Engineering Development Model

Power Splitter/Combiner ZFSC-ED13708/1

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 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		0.3		500	MHz
Isolation	**.3-3 MHz**		28		dB
	3-250 MHz		30		
	250-500 MHz		24		
Insertion loss above 3 dB	**.3-3 MHz**		0.20		dB
	3-250 MHz		0.30		
	250-500 MHz		0.50		
Phase Unbalance	**.3-3 MHz**		0.02		Deg
	3-250 MHz		0.20		
	250-500 MHz		0.30		
Amplitude Unbalance	**.3-3 MHz**		0.01		dB
	3-250 MHz		0.05		
	250-500 MHz		0.10		
VSWR	**SUM Port**		1.15		(:1)
	OUT Ports		1.09		

MAXIMUM RATINGS	
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C

COAXIAL CONNECTIONS	
SUM PORT	J1
PORT 1	J3
PORT 2	J2

Functional Diagram

2 Way-0° Power Splitter/Combiner ZFSC-ED13708/1

Typical Performance Data

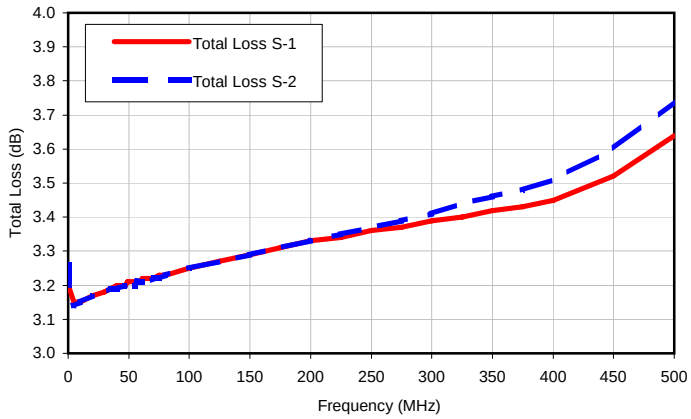
FREQ. (MHz)	TOTAL LOSS[1] (dB)		AMP. UNBAL. (dB)	ISOLATION (dB)	PHASE UNBAL. (Deg.)	FREQ. (MHz)	VSWR (:1)		
	S-1	S-2		1-2			S	1	2
0.3	3.26	3.26	0.00	25.33	0.01	0.3	1.13	1.32	1.32
0.5	3.23	3.23	0.00	28.51	0.02	0.5	1.11	1.23	1.23
0.7	3.21	3.21	0.00	30.53	0.02	0.7	1.10	1.19	1.19
1.0	3.19	3.19	0.00	32.48	0.01	1.0	1.10	1.17	1.17
5.0	3.15	3.14	0.00	36.57	0.02	5.0	1.11	1.11	1.11
10.0	3.15	3.15	0.00	36.71	0.02	10.0	1.11	1.10	1.10
20.0	3.17	3.17	0.00	36.13	0.02	20.0	1.12	1.10	1.10
30.0	3.18	3.18	0.00	35.07	0.03	30.0	1.12	1.10	1.10
35.0	3.19	3.19	0.00	34.52	0.02	35.0	1.12	1.10	1.10
40.0	3.20	3.19	0.01	33.90	0.03	40.0	1.12	1.10	1.10
47.0	3.20	3.20	0.01	33.12	0.03	47.0	1.13	1.10	1.10
49.0	3.21	3.20	0.01	32.92	0.03	49.0	1.13	1.10	1.10
51.0	3.21	3.20	0.01	32.69	0.04	51.0	1.13	1.10	1.10
53.0	3.21	3.20	0.01	32.46	0.04	53.0	1.13	1.10	1.10
55.0	3.21	3.20	0.01	32.27	0.04	55.0	1.13	1.09	1.10
57.0	3.21	3.21	0.01	32.07	0.04	57.0	1.13	1.09	1.10
59.0	3.21	3.21	0.01	31.87	0.04	59.0	1.13	1.09	1.10
61.0	3.22	3.21	0.01	31.68	0.03	61.0	1.13	1.09	1.09
63.0	3.22	3.21	0.01	31.49	0.04	63.0	1.13	1.09	1.09
65.0	3.22	3.21	0.01	31.32	0.04	65.0	1.13	1.09	1.09
67.0	3.22	3.21	0.01	31.15	0.04	67.0	1.13	1.09	1.09
70.0	3.22	3.22	0.01	30.87	0.04	70.0	1.14	1.09	1.09
75.0	3.23	3.22	0.01	30.41	0.05	75.0	1.14	1.09	1.09
80.0	3.23	3.23	0.01	29.98	0.05	80.0	1.14	1.09	1.09
100.0	3.25	3.25	0.01	28.44	0.07	100.0	1.15	1.09	1.09
125.0	3.27	3.27	0.00	26.90	0.07	125.0	1.16	1.08	1.09
150.0	3.29	3.29	0.00	25.74	0.09	150.0	1.17	1.08	1.08
175.0	3.31	3.31	0.00	24.81	0.09	175.0	1.18	1.07	1.07
200.0	3.33	3.33	0.01	24.07	0.11	200.0	1.18	1.07	1.06
225.0	3.34	3.35	0.01	23.54	0.10	225.0	1.19	1.06	1.05
250.0	3.36	3.37	0.01	23.18	0.10	250.0	1.18	1.05	1.04
275.0	3.37	3.39	0.02	22.99	0.11	275.0	1.18	1.04	1.03
300.0	3.39	3.41	0.03	22.97	0.09	300.0	1.17	1.03	1.02
325.0	3.40	3.44	0.03	23.18	0.09	325.0	1.15	1.03	1.02
350.0	3.42	3.46	0.04	23.67	0.06	350.0	1.13	1.03	1.03
375.0	3.43	3.48	0.05	24.44	0.05	375.0	1.10	1.05	1.05
400.0	3.45	3.51	0.06	25.69	0.01	400.0	1.07	1.07	1.08
450.0	3.52	3.60	0.08	31.32	0.10	450.0	1.05	1.13	1.14
500.0	3.64	3.74	0.10	37.34	0.26	500.0	1.18	1.21	1.23

