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**Appendix A. Volume Control Evaluation Results**

**<Evaluation results for KDB 285076 D05 2.a>**

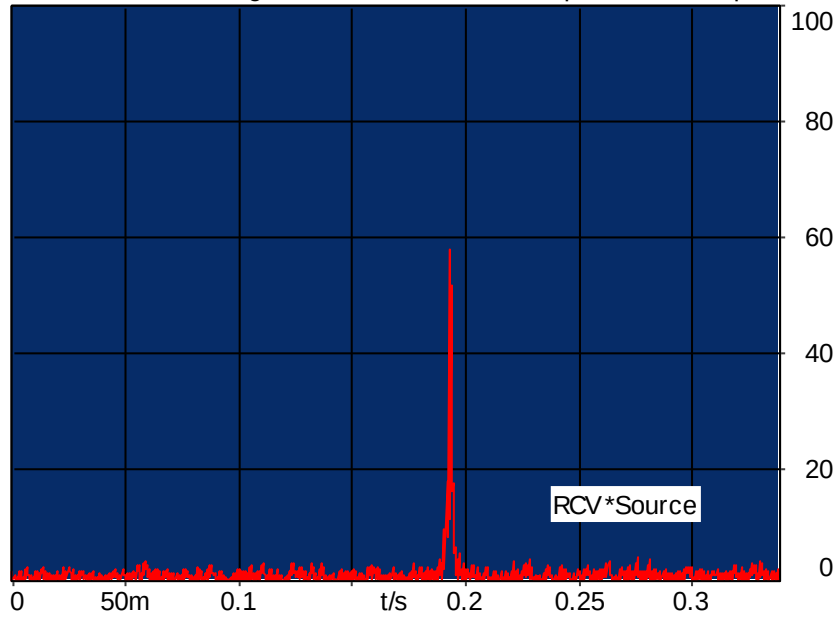
**#1 LTE B13 EVS NB 24.4kbps**

| SMD                                           | Status | Single Value Description                       | Single Value |
|-----------------------------------------------|--------|------------------------------------------------|--------------|
| Overall Receive Delay NB                      | Done   | Delay (Cross) [ms]                             | 193.4        |
| 5.1a Receive Volume Control Performance 8N NB | Ok     | Speech Level [dB[SPL]]                         | 91.60        |
| 5.1b Receive Volume Control Performance 2N NB | Ok     | Speech Level [dB[SPL]]                         | 87.48        |
| 5.2 RCV Distortion and Noise - 400 Hz 8N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 30.74        |
| 5.2 RCV Distortion and Noise - 500 Hz 8N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 28.24        |
| 5.2 RCV Distortion and Noise - 630 Hz 8N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.41        |
| 5.2 RCV Distortion and Noise - 800 Hz 8N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.46        |
| 5.2 RCV Distortion and Noise - 1000 Hz 8N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.08        |
| 5.2 RCV Distortion and Noise - 1250 Hz 8N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.02        |
| 5.2 RCV Distortion and Noise - 1600 Hz 8N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.26        |
| 5.2 RCV Distortion and Noise - 2000 Hz 8N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.56        |
| 5.2 RCV Distortion and Noise - 2500 Hz 8N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 27.67        |
| 5.2 RCV Distortion and Noise - 3150 Hz 8N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 40.86        |
| 5.2 RCV Distortion and Noise - 400 Hz 2N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 29.92        |
| 5.2 RCV Distortion and Noise - 500 Hz 2N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 27.98        |
| 5.2 RCV Distortion and Noise - 630 Hz 2N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.27        |
| 5.2 RCV Distortion and Noise - 800 Hz 2N NB   | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.27        |
| 5.2 RCV Distortion and Noise - 1000 Hz 2N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.35        |
| 5.2 RCV Distortion and Noise - 1250 Hz 2N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.94        |
| 5.2 RCV Distortion and Noise - 1600 Hz 2N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.31        |
| 5.2 RCV Distortion and Noise - 2000 Hz 2N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.56        |
| 5.2 RCV Distortion and Noise - 2500 Hz 2N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 28.49        |
| 5.2 RCV Distortion and Noise - 3150 Hz 2N NB  | Ok     | Distortion (Noise) [dB], 0.0 dB                | 44.44        |
| 5.3 Frequency Response 8N DF HANB             | Ok     | Min. dist. to tolerance scheme [dB], 1747.8 Hz | 1.80         |
| 5.3 Frequency Response 2N DF HANB             | Ok     | Min. dist. to tolerance scheme [dB], 3882.4 Hz | 1.32         |

## Overall Receive Delay NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement

Cross correlation avg. FFT Size:131072 Overlap:0.0% Envelope I %

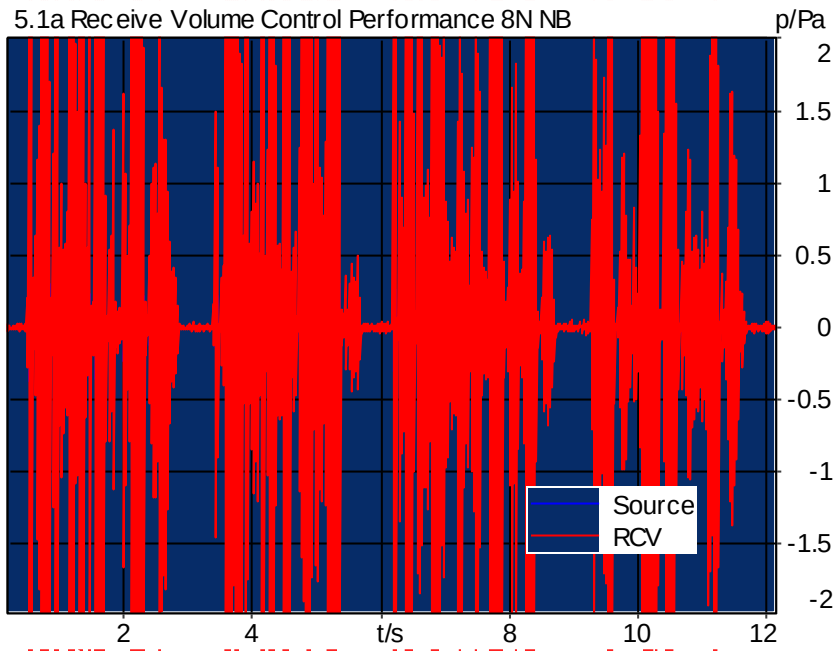


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 193.4 ms | 58.04 %     |

2025-02-08 上午 07:38 ACQUA 6.1.100

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 91.60 dB[SPL] | 66.04%   | Ok |

Ok

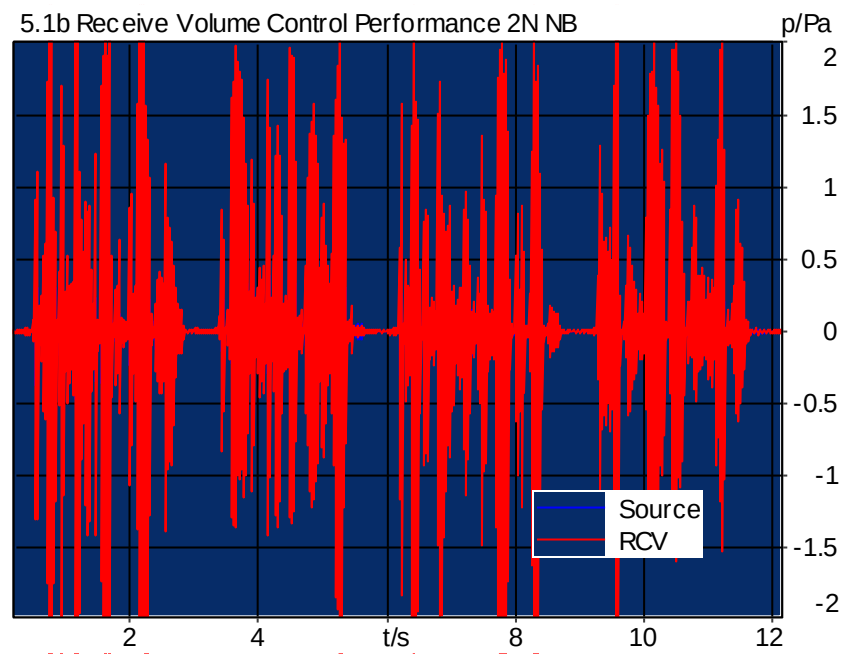
2025-02-08 上午 07:57 ACQUA 6.1.100

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 87.48 dB[SPL] | 39.36%   | Ok |

Ok

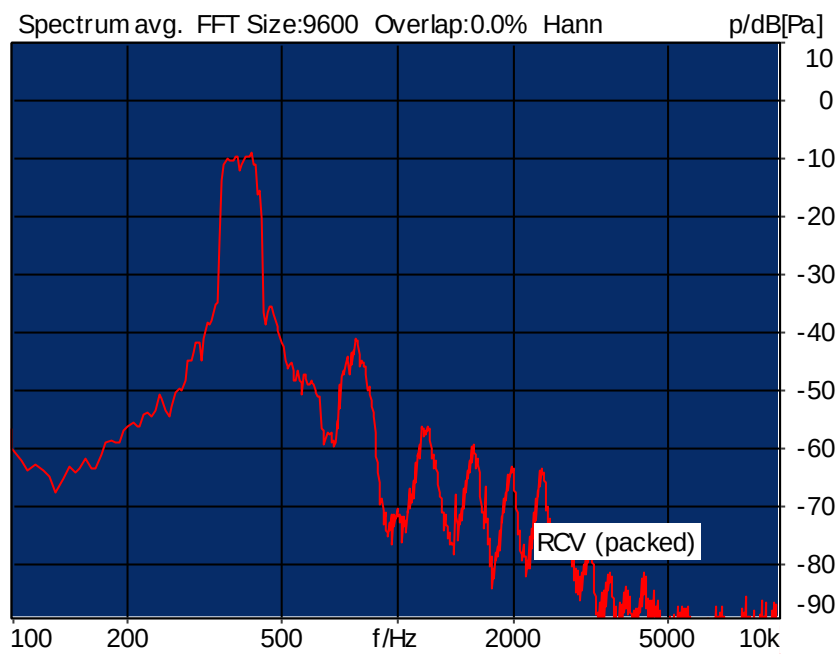
2025-02-08 上午 07:38 ACQUA 6.1.100

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.2 RCV Distortion and Noise - 400 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 30.74 dB (2.90%) Ok

Ok

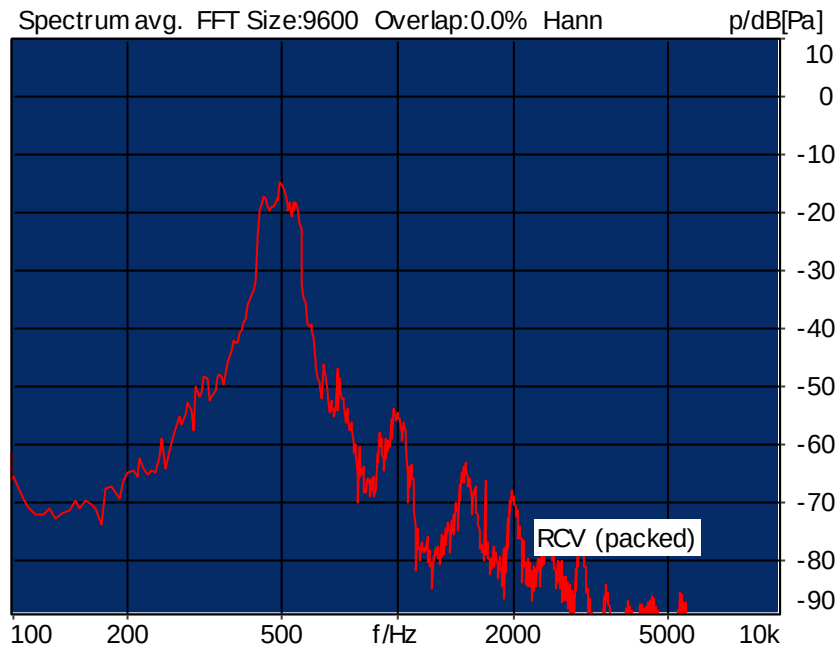
2025-02-08 上午 07:58 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 500 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 28.24 dB (3.87%) Ok

Ok

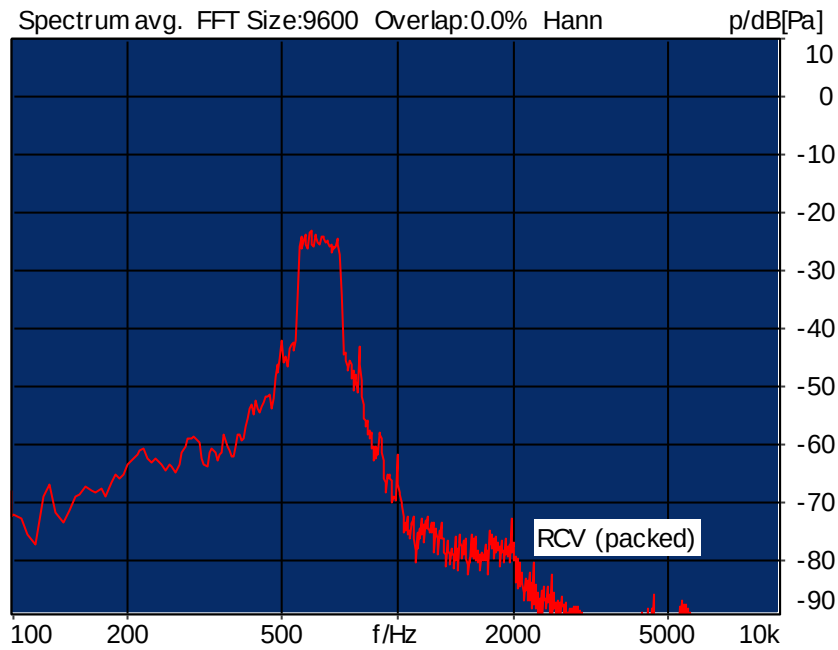
2025-02-08 上午 07:59 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 630 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 24.41 dB (6.02%) Ok

Ok

2025-02-08 上午 07:59 ACQUA 6.1.100

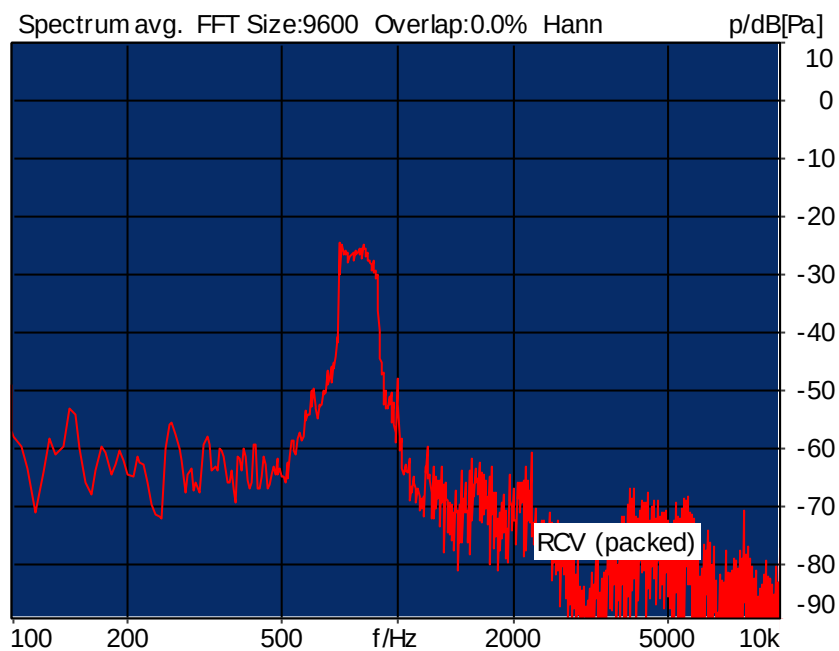
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 800 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 24.46 dB (5.98%) Ok

Ok

2025-02-08 上午 08:00 ACQUA 6.1.100

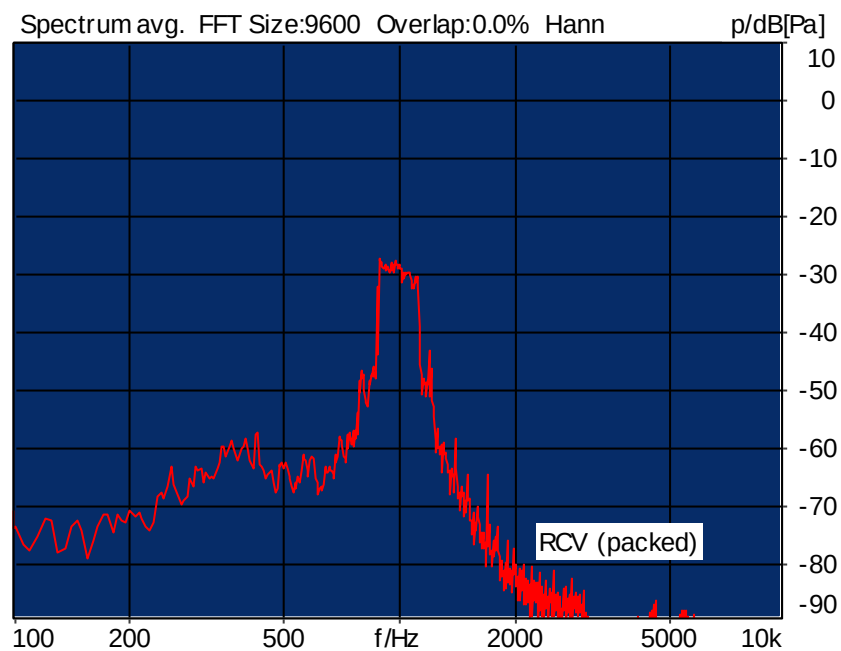
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 1000 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 21.08 dB (8.83%) Ok

Ok

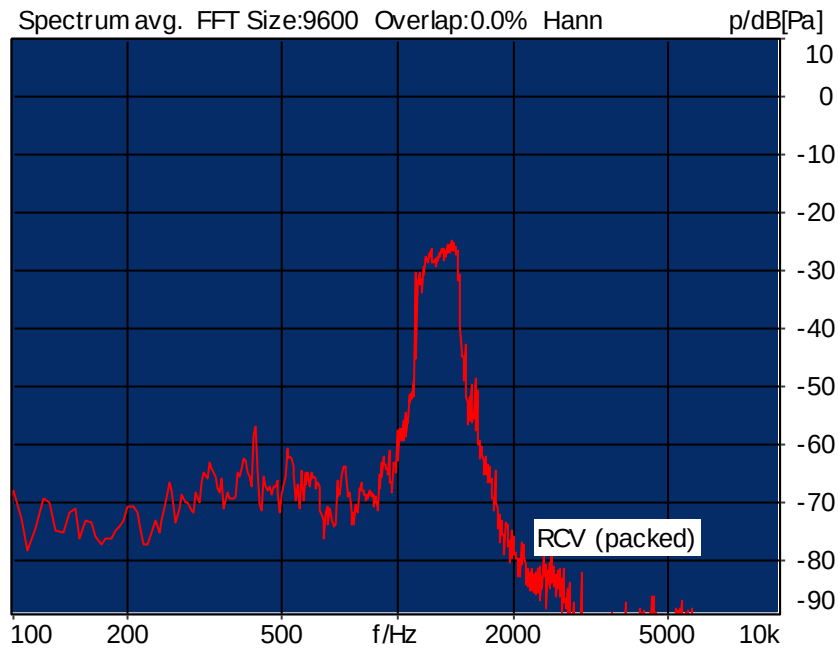
2025-02-08 上午 08:00 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1250 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 22.02 dB (7.93%) Ok

Ok

2025-02-08 上午 08:01 ACQUA 6.1.100

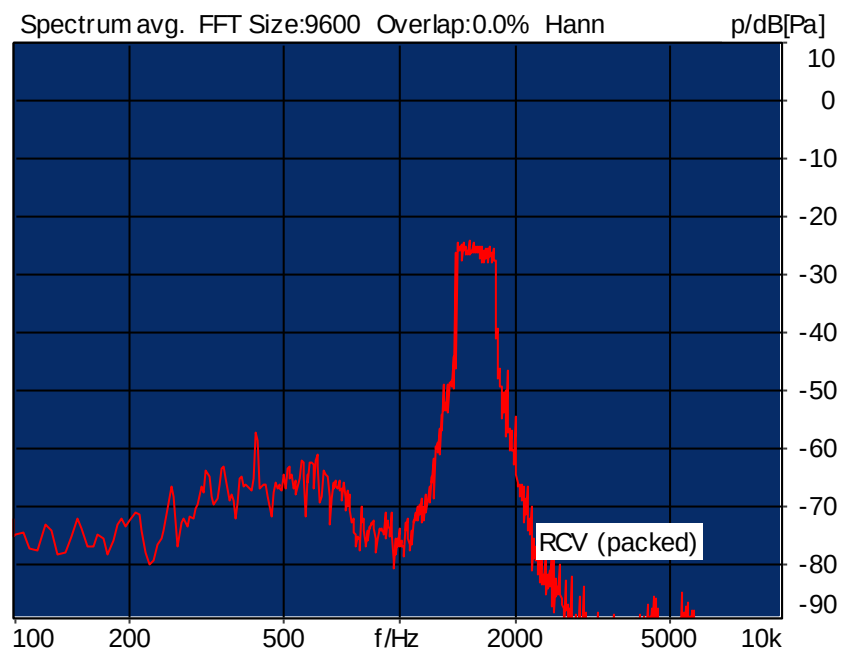
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 1600 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 26.26 dB (4.87%) Ok

Ok

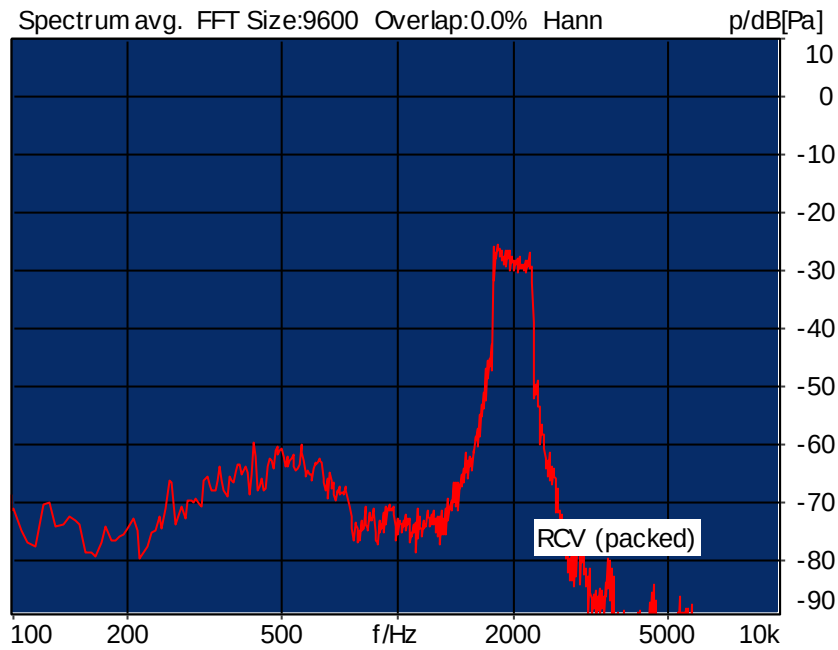
2025-02-08 上午 08:02 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2000 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 24.56 dB (5.92%) Ok

Ok

2025-02-08 上午 08:02 ACQUA 6.1.100

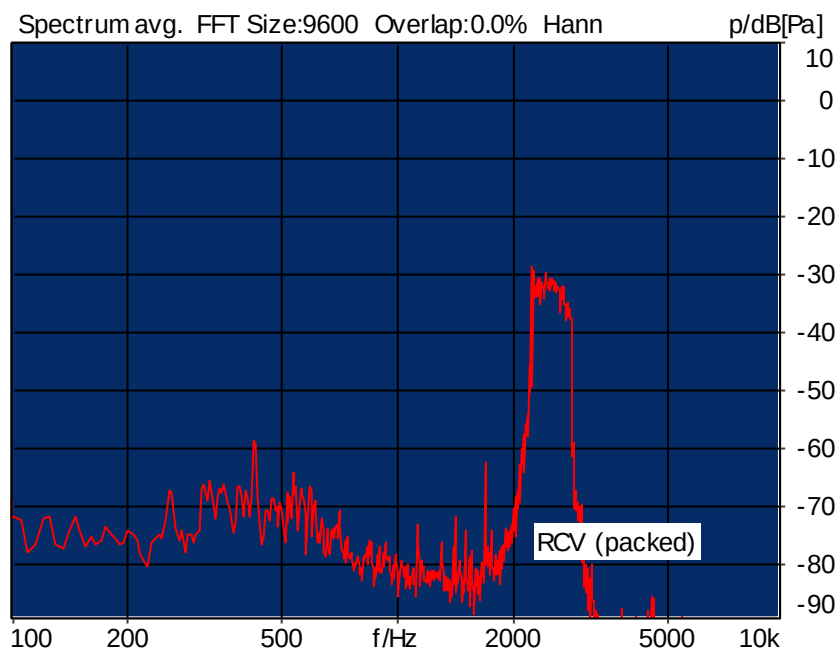
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 2500 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 27.67 dB (4.14%) Ok

