Engineering Development Model

High Power Coupler ZARC-ED14165/1

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.

CASE STYLE : AW1564

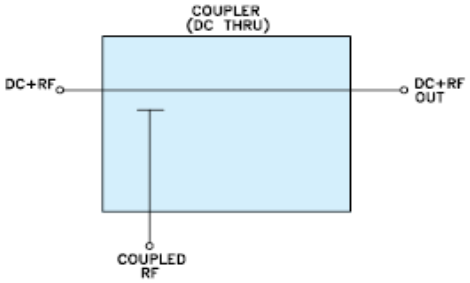
ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		20		100	MHz
Coupling	**Nominal**		26.3		dB
	Flatness		±0.25		dB
Mainline Loss*	**20-100 MHz**		0.07		dB
VSWR	**20-100 MHz**		1.10		(:1)
RF Power Input	**20-100 MHz**			100	W

Note: * Mainline loss includes theoretical coupled power loss of .01 dB at 26.3 dB coupling.

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

COAXIAL CONNECTIONS	
INPUT	1
OUTPUT	2
COUPLED	3

Electrical Schematic



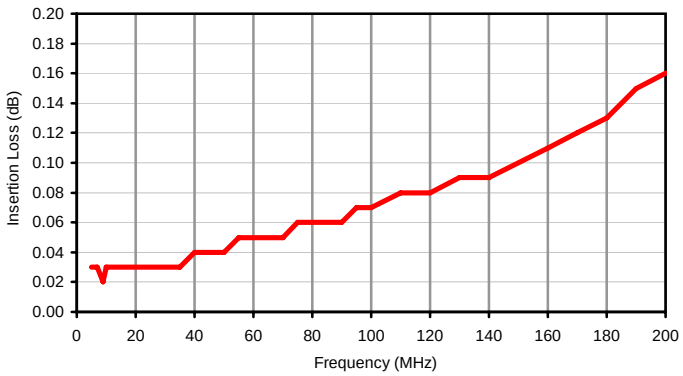
High Power Coupler ZARC-ED14165/1

Typical Performance Data

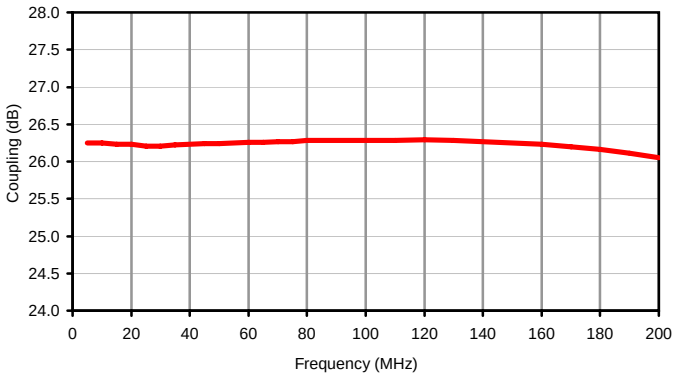
FREQUENCY (MHz)	INSERTION LOSS (dB)	COUPLING (dB)	RETURN LOSS (dB)		
			IN	OUT	CPL
5.0	0.03	26.25	48.89	48.63	31.92
7.0	0.03	26.25	47.77	48.62	35.34
9.0	0.02	26.25	47.35	47.61	38.31
10.0	0.03	26.25	46.90	46.76	39.63
15.0	0.03	26.23	45.45	45.22	45.75
20.0	0.03	26.23	43.05	42.30	47.14
25.0	0.03	26.21	41.13	40.75	44.37
30.0	0.03	26.21	40.25	39.82	41.93
35.0	0.03	26.22	38.87	38.61	40.18
40.0	0.04	26.23	37.78	37.57	38.81
45.0	0.04	26.24	36.88	36.63	37.69
50.0	0.04	26.24	36.20	35.75	36.68
55.0	0.05	26.25	35.34	35.03	35.77
60.0	0.05	26.26	34.69	34.33	34.95
65.0	0.05	26.26	33.93	33.80	34.20
70.0	0.05	26.27	33.39	33.15	33.47
75.0	0.06	26.27	32.68	32.56	32.82
80.0	0.06	26.28	32.20	31.90	32.19
85.0	0.06	26.28	31.66	31.45	31.62
90.0	0.06	26.28	31.24	30.91	31.06
95.0	0.07	26.28	30.73	30.51	30.54
100.0	0.07	26.28	30.29	30.05	30.04
110.0	0.08	26.28	29.35	29.26	29.12
120.0	0.08	26.29	28.35	28.35	28.27
130.0	0.09	26.28	27.57	27.61	27.48
140.0	0.09	26.27	27.19	27.04	26.74
150.0	0.10	26.25	26.75	26.42	26.07
160.0	0.11	26.23	26.01	25.74	25.43
170.0	0.12	26.20	25.16	25.08	24.83
180.0	0.13	26.16	24.36	24.43	24.28
190.0	0.15	26.11	23.74	23.82	23.74
200.0	0.16	26.05	23.15	23.17	23.22

