

## Appendix A. HAC Volume Control Test Plots

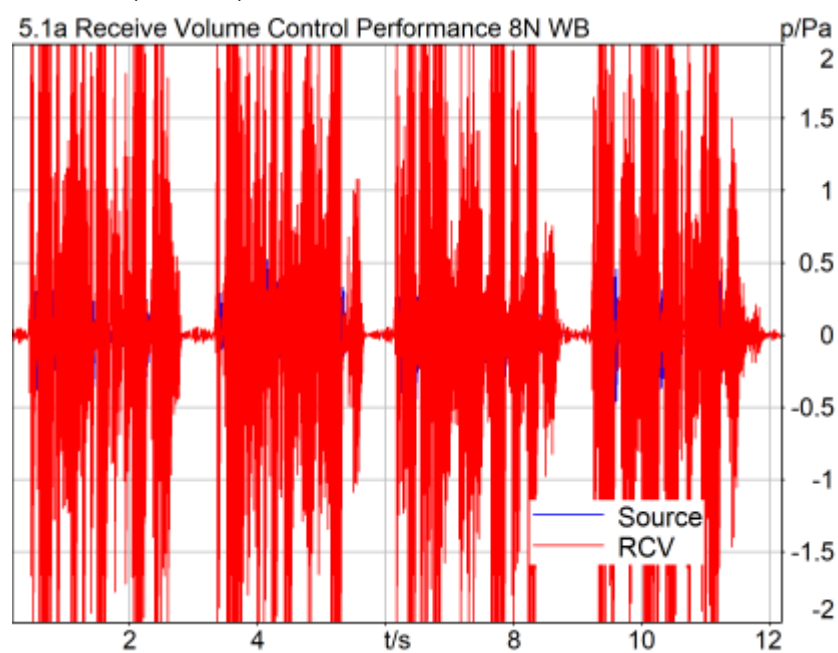
The HAC plots for worst-case in each wireless mode and frequency band combination are shown as follows.

## P13\_LTE 42 EVS WB 24.4kbps

| SMD                                                 | Status | Single Value Description                     | Single Value |
|-----------------------------------------------------|--------|----------------------------------------------|--------------|
| Overall Receive Delay WB                            | Done   | Delay (Cross) [ms]                           |              |
| 5.1a Receive Volume Control Performance 8N WB limit | OK     | Speech Level [dB[SPL]]                       | 88.75        |
| 5.1b Receive Volume Control Performance 2N WB       | OK     | Speech Level [dB[SPL]]                       | 85.45        |
| 5.2 RCV Distortion and Noise - 250 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 25.77        |
| 5.2 RCV Distortion and Noise - 315 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 27.58        |
| 5.2 RCV Distortion and Noise - 400 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 25.12        |
| 5.2 RCV Distortion and Noise - 500 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 24.01        |
| 5.2 RCV Distortion and Noise - 630 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 25.67        |
| 5.2 RCV Distortion and Noise - 800 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 31.36        |
| 5.2 RCV Distortion and Noise - 1000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 27.94        |
| 5.2 RCV Distortion and Noise - 1250 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 23.48        |
| 5.2 RCV Distortion and Noise - 1600 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 30.89        |
| 5.2 RCV Distortion and Noise - 2000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 23.73        |
| 5.2 RCV Distortion and Noise - 2500 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 32.38        |
| 5.2 RCV Distortion and Noise - 3150 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 28.66        |
| 5.2 RCV Distortion and Noise - 4000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 35.1         |
| 5.2 RCV Distortion and Noise - 5000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 30.51        |
| 5.2 RCV Distortion and Noise - 250 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 26.17        |
| 5.2 RCV Distortion and Noise - 315 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 26.61        |
| 5.2 RCV Distortion and Noise - 400 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 23.99        |
| 5.2 RCV Distortion and Noise - 500 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 23.18        |
| 5.2 RCV Distortion and Noise - 630 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 26.07        |
| 5.2 RCV Distortion and Noise - 800 Hz WB            | OK     | Distortion (Noise) [dB], 0.0 dB              | 31.3         |
| 5.2 RCV Distortion and Noise - 1000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 26           |
| 5.2 RCV Distortion and Noise - 1250 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 23.23        |
| 5.2 RCV Distortion and Noise - 1600 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 23.57        |
| 5.2 RCV Distortion and Noise - 2000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 20.37        |
| 5.2 RCV Distortion and Noise - 2500 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 33.22        |
| 5.2 RCV Distortion and Noise - 3150 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 29.83        |
| 5.2 RCV Distortion and Noise - 4000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 34.83        |
| 5.2 RCV Distortion and Noise - 5000 Hz WB           | OK     | Distortion (Noise) [dB], 0.0 dB              | 35.11        |
| 5.3 Frequency Response 8N FF                        | OK     | Min dist. To tolerance scheme [dB], 731.5 Hz | 1.36         |
| 5.3 Frequency Response 2N FF                        | OK     | Min dist. To tolerance scheme [dB], 873.9 Hz | 0.83         |

## 5.1a Receive Volume Control Performance 8N WB

TIA-5050 (2018-01) \ Measurements \ Wideband



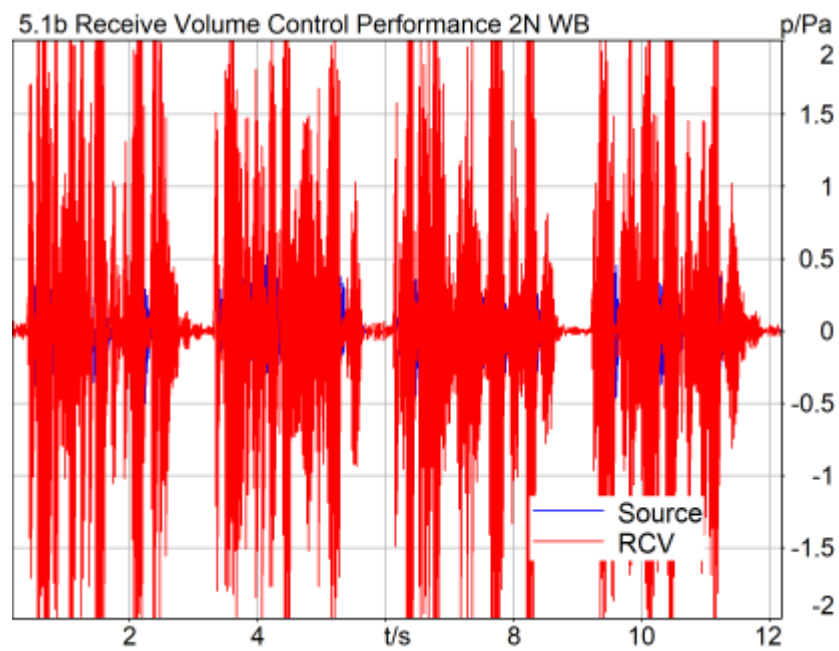
| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 88.75 dB[SPL] | 79.95%   | Ok |

Ok

6/20/2025 5:13 PM ACQUA 6.0.110

## 5.1b Receive Volume Control Performance 2N WB

TIA-5050 (2018-01) \ Measurements \ Wideband



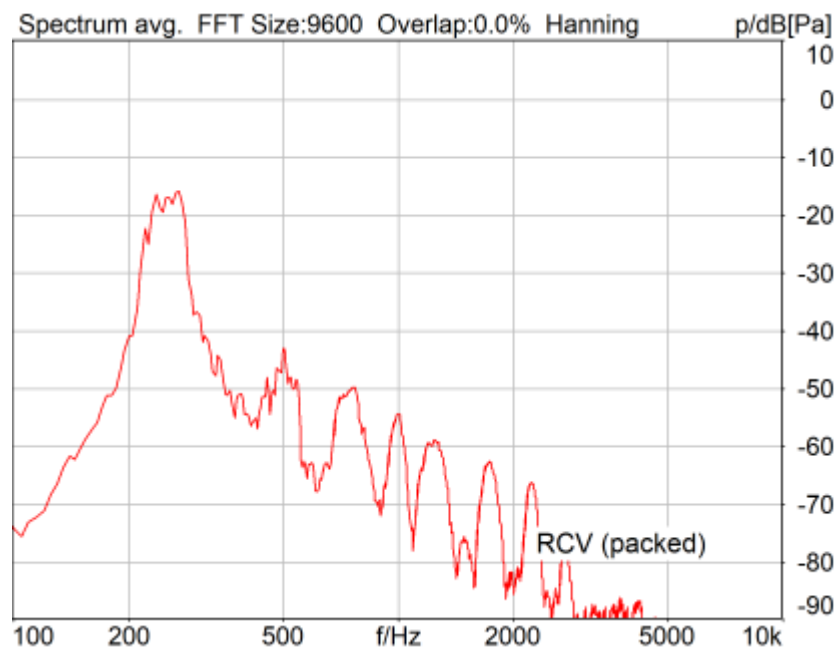
| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 85.45 dB[SPL] | 78.74%   | Ok |

**Ok**

6/20/2025 5:16 PM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 250 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



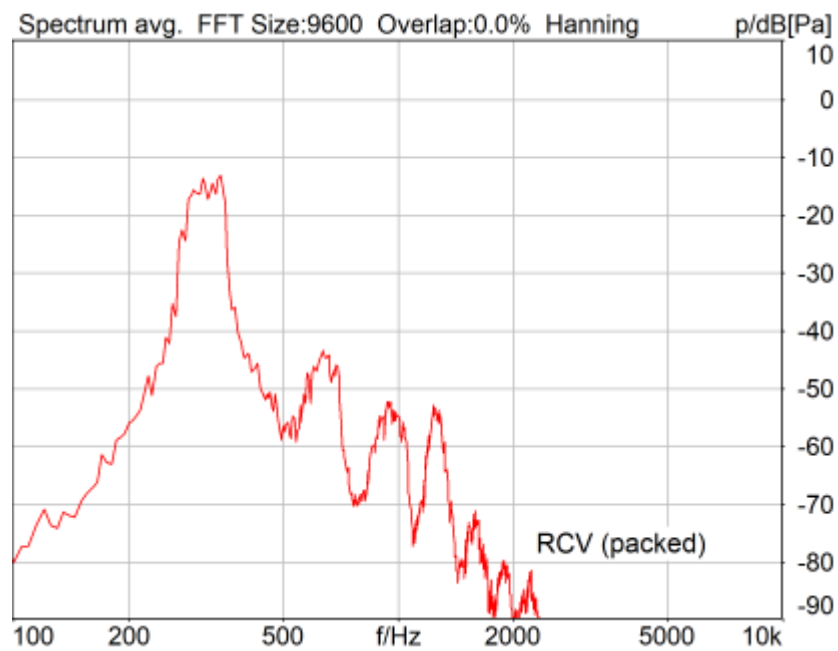
Distortion (Noise) RCV (packed): 25.77 dB (5.15%) Ok

**Ok**

6/24/2025 11:02 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 315 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



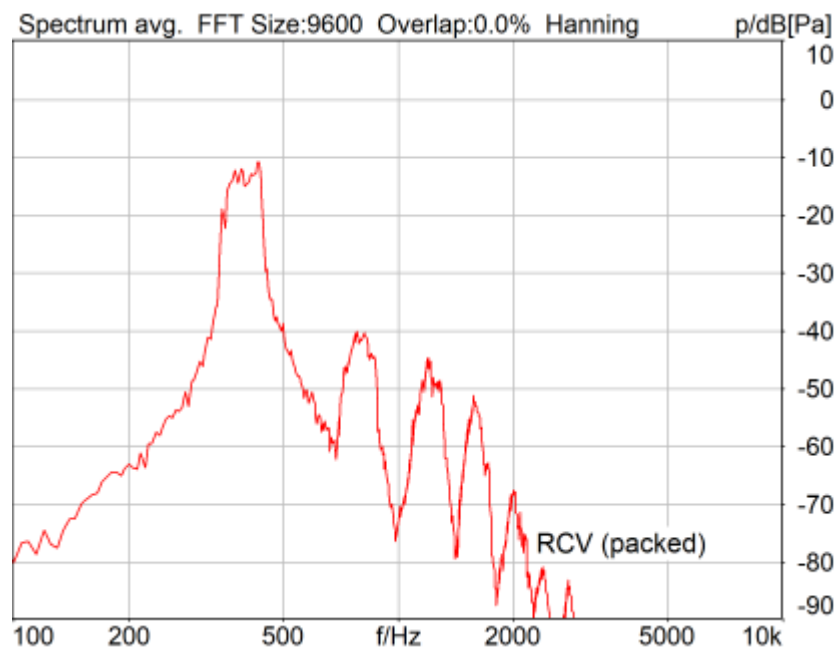
Distortion (Noise) RCV (packed): 27.58 dB (4.18%) Ok

Ok

6/24/2025 11:03 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 400 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



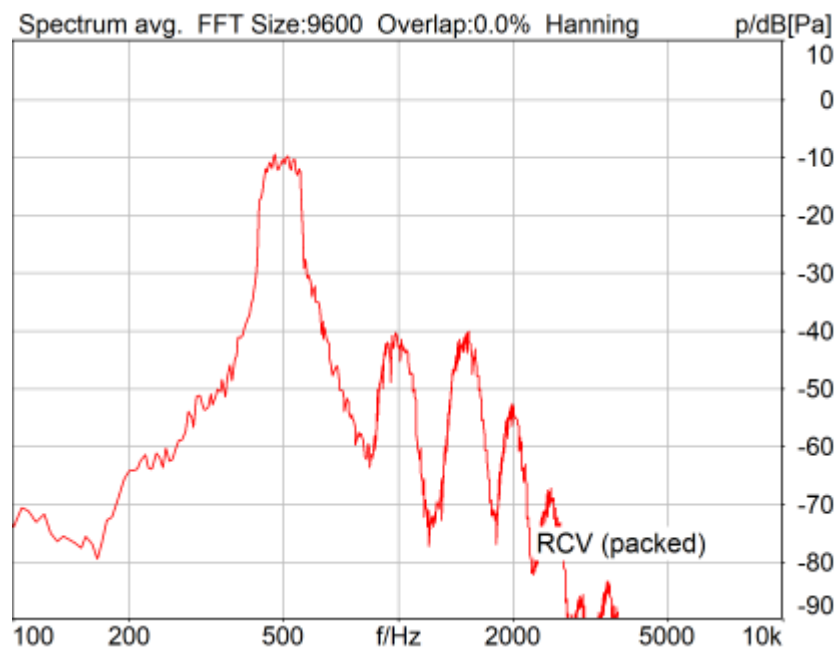
Distortion (Noise) RCV (packed): 25.12 dB (5.55%) Ok

Ok

6/24/2025 11:03 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 500 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



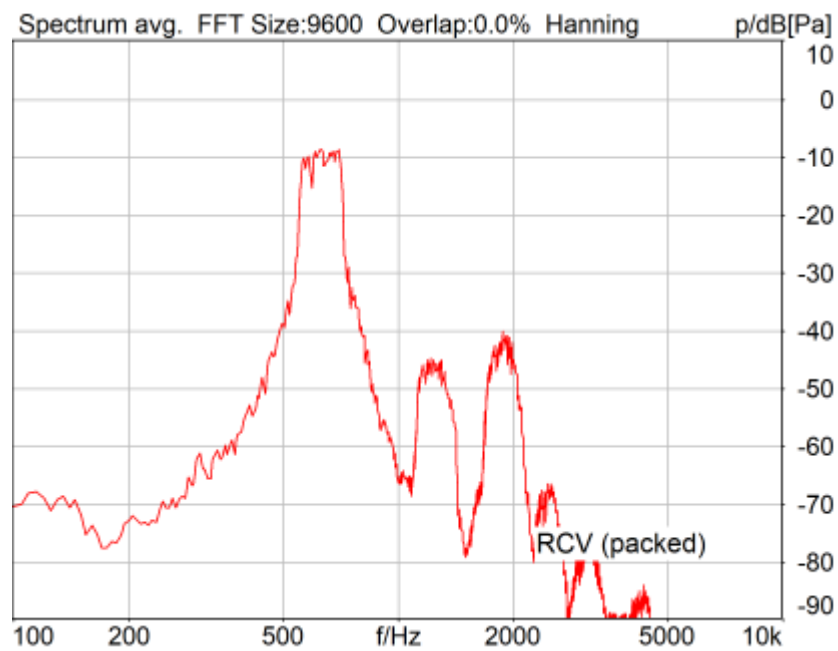
Distortion (Noise) RCV (packed): 24.01 dB (6.30%) Ok

