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**Appendix A. Volume Control Evaluation Results**

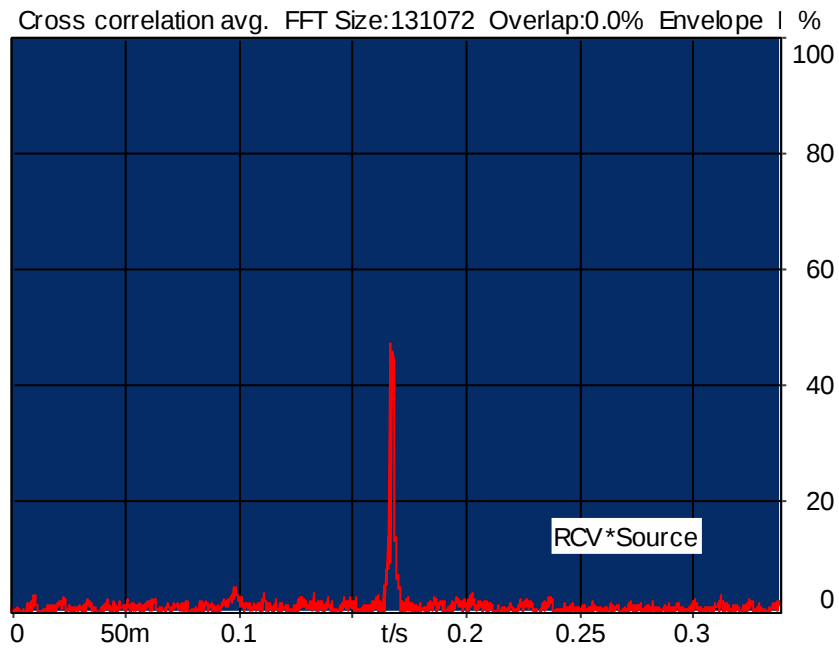
**<Evaluation results for KDB 285076 D05 2.a>**

# **#1 LTE B25 EVS WB 24.4kbps**

| SMD                                                               | Status | Single Value Description                       | Single Value |
|-------------------------------------------------------------------|--------|------------------------------------------------|--------------|
| Overall Receive Delay WB                                          | Done   | Delay (Cross) [ms]                             | 167.8        |
| 5.1a Receive Volume Control Performance 8N WB                     | Ok     | Speech Level [dB[SPL]]                         | 90.45        |
| 5.1b Receive Volume Control Performance 2N WB                     | Ok     | Speech Level [dB[SPL]]                         | 85.76        |
| 5.2 RCV Distortion and Noise - 250 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.84        |
| 5.2 RCV Distortion and Noise - 315 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.89        |
| 5.2 RCV Distortion and Noise - 400 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.17        |
| 5.2 RCV Distortion and Noise - 500 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.64        |
| 5.2 RCV Distortion and Noise - 630 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 38.46        |
| 5.2 RCV Distortion and Noise - 800 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.01        |
| 5.2 RCV Distortion and Noise - 1000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 32.43        |
| 5.2 RCV Distortion and Noise - 1250 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.89        |
| 5.2 RCV Distortion and Noise - 1600 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.89        |
| 5.2 RCV Distortion and Noise - 2000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.01        |
| 5.2 RCV Distortion and Noise - 2500 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 28.36        |
| 5.2 RCV Distortion and Noise - 3150 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.72        |
| 5.2 RCV Distortion and Noise - 4000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 29.17        |
| 5.2 RCV Distortion and Noise - 5000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.46        |
| Report - Receive Distortion and Noise (Conversational Gain) 8N WB | Ok     | Minimum SDNR [dB], (occured at 2000Hz)         | 21.01        |
| 5.2 RCV Distortion and Noise - 250 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.76        |
| 5.2 RCV Distortion and Noise - 315 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.81        |
| 5.2 RCV Distortion and Noise - 400 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.67        |
| 5.2 RCV Distortion and Noise - 500 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.70        |
| 5.2 RCV Distortion and Noise - 630 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.29        |
| 5.2 RCV Distortion and Noise - 800 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.54        |
| 5.2 RCV Distortion and Noise - 1000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 32.51        |
| 5.2 RCV Distortion and Noise - 1250 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.60        |
| 5.2 RCV Distortion and Noise - 1600 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.32        |
| 5.2 RCV Distortion and Noise - 2000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.48        |
| 5.2 RCV Distortion and Noise - 2500 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 29.94        |
| 5.2 RCV Distortion and Noise - 3150 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.45        |
| 5.2 RCV Distortion and Noise - 4000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 30.92        |
| 5.2 RCV Distortion and Noise - 5000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.83        |
| Report - Receive Distortion and Noise (Conversational Gain) 2N WB | Ok     | Minimum SDNR [dB], (occured at 2000Hz)         | 21.48        |
| 5.3 Frequency Response 8N DF                                      | Ok     | Min. dist. to tolerance scheme [dB], 2571.8 Hz | 2.31         |
| 5.3 Frequency Response 2N DF                                      | Ok     | Min. dist. to tolerance scheme [dB], 344.5 Hz  | 2.64         |

## Overall Receive Delay WB

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

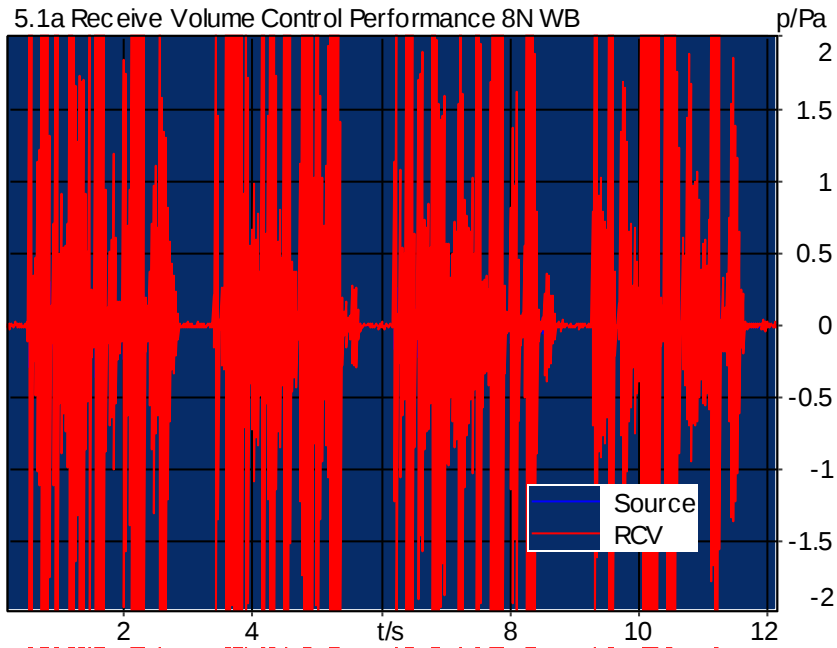


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 167.8 ms | 47.08 %     |

2025-12-17 上午 01:48 ACQUA 6.1.110

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

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 90.45 dB[SPL] | 80.66%   | Ok |

Ok

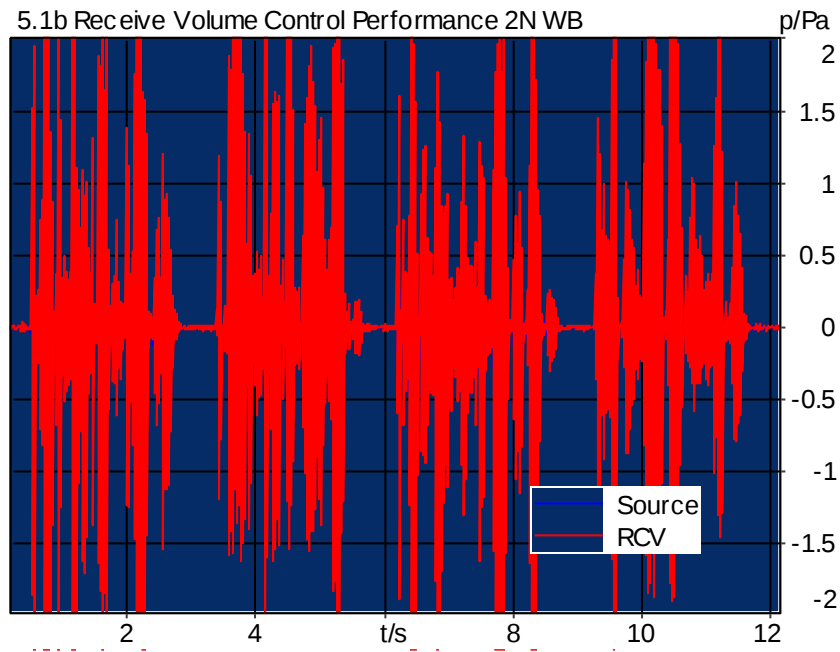
2025-12-17 上午 01:49 ACQUA 6.1.110

#### 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     | 85.76 dB[SPL] | 80.41%   | Ok |

Ok

2025-12-17 上午 01:58 ACQUA 6.1.110

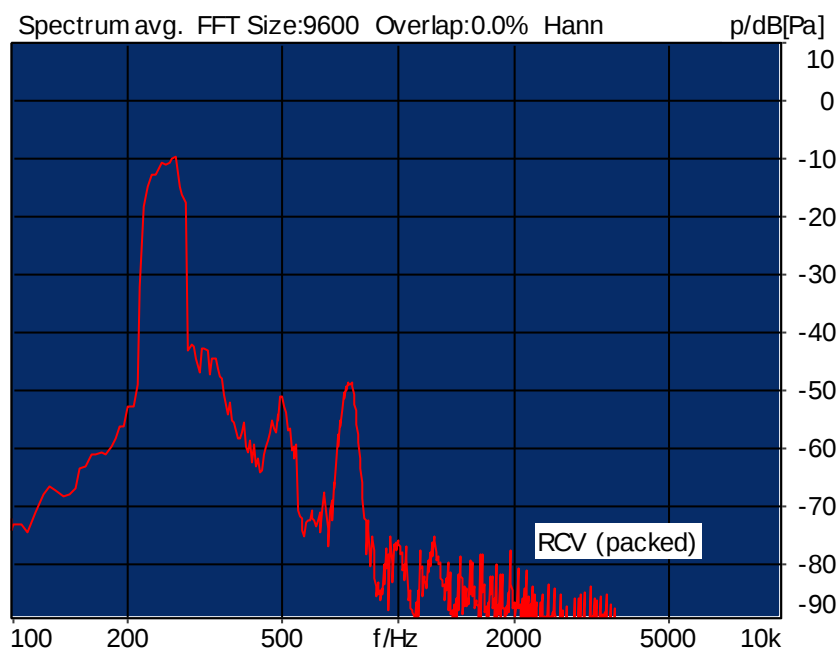
### Limits

|               |
|---------------|
| 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): 35.84 dB (1.61%) Ok

Ok

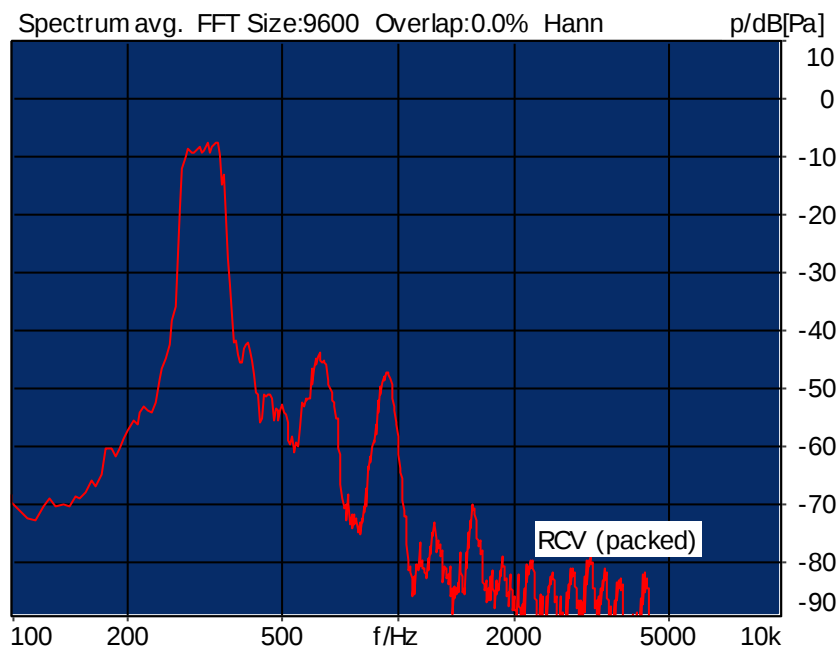
2025-12-17 上午 01:49 ACQUA 6.1.110

### 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): 34.89 dB (1.80%) Ok

Ok

2025-12-17 上午 01:50 ACQUA 6.1.110

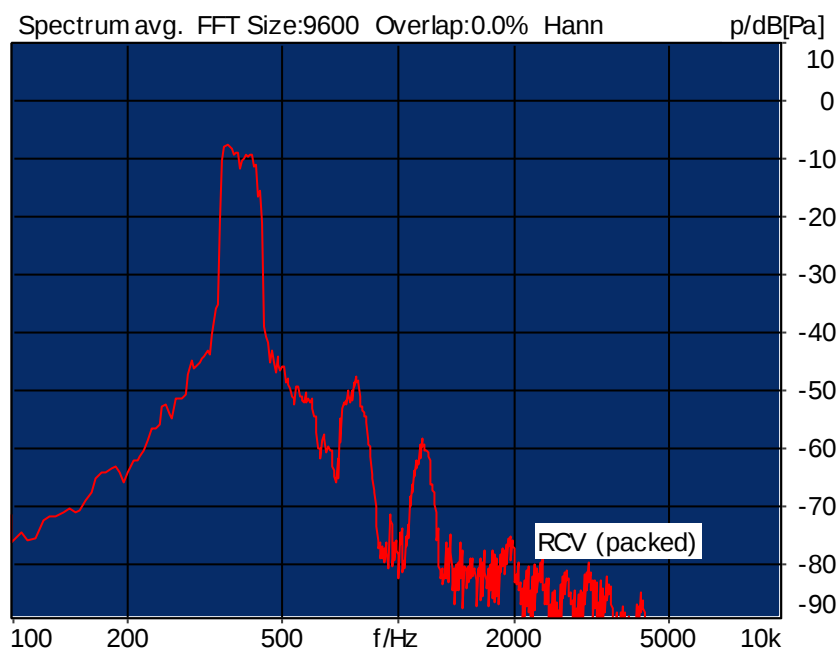
### Limits

|          |
|----------|
| 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): 37.17 dB (1.38%) Ok

Ok

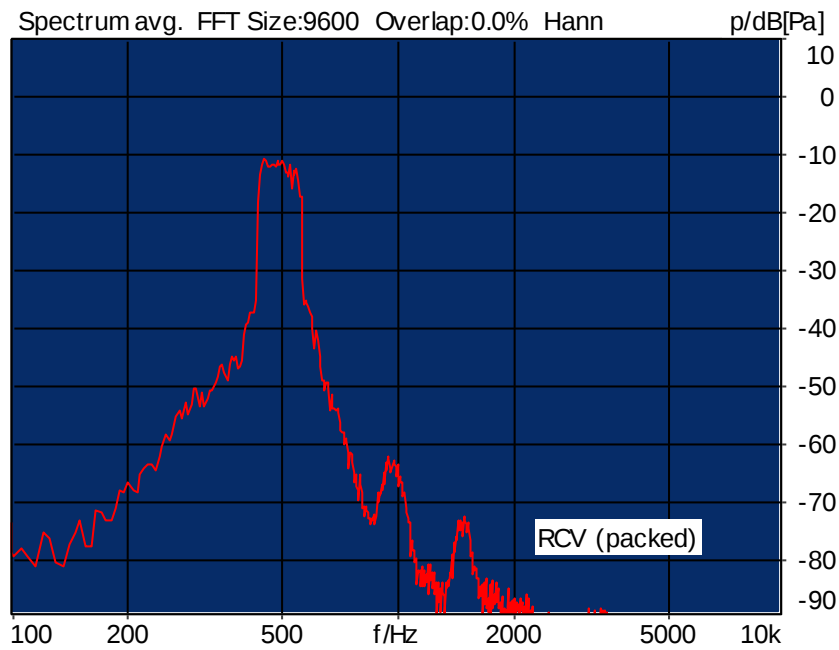
2025-12-17 上午 01:50 ACQUA 6.1.110

### 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): 34.64 dB (1.85%) Ok

Ok

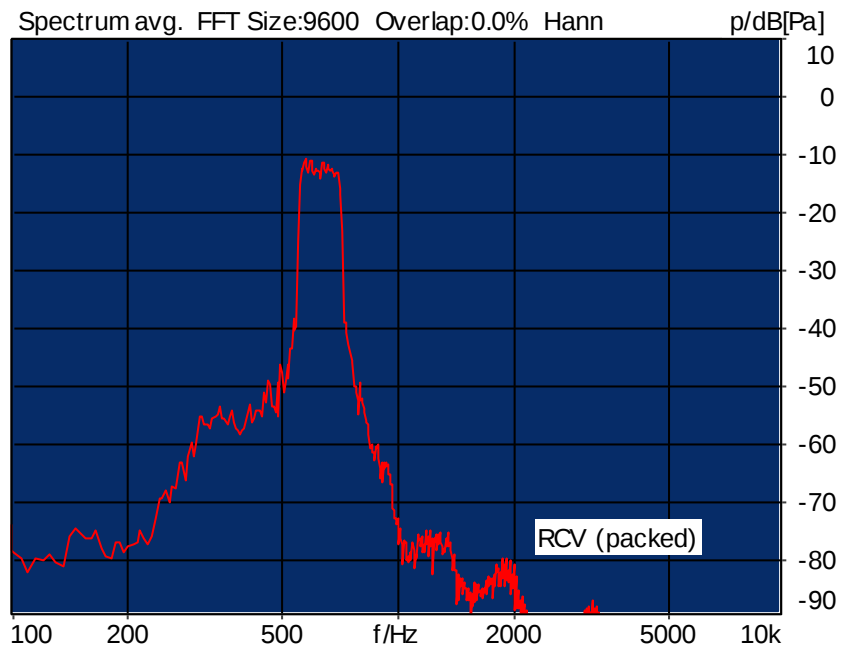
2025-12-17 上午 01:51 ACQUA 6.1.110

### 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): 38.46 dB (1.19%) Ok

Ok

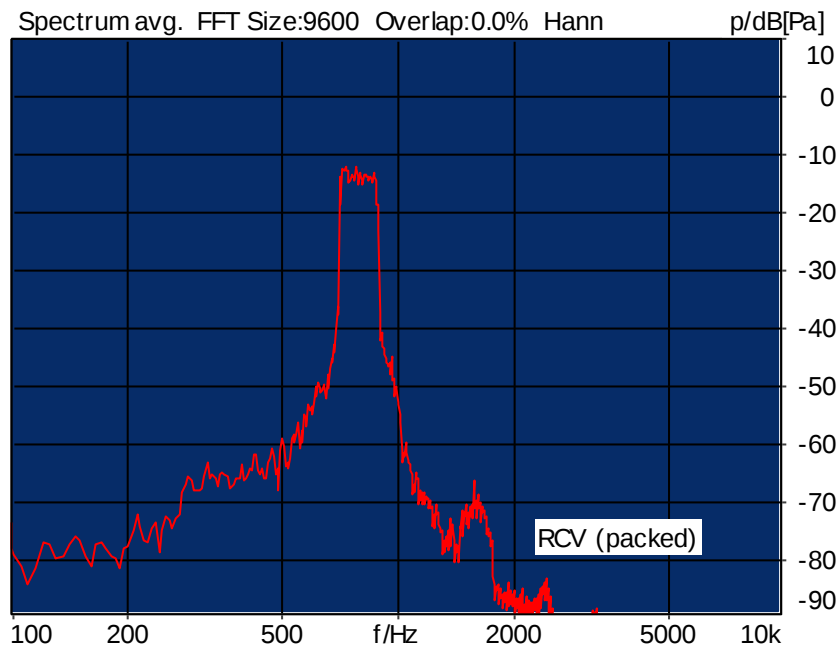
2025-12-17 上午 01:51 ACQUA 6.1.110

### 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): 36.01 dB (1.58%) Ok

Ok

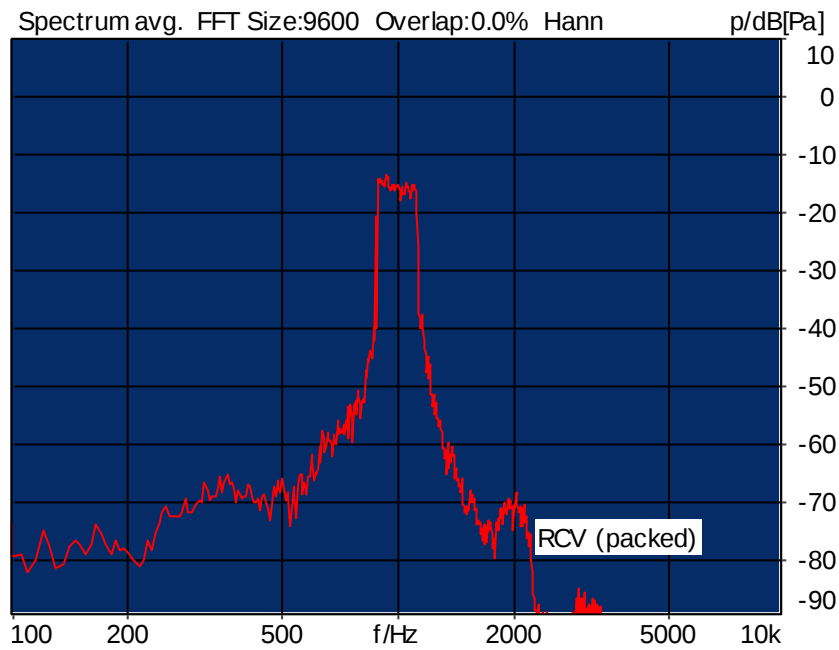
2025-12-17 上午 01:52 ACQUA 6.1.110

### 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): 32.43 dB (2.39%) Ok

Ok

2025-12-17 上午 01:53 ACQUA 6.1.110

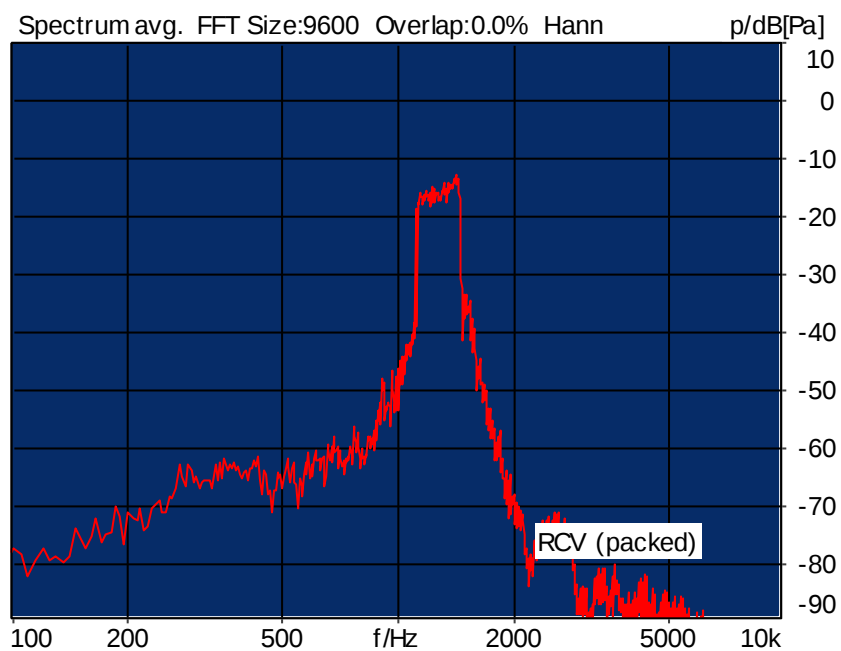
### Limits

|          |
|----------|
| 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): 22.89 dB (7.17%) Ok