Ok

2025-02-08 上午 08:03 ACQUA 6.1.100

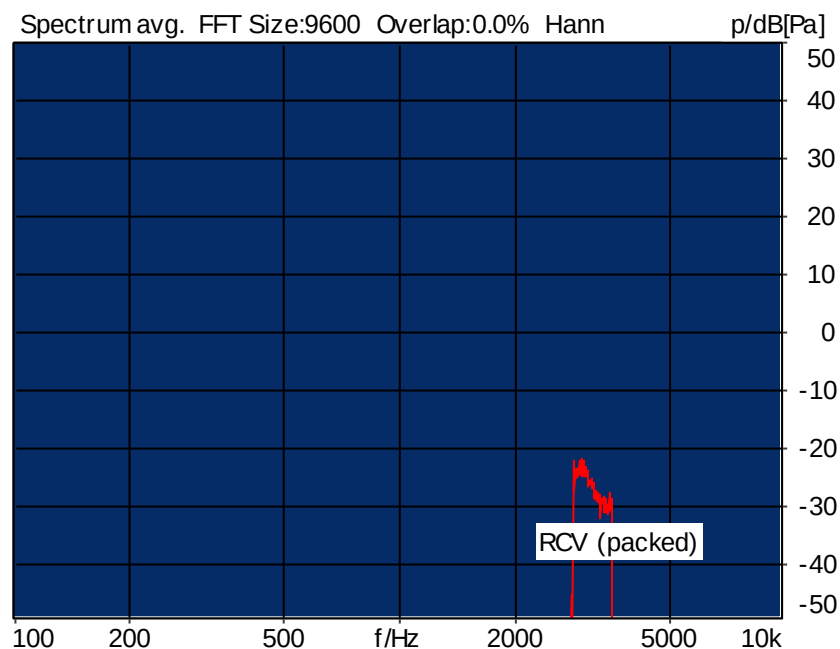
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 3150 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 40.86 dB (0.91%) Ok

Ok

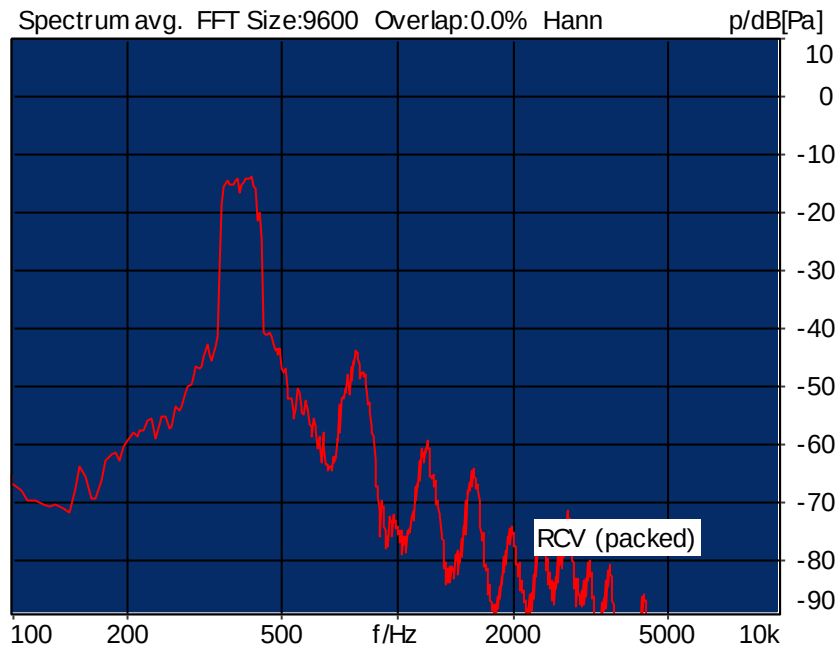
2025-02-08 上午 08:03 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 400 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 29.92 dB (3.19%) Ok

Ok

2025-02-08 上午 07:39 ACQUA 6.1.100

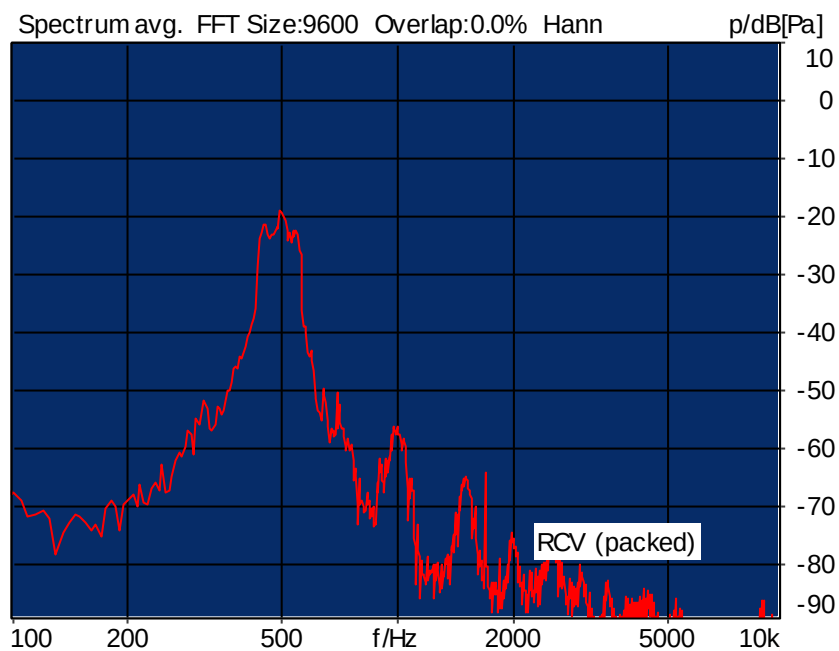
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 500 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 27.98 dB (3.99%) Ok

Ok

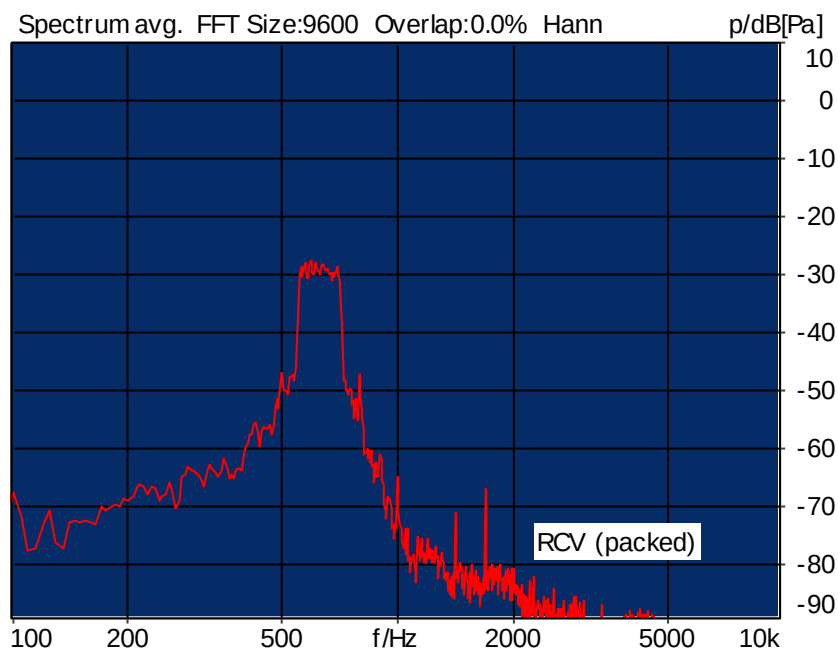
2025-02-08 上午 07:50 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 630 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 24.27 dB (6.12%) Ok

Ok

2025-02-08 上午 07:50 ACQUA 6.1.100

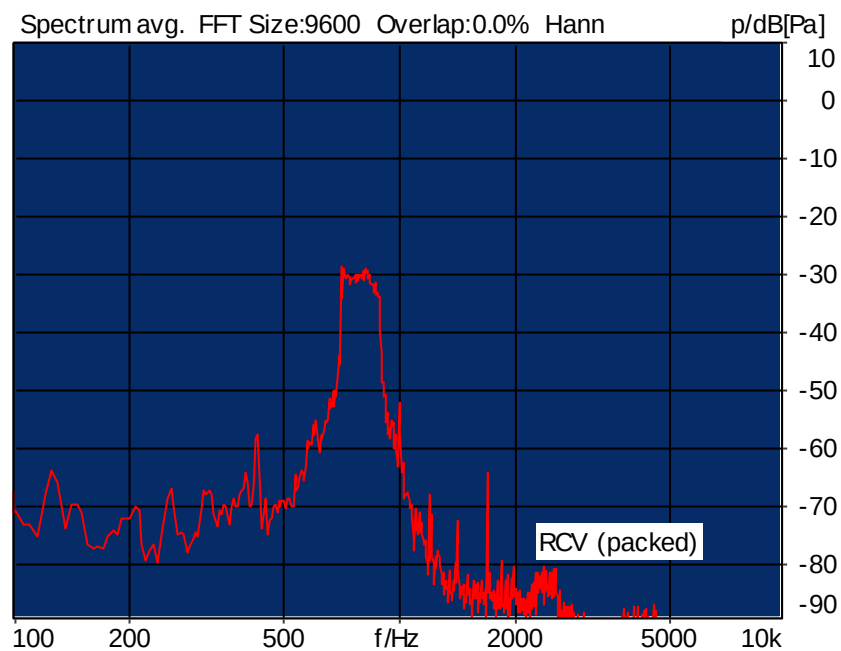
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 800 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 26.27 dB (4.86%) Ok

Ok

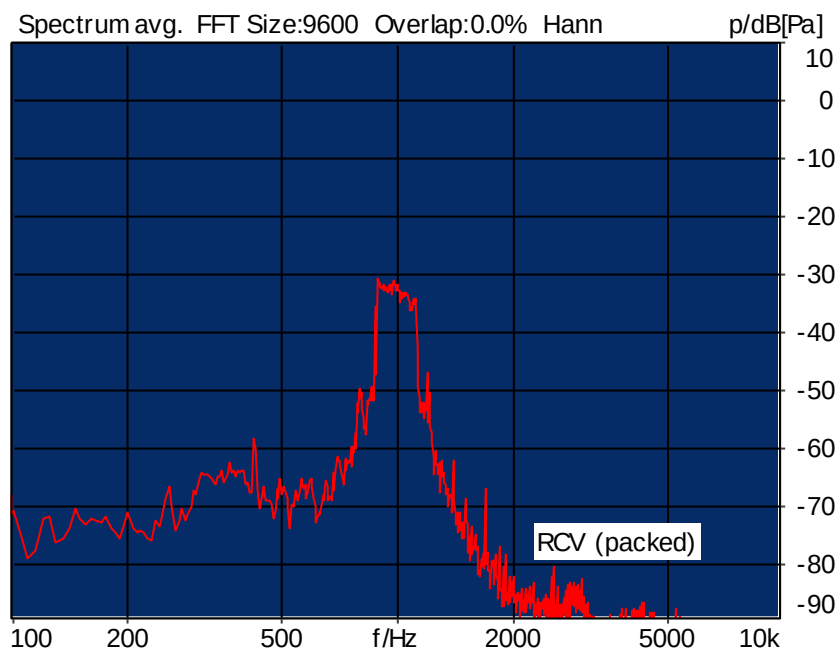
2025-02-08 上午 07:51 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1000 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 21.35 dB (8.56%) Ok

Ok

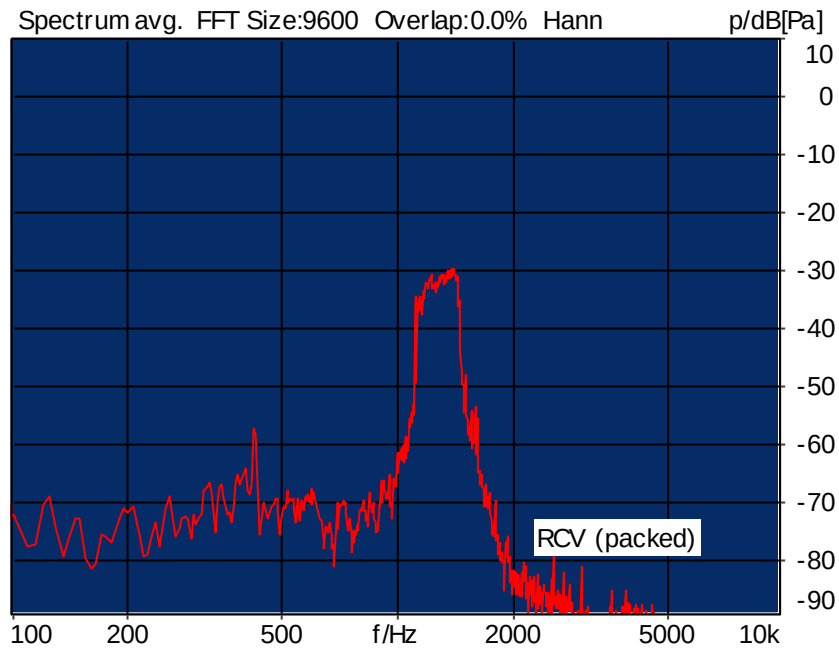
2025-02-08 上午 07:51 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1250 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 21.94 dB (8.00%) Ok

Ok

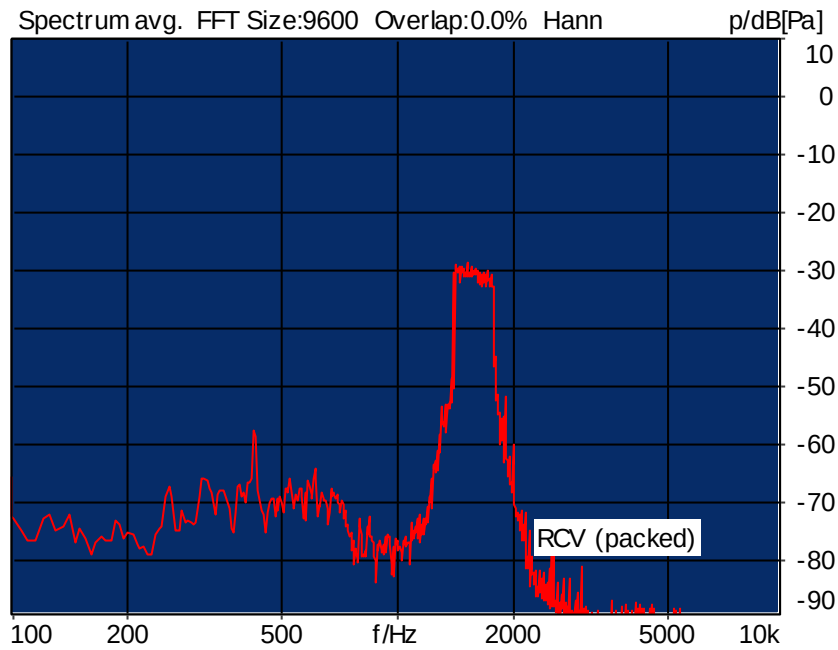
2025-02-08 上午 07:52 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1600 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 26.31 dB (4.84%) Ok

Ok

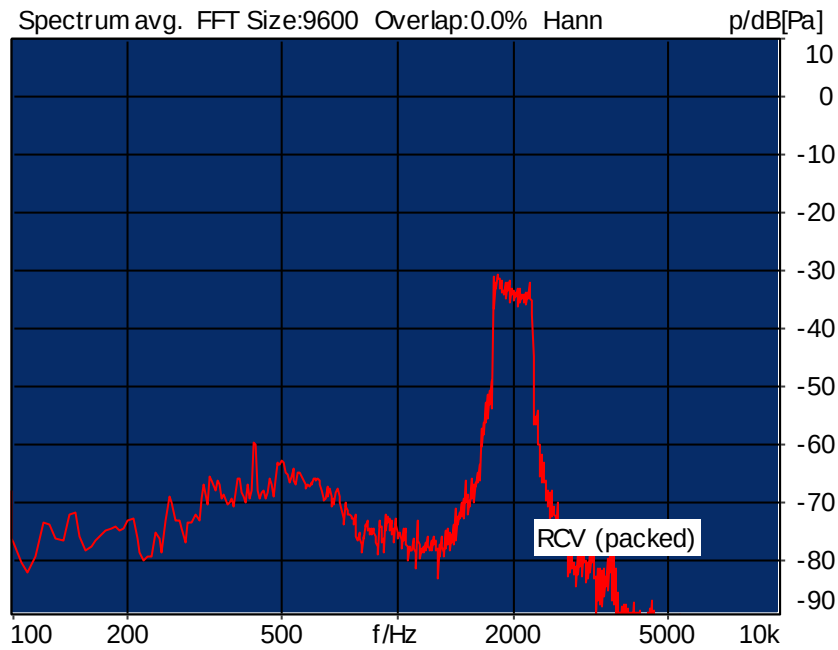
2025-02-08 上午 07:53 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2000 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 24.56 dB (5.92%) Ok

Ok

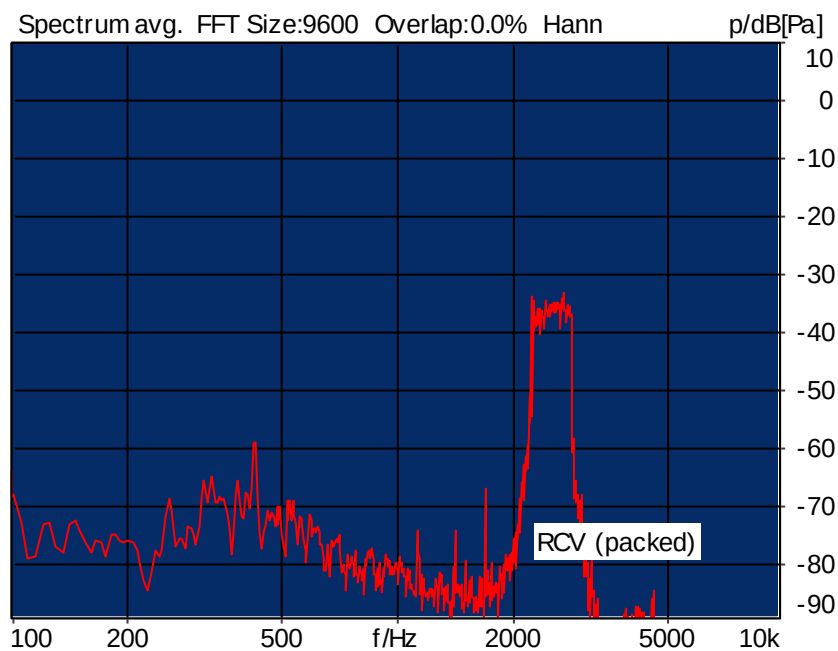
2025-02-08 上午 07:53 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2500 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 28.49 dB (3.76%) Ok

Ok

2025-02-08 上午 07:54 ACQUA 6.1.100

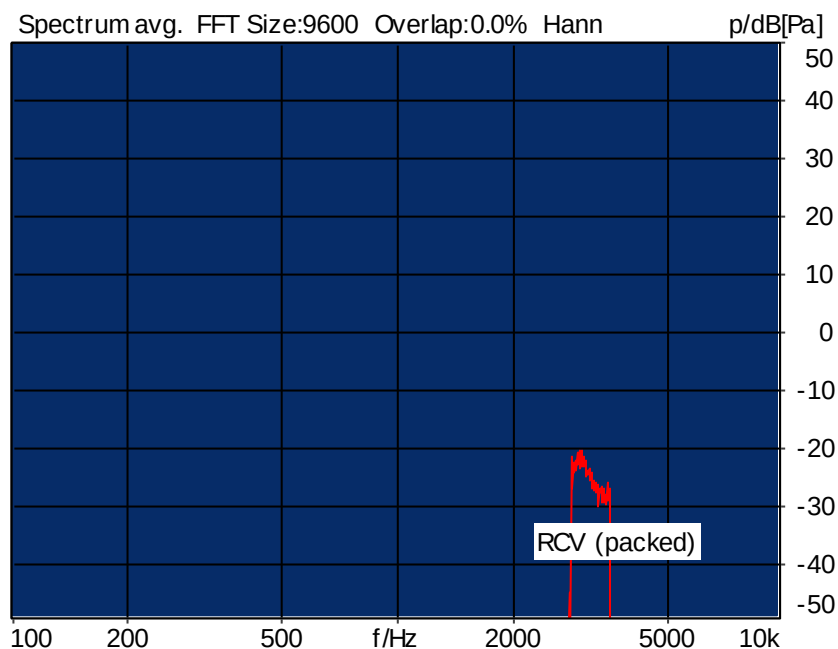
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 3150 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 44.44 dB (0.60%) Ok

Ok

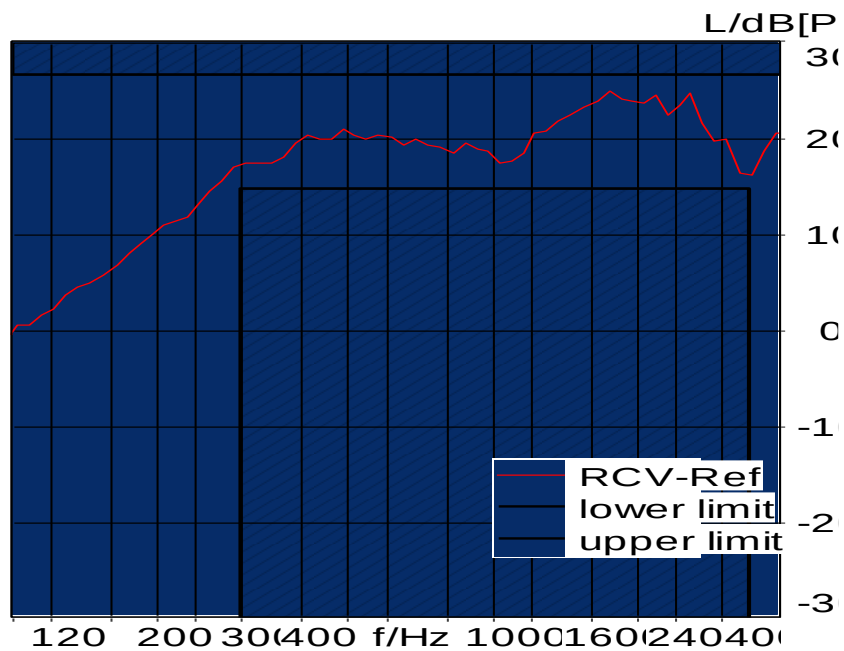
2025-02-08 上午 07:54 ACQUA 6.1.100

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

### 5.3 Frequency Response 8N DF HANB

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



Absolute minimal distance

1.80 dB at 1747.8 Hz Ok

Ok

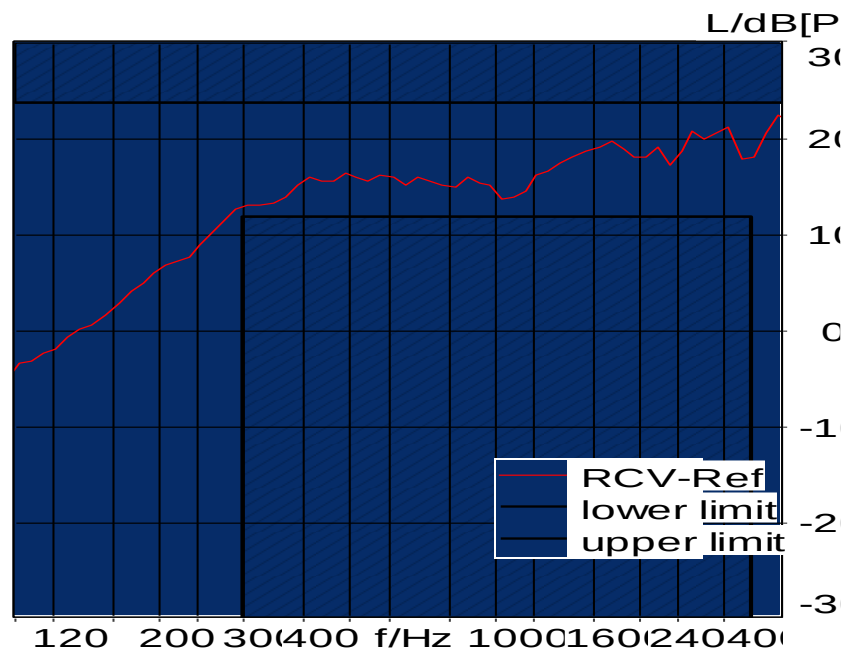
2025-02-08 上午 08:04 ACQUA 6.1.100

Limits

|                    |
|--------------------|
| lower              |
| Fit into tolerance |

## 5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance

1.32 dB at 3882.4 Hz Ok

Ok

2025-02-08 上午 07:57 ACQUA 6.1.100

Limits

|                    |
|--------------------|
| lower              |
| Fit into tolerance |

