

Power Splitter/Combiner 2 Way-180°

ZFSCJ-ED10503/1

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.



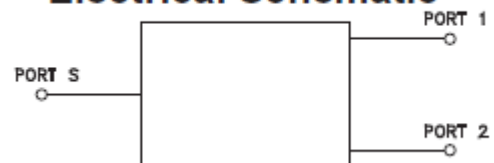
SMA version shown
CASE STYLE : K18

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		7		1200	MHz
Isolation	7-70 MHz		37		dB
	70-600 MHz		30		
	600-1200 MHz		28		
Insertion loss above 3 dB	7-70 MHz		0.70		dB
	70-600 MHz		1.10		
	600-1200 MHz		1.75		
Phase Unbalance	7-70 MHz		178.866		Deg
	70-600 MHz		178.119		
	600-1200 MHz		178.788		
Amplitude Unbalance	7-70 MHz		0.073		dB
	70-600 MHz		0.044		
	600-1200 MHz		0.250		
VSWR	SUM Port		1.55		(:1)
	OUT Ports		1.60		(:1)

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

COAXIAL CONNECTIONS	
SUM PORT	S
PORT 1	1
PORT 2	2

Electrical Schematic



2 Way-180° Power Splitter/Combiner ZFSCJ-ED10503/1

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
2.0	4.02	4.66	0.64	24.61	162.68	2.0	2.42	1.59	2.94
3.0	3.70	3.94	0.24	28.45	168.31	3.0	1.81	1.40	2.07
4.0	3.63	3.79	0.16	32.04	171.62	4.0	1.54	1.31	1.73
5.0	3.65	3.79	0.14	35.00	173.42	5.0	1.42	1.27	1.56
6.0	3.67	3.82	0.15	37.35	174.49	6.0	1.36	1.25	1.48
7.0	3.69	3.83	0.15	38.49	175.26	7.0	1.32	1.23	1.43
8.0	3.68	3.83	0.15	39.44	175.76	8.0	1.30	1.22	1.39
9.0	3.70	3.83	0.14	39.55	176.14	9.0	1.28	1.21	1.36
10.0	3.70	3.83	0.13	39.76	176.48	10.0	1.26	1.21	1.34
20.0	3.68	3.75	0.07	38.82	181.99	20.0	1.21	1.18	1.26
30.0	3.67	3.71	0.04	37.04	181.31	30.0	1.20	1.18	1.24
40.0	3.66	3.69	0.03	36.48	180.85	40.0	1.21	1.19	1.25
50.0	3.68	3.68	0.01	35.54	180.56	50.0	1.22	1.20	1.26
60.0	3.69	3.69	0.00	35.19	180.26	60.0	1.23	1.21	1.27
70.0	3.71	3.70	0.01	34.54	180.05	70.0	1.25	1.22	1.29
80.0	3.72	3.71	0.01	34.08	179.81	80.0	1.27	1.24	1.31
90.0	3.72	3.71	0.01	33.38	179.67	90.0	1.29	1.25	1.23
100.0	3.75	3.74	0.01	33.10	179.51	100.0	1.32	1.27	1.36
200.0	4.01	3.99	0.02	29.95	178.27	200.0	1.57	1.45	1.64
300.0	4.27	4.25	0.03	27.98	177.40	300.0	1.81	1.62	1.92
400.0	4.49	4.42	0.07	26.60	176.69	400.0	2.00	1.76	2.17
500.0	4.65	4.55	0.10	25.82	176.04	500.0	2.10	1.85	2.34
600.0	4.73	4.59	0.14	25.18	175.63	600.0	2.11	1.88	2.42
700.0	4.75	4.57	0.18	24.87	175.54	700.0	2.03	1.86	2.42
800.0	4.76	4.55	0.21	24.94	175.60	800.0	1.91	1.80	2.34
900.0	4.78	4.54	0.24	25.30	175.92	900.0	1.78	1.72	2.24
1000.0	4.84	4.54	0.29	26.20	176.46	1000.0	1.68	1.62	2.13
1050.0	4.87	4.58	0.29	26.97	183.28	1050.0	1.65	1.58	2.08
1100.0	4.93	4.64	0.30	27.91	182.81	1100.0	1.64	1.54	2.03
1150.0	4.98	4.68	0.30	29.19	182.26	1150.0	1.64	1.50	1.99
1200.0	5.08	4.78	0.30	31.02	181.59	1200.0	1.66	1.46	1.95
1250.0	5.15	4.84	0.31	33.74	180.90	1250.0	1.67	1.42	1.90
1300.0	5.25	4.93	0.32	36.79	180.13	1300.0	1.68	1.38	1.86
1350.0	5.35	5.02	0.33	37.11	179.38	1350.0	1.69	1.34	1.81
1400.0	5.48	5.10	0.38	32.60	178.55	1400.0	1.69	1.29	1.76
1450.0	5.58	5.17	0.40	28.63	177.61	1450.0	1.69	1.23	1.68
1500.0	5.75	5.31	0.44	25.51	179.79	1500.0	1.70	1.18	1.59
1550.0	5.92	5.45	0.47	22.84	175.91	1550.0	1.77	1.12	1.48
1600.0	6.24	5.74	0.50	20.66	174.97	1600.0	1.89	1.14	1.36
1650.0	6.68	6.11	0.57	18.85	174.16	1650.0	2.13	1.22	1.22

