

Coaxial

Power Splitter/Combiner

ZAPDJ-2-S+

2 Way-180° 50Ω 1000 to 2000 MHz



CASE STYLE: F53

Connectors	Model
SMA	ZAPDJ-2-S+

+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.

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

Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2

Features

- low insertion loss, 1.3 dB typ.
- good isolation, 22 dB typ.
- excellent amplitude unbalance, 0.8 dB typ.
- rugged shielded case

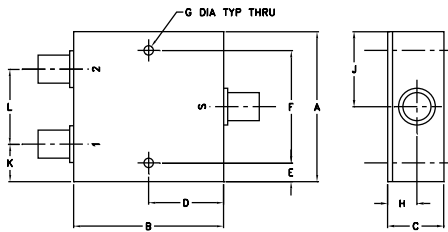
Applications

- GPS
- satellite distribution
- signal processing

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
f_L - f_U						
1000-2000	22	18	1.3	1.8	6	0.8

Outline Drawing



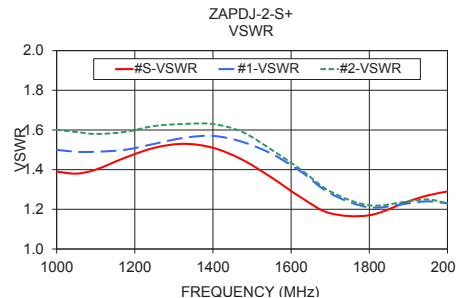
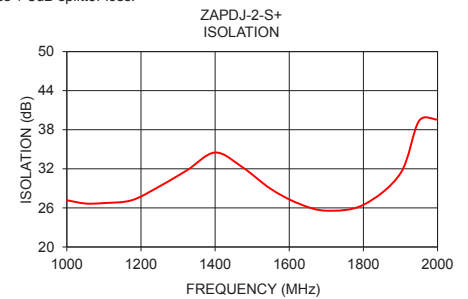
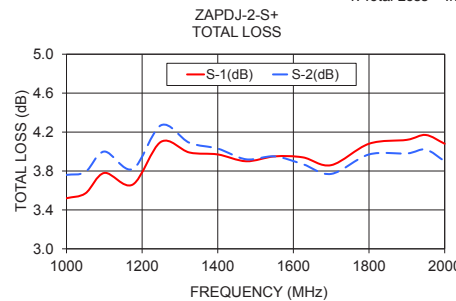
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
2.00	2.00	.75	1.00	.13	1.750	.125
50.80	50.80	19.05	25.40	3.30	44.45	3.18
H	J	K	L	wt		
.39	1.00	.50	1.00	grams		
9.91	25.40	12.70	25.40	170.0		

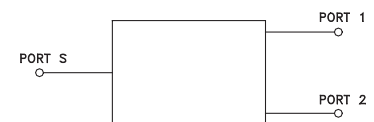
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1000.00	3.52	3.76	0.24	27.17	181.64	1.39	1.50	1.60
1050.00	3.57	3.79	0.23	26.67	181.56	1.38	1.49	1.59
1100.00	3.78	4.00	0.22	26.74	181.90	1.40	1.49	1.58
1175.00	3.66	3.82	0.16	27.17	181.57	1.46	1.50	1.59
1250.00	4.10	4.27	0.16	29.31	181.62	1.51	1.53	1.62
1325.00	3.99	4.09	0.09	31.81	178.45	1.53	1.56	1.63
1400.00	3.97	4.03	0.06	34.50	178.65	1.51	1.57	1.63
1475.00	3.90	3.92	0.01	32.19	178.75	1.45	1.54	1.59
1550.00	3.95	3.95	0.00	28.92	178.85	1.36	1.48	1.50
1625.00	3.94	3.87	0.07	26.67	178.83	1.26	1.39	1.40
1700.00	3.86	3.77	0.09	25.57	179.11	1.18	1.28	1.29
1800.00	4.08	3.97	0.11	26.47	179.21	1.17	1.21	1.22
1900.00	4.12	3.98	0.14	31.30	180.54	1.24	1.23	1.24
1950.00	4.17	4.02	0.15	39.34	180.43	1.27	1.24	1.25
2000.00	4.08	3.90	0.17	39.57	180.35	1.29	1.23	1.23

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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M175652
ZAPDJ-2-S+
HY/TD/CP/AM
190725