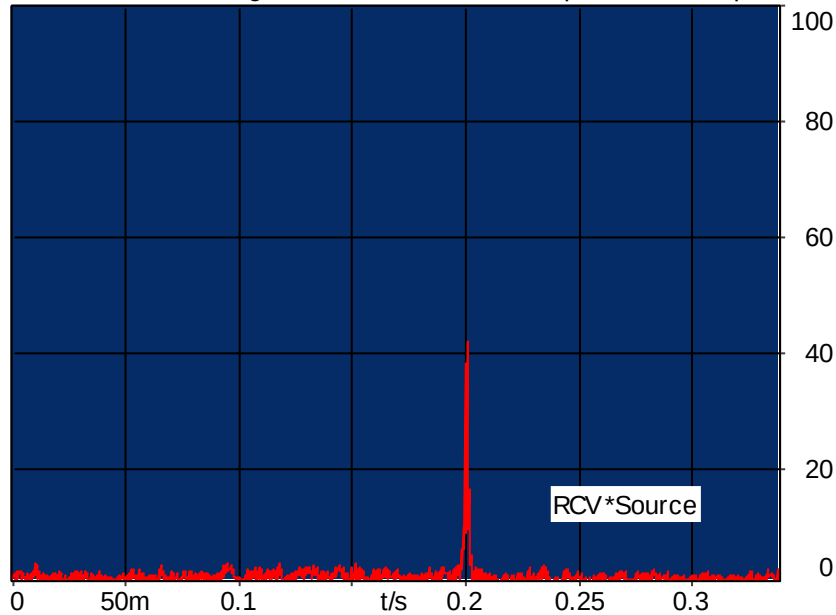
**#2 NR n66 EVS NB 24.4kbps**

| SMD                                                               | Status | Single Value Description                      | Single Value |
|-------------------------------------------------------------------|--------|-----------------------------------------------|--------------|
| Overall Receive Delay NB                                          | Done   | Delay (Cross) [ms]                            | 200.9        |
| 5.1a Receive Volume Control Performance 8N NB                     | Ok     | Speech Level [dB[SPL]]                        | 91.81        |
| 5.2 RCV Distortion and Noise - 400 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 29.70        |
| 5.2 RCV Distortion and Noise - 500 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 27.91        |
| 5.2 RCV Distortion and Noise - 630 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 24.65        |
| 5.2 RCV Distortion and Noise - 800 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 26.13        |
| 5.2 RCV Distortion and Noise - 1000 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 21.55        |
| 5.2 RCV Distortion and Noise - 1250 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 21.91        |
| 5.2 RCV Distortion and Noise - 1600 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 26.51        |
| 5.2 RCV Distortion and Noise - 2000 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 24.90        |
| 5.2 RCV Distortion and Noise - 2500 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 27.70        |
| 5.2 RCV Distortion and Noise - 3150 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 44.13        |
| Report - Receive Distortion and Noise (Conversational Gain) 8N NB | Ok     | Minimum SDNR [dB], (occured at 1000Hz)        | 21.55        |
| 5.3 Frequency Response 8N DF HANB                                 | Ok     | Min. dist. to tolerance scheme [dB], 324.6 Hz | 2.02         |
| 5.1b Receive Volume Control Performance 2N NB                     | Ok     | Speech Level [dB[SPL]]                        | 88.14        |
| 5.2 RCV Distortion and Noise - 400 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 30.27        |
| 5.2 RCV Distortion and Noise - 500 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 28.50        |
| 5.2 RCV Distortion and Noise - 630 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 23.35        |
| 5.2 RCV Distortion and Noise - 800 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB               | 24.79        |
| 5.2 RCV Distortion and Noise - 1000 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 20.91        |
| 5.2 RCV Distortion and Noise - 1250 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 21.57        |
| 5.2 RCV Distortion and Noise - 1600 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 25.82        |
| 5.2 RCV Distortion and Noise - 2000 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 24.01        |
| 5.2 RCV Distortion and Noise - 2500 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 26.01        |
| 5.2 RCV Distortion and Noise - 3150 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB               | 48.98        |
| Report - Receive Distortion and Noise (Conversational Gain) 2N NB | Ok     | Minimum SDNR [dB], (occured at 1000Hz)        | 20.91        |
| 5.3 Frequency Response 2N DF HANB                                 | Ok     | Min. dist. to tolerance scheme [dB], 305.9 Hz | 0.49         |

## Overall Receive Delay NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement

Cross correlation avg. FFT Size:131072 Overlap:0.0% Envelope I %

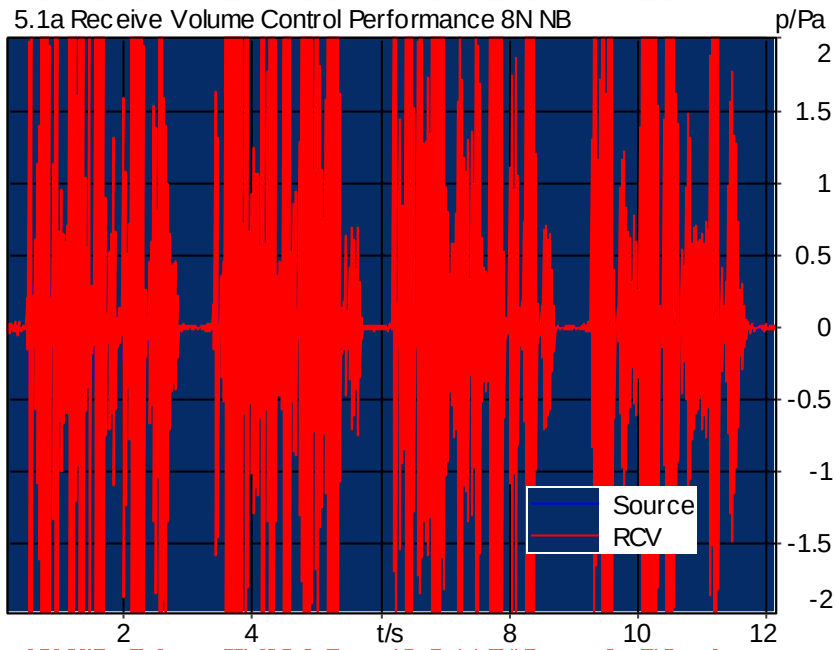


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 200.9 ms | 42.12 %     |

2025-02-17 下午 08:15 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 91.81 dB[SPL] | 66.19%   | Ok |

Ok

2025-02-17 下午 08:15 ACQUA 6.1.110

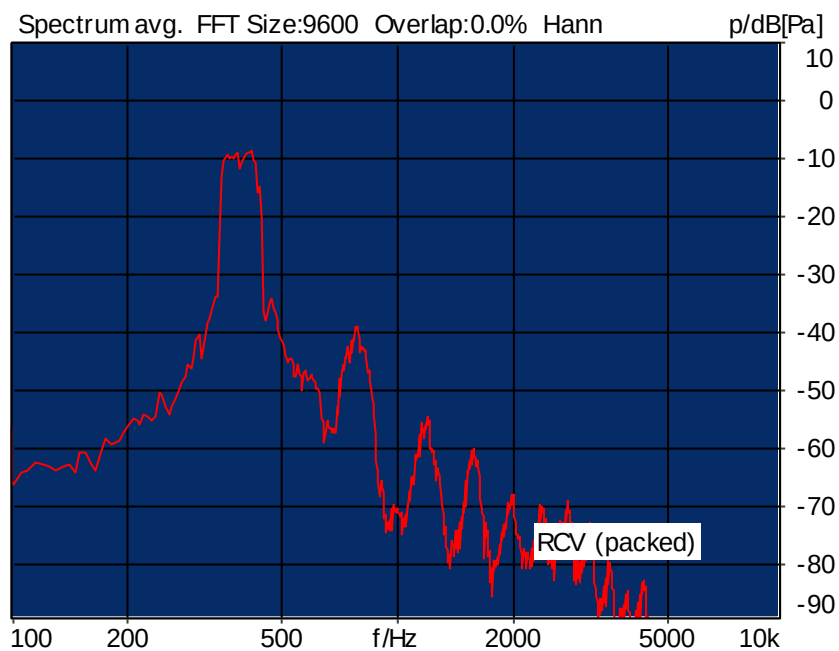
### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



## 5.2 RCV Distortion and Noise - 400 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 29.70 dB (3.27%) Ok

Ok

2025-02-17 下午 08:16 ACQUA 6.1.110

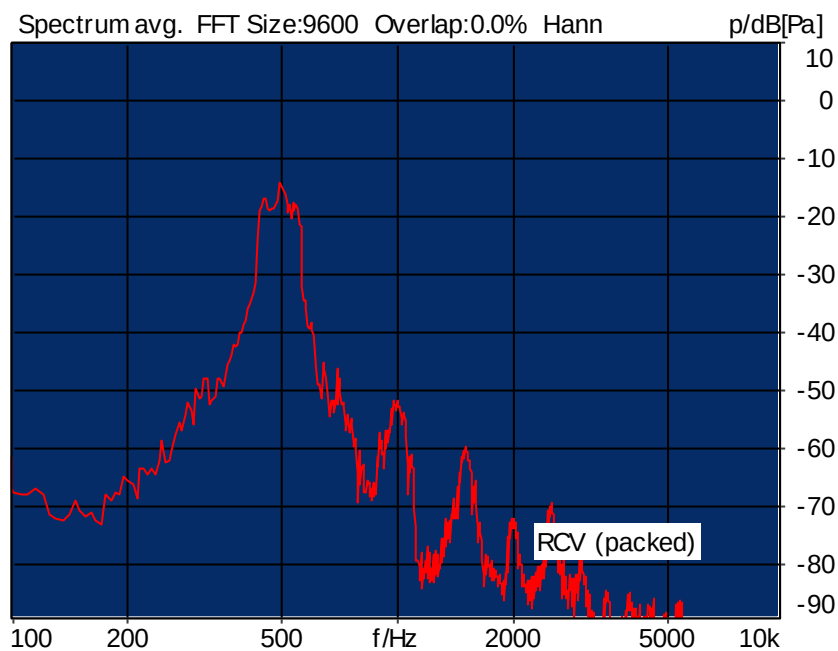
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 500 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 27.91 dB (4.02%) Ok

Ok

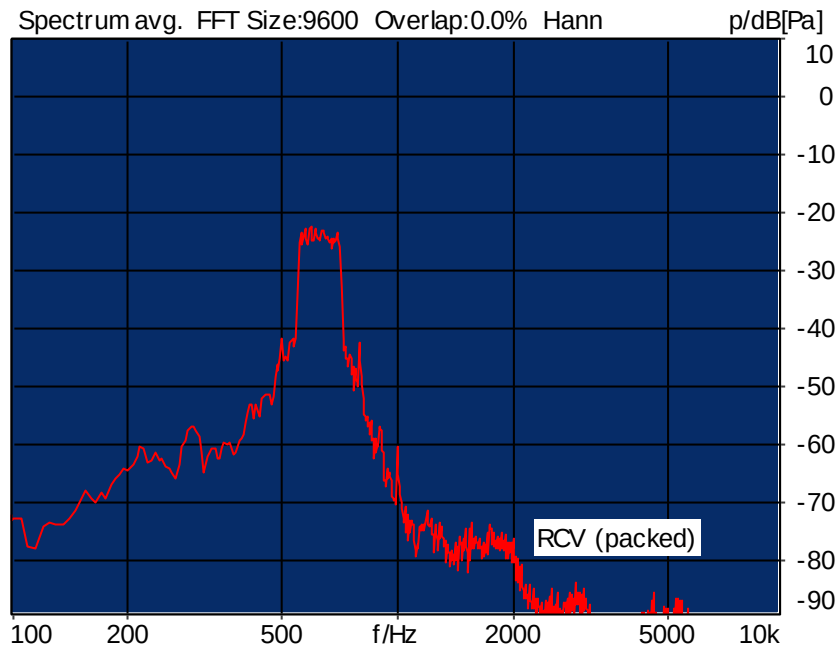
2025-02-17 下午 08:16 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 630 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 24.65 dB (5.85%) Ok

Ok

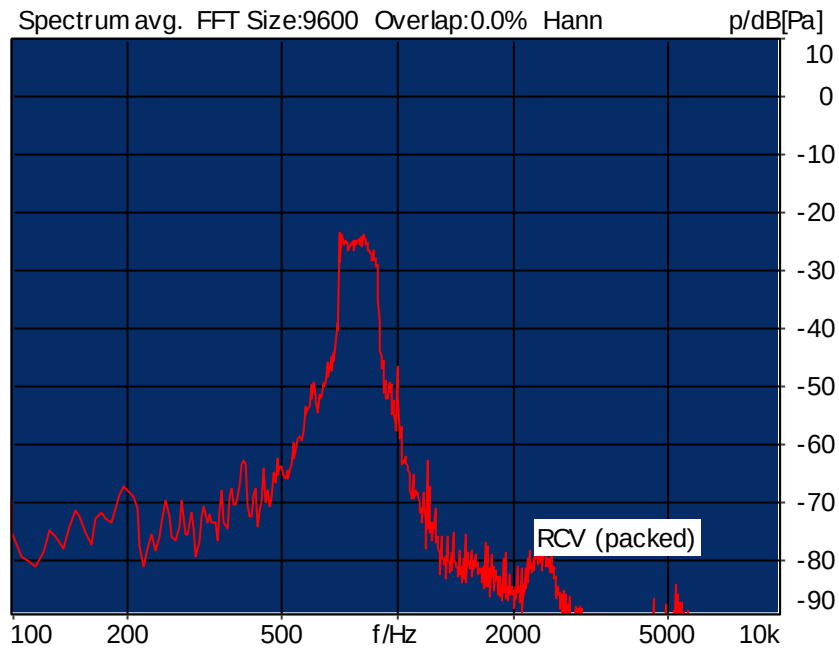
2025-02-17 下午 08:17 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 800 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 26.13 dB (4.94%) Ok

Ok

2025-02-17 下午 08:17 ACQUA 6.1.110

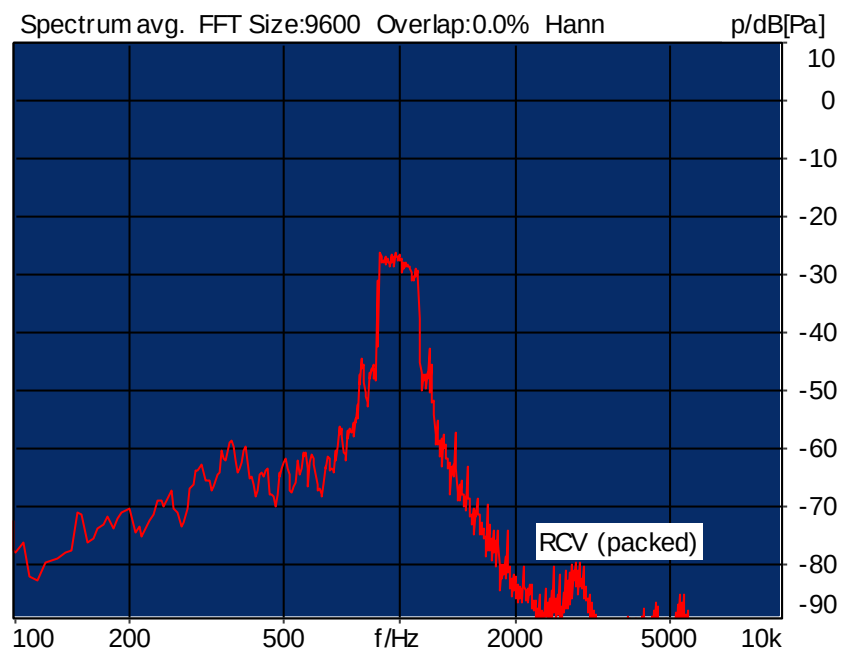
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 1000 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 21.55 dB (8.36%) Ok

Ok

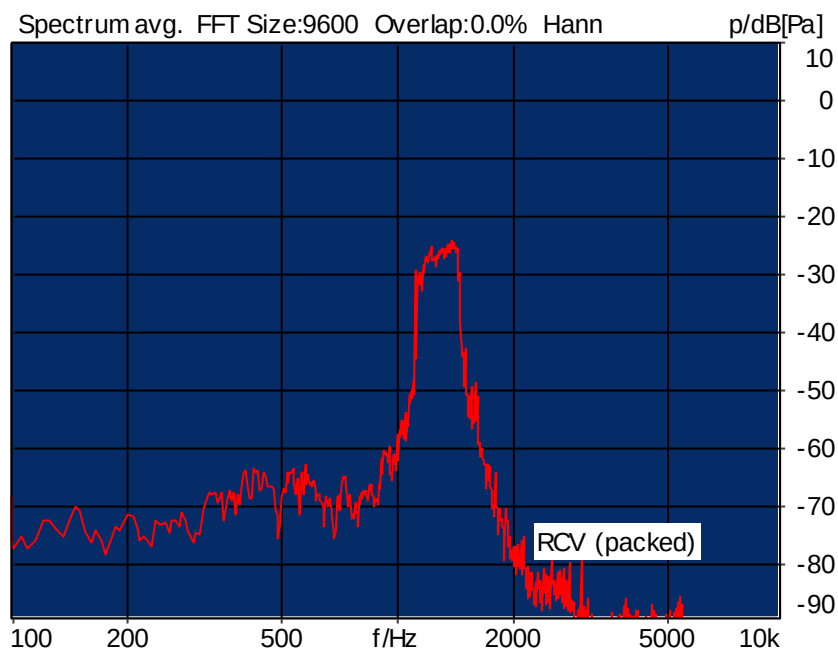
2025-02-17 下午 08:18 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1250 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 21.91 dB (8.03%) Ok

Ok

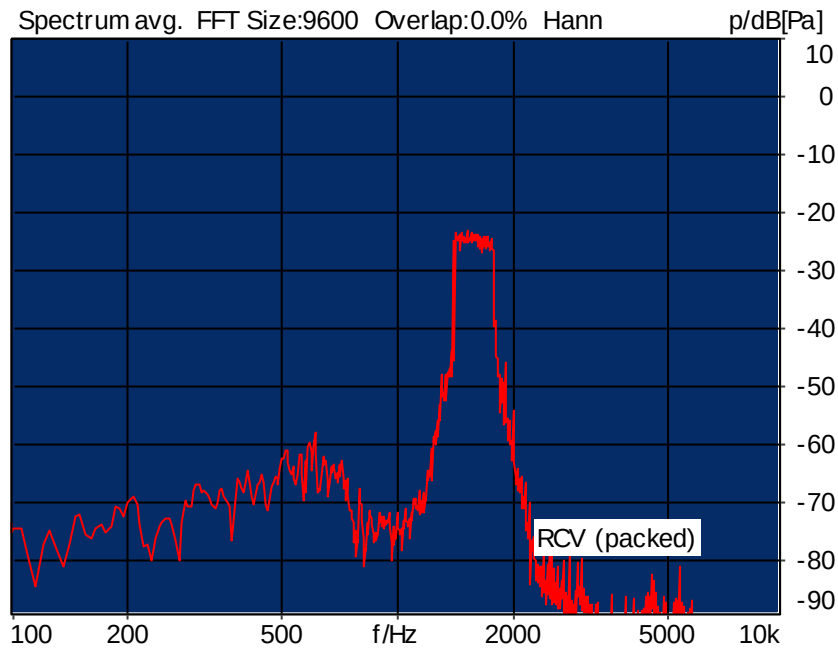
2025-02-17 下午 08:19 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1600 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 26.51 dB (4.73%) Ok

Ok

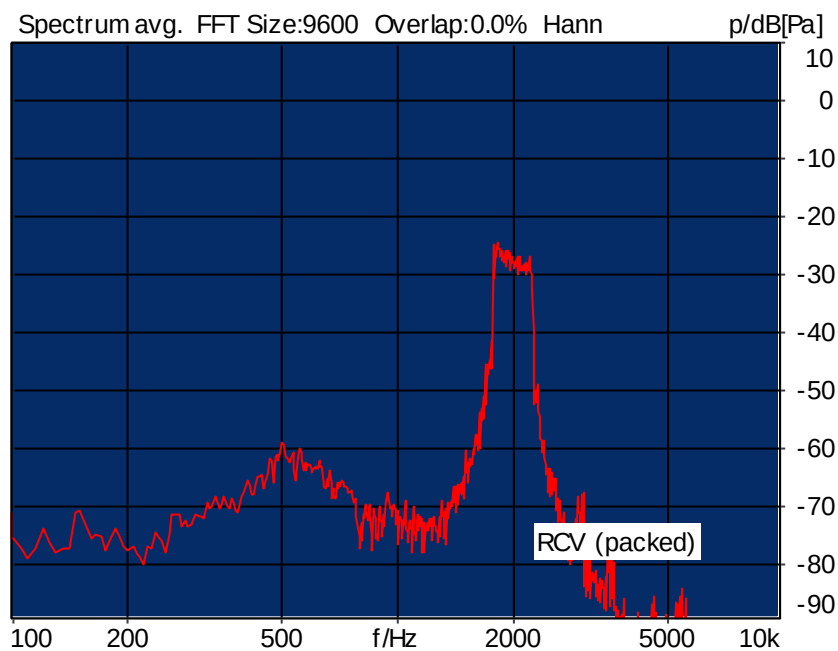
2025-02-17 下午 08:19 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2000 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 24.90 dB (5.69%) Ok

Ok

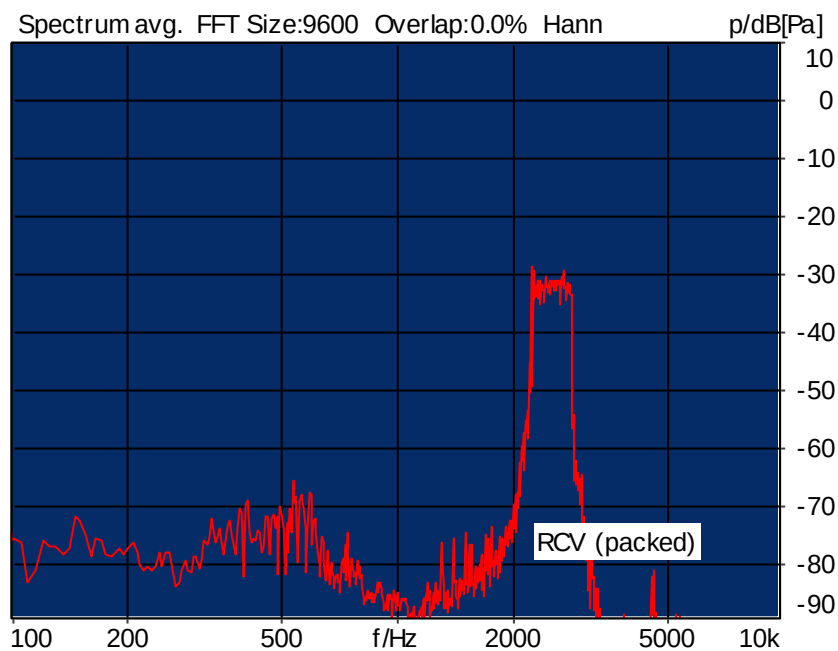
2025-02-17 下午 08:20 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2500 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 27.70 dB (4.12%) Ok

Ok

2025-02-17 下午 08:20 ACQUA 6.1.110

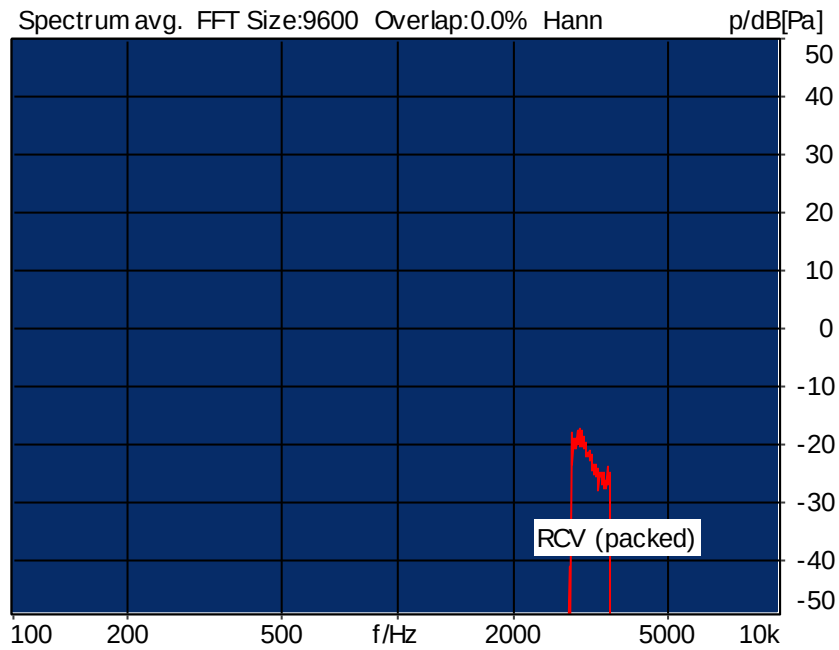
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 3150 Hz 8N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range



Distortion (Noise) RCV (packed): 44.13 dB (0.62%) Ok

Ok

2025-02-17 下午 08:21 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



**Report - Receive Distortion and Noise (Conversational Gain) 8N NB**

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 8N change frequency range

| Region | Frequency | SDNR     |
|--------|-----------|----------|
| 1      | 400Hz     | 29.70 dB |
| 2      | 500Hz     | 27.91 dB |
| 3      | 630Hz     | 24.65 dB |
| 4      | 800Hz     | 26.13 dB |
| 5      | 1000Hz    | 21.55 dB |
| 6      | 1250Hz    | 21.91 dB |
| 7      | 1600Hz    | 26.51 dB |
| 8      | 2000Hz    | 24.90 dB |
| 9      | 2500Hz    | 27.70 dB |
| 10     | 3150Hz    | 44.13 dB |

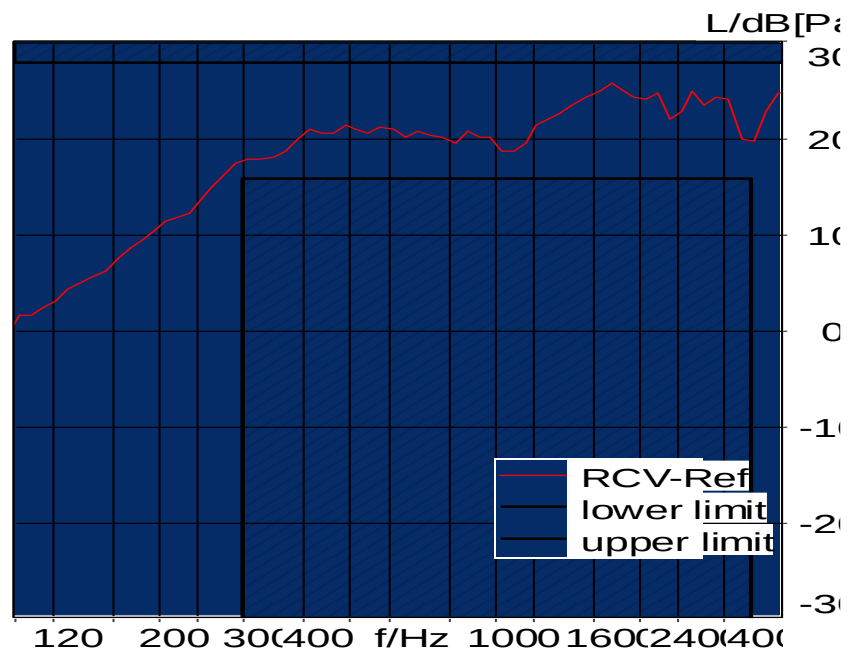
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.55dB at 1000Hz.

