Engineering Development Model

Power Splitter/Combiner ZBSC-ED6434/2

5 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 : UU102

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		74		676	MHz
Isolation	**74 - 676 MHz**		24		dB
Insertion Loss Above 7.0 dB	**74 - 676 MHz**		1.08		dB
Phase Unbalance	**74 - 676 MHz**		3.263		deg.
Amplitude Unbalance	**74 - 676 MHz**		0.257		dB
VSWR	**SUM Port**		1.54		(:1)
	OUT Ports		1.14		(:1)

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3
PORT 4	4
PORT 5	5

Functional Diagram

5 Way-0° Power Splitter/Combiner ZBSC-ED6434/2

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS[1] (dB)					AMP. UNBAL. (dB)	ISOLATION (dB)					PHASE UNBAL. (deg.)
	S-1	S-2	S-3	S-4	S-5		1-2	2-3	3-4	4-5	5-1	
74.6	7.89	7.89	7.89	7.89	7.89	0.00	23.93	24.00	24.08	23.73	24.53	1.17
83.6	7.75	7.74	7.74	7.73	7.74	0.01	24.35	24.46	24.54	24.12	25.07	1.19
92.7	7.69	7.68	7.69	7.69	7.69	0.01	24.69	24.84	24.91	24.43	25.54	1.25
101.8	7.73	7.72	7.72	7.73	7.74	0.02	24.97	25.15	25.22	24.68	25.94	1.25
110.9	7.79	7.77	7.78	7.79	7.80	0.03	25.20	25.40	25.49	24.88	26.29	1.30
120.0	7.82	7.80	7.81	7.82	7.82	0.02	25.38	25.61	25.68	25.03	26.58	1.37
140.0	7.75	7.73	7.74	7.76	7.76	0.03	25.56	25.86	25.92	25.13	26.98	1.54
160.0	7.69	7.67	7.69	7.71	7.72	0.04	25.55	25.92	25.98	25.09	27.18	1.84
180.0	7.64	7.61	7.65	7.67	7.68	0.07	25.48	25.87	25.94	24.96	27.29	2.05
200.0	7.75	7.71	7.74	7.78	7.80	0.09	25.41	25.84	25.92	24.87	27.42	2.27
248.0	7.73	7.68	7.73	7.77	7.81	0.12	25.16	25.69	25.81	24.56	27.56	2.64
296.0	7.88	7.81	7.88	7.94	7.99	0.18	24.86	25.44	25.61	24.21	27.70	3.19
344.0	7.80	7.74	7.84	7.90	7.95	0.21	24.53	25.23	25.47	23.90	27.80	3.46
392.0	7.94	7.83	7.93	8.03	8.12	0.28	24.15	24.89	25.21	23.57	27.98	3.88
440.0	8.00	7.91	8.05	8.15	8.24	0.33	23.60	24.47	24.92	23.16	28.01	4.18
450.0	8.04	7.94	8.09	8.19	8.29	0.35	23.45	24.33	24.81	23.05	28.01	4.25
460.0	8.05	7.95	8.10	8.21	8.32	0.37	23.31	24.21	24.70	22.96	27.99	4.36
480.0	8.04	7.91	8.06	8.19	8.32	0.41	23.02	23.90	24.47	22.74	27.89	4.46
500.0	8.16	8.03	8.19	8.33	8.46	0.43	22.66	23.57	24.20	22.48	27.73	4.43
520.0	8.18	8.06	8.24	8.38	8.50	0.44	22.23	23.18	23.87	22.17	27.46	4.48
551.1	8.29	8.15	8.34	8.50	8.64	0.50	21.53	22.48	23.24	21.66	26.90	4.82
582.2	8.44	8.28	8.49	8.66	8.83	0.55	20.74	21.67	22.51	21.04	26.12	4.91
613.3	8.63	8.48	8.72	8.90	9.06	0.59	19.88	20.84	21.76	20.38	25.20	5.32
644.4	9.03	8.84	9.12	9.30	9.48	0.64	19.04	19.97	20.93	19.70	24.20	5.83
675.6	9.23	9.02	9.31	9.51	9.72	0.70	18.20	19.09	20.11	19.00	23.22	6.13