2 Way-180° Power Splitter/Combiner

ZAPDJ-2+

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	ISOLATION (dB)	PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
1000.0	3.52	3.76	0.24	27.17	181.64	1000.0	1.39	1.50	1.60
1025.0	3.52	3.76	0.24	26.83	181.55	1025.0	1.39	1.50	1.59
1050.0	3.57	3.79	0.23	26.67	181.56	1050.0	1.38	1.49	1.59
1075.0	3.69	3.90	0.21	26.67	181.78	1075.0	1.39	1.49	1.58
1100.0	3.78	4.00	0.22	26.74	181.90	1100.0	1.40	1.49	1.58
1125.0	3.74	3.98	0.24	26.80	181.64	1125.0	1.42	1.49	1.58
1150.0	3.52	3.72	0.20	26.78	181.46	1150.0	1.44	1.49	1.59
1175.0	3.66	3.82	0.16	27.17	181.57	1175.0	1.46	1.50	1.59
1200.0	3.94	4.10	0.16	27.79	181.74	1200.0	1.48	1.50	1.60
1225.0	4.13	4.30	0.17	28.48	181.78	1225.0	1.50	1.51	1.61
1250.0	4.10	4.27	0.16	29.31	181.62	1250.0	1.51	1.53	1.62
1275.0	3.73	3.87	0.14	29.89	178.64	1275.0	1.52	1.54	1.62
1300.0	3.78	3.89	0.12	30.73	178.52	1300.0	1.53	1.55	1.63
1325.0	3.99	4.09	0.09	31.81	178.45	1325.0	1.53	1.56	1.63
1350.0	4.16	4.24	0.08	33.07	178.54	1350.0	1.53	1.56	1.63
1375.0	4.08	4.17	0.09	34.10	178.57	1375.0	1.53	1.57	1.63
1400.0	3.97	4.03	0.06	34.50	178.65	1400.0	1.51	1.57	1.63
1425.0	3.96	4.01	0.05	34.12	178.68	1425.0	1.50	1.57	1.62
1450.0	3.81	3.84	0.04	33.13	178.80	1450.0	1.48	1.56	1.61
1475.0	3.90	3.92	0.01	32.19	178.75	1475.0	1.45	1.54	1.59
1500.0	3.97	3.99	0.01	31.16	178.71	1500.0	1.43	1.53	1.56
1525.0	4.07	4.06	0.01	30.10	178.71	1525.0	1.39	1.50	1.53
1550.0	3.95	3.95	0.00	28.92	178.85	1550.0	1.36	1.48	1.50
1575.0	3.74	3.70	0.04	27.82	178.95	1575.0	1.33	1.45	1.47
1600.0	3.81	3.76	0.05	27.19	178.97	1600.0	1.29	1.42	1.43
1625.0	3.94	3.87	0.07	26.67	178.83	1625.0	1.26	1.39	1.40
1650.0	4.03	3.97	0.07	26.30	178.86	1650.0	1.23	1.35	1.36
1675.0	3.95	3.89	0.07	25.90	178.95	1675.0	1.21	1.32	1.32
1700.0	3.86	3.77	0.09	25.57	179.11	1700.0	1.18	1.28	1.29
1725.0	3.89	3.78	0.11	25.52	179.10	1725.0	1.17	1.26	1.26
1750.0	3.94	3.83	0.10	25.65	179.07	1750.0	1.16	1.23	1.24
1775.0	4.04	3.92	0.12	26.02	179.10	1775.0	1.16	1.22	1.23
1800.0	4.08	3.97	0.11	26.47	179.21	1800.0	1.17	1.21	1.22
1825.0	4.08	3.95	0.13	27.06	179.29	1825.0	1.18	1.21	1.22
1850.0	4.02	3.88	0.14	27.94	179.41	1850.0	1.20	1.22	1.23
1875.0	3.99	3.86	0.13	29.32	179.44	1875.0	1.22	1.22	1.24
1900.0	4.12	3.98	0.14	31.30	180.54	1900.0	1.24	1.23	1.24
1925.0	4.17	4.00	0.17	34.21	180.41	1925.0	1.25	1.24	1.25
1950.0	4.17	4.02	0.15	39.34	180.43	1950.0	1.27	1.24	1.25
1975.0	4.11	3.96	0.15	51.98	180.38	1975.0	1.28	1.24	1.24
2000.0	4.08	3.90	0.17	39.57	180.35	2000.0	1.29	1.23	1.23

