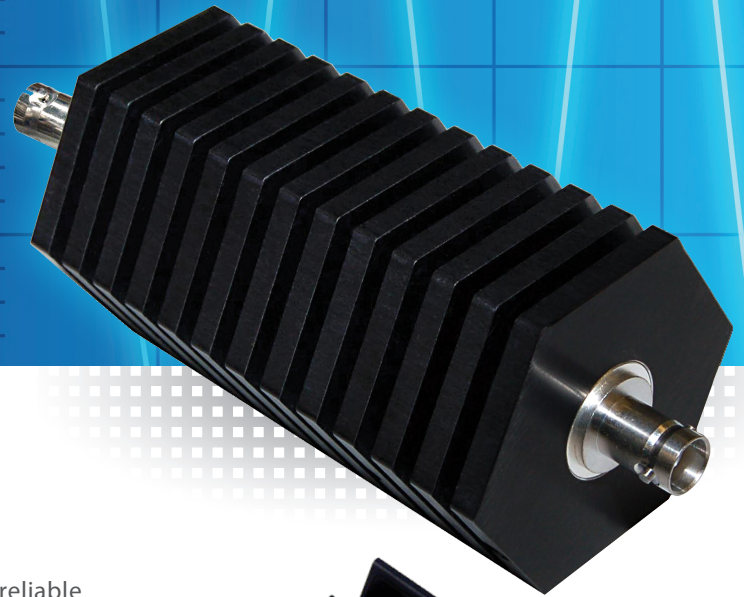


CONVECTION COOLED Fully Shielded

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.

Broadband operation from DC to 4 GHz supports LTE, public safety and commercial cellular.

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)

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 $\pm$ (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.

CONVECTION COOLED ATTENUATORS

Ordering Guide

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

Note: Not all combinations are available. Contact Bird for assistance.

Power Rating (W)	Product Type	Connector Gender	Connector	Attenuation Value (dB)
Required W value	A, SA, WA = Attenuator	M/F = Male/Female F/F = Female/ Female	N = N B = BNC	10, 20, 30, 40

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
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
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
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
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
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