

Griffin Checkmate - Savage 93 Bolt - Aguila SSS 60gr - 22 LR

Test Setup	
Suppressor	Griffin Checkmate
Host	Savage 93 Bolt
Ammo	Aguila SSS 60gr
Caliber	22 LR
Dry or Wet?	Dry
Location & Weather	
Date	22-May-2022
Location	Range 1
Elevation (Feet ASL)	611
Time	12:45
Wind Low - High	5   10
Temperature F*	86
Humidity %	55%
Pressure In Hg	30.14
Speed of Sound FPS	1146

Meter #1			
Mic Position	Muzzle		
Cal Base	114		
Cal Actual	104	Adds 10 dB	
Cal Offset	10		
Weighting	A		
Octave Filter	None		
ISO Freq band	N/A		
Mic Distance (M)	1.0	Adds 0 dB	
Distance Scaling Factor	0.00		
160 dB Option	Yes		160 Max
Meter dB Range	100-160		100-160
Effective dB Range	110-170		
Meter SN	0190		
Meter   Mic   Calibrator	L-D 800B	B&K 4938	CA250
Protocol	MIL-STD-1474D		

Meter Settings			
Meter #2			
Mic Position	Left Ear		
Cal Base	114		
Cal Actual	94	Adds 20 dB	
Cal Offset	20		
Weighting	A		
Octave Filter	None		
ISO Freq band	N/A		
Mic Distance (M)	1.0	Adds 0 dB	
Distance Scaling Factor	0.00		
160 dB Option	No		140 Max
Meter dB Range	80-140		80-140
Effective dB Range	100-160		
Meter SN	0220		
Meter   Mic   Calibrator	L-D 800B	B&K 4938	CA250
Protocol	MIL-STD-1474D		

Meter #3			
Mic Position	Right Ear		
Cal Base	114		
Cal Actual	94	Adds 20 dB	
Cal Offset	20		
Weighting	A		
Octave Filter	None		
ISO Freq band	N/A		
Mic Distance (M)	1.0	Adds 0 dB	
Distance Scaling Factor	0.00		
160 dB Option	No		140 Max
Meter dB Range	80-140		80-140
Effective dB Range	100-160		
Meter SN	0125		
Meter   Mic   Calibrator	L-D 800B	B&K 4938	CA250
Protocol	MIL-STD-1474D		

Consolidated Results				
Results	Muzzle	Left Ear	Right Ear	
Unsuppressed	140.8	132.8	133.9	
Suppressed	118.9	121.3	118.8	
NSR	21.8	11.5	15.0	
FRP (#1 - Avg)	3.4	-0.4	-0.7	
Avg w/o FRP	118.5	121.3	118.9	
Min	115.6	118.9	116.6	
Max	124.4	122.8	120.6	
Std Dev	2.7	1.2	1.4	

Calculated Results			
Calculated Results	Avg (Linear)	Avg (Log)	
Unsuppressed	140.8	140.8	
Suppressed	118.9	119.8	
NSR	21.8	21.1	
FRP (#1 - Avg)	3.4	2.5	
Avg w/o FRP	118.5	119.4	
Min	115.6		
Max	124.4		
Std Dev	2.7		

Calculated Results			
Calculated Results	Avg (Linear)	Avg (Log)	
Unsuppressed	132.8	132.8	
Suppressed	121.3	121.4	
NSR	11.5	11.4	
FRP (#1 - Avg)	-0.4	-0.5	
Avg w/o FRP	121.3	121.5	
Min	118.9		
Max	122.8		
Std Dev	1.2		

Calculated Results			
Calculated Results	Avg (Linear)	Avg (Log)	
Unsuppressed	133.9	134.0	
Suppressed	118.8	119.0	
NSR	15.0	14.9	
FRP (#1 - Avg)	-0.7	-0.9	
Avg w/o FRP	118.9	119.1	
Min	116.6		
Max	120.6		
Std Dev	1.4		

Unsuppressed	Muzzle	Left Ear	Right Ear
Raw 1	131.9	113.0	112.6
Raw 2	130.0	112.6	115.0
Raw 3	130.4	112.8	114.0
Suppressed	Muzzle	Left Ear	Right Ear
Raw 1	112.3	100.9	98.1
Raw 2	110.0	101.6	99.0
Raw 3	114.4	101.5	100.6
Raw 4	105.6	98.9	96.6
Raw 5	108.0	101.4	98.8
Raw 6	107.3	99.9	100.6
Raw 7	109.3	102.4	97.1
Raw 8	106.9	102.8	97.8
Raw 9	107.0	102.3	99.4
Raw 10	108.4	101.1	100.4

Unsuppressed Raw dB	Actual dB	
1	131.9	
2	130.0	
3	130.4	
Shot	Raw dB	Actual dB
1	112.3	122.3
2	110.0	120.0
3	114.4	124.4
4	105.6	115.6
5	108.0	118.0
6	107.3	117.3
7	109.3	119.3
8	106.9	116.9
9	107.0	117.0
10	108.4	118.4

Unsuppressed Raw dB	Actual dB	
1	113.0	
2	112.6	
3	112.8	
Shot	Raw dB	Actual dB
1	100.9	120.9
2	101.6	121.6
3	101.5	121.5
4	98.9	118.9
5	101.4	121.4
6	99.9	119.9
7	102.4	122.4
8	102.8	122.8
9	102.3	122.3
10	101.1	121.1

Unsuppressed Raw dB	Actual dB	
1	112.6	
2	115.0	
3	114.0	
Shot	Raw dB	Actual dB
1	98.1	118.1
2	99.0	119.0
3	100.6	120.6
4	96.6	116.6
5	98.8	118.8
6	100.6	120.6
7	97.1	117.1
8	97.8	117.8
9	99.4	119.4
10	100.4	120.4

Enter the Orange Fields  
 Light Gray Fields Are Calculated  
 Green Fields Are Info Only

Averaging logarithmic data  
<https://www.cirrusresearch.co.uk/blog/2013/01/noise-data-averaging-how-do-i-average-noise-measurements/>