¹Total Loss = Insertion Loss + 3dB Splitter Loss



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IF/RF MICROWAVE COMPONENTS

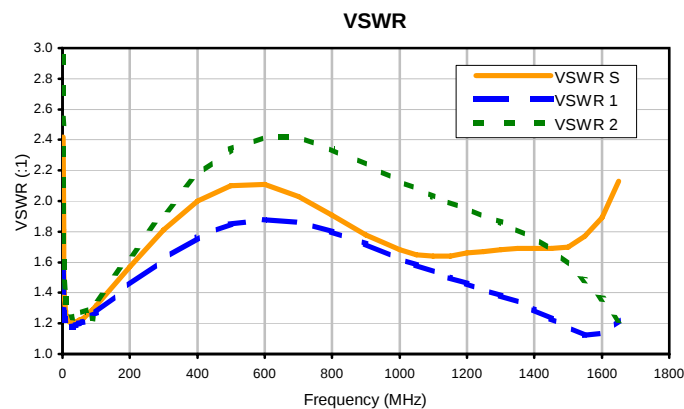
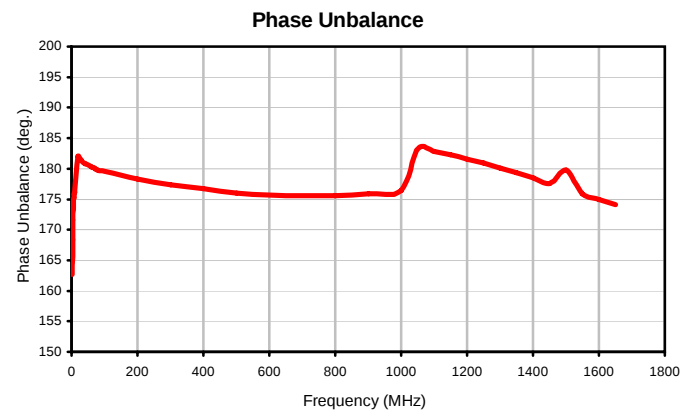
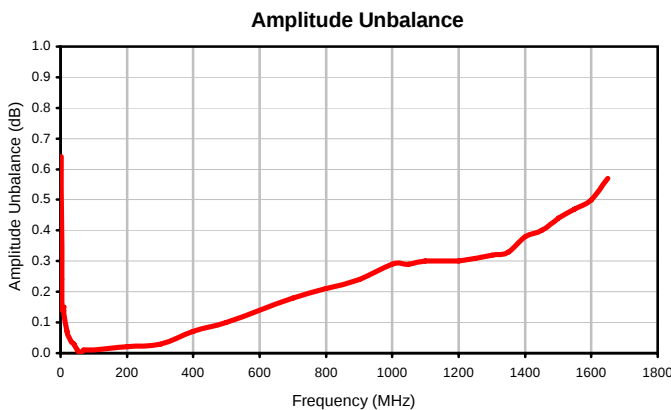
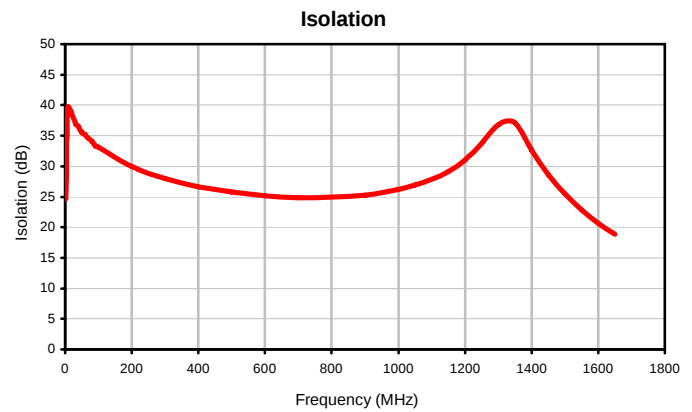
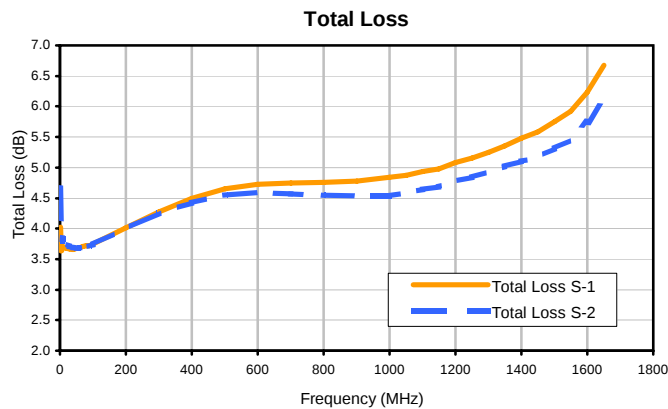
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Typical Performance Curves



Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
K18	1.25 (31.75)	1.25 (31.75)	.75 (19.05)	.63 (16.00)	.38 (9.65)	1.000 (25.40)	.125 (3.18)	1.000 (25.40)	--	--	.125 (3.18)	1.688 (42.88)	2.18 (55.37)

CASE#	P	Q	WT. GRAMS
K18	.75 (19.05)	.07 (1.78)	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 on request. Add suffix B to part number.
- For port marking 1, 2, and 3 see specifications data sheet.
- For bracket version, option B, dimension "C" changes from .75 to .94 inches when connectors are type N.
- 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