Ok

6/24/2025 11:04 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 630 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



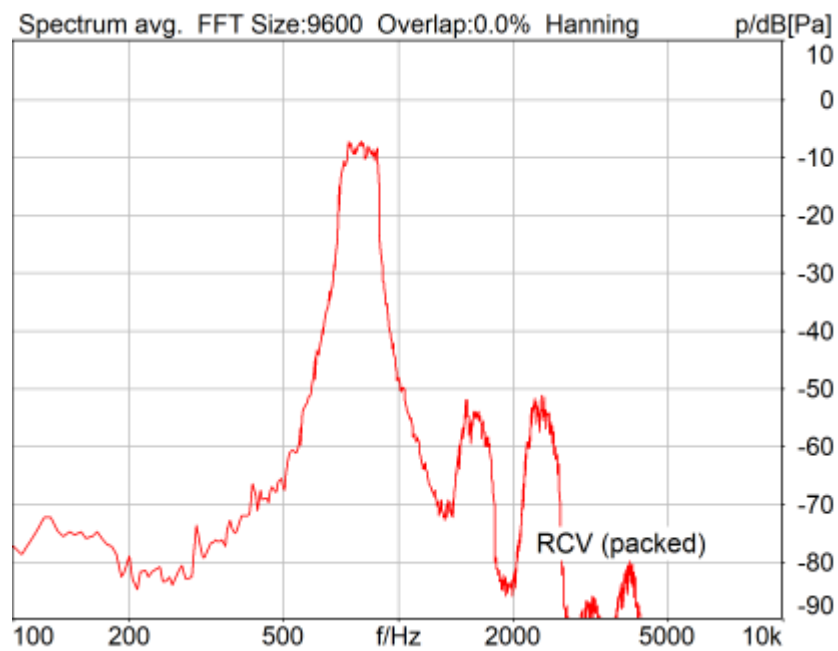
Distortion (Noise) RCV (packed): 25.67 dB (5.21%) Ok

Ok

6/24/2025 11:04 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 800 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



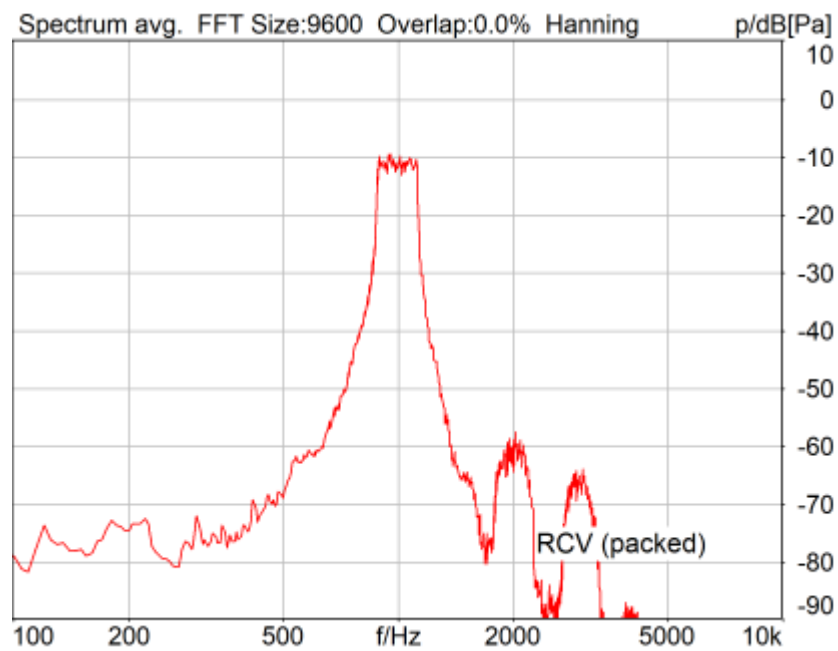
Distortion (Noise) RCV (packed): 31.36 dB (2.70%) Ok

Ok

6/24/2025 11:04 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 1000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



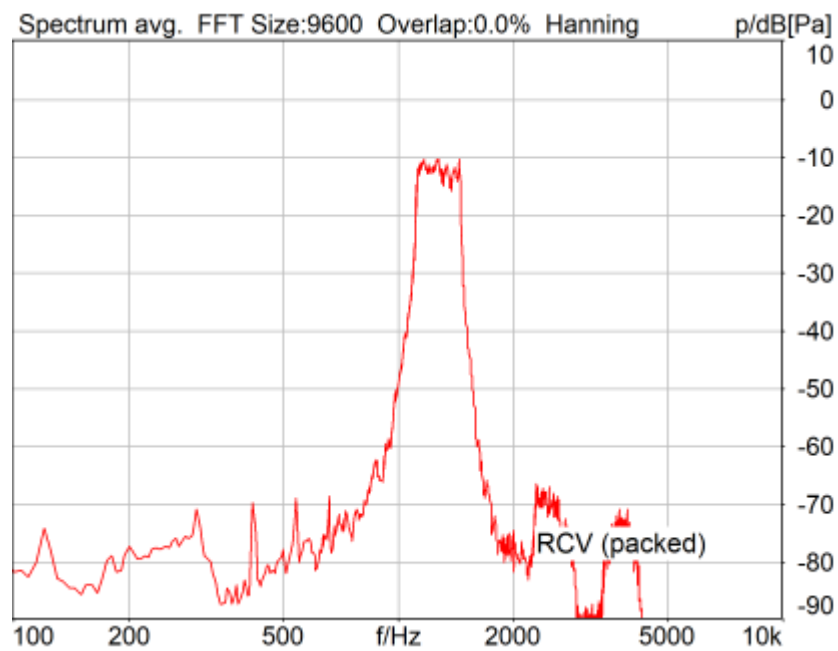
Distortion (Noise) RCV (packed): 27.94 dB (4.01%) Ok

Ok

6/24/2025 11:05 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 1250 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



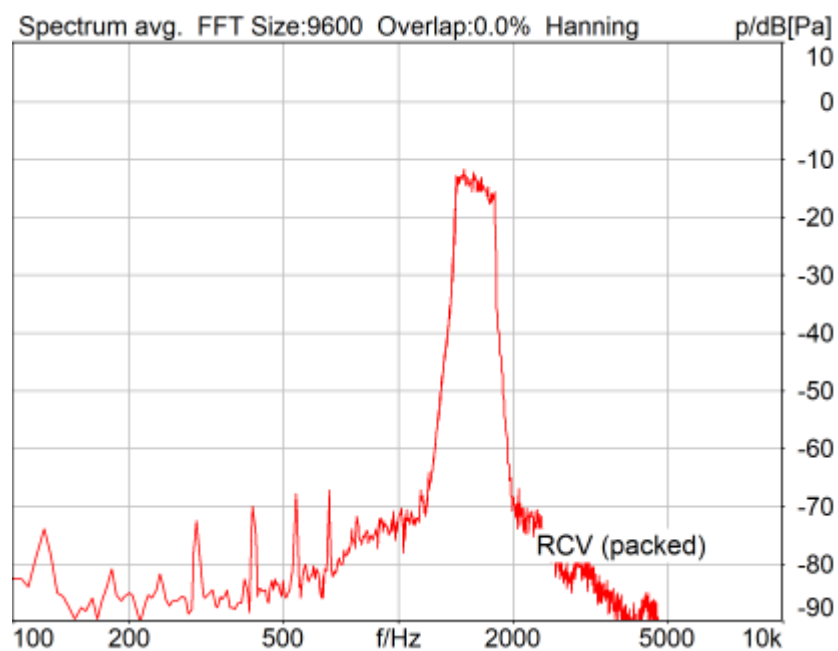
Distortion (Noise) RCV (packed): 23.48 dB (6.70%) Ok

**Ok**

6/24/2025 11:05 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 1600 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



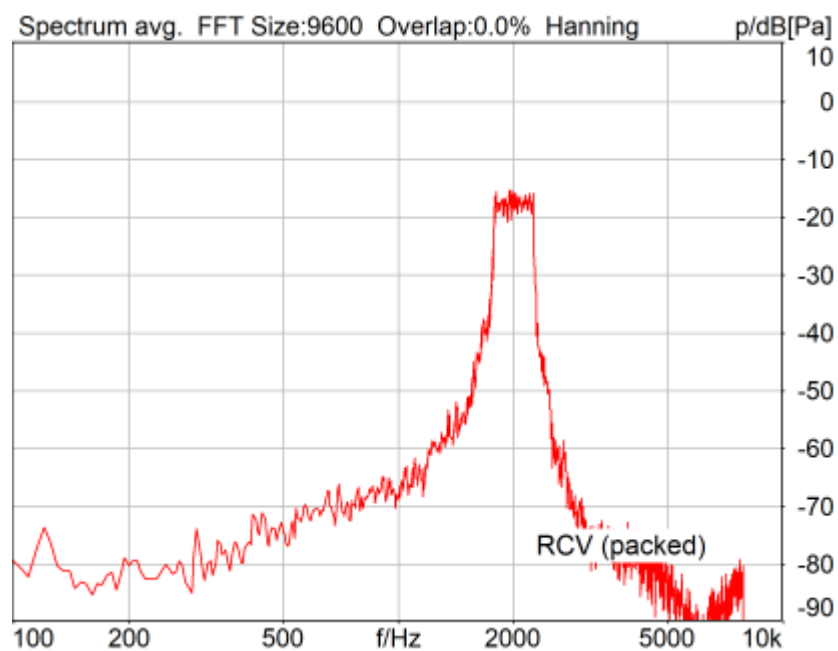
Distortion (Noise) RCV (packed): 30.89 dB (2.85%) Ok

**Ok**

6/24/2025 11:06 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 2000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



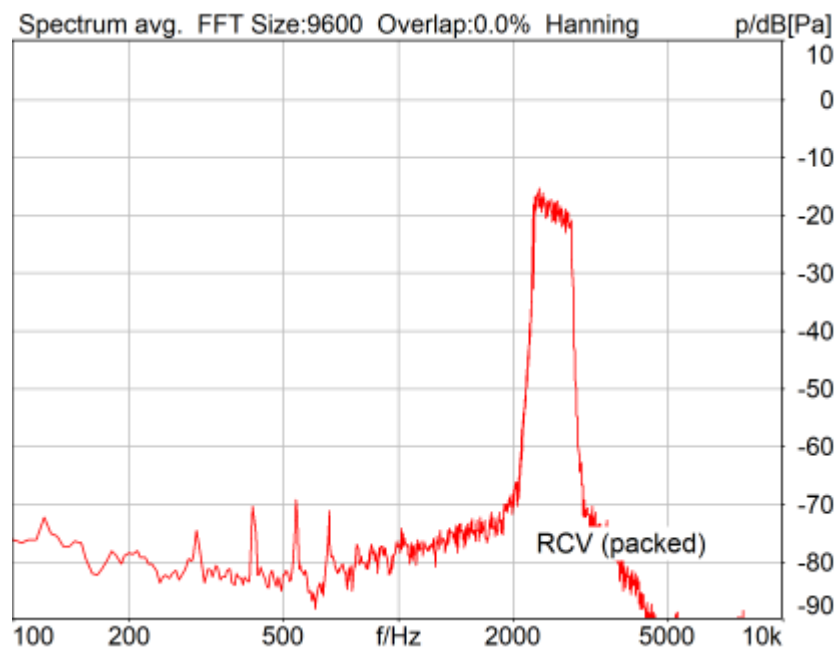
Distortion (Noise) RCV (packed): 23.73 dB (6.51%) Ok

**Ok**

6/24/2025 11:06 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 2500 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



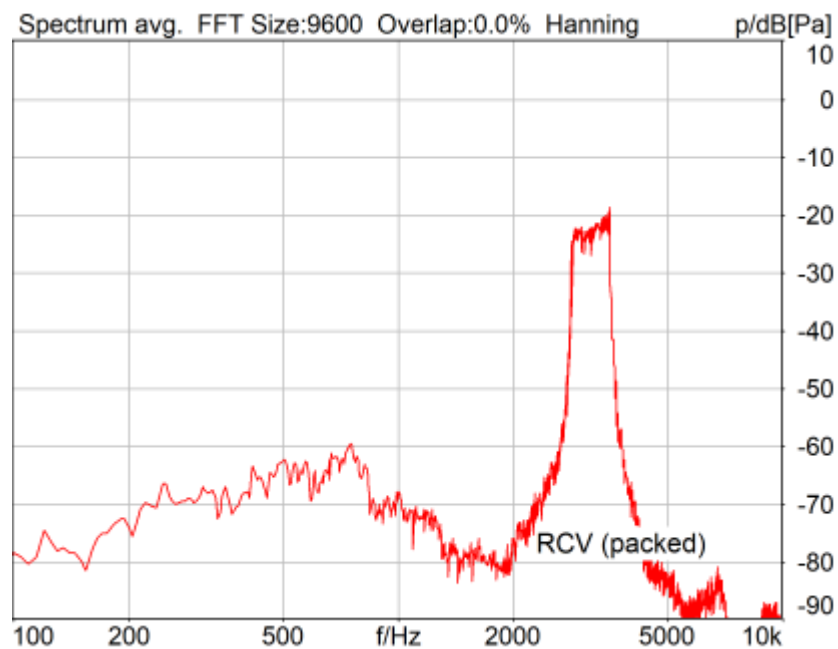
Distortion (Noise) RCV (packed): 32.38 dB (2.41%) Ok

Ok

6/24/2025 11:06 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 3150 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



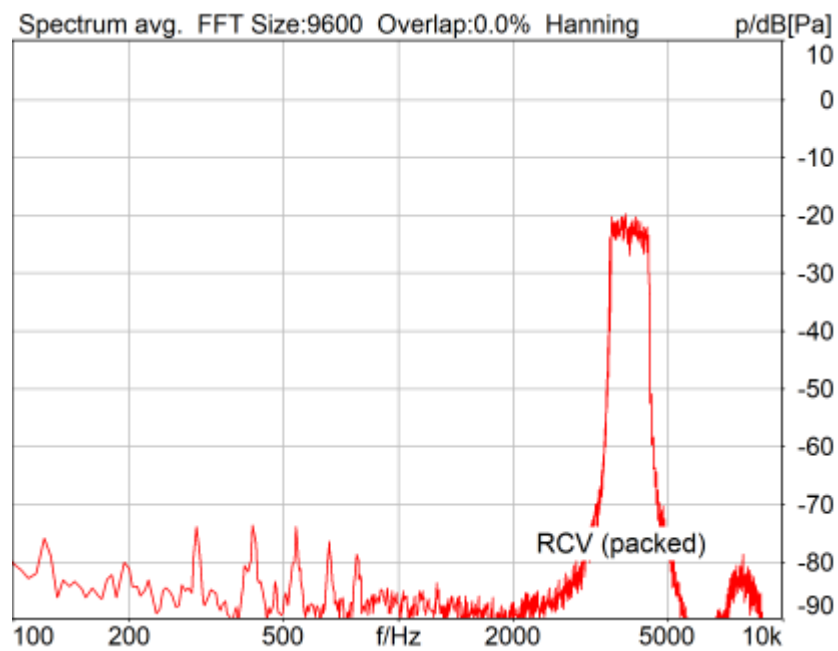
Distortion (Noise) RCV (packed): 28.66 dB (3.69%) Ok

**Ok**

6/24/2025 11:07 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 4000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