Ok

2025-12-17 上午 01:53 ACQUA 6.1.110

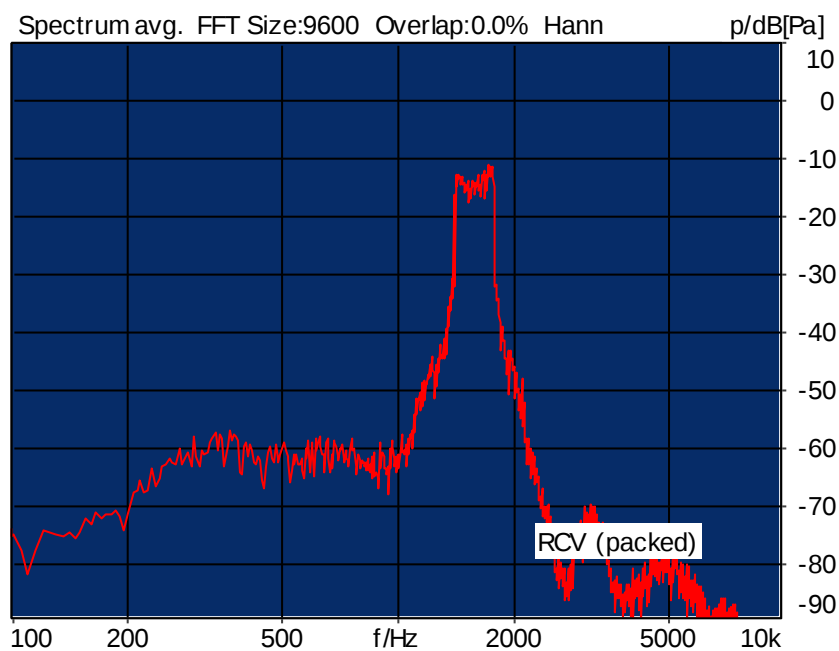
### Limits

|          |
|----------|
| 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): 26.89 dB (4.52%) Ok

Ok

2025-12-17 上午 01:54 ACQUA 6.1.110

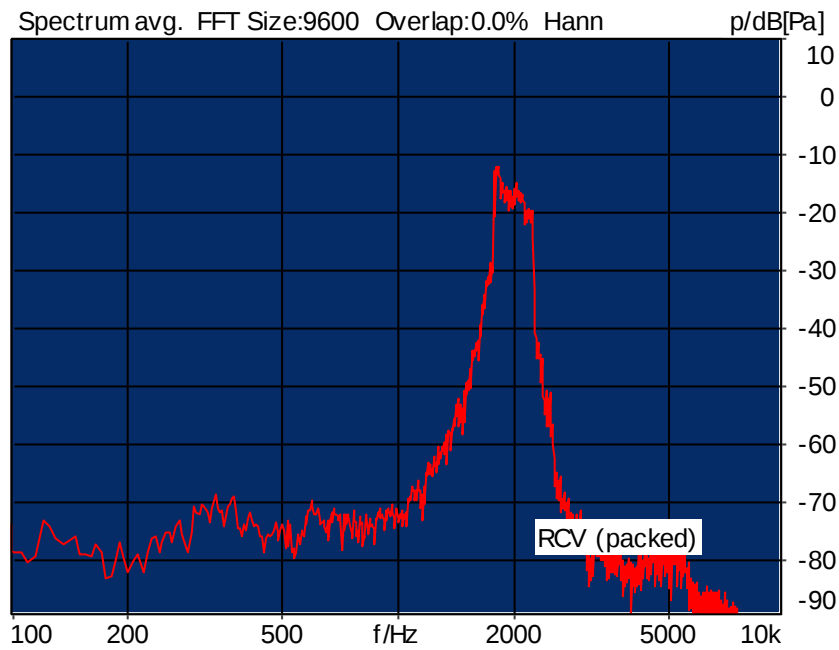
### Limits

|          |
|----------|
| 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): 21.01 dB (8.90%) Ok

Ok

2025-12-17 上午 01:54 ACQUA 6.1.110

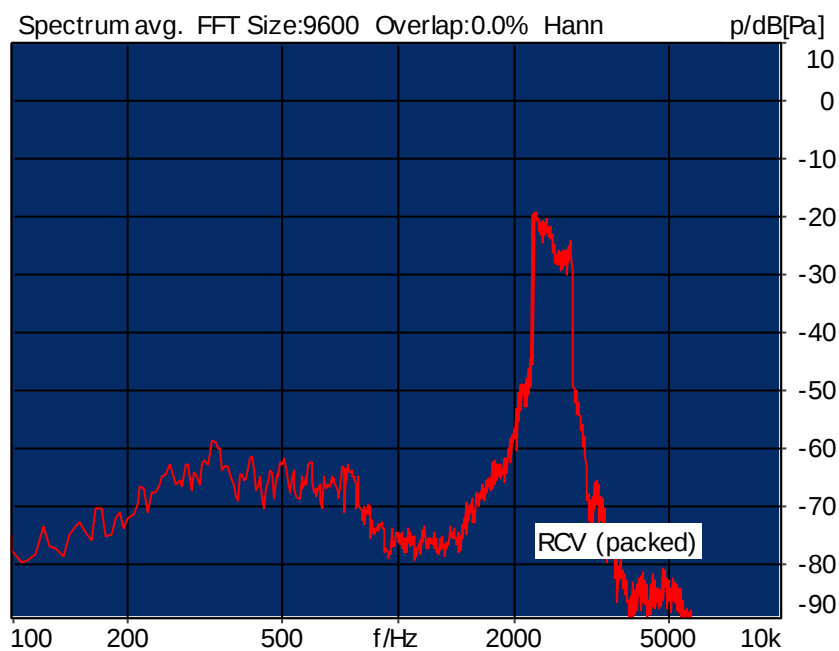
### Limits

|          |
|----------|
| 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): 28.36 dB (3.82%) Ok

Ok

2025-12-17 上午 01:55 ACQUA 6.1.110

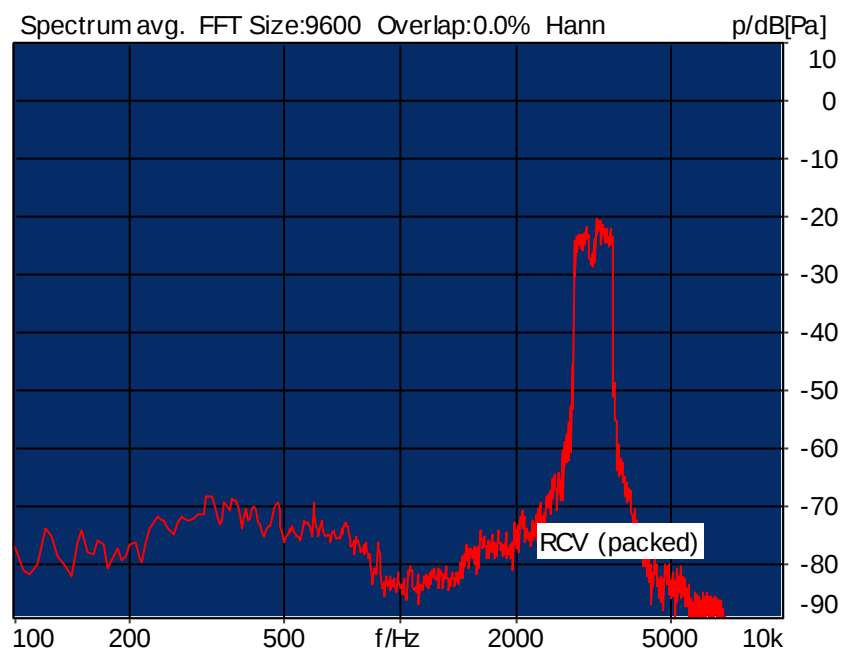
### Limits

|          |
|----------|
| 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): 35.72 dB (1.64%) Ok

Ok

2025-12-17 上午 01:55 ACQUA 6.1.110

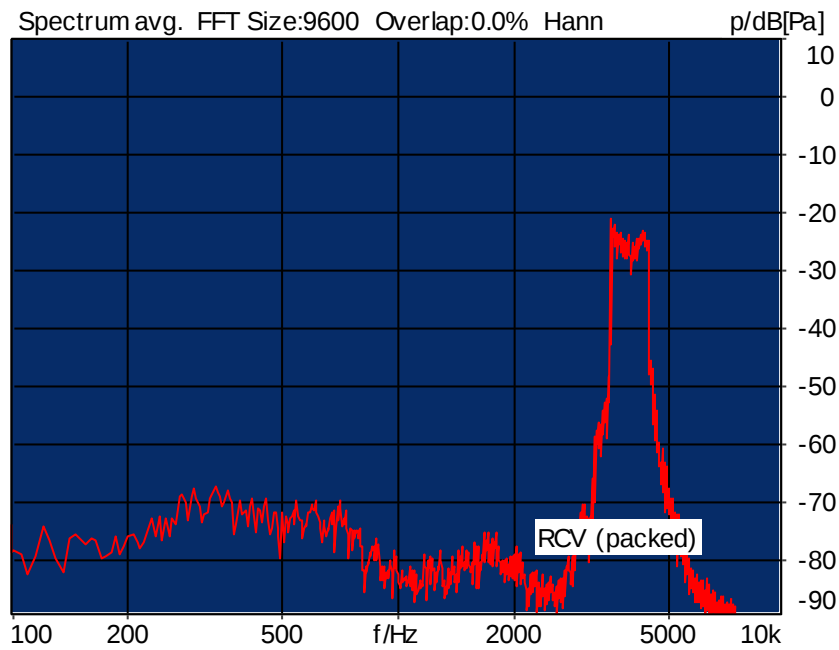
### Limits

|          |
|----------|
| 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): 29.17 dB (3.48%) Ok

Ok

2025-12-17 上午 01:56 ACQUA 6.1.110

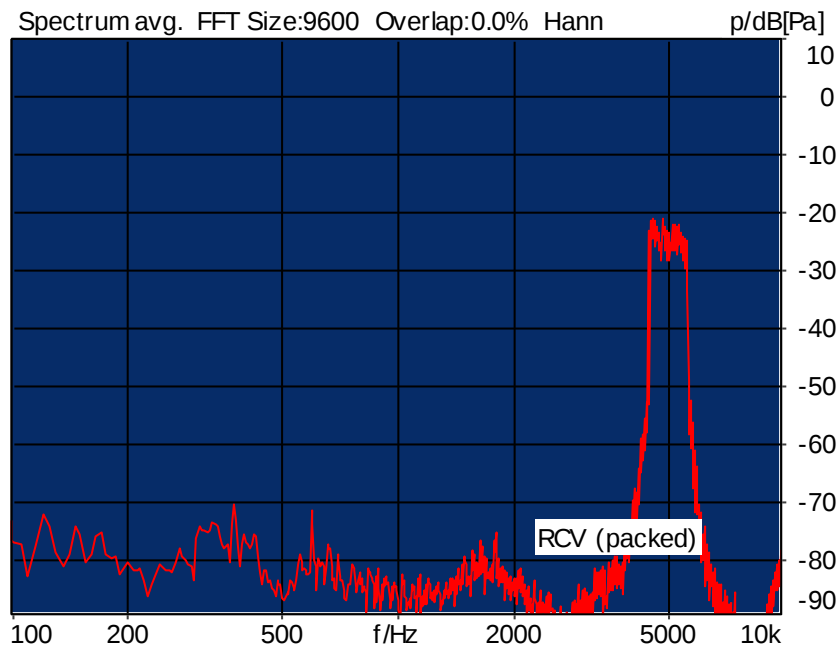
### Limits

|          |
|----------|
| 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): 36.46 dB (1.50%) Ok

Ok

2025-12-17 上午 01:56 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     | 35.84 dB |
| 2      | 315Hz     | 34.89 dB |
| 3      | 400Hz     | 37.17 dB |
| 4      | 500Hz     | 34.64 dB |
| 5      | 630Hz     | 38.46 dB |
| 6      | 800Hz     | 36.01 dB |
| 7      | 1000Hz    | 32.43 dB |
| 8      | 1250Hz    | 22.89 dB |
| 9      | 1600Hz    | 26.89 dB |
| 10     | 2000Hz    | 21.01 dB |
| 11     | 2500Hz    | 28.36 dB |
| 12     | 3150Hz    | 35.72 dB |
| 13     | 4000Hz    | 29.17 dB |
| 14     | 5000Hz    | 36.46 dB |

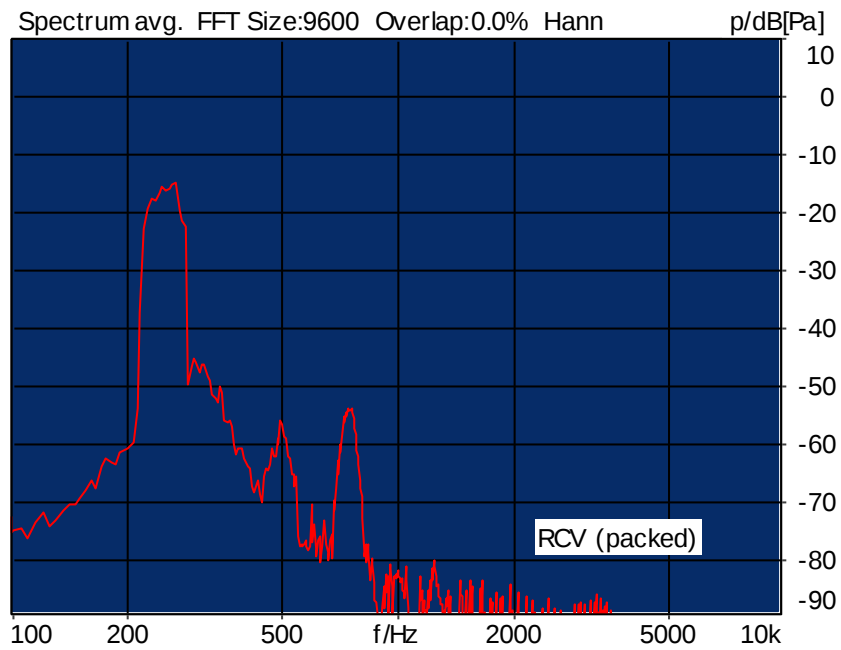
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.01dB at 2000Hz.

2025-12-17 上午 01:56 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): 35.76 dB (1.63%) Ok

Ok

2025-12-17 上午 01:59 ACQUA 6.1.110

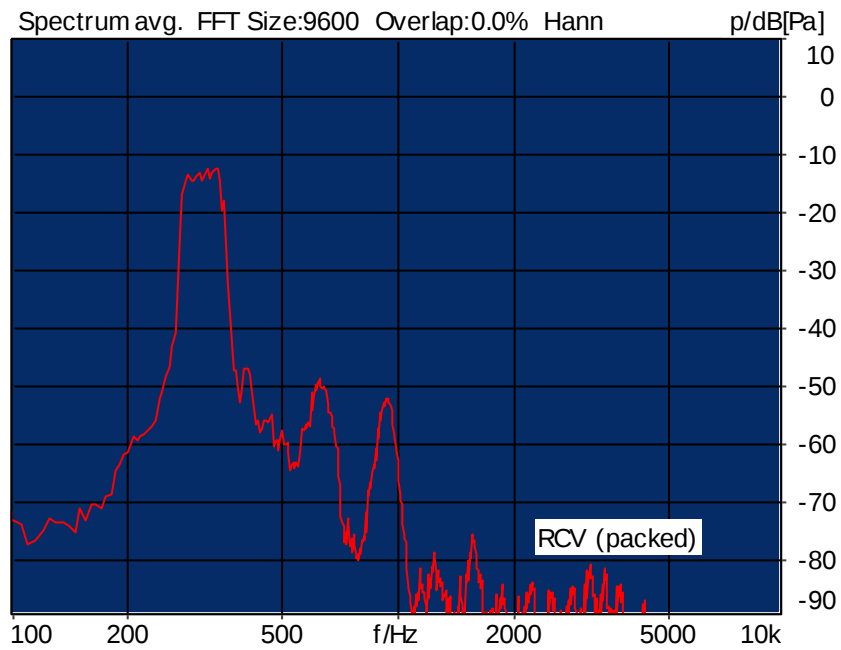
### Limits

|          |
|----------|
| 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): 34.81 dB (1.82%) Ok

Ok

2025-12-17 上午 01:59 ACQUA 6.1.110

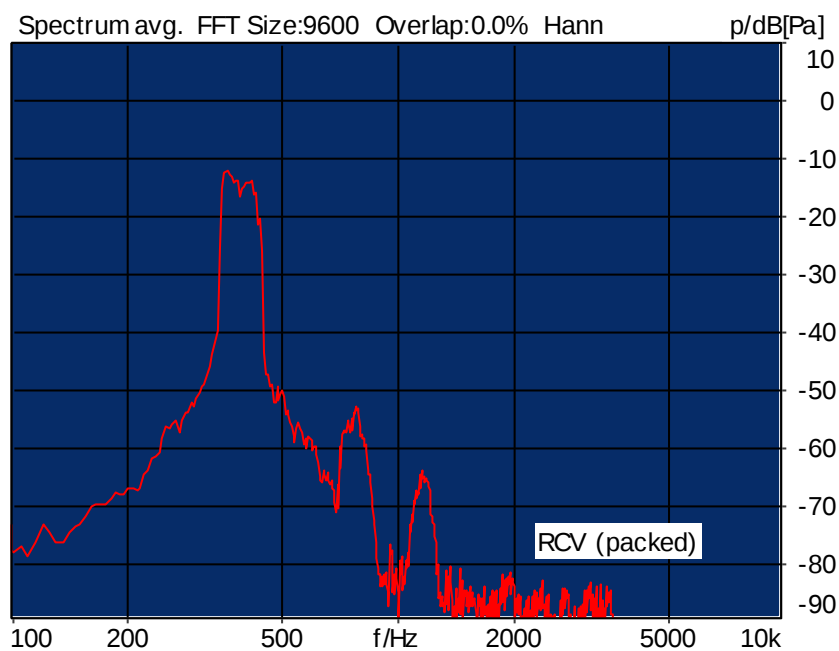
### Limits

|          |
|----------|
| 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): 37.67 dB (1.31%) Ok

Ok

2025-12-17 上午 02:00 ACQUA 6.1.110

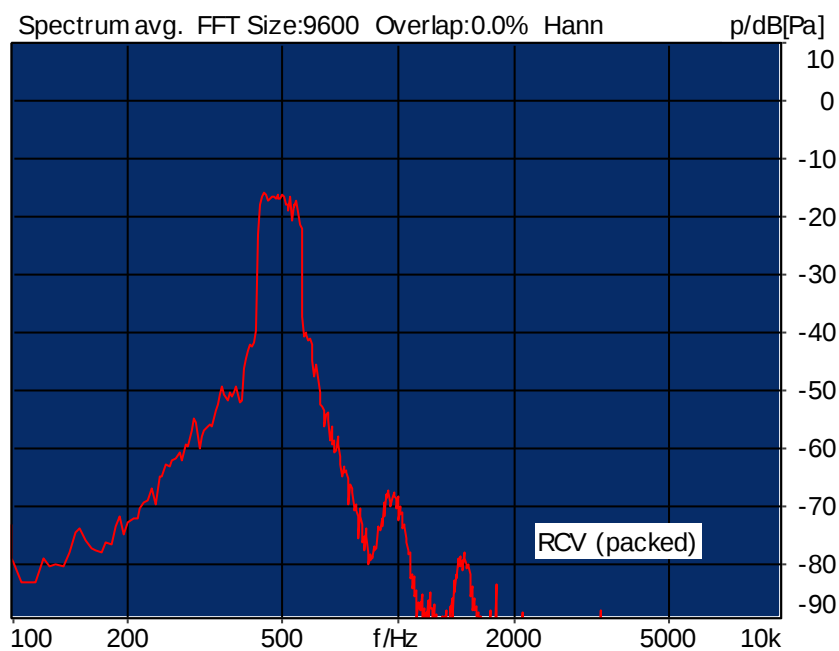
### Limits

|          |
|----------|
| 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): 34.70 dB (1.84%) Ok

Ok

2025-12-17 上午 02:01 ACQUA 6.1.110

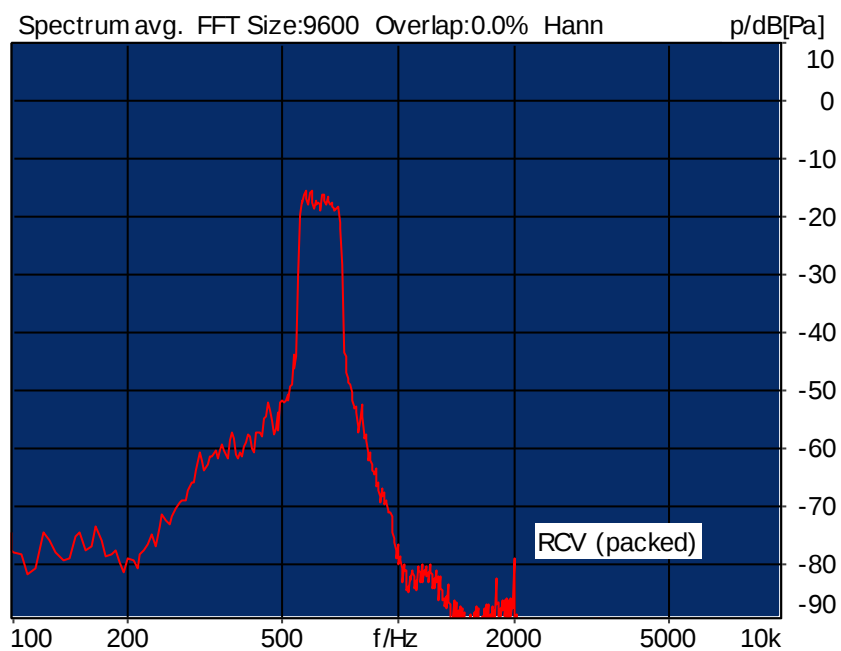
### Limits

|          |
|----------|
| 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): 37.29 dB (1.37%) Ok

Ok

2025-12-17 上午 02:01 ACQUA 6.1.110

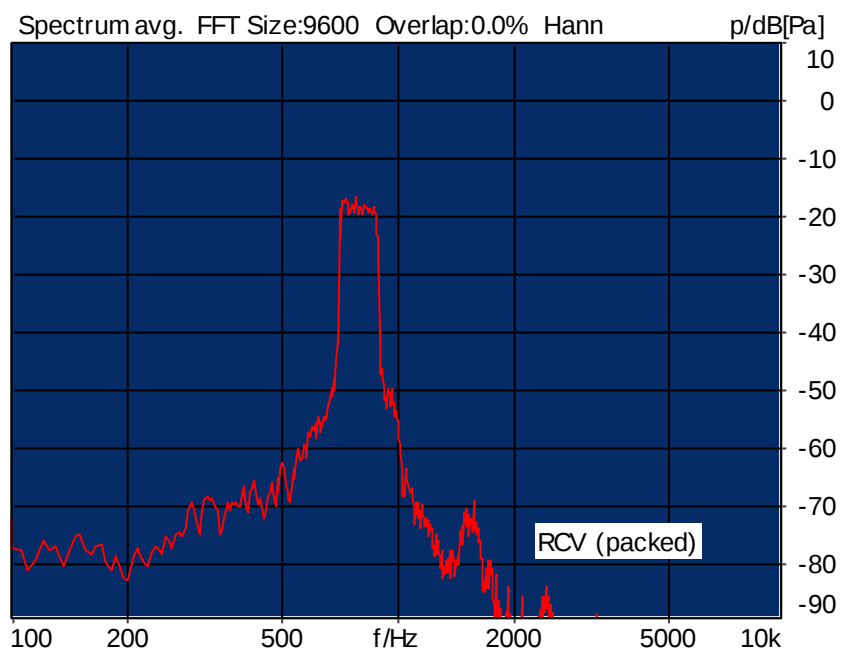
### Limits

|          |
|----------|
| 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): 35.54 dB (1.67%) Ok

Ok

2025-12-17 上午 02:02 ACQUA 6.1.110

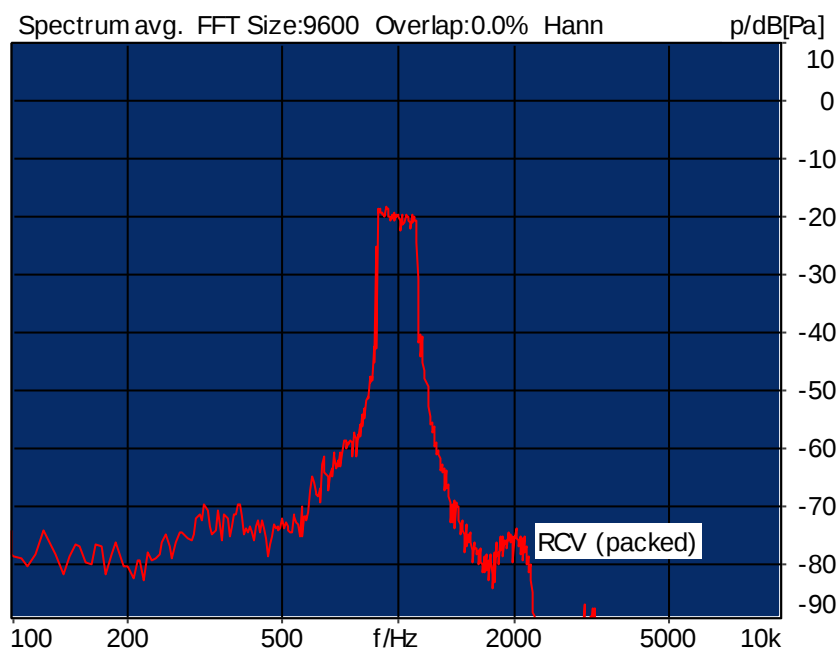
### Limits

|          |
|----------|
| 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): 32.51 dB (2.37%) Ok

