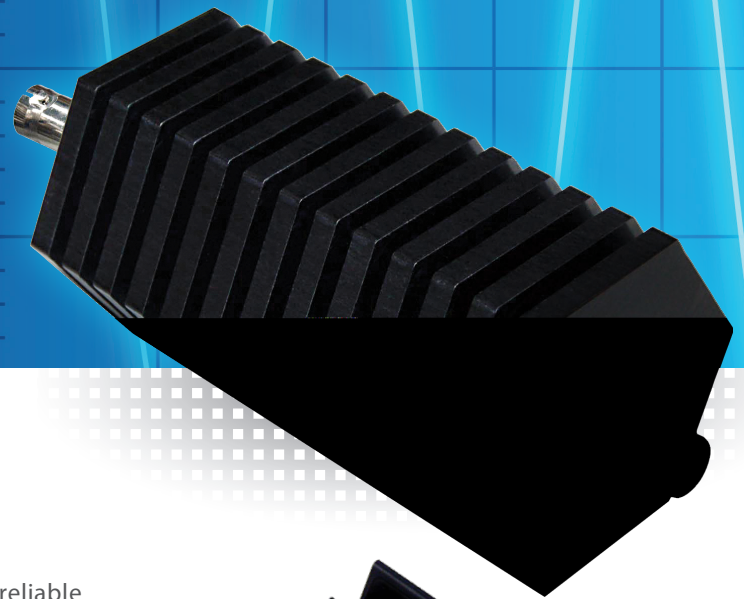


CONVECTION COOLED Fully Shielded

ATTENUATORS



Superior Quality and Rugged Construction

Bird Convection Cooled RF Power Attenuators are a valuable and reliable accessory for reducing power levels, for isolating components under test, for harmonic signal analysis, and as comparison standards. They are world renowned for their high-quality, robust construction and conservative power ratings. These attenuators are fully shielded against production of extraneous radiation and the self-cooling design needs no cooling plate.

The broad line of available models offers full broadband operation and models to cover all LTE frequencies.



Specifications

SYSTEM

Coolant Method	Dry, Convection Cooled
Impedance	50 Ohm
Operating Position	Any
PIM	-110 dBc Min
Standard Attenuation Values	10, 20, 30, 40 dB
AC Power	None

ENVIRONMENTAL

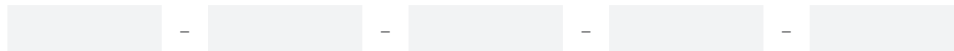
Ambient Temperature	-40 °C to 40 °C (-40 °F to 104 °F)
Humidity	95% max (non-condensing)

CONVECTION COOLED ATTENUATORS

PART NUMBER DEFINITION

Example: 2-A-MFB-10 = Model 2-A, 2 W, A-Type Attenuator with Male/Female BNC Connectors with an attenuation value of 10 dB.

Note: Not all combinations are valid. If assistance is needed consult the factory to define the model that is right for you.



Power Rating (W)	Product Type	Connector Gender	Connector*	Attenuation Value (dB)
Denote required power rating in W	A, SA, WA = Attenuator	M/F = Male/Female F/F = Female/ Female	N = N	10 = 10 dB 20 = 20 dB 30 = 30 dB 40 = 40 dB

*Call for custom connector options not shown

Product Type	Power Rating	Connector	VSWR & Frequency Range	Dimensions	Weight	Finish
2-A	2 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 4 GHz	2.4 in x 0.8 in Dia. (61 mm x 21 mm Dia.)	3.1 oz 88 g	Tri-Alloy
2-6A	2 W	N	1.25:1 from DC to 6 GHz	1.8 in x 0.9 in Dia. (46 mm x 23 mm Dia.)	2.5 oz 71 g	Stainless Steel
2-18A	2 W	N	1.15:1 from DC to 4 GHz 1.20:1 from 4 to 8 GHz 1.25:1 from 8 to 12.4 GHz 1.35:1 from 12.44 to 18 GHz	1.8 in x 0.9 in Dia. (46 mm x 23 mm Dia.)	2.5 oz 71 g	Stainless Steel
3-A	3 W	BNC	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 4 GHz	1.5 in x 0.6 in Dia. (39 mm x 16 mm Dia.)	3.1 oz 88 g	Nickel Plated
5-A	5 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 4 GHz	2.6 in x 0.8 in Dia. (67 mm x 21 mm Dia.)	3.1 oz 88 g	Tri-Alloy
5-6A	5 W	N	1.25:1 from DC to 6 GHz	2.4 in x 0.9 in Dia. (61 mm x 23 mm Dia.)	3.0 oz 86 g	Black Anodized Aluminum
5-18A	5 W	N	1.15:1 from DC to 4 GHz 1.25:1 from 4 to 12.4 GHz 1.35:1 from 12.4 to 18 GHz	2.5 in x 0.9 in Dia. (64 mm x 23 mm Dia.)	3.5 oz 100 g	Stainless Steel
10-A	10 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 4 GHz	2.8 in x 2.3 in Dia. (72 mm x 59 mm Dia.)	5.0 oz 142 g	Black Anodized Aluminum
10-6A	10 W	N	1.20:1 from DC to 6 GHz 1.30:1 from 4 to 6 GHz	2.5 in x 0.9 in Dia. (64 mm x 23 mm Dia.)	3.5 oz 100 g	Black Anodized Aluminum
10-18A	10 W	N	1.20:1 from DC to 4 GHz 1.30:1 from 4 to 12.4 GHz 1.45:1 from 12.4 to 18 GHz	2.5 in x 0.9 in Dia. (64 mm x 23 mm Dia.)	3.5 oz 100 g	Black Anodized Aluminum
25-A	25 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 4 GHz	5.3 in x 2.3 in Dia. (135 mm x 59 mm Dia.)	9.0 oz 256 g	Black Anodized Aluminum
25-6A	25 W	N	1.20:1 from 1 to 6 GHz	4.2 in x 2.3 in x 2.3 in (107 mm x 59 mm x 59 mm)	13.5 oz 383 g	Black Anodized Aluminum
25-18A	25 W	N	1.20:1 from DC to 4 GHz 1.30:1 from 4 to 12.4 GHz 1.40:1 from 12.4 to 18 GHz	4.2 in x 2.3 in x 2.3 in (107 mm x 59 mm x 59 mm)	13.5 oz 383 g	Black Anodized Aluminum