2025-02-17 下午 08:21 ACQUA

## 5.3 Frequency Response 8N DF HANB

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



Absolute minimal distance

2.02 dB at 324.6 Hz Ok

Ok

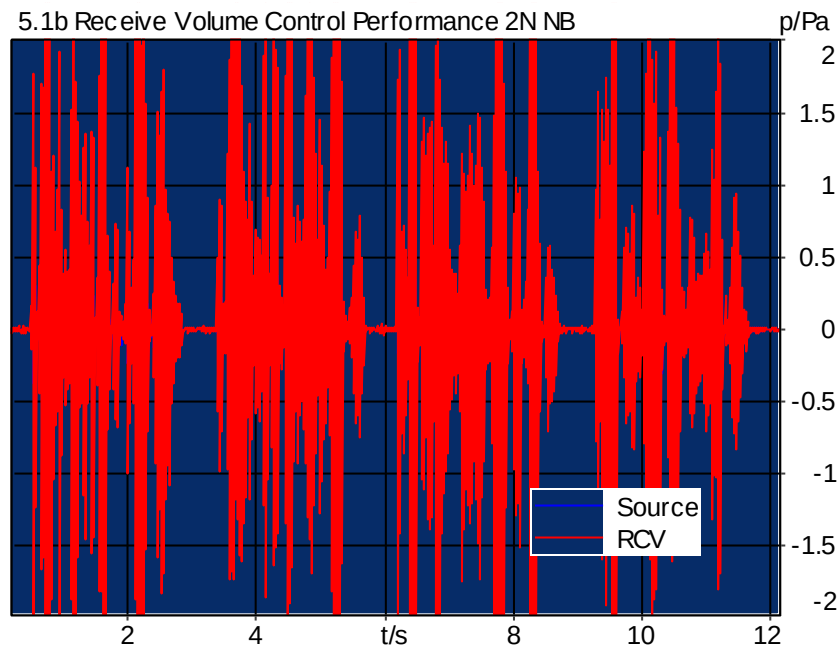
2025-02-17 下午 08:21 ACQUA 6.1.110

Limits

|                    |
|--------------------|
| lower              |
| Fit into tolerance |

## 5.1b Receive Volume Control Performance 2N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 88.14 dB[SPL] | 55.33%   | Ok |

Ok

2025-02-17 下午 08:22 ACQUA 6.1.110

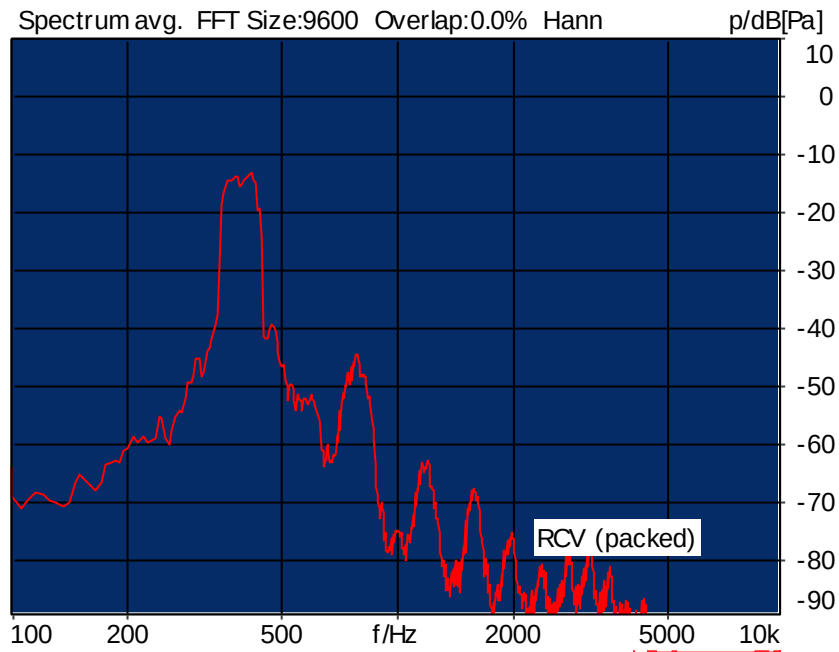
### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



## 5.2 RCV Distortion and Noise - 400 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 30.27 dB (3.07%) Ok

Ok

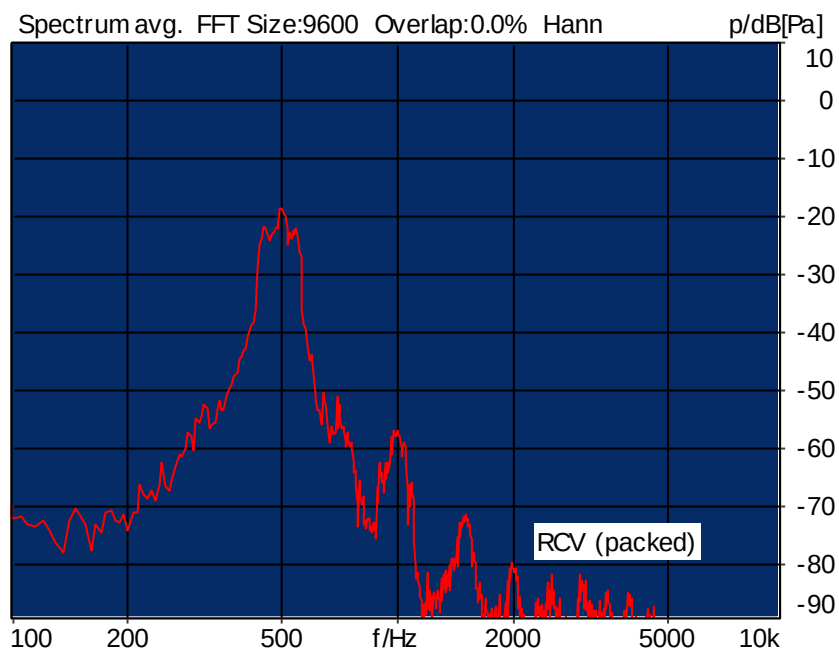
2025-02-17 下午 08:23 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 500 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 28.50 dB (3.76%) Ok

Ok

2025-02-17 下午 08:24 ACQUA 6.1.110

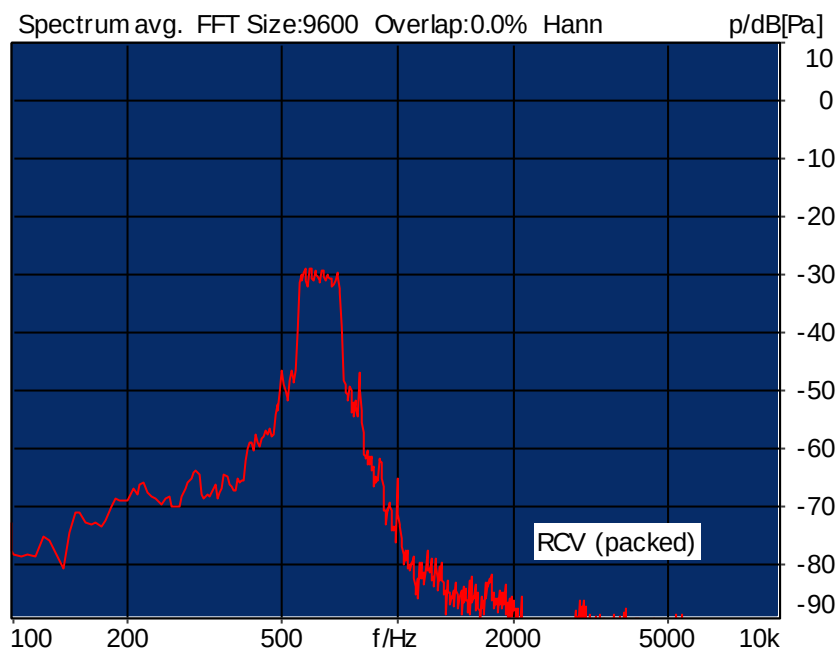
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 630 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 23.35 dB (6.80%) Ok

Ok

2025-02-17 下午 08:24 ACQUA 6.1.110

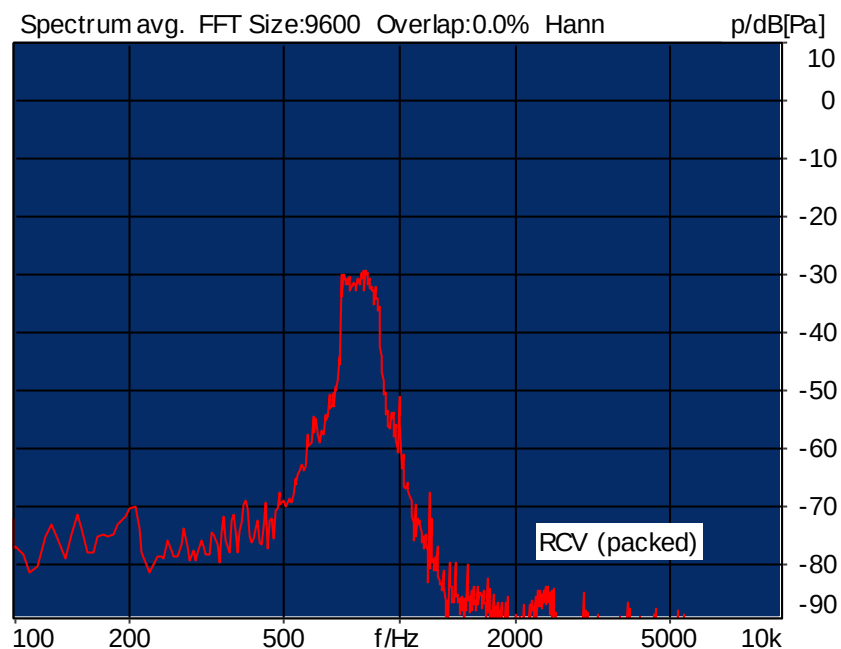
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 800 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 24.79 dB (5.76%) Ok

Ok

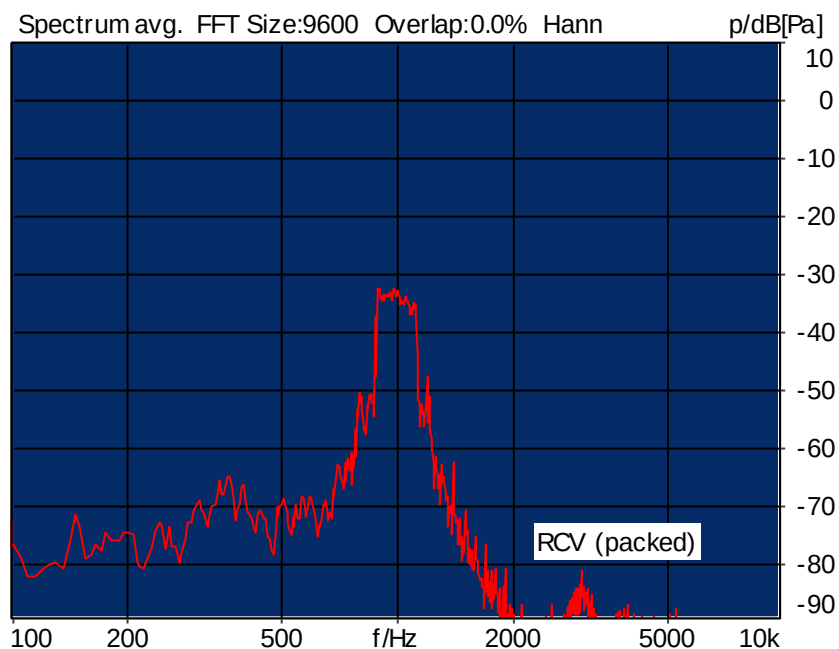
2025-02-17 下午 08:25 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1000 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 20.91 dB (9.00%) Ok

Ok

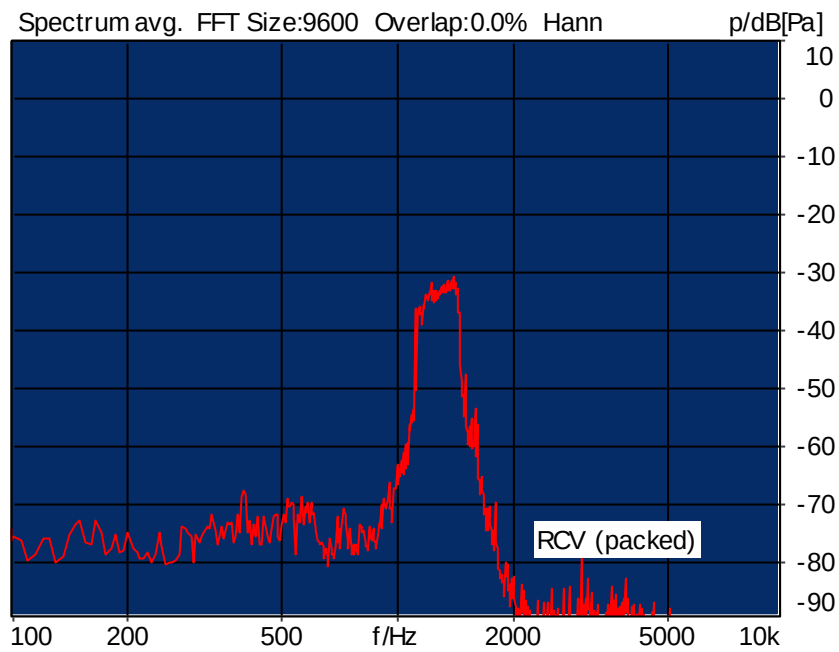
2025-02-17 下午 08:25 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1250 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 21.57 dB (8.35%) Ok

Ok

2025-02-17 下午 08:26 ACQUA 6.1.110

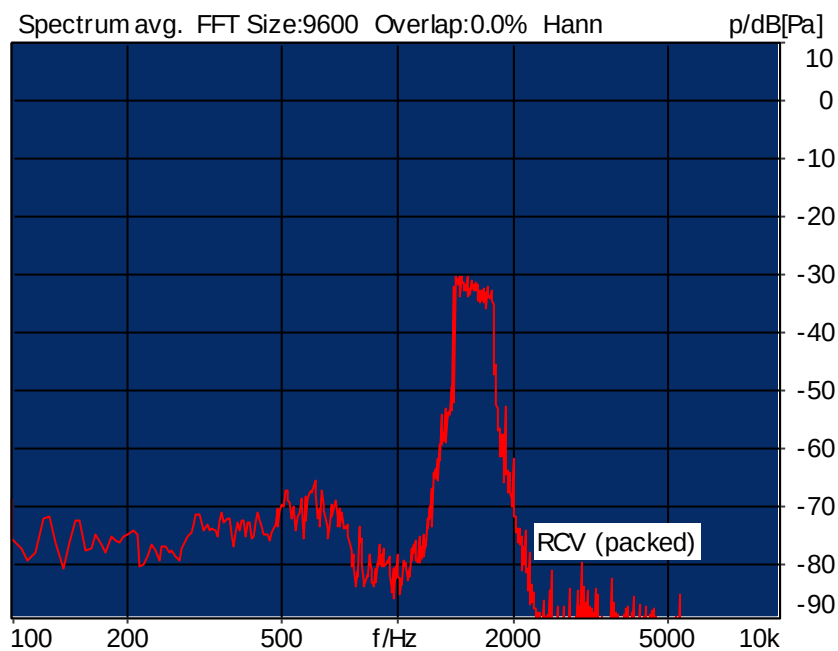
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 1600 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 25.82 dB (5.12%) Ok

Ok

2025-02-17 下午 08:26 ACQUA 6.1.110

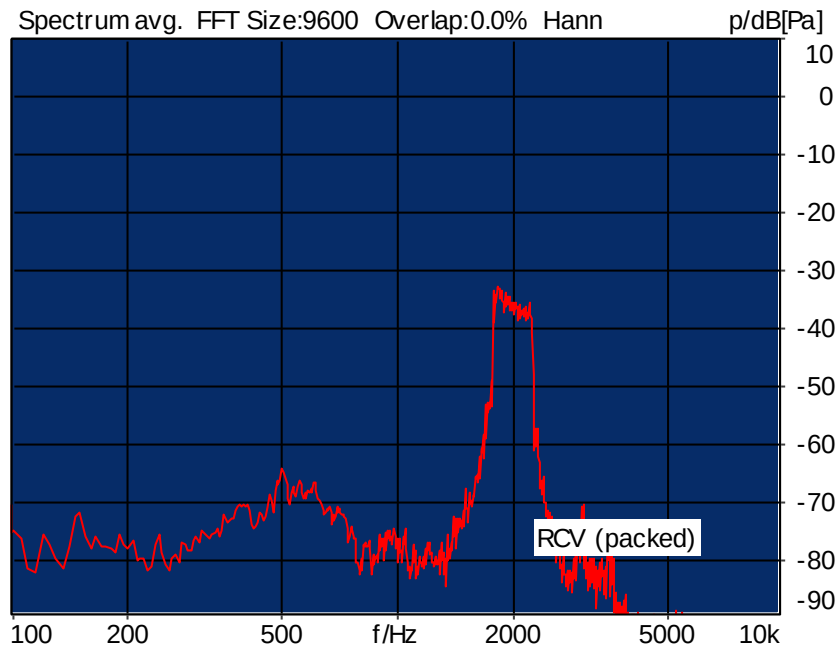
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 2000 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



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

Ok

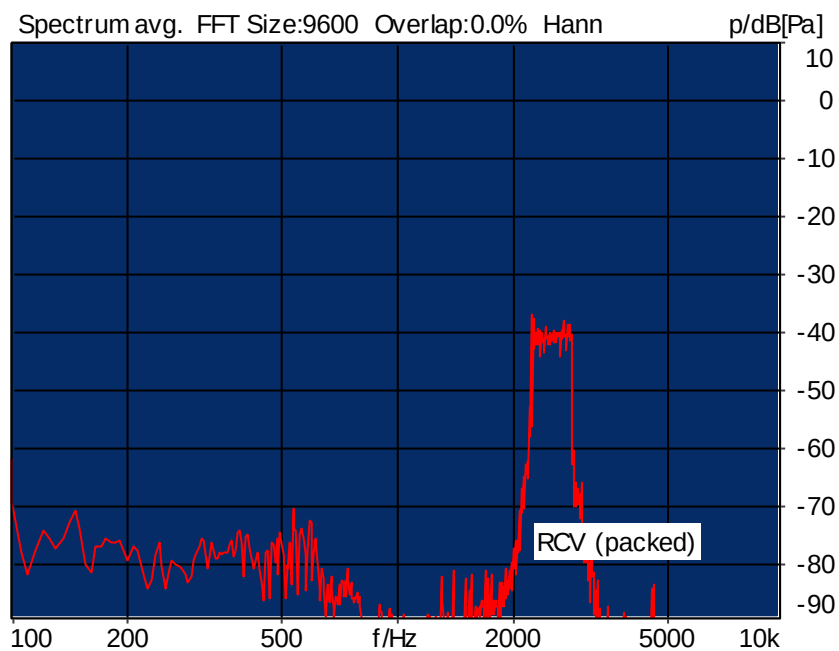
2025-02-17 下午 08:27 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2500 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 26.01 dB (5.01%) Ok

Ok

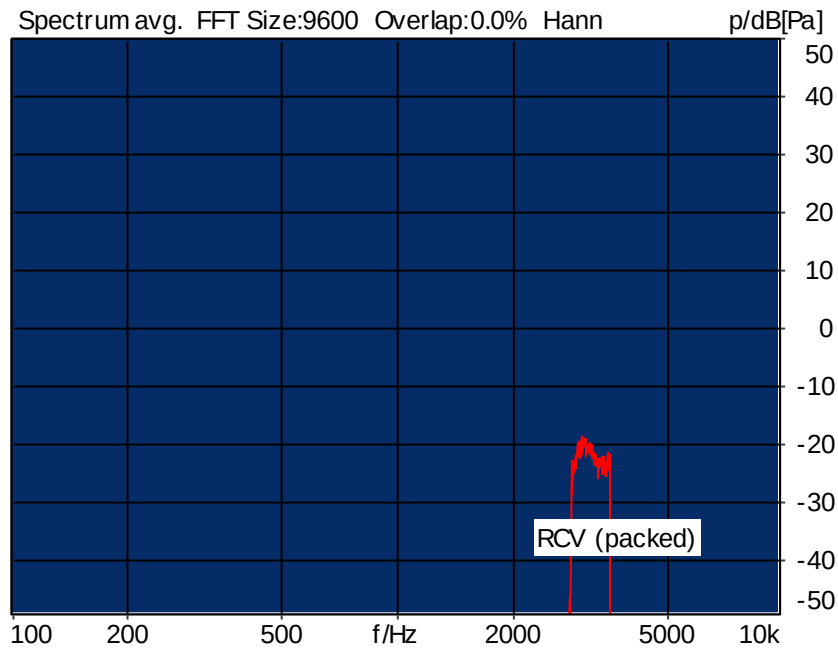
2025-02-17 下午 08:28 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 3150 Hz 2N NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range



Distortion (Noise) RCV (packed): 48.98 dB (0.36%) Ok

Ok

2025-02-17 下午 08:28 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



**Report - Receive Distortion and Noise (Conversational Gain) 2N NB**

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N change frequency range

| Region | Frequency | SDNR     |
|--------|-----------|----------|
| 1      | 400Hz     | 30.27 dB |
| 2      | 500Hz     | 28.50 dB |
| 3      | 630Hz     | 23.35 dB |
| 4      | 800Hz     | 24.79 dB |
| 5      | 1000Hz    | 20.91 dB |
| 6      | 1250Hz    | 21.57 dB |
| 7      | 1600Hz    | 25.82 dB |
| 8      | 2000Hz    | 24.01 dB |
| 9      | 2500Hz    | 26.01 dB |
| 10     | 3150Hz    | 48.98 dB |

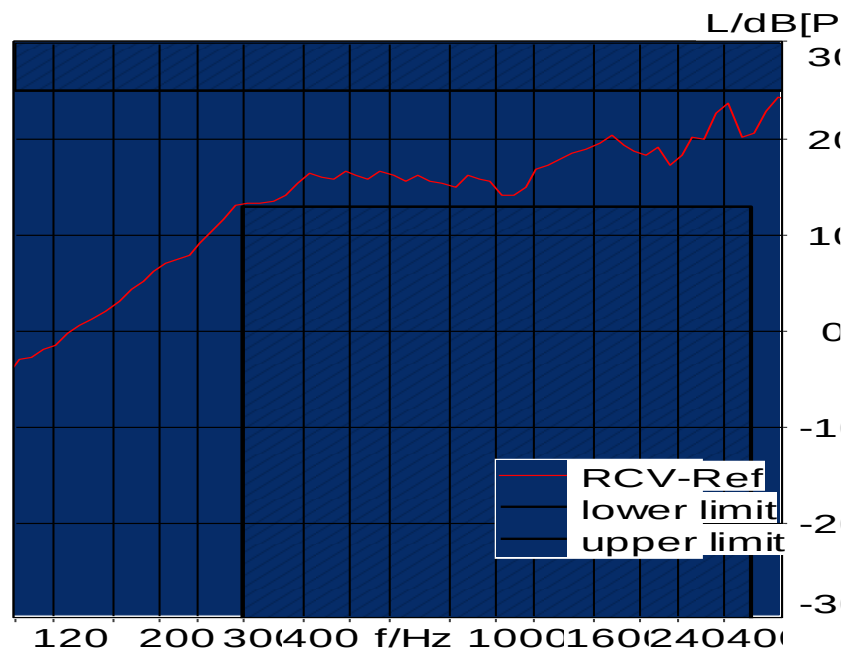
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.91dB at 1000Hz.