Ok

2025-12-17 上午 02:02 ACQUA 6.1.110

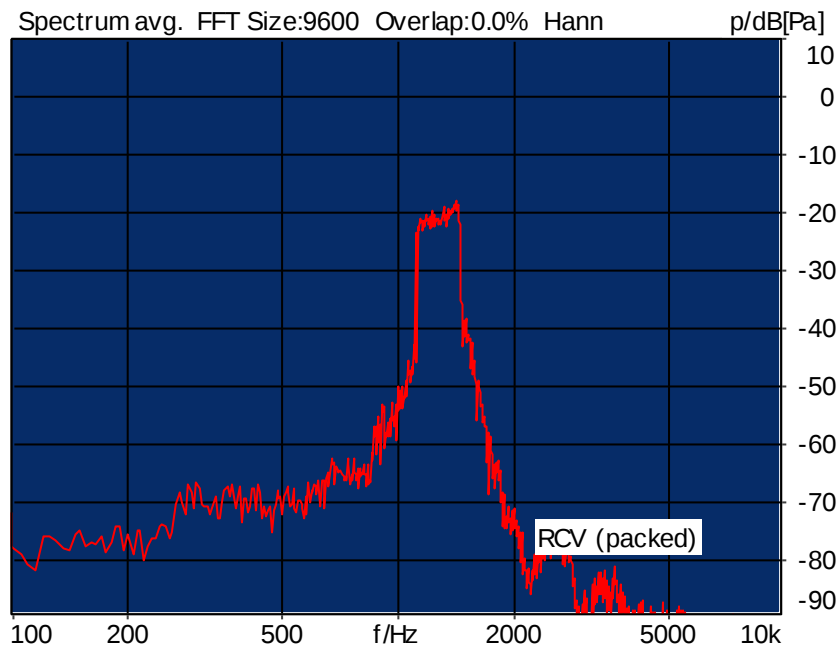
### Limits

|          |
|----------|
| 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): 22.60 dB (7.42%) Ok

Ok

2025-12-17 上午 02:03 ACQUA 6.1.110

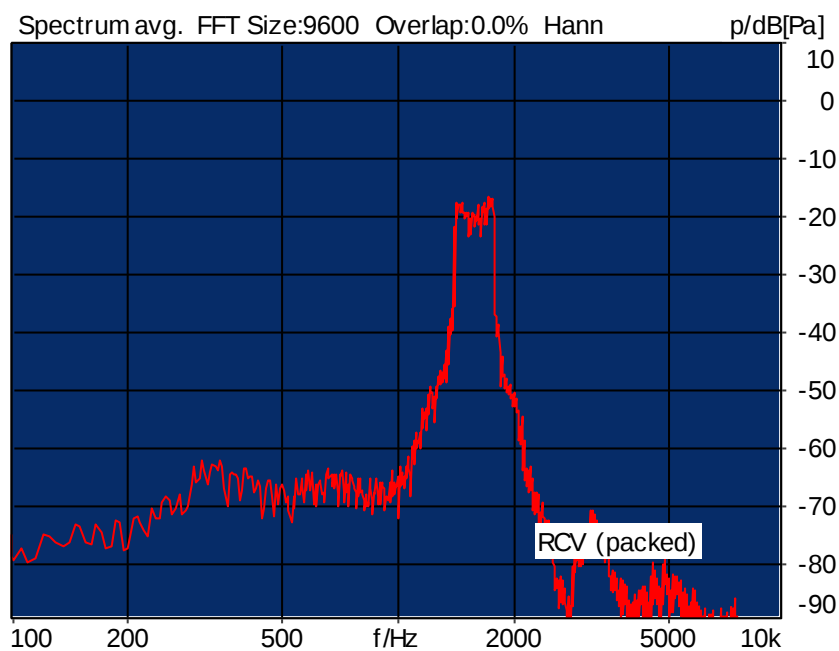
### Limits

|          |
|----------|
| 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): 26.32 dB (4.83%) Ok

Ok

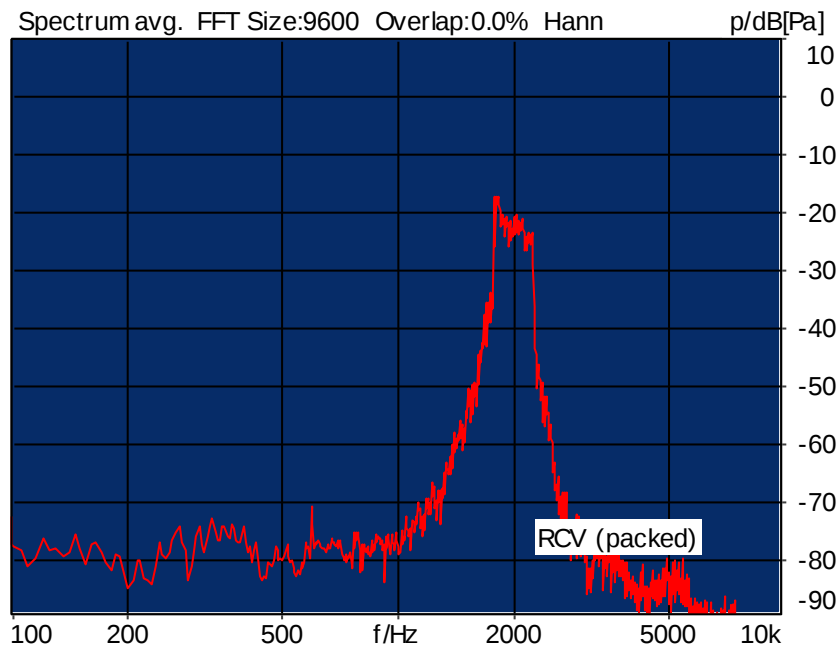
2025-12-17 上午 02:03 ACQUA 6.1.110

### 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): 21.48 dB (8.43%) Ok

Ok

2025-12-17 上午 02:04 ACQUA 6.1.110

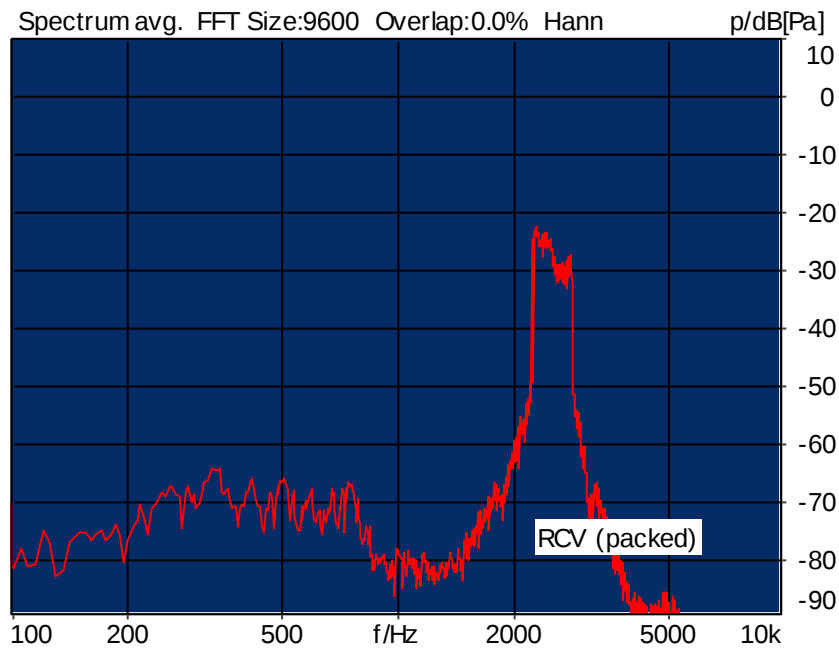
### Limits

|          |
|----------|
| 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): 29.94 dB (3.18%) Ok

Ok

2025-12-17 上午 02:04 ACQUA 6.1.110

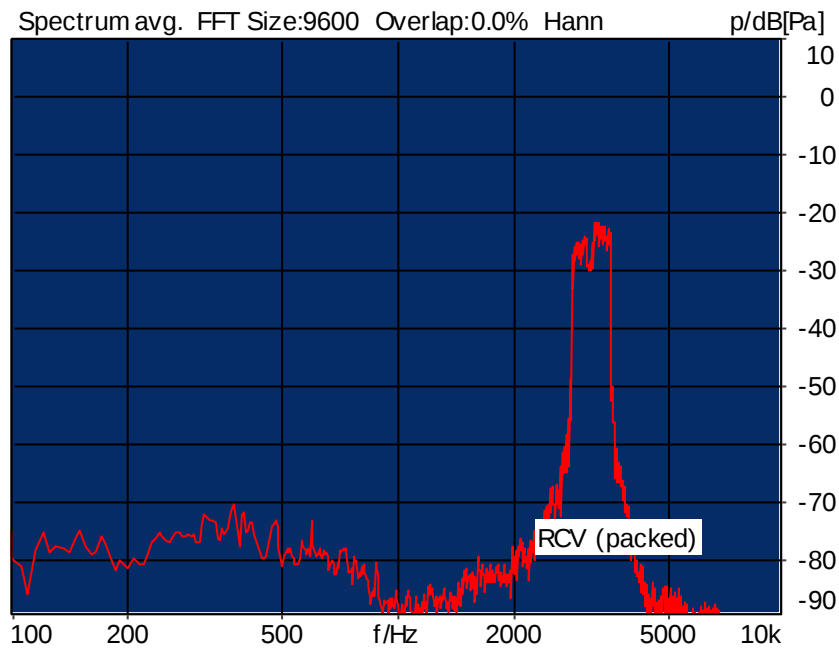
### Limits

|          |
|----------|
| 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): 36.45 dB (1.51%) Ok

Ok

2025-12-17 上午 02:05 ACQUA 6.1.110

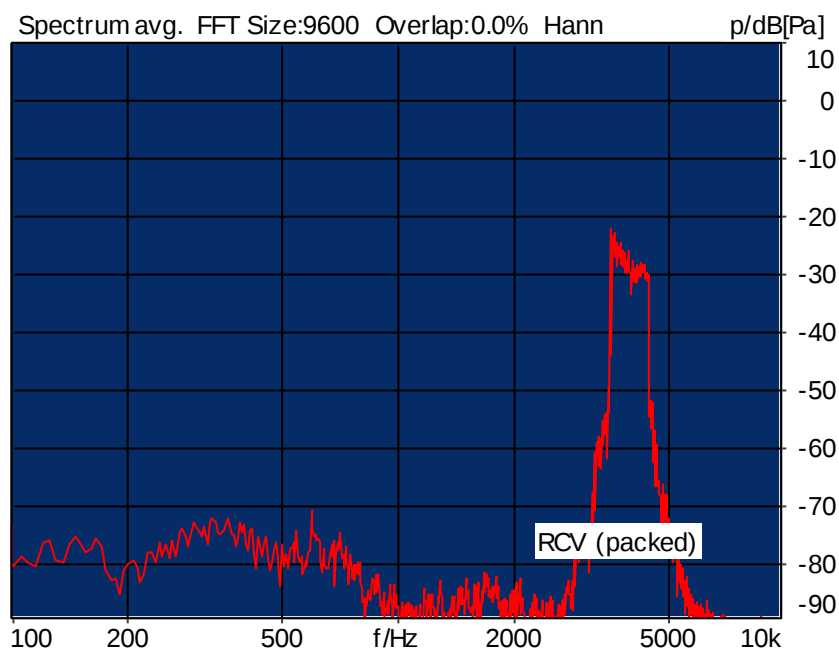
### Limits

|          |
|----------|
| 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): 30.92 dB (2.84%) Ok

Ok

2025-12-17 上午 02:05 ACQUA 6.1.110

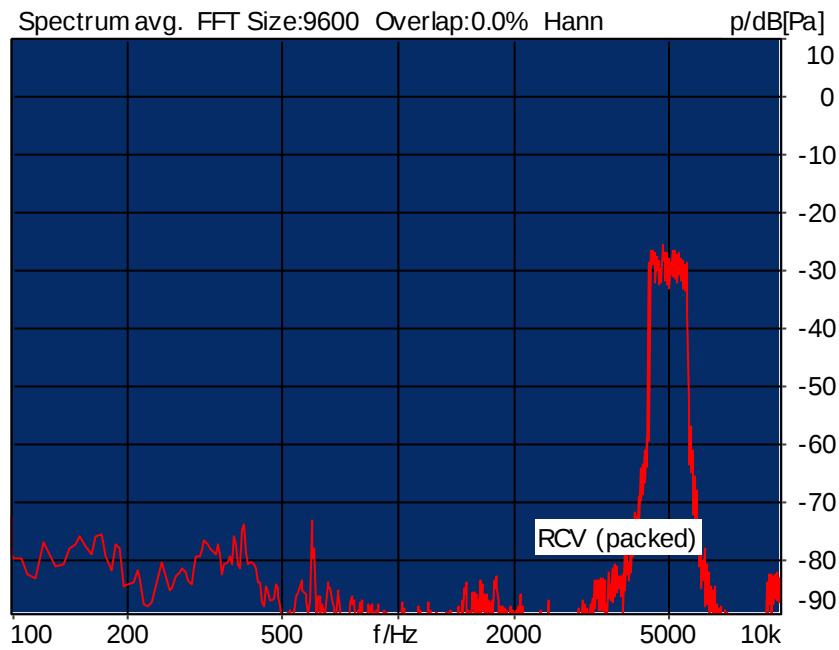
### Limits

|          |
|----------|
| 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): 36.83 dB (1.44%) Ok

Ok

2025-12-17 上午 02:06 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     | 35.76 dB |
| 2      | 315Hz     | 34.81 dB |
| 3      | 400Hz     | 37.67 dB |
| 4      | 500Hz     | 34.70 dB |
| 5      | 630Hz     | 37.29 dB |
| 6      | 800Hz     | 35.54 dB |
| 7      | 1000Hz    | 32.51 dB |
| 8      | 1250Hz    | 22.60 dB |
| 9      | 1600Hz    | 26.32 dB |
| 10     | 2000Hz    | 21.48 dB |
| 11     | 2500Hz    | 29.94 dB |
| 12     | 3150Hz    | 36.45 dB |
| 13     | 4000Hz    | 30.92 dB |
| 14     | 5000Hz    | 36.83 dB |

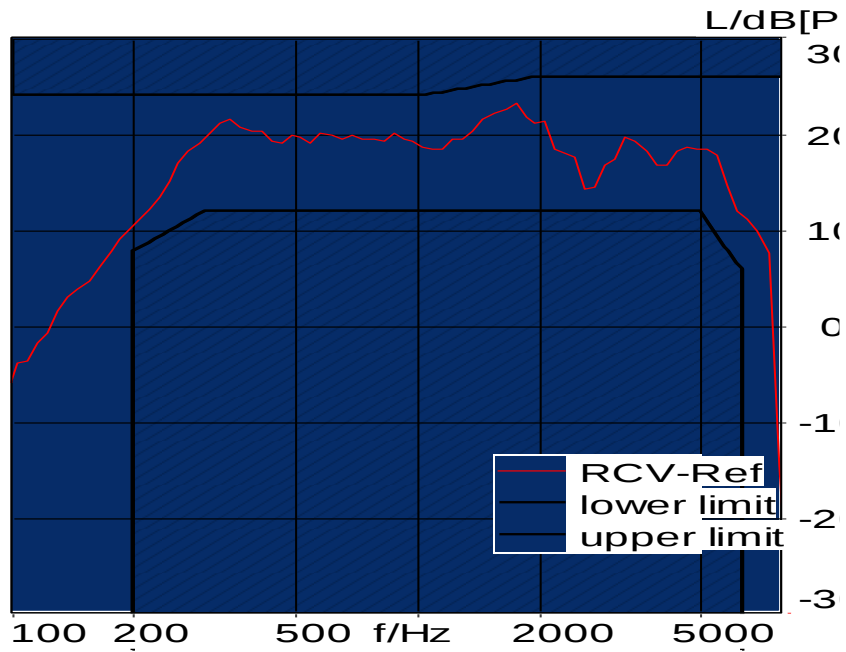
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.48dB at 2000Hz.

2025-12-17 上午 02:06 ACQUA

## 5.3 Frequency Response 8N DF

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



Absolute minimal distance

2.31 dB at 2571.8 Hz Ok

Ok

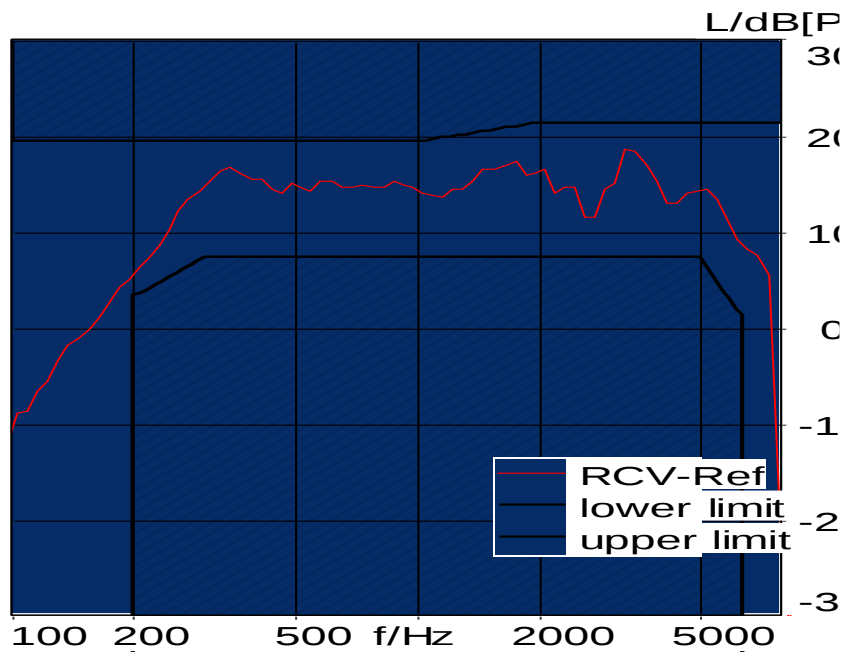
2025-12-17 上午 01:57 ACQUA 6.1.110

### Limits

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

## 5.3 Frequency Response 2N DF

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



Absolute minimal distance

2.64 dB at 344.5 Hz Ok

Ok

2025-12-17 上午 02:06 ACQUA 6.1.110

### Limits

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

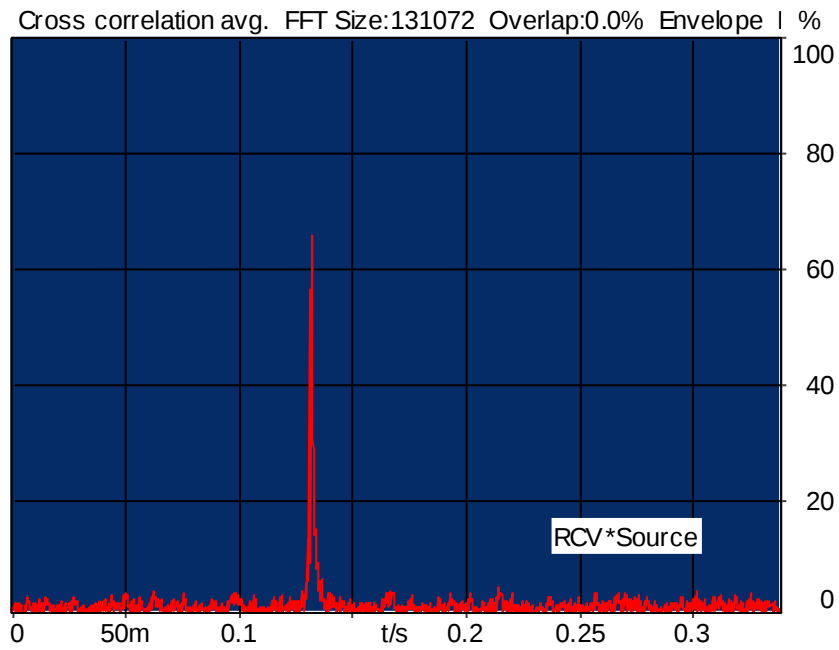
## #2 NR n48 EVS WB 24.4kbps

| SMD                                                               | Status | Single Value Description                       | Single Value |
|-------------------------------------------------------------------|--------|------------------------------------------------|--------------|
| Overall Receive Delay WB                                          | Done   | Delay (Cross) [ms]                             | 132.1        |
| 5.1a Receive Volume Control Performance 8N WB                     | Ok     | Speech Level [dB[SPL]]                         | 89.51        |
| 5.1b Receive Volume Control Performance 2N WB                     | Ok     | Speech Level [dB[SPL]]                         | 85.08        |
| 5.2 RCV Distortion and Noise - 250 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.34        |
| 5.2 RCV Distortion and Noise - 315 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.98        |
| 5.2 RCV Distortion and Noise - 400 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.06        |
| 5.2 RCV Distortion and Noise - 500 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.27        |
| 5.2 RCV Distortion and Noise - 630 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.68        |
| 5.2 RCV Distortion and Noise - 800 Hz 8N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.25        |
| 5.2 RCV Distortion and Noise - 1000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 32.60        |
| 5.2 RCV Distortion and Noise - 1250 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.47        |
| 5.2 RCV Distortion and Noise - 1600 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.52        |
| 5.2 RCV Distortion and Noise - 2000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.10        |
| 5.2 RCV Distortion and Noise - 2500 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 27.27        |
| 5.2 RCV Distortion and Noise - 3150 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.60        |
| 5.2 RCV Distortion and Noise - 4000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 30.04        |
| 5.2 RCV Distortion and Noise - 5000 Hz 8N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.47        |
| Report - Receive Distortion and Noise (Conversational Gain) 8N WB | Ok     | Minimum SDNR [dB], (occured at 2000Hz)         | 21.10        |
| 5.2 RCV Distortion and Noise - 250 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.17        |
| 5.2 RCV Distortion and Noise - 315 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.32        |
| 5.2 RCV Distortion and Noise - 400 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 36.40        |
| 5.2 RCV Distortion and Noise - 500 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.94        |
| 5.2 RCV Distortion and Noise - 630 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 37.63        |
| 5.2 RCV Distortion and Noise - 800 Hz 2N WB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 35.36        |
| 5.2 RCV Distortion and Noise - 1000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 33.59        |
| 5.2 RCV Distortion and Noise - 1250 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.97        |
| 5.2 RCV Distortion and Noise - 1600 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 25.99        |
| 5.2 RCV Distortion and Noise - 2000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.58        |
| 5.2 RCV Distortion and Noise - 2500 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 28.35        |
| 5.2 RCV Distortion and Noise - 3150 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 38.74        |
| 5.2 RCV Distortion and Noise - 4000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 30.72        |
| 5.2 RCV Distortion and Noise - 5000 Hz 2N WB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.77        |
| Report - Receive Distortion and Noise (Conversational Gain) 2N WB | Ok     | Minimum SDNR [dB], (occured at 2000Hz)         | 21.58        |
| 5.3 Frequency Response 8N DF                                      | Ok     | Min. dist. to tolerance scheme [dB], 2571.8 Hz | 2.75         |
| 5.3 Frequency Response 2N DF                                      | Ok     | Min. dist. to tolerance scheme [dB], 3245.6 Hz | 2.37         |



