

Attenuators, Waveguide

Fixed

ATM offers a series of rectangular waveguide attenuators covering the waveguide sizes WR-28 through WR-650 and attenuation values of 3dB, 6dB, 10dB, 20dB and 30dB (other attenuation values available, consult factory for details). The assembly construction includes a precision element for optimum electrical performance, but note that Attenuation vs. Frequency can vary greatly depending on the attenuation at a given frequency. Waveguide Fixed Attenuators with normal and high power units are also available. For more information feel free to call us and discuss your needs with one of our design engineers.

See Also:

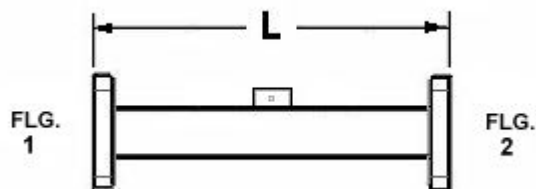
[W/G Attenuators, Fixed Precision](#)

[W/G Attenuators, HP Fixed Precision](#)

[W/G Attenuators, Variable](#)

[Coax Attenuators, Fixed](#)

[Coax Attenuators, Variable](#)



Waveguide Fixed Attenuators

WG Size	Freq. (GHz)	VSWR max	Power Watt	Calibration Frequency*	Standard Model No.	Length (L) Inches
WR650	1.12 - 1.70	1.15	11	1.40	650-600A-dB-2-2	25.0
WR430	1.70 - 2.60	1.15	11	2.20	430-600A-dB-2-2	22.0
WR340	2.20 - 3.30	1.15	11	2.75	340-600A-dB-2-2	18.0
WR284	2.60 - 3.95	1.15	11	3.20	284-600A-dB-6-6	10.0
WR229	3.30 - 4.90	1.15	9	4.00	229-600B-dB-2-2	9.0
WR187	3.95 - 5.85	1.15	7	4.90	187-600A-dB-6-6	8.5
WR159	4.9 - 7.05	1.15	5	6.10	159-600B-dB-2-2	8.0
WR137	5.95 - 8.20	1.15	4	7.00	137-600B-dB-2-2	6.0
WR112	7.05 - 10.0	1.15	3	8.50	112-600B-dB-6-6	5.0
WR90	8.20 - 12.4	1.15	2	10.30	90-600A-dB-6-6	4.0
WR75	10.0 - 15.0	1.15	1	12.50	75-600B-dB-6-6	3.0
WR62	12.4 - 18.0	1.15	1	15.00	62-600B-dB-6-6	3.0
WR51	15.0 - 22.0	1.15	1	18.00	51-600B-dB-6-6	3.0
WR42	18.0 - 26.5	1.15	1	22.00	42-600B-dB-6-6	3.0
WR34	22.0 - 33.0	1.20	1	27.00	34-600B-dB-6-6	3.0
WR28	26.5 - 40.0	1.20	1	33.00	28-600B-dB-6-6	3.0

*To change calibration frequency add desired frequency after the model number as shown in the following example: 159-600B-dB-2-2 becomes: 159-600B-dB-2-2/5.1 when a calibration frequency of 5.1(GHz) is desired.

Ordering Information

The Model numbers listed above are the most common model numbers for size, material, flanges**, and calibration, however, these models can easily be altered to accommodate customer needs by following the Model # code system shown below. In addition the customer must choose the attenuation value appropriate for application (3dB, 6dB, 10dB, 20dB, or 30dB) and insert it in the model number where dB is listed.

** See [ATM Flange page](#) for more information on flanges.

Typical Part #: WGSize - 600 - Material - dB value - Flange1 - Flange2



Example P/N: 284-600A-20-6-6 is:

WG size WR284 / Alum. Material / 20dB Attenuation / Cover Flange / Cover Flange*

Example P/N: **284-600A-20-6-6** is:

WG size WR284 / Alum. Material / 20dB Attenuation / Cover Flange / Cover Flange*

See [Atm Standard Flange](#) page for more info.

