

Engineering Development Model

Power Splitter/Combiner

ZFRSC-ED12119/1

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 : K18

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		1		1000	MHz
Isolation	1 - 10 MHz		6		dB
	10 - 500 MHz		6		dB
	500 - 1000 MHz		6		dB
Insertion Loss Above 3.0 dB	1 - 10 MHz		0.05		dB
	10 - 500 MHz		0.05		dB
	500 - 1000 MHz		0.10		dB
Phase Unbalance	1 - 10 MHz		0.070		deg.
	10 - 500 MHz		0.105		deg.
	500 - 1000 MHz		0.154		deg.
Amplitude Unbalance	1 - 10 MHz		0.000		dB
	10 - 500 MHz		0.002		dB
	500 - 1000 MHz		0.002		dB
VSWR	SUM Port		1.05		(:1)
	OUT Ports		1.06		(:1)

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

PIN CONNECTIONS	
SUM PORT	3
PORT 1	1
PORT 2	2

Functional Diagram



2 Way-0° Power Splitter/Combiner ZFRSC-ED12119/1

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	ISOLATION (dB) 1-2	PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
1.0	5.96	5.96	0.00	5.96	0.00	1.0	1.00	1.00	1.00
10.0	5.97	5.96	0.00	5.96	0.07	10.0	1.00	1.00	1.00
100.0	5.97	5.97	0.00	5.97	0.05	100.0	1.00	1.01	1.01
150.0	5.97	5.97	0.00	5.97	0.02	150.0	1.01	1.01	1.01
200.0	5.97	5.97	0.00	5.97	0.03	200.0	1.01	1.01	1.02
250.0	5.96	5.97	0.00	5.96	0.03	250.0	1.02	1.02	1.02
300.0	5.96	5.97	0.00	5.96	0.06	300.0	1.03	1.03	1.03
310.0	5.96	5.97	0.00	5.96	0.08	310.0	1.03	1.03	1.03
320.0	5.96	5.96	0.00	5.96	0.09	320.0	1.03	1.03	1.03
330.0	5.96	5.96	0.00	5.96	0.10	330.0	1.03	1.04	1.03
340.0	5.96	5.97	0.00	5.96	0.12	340.0	1.03	1.04	1.03
350.0	5.96	5.97	0.00	5.96	0.13	350.0	1.03	1.04	1.04
360.0	5.96	5.97	0.00	5.96	0.11	360.0	1.03	1.04	1.04
370.0	5.96	5.97	0.00	5.96	0.13	370.0	1.04	1.04	1.04
380.0	5.97	5.97	0.01	5.97	0.12	380.0	1.04	1.04	1.04
390.0	5.97	5.97	0.00	5.97	0.14	390.0	1.04	1.05	1.04
400.0	5.97	5.97	0.00	5.97	0.14	400.0	1.04	1.05	1.04
425.0	5.97	5.98	0.01	5.97	0.14	425.0	1.05	1.05	1.05
450.0	5.97	5.98	0.01	5.97	0.16	450.0	1.05	1.06	1.05
475.0	5.97	5.97	0.00	5.97	0.18	475.0	1.06	1.06	1.06
500.0	5.98	5.98	0.00	5.98	0.20	500.0	1.06	1.07	1.06
525.0	5.99	5.99	0.00	5.99	0.19	525.0	1.06	1.07	1.06
550.0	6.00	6.00	0.00	5.99	0.19	550.0	1.07	1.07	1.07
575.0	6.01	6.01	0.00	6.00	0.17	575.0	1.07	1.08	1.07
600.0	6.02	6.02	0.00	6.01	0.16	600.0	1.08	1.08	1.07
610.0	6.03	6.02	0.01	6.01	0.13	610.0	1.08	1.08	1.07
620.0	6.04	6.03	0.01	6.02	0.15	620.0	1.08	1.08	1.08
630.0	6.04	6.04	0.01	6.03	0.15	630.0	1.08	1.08	1.08
640.0	6.05	6.05	0.00	6.03	0.13	640.0	1.08	1.08	1.08
650.0	6.06	6.06	0.00	6.04	0.12	650.0	1.09	1.08	1.08
660.0	6.07	6.06	0.00	6.05	0.13	660.0	1.09	1.08	1.08
670.0	6.08	6.08	0.00	6.06	0.11	670.0	1.09	1.08	1.08
680.0	6.08	6.08	0.00	6.06	0.13	680.0	1.09	1.08	1.08
690.0	6.08	6.09	0.00	6.07	0.12	690.0	1.09	1.09	1.08
700.0	6.09	6.09	0.00	6.07	0.13	700.0	1.09	1.09	1.08
750.0	6.12	6.12	0.00	6.09	0.16	750.0	1.09	1.09	1.08
800.0	6.16	6.16	0.00	6.13	0.21	800.0	1.09	1.09	1.08
850.0	6.18	6.18	0.00	6.14	0.20	850.0	1.09	1.09	1.08
900.0	6.20	6.20	0.00	6.16	0.16	900.0	1.08	1.08	1.07
950.0	6.21	6.22	0.00	6.18	0.16	950.0	1.07	1.07	1.06
1000.0	6.21	6.21	0.01	6.18	0.14	1000.0	1.06	1.05	1.05