## Overall Receive Delay WB

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

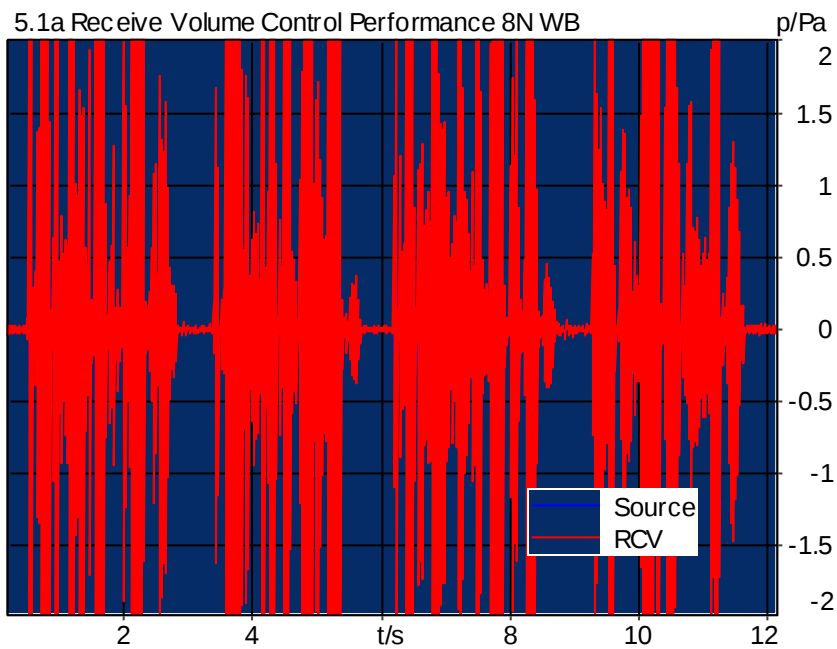


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 132.1 ms | 65.87 %     |

2026-01-07 上午 08:00 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.51 dB[SPL] | 81.47%   | Ok |

Ok

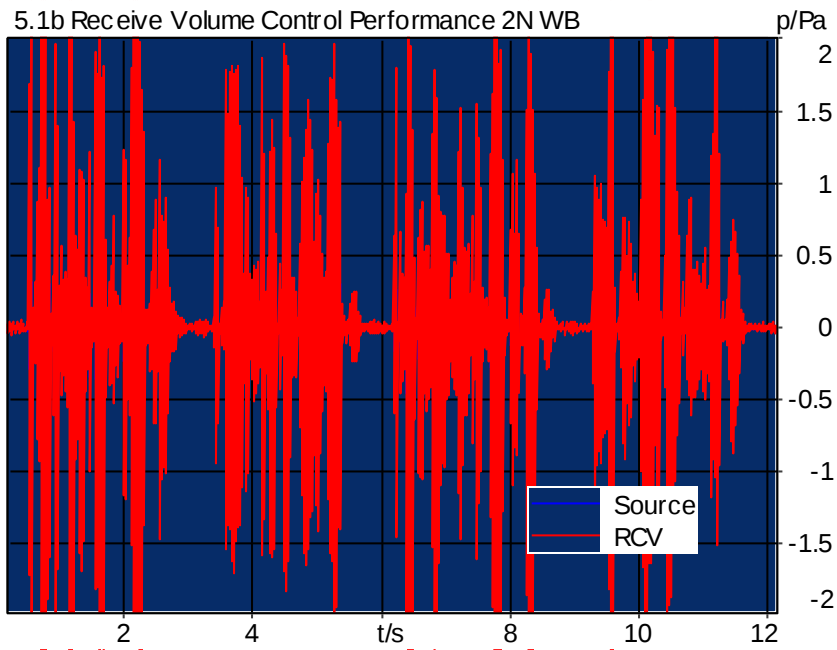
2026-01-07 上午 08:01 ACQUA 6.1.110

### 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     | 85.08 dB[SPL] | 82.42%   | Ok |

Ok

2026-01-07 上午 08:10 ACQUA 6.1.110

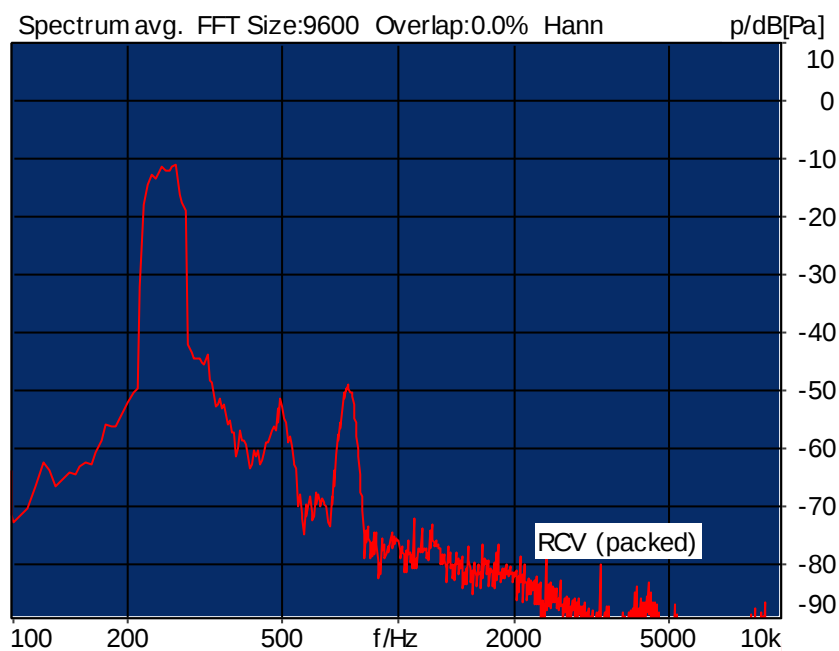
### Limits

|               |
|---------------|
| 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): 36.34 dB (1.52%) Ok

Ok

2026-01-07 上午 08:02 ACQUA 6.1.110

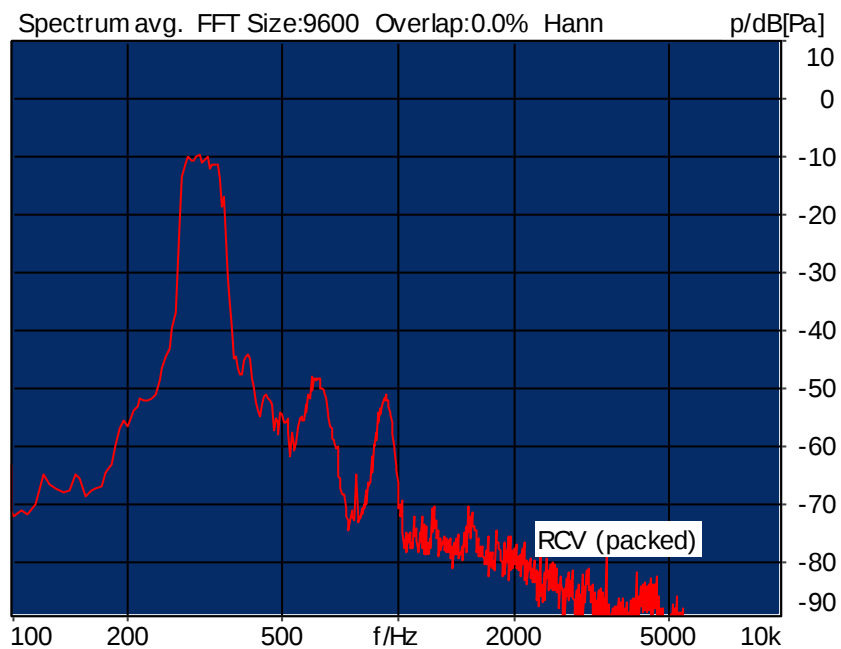
### Limits

|          |
|----------|
| 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): 35.98 dB (1.59%) Ok

Ok

2026-01-07 上午 08:02 ACQUA 6.1.110

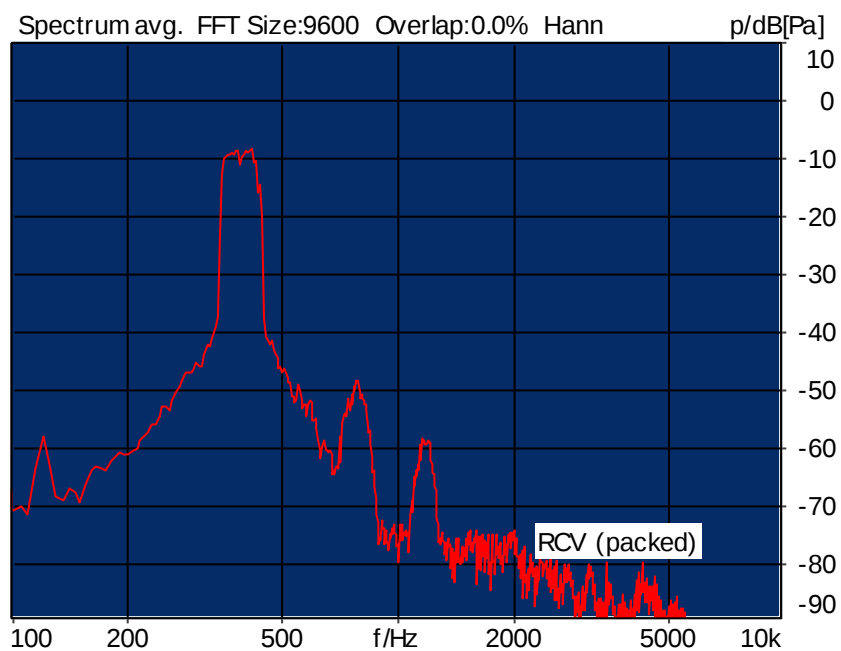
### Limits

|          |
|----------|
| 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): 37.06 dB (1.40%) Ok

Ok

2026-01-07 上午 08:03 ACQUA 6.1.110

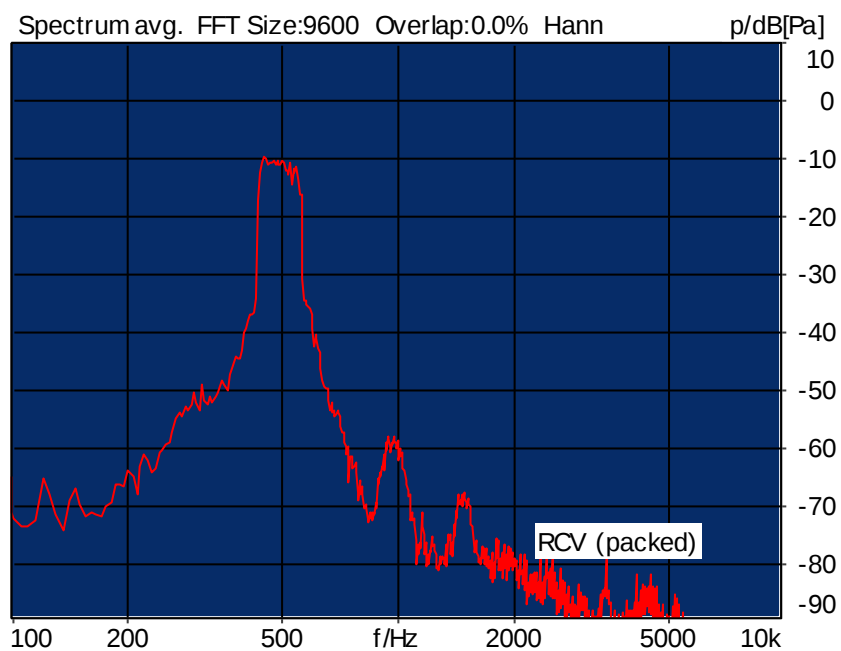
### Limits

|          |
|----------|
| 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): 35.27 dB (1.72%) Ok

Ok

2026-01-07 上午 08:03 ACQUA 6.1.110

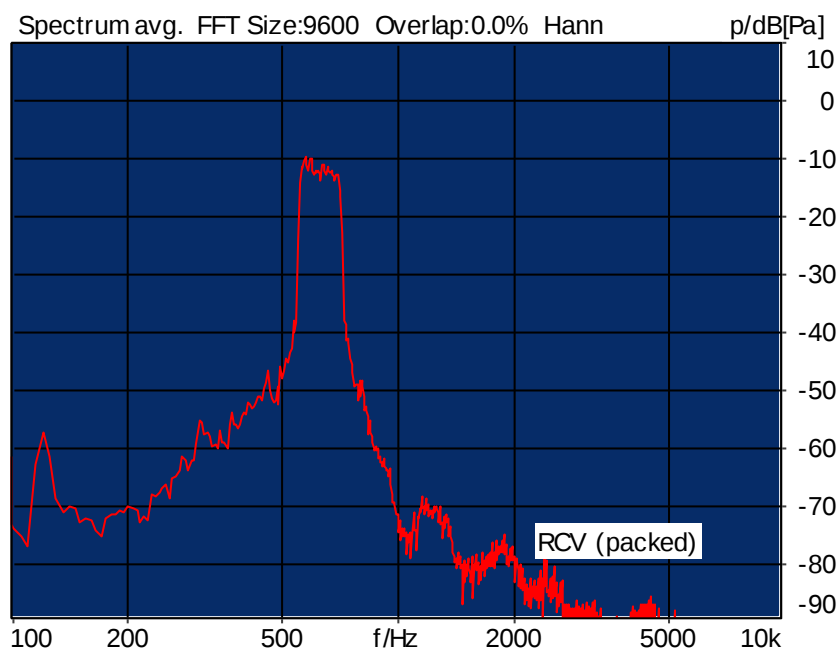
### Limits

|          |
|----------|
| 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): 37.68 dB (1.31%) Ok

Ok

2026-01-07 上午 08:04 ACQUA 6.1.110

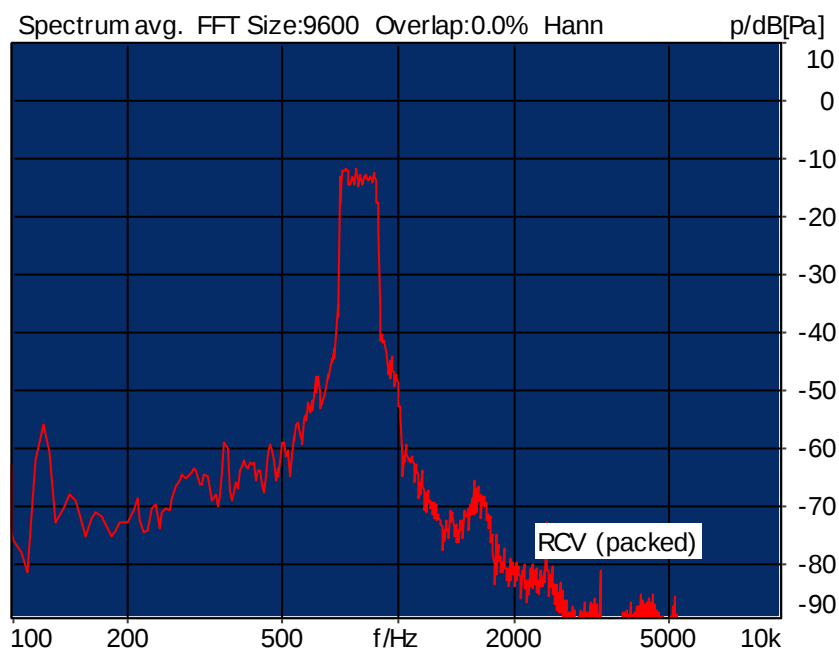
### Limits

|          |
|----------|
| 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): 35.25 dB (1.73%) Ok

Ok

2026-01-07 上午 08:05 ACQUA 6.1.110

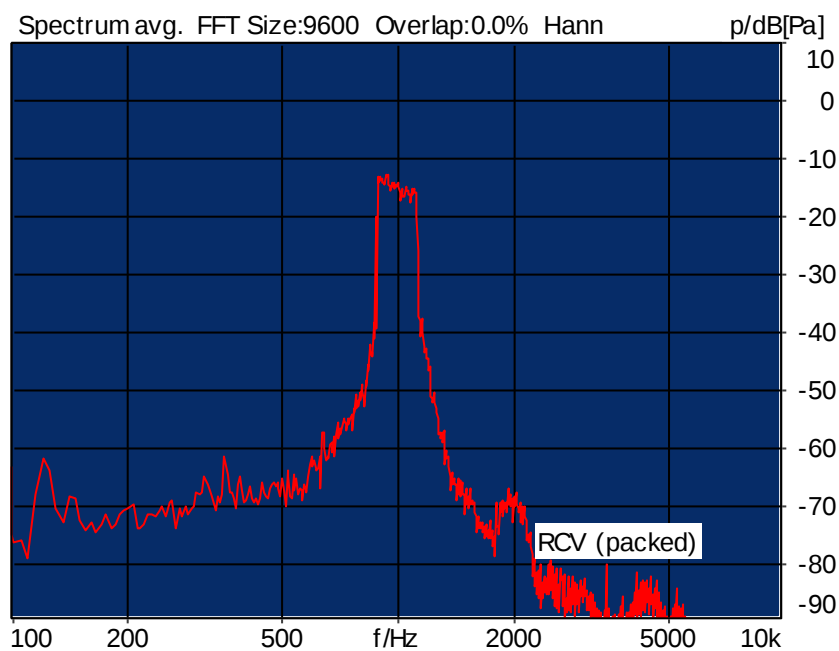
### Limits

|          |
|----------|
| 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): 32.60 dB (2.34%) Ok

Ok

2026-01-07 上午 08:05 ACQUA 6.1.110

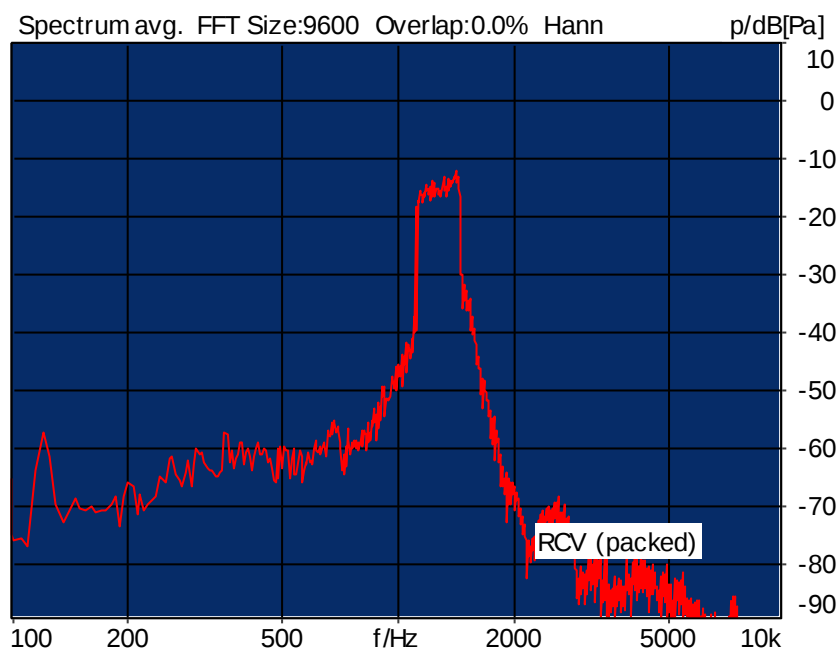
### Limits

|          |
|----------|
| 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): 22.47 dB (7.53%) Ok

Ok

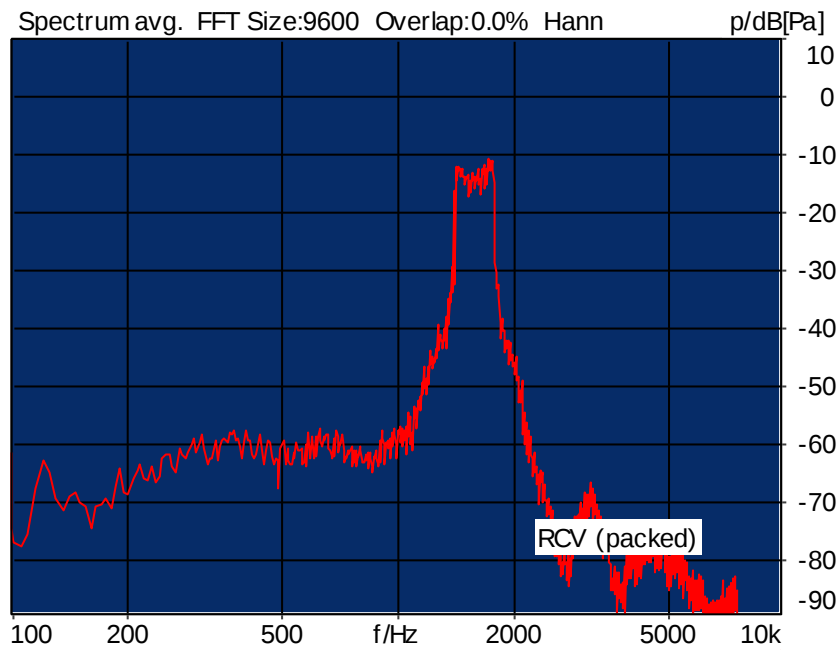
2026-01-07 上午 08:06 ACQUA 6.1.110

### 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): 26.52 dB (4.72%) Ok

Ok

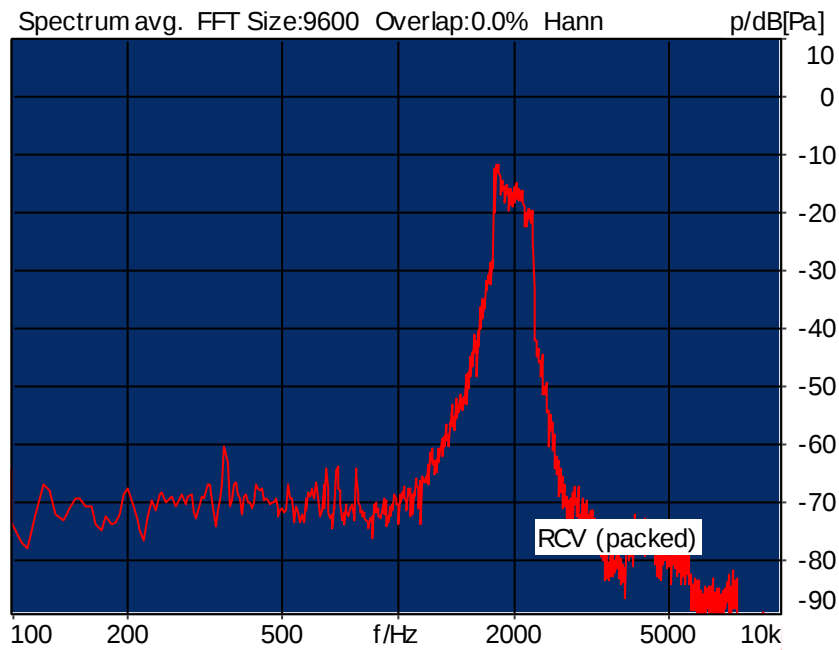
2026-01-07 上午 08:06 ACQUA 6.1.110

### 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): 21.10 dB (8.81%) Ok

Ok

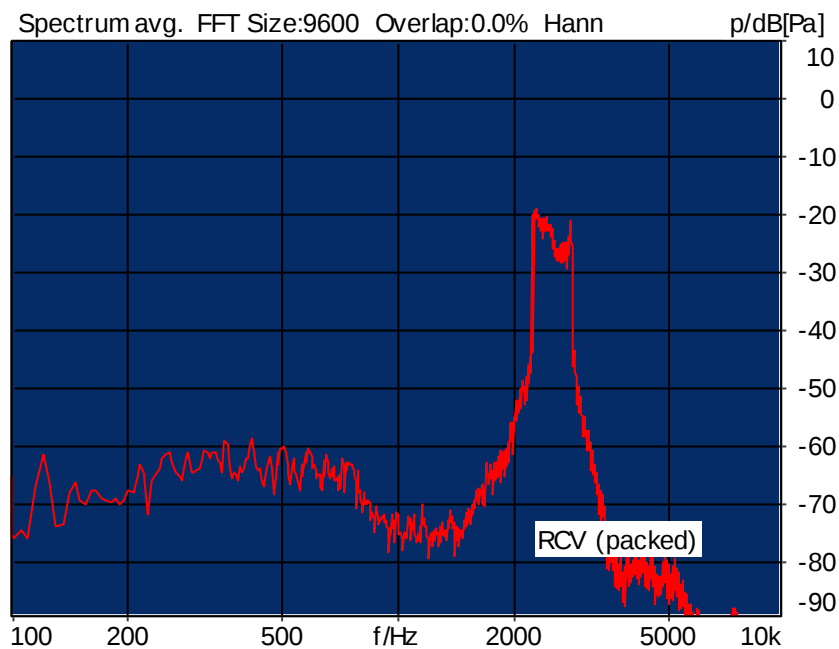
2026-01-07 上午 08:07 ACQUA 6.1.110

### 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): 27.27 dB (4.33%) Ok

Ok

2026-01-07 上午 08:07 ACQUA 6.1.110

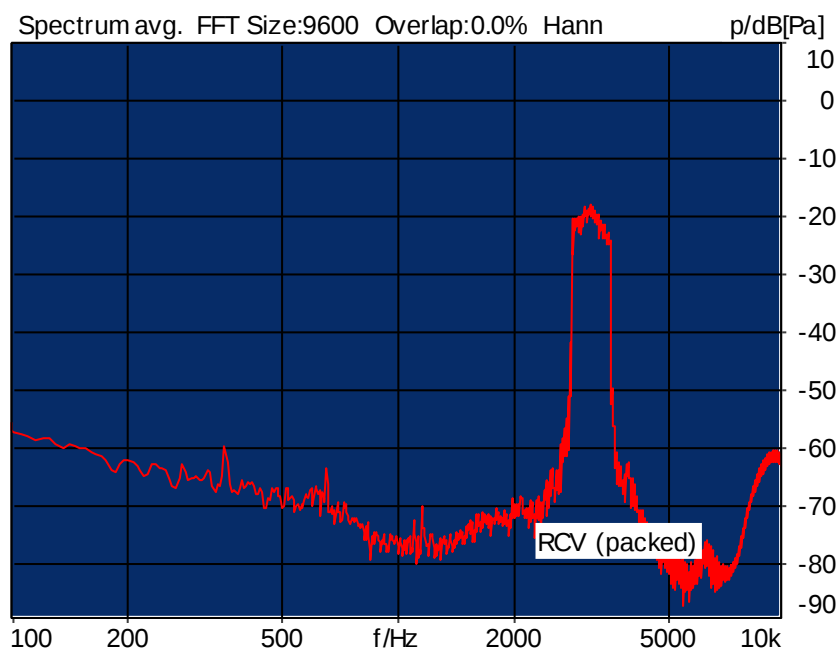
### Limits

|          |
|----------|
| 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): 37.60 dB (1.32%) Ok