Typical Performance Curves

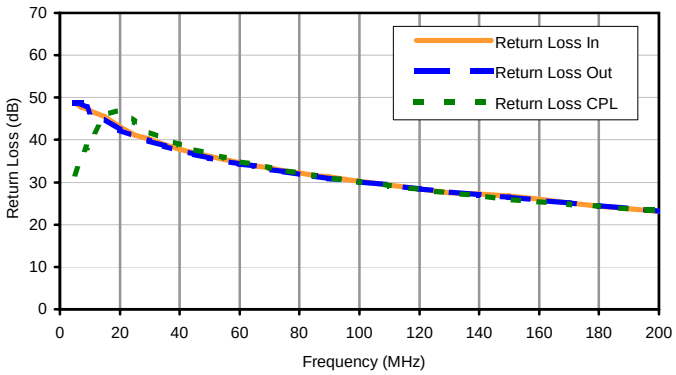
Insertion Loss



Coupling



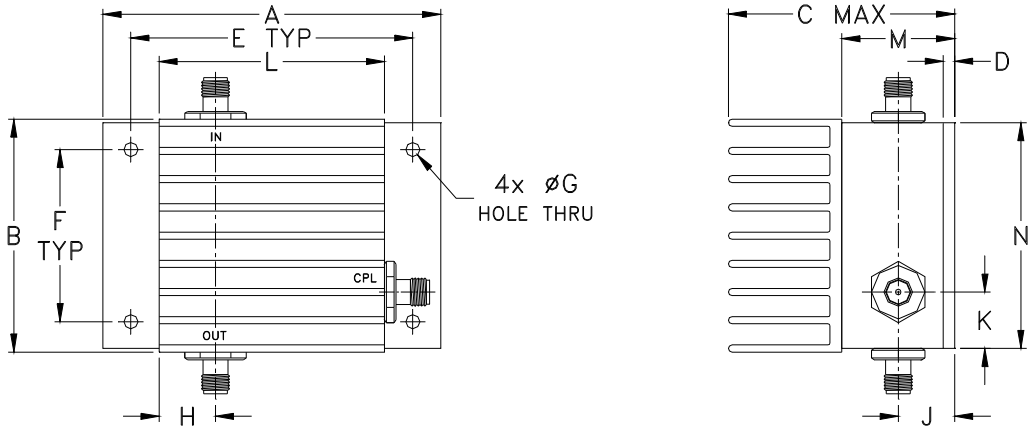
Return Loss



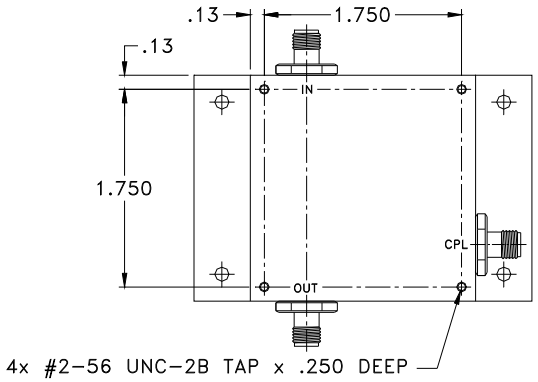
Case Style AW

AW1564

Outline Dimensions



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



CASE #	A	B	C	D	E	F	G	H	J	K	L
AW1564	3.00 (76.20)	2.06 (52.32)	2.03 (51.56)	.10 (2.54)	2.500 (63.50)	1.525 (38.74)	.125 (3.18)	.50 (12.70)	.50 (12.70)	.50 (12.70)	2.00 (50.80)

CASE #	M	N	WT, GRAMS	WT WITHOUT HEATSINK, GRAMS
AW1564	1.00 (25.40)	2.00 (50.80)	230	165

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

Notes:

1. Case material: Aluminum alloy.
2. Finish:
   For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
3. Heat sink finish: Black anodize.

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Mini-Circuits

Environmental Specifications **ENV28T5**

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	-40° to 85°C	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

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