FREQ. (MHz)	VSWR (:1)		
	S	1	3
74.6	1.82	1.25	1.23
83.6	1.73	1.24	1.22
92.7	1.66	1.22	1.20
101.8	1.61	1.21	1.19
110.9	1.57	1.21	1.18
120.0	1.53	1.20	1.18
140.0	1.47	1.19	1.16
160.0	1.43	1.18	1.15
180.0	1.40	1.17	1.14
200.0	1.37	1.16	1.13
248.0	1.33	1.13	1.11
296.0	1.29	1.12	1.10
344.0	1.27	1.11	1.11
392.0	1.27	1.10	1.11
440.0	1.30	1.10	1.12
450.0	1.32	1.10	1.12
460.0	1.33	1.09	1.12
480.0	1.37	1.09	1.13
500.0	1.41	1.09	1.13
520.0	1.47	1.09	1.13
551.1	1.57	1.09	1.13
582.2	1.71	1.10	1.13
613.3	1.89	1.10	1.13
644.4	2.11	1.12	1.14
675.6	2.38	1.14	1.15

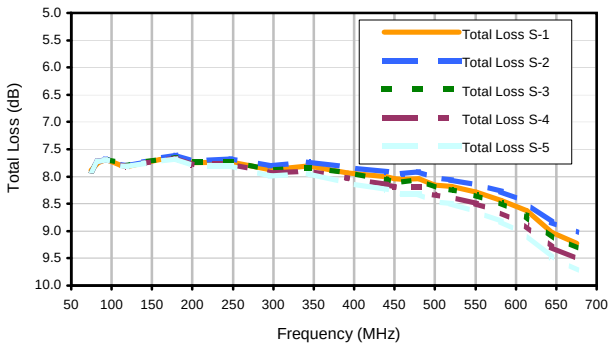
[1] Total Loss = Insertion Loss + 7dB Splitter Loss

Mini-Circuits®
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see minicircuits.com

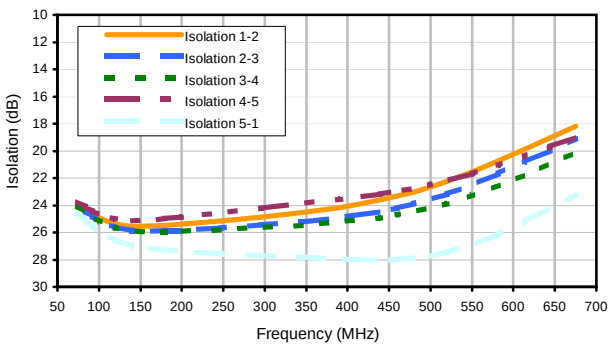
5 Way-0° Power Splitter/Combiner ZBSC-ED6434/2