Ok

2026-01-07 上午 08:08 ACQUA 6.1.110

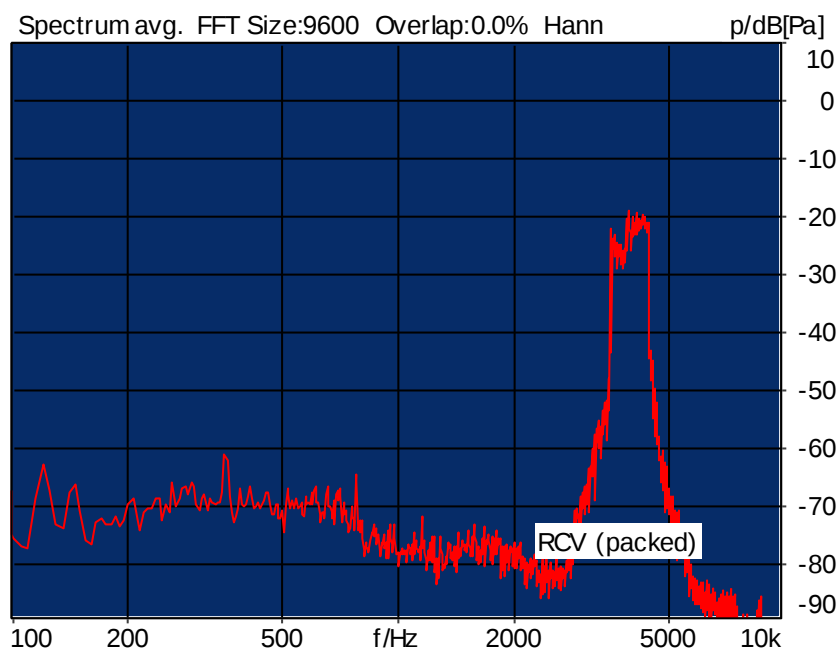
### Limits

|          |
|----------|
| 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): 30.04 dB (3.15%) Ok

Ok

2026-01-07 上午 08:08 ACQUA 6.1.110

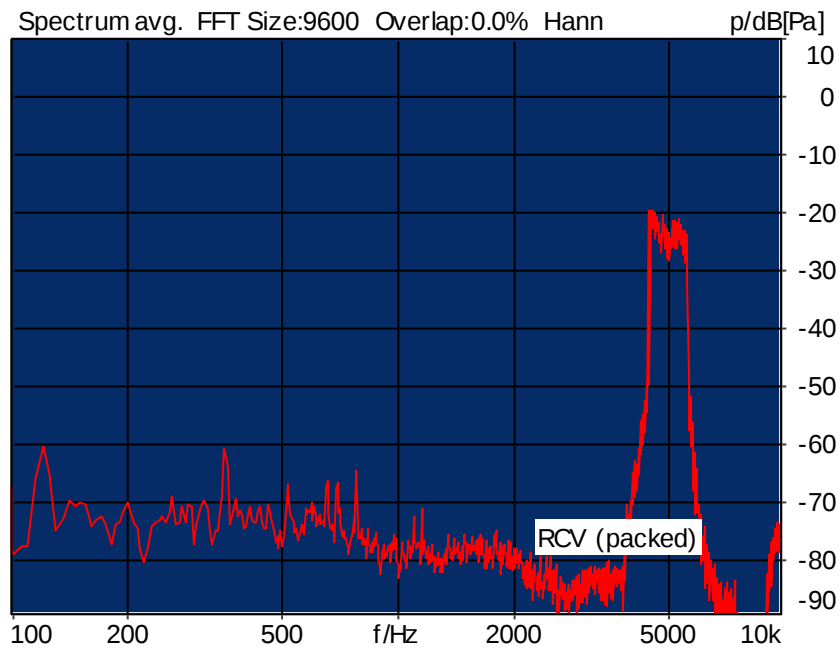
### Limits

|          |
|----------|
| 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): 35.47 dB (1.68%) Ok

Ok

2026-01-07 上午 08:09 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     | 36.34 dB |
| 2      | 315Hz     | 35.98 dB |
| 3      | 400Hz     | 37.06 dB |
| 4      | 500Hz     | 35.27 dB |
| 5      | 630Hz     | 37.68 dB |
| 6      | 800Hz     | 35.25 dB |
| 7      | 1000Hz    | 32.60 dB |
| 8      | 1250Hz    | 22.47 dB |
| 9      | 1600Hz    | 26.52 dB |
| 10     | 2000Hz    | 21.10 dB |
| 11     | 2500Hz    | 27.27 dB |
| 12     | 3150Hz    | 37.60 dB |
| 13     | 4000Hz    | 30.04 dB |
| 14     | 5000Hz    | 35.47 dB |

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

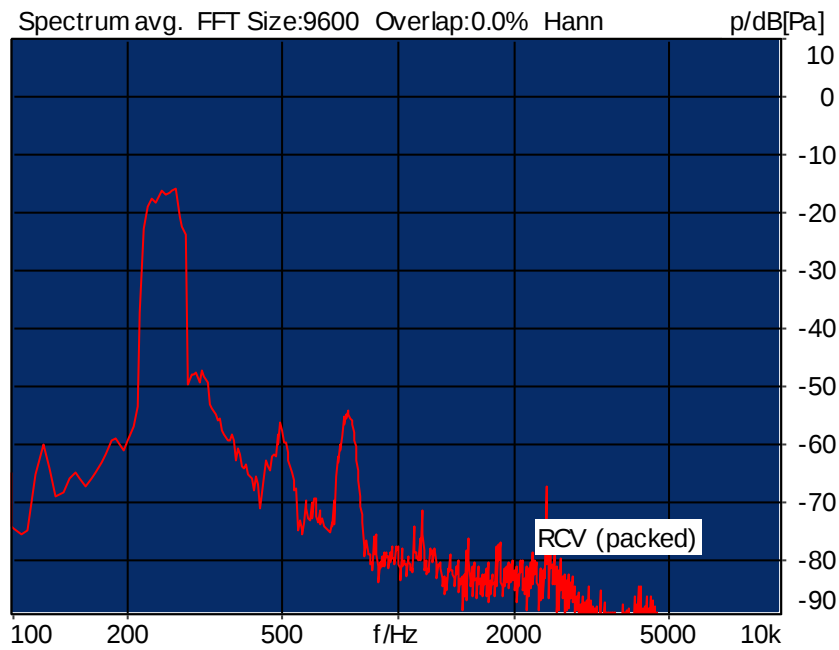
Smallest SDNR was 21.10dB at 2000Hz.

2026-01-07 上午 08:09 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): 36.17 dB (1.55%) Ok

Ok

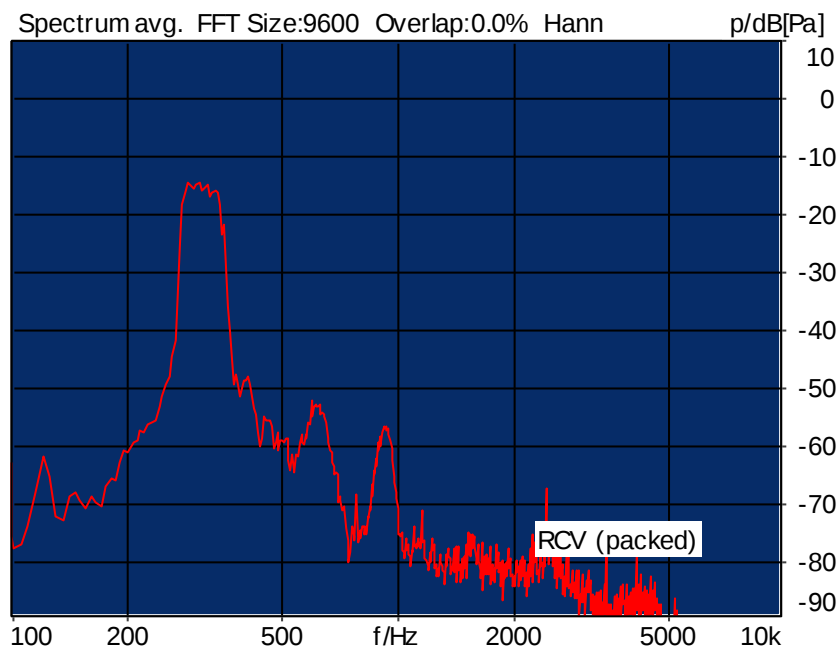
2026-01-07 上午 08:11 ACQUA 6.1.110

### 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): 35.32 dB (1.71%) Ok

Ok

2026-01-07 上午 08:11 ACQUA 6.1.110

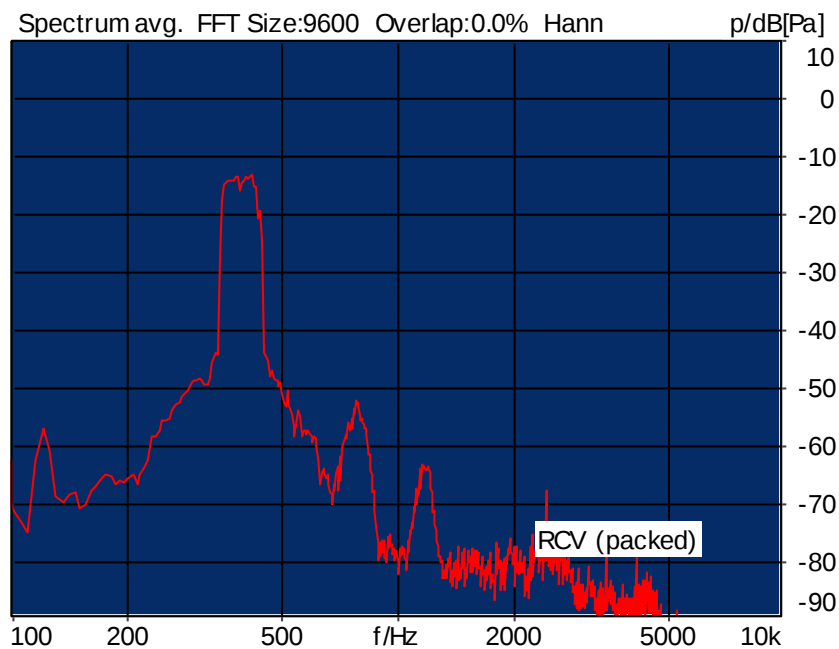
### Limits

|          |
|----------|
| 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): 36.40 dB (1.51%) Ok

Ok

2026-01-07 上午 08:12 ACQUA 6.1.110

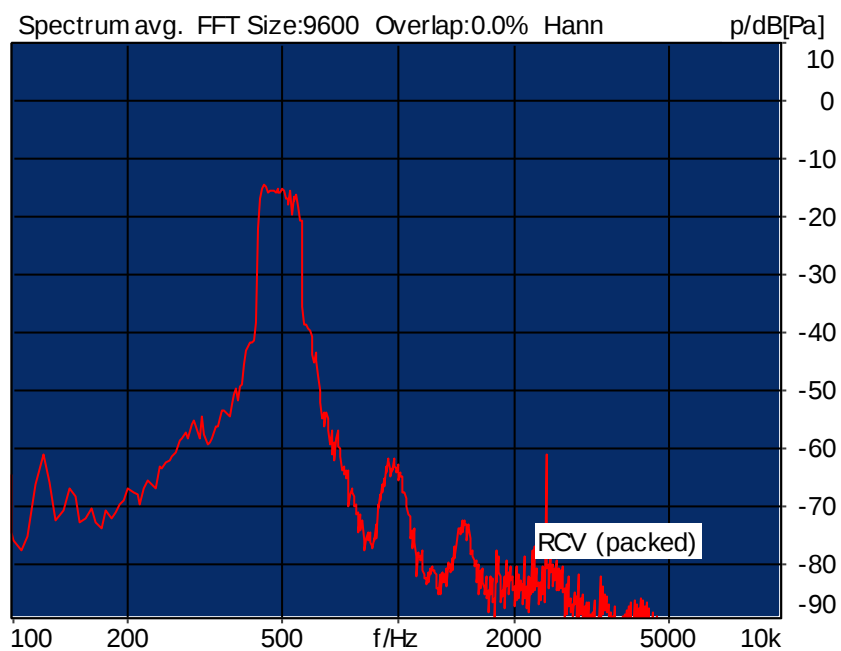
### Limits

|          |
|----------|
| 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): 34.94 dB (1.79%) Ok

Ok

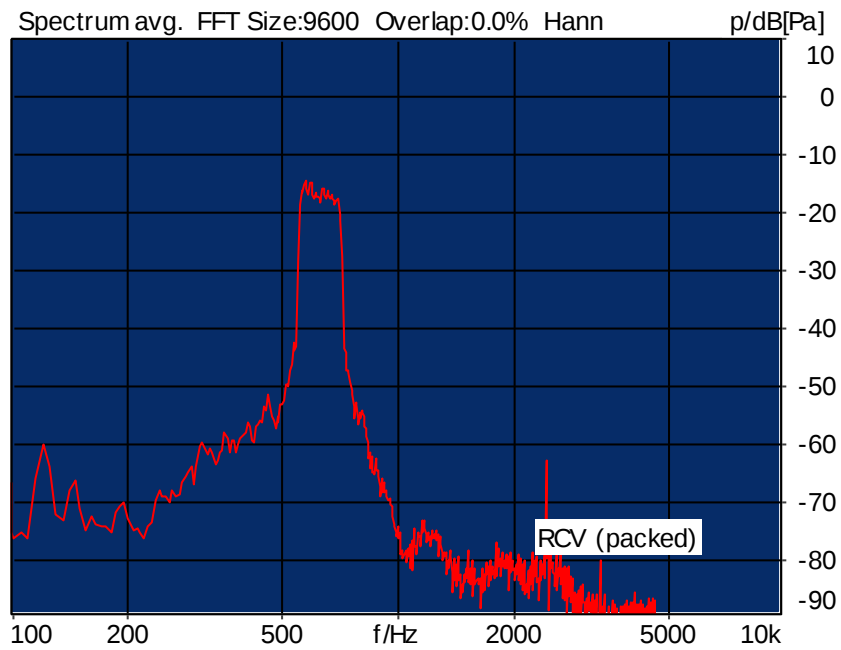
2026-01-07 上午 08:12 ACQUA 6.1.110

### 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): 37.63 dB (1.31%) Ok

Ok

2026-01-07 上午 08:13 ACQUA 6.1.110

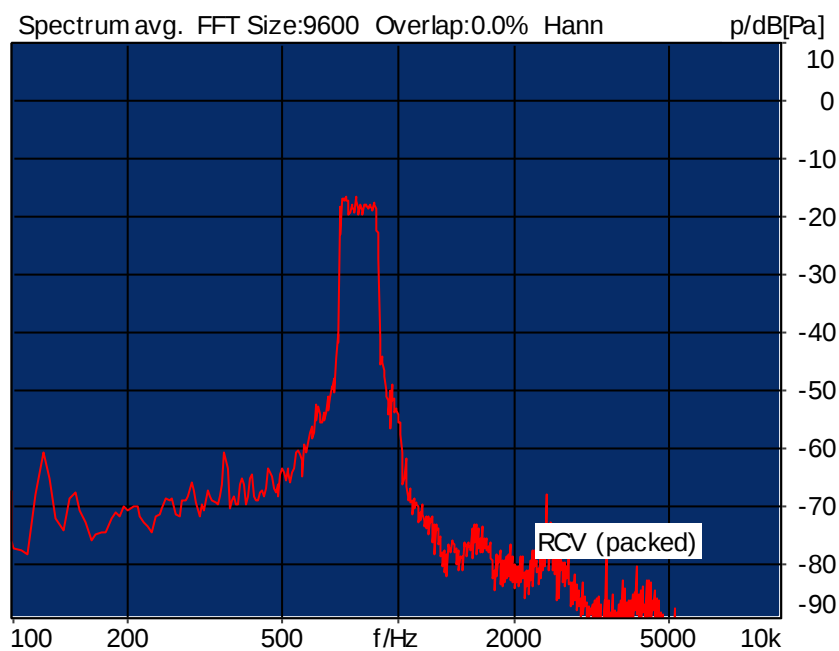
### Limits

|          |
|----------|
| 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): 35.36 dB (1.71%) Ok

Ok

2026-01-07 上午 08:13 ACQUA 6.1.110

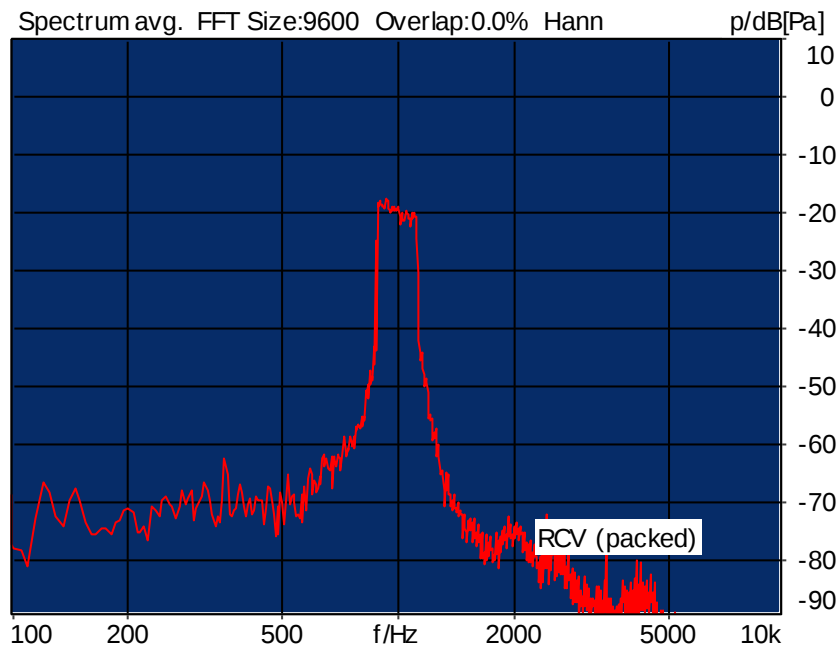
### Limits

|          |
|----------|
| 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): 33.59 dB (2.09%) Ok

Ok

2026-01-07 上午 08:14 ACQUA 6.1.110

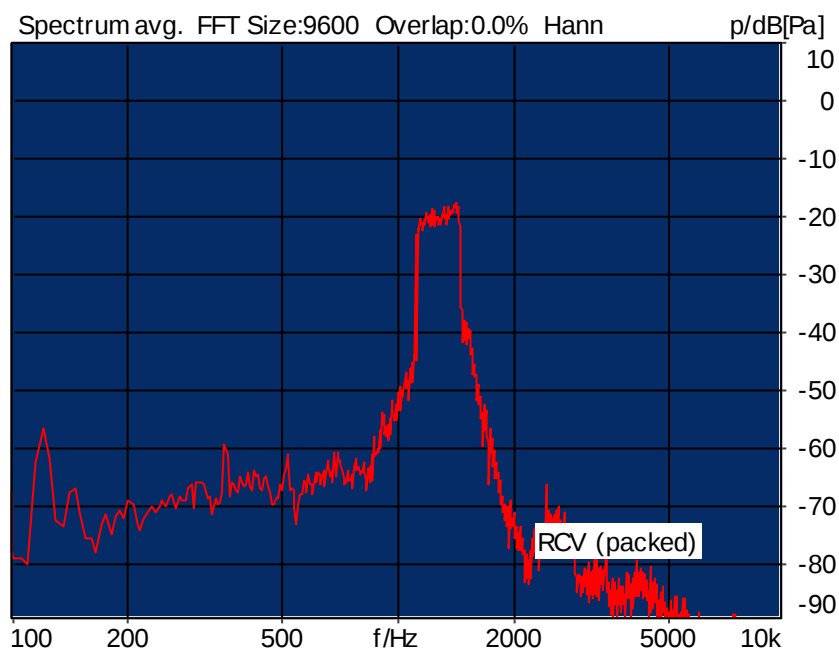
### Limits

|          |
|----------|
| 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): 22.97 dB (7.11%) Ok

Ok

2026-01-07 上午 08:14 ACQUA 6.1.110

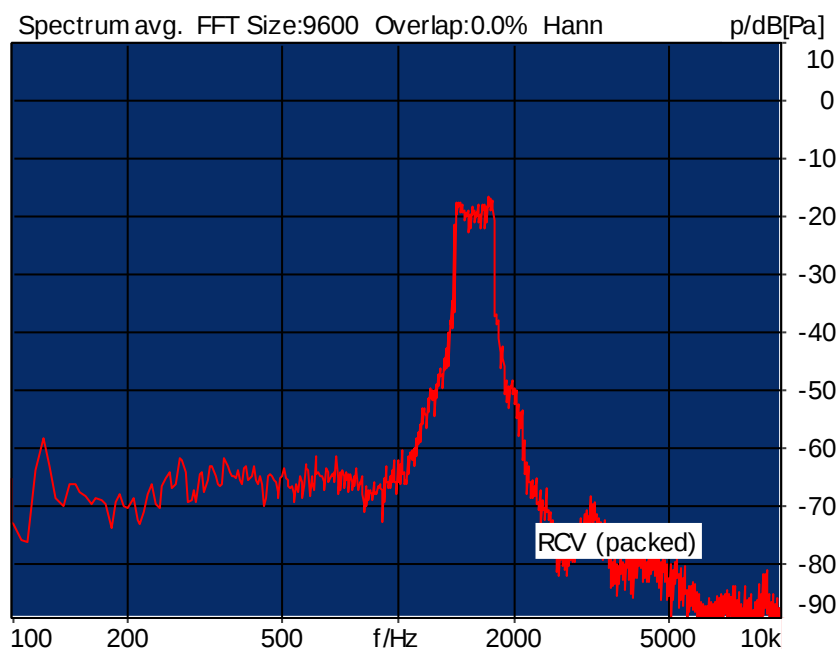
### Limits

|          |
|----------|
| 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): 25.99 dB (5.02%) Ok