[1]Total Loss = Insertion Loss + 3dB Splitter Loss

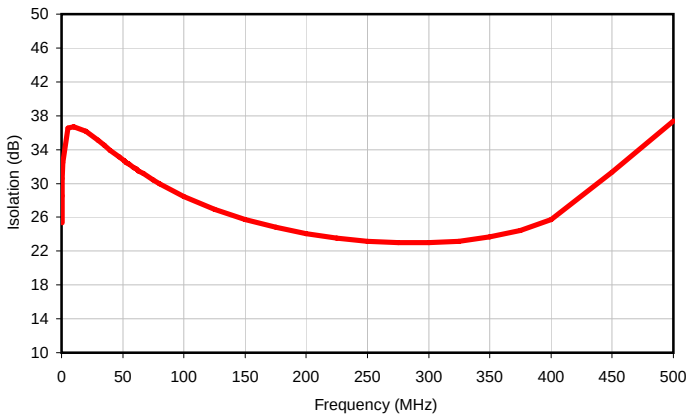
2 Way-0° Power Splitter/Combiner ZFSC-ED13708/1

Typical Performance Curves

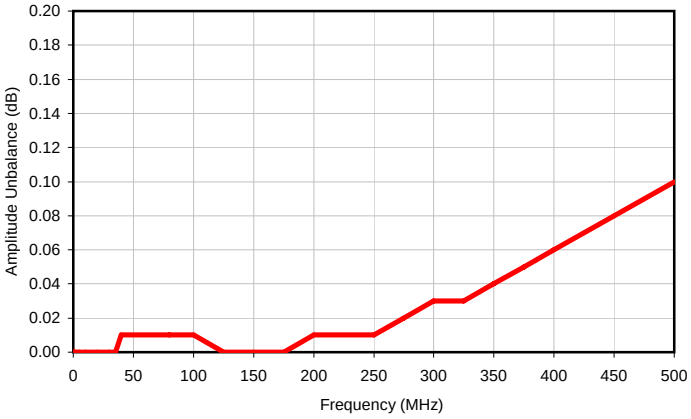
Total Loss



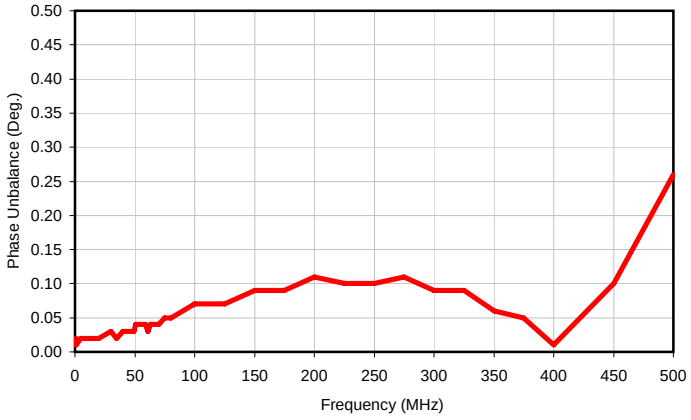
Isolation



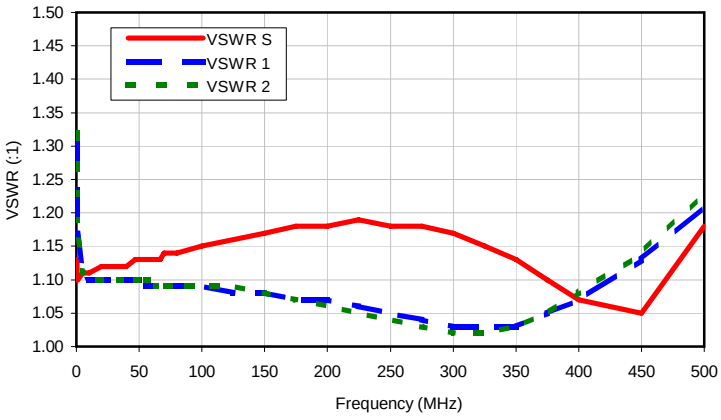
Amplitude Unbalance



Phase Unbalance



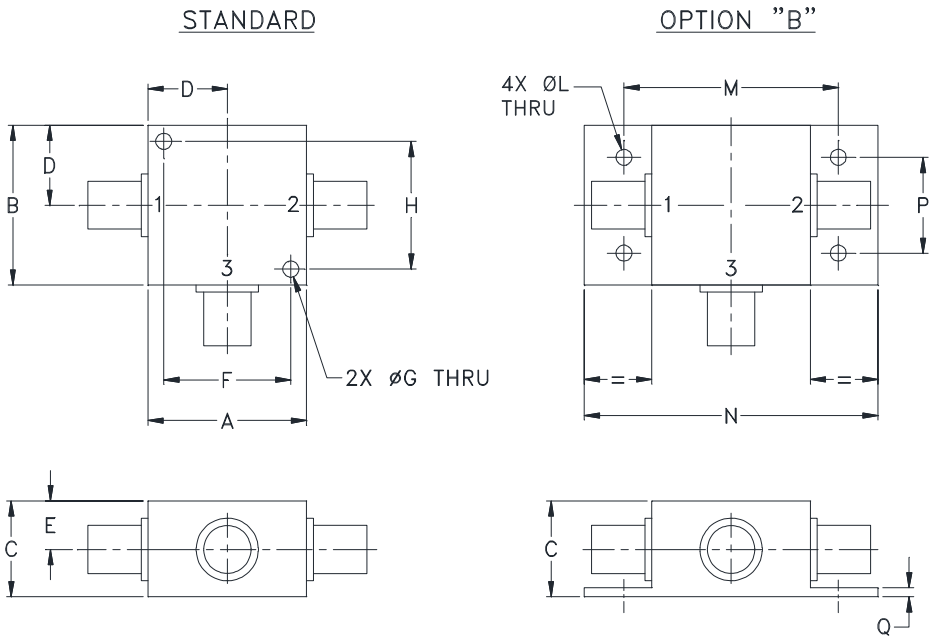
VSWR



Case Style K

K18

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. ± .03; 3 Pl. ± .015

Notes:

1. Case material: Aluminum alloy.
2. Case finish:
   For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
3. Mounting bracket available on request. Add suffix B to part number.
4. For port marking 1, 2, and 3 see specifications data sheet.
5. For bracket version, option B, dimension "C" changes from .75 to .94 inches when connectors are type N.
6. Refer to the individual model data sheet for the type of connectors available.

Mini-Circuits®
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

Mini-Circuits

Environmental Specifications **ENV28T2**

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	-20° to 85°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