

Power Splitter/Combiner

ZAPD-ED13005/3

2 Way-0°

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : F14

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		10		3300 MHz
Isolation	10 - 100 MHz		21	dB
	100 - 1650 MHz		27	dB
	1650 - 3300 MHz		26	dB
Insertion Loss Above 3.0 dB	10 - 100 MHz		0.50	dB
	100 - 1650 MHz		0.70	dB
	1650 - 3300 MHz		1.50	dB
Phase Unbalance	10 - 100 MHz		0.06	deg.
	100 - 1650 MHz		0.70	deg.
	1650 - 3300 MHz		3.40	deg.
Amplitude Unbalance	10 - 100 MHz		0.01	dB
	100 - 1650 MHz		0.02	dB
	1650 - 3300 MHz		0.15	dB
VSWR	SUM Port		1.17	(:1)
	OUT Ports		1.36	(:1)

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	S, BNC
PORT 1	1, BNC
PORT 2	2, BNC

Functional Diagram



2 Way-0° Power Splitter/Combiner

ZAPD-ED13005/3

Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS ¹ (dB)		AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)	PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
10.0	3.45	3.47	0.01	20.17	0.01	10.0	1.03	1.51	1.50
20.0	3.46	3.47	0.01	21.15	0.04	20.0	1.02	1.47	1.46
30.0	3.46	3.48	0.01	21.27	0.04	30.0	1.02	1.47	1.46
40.0	3.47	3.48	0.01	21.29	0.06	40.0	1.02	1.46	1.46
50.0	3.48	3.49	0.01	21.30	0.06	50.0	1.03	1.46	1.46
60.0	3.48	3.49	0.01	21.28	0.05	60.0	1.03	1.46	1.45
70.0	3.48	3.50	0.02	21.29	0.06	70.0	1.04	1.46	1.45
80.0	3.49	3.50	0.02	21.30	0.07	80.0	1.04	1.46	1.45
90.0	3.49	3.51	0.02	21.32	0.09	90.0	1.05	1.45	1.45
100.0	3.49	3.51	0.02	21.36	0.10	100.0	1.05	1.45	1.45
150.0	3.51	3.53	0.02	21.54	0.12	150.0	1.08	1.44	1.44
200.0	3.52	3.54	0.02	21.73	0.16	200.0	1.10	1.44	1.43
250.0	3.53	3.55	0.02	22.08	0.18	250.0	1.13	1.42	1.42
300.0	3.54	3.56	0.02	22.46	0.19	300.0	1.15	1.41	1.41
350.0	3.55	3.57	0.02	23.01	0.24	350.0	1.18	1.40	1.40
400.0	3.56	3.57	0.01	23.54	0.29	400.0	1.19	1.39	1.39
450.0	3.57	3.59	0.01	24.25	0.24	450.0	1.21	1.38	1.38
500.0	3.59	3.61	0.01	24.93	0.42	500.0	1.22	1.38	1.37
550.0	3.61	3.61	0.00	25.87	0.35	550.0	1.24	1.37	1.36
600.0	3.63	3.65	0.02	26.62	0.40	600.0	1.24	1.36	1.35
650.0	3.65	3.65	0.00	27.88	0.58	650.0	1.24	1.35	1.34
700.0	3.68	3.67	0.01	28.73	0.43	700.0	1.24	1.34	1.33
750.0	3.69	3.70	0.02	30.15	0.59	750.0	1.23	1.33	1.32
800.0	3.71	3.69	0.02	31.42	0.67	800.0	1.22	1.32	1.30
850.0	3.72	3.72	0.00	32.61	0.58	850.0	1.21	1.30	1.30