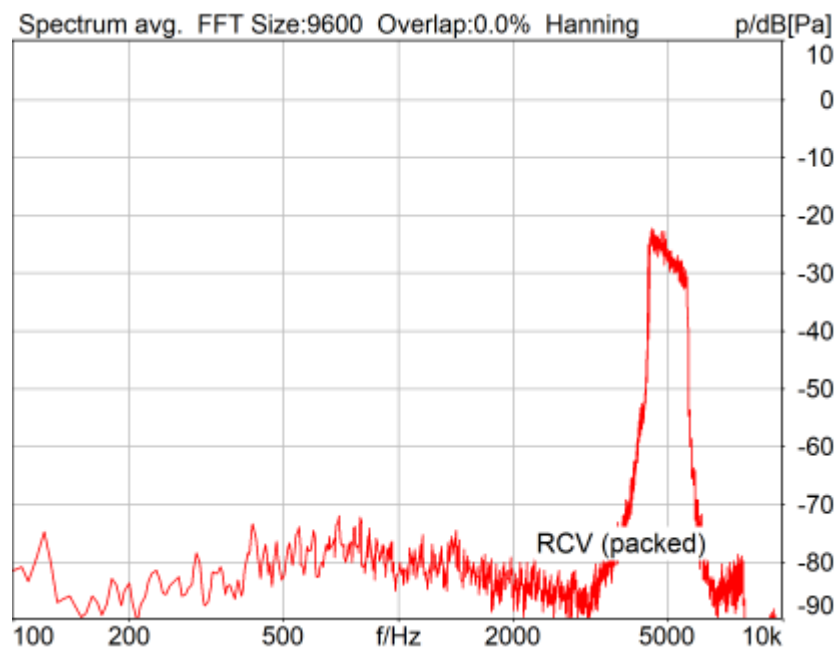
Distortion (Noise) RCV (packed): 35.10 dB (1.76%) Ok

**Ok**

6/24/2025 11:07 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 5000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N



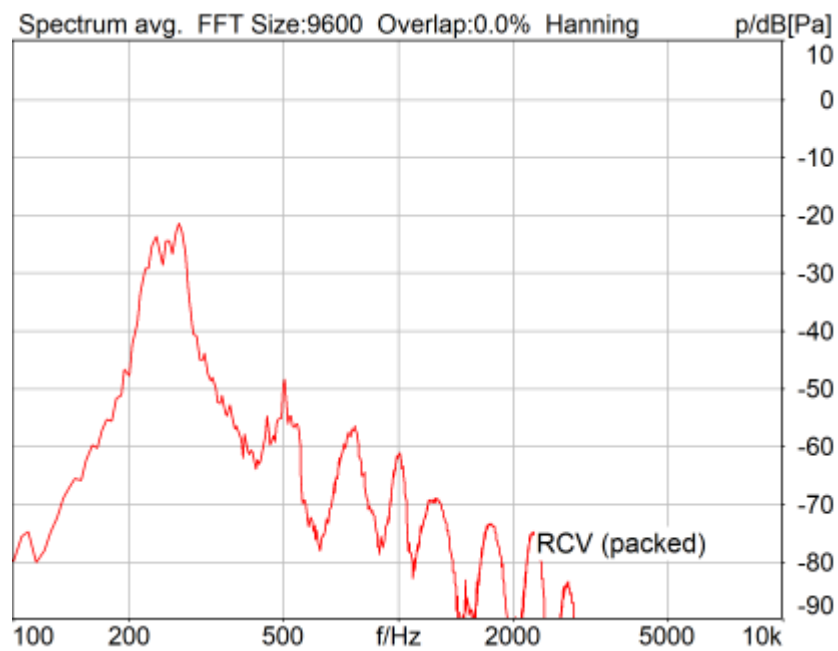
Distortion (Noise) RCV (packed): 30.51 dB (2.98%) Ok

Ok

6/24/2025 11:08 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 250 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



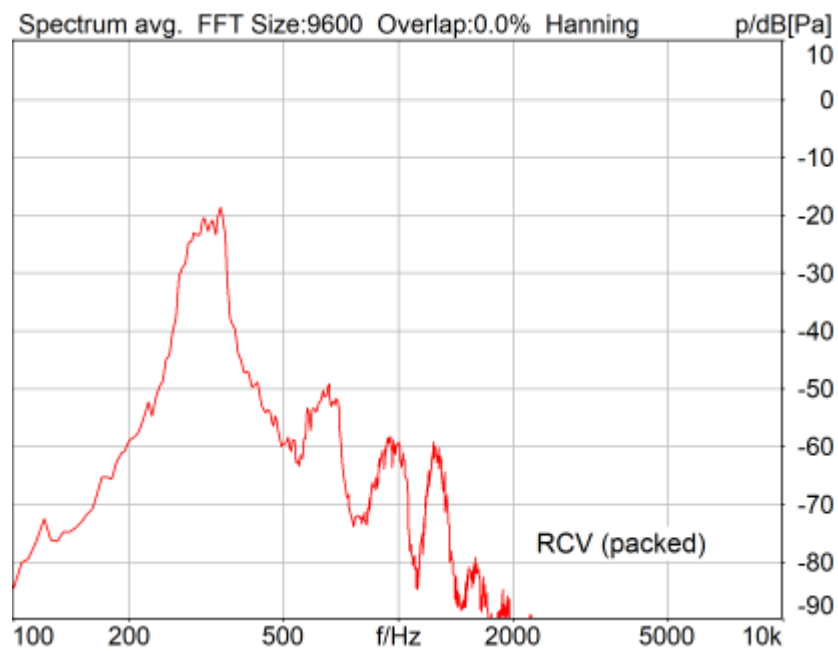
Distortion (Noise) RCV (packed): 26.17 dB (4.92%) Ok

**Ok**

6/24/2025 11:16 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 315 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



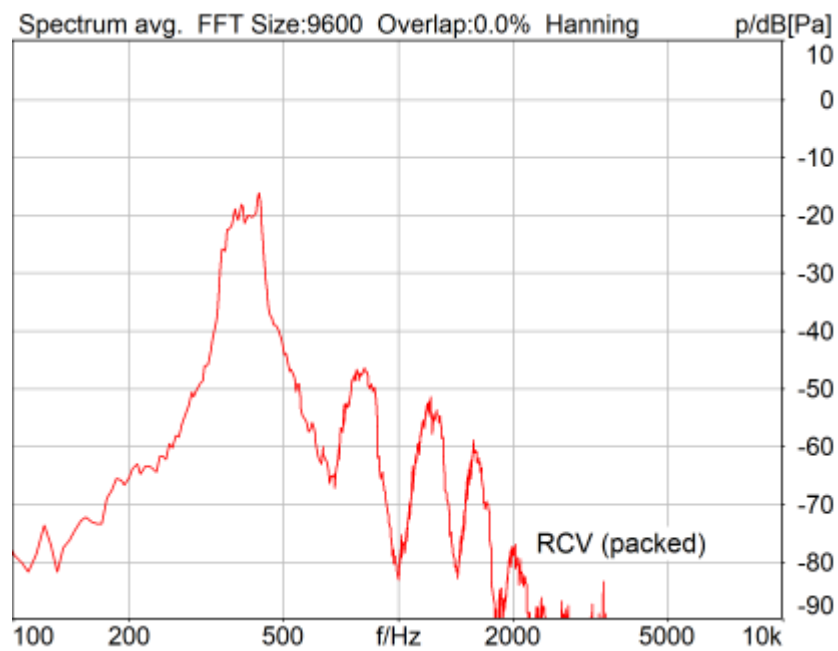
Distortion (Noise) RCV (packed): 26.61 dB (4.67%) Ok

**Ok**

6/24/2025 11:17 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 400 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



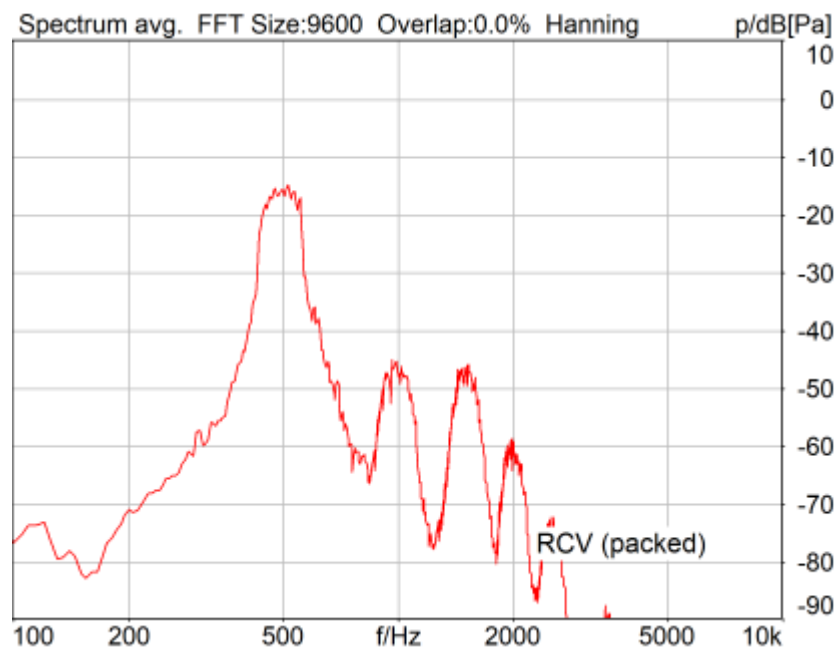
Distortion (Noise) RCV (packed): 23.99 dB (6.32%) Ok

Ok

6/24/2025 11:17 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 500 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



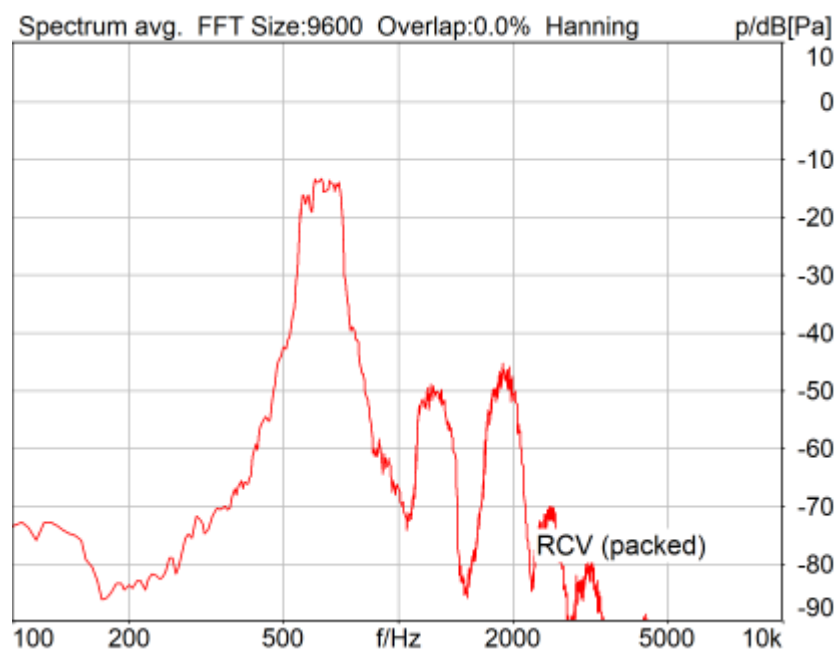
Distortion (Noise) RCV (packed): 23.18 dB (6.93%) Ok

Ok

6/24/2025 11:17 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 630 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



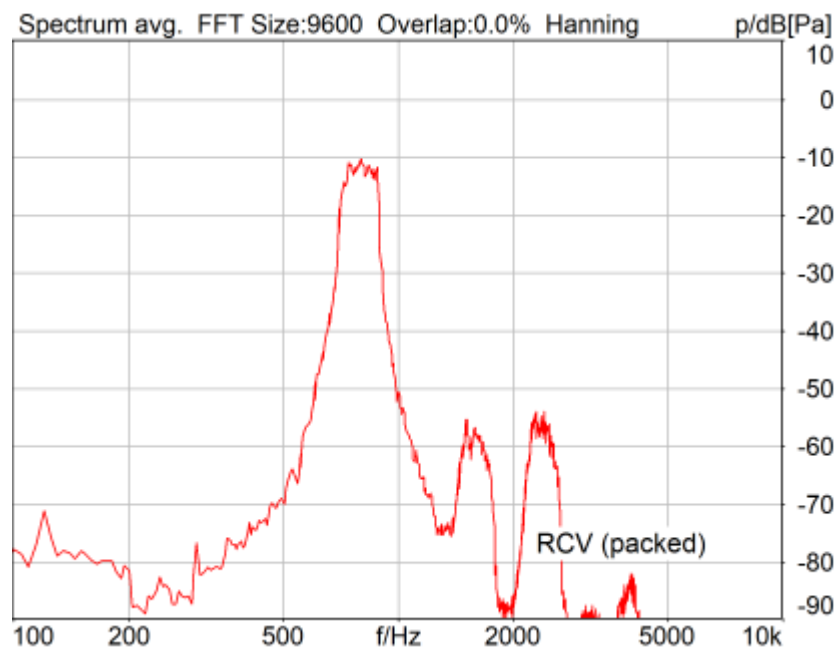
Distortion (Noise) RCV (packed): 26.07 dB (4.97%) Ok

**Ok**

6/24/2025 11:18 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 800 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



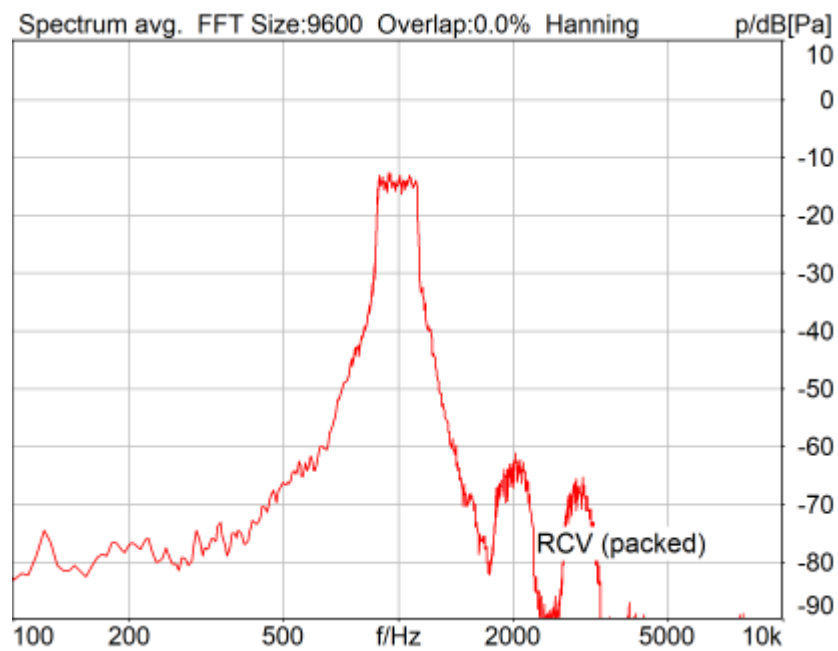
Distortion (Noise) RCV (packed): 31.30 dB (2.72%) Ok

Ok

6/24/2025 11:18 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 1000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