Attenuators, Waveguide Fixed Precision

ATM offers a series of rectangular waveguide precision attenuators covering the waveguide sizes WR28 through WR430 and attenuation values of 10dB, 20dB, 30dB, 40dB and 50dB. The assembly construction includes a precision element for optimum electrical performance, but note that Attenuation vs. Frequency can vary greatly depending on the attenuation at a given frequency. For more information feel free to call us and discuss your needs with one of our design engineers.

See Also:

[W/G Attenuators, Fixed](#)

[W/G Attenuators, HP Fixed Precision](#)

[W/G Attenuators, Variable](#)

[Coax Attenuators, Fixed](#)

[Coax Attenuators, Variable](#)

GENERAL SPECIFICATIONS (All Options)

Electrical

Std. Attenuation values: 10, 20, 30, 40, 50dB

Nominal Attenuation accuracy: +/- 0.50dB

(+/- 0.75dB for WR42, WR34, WR28)

Freq. Sensitivity: +/- 0.60 dB

(+/- 0.75dB for WR42, WR34, WR28)

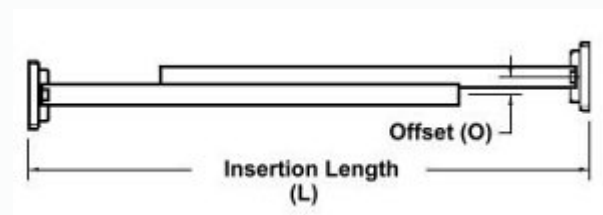
Applicable Mil-Specs

General:

Product Specific:

Mechanical

Size: See Tables



Body: Aluminum/Copper Brass

Finish: Unique corrosion resistant 316 stainless steel epoxy coating

IAW MIL-F-14072

Waveguide Fixed Precision Attenuators

WG Size	Freq GHz	Power Watts	VSWR	Standard Model No.*	Dimensions	
					Length (L) Inches	Offset (O) Inches
WR430	1.70 - 2.60	15	1.08	430-630A-dB-2-2	54.0	2.230
WR340	2.20 - 3.30	12	1.08	340-630A-dB-2-2	42.0	1.780
WR284	2.60 - 3.95	10	1.08	284-630A-dB-6-6	33.0	1.420
WR229	3.30 - 4.90	10	1.08	229-630A-dB-2-2	27.0	1.209
WR187	3.95 - 5.85	8	1.08	187-630A-dB-6-6	24.0	0.936
WR159	4.9 - 7.05	7	1.08	159-630A-dB-2-2	20.5	0.859
WR137	5.95 - 8.20	6	1.08	137-630A-dB-2-2	18.5	0.814
WR112	7.05 - 10.0	4	1.08	112-630A-dB-6-6	16.0	0.561
WR90	8.20 - 12.4	4	1.08	90-630A-dB-6-6	14.5	0.450
WR75	10.0 - 15.0	2	1.08	75-630A-dB-6-6	13.5	0.425
WR62	12.4 - 18.0	1.5	1.08	62-630A-dB-6-6	11.5	0.351
WR51	15.0 - 22.0	1.0	1.08	51-630A-dB-6-6	11.5	0.295
WR42	18.0 - 26.5	0.5	1.08	42-630A-dB-6-6	9.5	0.210
WR34	22.0 - 33.0	0.5	1.08	34-630A-dB-6-6	9.5	0.210
WR28	26.5 - 40.0	0.5	1.08	28-630A-dB-6-6	9.0	0.180

*Insert desired attenuation value (10, 20, 30, 40, or 50dB) in the model number where dB is listed

The Model numbers listed above are the **most common** model numbers for size, material, flanges, and calibration, however, these models can easily be altered to accommodate customer needs by following the Model # code system below. **In addition the customer must choose the attenuation value appropriate for application (10dB, 20dB, 30dB, 40dB, or 50dB) and insert it in the model number where dB is listed.**

Ordering Information

Typical Part #: **WGSize- 630 Material- dB value- Flange1- Flange2**

Basic Model#: _____

Material: A=Alum, B=Brass, C=Copper

dB value: 10dB, 20dB, 30dB, 40dB or 50dB

Flange 1: 1=CPR0, 2=CPRF, 3=Cover, 7=Choke, 8=Cover G round

Flange 2: 1=CPRG, 2=CPRF, 3=Cover, 7=Choke, 8=Cover G round

Example P/N: **284-630A-20-6-6** is:

WR284 precision attenuator - Alum. Material - 20dB Atten - Cover Flg. - Cover Flg.