CONVECTION COOLED ATTENUATORS

Product Type	Power Rating	Connector	VSWR & Frequency Range	Dimensions	Weight	Finish
50-A	50 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 3.0 GHz	6.4 in x 2.3 in Dia. (163 mm x 59 mm Dia.)	1.0 lb (454 g)	Black Anodized Aluminum
50-6A	50 W	N	1.20:1 from DC to 6 GHz	4.7 in x 3.0 in x 3.0 in (120 mm x 77 mm x 77 mm)	1.7 lb (772 g)	Black Anodized Aluminum
50-18A	50 W	N	1.25:1 from DC to 6 GHz 1.35:1 from 6 to 12.4 GHz 1.45:1 from 12.4 to 18 GHz	4.7 in x 3.0 in x 3.0 in (120 mm x 77 mm x 77 mm)	1.7 lb (772 g)	Black Anodized Aluminum
75-A	75 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 3.0 GHz	7.3 in x 2.3 in Dia. (186 mm x 59 mm Dia.)	1.6 lb (726 g)	Black Anodized Aluminum
100-A	100 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 3.0 GHz	7.3 in x 2.6 in x 6.4 in (186 mm x 67 mm x 163 mm)	3.6 lb (1.6 kg)	Black Anodized Aluminum
100-6A	100 W	N	1.20:1 from DC to 2 GHz 1.35:1 from 2 to 4 GHz 1.40:1 from 4 to 6 GHz	6.4 in x 2.7 in x 3.8 in (163 mm x 69 mm x 97 mm)	2.4 lb (1.7 kg)	Black Anodized Aluminum
100-SA	100 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	8.4 in x 2.8 in x 2.8 in (214 mm x 72 mm x 72 mm)	3.0 lb (1.4 kg)	Black Anodized Aluminum
150-A	150 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 3.0 GHz	6.7 in x 2.6 in x 11.9 in (171 mm x 67 mm x 303 mm)	6.6 lb (3.0 kg)	Black Anodized Aluminum
150-SA	150 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	9.1 in x 4.0 in x 5.0 in (232 mm x 102 mm x 127 mm)	5.5 lb (2.5 kg)	Black Anodized Aluminum
150-WA	150 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	5.6 in x 5.4 in x 4.3 in (143 mm x 138 mm x 110 mm)	2.5 lb (1.2 kg)	Black Anodized Aluminum
300-A	300 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	7.3 in x 5.4 in x 10.9 in (186 mm x 138 mm x 277 mm)	12.0 lb (5.5 kg)	Black Anodized Aluminum
300-WA	300 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	9.0 in x 5.4 in x 4.8 in (229 mm x 138 mm x 122 mm)	4.6 lb (2.1 kg)	Black Anodized Aluminum
500-WA	500 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.5 GHz	12.4 in x 5.4 in x 4.8 in (315 mm x 138 mm x 122 mm)	7.9 lb (3.6 kg)	Black Anodized Aluminum
600-A	600 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	12.7 in x 9.4 in x 9.6 in (323 mm x 239 mm x 244 mm)	21.5 lb (9.8 kg)	Black Anodized Aluminum
1000-A	1000W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	13.6 in x 12.8 in x 9.6 in (346 mm x 326 mm x 244 mm)	26.5 lb (12.0 kg)	Black Anodized Aluminum
1000-WA	1000 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	19.6 in x 10.6 in x 4.8 in (498 mm x 270 mm x 122 mm)	26.5 lb (12.0 kg)	Black Anodized Aluminum
1500-WA	1500 W	N	1.10:1 from DC to 1 GHz 1.25:1 from 1 to 2.4 GHz	20.4 in x 10.7 in x 5.9 in (519 mm x 272 mm x 150 mm)	30.0 lb (13.6 kg)	Black Anodized Aluminum

Note: Custom attenuators not listed on this datasheet may be available by special order and require a quote for availability. Please contact Bird for more information.

*Attenuators 1000W and above are not available with attenuation values less than 10 dB

**Specification change: All 1000W and 1500W attenuators with 10 dB values (e.g., 1000-A-MFN-10) now reflect updated performance requirements.

Frequency (MHz)	DC	500	1000	2000	2400
Attenuation (dB)	-9.5	-100	-10.5	-11.3	-11.6
Attenuation Accuracy ±(dB)	0.4	0.4	0.4	0.6	0.6

Note: These updates reflect improved accuracy in high-frequency performance characterization and align with recent validation testing. Customers should reference these new values when designing for applications above 1 GHz.

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