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss



For detailed performance specs & shopping online see web site

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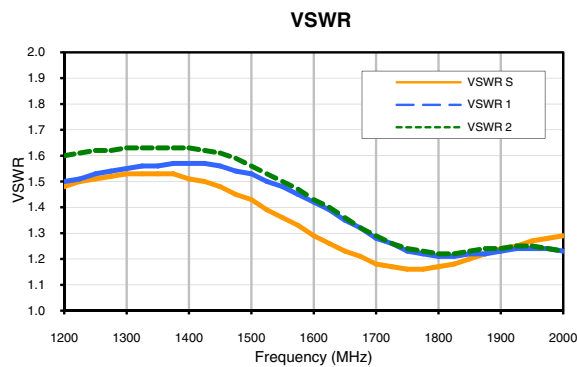
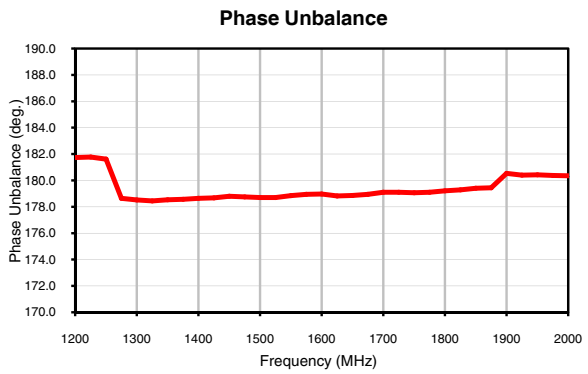
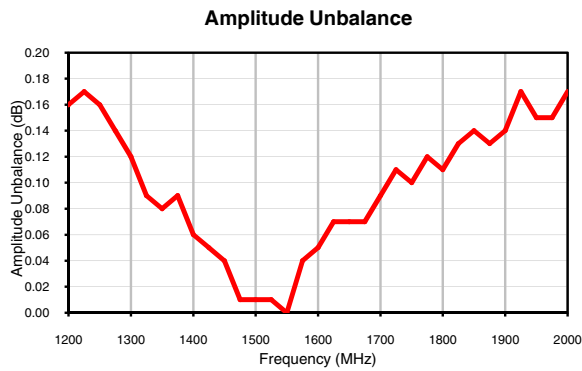
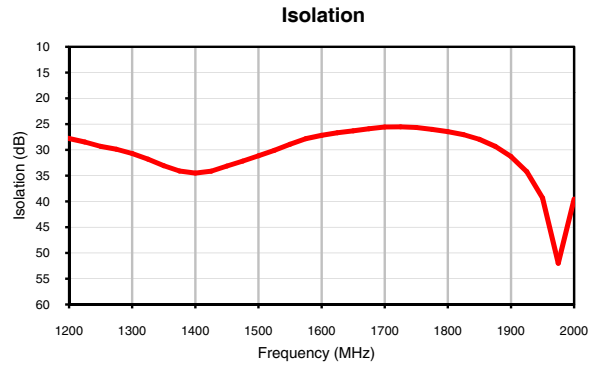
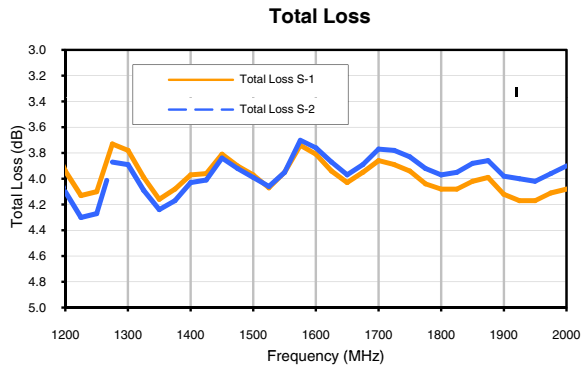
IFIR MICROWAVE COMPONENTS

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2 Way-180° Power Splitter/Combiner

ZAPDJ-2+

Typical Performance Curves



ISO 9001 ISO 14001 AS 9100 CERTIFIED

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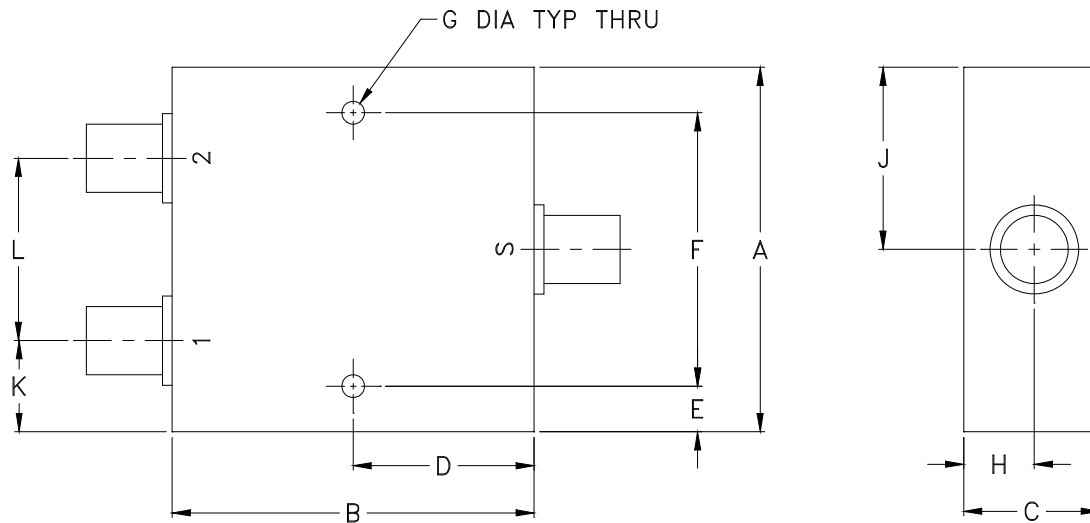
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ZAPDJ-2+
131110
Page 1 of 1

Case Style

F

Outline Dimensions

F53



CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
F53	2.00 (50.80)	2.00 (50.80)	.75 (19.05)	1.00 (25.40)	.13 (3.30)	1.750 (44.45)	.125 (3.18)	.39 (9.91)	1.00 (25.40)	.50 (12.70)	1.00 (25.40)	170.0

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

Notes:

- Case material: Aluminum alloy.
- Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Refer to the individual model data sheet for the type of connectors available.

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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