2025-02-17 下午 08:28 ACQUA

### 5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance

0.49 dB at 305.9 Hz Ok

Ok

2025-02-17 下午 09:25 ACQUA 6.1.110

Limits

|                    |
|--------------------|
| lower              |
| Fit into tolerance |

**#3 WiFi 6GHz EVS WB 24.4kbps**

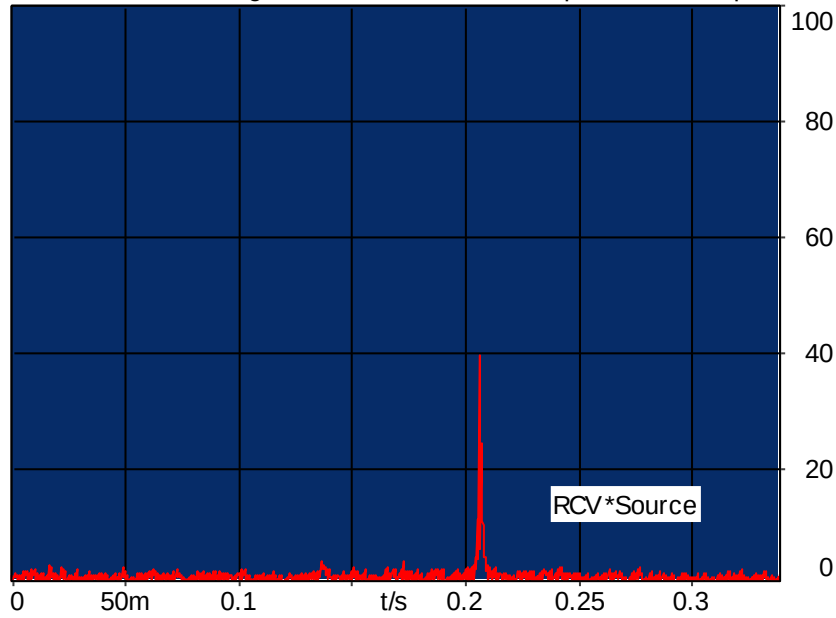
| SMD                                                               | Status | Single Value Description                       | Single Value |
|-------------------------------------------------------------------|--------|------------------------------------------------|--------------|
| Overall Receive Delay WB                                          | Done   | Delay (Cross) [ms]                             | 207.1        |
| 5.1a Receive Volume Control Performance 8N WB                     | Ok     | Speech Level [dB[SPL]]                         | 89.65        |
| 5.1b Receive Volume Control Performance 2N WB                     | Ok     | Speech Level [dB[SPL]]                         | 88.23        |
| 5.2 RCV Distortion and Noise - 250 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.16        |
| 5.2 RCV Distortion and Noise - 315 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 31.36        |
| 5.2 RCV Distortion and Noise - 400 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 31.95        |
| 5.2 RCV Distortion and Noise - 500 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 32.04        |
| 5.2 RCV Distortion and Noise - 630 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 33.93        |
| 5.2 RCV Distortion and Noise - 800 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.96        |
| 5.2 RCV Distortion and Noise - 1000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.32        |
| 5.2 RCV Distortion and Noise - 1250 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.98        |
| 5.2 RCV Distortion and Noise - 1600 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.36        |
| 5.2 RCV Distortion and Noise - 2000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.76        |
| 5.2 RCV Distortion and Noise - 2500 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 29.80        |
| 5.2 RCV Distortion and Noise - 3150 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 30.47        |
| 5.2 RCV Distortion and Noise - 4000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 27.05        |
| 5.2 RCV Distortion and Noise - 5000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.90        |
| Report - Receive Distortion and Noise (Conversational Gain) 8N WB | Ok     | Minimum SDNR [dB], (occured at 1250Hz)         | 21.98        |
| 5.2 RCV Distortion and Noise - 250 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.67        |
| 5.2 RCV Distortion and Noise - 315 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.55        |
| 5.2 RCV Distortion and Noise - 400 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 29.93        |
| 5.2 RCV Distortion and Noise - 500 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 31.91        |
| 5.2 RCV Distortion and Noise - 630 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.86        |
| 5.2 RCV Distortion and Noise - 800 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.22        |
| 5.2 RCV Distortion and Noise - 1000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 31.67        |
| 5.2 RCV Distortion and Noise - 1250 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.71        |
| 5.2 RCV Distortion and Noise - 1600 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.18        |
| 5.2 RCV Distortion and Noise - 2000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.90        |
| 5.2 RCV Distortion and Noise - 2500 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 20.58        |
| 5.2 RCV Distortion and Noise - 3150 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.52        |
| 5.2 RCV Distortion and Noise - 4000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 25.28        |
| 5.2 RCV Distortion and Noise - 5000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 29.73        |
| Report - Receive Distortion and Noise (Conversational Gain) 2N WB | Ok     | Minimum SDNR [dB], (occured at 2500Hz)         | 20.58        |
| 5.3 Frequency Response 8N DF                                      | Ok     | Min. dist. to tolerance scheme [dB], 1747.8 Hz | 1.84         |
| 5.3 Frequency Response 2N DF                                      | Ok     | Min. dist. to tolerance scheme [dB], 3058.6 Hz | 2.92         |



## Overall Receive Delay WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ Preparation - Delay measurement

Cross correlation avg. FFT Size:131072 Overlap:0.0% Envelope I %

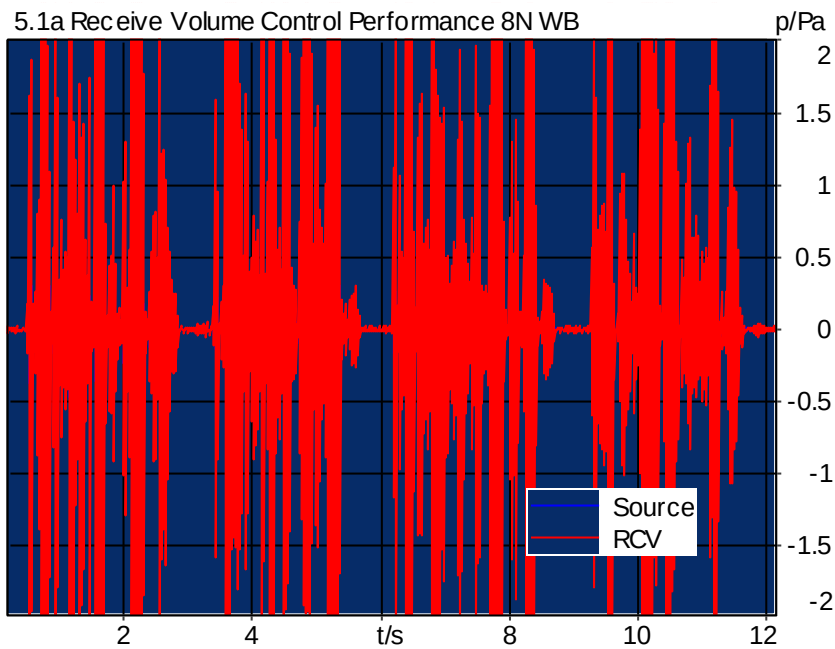


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 207.1 ms | 39.73 %     |

2025-02-18 上午 09:07 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.65 dB[SPL] | 59.47%   | Ok |

Ok

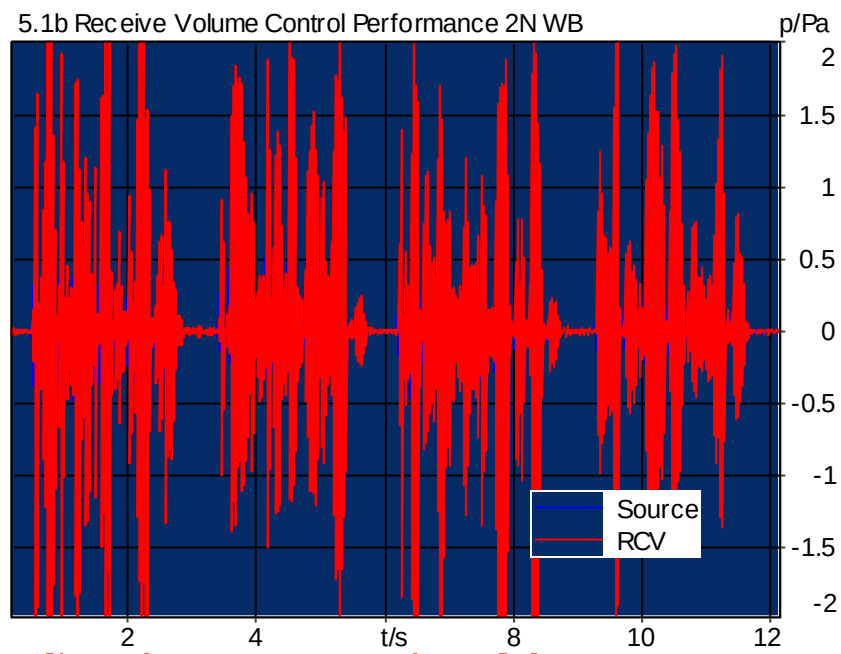
2025-02-18 上午 09:08 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 88.23 dB[SPL] | 30.05%   | Ok |

Ok

2025-02-18 上午 09:21 ACQUA 6.1.110

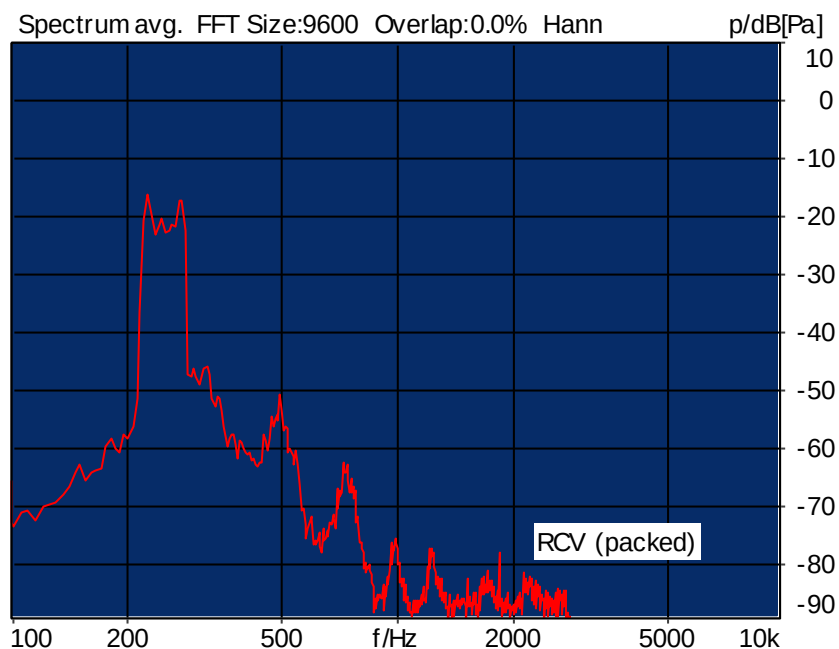
### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



## 5.2 RCV Distortion and Noise - 250 Hz 8N WB

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



Distortion (Noise) RCV (packed): 34.16 dB (1.96%) Ok

Ok

2025-02-18 上午 09:08 ACQUA 6.1.110

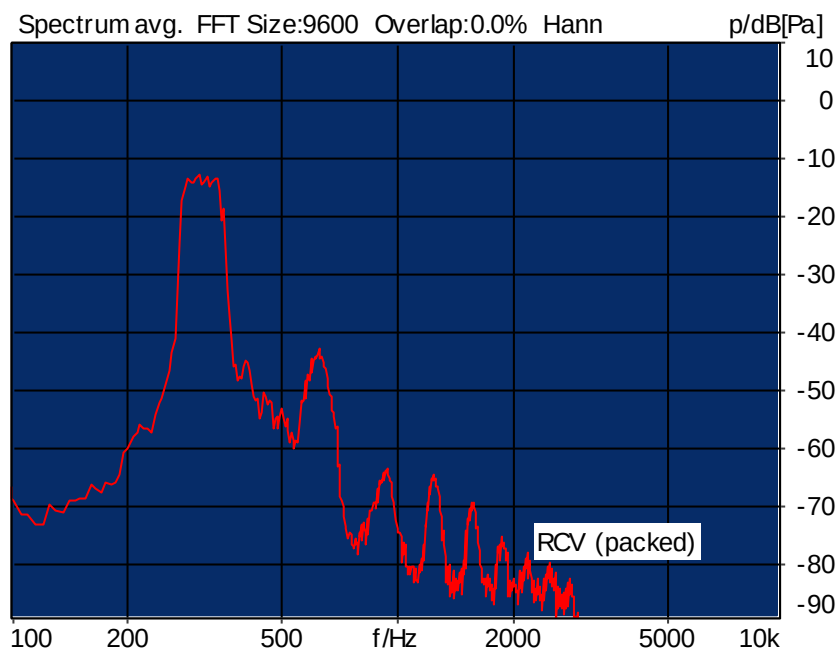
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 315 Hz 8N WB

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



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

Ok

2025-02-18 上午 09:09 ACQUA 6.1.110

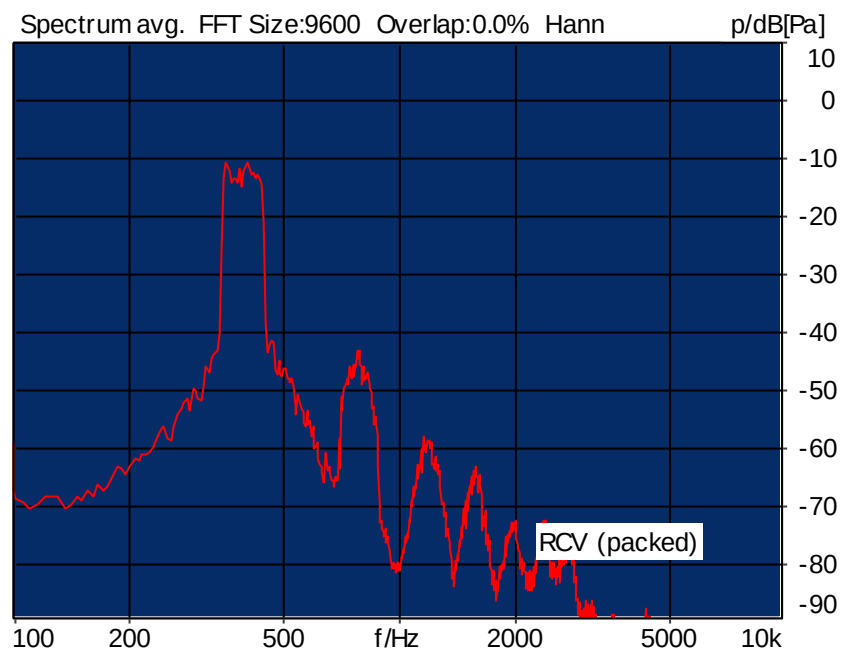
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 400 Hz 8N WB

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



Distortion (Noise) RCV (packed): 31.95 dB (2.53%) Ok

Ok

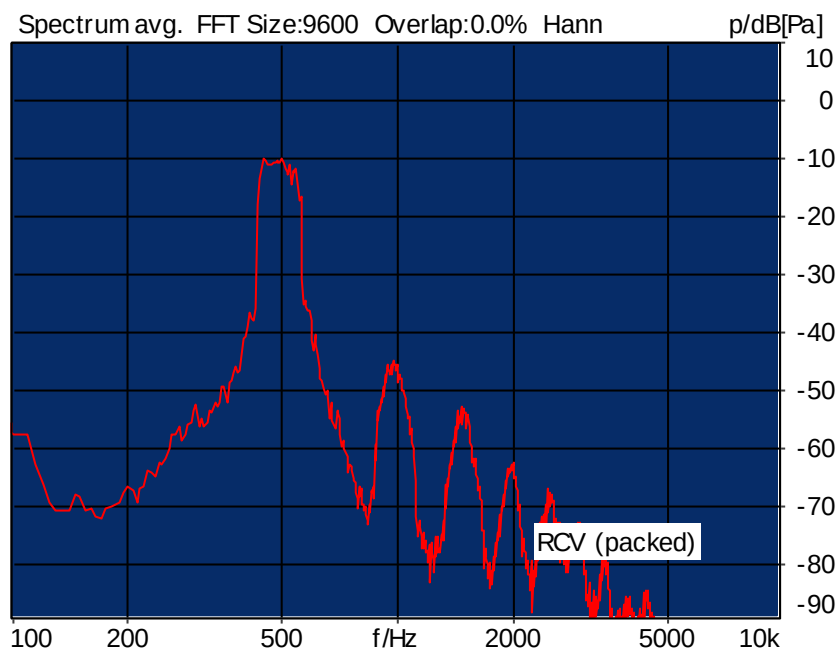
2025-02-18 上午 09:14 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 500 Hz 8N WB

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



Distortion (Noise) RCV (packed): 32.04 dB (2.50%) Ok

Ok

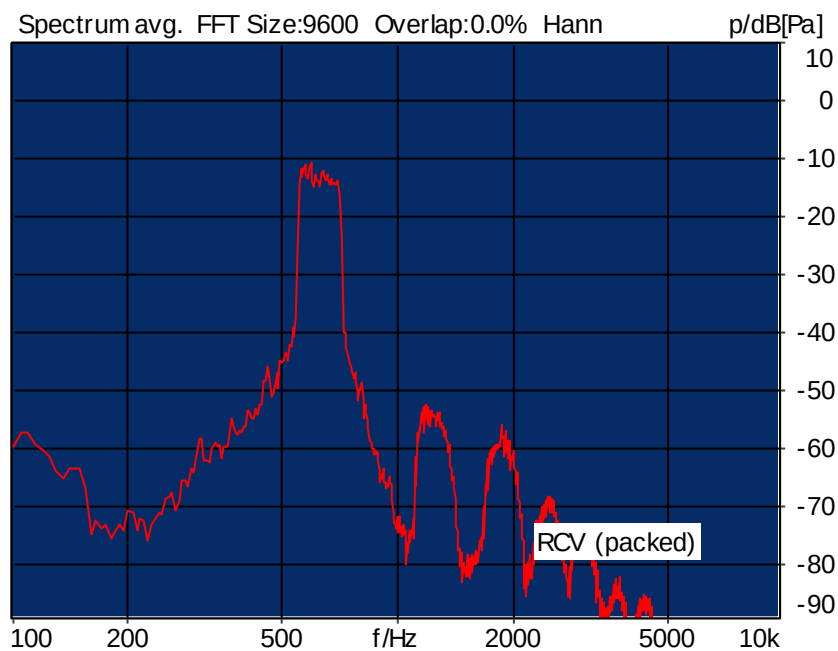
2025-02-18 上午 09:14 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 630 Hz 8N WB

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



Distortion (Noise) RCV (packed): 33.93 dB (2.01%) Ok

Ok

2025-02-18 上午 09:15 ACQUA 6.1.110

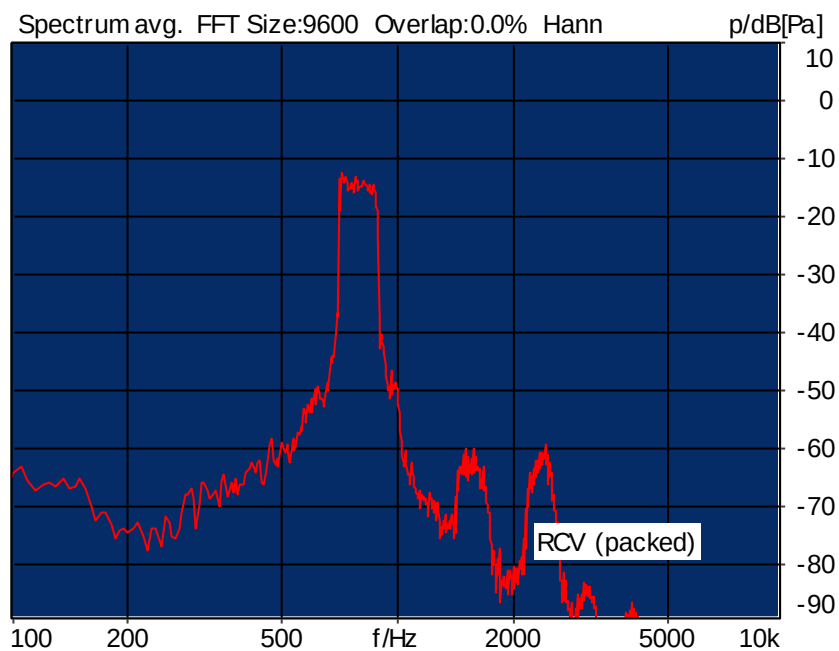
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 800 Hz 8N WB

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



Distortion (Noise) RCV (packed): 34.96 dB (1.79%) Ok

Ok

2025-02-18 上午 09:15 ACQUA 6.1.110

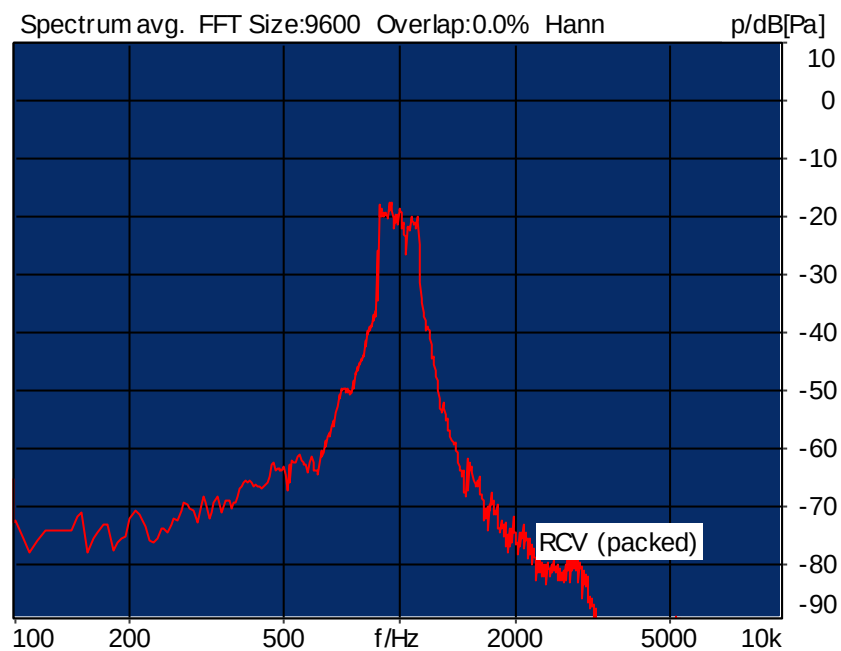
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 1000 Hz 8N WB

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



Distortion (Noise) RCV (packed): 22.32 dB (7.66%) Ok

Ok

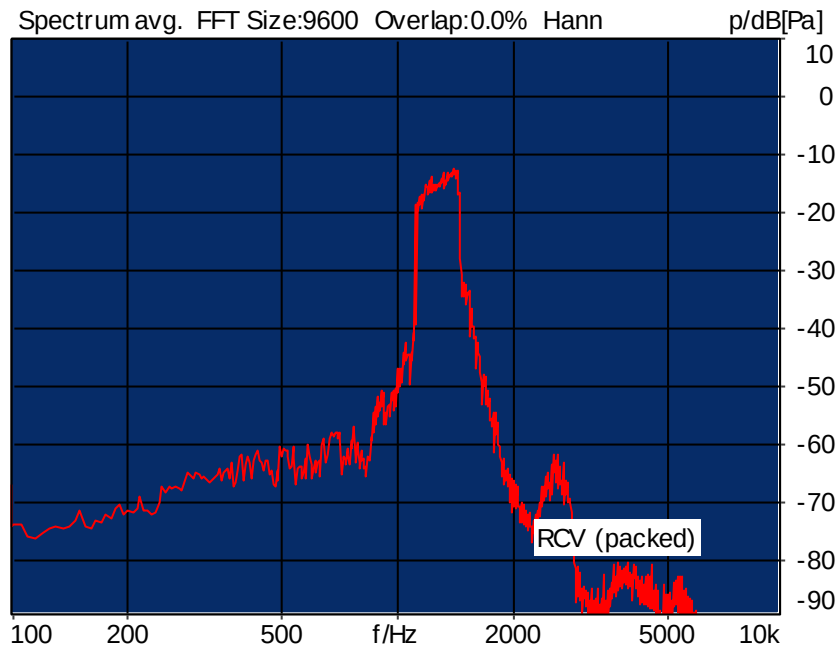
2025-02-18 上午 09:16 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1250 Hz 8N WB