900.0	3.72	3.72	0.01	33.87	0.86	900.0	1.19	1.29	1.28
950.0	3.75	3.74	0.01	35.03	0.78	950.0	1.18	1.28	1.28
1000.0	3.76	3.74	0.01	34.12	0.88	1000.0	1.17	1.27	1.27
1100.0	3.79	3.77	0.02	31.90	1.13	1100.0	1.16	1.25	1.25
1200.0	3.83	3.82	0.01	29.63	1.35	1200.0	1.16	1.23	1.23
1300.0	3.88	3.89	0.01	27.88	1.42	1300.0	1.17	1.21	1.20
1375.0	3.93	3.93	0.00	26.68	1.48	1375.0	1.18	1.20	1.19
1400.0	3.93	3.95	0.01	26.66	1.44	1400.0	1.19	1.20	1.18
1500.0	3.98	4.00	0.02	25.54	1.52	1500.0	1.21	1.18	1.16
1600.0	4.05	4.07	0.02	24.59	1.67	1600.0	1.22	1.17	1.15
1700.0	4.10	4.12	0.02	24.26	1.76	1700.0	1.22	1.15	1.14
1800.0	4.12	4.14	0.02	24.09	1.94	1800.0	1.22	1.14	1.13
1900.0	4.14	4.16	0.02	24.16	2.09	1900.0	1.21	1.13	1.13
2000.0	4.15	4.16	0.01	24.50	2.21	2000.0	1.20	1.12	1.13
2100.0	4.13	4.11	0.02	25.30	2.44	2100.0	1.19	1.12	1.12
2200.0	4.09	4.08	0.02	25.18	2.66	2200.0	1.16	1.11	1.12
2300.0	4.10	4.11	0.01	24.48	2.83	2300.0	1.14	1.11	1.12
2400.0	4.15	4.18	0.03	24.20	2.69	2400.0	1.11	1.12	1.11
2500.0	4.27	4.30	0.03	24.30	2.46	2500.0	1.09	1.14	1.12
2600.0	4.43	4.41	0.02	23.76	2.51	2600.0	1.08	1.18	1.15
2700.0	4.58	4.49	0.09	23.77	2.70	2700.0	1.08	1.24	1.20
2750.0	4.68	4.66	0.02	22.98	3.86	2750.0	1.07	1.29	1.23
2800.0	4.71	4.58	0.13	24.53	3.01	2800.0	1.06	1.31	1.25
2900.0	4.78	4.59	0.20	24.96	3.41	2900.0	1.03	1.37	1.29
3000.0	4.78	4.52	0.25	25.40	3.73	3000.0	1.05	1.44	1.34
3020.0	4.69	4.51	0.18	26.16	4.66	3020.0	1.06	1.45	1.35
3040.0	4.69	4.65	0.04	27.76	4.33	3040.0	1.08	1.46	1.36
3060.0	4.78	4.69	0.09	27.51	3.27	3060.0	1.10	1.48	1.37
3080.0	4.82	4.56	0.26	26.60	3.45	3080.0	1.13	1.49	1.38
3100.0	4.73	4.46	0.27	27.14	4.48	3100.0	1.15	1.50	1.39
3120.0	4.63	4.51	0.13	28.57	4.69	3120.0	1.18	1.51	1.41
3140.0	4.68	4.60	0.08	28.34	3.97	3140.0	1.21	1.52	1.43
3160.0	4.80	4.62	0.19	27.43	3.43	3160.0	1.25	1.55	1.45
3180.0	4.83	4.53	0.30	27.66	3.96	3180.0	1.29	1.56	1.46
3200.0	4.75	4.49	0.25	28.62	4.65	3200.0	1.33	1.57	1.48
3220.0	4.73	4.59	0.15	28.69	4.35	3220.0	1.37	1.59	1.50
3240.0	4.86	4.67	0.19	27.94	3.68	3240.0	1.42	1.62	1.53
3260.0	4.97	4.66	0.30	27.65	3.89	3260.0	1.47	1.65	1.56
3280.0	4.98	4.69	0.29	27.86	4.57	3280.0	1.52	1.67	1.59
3300.0	5.04	4.82	0.22	28.24	4.39	3300.0	1.58	1.69	1.62

