

Griffin Checkmate - Savage 93 Bolt - CCI CB Long - 22 LR

Test Setup	
Suppressor	Griffin Checkmate
Host	Savage 93 Bolt
Ammo	CCI CB Long
Caliber	22 LR
Dry or Wet?	Dry
Location & Weather	
Date	22-May-2022
Location	Range 1
Elevation (Feet ASL)	611
Time	12:50
Wind Low - High	5 10
Temperature F*	86
Humidity %	55%
Pressure In Hg	30.13
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	133.9	127.4	129.3
Suppressed	112.6	124.2	119.0
NSR	21.3	3.2	10.2
FRP (#1 - Avg)	-0.7	-0.2	-2.1
Avg w/o FRP	112.7	124.2	119.3
Min	109.4	121.1	116.9
Max	117.5	125.8	122.3
Std Dev	2.7	1.5	1.6

Calculated Results		
Calculated Results	Avg (Linear)	Avg (Log)
Unsuppressed	133.9	133.9
Suppressed	112.6	113.5
NSR	21.3	20.5
FRP (#1 - Avg)	-0.7	-1.6
Avg w/o FRP	112.7	113.6
Min	109.4	
Max	117.5	
Std Dev	2.7	

Calculated Results		
Calculated Results	Avg (Linear)	Avg (Log)
Unsuppressed	127.4	127.6
Suppressed	124.2	124.4
NSR	3.2	3.1
FRP (#1 - Avg)	-0.2	-0.4
Avg w/o FRP	124.2	124.5
Min	121.1	
Max	125.8	
Std Dev	1.5	

Calculated Results		
Calculated Results	Avg (Linear)	Avg (Log)
Unsuppressed	129.3	129.3
Suppressed	119.0	119.3
NSR	10.2	10.0
FRP (#1 - Avg)	-2.1	-2.4
Avg w/o FRP	119.3	119.5
Min	116.9	
Max	122.3	
Std Dev	1.6	

Unsuppressed	Muzzle	Left Ear	Right Ear
Raw 1	123.5	107.0	108.9
Raw 2	124.8	109.1	109.8
Raw 3	123.4	106.0	109.1
Suppressed			
Raw 1	101.9	104.0	96.9
Raw 2	103.8	104.8	98.3
Raw 3	99.4	105.8	102.3
Raw 4	100.9	105.4	98.6
Raw 5	102.6	105.3	99.9
Raw 6	101.1	102.3	97.1
Raw 7	101.4	104.6	100.1
Raw 8	107.5	105.3	98.3
Raw 9	106.8	103.4	99.4
Raw 10	100.8	101.1	99.4

Unsuppressed Raw dB	Actual dB
1	123.5
2	124.8
3	123.4
Shot	
1	101.9
2	103.8
3	99.4
4	100.9
5	102.6
6	101.1
7	101.4
8	107.5
9	106.8
10	100.8

Unsuppressed Raw dB	Actual dB
1	107.0
2	109.1
3	106.0
Shot	
1	104.0
2	104.8
3	105.8
4	105.4
5	105.3
6	102.3
7	104.6
8	105.3
9	103.4
10	101.1

Unsuppressed Raw dB	Actual dB
1	108.9
2	109.8
3	109.1
Shot	
1	96.9
2	98.3
3	102.3
4	98.6
5	99.9
6	97.1
7	100.1
8	98.3
9	99.4
10	99.4

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/>