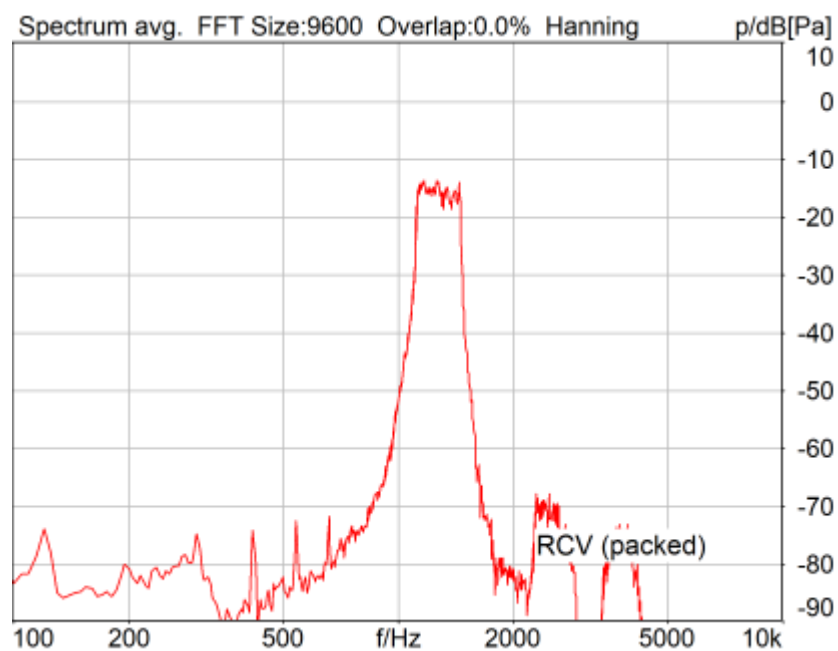
Distortion (Noise) RCV (packed): 26.00 dB (5.01%) Ok

**Ok**

6/24/2025 11:19 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 1250 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



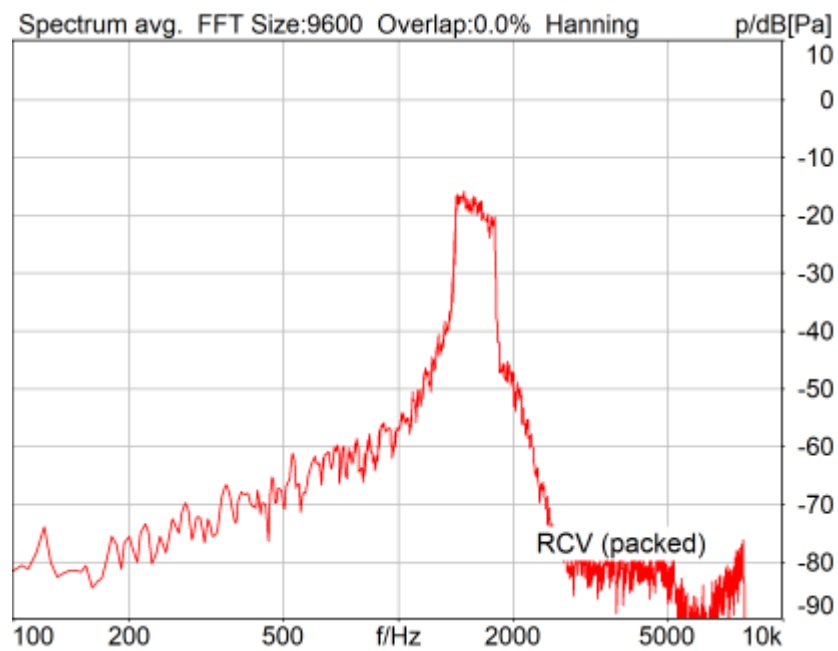
Distortion (Noise) RCV (packed): 23.23 dB (6.90%) Ok

**Ok**

6/24/2025 11:19 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 1600 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



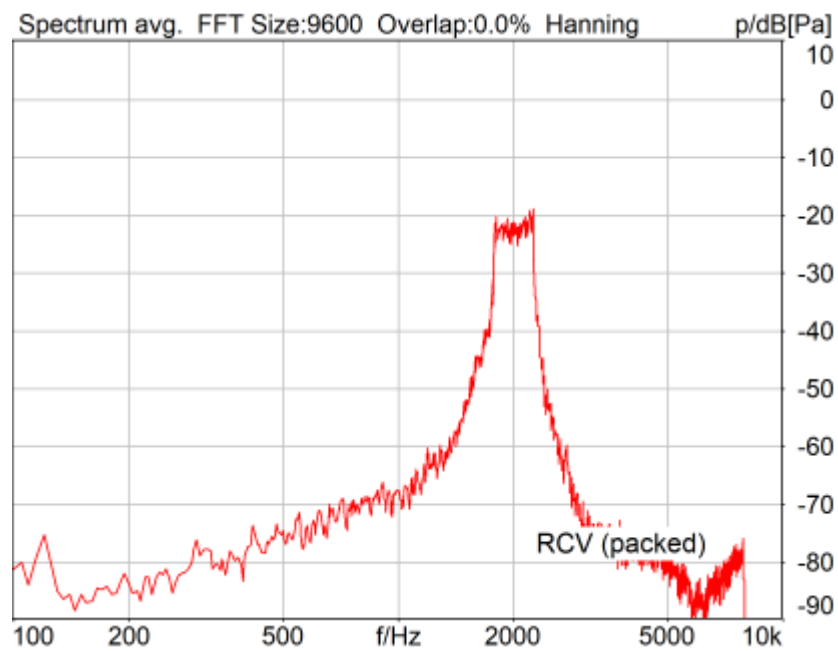
Distortion (Noise) RCV (packed): 23.57 dB (6.63%) Ok

**Ok**

6/24/2025 11:19 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 2000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



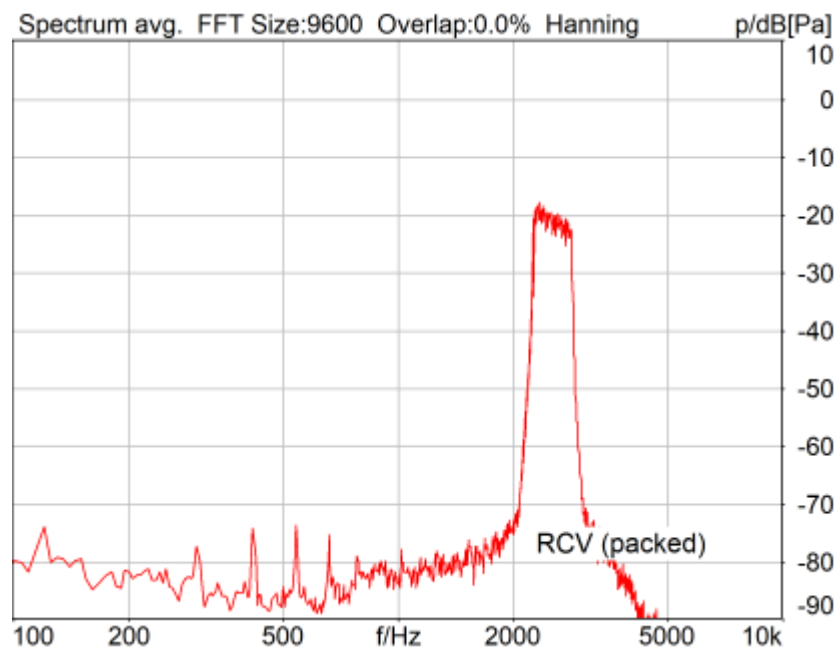
Distortion (Noise) RCV (packed): 20.37 dB (9.58%) Ok

**Ok**

6/24/2025 11:20 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 2500 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



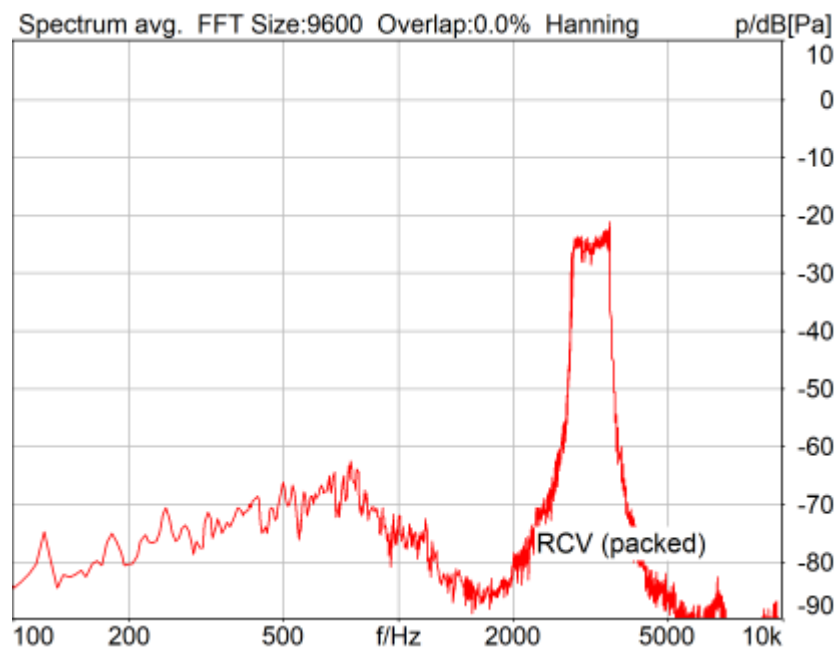
Distortion (Noise) RCV (packed): 33.22 dB (2.18%) Ok

Ok

6/24/2025 11:20 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 3150 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



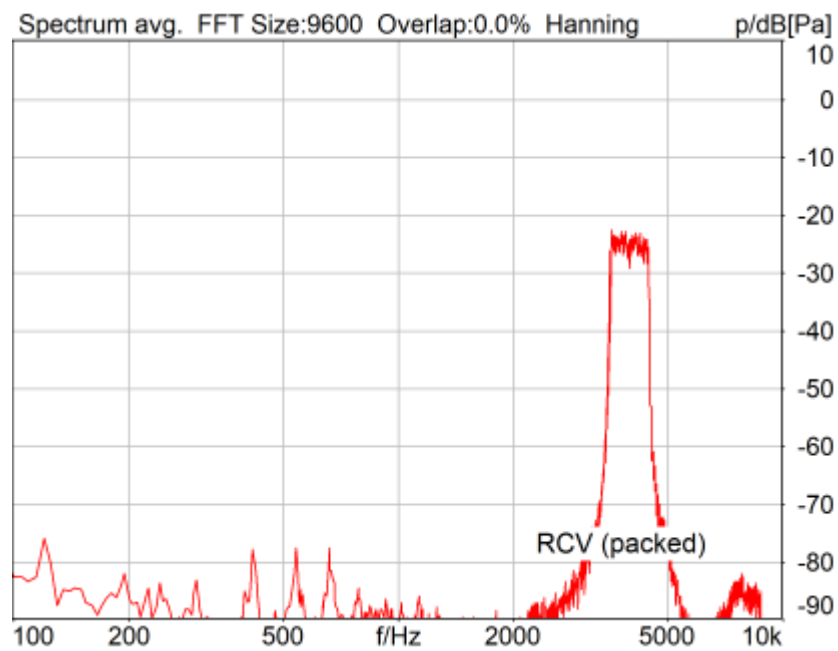
Distortion (Noise) RCV (packed): 29.83 dB (3.23%) Ok

**Ok**

6/24/2025 11:21 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 4000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



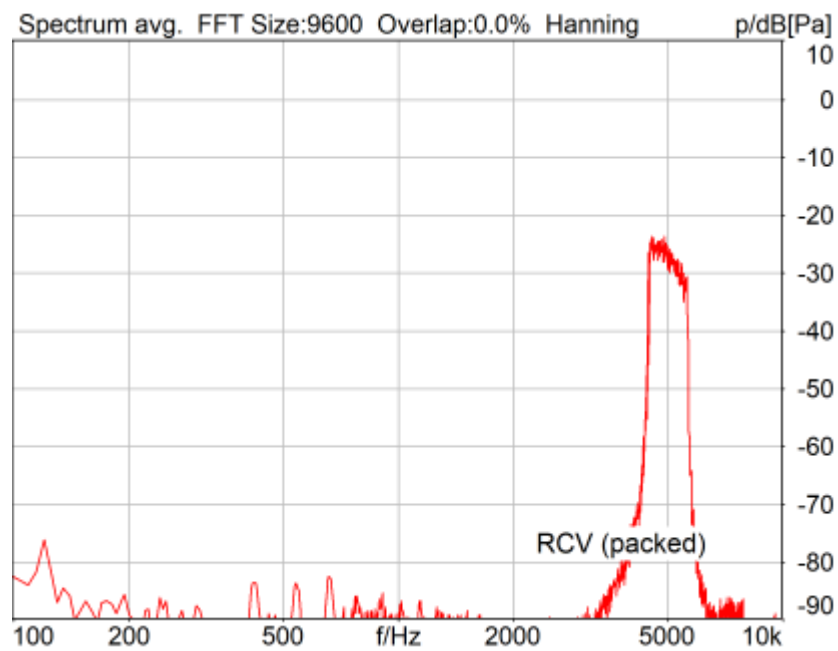
Distortion (Noise) RCV (packed): 34.83 dB (1.81%) Ok

Ok

6/24/2025 11:21 AM ACQUA 6.0.110

## 5.2 RCV Distortion and Noise - 5000 Hz WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N



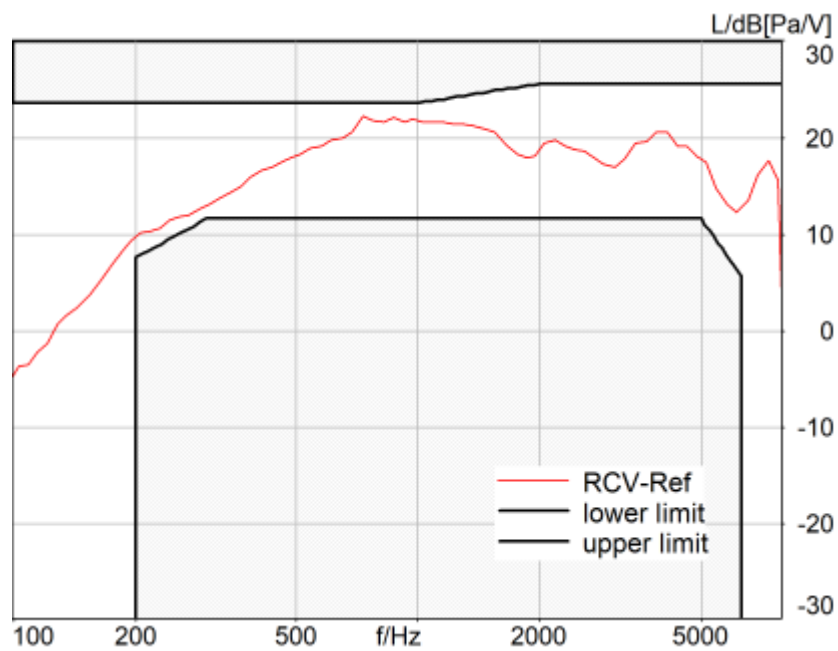
Distortion (Noise) RCV (packed): 35.11 dB (1.76%) Ok