Ok

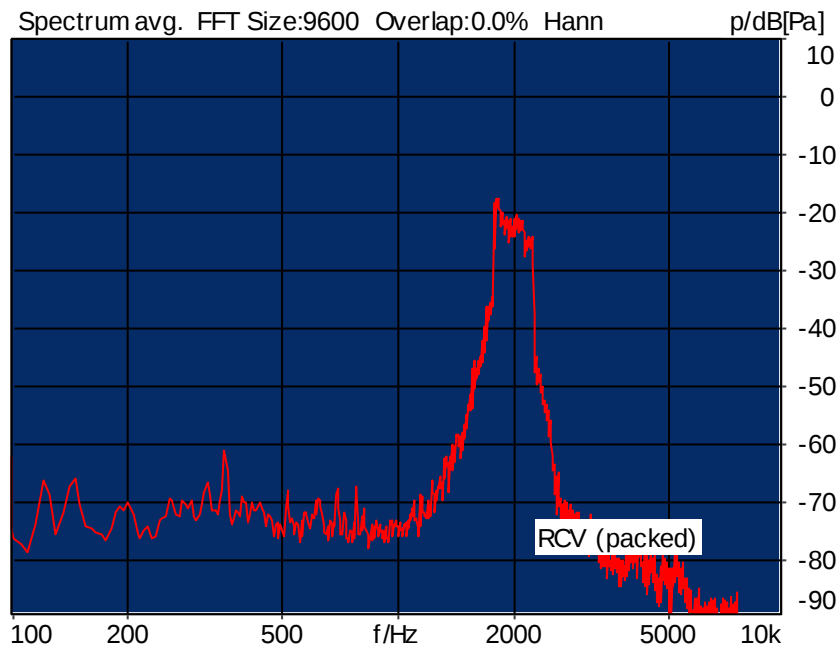
2026-01-07 上午 08:15 ACQUA 6.1.110

### 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): 21.58 dB (8.34%) Ok

Ok

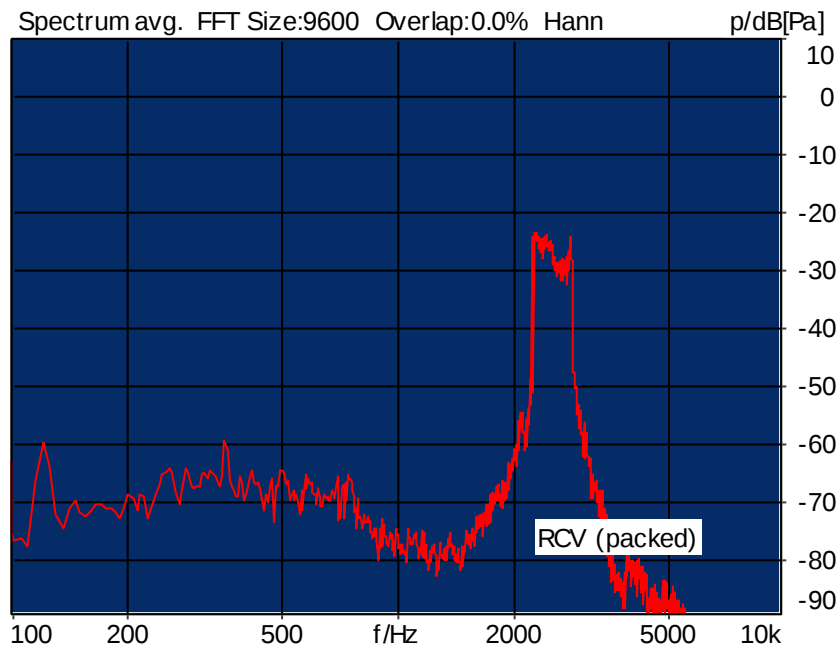
2026-01-07 上午 08:16 ACQUA 6.1.110

### 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): 28.35 dB (3.82%) Ok

Ok

2026-01-07 上午 08:16 ACQUA 6.1.110

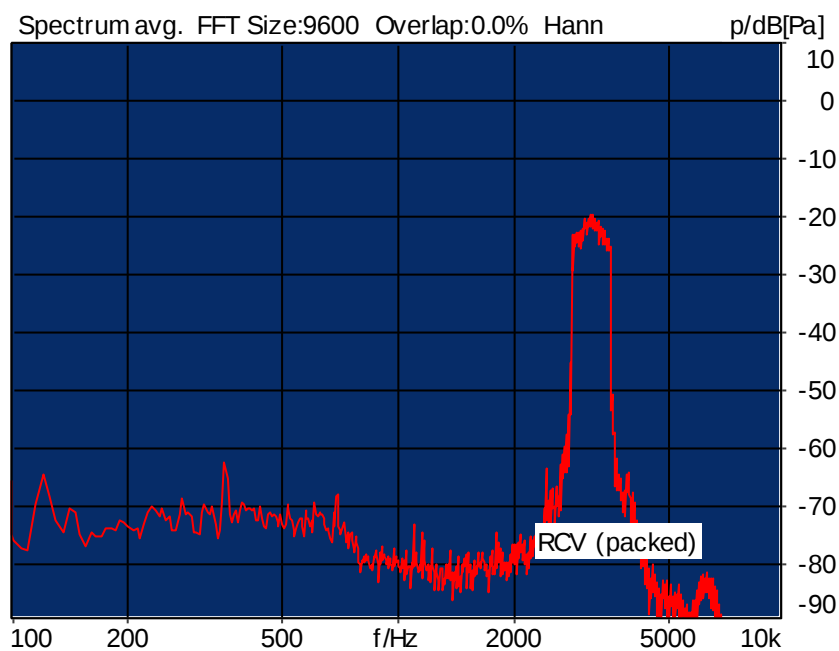
### Limits

|          |
|----------|
| 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): 38.74 dB (1.16%) Ok

Ok

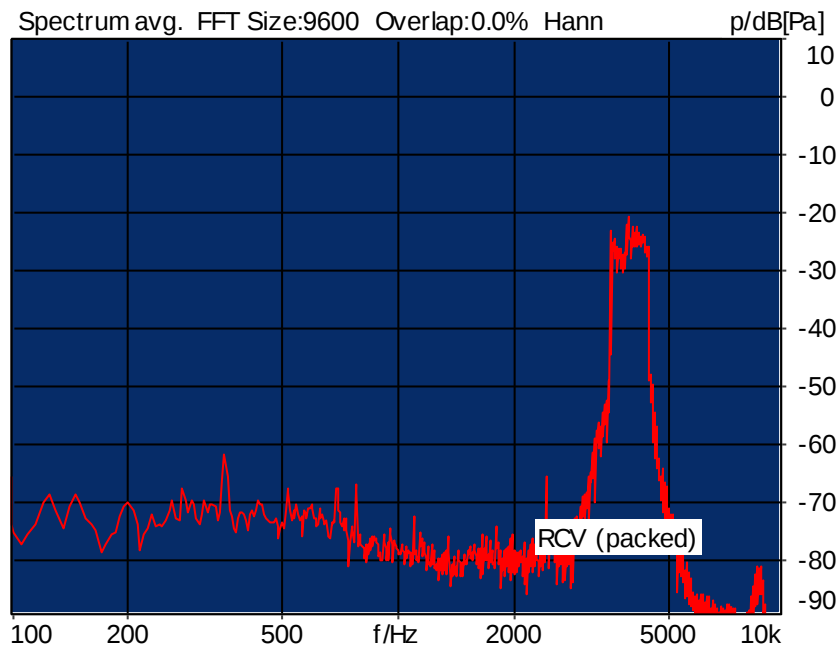
2026-01-07 上午 08:17 ACQUA 6.1.110

### 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): 30.72 dB (2.91%) Ok

Ok

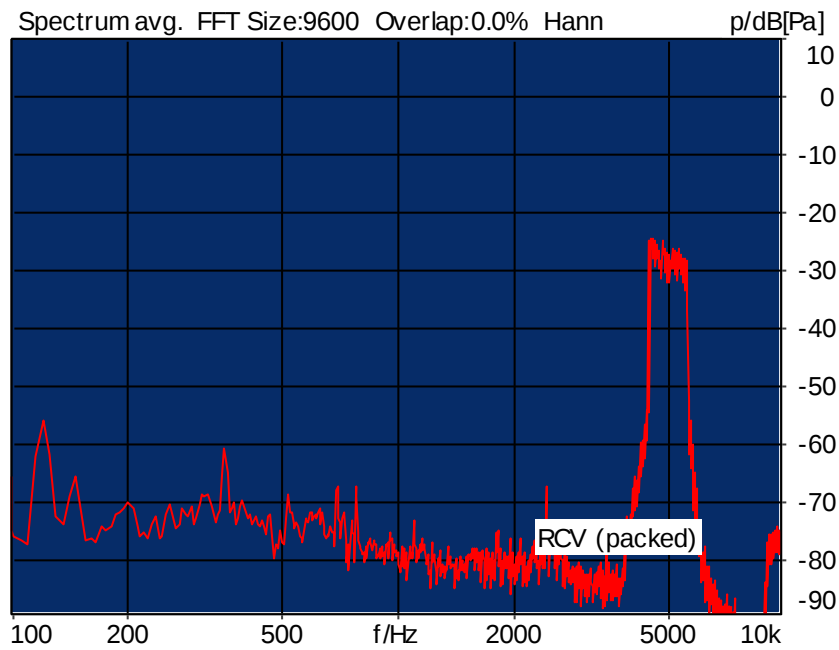
2026-01-07 上午 08:17 ACQUA 6.1.110

### 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): 34.77 dB (1.83%) Ok

Ok

2026-01-07 上午 08:18 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     | 36.17 dB |
| 2      | 315Hz     | 35.32 dB |
| 3      | 400Hz     | 36.40 dB |
| 4      | 500Hz     | 34.94 dB |
| 5      | 630Hz     | 37.63 dB |
| 6      | 800Hz     | 35.36 dB |
| 7      | 1000Hz    | 33.59 dB |
| 8      | 1250Hz    | 22.97 dB |
| 9      | 1600Hz    | 25.99 dB |
| 10     | 2000Hz    | 21.58 dB |
| 11     | 2500Hz    | 28.35 dB |
| 12     | 3150Hz    | 38.74 dB |
| 13     | 4000Hz    | 30.72 dB |
| 14     | 5000Hz    | 34.77 dB |

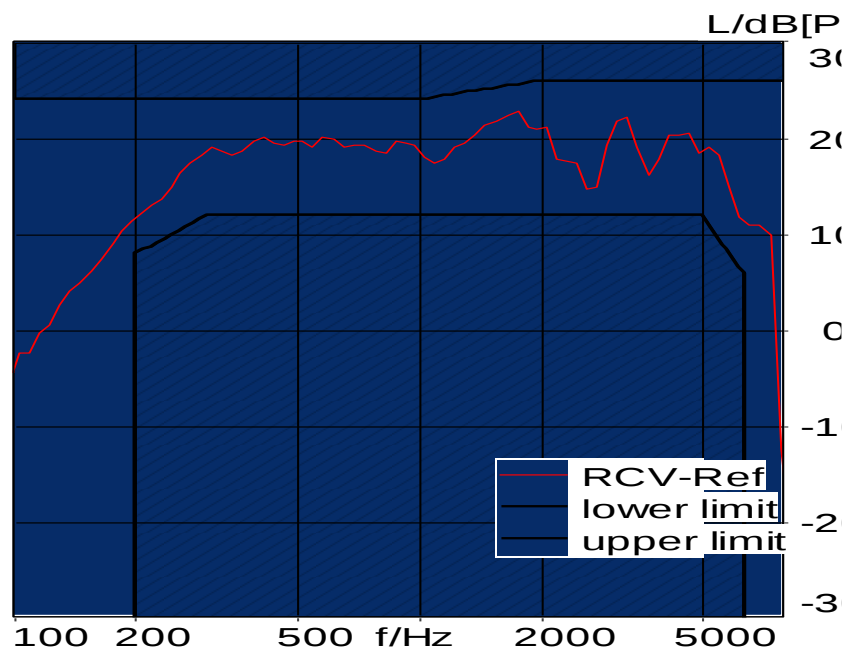
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.58dB at 2000Hz.

2026-01-07 上午 08:18 ACQUA

## 5.3 Frequency Response 8N DF

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



Absolute minimal distance

2.75 dB at 2571.8 Hz Ok

Ok

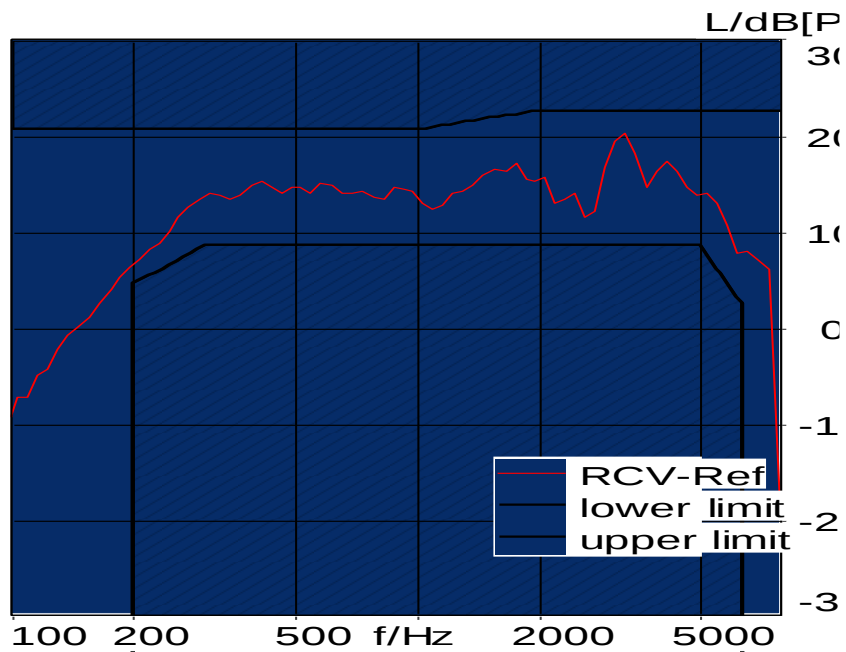
2026-01-07 上午 08:09 ACQUA 6.1.110

### Limits

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

### 5.3 Frequency Response 2N DF

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



Absolute minimal distance

2.37 dB at 3245.6 Hz Ok

Ok

2026-01-07 上午 08:18 ACQUA 6.1.110

#### Limits

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

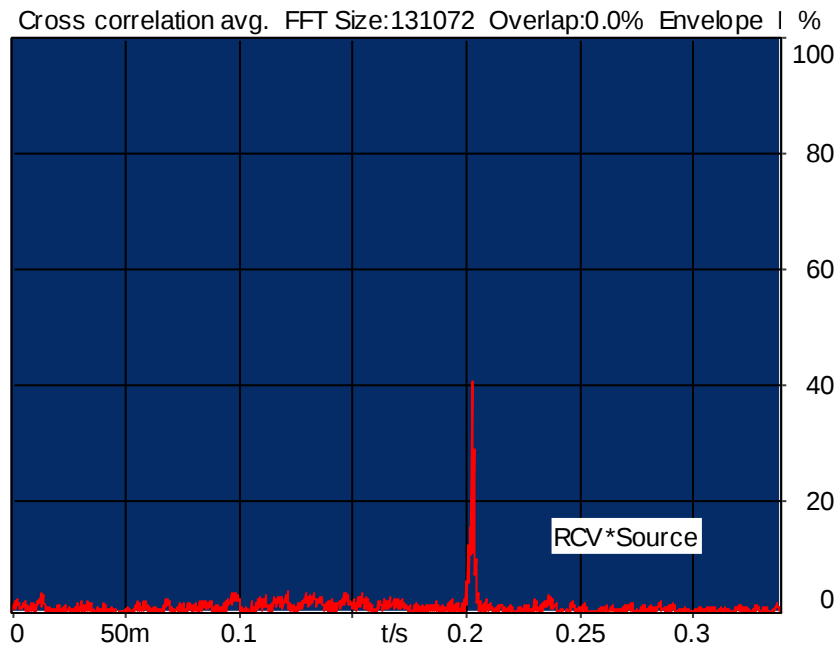
### #3 WiFi 5GHz EVS NB 24.4kbps

| SMD                                                               | Status | Single Value Description                       | Single Value |
|-------------------------------------------------------------------|--------|------------------------------------------------|--------------|
| Overall Receive Delay NB                                          | Done   | Delay (Cross) [ms]                             | 203.2        |
| 5.1a Receive Volume Control Performance 8N NB                     | Ok     | Speech Level [dB[SPL]]                         | 91.64        |
| 5.1b Receive Volume Control Performance 2N NB                     | Ok     | Speech Level [dB[SPL]]                         | 86.62        |
| 5.2 RCV Distortion and Noise - 400 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.37        |
| 5.2 RCV Distortion and Noise - 500 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 28.04        |
| 5.2 RCV Distortion and Noise - 630 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.18        |
| 5.2 RCV Distortion and Noise - 800 Hz 8N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.85        |
| 5.2 RCV Distortion and Noise - 1000 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 23.16        |
| 5.2 RCV Distortion and Noise - 1250 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 21.30        |
| 5.2 RCV Distortion and Noise - 1600 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.56        |
| 5.2 RCV Distortion and Noise - 2000 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.78        |
| 5.2 RCV Distortion and Noise - 2500 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 25.33        |
| 5.2 RCV Distortion and Noise - 3150 Hz 8N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 48.61        |
| Report - Receive Distortion and Noise (Conversational Gain) 8N NB | Ok     | Minimum SDNR [dB], (occured at 1250Hz)         | 21.30        |
| 5.2 RCV Distortion and Noise - 400 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 34.83        |
| 5.2 RCV Distortion and Noise - 500 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 27.60        |
| 5.2 RCV Distortion and Noise - 630 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.68        |
| 5.2 RCV Distortion and Noise - 800 Hz 2N NB                       | Ok     | Distortion (Noise) [dB], 0.0 dB                | 25.45        |
| 5.2 RCV Distortion and Noise - 1000 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 23.59        |
| 5.2 RCV Distortion and Noise - 1250 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 22.19        |
| 5.2 RCV Distortion and Noise - 1600 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.92        |
| 5.2 RCV Distortion and Noise - 2000 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 24.67        |
| 5.2 RCV Distortion and Noise - 2500 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 26.55        |
| 5.2 RCV Distortion and Noise - 3150 Hz 2N NB                      | Ok     | Distortion (Noise) [dB], 0.0 dB                | 49.62        |
| Report - Receive Distortion and Noise (Conversational Gain) 2N NB | Ok     | Minimum SDNR [dB], (occured at 1250Hz)         | 22.19        |
| 5.3 Frequency Response 8N DF HANB                                 | Ok     | Min. dist. to tolerance scheme [dB], 1747.8 Hz | 1.37         |
| 5.3 Frequency Response 2N DF HANB                                 | Ok     | Min. dist. to tolerance scheme [dB], 2721.8 Hz | 1.14         |



## Overall Receive Delay NB

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

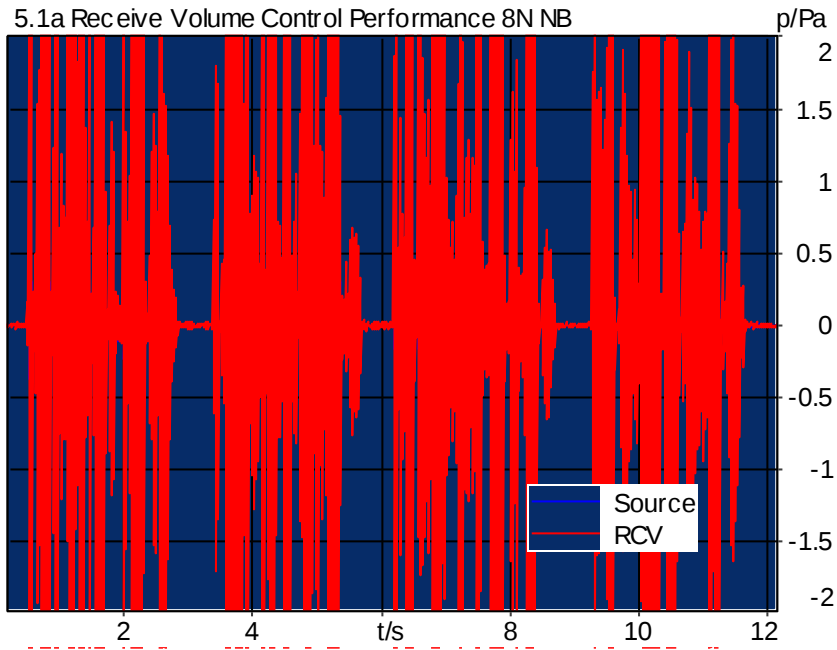


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 203.2 ms | 40.69 %     |

2025-12-17 下午 10:03 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N NB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 91.64 dB[SPL] | 83.95%   | Ok |

Ok

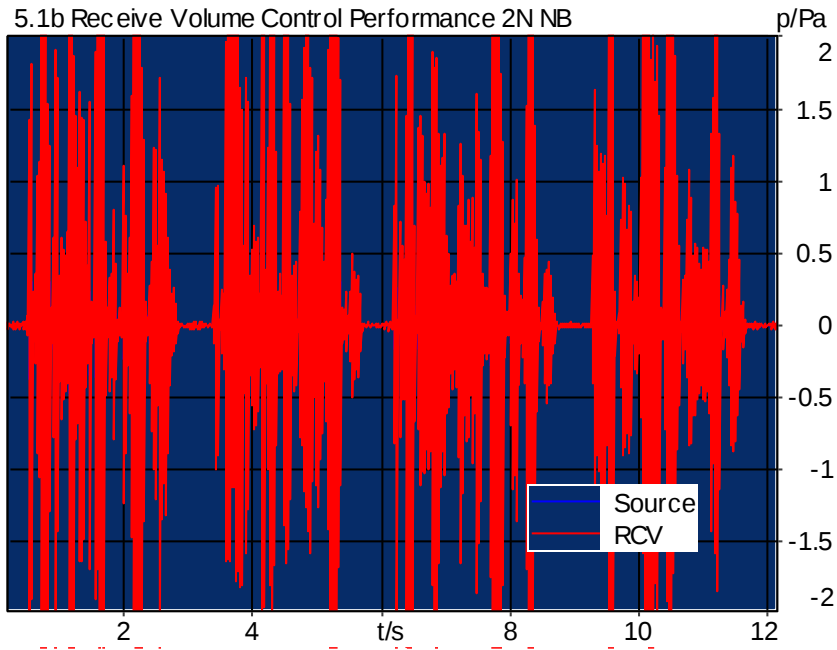
2025-12-17 下午 10:12 ACQUA 6.1.110

### 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     | 86.62 dB[SPL] | 83.98%   | Ok |

Ok

2025-12-17 下午 10:03 ACQUA 6.1.110

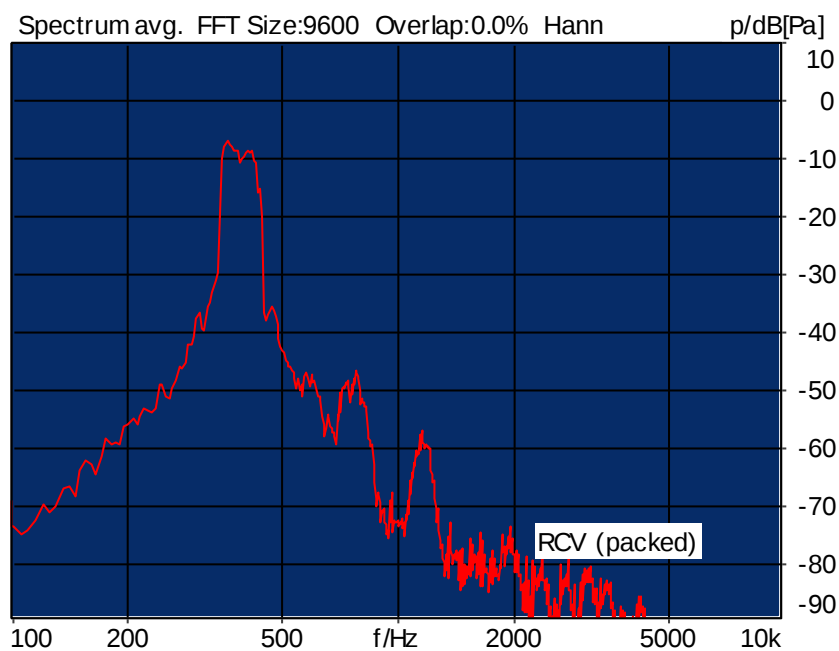
### Limits

|               |
|---------------|
| 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): 34.37 dB (1.91%) Ok