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



Distortion (Noise) RCV (packed): 21.98 dB (7.96%) Ok

Ok

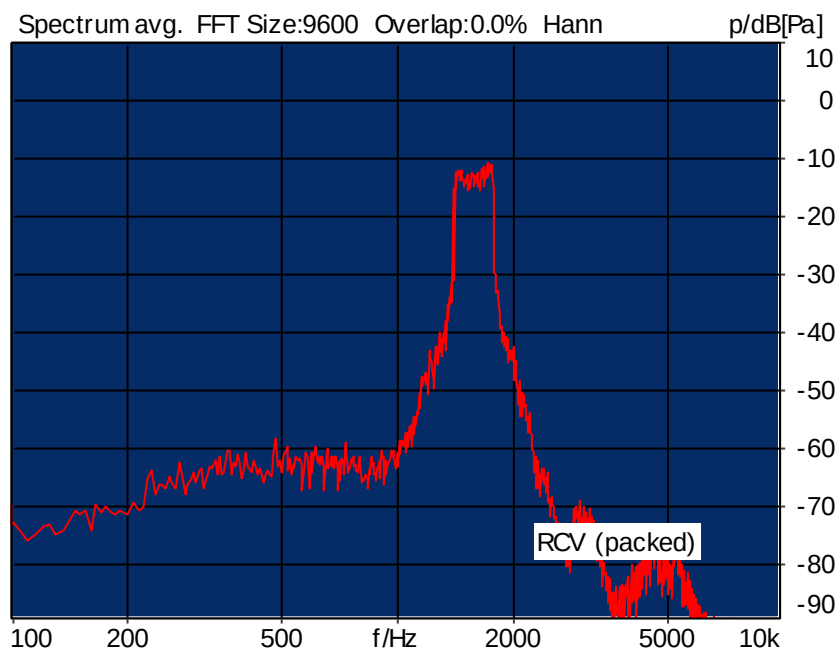
2025-02-18 上午 09:17 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1600 Hz 8N WB

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



Distortion (Noise) RCV (packed): 26.36 dB (4.81%) Ok

Ok

2025-02-18 上午 09:17 ACQUA 6.1.110

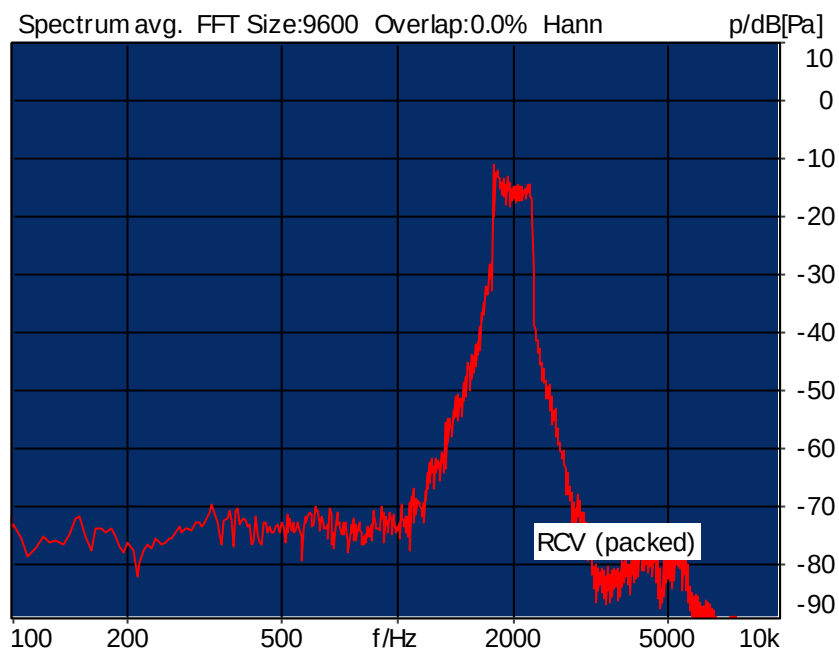
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 2000 Hz 8N WB

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



Distortion (Noise) RCV (packed): 22.76 dB (7.28%) Ok

Ok

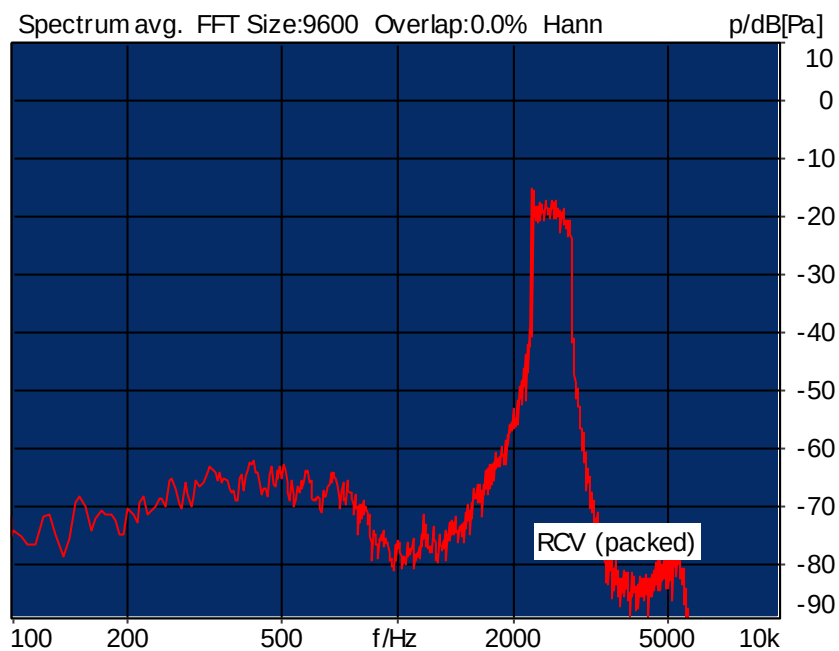
2025-02-18 上午 09:18 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2500 Hz 8N WB

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



Distortion (Noise) RCV (packed): 29.80 dB (3.24%) Ok

Ok

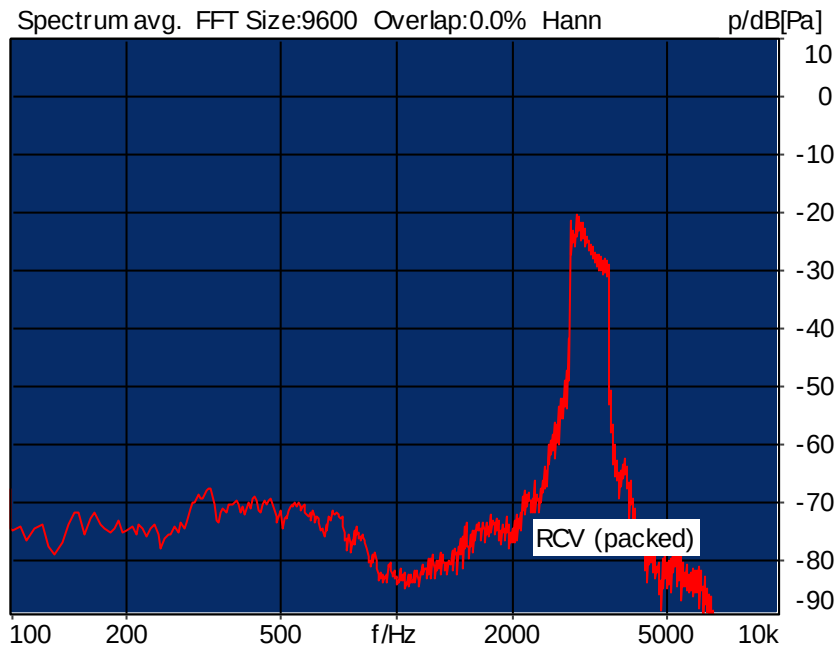
2025-02-18 上午 09:18 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 3150 Hz 8N WB

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



Distortion (Noise) RCV (packed): 30.47 dB (3.00%) Ok

Ok

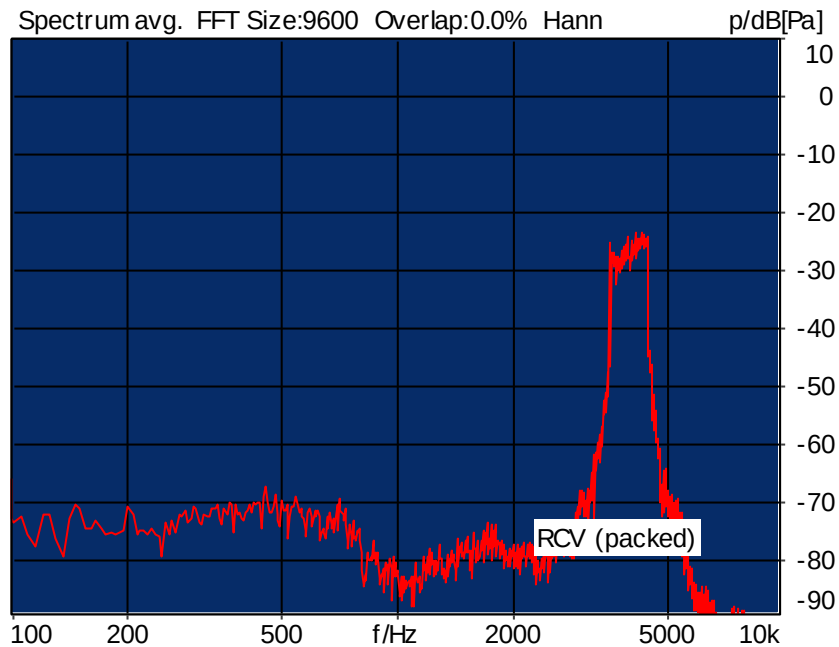
2025-02-18 上午 09:19 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 4000 Hz 8N WB

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



Distortion (Noise) RCV (packed): 27.05 dB (4.44%) Ok

Ok

2025-02-18 上午 09:19 ACQUA 6.1.110

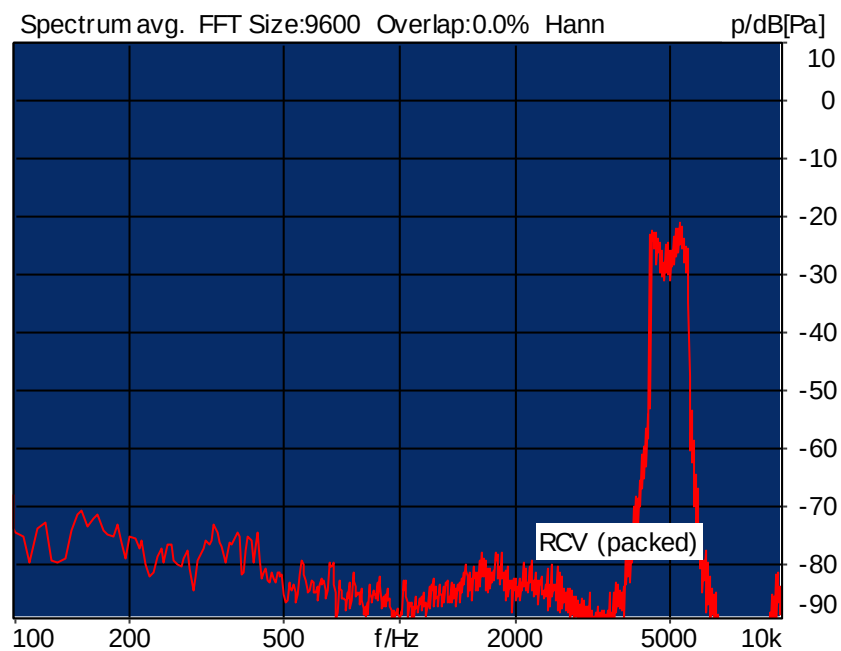
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 5000 Hz 8N WB

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



Distortion (Noise) RCV (packed): 36.90 dB (1.43%) Ok

Ok

2025-02-18 上午 09:20 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



**Report - Receive Distortion and Noise (Conversational Gain) 8N WB**

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

| Region | Frequency | SDNR     |
|--------|-----------|----------|
| 1      | 250Hz     | 34.16 dB |
| 2      | 315Hz     | 31.36 dB |
| 3      | 400Hz     | 31.95 dB |
| 4      | 500Hz     | 32.04 dB |
| 5      | 630Hz     | 33.93 dB |
| 6      | 800Hz     | 34.96 dB |
| 7      | 1000Hz    | 22.32 dB |
| 8      | 1250Hz    | 21.98 dB |
| 9      | 1600Hz    | 26.36 dB |
| 10     | 2000Hz    | 22.76 dB |
| 11     | 2500Hz    | 29.80 dB |
| 12     | 3150Hz    | 30.47 dB |
| 13     | 4000Hz    | 27.05 dB |
| 14     | 5000Hz    | 36.90 dB |

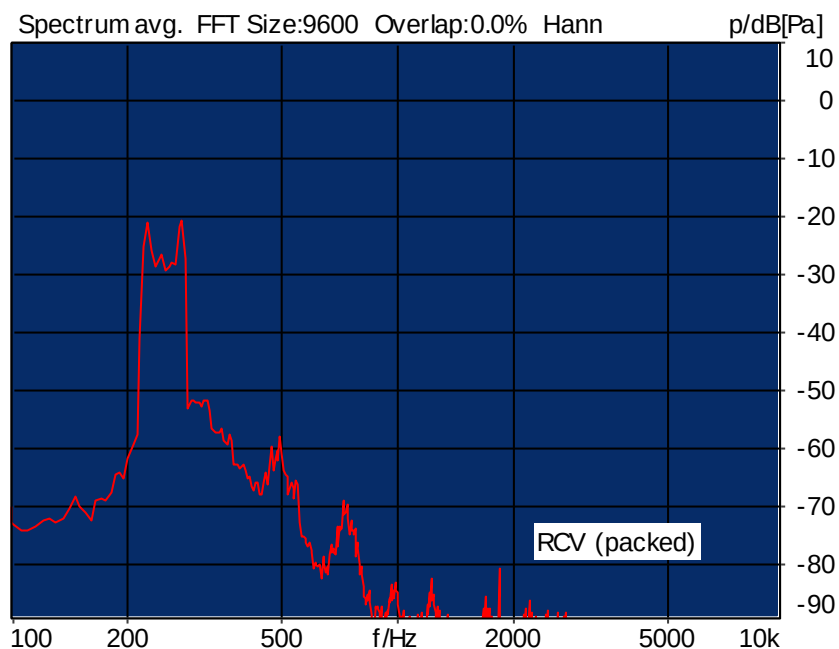
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.98dB at 1250Hz.

2025-02-18 上午 09:20 ACQUA

## 5.2 RCV Distortion and Noise - 250 Hz 2N WB

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



Distortion (Noise) RCV (packed): 34.67 dB (1.85%) Ok

Ok

2025-02-18 上午 09:22 ACQUA 6.1.110

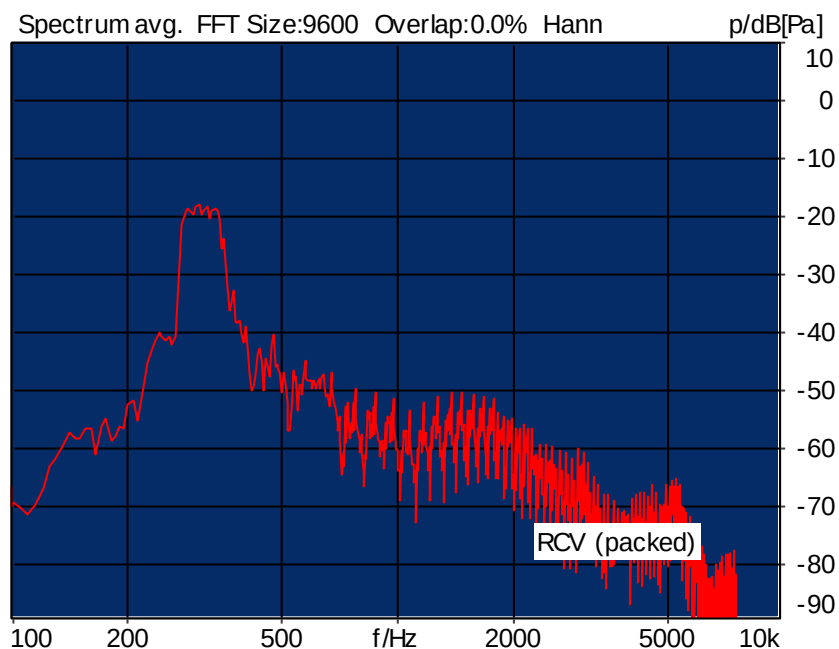
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 315 Hz 2N WB

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



Distortion (Noise) RCV (packed): 21.55 dB (8.36%) Ok

Ok

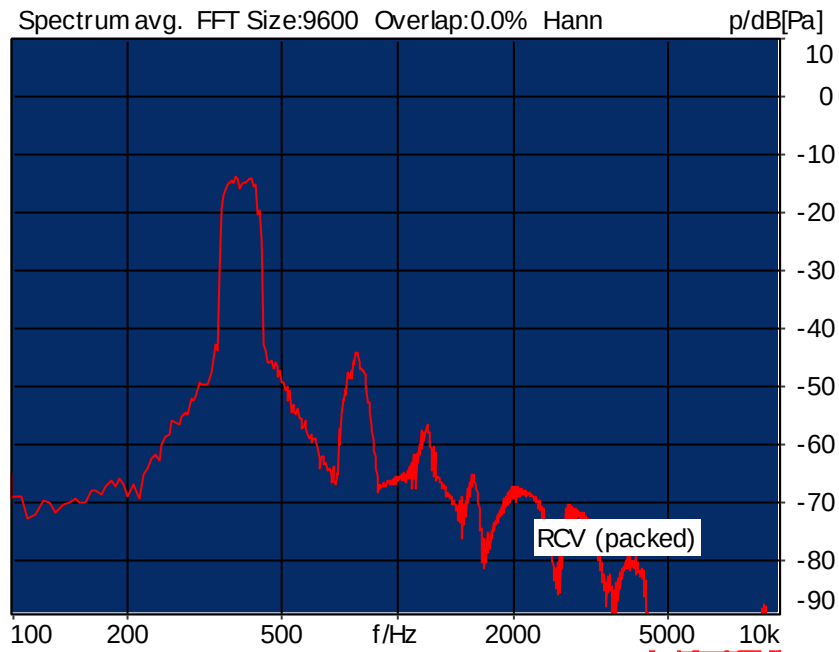
2025-02-18 上午 09:23 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 400 Hz 2N WB

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



Distortion (Noise) RCV (packed): 29.93 dB (3.19%) Ok

Ok

2025-02-18 上午 09:23 ACQUA 6.1.110

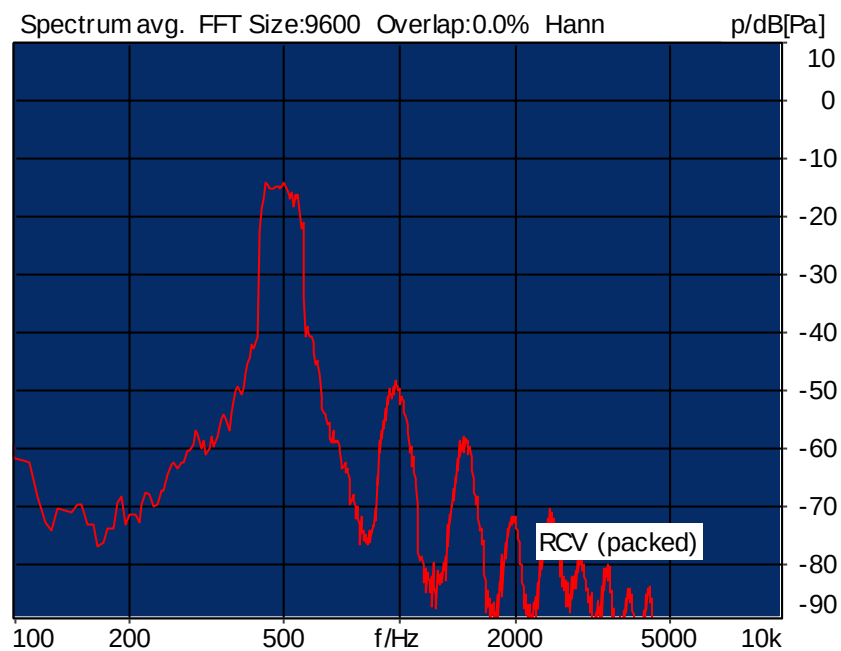
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 500 Hz 2N WB

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



Distortion (Noise) RCV (packed): 31.91 dB (2.54%) Ok

Ok

2025-02-18 上午 09:24 ACQUA 6.1.110

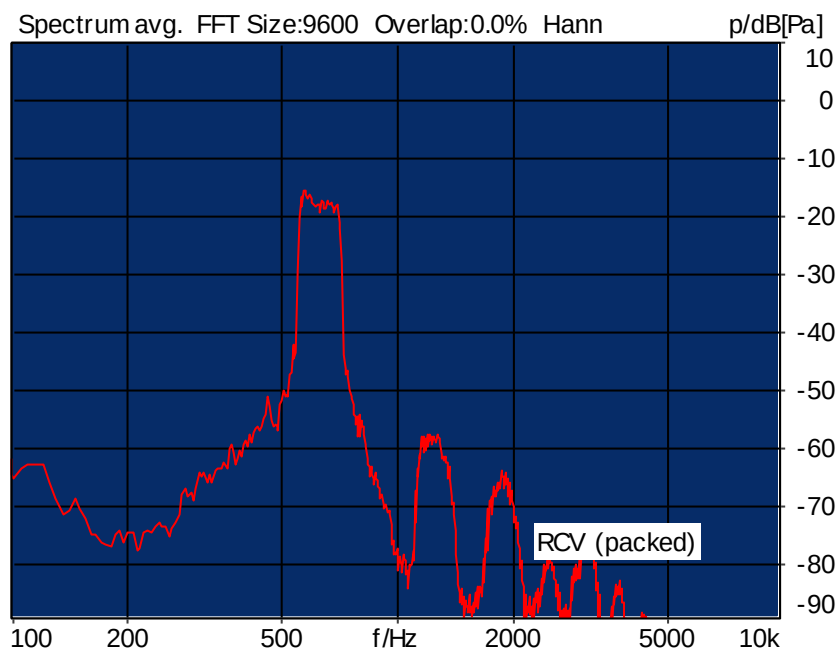
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 630 Hz 2N WB

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



Distortion (Noise) RCV (packed): 34.86 dB (1.81%) Ok

Ok

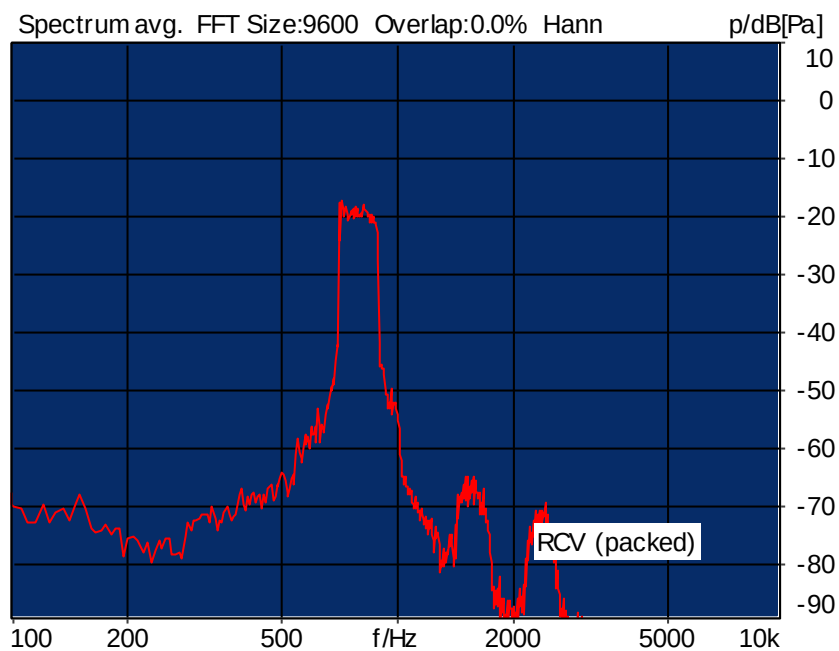
2025-02-18 上午 09:24 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 800 Hz 2N WB

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



Distortion (Noise) RCV (packed): 34.22 dB (1.95%) Ok

Ok

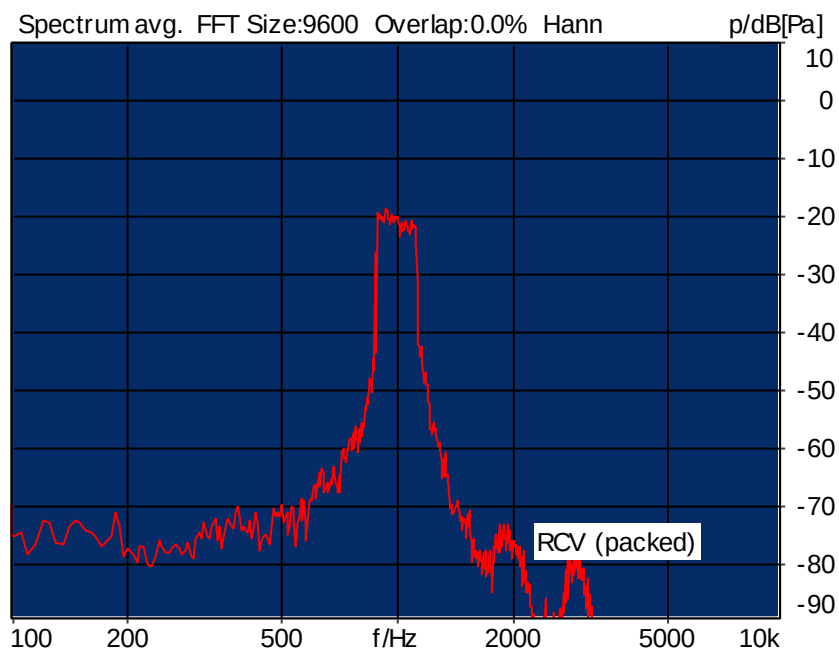
2025-02-18 上午 09:25 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1000 Hz 2N WB