See [Atm Standard Flange](#) page for more info.

Attenuators, Waveguide High Power Fixed Precision

ATM offers a series of High-Power precision attenuators covering the waveguide sizes WR28 through WR430 and attenuation values of 10dB, 20dB, 30dB, 40dB and 50dB. The assembly construction includes a precision element for optimum electrical performance, but note that Attenuation vs. Frequency can vary greatly depending on the attenuation at a given frequency. For more information feel free to call us and discuss your needs with one of our design engineers.

See Also:

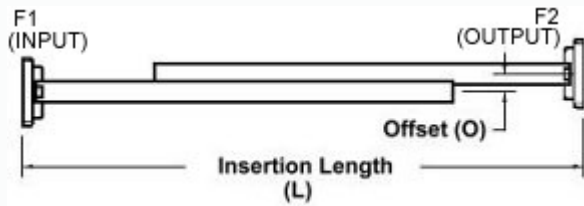
[W/G Attenuators, Fixed](#)

[W/G Attenuators, Fixed Precision](#)

[W/G Attenuators, Variable](#)

[Coax Attenuators, Fixed](#)

[Coax Attenuators, Variable](#)



GENERAL SPECIFICATIONS (All Options)

Electrical

Std. Attenuation values: 10, 20, 30, 40, 50dB

Nominal Attenuation accuracy: +/- 0.50dB

(+/- 0.75dB for WR42, WR34, WR28)

Freq. Sensitivity: +/- 0.60 dB

(+/- 0.75dB for WR42, WR34, WR28)

Applicable Mil-Specs

General:

Product Specific:

Mechanical

Size: See Tables

Body: Aluminum

Finish: Hi-Temp Black

Waveguide Fixed High Power Precision Attenuators

WG Size	Freq. (GHz)	VSWR	Power Watt	Standard Model No.*	Dimensions		Outline
					Length (L) Inches	Offset (O) Inches	
WR430	1.70 - 2.60	1.15	1200	430-630HPA-dB-2-2	54.0	2.230	
WR340	2.20 - 3.30	1.15	1200	340-630HPA-dB-2-2	42.0	1.780	
WR284	2.60 - 3.95	1.15	1200	284-630HPA-dB-6-6	33.0	1.420	
WR229	3.30 - 4.90	1.15	1000	229-630HPA-dB-2-2	27.0	1.209	Dwg
WR187	3.95 - 5.85	1.15	750	187-630HPA-dB-6-6	24.0	0.936	
WR159	4.9 - 7.05	1.15	625	159-630HPA-dB-2-2	20.5	0.859	
WR137	5.95 - 8.20	1.15	500	137-630HPA-dB-2-2	22.5	0.686	
WR112	7.05 - 10.0	1.15	425	112-630HPA-dB-6-6	16.0	0.561	
WR90	8.20 - 12.4	1.15	225	90-630HPA-dB-6-6	14.5	0.450	
WR75	10.0 - 15.0	1.15	200	75-630HPA-dB-6-6	13.5	0.425	
WR62	12.4 - 18.0	1.15	100	62-630HPA-dB-6-6	11.5	0.351	
WR51	15.0 - 22.0	1.15	100	51-630HPA-dB-6-6	11.5	0.295	
WR42	18.0 - 26.5	1.15	100	42-630HPA-dB-6-6	9.5	0.210	Dwg
WR34	22.0 - 33.0	1.15	75	34-630HPA-dB-6-6	9.5	0.210	Dwg
WR28	26.5 - 40.0	1.15	75	28-630HPA-dB-6-6	9.0	0.180	Dwg

*Insert desired attenuation value (10, 20, 30, 40, or 50dB) in the model number where dB is listed

See [ATM Flange page](#) for more information on flanges.

The Model numbers listed above are the **most common** model numbers for size, material, flanges, and calibration, however, these models can easily be altered to accommodate customer needs by following the Model # code system below.