¹Total Loss = Insertion Loss + 3dB Splitter Loss

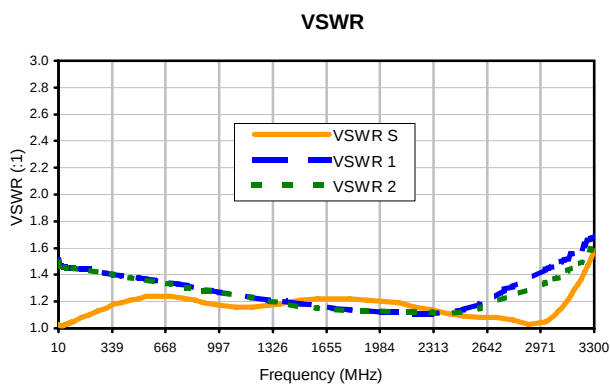
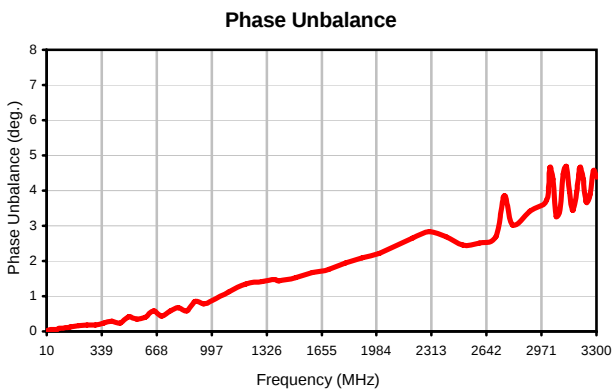
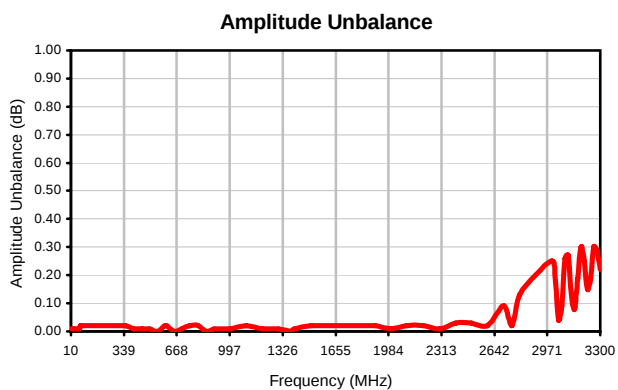
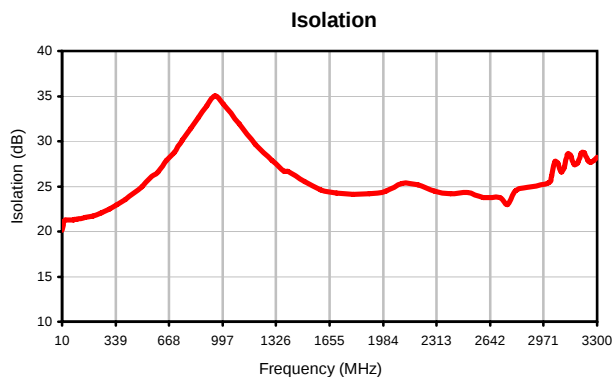
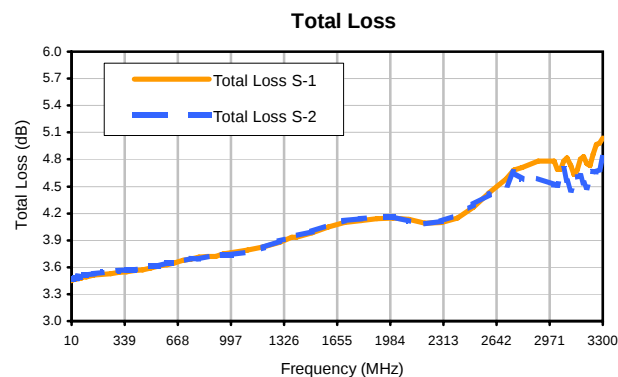


P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site
 The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

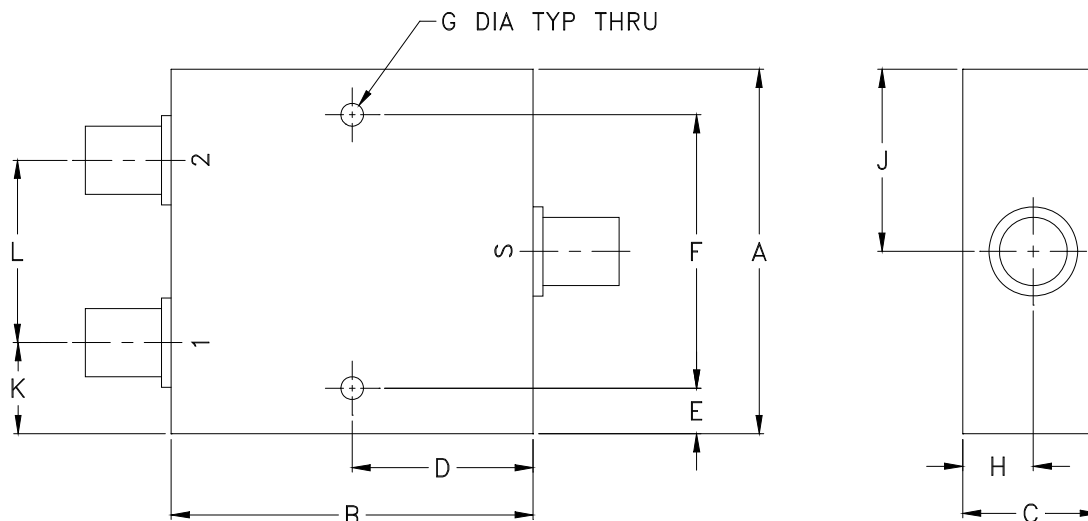
IF/RF MICROWAVE COMPONENTS

REV. X2
 ZAPD-ED13005/3
 9/15/2010
 Page 1 of 1

Typical Performance Curves



Outline Dimensions



CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
F14	2.00 (50.80)	2.00 (50.80)	.75 (19.05)	1.00 (25.40)	.25 (6.35)	1.500 (38.10)	.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.



INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified



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