Ok

6/24/2025 11:21 AM ACQUA 6.0.110

### 5.3 Frequency Response 8N FF

TIA-5050 (2018-01) \ Measurements \ Wideband



Absolute minimal distance

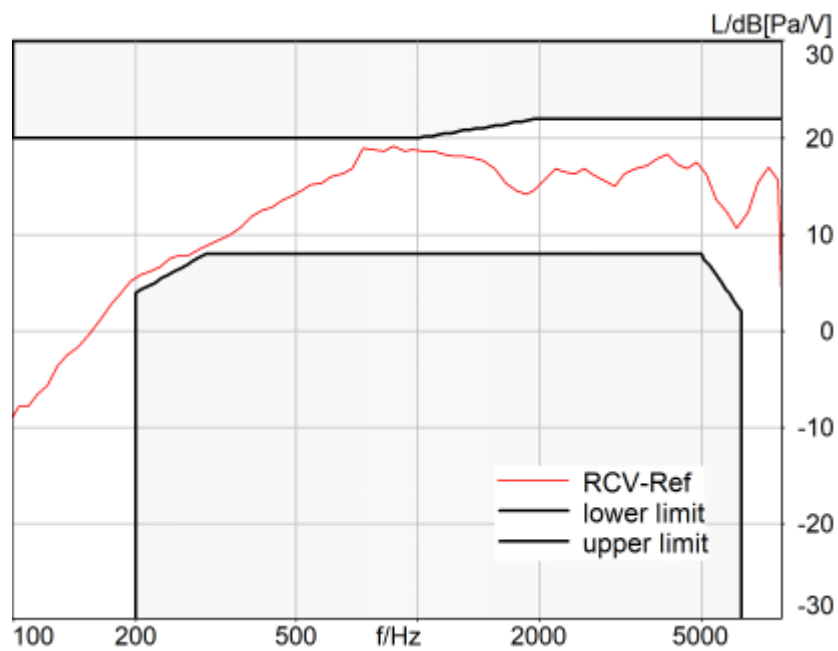
1.36 dB at 731.5 Hz Ok

Ok

6/24/2025 11:13 AM ACQUA 6.0.110

### 5.3 Frequency Response 2N FF

TIA-5050 (2018-01) \ Measurements \ Wideband



Absolute minimal distance  
0.83 dB at 873.9 Hz Ok

Ok

6/24/2025 11:33 AM ACQUA 6.0.110

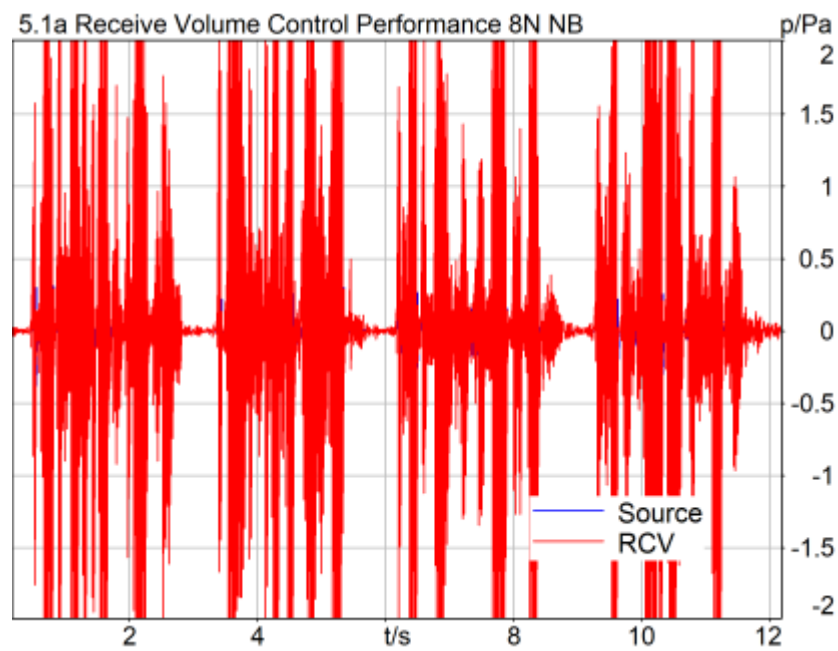
<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

P20\_WCDMA II AMR WB 4.75kbps

| SMD                                                 | Status | Single Value Description | Single Value |
|-----------------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                            | Done   | Delay (Cross) [ms]       |              |
| 5.1a Receive Volume Control Performance 8N WB limit | OK     | Speech Level [dB[SPL]]   | 89.71        |
| 5.1b Receive Volume Control Performance 2N WB       | OK     | Speech Level [dB[SPL]]   | 84.69        |

## 5.1a Receive Volume Control Performance 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband



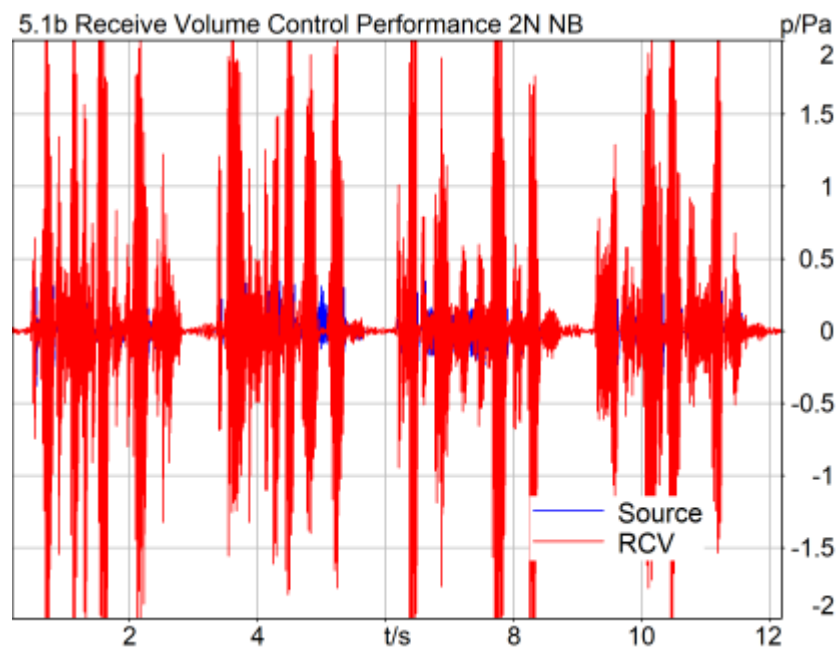
| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.71 dB[SPL] | 78.53%   | Ok |

Ok

5/26/2025 3:14 PM ACQUA 6.0.110

## 5.1b Receive Volume Control Performance 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 84.69 dB[SPL] | 66.96%   | Ok |

Ok

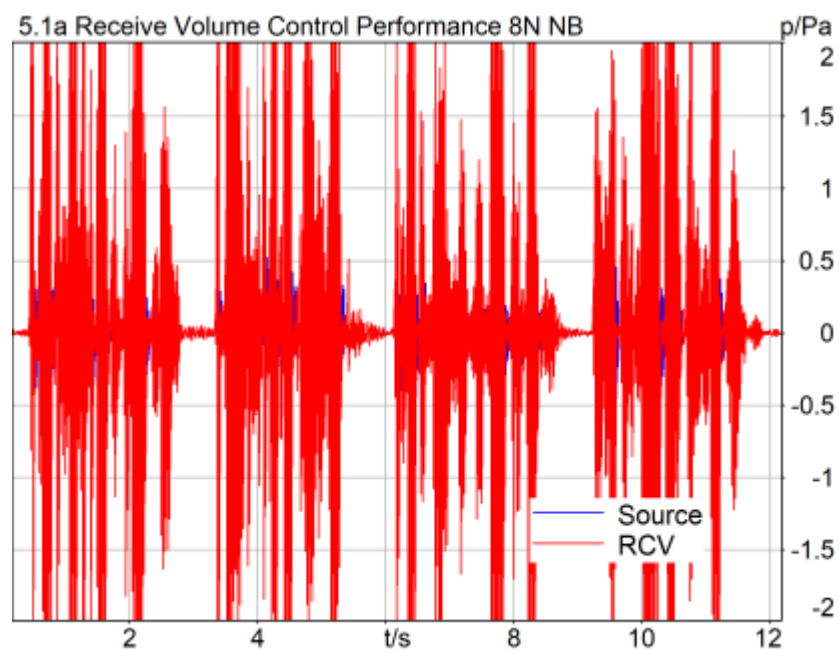
5/23/2025 3:57 PM ACQUA 6.0.110

## P21\_LTE 41 AMR NB 4.75kbps

| SMD                                                 | Status | Single Value Description | Single Value |
|-----------------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                            | Done   | Delay (Cross) [ms]       |              |
| 5.1a Receive Volume Control Performance 8N WB limit | OK     | Speech Level [dB[SPL]]   | 88.83        |
| 5.1b Receive Volume Control Performance 2N WB       | OK     | Speech Level [dB[SPL]]   | 81.5         |

## 5.1a Receive Volume Control Performance 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband



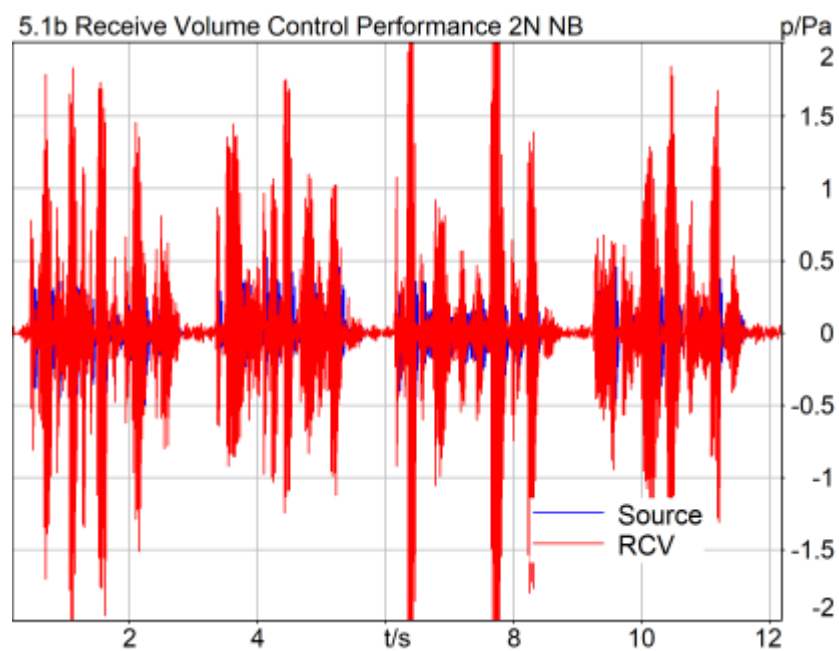
| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 88.83 dB[SPL] | 79.84%   | Ok |

Ok

6/11/2025 3:37 PM ACQUA 6.0.110

## 5.1b Receive Volume Control Performance 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 81.50 dB[SPL] | 73.96%   | Ok |

Ok

6/11/2025 3:34 PM ACQUA 6.0.110

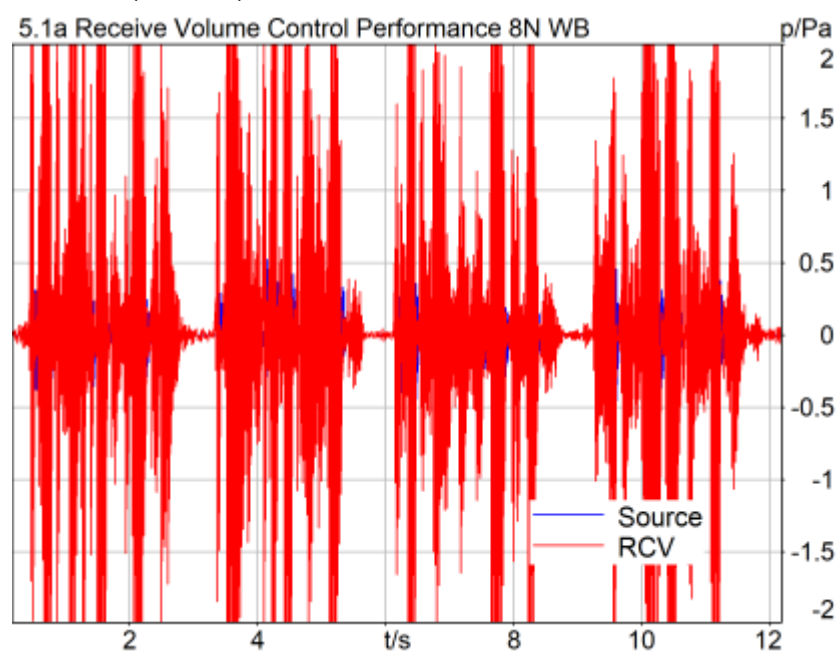
<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

P23\_LTE 42 AMR WB 6.60kbps

| SMD                                                 | Status | Single Value Description | Single Value |
|-----------------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                            | Done   | Delay (Cross) [ms]       |              |
| 5.1a Receive Volume Control Performance 8N WB limit | OK     | Speech Level [dB[SPL]]   | 88.01        |
| 5.1b Receive Volume Control Performance 2N WB       | OK     | Speech Level [dB[SPL]]   | 84.0         |

## 5.1a Receive Volume Control Performance 8N WB

TIA-5050 (2018-01) \ Measurements \ Wideband



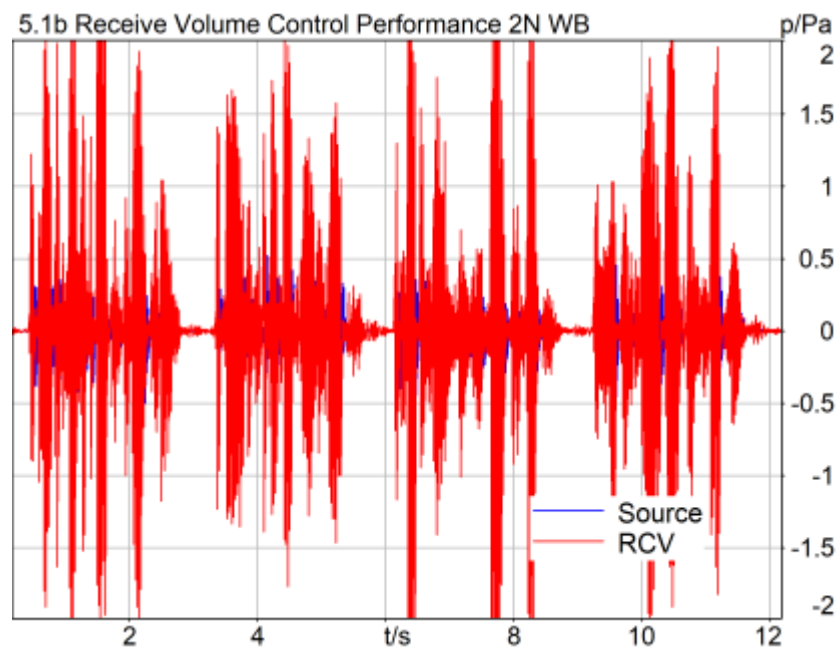
| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 88.01 dB[SPL] | 79.08%   | Ok |

Ok

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## 5.1b Receive Volume Control Performance 2N WB

TIA-5050 (2018-01) \ Measurements \ Wideband



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 84.00 dB[SPL] | 77.92%   | Ok |

**Ok**

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## **Appendix B. HAC Volume Control Test Results**

HAC Testing Results are shown as below.