In addition the customer must choose the attenuation value appropriate for application (10dB, 20dB, 30dB, 40dB, or 50dB) and insert it in the model number where dB is listed.

Ordering Information

Typical Part #: WGSize- 630HP Material- dB value- Flange1- Flange2

Basic Model#:

Material: A=Alum, B=Brass, C=Copper

dB value: 10dB, 20dB, 30dB, 40dB or 50dB

Flange 1: 1=CPR0, 2=CPRF, 3=Cover, 7=Cable, 8=Cover Gaskets

Flange 2: 1=CPR0, 2=CPRF, 3=Cover, 7=Cable, 8=Cover Gaskets

Example: P/N: 284-630HPA-20-6-6 is:

WR284 high power fixed attenuator - Alum. Material - 20dB Attenuator - Cover Flg.- Cover Flg.

Waveguide Attenuators, Continuously Variable

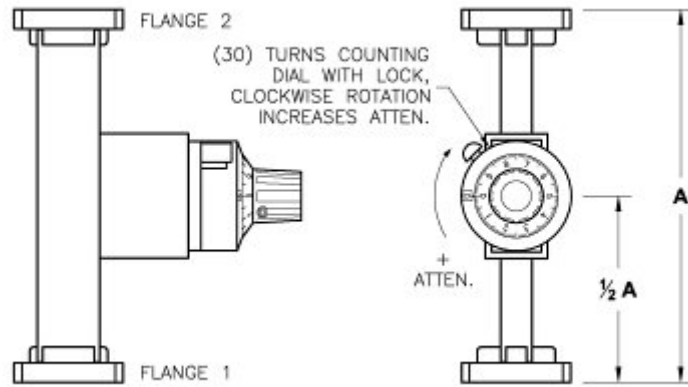
ATM offers a series of continuously variable attenuators covering the waveguide sizes WR28 through WR284 with variable attenuation from 0-30 dB. The assembly construction includes a multi-turn dial useful for adjusting attenuation, and can be calibrated at a spot frequency upon request. All models have a maximum VSWR of 1.15 and maximum insertion loss of 0.5dB. For more information feel free to call us and discuss your needs with one of our design engineers.

See Also:

[Coax Fixed Attenuators](#)

[Coax Variable Attenuators](#)

Waveguide Attenuators, Continuously Variable (CVA)



Standard Models

WG Size	Freq (GHz)	Power (Watts)	Standard Model No.	Length (L) Inches
WR284	2.60 - 3.95	11	284-620A-30-6-6	10.0
WR229	3.30 - 4.90	9	229-620B-30-2-2	9.0
WR187	3.95 - 5.85	7	187-620A-30-6-6	8.5
WR159	4.9 - 7.05	5	159-620B-30-2-2	8.0
WR137	5.95 - 8.20	4	137-620B-30-2-2	6.0
WR112	7.05 - 10.0	3	112-620B-30-6-6	5.0
WR90	8.20 - 12.4	2	90-620A-30-6-6	4.0
WR75	10.0 - 15.0	1	75-620B-30-6-6	3.0
WR62	12.4 - 18.0	1	62-620B-30-6-6	3.0
WR51	15.0 - 22.0	1	51-620B-30-6-6	3.0
WR42	18.0 - 26.5	1	42-620B-30-6-6	3.0
WR34	22.0 - 33.0	1	34-620B-30-6-6	3.0
WR28	26.5 - 40.0	1	28-620A-30-6-6	3.0

Ordering Information

W/G Coupler, SLHD

Example part number: **WR** - **Mod** **M** **-dB** **- F1** **- F2**

Waveguide Size: (WR)
WR28 thru WR284 available

Basic Model No.: (-Mod)

Material (M): A=Aluminum, B=Copper/Brass

*The Standard Model Numbers above are the most common parts ordered for size, material and flange. However, these models can easily be altered to accommodate your needs by using the Model # code system to the left.

Coupling (-dB) 0 to 30 possible

Flange 1 (-F1): 1=CPRG, 2=CPRF, 6=Cover, 8=Cover Groove

Flange 2 (-F2): 1=CPRG, 2=CPRF, 6=Cover, 8=Cover Groove

See [ATM Standard Flange](#) page for more info.