Ok

2025-12-17 下午 10:13 ACQUA 6.1.110

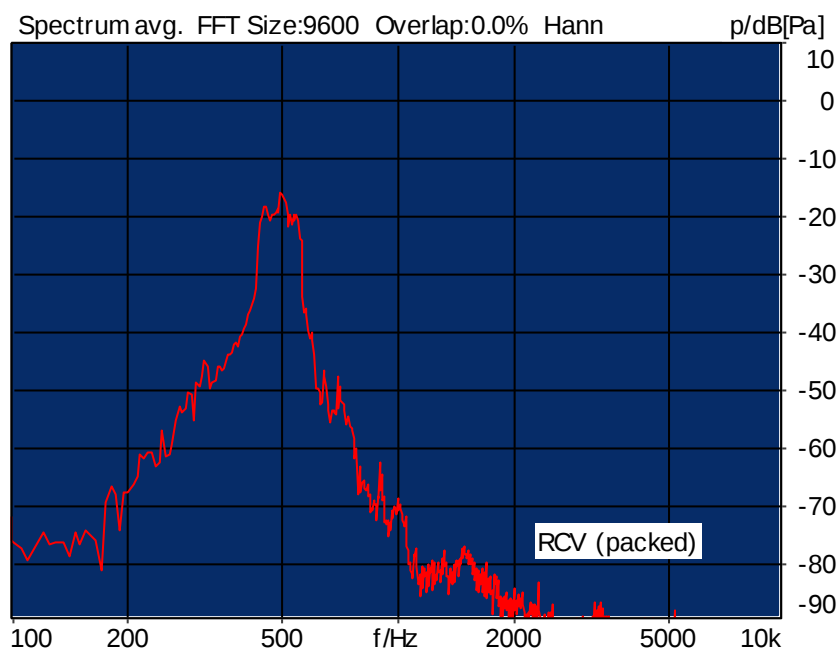
### Limits

|          |
|----------|
| 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): 28.04 dB (3.96%) Ok

Ok

2025-12-17 下午 10:13 ACQUA 6.1.110

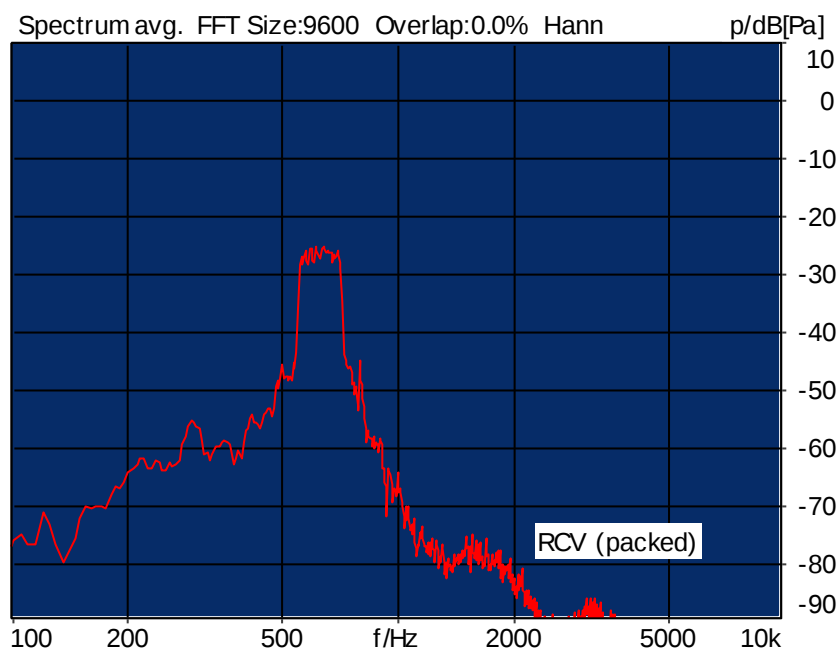
### Limits

|          |
|----------|
| 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): 24.18 dB (6.18%) Ok

Ok

2025-12-17 下午 10:14 ACQUA 6.1.110

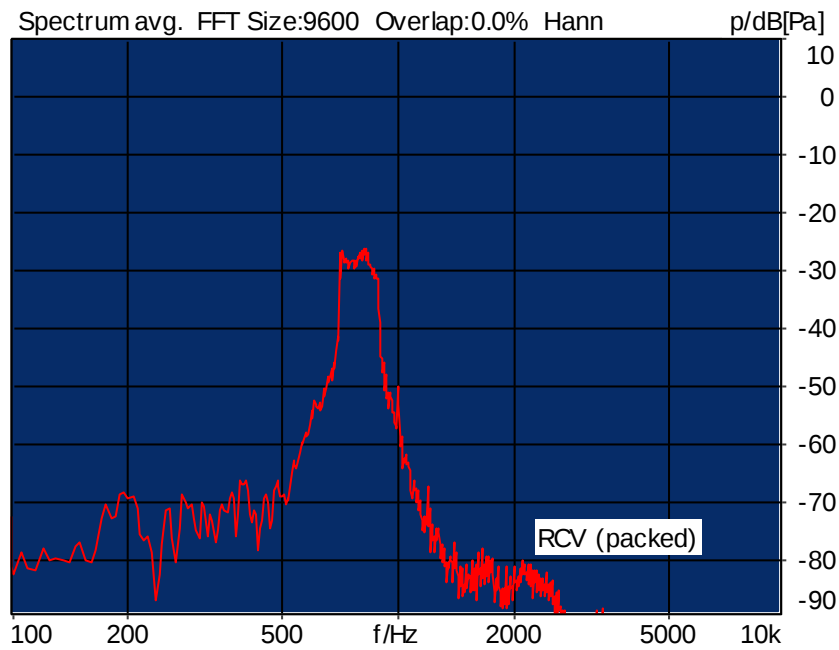
### Limits

|          |
|----------|
| 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): 24.85 dB (5.72%) Ok

Ok

2025-12-17 下午 10:14 ACQUA 6.1.110

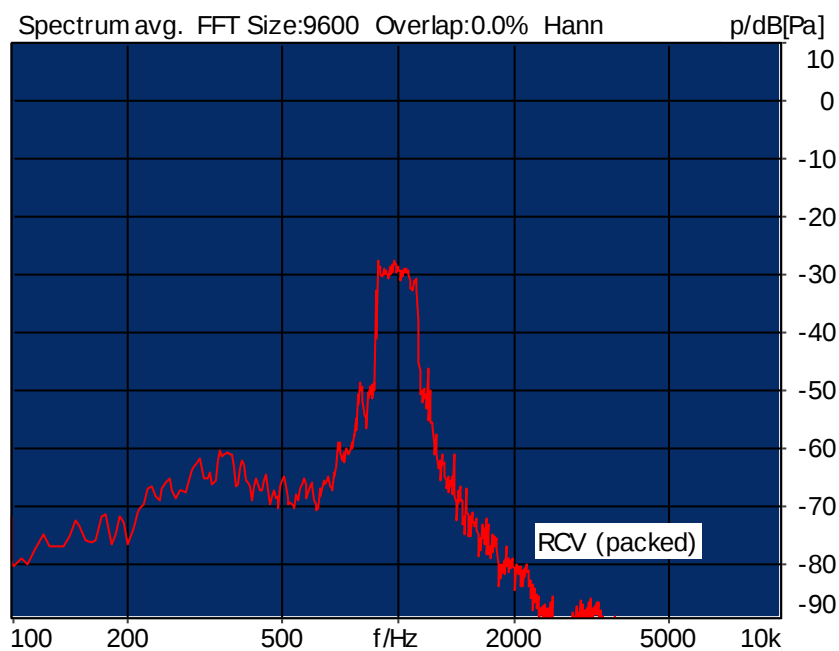
### Limits

|          |
|----------|
| 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): 23.16 dB (6.95%) Ok

Ok

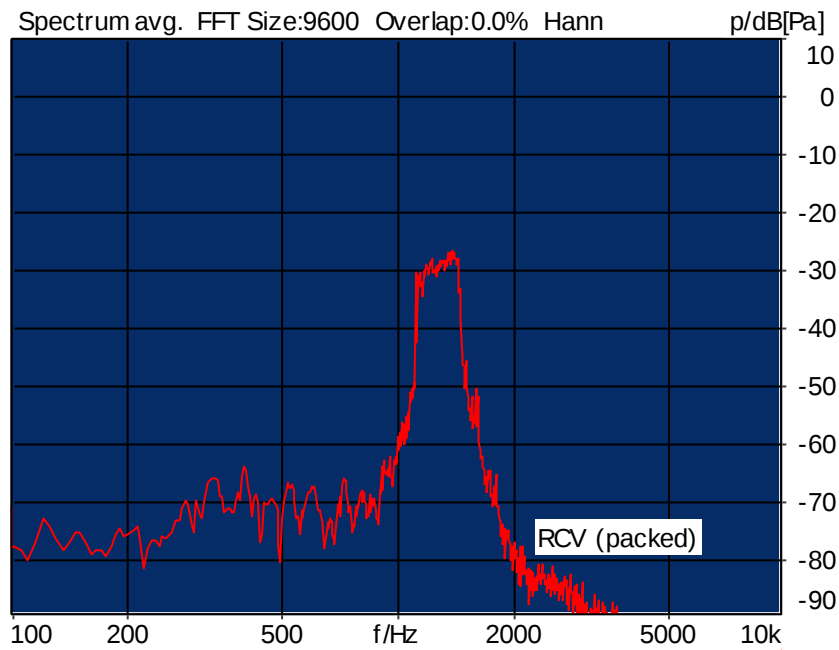
2025-12-17 下午 10:15 ACQUA 6.1.110

### 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): 21.30 dB (8.61%) Ok

Ok

2025-12-17 下午 10:15 ACQUA 6.1.110

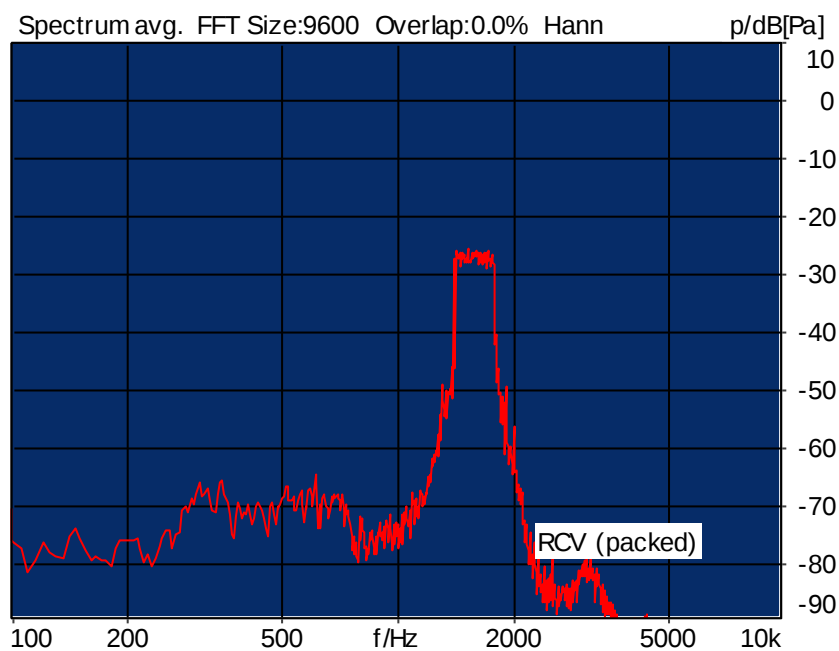
### Limits

|          |
|----------|
| 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): 26.56 dB (4.70%) Ok

Ok

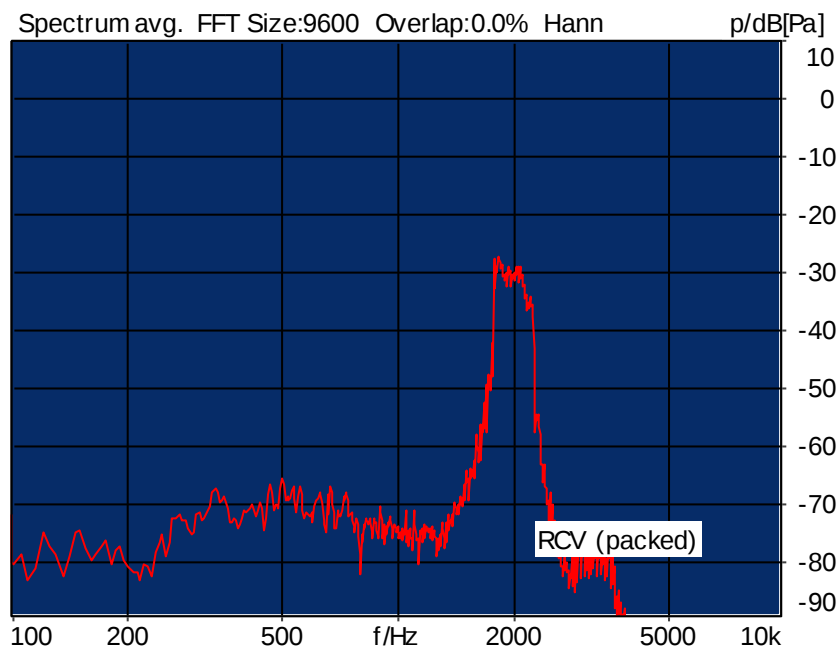
2025-12-17 下午 10:16 ACQUA 6.1.110

### 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): 24.78 dB (5.77%) Ok

Ok

2025-12-17 下午 10:16 ACQUA 6.1.110

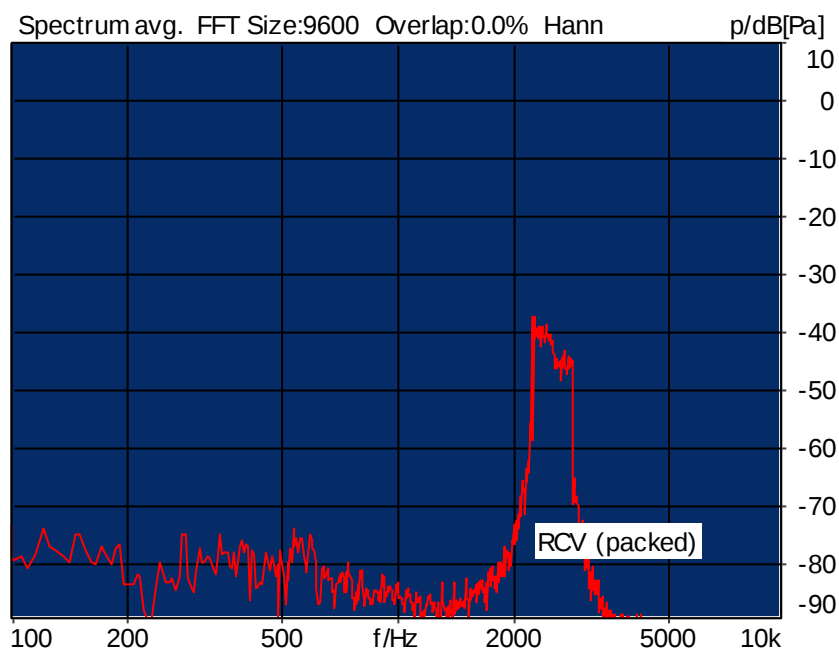
### Limits

|          |
|----------|
| 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): 25.33 dB (5.41%) Ok

Ok

2025-12-17 下午 10:17 ACQUA 6.1.110

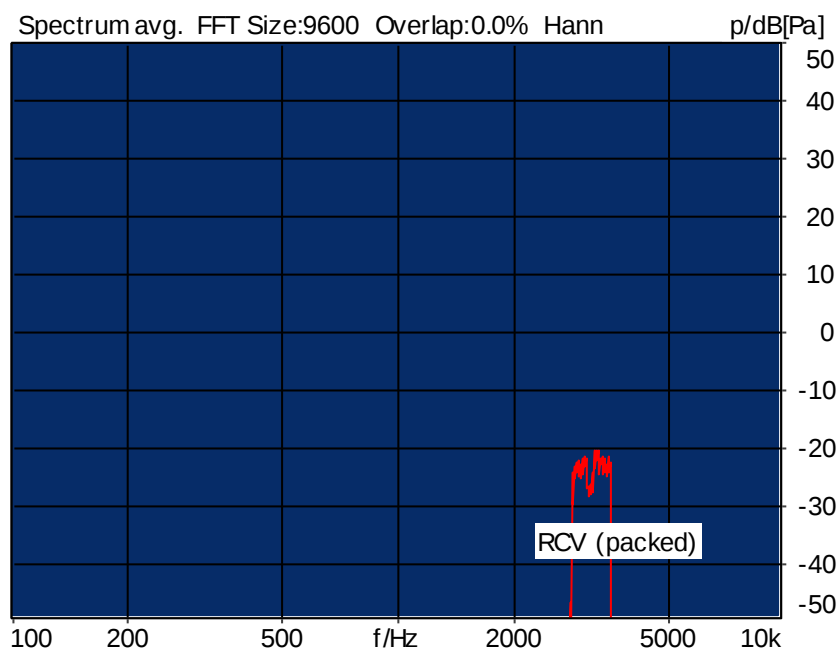
### Limits

|          |
|----------|
| 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): 48.61 dB (0.37%) Ok

Ok

2025-12-17 下午 10:17 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     | 34.37 dB |
| 2      | 500Hz     | 28.04 dB |
| 3      | 630Hz     | 24.18 dB |
| 4      | 800Hz     | 24.85 dB |
| 5      | 1000Hz    | 23.16 dB |
| 6      | 1250Hz    | 21.30 dB |
| 7      | 1600Hz    | 26.56 dB |
| 8      | 2000Hz    | 24.78 dB |
| 9      | 2500Hz    | 25.33 dB |
| 10     | 3150Hz    | 48.61 dB |

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

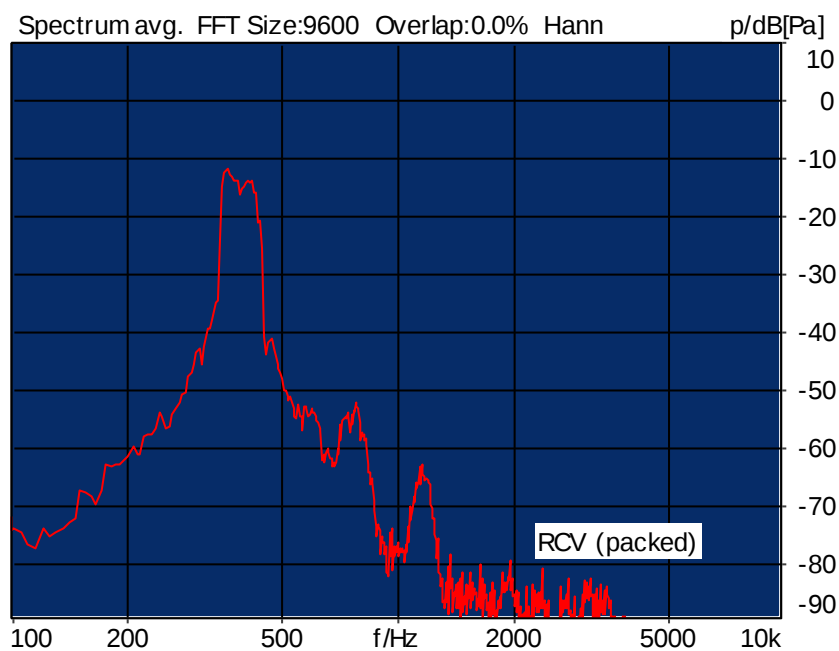
Smallest SDNR was 21.30dB at 1250Hz.

2025-12-17 下午 10:17 ACQUA



## 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): 34.83 dB (1.81%) Ok

Ok

2025-12-17 下午 10:04 ACQUA 6.1.110

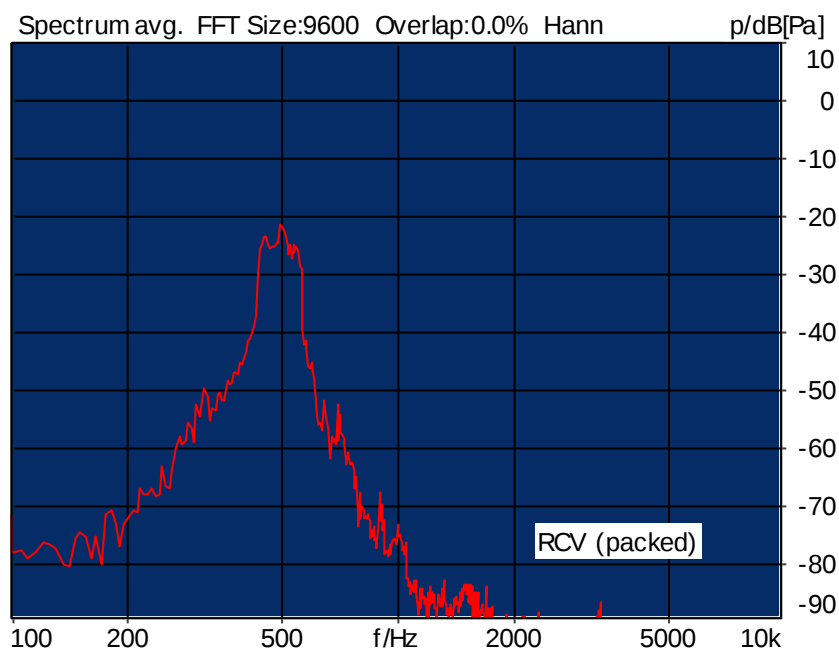
### Limits

|          |
|----------|
| 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): 27.60 dB (4.17%) Ok

Ok

2025-12-17 下午 10:04 ACQUA 6.1.110

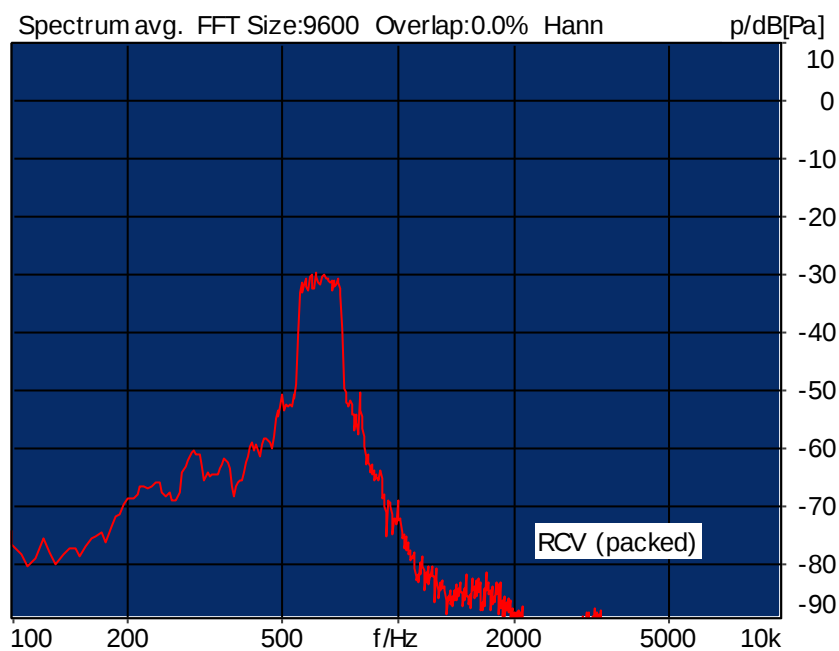
### Limits

|          |
|----------|
| 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): 24.68 dB (5.84%) Ok

Ok

2025-12-17 下午 10:05 ACQUA 6.1.110

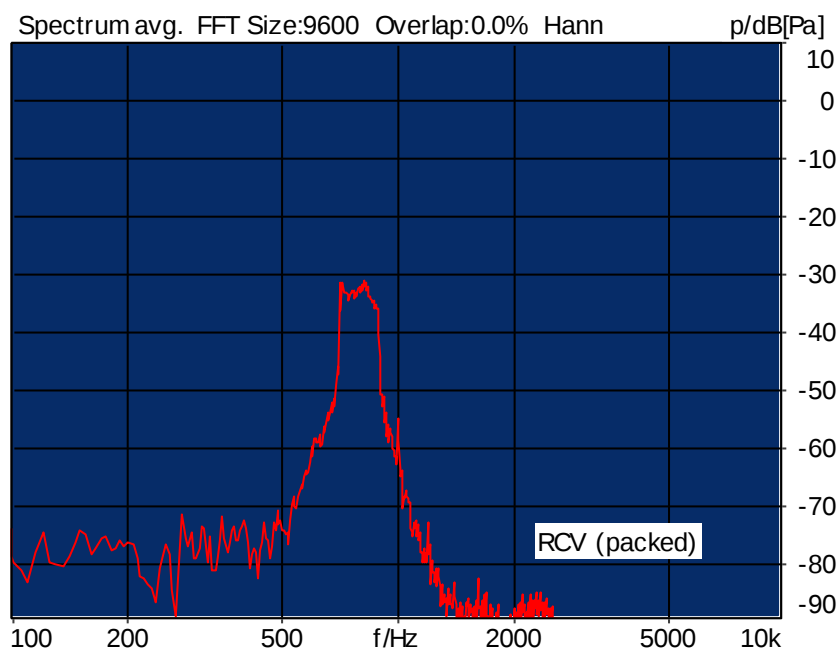
### Limits

|          |
|----------|
| 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): 25.45 dB (5.34%) Ok