| <LTE>    |               |                     |         |                 |                    | Conversational Gain |                |            |                      | Reveive Distortion And Noise Performance |            |                      | Reveive Acoustic Frequency Response Performance |
|----------|---------------|---------------------|---------|-----------------|--------------------|---------------------|----------------|------------|----------------------|------------------------------------------|------------|----------------------|-------------------------------------------------|
| Plot No. | Air Interface | Radio Configuration | Channel | Audio Codec     | Mounting Force (N) | Measured Dbm/ Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) | Minimum PN-SDNR (dB)<br>Doc. Section     | Limit (dB) | Margin to Limit (dB) | Free Field (FF)                                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS NB 24.4kbps | 2N                 | 84.27               | 14.27          | 6          | 8.27                 | 23.01                                    | 20         | 3.01                 | Pass                                            |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS NB 24.4kbps | 8N                 | 89.58               | 19.58          | 18         | 1.58                 | 23.01                                    | 20         | 3.01                 | Pass                                            |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS WB 24.4kbps | 2N                 | 89.72               | 19.72          | 6          | 13.72                | 21.37                                    | 20         | 1.37                 | Pass                                            |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS WB 24.4kbps | 8N                 | 89.55               | 19.55          | 18         | 1.55                 | 22.7                                     | 20         | 2.7                  | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS NB 24.4kbps | 2N                 | 90.23               | 20.23          | 6          | 14.23                | 22.59                                    | 20         | 2.59                 | Pass                                            |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS NB 24.4kbps | 8N                 | 90.65               | 20.65          | 18         | 2.65                 | 22.15                                    | 20         | 2.15                 | Pass                                            |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS WB 24.4kbps | 2N                 | 88.34               | 18.34          | 6          | 12.34                | 22.94                                    | 20         | 2.94                 | Pass                                            |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS WB 24.4kbps | 8N                 | 90.19               | 20.19          | 18         | 2.19                 | 20.62                                    | 20         | 0.62                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS NB 24.4kbps | 2N                 | 88.59               | 18.59          | 6          | 12.59                | 22.69                                    | 20         | 2.69                 | Pass                                            |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS NB 24.4kbps | 8N                 | 92.28               | 22.28          | 18         | 4.28                 | 22.09                                    | 20         | 2.09                 | Pass                                            |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS WB 24.4kbps | 2N                 | 88.85               | 18.85          | 6          | 12.85                | 22.27                                    | 20         | 2.27                 | Pass                                            |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS WB 24.4kbps | 8N                 | 92.27               | 22.27          | 18         | 4.27                 | 22.29                                    | 20         | 2.29                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS NB 24.4kbps | 2N                 | 87.79               | 17.79          | 6          | 11.79                | 23.11                                    | 20         | 3.11                 | Pass                                            |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS NB 24.4kbps | 8N                 | 93.05               | 23.05          | 18         | 5.05                 | 22.28                                    | 20         | 2.28                 | Pass                                            |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS WB 24.4kbps | 2N                 | 87.75               | 17.75          | 6          | 11.75                | 22.08                                    | 20         | 2.08                 | Pass                                            |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS WB 24.4kbps | 8N                 | 92.82               | 22.82          | 18         | 4.82                 | 21.75                                    | 20         | 1.75                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS NB 24.4kbps | 2N                 | 88.53               | 18.53          | 6          | 12.53                | 22.92                                    | 20         | 2.92                 | Pass                                            |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS NB 24.4kbps | 8N                 | 93.28               | 23.28          | 18         | 5.28                 | 23.42                                    | 20         | 3.42                 | Pass                                            |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS WB 24.4kbps | 2N                 | 87.96               | 17.96          | 6          | 11.96                | 20.81                                    | 20         | 0.81                 | Pass                                            |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS WB 24.4kbps | 8N                 | 92.81               | 22.81          | 18         | 4.81                 | 20.83                                    | 20         | 0.83                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS NB 24.4kbps | 2N                 | 86.21               | 16.21          | 6          | 10.21                | 22.63                                    | 20         | 2.63                 | Pass                                            |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS NB 24.4kbps | 8N                 | 91.6                | 21.6           | 18         | 3.6                  | 22.53                                    | 20         | 2.53                 | Pass                                            |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS WB 24.4kbps | 2N                 | 86.5                | 16.5           | 6          | 10.5                 | 22.29                                    | 20         | 2.29                 | Pass                                            |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS WB 24.4kbps | 8N                 | 91.4                | 21.4           | 18         | 3.4                  | 22.72                                    | 20         | 2.72                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS NB 24.4kbps | 2N                 | 86.57               | 16.57          | 6          | 10.57                | 22.63                                    | 20         | 2.63                 | Pass                                            |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS NB 24.4kbps | 8N                 | 91.66               | 21.66          | 18         | 3.66                 | 22.15                                    | 20         | 2.15                 | Pass                                            |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS WB 24.4kbps | 2N                 | 86.64               | 16.64          | 6          | 10.64                | 22.53                                    | 20         | 2.53                 | Pass                                            |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS WB 24.4kbps | 8N                 | 91.3                | 21.3           | 18         | 3.3                  | 23.47                                    | 20         | 3.47                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS NB 24.4kbps | 2N                 | 87.03               | 17.03          | 6          | 11.03                | 22.66                                    | 20         | 2.66                 | Pass                                            |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS NB 24.4kbps | 8N                 | 88.87               | 18.87          | 18         | 0.87                 | 23.03                                    | 20         | 3.03                 | Pass                                            |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS WB 24.4kbps | 2N                 | 85.65               | 15.65          | 6          | 9.65                 | 20.44                                    | 20         | 0.44                 | Pass                                            |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS WB 24.4kbps | 8N                 | 88.69               | 18.69          | 18         | 0.69                 | 20.96                                    | 20         | 0.96                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS NB 24.4kbps | 2N                 | 85.97               | 15.97          | 6          | 9.97                 | 23.73                                    | 20         | 3.73                 | Pass                                            |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS NB 24.4kbps | 8N                 | 89.03               | 19.03          | 18         | 1.03                 | 23.4                                     | 20         | 3.4                  | Pass                                            |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS WB 24.4kbps | 2N                 | 85.68               | 15.68          | 6          | 9.68                 | 23.05                                    | 20         | 3.05                 | Pass                                            |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS WB 24.4kbps | 8N                 | 88.65               | 18.65          | 18         | 0.65                 | 23.07                                    | 20         | 3.07                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS NB 24.4kbps | 2N                 | 85.19               | 15.19          | 6          | 9.19                 | 22.5                                     | 20         | 2.5                  | Pass                                            |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS NB 24.4kbps | 8N                 | 88.94               | 18.94          | 18         | 0.94                 | 23.58                                    | 20         | 3.58                 | Pass                                            |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS WB 24.4kbps | 2N                 | 85.13               | 15.13          | 6          | 9.13                 | 21.96                                    | 20         | 1.96                 | Pass                                            |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS WB 24.4kbps | 8N                 | 88.89               | 18.89          | 18         | 0.89                 | 22.83                                    | 20         | 2.83                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS NB 24.4kbps | 2N                 | 85.28               | 15.28          | 6          | 9.28                 | 24.06                                    | 20         | 4.06                 | Pass                                            |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS NB 24.4kbps | 8N                 | 89.06               | 19.06          | 18         | 1.06                 | 22.82                                    | 20         | 2.82                 | Pass                                            |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS WB 24.4kbps | 2N                 | 85.24               | 15.24          | 6          | 9.24                 | 23.1                                     | 20         | 3.1                  | Pass                                            |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS WB 24.4kbps | 8N                 | 88.71               | 18.71          | 18         | 0.71                 | 22.73                                    | 20         | 2.73                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS NB 24.4kbps | 2N                 | 85.36               | 15.36          | 6          | 9.36                 | 23.26                                    | 20         | 3.26                 | Pass                                            |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS NB 24.4kbps | 8N                 | 89.17               | 19.17          | 18         | 1.17                 | 22.16                                    | 20         | 2.16                 | Pass                                            |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS WB 24.4kbps | 2N                 | 85.27               | 15.27          | 6          | 9.27                 | 23.62                                    | 20         | 3.62                 | Pass                                            |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS WB 24.4kbps | 8N                 | 88.83               | 18.83          | 18         | 0.83                 | 22.29                                    | 20         | 2.29                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 42        | QPSK20M_1_0         | 43190   | EVS NB 24.4kbps | 2N                 | 85.77               | 15.77          | 6          | 9.77                 | 23                                       | 20         | 3                    | Pass                                            |
|          | LTE 42        | QPSK20M_1_0         | 43190   | EVS NB 24.4kbps | 8N                 | 89.07               | 19.07          | 18         | 1.07                 | 22.95                                    | 20         | 2.95                 | Pass                                            |
|          | LTE 42        | QPSK20M_1_0         | 43190   | EVS WB 24.4kbps | 2N                 | 85.45               | 15.45          | 6          | 9.45                 | 20.37                                    | 20         | 0.37                 | Pass                                            |
|          | LTE 42        | QPSK20M_1_0         | 43190   | EVS WB 24.4kbps | 8N                 | 88.75               | 18.75          | 18         | 0.75                 | 23.48                                    | 20         | 3.48                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 43        | QPSK20M_1_0         | 44090   | EVS NB 24.4kbps | 2N                 | 86.3                | 16.3           | 6          | 10.3                 | 23.23                                    | 20         | 3.23                 | Pass                                            |
|          | LTE 43        | QPSK20M_1_0         | 44090   | EVS NB 24.4kbps | 8N                 | 89.4                | 19.4           | 18         | 1.4                  | 22.26                                    | 20         | 2.26                 | Pass                                            |
|          | LTE 43        | QPSK20M_1_0         | 44090   | EVS WB 24.4kbps | 2N                 | 86.5                | 16.5           | 6          | 10.5                 | 23.29                                    | 20         | 3.29                 | Pass                                            |
|          | LTE 43        | QPSK20M_1_0         | 44090   | EVS WB 24.4kbps | 8N                 | 89.02               | 19.02          | 18         | 1.02                 | 23.03                                    | 20         | 3.03                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 48        | QPSK20M_1_0         | 56210   | EVS NB 24.4kbps | 2N                 | 86.74               | 16.74          | 6          | 10.74                | 23.05                                    | 20         | 3.05                 | Pass                                            |
|          | LTE 48        | QPSK20M_1_0         | 56210   | EVS NB 24.4kbps | 8N                 | 89.49               | 19.49          | 18         | 1.49                 | 22.73                                    | 20         | 2.73                 | Pass                                            |
|          | LTE 48        | QPSK20M_1_0         | 56210   | EVS WB 24.4kbps | 2N                 | 86.62               | 16.62          | 6          | 10.62                | 23.48                                    | 20         | 3.48                 | Pass                                            |
|          | LTE 48        | QPSK20M_1_0         | 56210   | EVS WB 24.4kbps | 8N                 | 89.19               | 19.19          | 18         | 1.19                 | 22.15                                    | 20         | 2.15                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 66        | QPSK20M_1_0         | 132322  | EVS NB 24.4kbps | 2N                 | 87.02               | 17.02          | 6          | 11.02                | 23.7                                     | 20         | 3.7                  | Pass                                            |
|          | LTE 66        | QPSK20M_1_0         | 132322  | EVS NB 24.4kbps | 8N                 | 89.88               | 19.88          | 18         | 1.88                 | 23.25                                    | 20         | 3.25                 | Pass                                            |
|          | LTE 66        | QPSK20M_1_0         | 132322  | EVS WB 24.4kbps | 2N                 | 86.24               | 16.24          | 6          | 10.24                | 23.11                                    | 20         | 3.11                 | Pass                                            |
|          | LTE 66        | QPSK20M_1_0         | 132322  | EVS WB 24.4kbps | 8N                 | 89.37               | 19.37          | 18         | 1.37                 | 22.56                                    | 20         | 2.56                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS NB 24.4kbps | 2N                 | 86.64               | 16.64          | 6          | 10.64                | 22.35                                    | 20         | 2.35                 | Pass                                            |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS NB 24.4kbps | 8N                 | 89.88               | 19.88          | 18         | 1.88                 | 21.95                                    | 20         | 1.95                 | Pass                                            |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS WB 24.4kbps | 2N                 | 86.32               | 16.32          | 6          | 10.32                | 20.92                                    | 20         | 0.92                 | Pass                                            |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS WB 24.4kbps | 8N                 | 89.29               | 19.29          | 18         | 1.29                 | 20.94                                    | 20         | 0.94                 | Pass                                            |
|          |               |                     |         |                 |                    |                     |                |            |                      |                                          |            |                      |                                                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS NB 24.4kbps | 2N                 | 85.67               | 15.67          | 6          | 9.67                 | 23.38                                    | 20         | 3.38                 | Pass                                            |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS NB 24.4kbps | 8N                 | 91.24               | 21.24          | 18         | 3.24                 | 23.25                                    | 20         | 3.25                 | Pass                                            |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS WB 24.4kbps | 2N                 | 86.18               | 16.18          | 6          | 10.18                | 21.67                                    | 20         | 1.67                 | Pass                                            |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS WB 24.4kbps | 8N                 | 90.77               | 20.77          | 18         | 2.77                 | 22.69                                    | 20         | 2.69                 | Pass                                            |

<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

|          | <WCDMA>       |                     |         |                  |                    | Conversational Gain  |                |            |                      |
|----------|---------------|---------------------|---------|------------------|--------------------|----------------------|----------------|------------|----------------------|
| Plot No. | Air Interface | Radio Configuration | Channel | Audio Codec      | Mounting Force (N) | Measured Dbspl Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) |
| 20       | WCDMA II      | Voice               | 9400    | AMR NB 4.75kbps  | 2N                 | 84.69                | 14.69          | 6          | 8.69                 |
|          | WCDMA II      | Voice               | 9400    | AMR NB 4.75kbps  | 8N                 | 89.71                | 19.71          | 18         | 1.71                 |
|          | WCDMA II      | Voice               | 9400    | AMR NB 7.4kbps   | 2N                 | 84.7                 | 14.7           | 6          | 8.7                  |
|          | WCDMA II      | Voice               | 9400    | AMR NB 7.4kbps   | 8N                 | 90.3                 | 20.3           | 18         | 2.3                  |
|          | WCDMA II      | Voice               | 9400    | AMR WB 6.60kbps  | 2N                 | 87.64                | 17.64          | 6          | 11.64                |
|          | WCDMA II      | Voice               | 9400    | AMR WB 6.60kbps  | 8N                 | 89.91                | 19.91          | 18         | 1.91                 |
|          | WCDMA II      | Voice               | 9400    | AMR WB 15.85kbps | 2N                 | 88.05                | 18.05          | 6          | 12.05                |
|          | WCDMA II      | Voice               | 9400    | AMR WB 15.85kbps | 8N                 | 90.81                | 20.81          | 18         | 2.81                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | WCDMA IV      | Voice               | 1413    | AMR NB 4.75kbps  | 2N                 | 85.1                 | 15.1           | 6          | 9.1                  |
|          | WCDMA IV      | Voice               | 1413    | AMR NB 4.75kbps  | 8N                 | 89.44                | 19.44          | 18         | 1.44                 |
|          | WCDMA IV      | Voice               | 1413    | AMR NB 7.4kbps   | 2N                 | 86.01                | 16.01          | 6          | 10.01                |
|          | WCDMA IV      | Voice               | 1413    | AMR NB 7.4kbps   | 8N                 | 90.36                | 20.36          | 18         | 2.36                 |
|          | WCDMA IV      | Voice               | 1413    | AMR WB 6.60kbps  | 2N                 | 85.44                | 15.44          | 6          | 9.44                 |
|          | WCDMA IV      | Voice               | 1413    | AMR WB 6.60kbps  | 8N                 | 88.82                | 18.82          | 18         | 0.82                 |
|          | WCDMA IV      | Voice               | 1413    | AMR WB 15.85kbps | 2N                 | 85.56                | 15.56          | 6          | 9.56                 |
|          | WCDMA IV      | Voice               | 1413    | AMR WB 15.85kbps | 8N                 | 89.58                | 19.58          | 18         | 1.58                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | WCDMA V       | Voice               | 4182    | AMR NB 4.75kbps  | 2N                 | 87.19                | 17.19          | 6          | 11.19                |
|          | WCDMA V       | Voice               | 4182    | AMR NB 4.75kbps  | 8N                 | 89.96                | 19.96          | 18         | 1.96                 |
|          | WCDMA V       | Voice               | 4182    | AMR NB 7.4kbps   | 2N                 | 88.14                | 18.14          | 6          | 12.14                |
|          | WCDMA V       | Voice               | 4182    | AMR NB 7.4kbps   | 8N                 | 90.4                 | 20.4           | 18         | 2.4                  |
|          | WCDMA V       | Voice               | 4182    | AMR WB 6.60kbps  | 2N                 | 87.47                | 17.47          | 6          | 11.47                |
|          | WCDMA V       | Voice               | 4182    | AMR WB 6.60kbps  | 8N                 | 89.84                | 19.84          | 18         | 1.84                 |
|          | WCDMA V       | Voice               | 4182    | AMR WB 15.85kbps | 2N                 | 88                   | 18             | 6          | 12                   |
|          | WCDMA V       | Voice               | 4182    | AMR WB 15.85kbps | 8N                 | 90.27                | 20.27          | 18         | 2.27                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |

