

# Laboratory Test Report

Date: 18-Sep-09

Test Report No. Ultra 33-OTH

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## ANSI S12.42 Testing – Model Ultra 33 Earmuffs With the Over the Head Headband

**Performed For:** ProEars Hearing Protectors – An Altus Brands Company  
484 W Welch Court, Traverse City, Michigan 49886  
Voice: 231.421.3810 Fax: 800.973.1741

**Prepared By:** Stuart McGregor *Stuart D McGregor*

**1.0 Test Articles** – Ten Model Ultra 33 Hearing Protectors, with the Over the Head Headband

**2.0 Applicable Specifications** – ANSI S12.42, (ANSI S3.19) Physical Method.

**3.0 Test Results** – The results of the hearing protector acoustical tests and the Noise Reduction Rating (NRR) calculations are presented in Table 3.1. In accordance with 40CFR PART 211 – Product Noise Labeling, "Spectral uncertainty. Possible variation in exposure to the noise spectra in the workplace. (To avoid the under protection that would result from these variations relative to the assumed "Pink Noise" used to determine the NRR, an extra three decibel reduction is included when computing the NRR.)" The NRR rating in accordance with 40CFR211 is shown in Table 3.1.

**Table 3.1: Model Ultra 33 Earmuff NRR Calculation Worksheet**

1/3 octave centerband frequency	Measured 1/3-octave Data			Exterior to Earmuff		A-weighted Sound Levels in Earmuff
	Sound levels exterior to Earmuff	Average Earmuff Attenuation	Standard Deviation of Attenuation	C-weighted Sound Levels	A-weighted Sound Levels	
125	83.2	27.1	3.7	83.0	67.1	43.7
160	84.5	23.6	3.3	84.4	71.1	50.8
200	83.6	23.1	2.9	83.6	72.7	52.6
250	83.1	26.3	3.3	83.1	74.5	51.4
315	83.3	31.3	3.8	83.3	76.7	49.1
400	83.1	34.3	4.0	83.1	78.3	48.0
500	86.6	38.3	5.6	86.6	83.4	50.7
630	86.3	42.0	5.9	86.3	84.4	48.2
800	88.7	46.3	5.4	88.7	87.9	47.0
1000	85.9	50.4	6.1	85.9	85.9	41.7
1250	86.5	51.1	6.1	86.5	87.1	42.0
1600	93.0	45.1	4.9	92.9	94.0	53.9
2000	97.3	41.5	4.4	97.1	98.5	61.4
2500	96.8	39.9	4.4	96.5	98.1	62.6
3150	91.0	42.3	4.9	90.5	92.2	54.8
4000	84.0	41.5	4.3	83.2	85.0	47.8
5000	78.0	42.7	5.0	76.7	78.5	40.8
6300	71.1	48.6	6.8	69.1	71.0	29.2
8000	69.3	53.4	3.6	66.3	68.2	18.3
<b>Overall C Weighted Level =</b>				102.2		
<b>Overall A Weighted Level =</b>				66.7		
<b>Ear Muff NRR Value =</b>				36		
<b>OSHA Adjusted NRR =</b>				33		

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**Table 3.2: Ultra 33 Ear Muff Mean Attenuation Levels**

Frequency	125	250	500	1000	2000	3150	4000	6300	8000
Mean Attenuation	17	24	38	48	41	40	42	44	50
Standard	3.7	3.3	5.6	6.1	4.4	4.9	4.3	6.8	3.6

**4.0 Test Result Limitations** – This test report certifies that ONLY the ten Ultra 33 ear muffs tested have the reported OSHA adjusted NRR ratings as shown in Table 3.1, and the mean attenuation levels listed in Table 3.2. EDI does not perform quality control on the ear muff manufacturers' materials or processes used to manufacture the ear muff, and therefore, DOES NOT certify that ALL Ultra 33 ear muffs will have the same OSHA adjusted NRR or mean attenuation levels.

