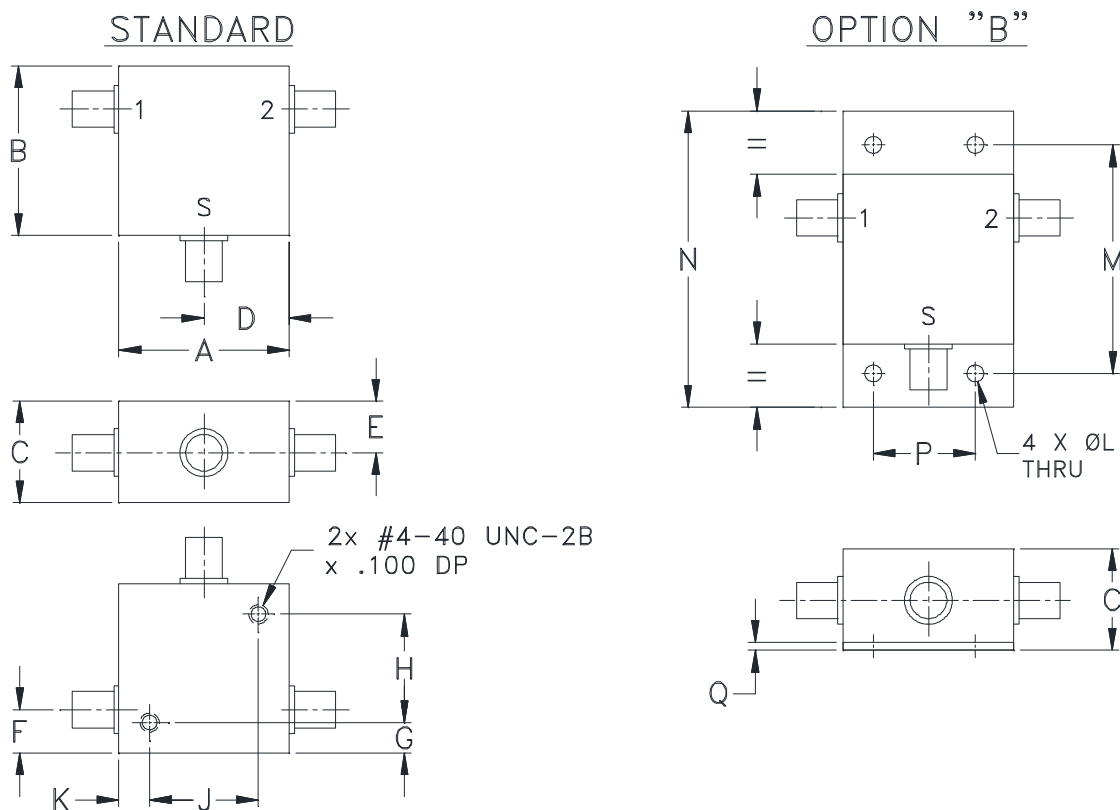


IF/RF MICROWAVE COMPONENTS

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Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
JJJ142	1.25 (31.75)	1.25 (31.75)	.75 (19.05)	.63 (16.00)	.38 (9.65)	.32 (8.13)	.23 (5.84)	.800 (20.32)	.800 (20.32)	.23 (5.84)	.125 (3.18)	1.688 (42.88)

CASE#	N	P	Q	WT. GRAM
JJJ142	2.19 (55.63)	.750 (19.05)	.06 (1.52)	70.0

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Mounting bracket available upon request. Add suffix B to part number.



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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I