<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

| Plot No. | <LTE>         |                     |         |                  |                    | Conversational Gain  |                |            |                      |
|----------|---------------|---------------------|---------|------------------|--------------------|----------------------|----------------|------------|----------------------|
|          | Air Interface | Radio Configuration | Channel | Audio Codec      | Mounting Force (N) | Measured Dbspl Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR NB 4.75kbps  | 2N                 | 84.44                | 14.44          | 6          | 8.44                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR NB 4.75kbps  | 8N                 | 92.15                | 22.15          | 18         | 4.15                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR NB 7.4kbps   | 2N                 | 86.29                | 16.29          | 6          | 10.29                |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR NB 7.4kbps   | 8N                 | 93.56                | 23.56          | 18         | 5.56                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR WB 6.60kbps  | 2N                 | 85.29                | 15.29          | 6          | 9.29                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR WB 6.60kbps  | 8N                 | 93                   | 23             | 18         | 5                    |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR WB 15.85kbps | 2N                 | 85.57                | 15.57          | 6          | 9.57                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | AMR WB 15.85kbps | 8N                 | 93.42                | 23.42          | 18         | 5.42                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS NB 5.9kbps   | 2N                 | 88.28                | 18.28          | 6          | 12.28                |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS NB 5.9kbps   | 8N                 | 92.14                | 22.14          | 18         | 4.14                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS NB 24.4kbps  | 2N                 | 84.27                | 14.27          | 6          | 8.27                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS NB 24.4kbps  | 8N                 | 89.58                | 19.58          | 18         | 1.58                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS WB 5.9kbps   | 2N                 | 88.29                | 18.29          | 6          | 12.29                |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS WB 5.9kbps   | 8N                 | 91.64                | 21.64          | 18         | 3.64                 |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS WB 24.4kbps  | 2N                 | 89.72                | 19.72          | 6          | 13.72                |
|          | LTE 2         | QPSK20M_1_0         | 18900   | EVS WB 24.4kbps  | 8N                 | 89.55                | 19.55          | 18         | 1.55                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR NB 4.75kbps  | 2N                 | 85.05                | 15.05          | 6          | 9.05                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR NB 4.75kbps  | 8N                 | 93.11                | 23.11          | 18         | 5.11                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR NB 7.4kbps   | 2N                 | 86.1                 | 16.1           | 6          | 10.1                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR NB 7.4kbps   | 8N                 | 93.74                | 23.74          | 18         | 5.74                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR WB 6.60kbps  | 2N                 | 85.39                | 15.39          | 6          | 9.39                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR WB 6.60kbps  | 8N                 | 93.18                | 23.18          | 18         | 5.18                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR WB 15.85kbps | 2N                 | 85.65                | 15.65          | 6          | 9.65                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | AMR WB 15.85kbps | 8N                 | 93.47                | 23.47          | 18         | 5.47                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS NB 5.9kbps   | 2N                 | 88.2                 | 18.2           | 6          | 12.2                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS NB 5.9kbps   | 8N                 | 91.95                | 21.95          | 18         | 3.95                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS NB 24.4kbps  | 2N                 | 90.23                | 20.23          | 6          | 14.23                |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS NB 24.4kbps  | 8N                 | 90.65                | 20.65          | 18         | 2.65                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS WB 5.9kbps   | 2N                 | 88.14                | 18.14          | 6          | 12.14                |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS WB 5.9kbps   | 8N                 | 91.41                | 21.41          | 18         | 3.41                 |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS WB 24.4kbps  | 2N                 | 88.34                | 18.34          | 6          | 12.34                |
|          | LTE 4         | QPSK20M_1_0         | 20175   | EVS WB 24.4kbps  | 8N                 | 90.19                | 20.19          | 18         | 2.19                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR NB 4.75kbps  | 2N                 | 85.17                | 15.17          | 6          | 9.17                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR NB 4.75kbps  | 8N                 | 93.5                 | 23.5           | 18         | 5.5                  |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR NB 7.4kbps   | 2N                 | 85.69                | 15.69          | 6          | 9.69                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR NB 7.4kbps   | 8N                 | 94                   | 24             | 18         | 6                    |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR WB 6.60kbps  | 2N                 | 84.96                | 14.96          | 6          | 8.96                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR WB 6.60kbps  | 8N                 | 93.15                | 23.15          | 18         | 5.15                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR WB 15.85kbps | 2N                 | 85.85                | 15.85          | 6          | 9.85                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | AMR WB 15.85kbps | 8N                 | 93.73                | 23.73          | 18         | 5.73                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS NB 5.9kbps   | 2N                 | 86.78                | 16.78          | 6          | 10.78                |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS NB 5.9kbps   | 8N                 | 92.57                | 22.57          | 18         | 4.57                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS NB 24.4kbps  | 2N                 | 88.59                | 18.59          | 6          | 12.59                |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS NB 24.4kbps  | 8N                 | 92.28                | 22.28          | 18         | 4.28                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS WB 5.9kbps   | 2N                 | 87.07                | 17.07          | 6          | 11.07                |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS WB 5.9kbps   | 8N                 | 92.19                | 22.19          | 18         | 4.19                 |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS WB 24.4kbps  | 2N                 | 88.85                | 18.85          | 6          | 12.85                |
|          | LTE 5         | QPSK10M_1_0         | 20525   | EVS WB 24.4kbps  | 8N                 | 92.27                | 22.27          | 18         | 4.27                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR NB 4.75kbps  | 2N                 | 85.33                | 15.33          | 6          | 9.33                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR NB 4.75kbps  | 8N                 | 93.56                | 23.56          | 18         | 5.56                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR NB 7.4kbps   | 2N                 | 86.06                | 16.06          | 6          | 10.06                |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR NB 7.4kbps   | 8N                 | 94.13                | 24.13          | 18         | 6.13                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR WB 6.60kbps  | 2N                 | 85.56                | 15.56          | 6          | 9.56                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR WB 6.60kbps  | 8N                 | 92.97                | 22.97          | 18         | 4.97                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR WB 15.85kbps | 2N                 | 85.99                | 15.99          | 6          | 9.99                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | AMR WB 15.85kbps | 8N                 | 93.83                | 23.83          | 18         | 5.83                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS NB 5.9kbps   | 2N                 | 87.6                 | 17.6           | 6          | 11.6                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS NB 5.9kbps   | 8N                 | 92.92                | 22.92          | 18         | 4.92                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS NB 24.4kbps  | 2N                 | 87.79                | 17.79          | 6          | 11.79                |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS NB 24.4kbps  | 8N                 | 93.05                | 23.05          | 18         | 5.05                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS WB 5.9kbps   | 2N                 | 88.31                | 18.31          | 6          | 12.31                |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS WB 5.9kbps   | 8N                 | 92.58                | 22.58          | 18         | 4.58                 |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS WB 24.4kbps  | 2N                 | 87.75                | 17.75          | 6          | 11.75                |
|          | LTE 12        | QPSK10M_1_0         | 23095   | EVS WB 24.4kbps  | 8N                 | 92.82                | 22.82          | 18         | 4.82                 |

<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

| Plot No. | <LTE>         |                     |         |                  |                    | Conversational Gain  |                |            |                      |
|----------|---------------|---------------------|---------|------------------|--------------------|----------------------|----------------|------------|----------------------|
|          | Air Interface | Radio Configuration | Channel | Audio Codec      | Mounting Force (N) | Measured Dbspl Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR NB 4.75kbps  | 2N                 | 85.54                | 15.54          | 6          | 9.54                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR NB 4.75kbps  | 8N                 | 93.46                | 23.46          | 18         | 5.46                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR NB 7.4kbps   | 2N                 | 86.39                | 16.39          | 6          | 10.39                |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR NB 7.4kbps   | 8N                 | 94.24                | 24.24          | 18         | 6.24                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR WB 6.60kbps  | 2N                 | 85.78                | 15.78          | 6          | 9.78                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR WB 6.60kbps  | 8N                 | 93.19                | 23.19          | 18         | 5.19                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR WB 15.85kbps | 2N                 | 86.15                | 16.15          | 6          | 10.15                |
|          | LTE 13        | QPSK10M_1_0         | 23230   | AMR WB 15.85kbps | 8N                 | 93.98                | 23.98          | 18         | 5.98                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS NB 5.9kbps   | 2N                 | 88.1                 | 18.1           | 6          | 12.1                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS NB 5.9kbps   | 8N                 | 93.03                | 23.03          | 18         | 5.03                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS NB 24.4kbps  | 2N                 | 88.53                | 18.53          | 6          | 12.53                |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS NB 24.4kbps  | 8N                 | 93.28                | 23.28          | 18         | 5.28                 |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS WB 5.9kbps   | 2N                 | 88.36                | 18.36          | 6          | 12.36                |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS WB 5.9kbps   | 8N                 | 92.7                 | 22.7           | 18         | 4.7                  |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS WB 24.4kbps  | 2N                 | 87.96                | 17.96          | 6          | 11.96                |
|          | LTE 13        | QPSK10M_1_0         | 23230   | EVS WB 24.4kbps  | 8N                 | 92.81                | 22.81          | 18         | 4.81                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR NB 4.75kbps  | 2N                 | 85.48                | 15.48          | 6          | 9.48                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR NB 4.75kbps  | 8N                 | 93.48                | 23.48          | 18         | 5.48                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR NB 7.4kbps   | 2N                 | 86.11                | 16.11          | 6          | 10.11                |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR NB 7.4kbps   | 8N                 | 94.3                 | 24.3           | 18         | 6.3                  |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR WB 6.60kbps  | 2N                 | 85.32                | 15.32          | 6          | 9.32                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR WB 6.60kbps  | 8N                 | 93.45                | 23.45          | 18         | 5.45                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR WB 15.85kbps | 2N                 | 85.72                | 15.72          | 6          | 9.72                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | AMR WB 15.85kbps | 8N                 | 93.75                | 23.75          | 18         | 5.75                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS NB 5.9kbps   | 2N                 | 86.34                | 16.34          | 6          | 10.34                |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS NB 5.9kbps   | 8N                 | 91.58                | 21.58          | 18         | 3.58                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS NB 24.4kbps  | 2N                 | 86.21                | 16.21          | 6          | 10.21                |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS NB 24.4kbps  | 8N                 | 91.6                 | 21.6           | 18         | 3.6                  |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS WB 5.9kbps   | 2N                 | 86.15                | 16.15          | 6          | 10.15                |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS WB 5.9kbps   | 8N                 | 91.1                 | 21.1           | 18         | 3.1                  |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS WB 24.4kbps  | 2N                 | 86.5                 | 16.5           | 6          | 10.5                 |
|          | LTE 14        | QPSK10M_1_0         | 23330   | EVS WB 24.4kbps  | 8N                 | 91.4                 | 21.4           | 18         | 3.4                  |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR NB 4.75kbps  | 2N                 | 85.65                | 15.65          | 6          | 9.65                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR NB 4.75kbps  | 8N                 | 93.58                | 23.58          | 18         | 5.58                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR NB 7.4kbps   | 2N                 | 86.21                | 16.21          | 6          | 10.21                |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR NB 7.4kbps   | 8N                 | 94.16                | 24.16          | 18         | 6.16                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR WB 6.60kbps  | 2N                 | 82.72                | 12.72          | 6          | 6.72                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR WB 6.60kbps  | 8N                 | 92.69                | 22.69          | 18         | 4.69                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR WB 15.85kbps | 2N                 | 86                   | 16             | 6          | 10                   |
|          | LTE 17        | QPSK10M_1_0         | 23790   | AMR WB 15.85kbps | 8N                 | 93.1                 | 23.1           | 18         | 5.1                  |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS NB 5.9kbps   | 2N                 | 86.34                | 16.34          | 6          | 10.34                |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS NB 5.9kbps   | 8N                 | 91.36                | 21.36          | 18         | 3.36                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS NB 24.4kbps  | 2N                 | 86.57                | 16.57          | 6          | 10.57                |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS NB 24.4kbps  | 8N                 | 91.66                | 21.66          | 18         | 3.66                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS WB 5.9kbps   | 2N                 | 86.1                 | 16.1           | 6          | 10.1                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS WB 5.9kbps   | 8N                 | 91.03                | 21.03          | 18         | 3.03                 |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS WB 24.4kbps  | 2N                 | 86.64                | 16.64          | 6          | 10.64                |
|          | LTE 17        | QPSK10M_1_0         | 23790   | EVS WB 24.4kbps  | 8N                 | 91.3                 | 21.3           | 18         | 3.3                  |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR NB 4.75kbps  | 2N                 | 85.64                | 15.64          | 6          | 9.64                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR NB 4.75kbps  | 8N                 | 93.46                | 23.46          | 18         | 5.46                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR NB 7.4kbps   | 2N                 | 86                   | 16             | 6          | 10                   |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR NB 7.4kbps   | 8N                 | 94                   | 24             | 18         | 6                    |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR WB 6.60kbps  | 2N                 | 85.19                | 15.19          | 6          | 9.19                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR WB 6.60kbps  | 8N                 | 93.11                | 23.11          | 18         | 5.11                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR WB 15.85kbps | 2N                 | 85.58                | 15.58          | 6          | 9.58                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | AMR WB 15.85kbps | 8N                 | 93.45                | 23.45          | 18         | 5.45                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS NB 5.9kbps   | 2N                 | 84.69                | 14.69          | 6          | 8.69                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS NB 5.9kbps   | 8N                 | 88.8                 | 18.8           | 18         | 0.8                  |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS NB 24.4kbps  | 2N                 | 87.03                | 17.03          | 6          | 11.03                |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS NB 24.4kbps  | 8N                 | 88.87                | 18.87          | 18         | 0.87                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS WB 5.9kbps   | 2N                 | 85.3                 | 15.3           | 6          | 9.3                  |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS WB 5.9kbps   | 8N                 | 88.45                | 18.45          | 18         | 0.45                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS WB 24.4kbps  | 2N                 | 85.65                | 15.65          | 6          | 9.65                 |
|          | LTE 25        | QPSK20M_1_0         | 26365   | EVS WB 24.4kbps  | 8N                 | 88.69                | 18.69          | 18         | 0.69                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |