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



Distortion (Noise) RCV (packed): 31.67 dB (2.61%) Ok

Ok

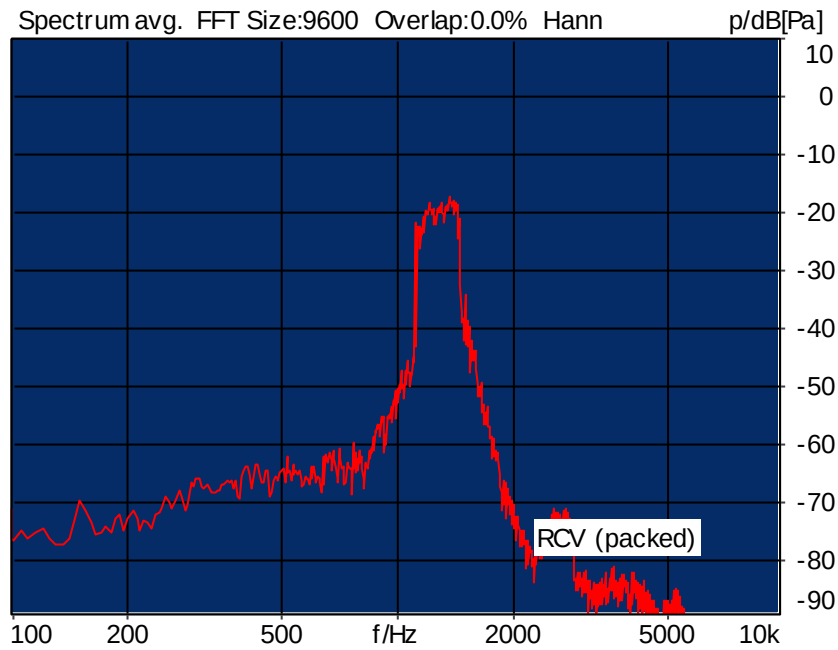
2025-02-18 上午 09:26 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1250 Hz 2N WB

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



Distortion (Noise) RCV (packed): 21.71 dB (8.21%) Ok

Ok

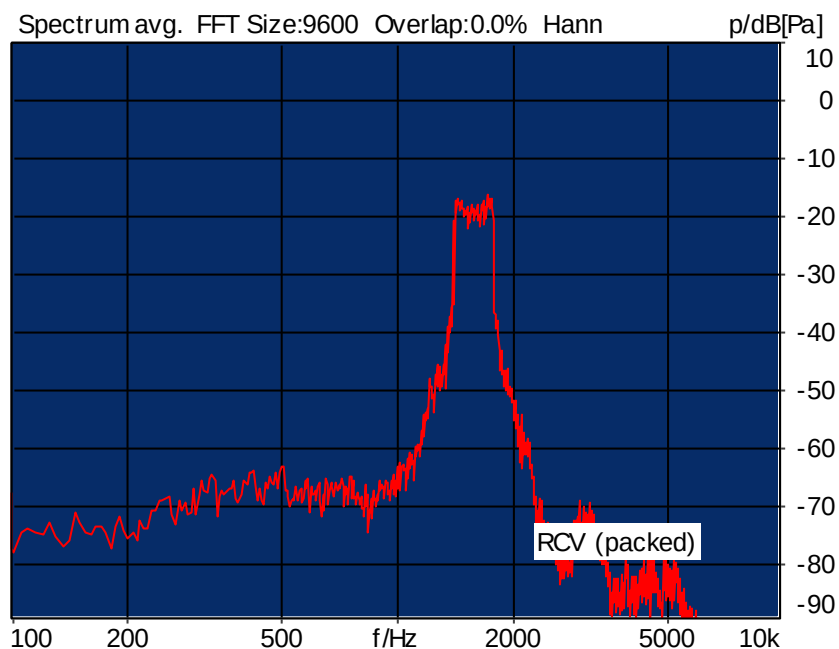
2025-02-18 上午 09:26 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 1600 Hz 2N WB

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



Distortion (Noise) RCV (packed): 26.18 dB (4.91%) Ok

Ok

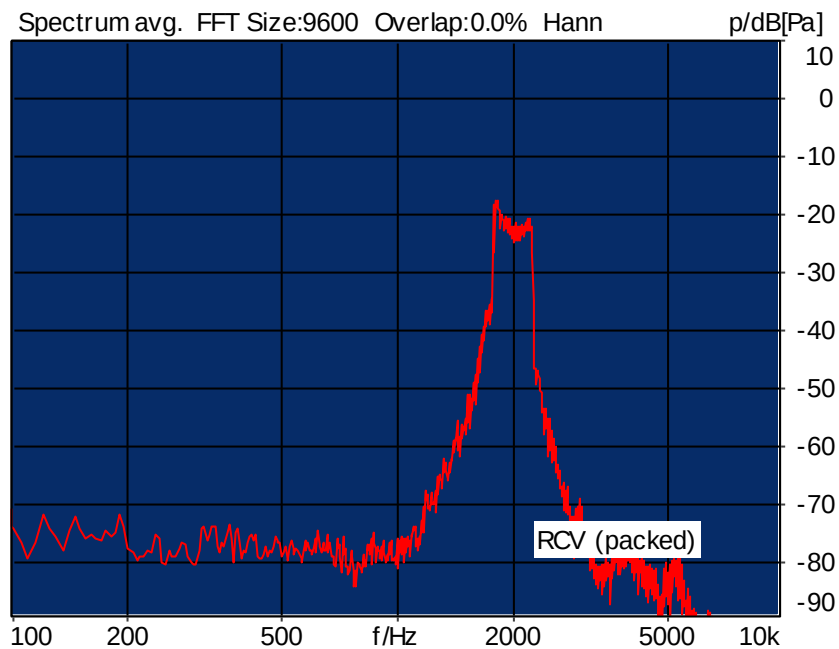
2025-02-18 上午 09:27 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 2000 Hz 2N WB

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



Distortion (Noise) RCV (packed): 21.90 dB (8.04%) Ok

Ok

2025-02-18 上午 09:27 ACQUA 6.1.110

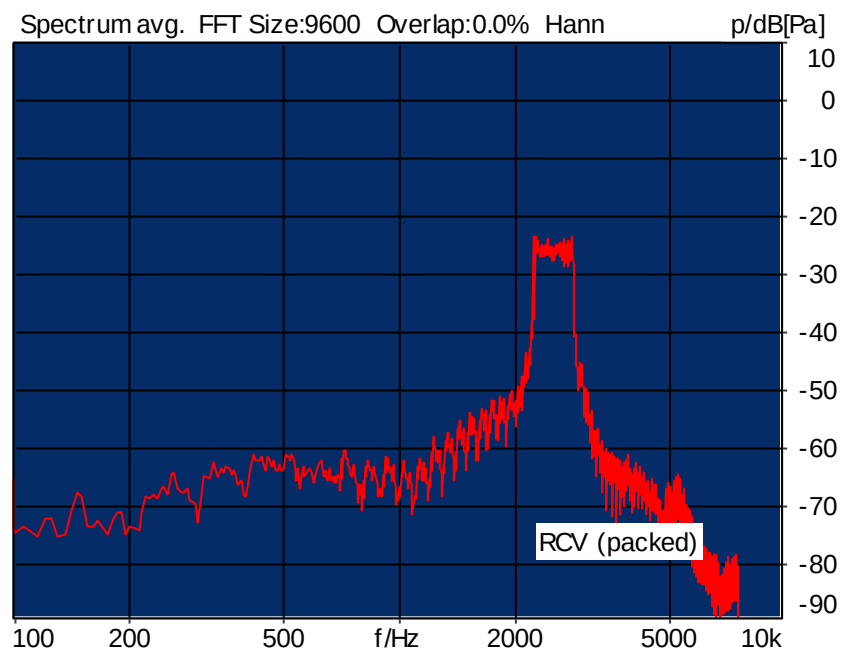
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 2500 Hz 2N WB

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



Distortion (Noise) RCV (packed): 20.58 dB (9.36%) Ok

Ok

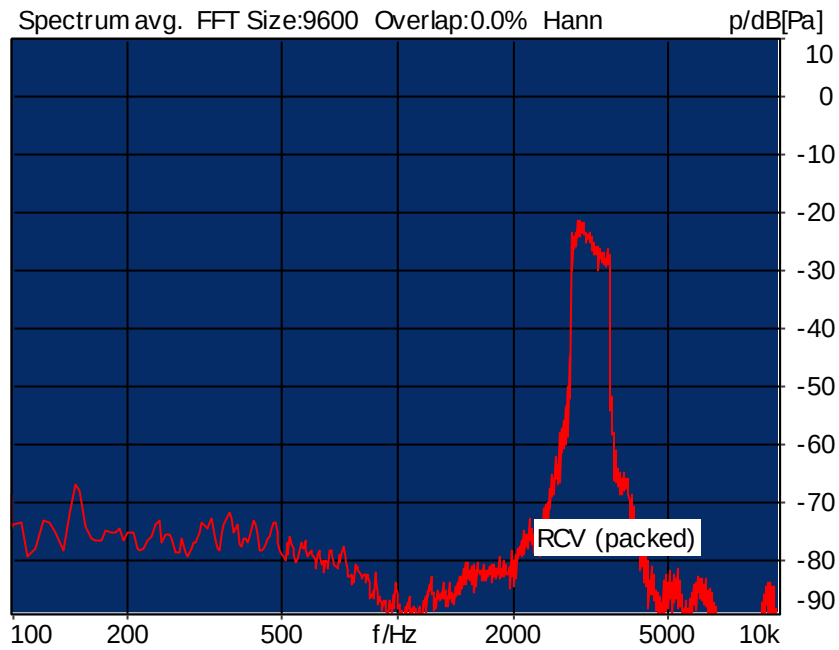
2025-02-18 上午 09:28 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 3150 Hz 2N WB

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



Distortion (Noise) RCV (packed): 34.52 dB (1.88%) Ok

Ok

2025-02-18 上午 09:29 ACQUA 6.1.110

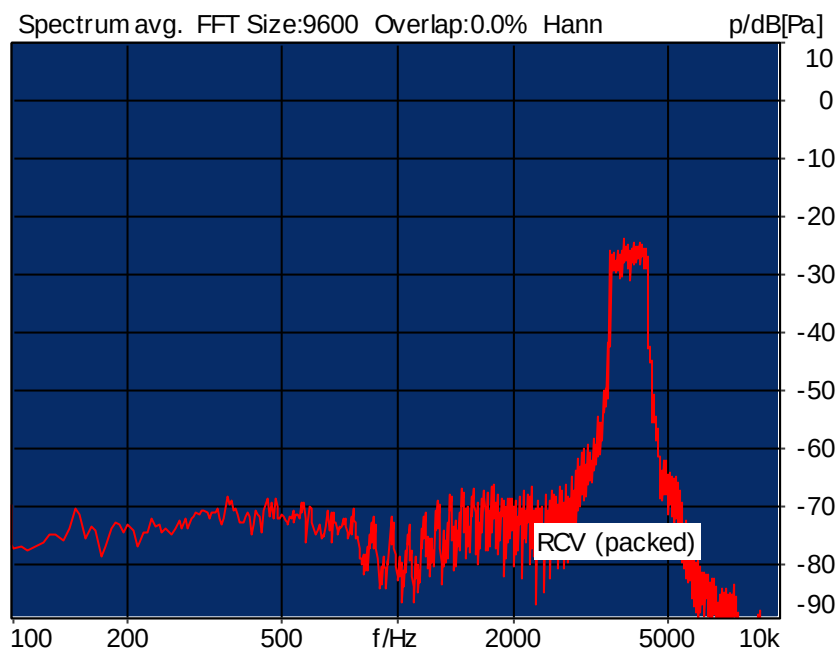
### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



## 5.2 RCV Distortion and Noise - 4000 Hz 2N WB

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



Distortion (Noise) RCV (packed): 25.28 dB (5.44%) Ok

Ok

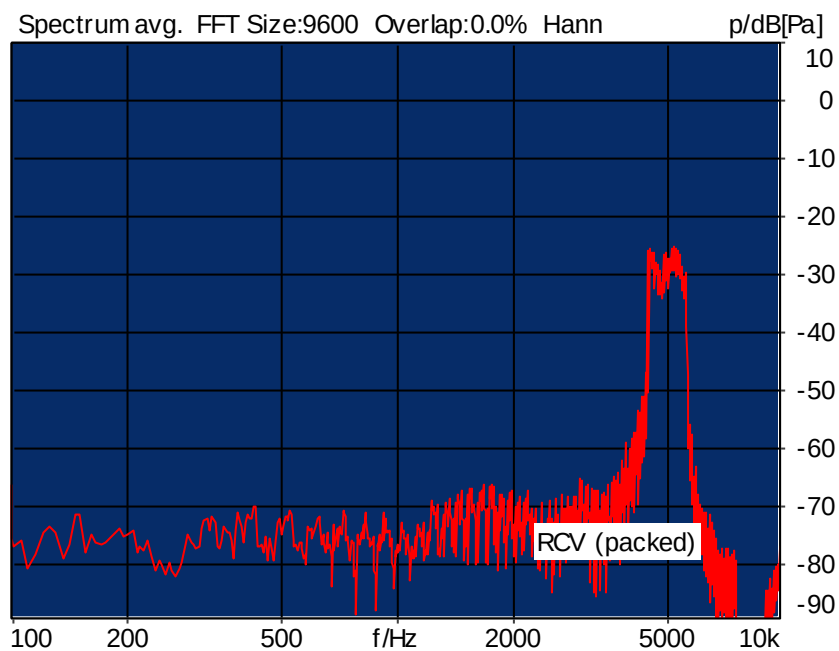
2025-02-18 上午 09:29 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |

## 5.2 RCV Distortion and Noise - 5000 Hz 2N WB

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



Distortion (Noise) RCV (packed): 29.73 dB (3.26%) Ok

Ok

2025-02-18 上午 09:30 ACQUA 6.1.110

### Limits

|          |
|----------|
| lower    |
| 20.00 dB |



**Report - Receive Distortion and Noise (Conversational Gain) 2N WB**

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

| Region | Frequency | SDNR     |
|--------|-----------|----------|
| 1      | 250Hz     | 34.67 dB |
| 2      | 315Hz     | 21.55 dB |
| 3      | 400Hz     | 29.93 dB |
| 4      | 500Hz     | 31.91 dB |
| 5      | 630Hz     | 34.86 dB |
| 6      | 800Hz     | 34.22 dB |
| 7      | 1000Hz    | 31.67 dB |
| 8      | 1250Hz    | 21.71 dB |
| 9      | 1600Hz    | 26.18 dB |
| 10     | 2000Hz    | 21.90 dB |
| 11     | 2500Hz    | 20.58 dB |
| 12     | 3150Hz    | 34.52 dB |
| 13     | 4000Hz    | 25.28 dB |
| 14     | 5000Hz    | 29.73 dB |

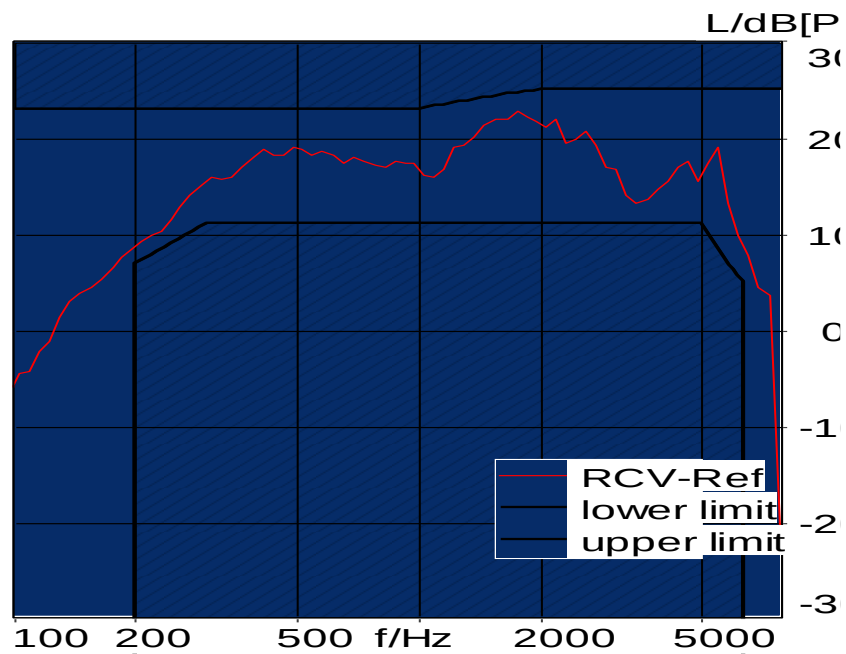
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.58dB at 2500Hz.

2025-02-18 上午 09:30 ACQUA

## 5.3 Frequency Response 8N DF

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



Absolute minimal distance

1.84 dB at 1747.8 Hz Ok

Ok

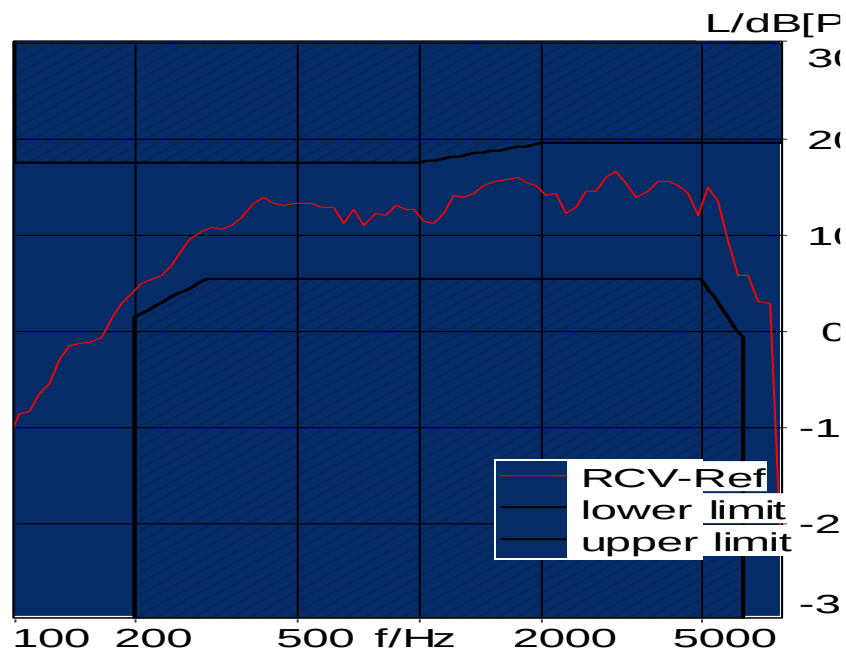
2025-02-18 上午 09:21 ACQUA 6.1.110

### Limits

|                    |
|--------------------|
| lower              |
| Fit into tolerance |

## 5.3 Frequency Response 2N DF

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



Absolute minimal distance

2.92 dB at 3058.6 Hz Ok

Ok

2025-02-18 上午 09:30 ACQUA 6.1.110

Limits

|                    |
|--------------------|
| lower              |
| Fit into tolerance |



---

**Appendix A. Volume Control Evaluation Results**

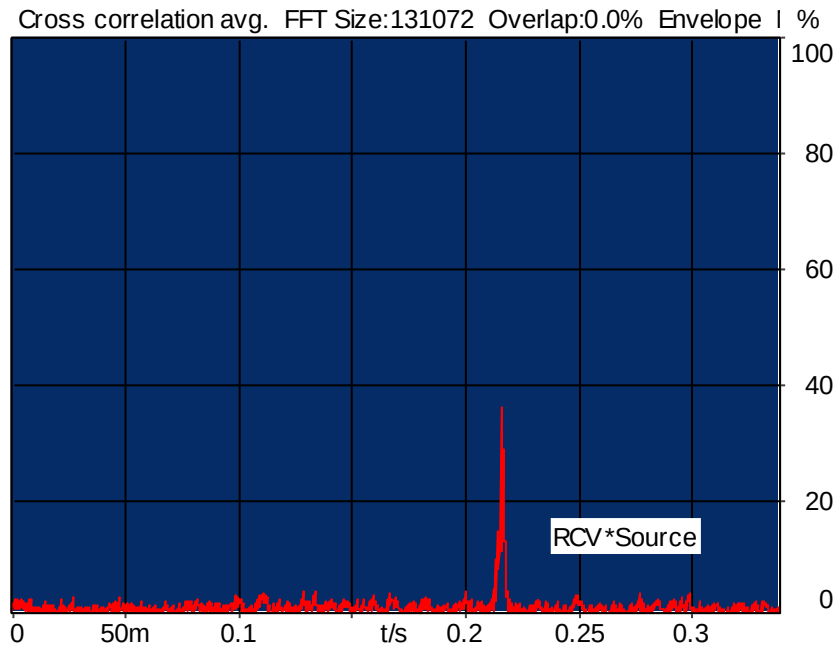
**<Evaluation results for KDB 285076 D05 2.b>**

**#4 GSM1900 AMR NB 12.2kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay NB                      | Done   | Delay (Cross) [ms]       | 216.1        |
| 5.1a Receive Volume Control Performance 8N NB | Ok     | Speech Level [dB[SPL]]   | 90.42        |
| 5.1b Receive Volume Control Performance 2N NB | Ok     | Speech Level [dB[SPL]]   | 87.82        |

## Overall Receive Delay NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement

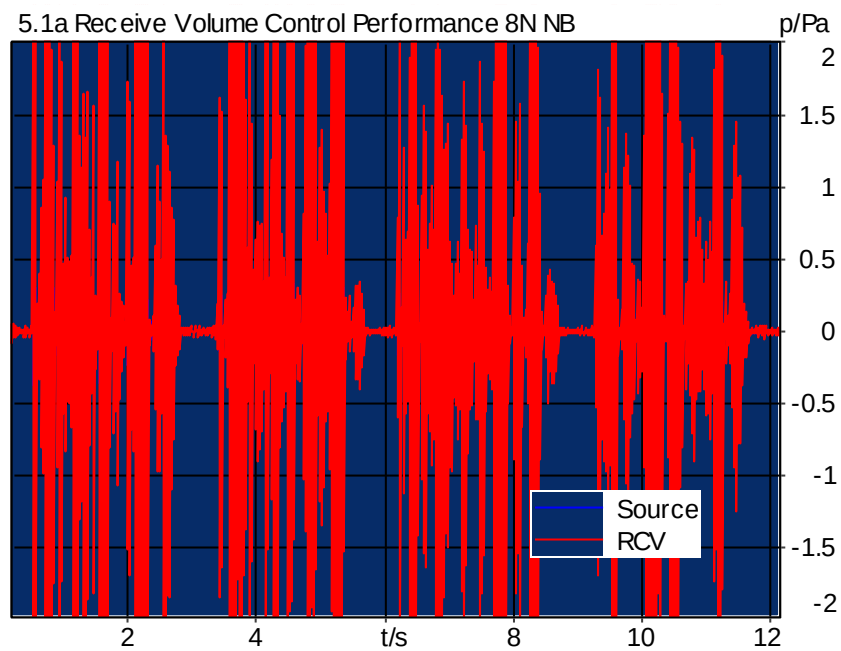


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 216.1 ms | 36.01 %     |

2025-02-13 上午 07:49 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 90.42 dB[SPL] | 62.67%   | Ok |

Ok

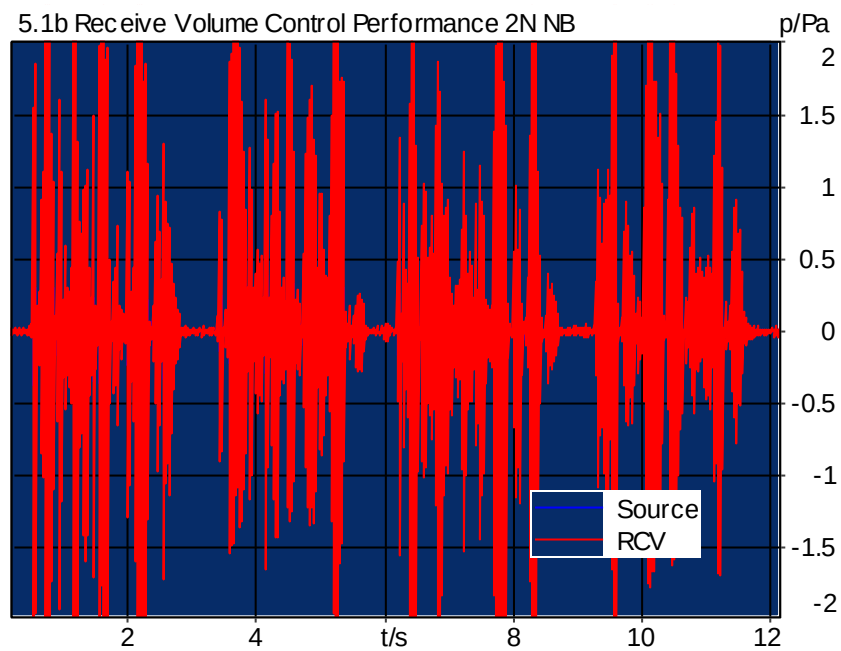
2025-02-13 上午 07:51 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 87.82 dB[SPL] | 45.81%   | Ok |