Typical Performance Curves

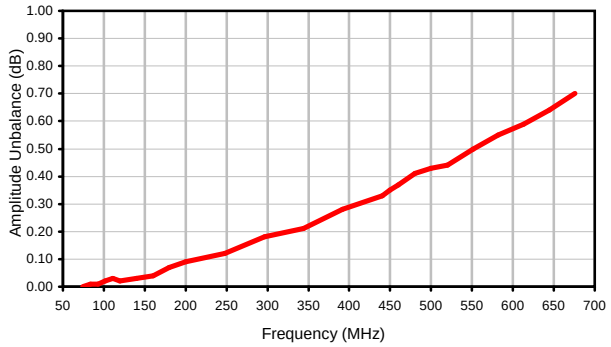
Total Loss



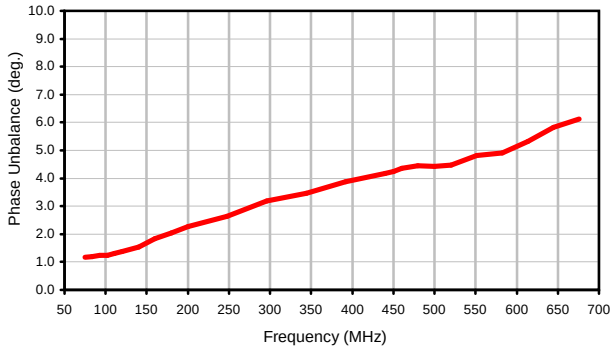
Isolation



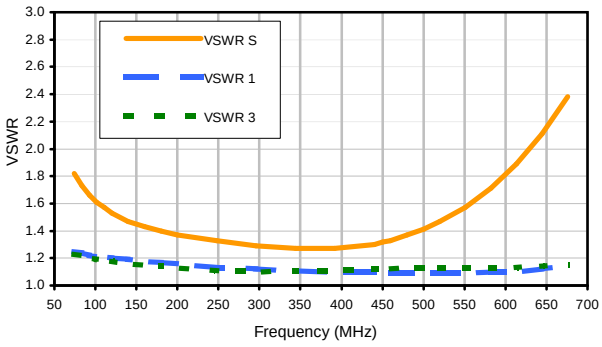
Amplitude Unbalance



Phase Unbalance



VSWR

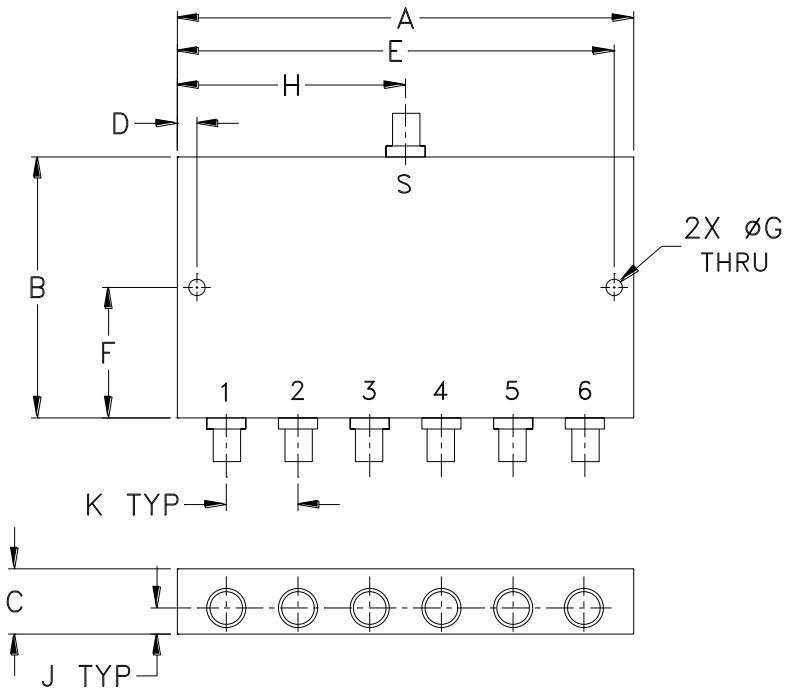


Mini-Circuits®
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see minicircuits.com

Case Style UU

Outline Dimensions

UU102



CASE#	A	B	C	D	E	F	G	H	J	K	WT. GRAMS
UU102	3.50 (88.90)	2.00 (50.80)	.50 (12.70)	.150 (3.81)	3.350 (85.09)	1.00 (25.40)	.125 (3.18)	1.75 (44.45)	.20 (5.08)	.55 (13.97)	120

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. Refer to the individual model data sheet for the type of connectors available.

This document and its contents are the property of Mini-Circuits

Mini-Circuits

Environmental Specifications ENV28

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

This document and its contents are the property of Mini-Circuits.