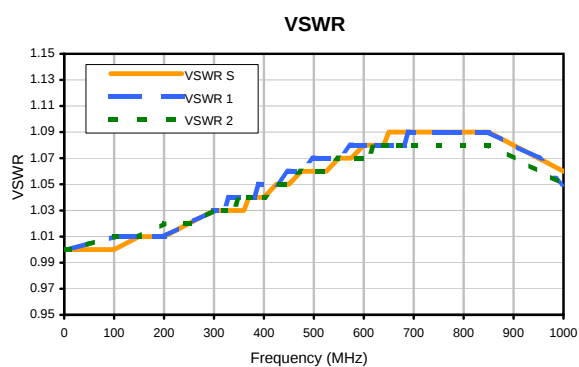
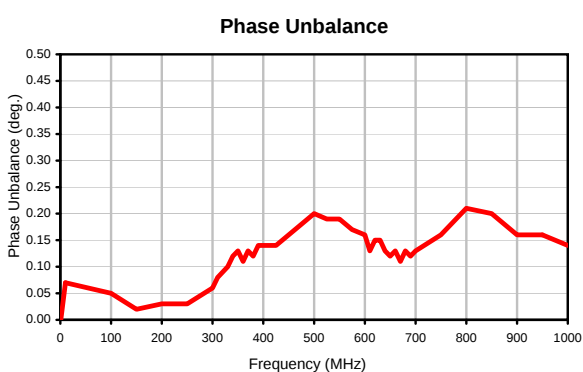
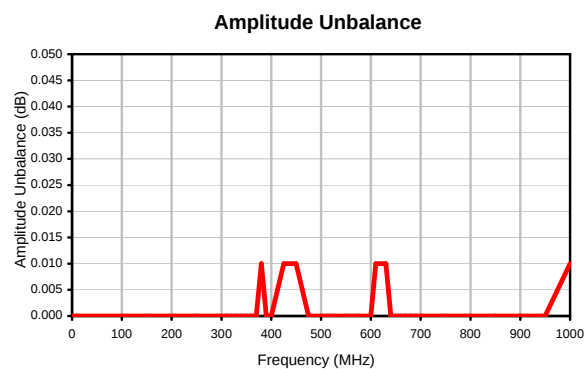
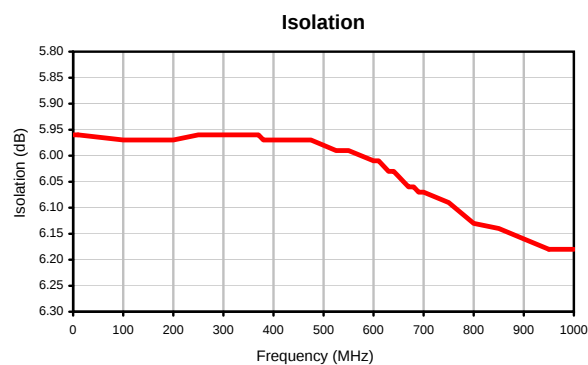
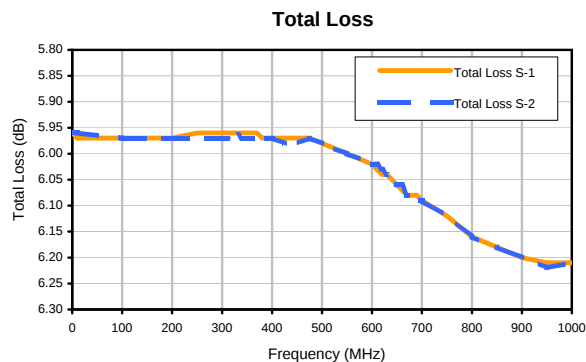
¹ Total Loss = Insertion Loss+ 3dB Splitter Loss



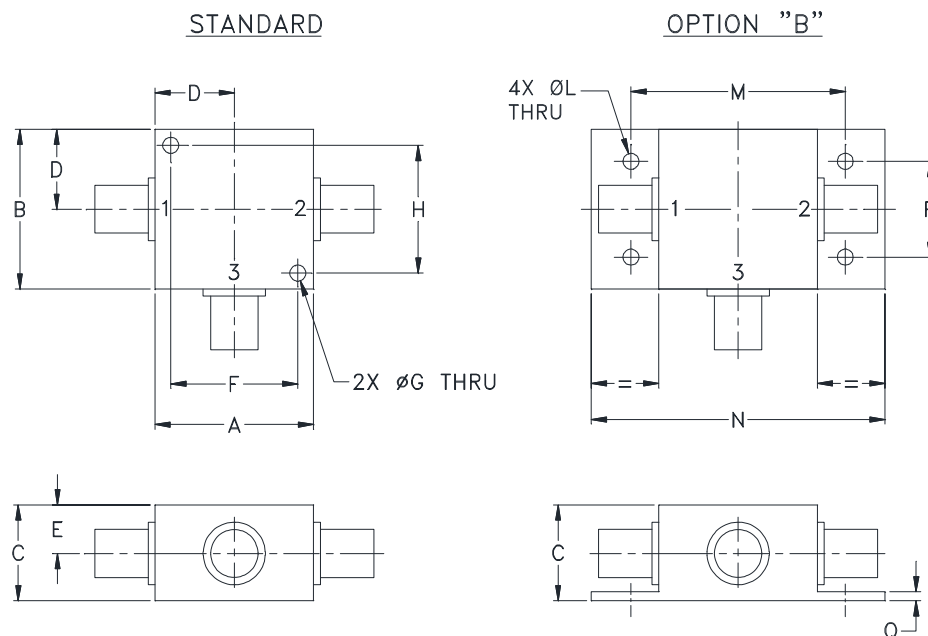
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Typical Performance Curves



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