<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

| Plot No. | <LTE>         |                     |         |                  |                    | Conversational Gain  |                |            |                      |
|----------|---------------|---------------------|---------|------------------|--------------------|----------------------|----------------|------------|----------------------|
|          | Air Interface | Radio Configuration | Channel | Audio Codec      | Mounting Force (N) | Measured Dbspl Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR NB 4.75kbps  | 2N                 | 85.16                | 15.16          | 6          | 9.16                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR NB 4.75kbps  | 8N                 | 93.32                | 23.32          | 18         | 5.32                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR NB 7.4kbps   | 2N                 | 86.23                | 16.23          | 6          | 10.23                |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR NB 7.4kbps   | 8N                 | 94.02                | 24.02          | 18         | 6.02                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR WB 6.60kbps  | 2N                 | 85.08                | 15.08          | 6          | 9.08                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR WB 6.60kbps  | 8N                 | 93.17                | 23.17          | 18         | 5.17                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR WB 15.85kbps | 2N                 | 85.55                | 15.55          | 6          | 9.55                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | AMR WB 15.85kbps | 8N                 | 93.53                | 23.53          | 18         | 5.53                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS NB 5.9kbps   | 2N                 | 85.57                | 15.57          | 6          | 9.57                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS NB 5.9kbps   | 8N                 | 88.65                | 18.65          | 18         | 0.65                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS NB 24.4kbps  | 2N                 | 85.97                | 15.97          | 6          | 9.97                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS NB 24.4kbps  | 8N                 | 89.03                | 19.03          | 18         | 1.03                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS WB 5.9kbps   | 2N                 | 85.49                | 15.49          | 6          | 9.49                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS WB 5.9kbps   | 8N                 | 88.52                | 18.52          | 18         | 0.52                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS WB 24.4kbps  | 2N                 | 85.68                | 15.68          | 6          | 9.68                 |
|          | LTE 26        | QPSK15M_1_0         | 26865   | EVS WB 24.4kbps  | 8N                 | 88.65                | 18.65          | 18         | 0.65                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR NB 4.75kbps  | 2N                 | 85.38                | 15.38          | 6          | 9.38                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR NB 4.75kbps  | 8N                 | 93.35                | 23.35          | 18         | 5.35                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR NB 7.4kbps   | 2N                 | 86.33                | 16.33          | 6          | 10.33                |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR NB 7.4kbps   | 8N                 | 94.43                | 24.43          | 18         | 6.43                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR WB 6.60kbps  | 2N                 | 86.18                | 16.18          | 6          | 10.18                |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR WB 6.60kbps  | 8N                 | 93.37                | 23.37          | 18         | 5.37                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR WB 15.85kbps | 2N                 | 86.16                | 16.16          | 6          | 10.16                |
|          | LTE 30        | QPSK10M_1_0         | 27710   | AMR WB 15.85kbps | 8N                 | 93.76                | 23.76          | 18         | 5.76                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS NB 5.9kbps   | 2N                 | 85.79                | 15.79          | 6          | 9.79                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS NB 5.9kbps   | 8N                 | 88.49                | 18.49          | 18         | 0.49                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS NB 24.4kbps  | 2N                 | 85.19                | 15.19          | 6          | 9.19                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS NB 24.4kbps  | 8N                 | 88.94                | 18.94          | 18         | 0.94                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS WB 5.9kbps   | 2N                 | 85.65                | 15.65          | 6          | 9.65                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS WB 5.9kbps   | 8N                 | 88.49                | 18.49          | 18         | 0.49                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS WB 24.4kbps  | 2N                 | 85.13                | 15.13          | 6          | 9.13                 |
|          | LTE 30        | QPSK10M_1_0         | 27710   | EVS WB 24.4kbps  | 8N                 | 88.89                | 18.89          | 18         | 0.89                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR NB 4.75kbps  | 2N                 | 81.6                 | 11.6           | 6          | 5.6                  |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR NB 4.75kbps  | 8N                 | 88.04                | 18.04          | 18         | 0.04                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR NB 7.4kbps   | 2N                 | 84.64                | 14.64          | 6          | 8.64                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR NB 7.4kbps   | 8N                 | 88.73                | 18.73          | 18         | 0.73                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR WB 6.60kbps  | 2N                 | 84.27                | 14.27          | 6          | 8.27                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR WB 6.60kbps  | 8N                 | 88.06                | 18.06          | 18         | 0.06                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR WB 15.85kbps | 2N                 | 84.44                | 14.44          | 6          | 8.44                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | AMR WB 15.85kbps | 8N                 | 88.37                | 18.37          | 18         | 0.37                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS NB 5.9kbps   | 2N                 | 85.22                | 15.22          | 6          | 9.22                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS NB 5.9kbps   | 8N                 | 88.87                | 18.87          | 18         | 0.87                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS NB 24.4kbps  | 2N                 | 85.28                | 15.28          | 6          | 9.28                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS NB 24.4kbps  | 8N                 | 89.06                | 19.06          | 18         | 1.06                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS WB 5.9kbps   | 2N                 | 84.68                | 14.68          | 6          | 8.68                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS WB 5.9kbps   | 8N                 | 88.79                | 18.79          | 18         | 0.79                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS WB 24.4kbps  | 2N                 | 85.24                | 15.24          | 6          | 9.24                 |
|          | LTE 38        | QPSK20M_1_0         | 38000   | EVS WB 24.4kbps  | 8N                 | 88.71                | 18.71          | 18         | 0.71                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
| 21       | LTE 41        | QPSK20M_1_0         | 40620   | AMR NB 4.75kbps  | 2N                 | 81.5                 | 11.5           | 6          | 5.5                  |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR NB 4.75kbps  | 8N                 | 88.83                | 18.83          | 18         | 0.83                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR NB 7.4kbps   | 2N                 | 83.92                | 13.92          | 6          | 7.92                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR NB 7.4kbps   | 8N                 | 89.39                | 19.39          | 18         | 1.39                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR WB 6.60kbps  | 2N                 | 83.54                | 13.54          | 6          | 7.54                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR WB 6.60kbps  | 8N                 | 88.53                | 18.53          | 18         | 0.53                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR WB 15.85kbps | 2N                 | 84.08                | 14.08          | 6          | 8.08                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | AMR WB 15.85kbps | 8N                 | 88.96                | 18.96          | 18         | 0.96                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS NB 5.9kbps   | 2N                 | 85.14                | 15.14          | 6          | 9.14                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS NB 5.9kbps   | 8N                 | 88.64                | 18.64          | 18         | 0.64                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS NB 24.4kbps  | 2N                 | 85.36                | 15.36          | 6          | 9.36                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS NB 24.4kbps  | 8N                 | 89.17                | 19.17          | 18         | 1.17                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS WB 5.9kbps   | 2N                 | 85.41                | 15.41          | 6          | 9.41                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS WB 5.9kbps   | 8N                 | 88.37                | 18.37          | 18         | 0.37                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS WB 24.4kbps  | 2N                 | 85.27                | 15.27          | 6          | 9.27                 |
|          | LTE 41        | QPSK20M_1_0         | 40620   | EVS WB 24.4kbps  | 8N                 | 88.83                | 18.83          | 18         | 0.83                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |

<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

| Plot No. | <LTE>         |                     |         |                  |                    | Conversational Gain  |                |            |                      |
|----------|---------------|---------------------|---------|------------------|--------------------|----------------------|----------------|------------|----------------------|
|          | Air Interface | Radio Configuration | Channel | Audio Codec      | Mounting Force (N) | Measured Dbspl Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR NB 4.75kbps  | 2N                 | 84.13                | 14.13          | 6          | 8.13                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR NB 4.75kbps  | 8N                 | 88.05                | 18.05          | 18         | 0.05                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR NB 7.4kbps   | 2N                 | 84.61                | 14.61          | 6          | 8.61                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR NB 7.4kbps   | 8N                 | 88.74                | 18.74          | 18         | 0.74                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR WB 6.60kbps  | 2N                 | 84                   | 14             | 6          | 8                    |
| 23       | LTE 42        | QPSK20M 1 0         | 43190   | AMR WB 6.60kbps  | 8N                 | 88.01                | 18.01          | 18         | 0.01                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR WB 15.85kbps | 2N                 | 84.36                | 14.36          | 6          | 8.36                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | AMR WB 15.85kbps | 8N                 | 88.06                | 18.06          | 18         | 0.06                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS NB 5.9kbps   | 2N                 | 85.17                | 15.17          | 6          | 9.17                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS NB 5.9kbps   | 8N                 | 88.83                | 18.83          | 18         | 0.83                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS NB 24.4kbps  | 2N                 | 85.77                | 15.77          | 6          | 9.77                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS NB 24.4kbps  | 8N                 | 89.07                | 19.07          | 18         | 1.07                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS WB 5.9kbps   | 2N                 | 85.09                | 15.09          | 6          | 9.09                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS WB 5.9kbps   | 8N                 | 88.41                | 18.41          | 18         | 0.41                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS WB 24.4kbps  | 2N                 | 85.45                | 15.45          | 6          | 9.45                 |
|          | LTE 42        | QPSK20M 1 0         | 43190   | EVS WB 24.4kbps  | 8N                 | 88.75                | 18.75          | 18         | 0.75                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR NB 4.75kbps  | 2N                 | 84.25                | 14.25          | 6          | 8.25                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR NB 4.75kbps  | 8N                 | 88.13                | 18.13          | 18         | 0.13                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR NB 7.4kbps   | 2N                 | 84.42                | 14.42          | 6          | 8.42                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR NB 7.4kbps   | 8N                 | 88.56                | 18.56          | 18         | 0.56                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR WB 6.60kbps  | 2N                 | 83.23                | 13.23          | 6          | 7.23                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR WB 6.60kbps  | 8N                 | 88.09                | 18.09          | 18         | 0.09                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR WB 15.85kbps | 2N                 | 83.84                | 13.84          | 6          | 7.84                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | AMR WB 15.85kbps | 8N                 | 88.8                 | 18.8           | 18         | 0.8                  |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS NB 5.9kbps   | 2N                 | 85.84                | 15.84          | 6          | 9.84                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS NB 5.9kbps   | 8N                 | 90.65                | 20.65          | 18         | 2.65                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS NB 24.4kbps  | 2N                 | 86.3                 | 16.3           | 6          | 10.3                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS NB 24.4kbps  | 8N                 | 89.4                 | 19.4           | 18         | 1.4                  |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS WB 5.9kbps   | 2N                 | 85.93                | 15.93          | 6          | 9.93                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS WB 5.9kbps   | 8N                 | 90.4                 | 20.4           | 18         | 2.4                  |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS WB 24.4kbps  | 2N                 | 86.5                 | 16.5           | 6          | 10.5                 |
|          | LTE 43        | QPSK20M 1 0         | 44090   | EVS WB 24.4kbps  | 8N                 | 89.02                | 19.02          | 18         | 1.02                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR NB 4.75kbps  | 2N                 | 83.54                | 13.54          | 6          | 7.54                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR NB 4.75kbps  | 8N                 | 88.48                | 18.48          | 18         | 0.48                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR NB 7.4kbps   | 2N                 | 84.53                | 14.53          | 6          | 8.53                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR NB 7.4kbps   | 8N                 | 89.35                | 19.35          | 18         | 1.35                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR WB 6.60kbps  | 2N                 | 83.55                | 13.55          | 6          | 7.55                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR WB 6.60kbps  | 8N                 | 88.46                | 18.46          | 18         | 0.46                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR WB 15.85kbps | 2N                 | 84.14                | 14.14          | 6          | 8.14                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | AMR WB 15.85kbps | 8N                 | 88.84                | 18.84          | 18         | 0.84                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS NB 5.9kbps   | 2N                 | 86.25                | 16.25          | 6          | 10.25                |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS NB 5.9kbps   | 8N                 | 90.56                | 20.56          | 18         | 2.56                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS NB 24.4kbps  | 2N                 | 86.74                | 16.74          | 6          | 10.74                |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS NB 24.4kbps  | 8N                 | 89.49                | 19.49          | 18         | 1.49                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS WB 5.9kbps   | 2N                 | 86.09                | 16.09          | 6          | 10.09                |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS WB 5.9kbps   | 8N                 | 90.33                | 20.33          | 18         | 2.33                 |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS WB 24.4kbps  | 2N                 | 86.62                | 16.62          | 6          | 10.62                |
|          | LTE 48        | QPSK20M 1 0         | 56210   | EVS WB 24.4kbps  | 8N                 | 89.19                | 19.19          | 18         | 1.19                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR NB 4.75kbps  | 2N                 | 84.54                | 14.54          | 6          | 8.54                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR NB 4.75kbps  | 8N                 | 88.41                | 18.41          | 18         | 0.41                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR NB 7.4kbps   | 2N                 | 84.98                | 14.98          | 6          | 8.98                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR NB 7.4kbps   | 8N                 | 89.36                | 19.36          | 18         | 1.36                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR WB 6.60kbps  | 2N                 | 84.16                | 14.16          | 6          | 8.16                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR WB 6.60kbps  | 8N                 | 88.76                | 18.76          | 18         | 0.76                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR WB 15.85kbps | 2N                 | 84.22                | 14.22          | 6          | 8.22                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | AMR WB 15.85kbps | 8N                 | 88.86                | 18.86          | 18         | 0.86                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS NB 5.9kbps   | 2N                 | 85.86                | 15.86          | 6          | 9.86                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS NB 5.9kbps   | 8N                 | 90.54                | 20.54          | 18         | 2.54                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS NB 24.4kbps  | 2N                 | 87.02                | 17.02          | 6          | 11.02                |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS NB 24.4kbps  | 8N                 | 89.88                | 19.88          | 18         | 1.88                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS WB 5.9kbps   | 2N                 | 85.86                | 15.86          | 6          | 9.86                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS WB 5.9kbps   | 8N                 | 90.38                | 20.38          | 18         | 2.38                 |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS WB 24.4kbps  | 2N                 | 86.24                | 16.24          | 6          | 10.24                |
|          | LTE 66        | QPSK20M 1 0         | 132322  | EVS WB 24.4kbps  | 8N                 | 89.37                | 19.37          | 18         | 1.37                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |

<Codec Investigation and Evaluation Results for KDB 285076 D05 2.b>

| Plot No. | <LTE>         |                     |         |                  |                    | Conversational Gain  |                |            |                      |
|----------|---------------|---------------------|---------|------------------|--------------------|----------------------|----------------|------------|----------------------|
|          | Air Interface | Radio Configuration | Channel | Audio Codec      | Mounting Force (N) | Measured Dbspl Level | Con. Gain (dB) | Limit (dB) | Margin to Limit (dB) |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR NB 4.75kbps  | 2N                 | 84                   | 14             | 6          | 8                    |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR NB 4.75kbps  | 8N                 | 88.87                | 18.87          | 18         | 0.87                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR NB 7.4kbps   | 2N                 | 84.38                | 14.38          | 6          | 8.38                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR NB 7.4kbps   | 8N                 | 89.31                | 19.31          | 18         | 1.31                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR WB 6.60kbps  | 2N                 | 84.04                | 14.04          | 6          | 8.04                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR WB 6.60kbps  | 8N                 | 88.41                | 18.41          | 18         | 0.41                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR WB 15.85kbps | 2N                 | 84.21                | 14.21          | 6          | 8.21                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | AMR WB 15.85kbps | 8N                 | 88.97                | 18.97          | 18         | 0.97                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS NB 5.9kbps   | 2N                 | 86.37                | 16.37          | 6          | 10.37                |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS NB 5.9kbps   | 8N                 | 90.78                | 20.78          | 18         | 2.78                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS NB 24.4kbps  | 2N                 | 86.64                | 16.64          | 6          | 10.64                |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS NB 24.4kbps  | 8N                 | 89.88                | 19.88          | 18         | 1.88                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS WB 5.9kbps   | 2N                 | 86.24                | 16.24          | 6          | 10.24                |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS WB 5.9kbps   | 8N                 | 90.44                | 20.44          | 18         | 2.44                 |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS WB 24.4kbps  | 2N                 | 86.32                | 16.32          | 6          | 10.32                |
|          | LTE 70        | QPSK15M_1_0         | 133047  | EVS WB 24.4kbps  | 8N                 | 89.29                | 19.29          | 18         | 1.29                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR NB 4.75kbps  | 2N                 | 83.95                | 13.95          | 6          | 7.95                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR NB 4.75kbps  | 8N                 | 88.82                | 18.82          | 18         | 0.82                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR NB 7.4kbps   | 2N                 | 84.81                | 14.81          | 6          | 8.81                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR NB 7.4kbps   | 8N                 | 89.54                | 19.54          | 18         | 1.54                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR WB 6.60kbps  | 2N                 | 84.18                | 14.18          | 6          | 8.18                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR WB 6.60kbps  | 8N                 | 88.58                | 18.58          | 18         | 0.58                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR WB 15.85kbps | 2N                 | 84.35                | 14.35          | 6          | 8.35                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | AMR WB 15.85kbps | 8N                 | 89.02                | 19.02          | 18         | 1.02                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS NB 5.9kbps   | 2N                 | 86.14                | 16.14          | 6          | 10.14                |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS NB 5.9kbps   | 8N                 | 90.79                | 20.79          | 18         | 2.79                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS NB 24.4kbps  | 2N                 | 85.67                | 15.67          | 6          | 9.67                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS NB 24.4kbps  | 8N                 | 91.24                | 21.24          | 18         | 3.24                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS WB 5.9kbps   | 2N                 | 86.17                | 16.17          | 6          | 10.17                |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS WB 5.9kbps   | 8N                 | 90.42                | 20.42          | 18         | 2.42                 |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS WB 24.4kbps  | 2N                 | 86.18                | 16.18          | 6          | 10.18                |
|          | LTE 71        | QPSK20M_1_0         | 133297  | EVS WB 24.4kbps  | 8N                 | 90.77                | 20.77          | 18         | 2.77                 |
|          |               |                     |         |                  |                    |                      |                |            |                      |