Human Expertise Test

Audio Quality Grading Explanation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Completely unrecognizable audio, very distorted and noisy | Hardly anything can be recognized, noise and distortion are dominant | Mostly recognizable audio, distortion and noise clearly hearable | Acceptable hearing experience, speech recognizable without effort | Enjoyable hearing experience, appropriate for daily use | Outstanding Hi-Fi audio quality, no noise hearable |

Audio Quality

1. General Quality

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Music | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |
| Speech | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |

1. Equalizer

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |
| B | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |
| C | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |

1. Modulation Type

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |
| B | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |

Audio Volume Grading Explanation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| -4 | -3 | -2 | -1 | 0 |
| Nearly nothing hearable, not audible | Audible if background is quiet (no one is talking) | Audible even with background noise (speech) | Clearly audible and understandable,  conversation can be held | Strongly audible dominates background noise |

Directivity Measurement

1. Test 1

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| B | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| C | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| D | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| E | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

1. Test 2

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| B | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| C | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| D | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| E | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

Beam-Steering Measurement

Test 1 (A)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 2 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 3 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

Test 1 (B)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 2 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 3 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

Test 2 (A)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 2 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 3 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

Test 2 (B)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 2 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 3 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

Beam-Focusing Measurement

Test (C)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 2 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 3 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |

Test (F)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 2 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |
| 3 | -4 | -3.5 | -3 | -2.5 | -2 | -1.5 | -1 | -0.5 | 0 |