Ok

2025-02-13 上午 07:49 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



**#5 WCDMA V AMR NB 4.75kbps**

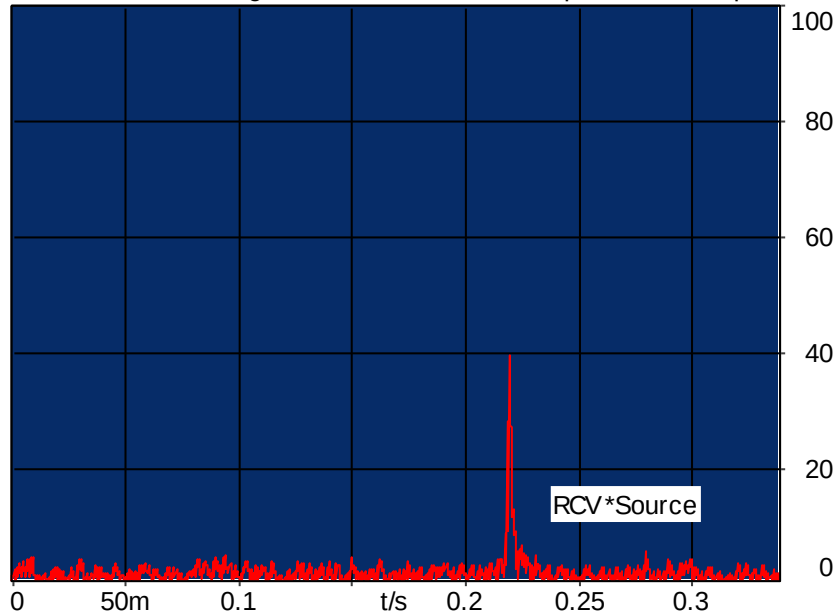
| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay NB                      | Done   | Delay (Cross) [ms]       | 219.4        |
| 5.1a Receive Volume Control Performance 8N NB | Ok     | Speech Level [dB[SPL]]   | 89.20        |
| 5.1b Receive Volume Control Performance 2N NB | Ok     | Speech Level [dB[SPL]]   | 87.03        |



## Overall Receive Delay NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement

Cross correlation avg. FFT Size:131072 Overlap:0.0% Envelope I %

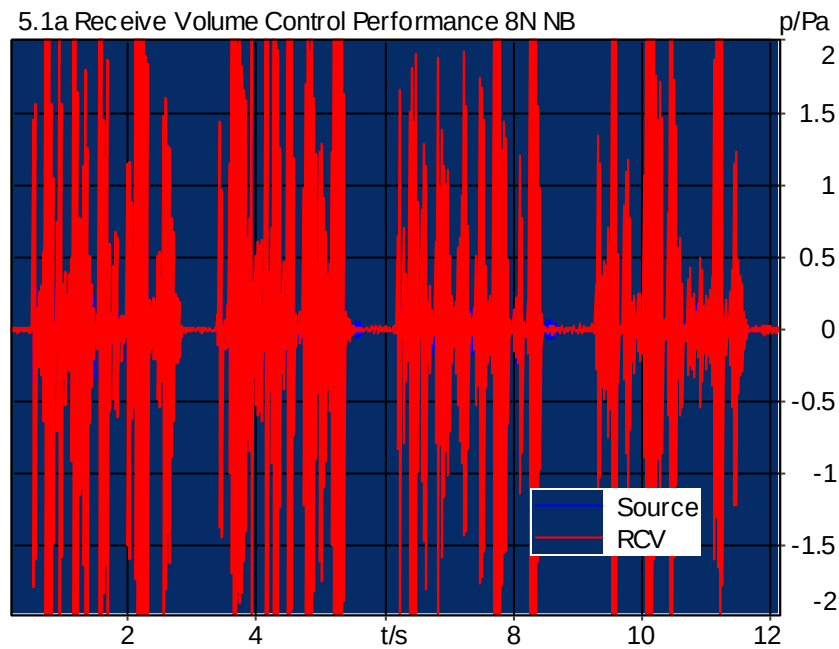


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 219.4 ms | 39.53 %     |

2025-02-12 上午 06:12 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.20 dB[SPL] | 56.45%   | Ok |

Ok

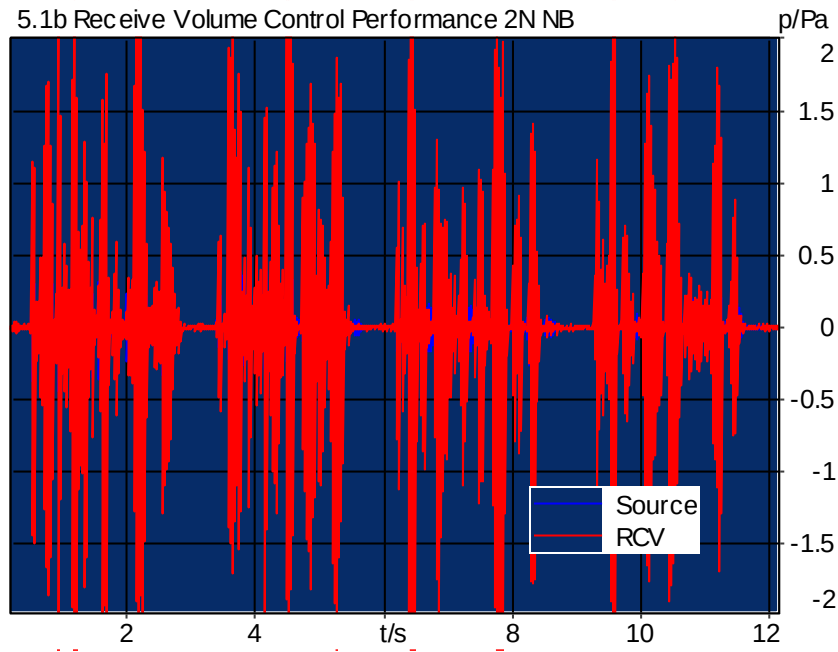
2025-02-12 上午 06:12 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 87.03 dB[SPL] | 38.65%   | Ok |

Ok

2025-02-12 上午 06:13 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



**#6 LTE Band 12 AMR NB 12.2kbps**

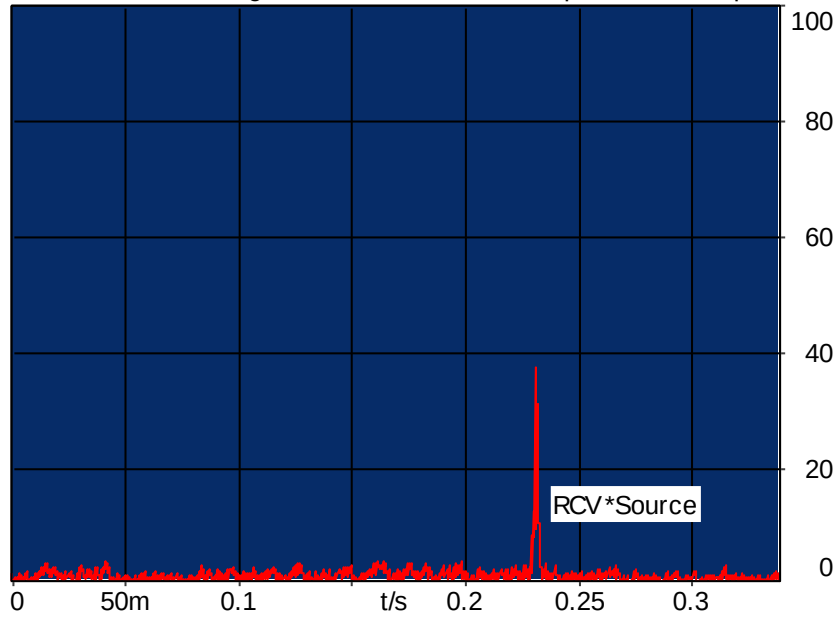
| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay NB                      | Done   | Delay (Cross) [ms]       | 231.6        |
| 5.1a Receive Volume Control Performance 8N NB | Ok     | Speech Level [dB[SPL]]   | 90.60        |
| 5.1b Receive Volume Control Performance 2N NB | Ok     | Speech Level [dB[SPL]]   | 87.03        |



## Overall Receive Delay NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement

Cross correlation avg. FFT Size:131072 Overlap:0.0% Envelope I %

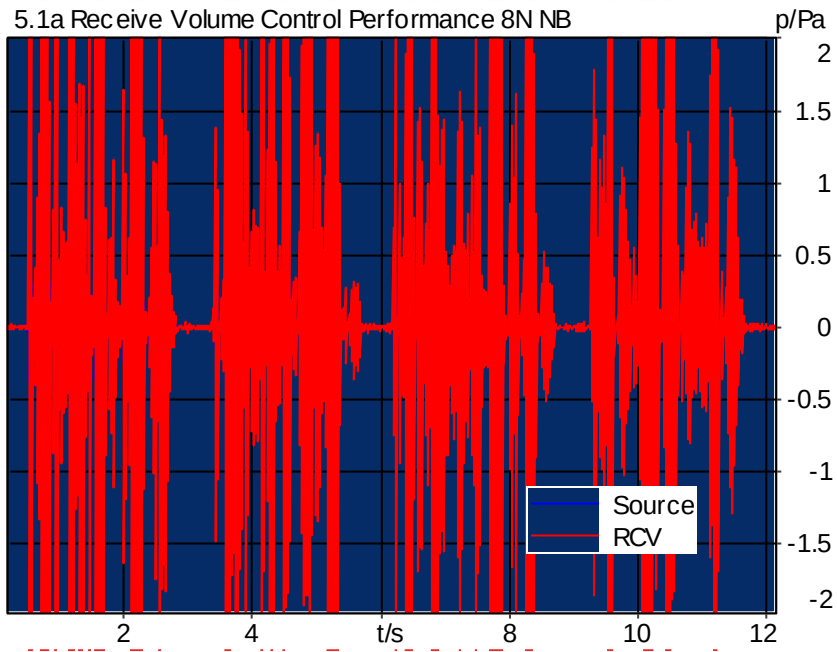


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 231.6 ms | 37.65 %     |

2025-01-24 上午 10:12 ACQUA 6.1.100

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 90.60 dB[SPL] | 59.43%   | Ok |

Ok

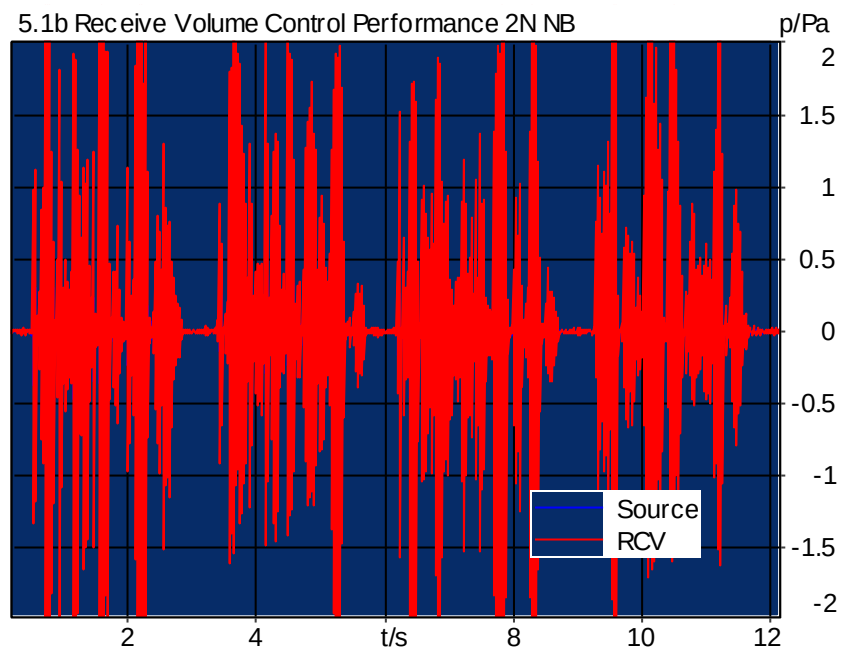
2025-01-24 上午 10:14 ACQUA 6.1.100

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 87.03 dB[SPL] | 50.67%   | Ok |

Ok

2025-01-24 上午 10:13 ACQUA 6.1.100

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



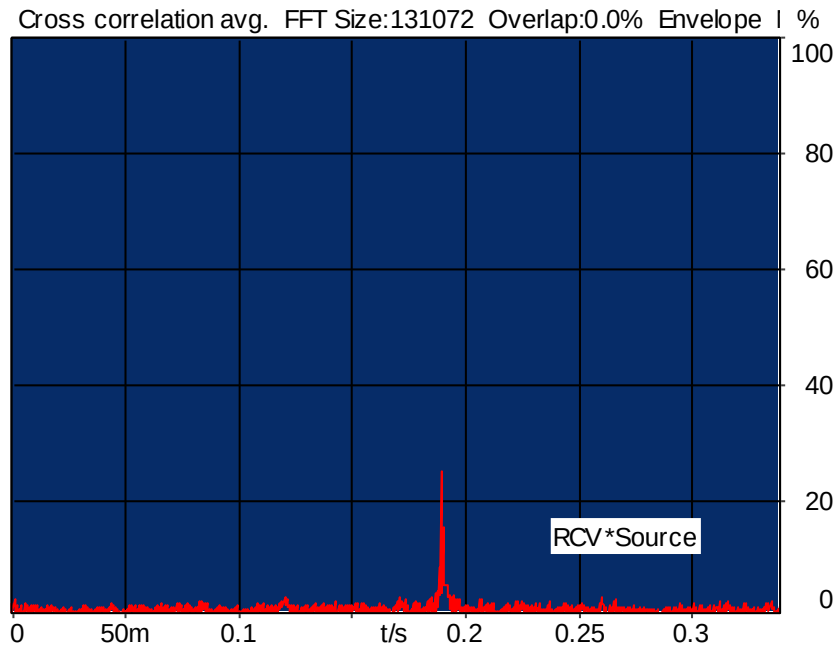
**#7 FR1 n41 EVS NB 5.9kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay NB                      | Done   | Delay (Cross) [ms]       | 190.5        |
| 5.1a Receive Volume Control Performance 8N NB | Ok     | Speech Level [dB[SPL]]   | 90.38        |
| 5.1b Receive Volume Control Performance 2N NB | Ok     | Speech Level [dB[SPL]]   | 86.93        |



## Overall Receive Delay NB

TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement

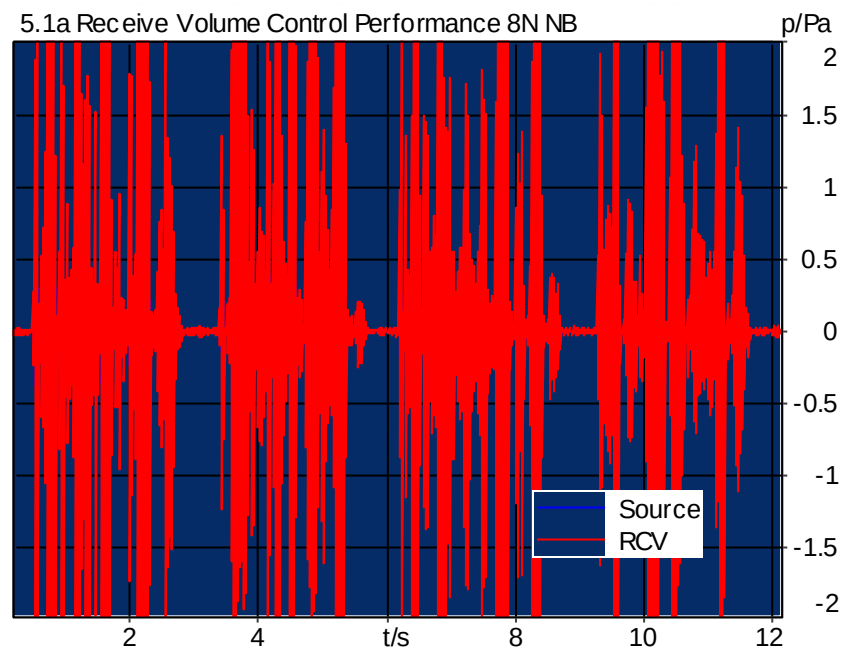


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 190.5 ms | 25.07 %     |

2025-02-18 上午 04:37 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 90.38 dB[SPL] | 58.09%   | Ok |

Ok

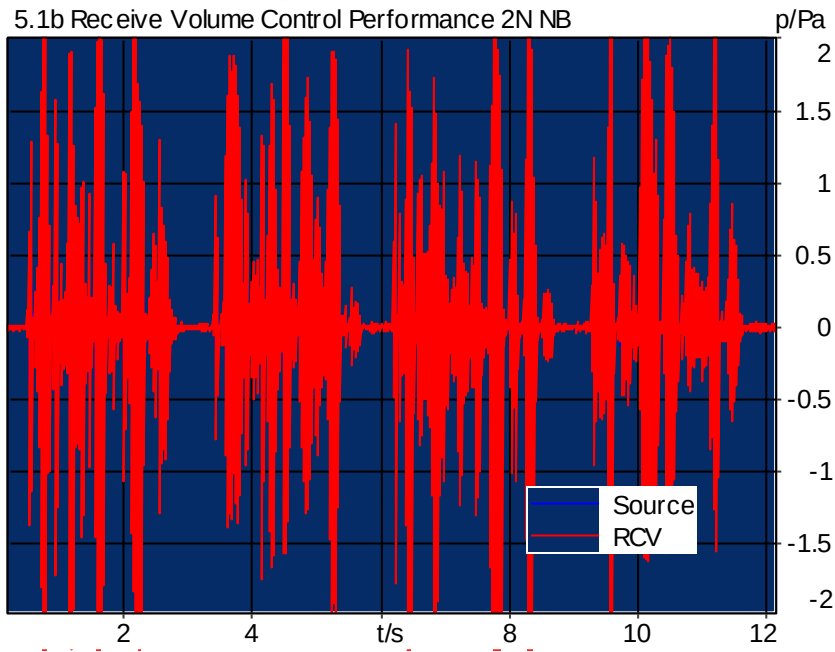
2025-02-18 上午 04:38 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 86.93 dB[SPL] | 40.39%   | Ok |

Ok

2025-02-18 上午 04:37 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |



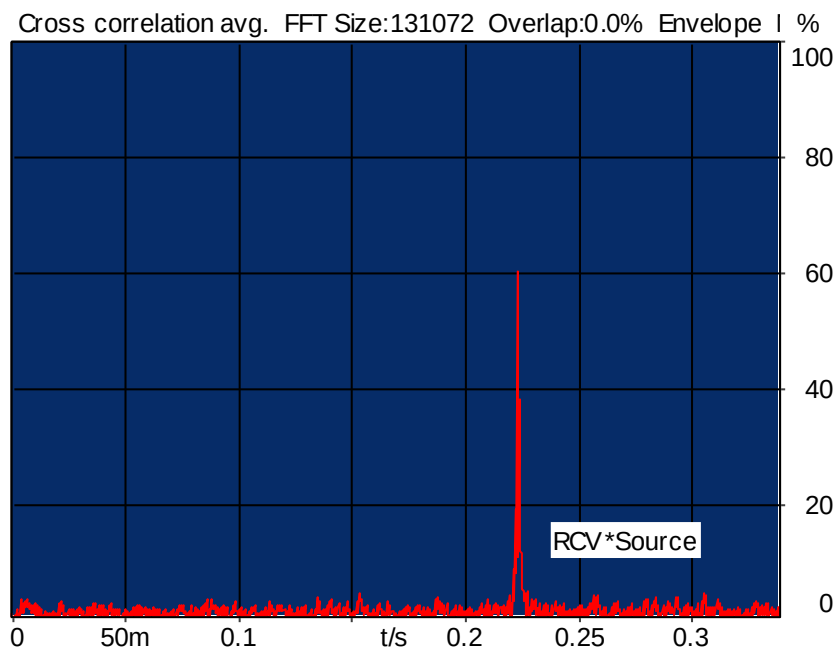
**#8 WiFi 5.5GHz AMR WB 23.85kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                      | Done   | Delay (Cross) [ms]       | 223.3        |
| 5.1a Receive Volume Control Performance 8N WB | Ok     | Speech Level [dB[SPL]]   | 89.41        |
| 5.1b Receive Volume Control Performance 2N WB | Ok     | Speech Level [dB[SPL]]   | 87.04        |



## Overall Receive Delay WB

TIA-5050 (2018-01) \ Measurements \ Wideband \ Preparation - Delay measurement

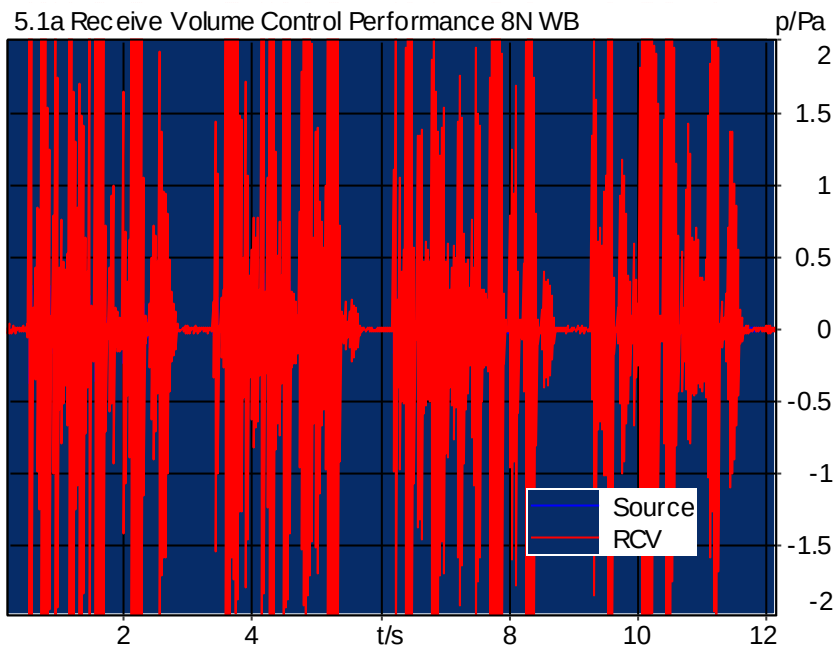


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 223.3 ms | 60.43 %     |

2025-02-13 上午 01:38 ACQUA 6.1.110

### 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.41 dB[SPL] | 64.12%   | Ok |

Ok

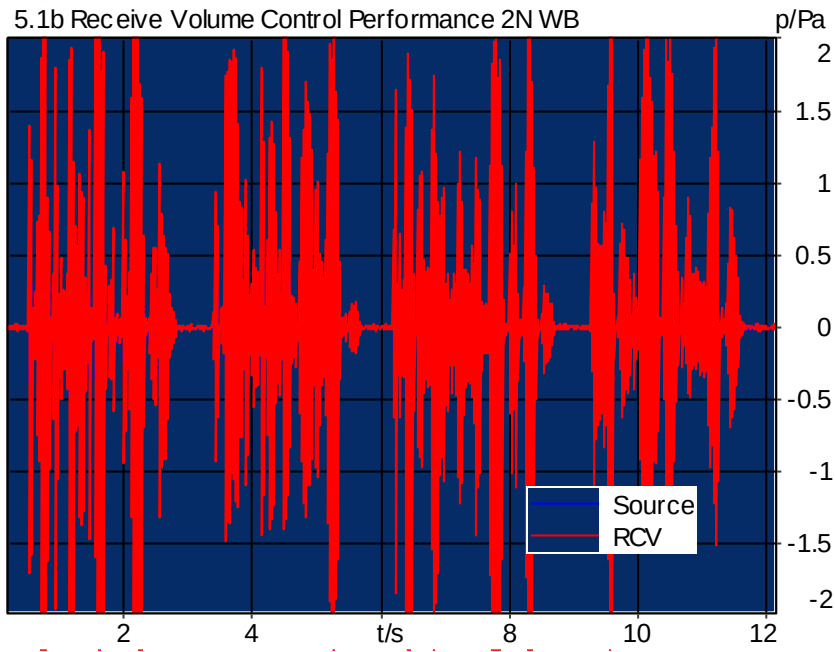
2025-02-13 上午 01:39 ACQUA 6.1.110

#### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |

## 5.1b Receive Volume Control Performance 2N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 87.04 dB[SPL] | 43.31%   | Ok |

Ok

2025-02-13 上午 01:38 ACQUA 6.1.110

### Limits

|               |
|---------------|
| lower         |
| 76.00 dB[SPL] |