Ok

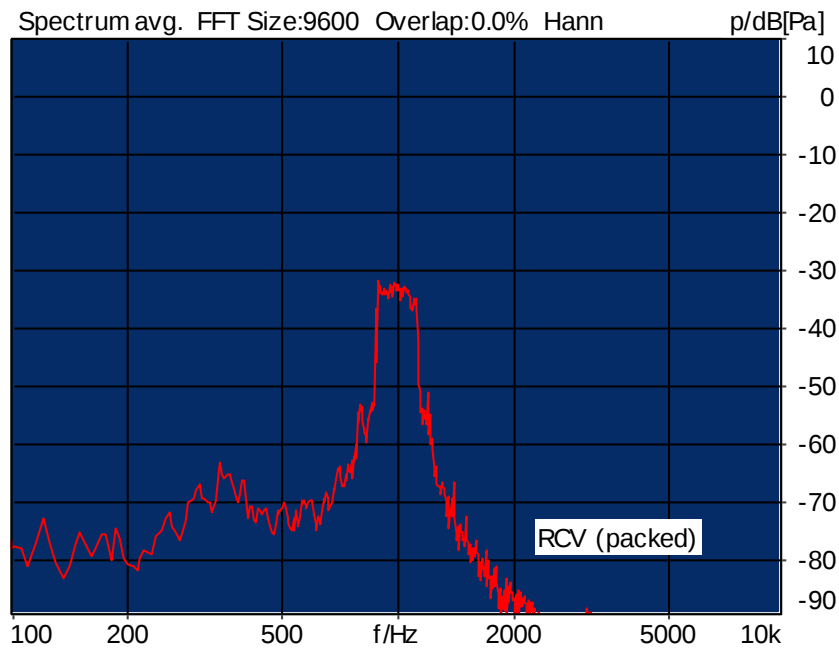
2025-12-17 下午 10:06 ACQUA 6.1.110

### 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): 23.59 dB (6.62%) Ok

Ok

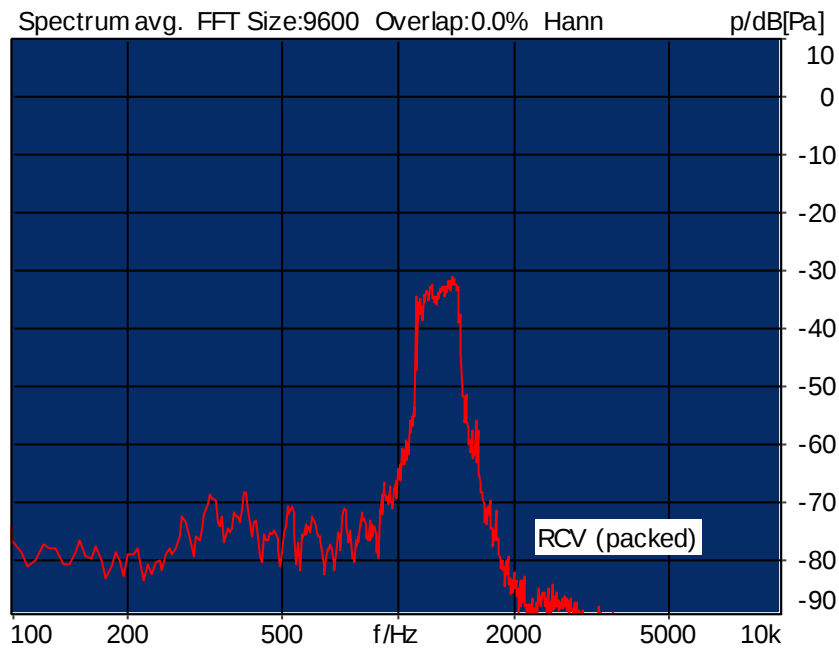
2025-12-17 下午 10:06 ACQUA 6.1.110

### 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): 22.19 dB (7.77%) Ok

Ok

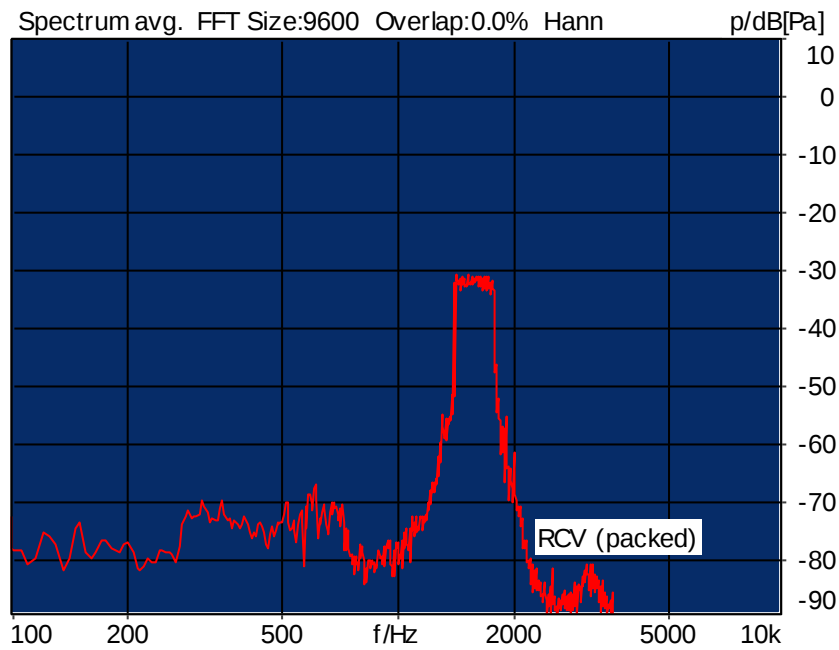
2025-12-17 下午 10:07 ACQUA 6.1.110

### 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): 26.92 dB (4.51%) Ok

Ok

2025-12-17 下午 10:07 ACQUA 6.1.110

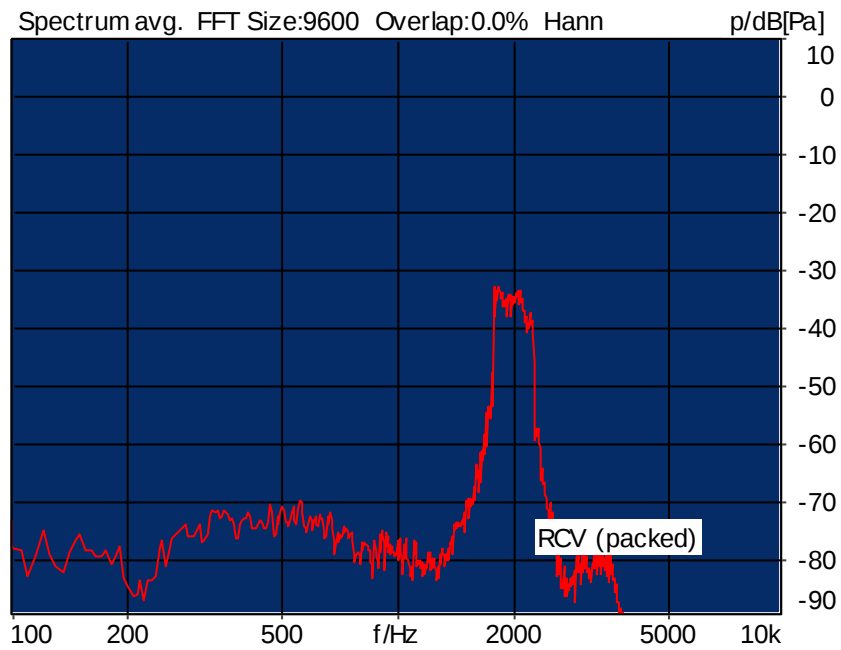
### Limits

|          |
|----------|
| 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): 24.67 dB (5.84%) Ok

Ok

2025-12-17 下午 10:08 ACQUA 6.1.110

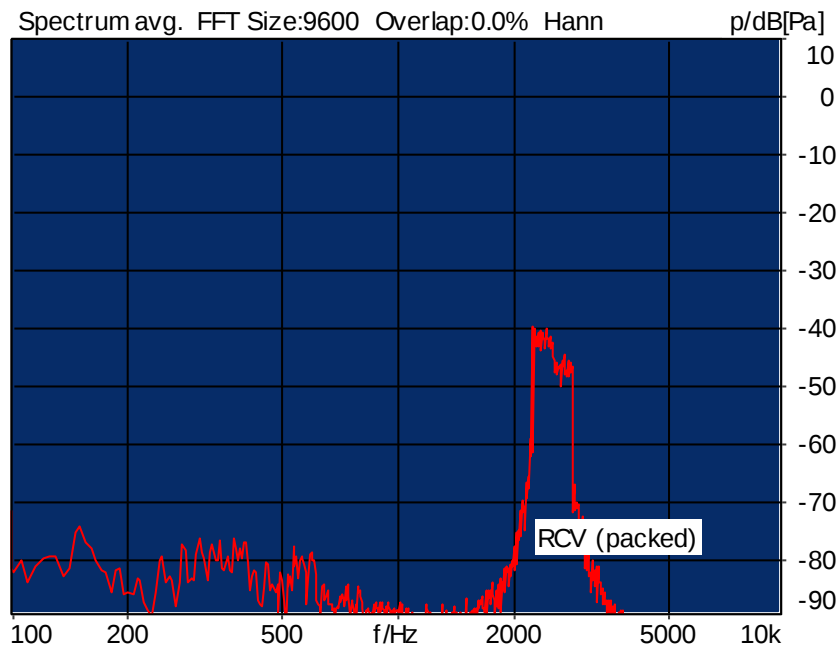
### Limits

|          |
|----------|
| 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): 26.55 dB (4.70%) Ok

Ok

2025-12-17 下午 10:08 ACQUA 6.1.110

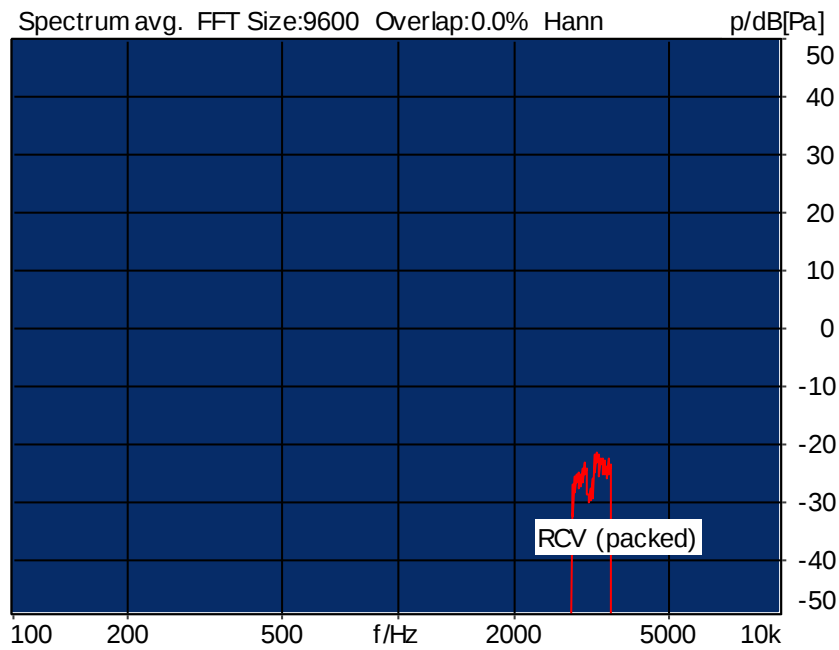
### Limits

|          |
|----------|
| 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): 49.62 dB (0.33%) Ok

Ok

2025-12-17 下午 10:09 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     | 34.83 dB |
| 2      | 500Hz     | 27.60 dB |
| 3      | 630Hz     | 24.68 dB |
| 4      | 800Hz     | 25.45 dB |
| 5      | 1000Hz    | 23.59 dB |
| 6      | 1250Hz    | 22.19 dB |
| 7      | 1600Hz    | 26.92 dB |
| 8      | 2000Hz    | 24.67 dB |
| 9      | 2500Hz    | 26.55 dB |
| 10     | 3150Hz    | 49.62 dB |

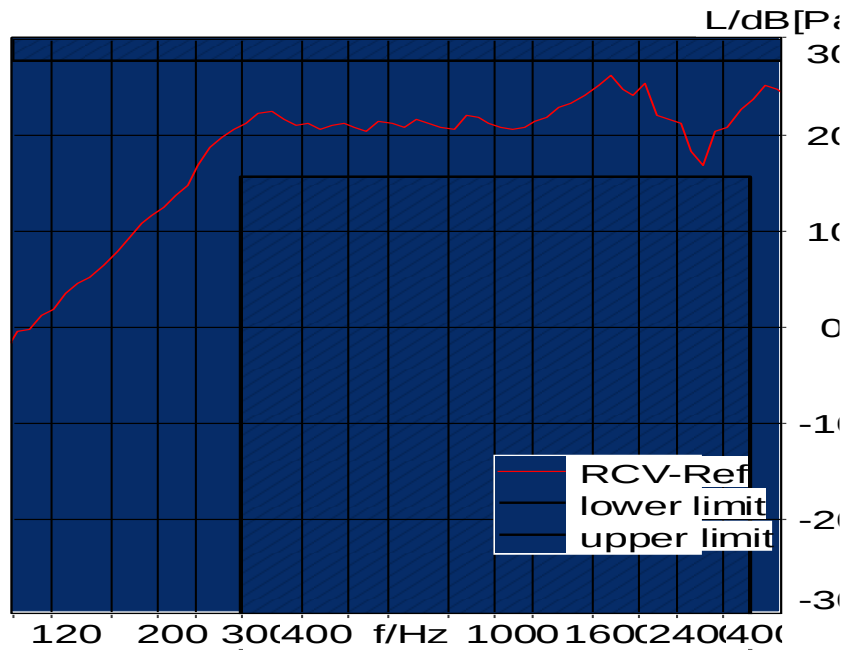
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 22.19dB at 1250Hz.

2025-12-17 下午 10:09 ACQUA

### 5.3 Frequency Response 8N DF HANB

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



Absolute minimal distance

1.37 dB at 1747.8 Hz Ok

Ok

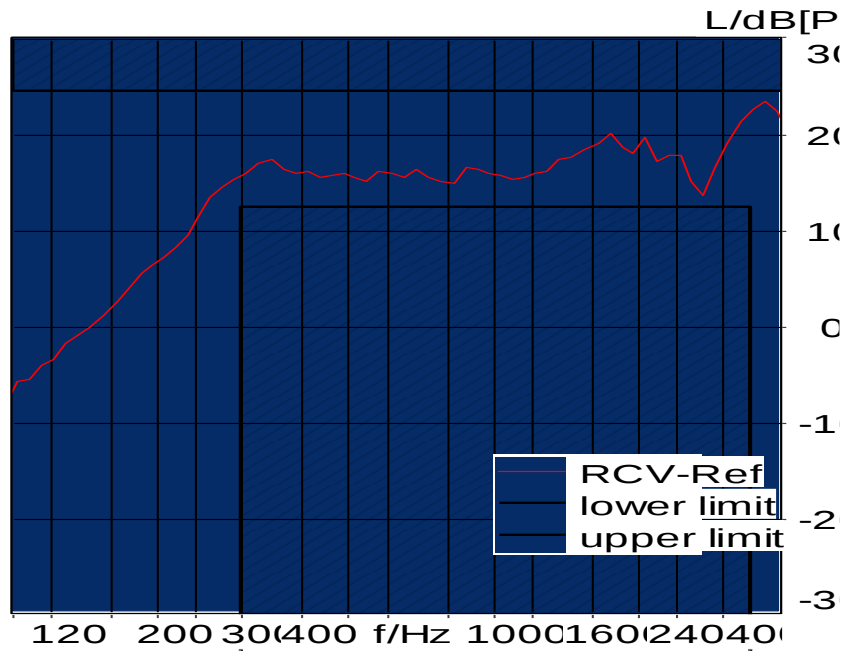
2025-12-17 下午 10:18 ACQUA 6.1.110

#### Limits

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

### 5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance

1.14 dB at 2721.8 Hz Ok

Ok

2025-12-17 下午 10:09 ACQUA 6.1.110

Limits

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



## **Appendix A. Volume Control Evaluation Results**

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

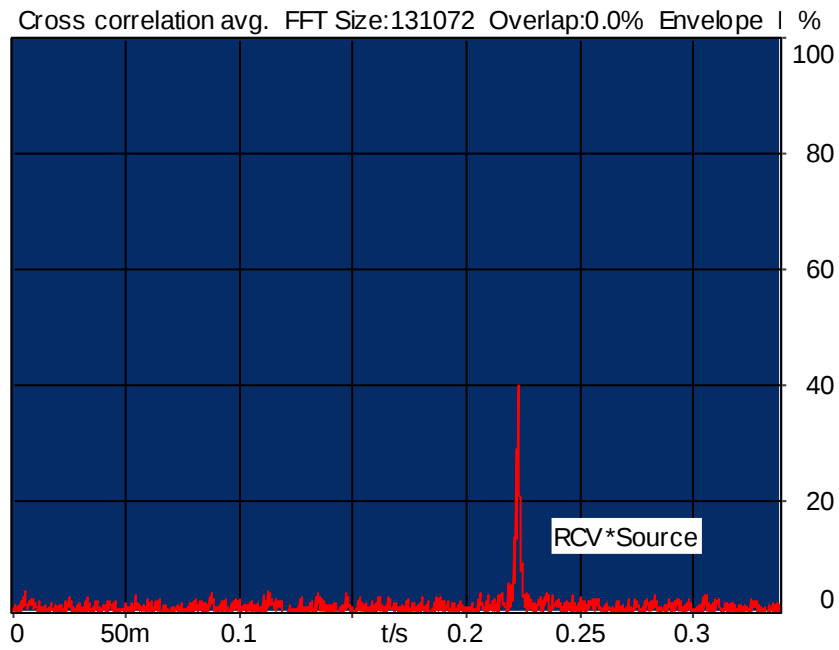
### **#4 GSM850 AMR WB 6.60kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                      | Done   | Delay (Cross) [ms]       | 223.0        |
| 5.1a Receive Volume Control Performance 8N WB | Ok     | Speech Level [dB[SPL]]   | 90.73        |
| 5.1b Receive Volume Control Performance 2N WB | Ok     | Speech Level [dB[SPL]]   | 85.23        |



## Overall Receive Delay WB

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

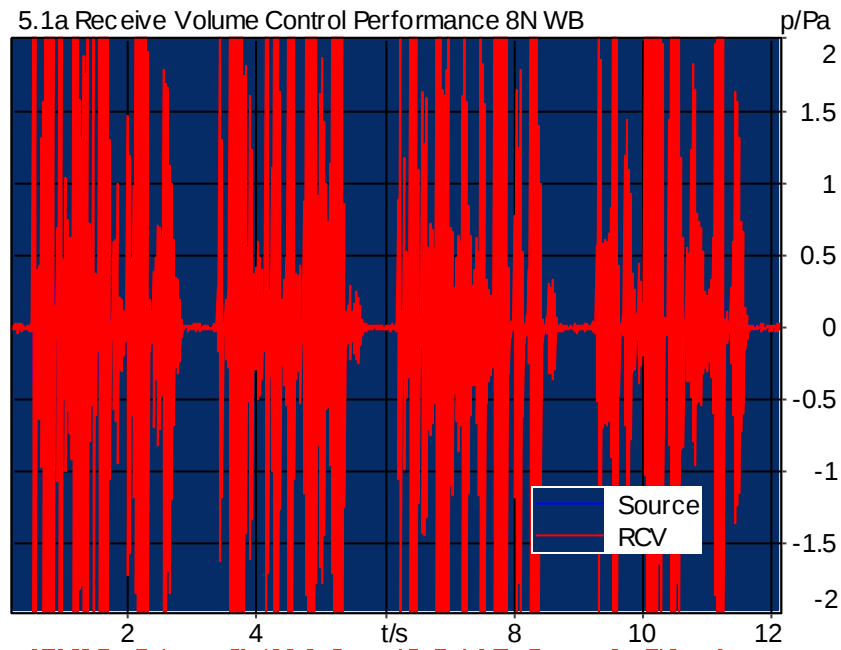


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 223.0 ms | 40.03 %     |

2026-03-09 下午 07:14 ACQUA 6.2.210

## 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 90.73 dB[SPL] | 80.64%   | Ok |

Ok

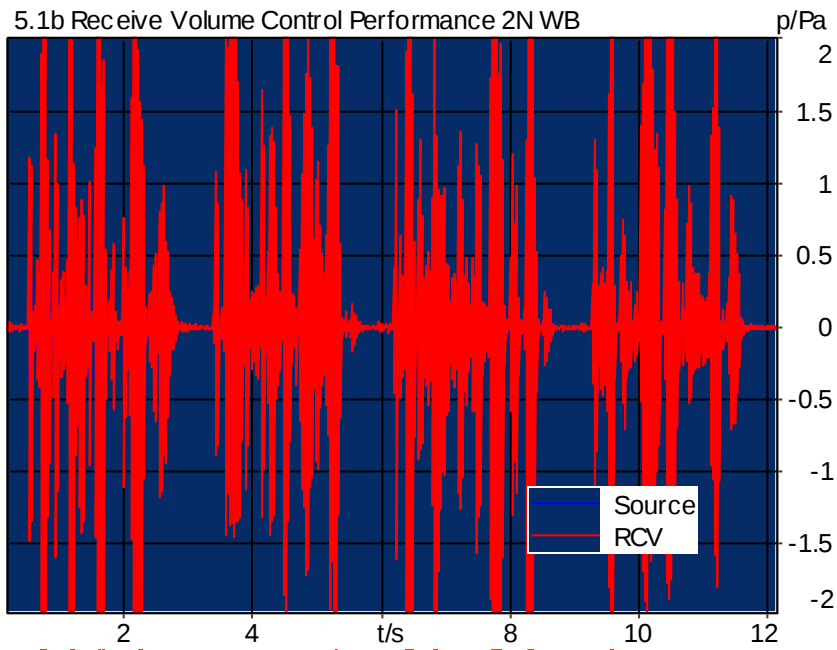
2026-03-09 下午 07:19 ACQUA 6.2.210

### 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     | 85.23 dB[SPL] | 80.39%   | Ok |

Ok

2026-03-09 下午 07:15 ACQUA 6.2.210

### Limits

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



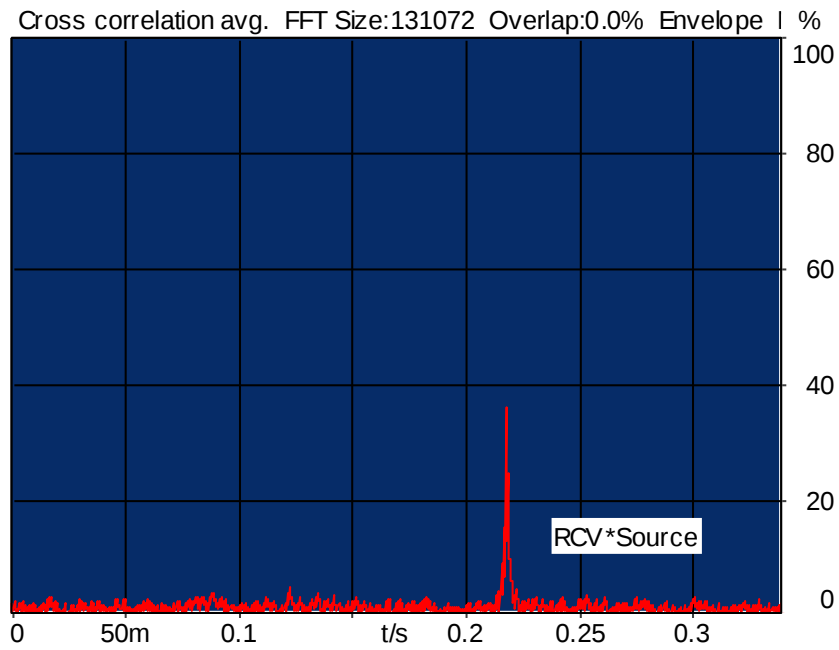
**#5 WCDMA II AMR WB 6.60kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                      | Done   | Delay (Cross) [ms]       | 217.9        |
| 5.1a Receive Volume Control Performance 8N WB | Ok     | Speech Level [dB[SPL]]   | 89.48        |
| 5.1b Receive Volume Control Performance 2N WB | Ok     | Speech Level [dB[SPL]]   | 84.33        |



## Overall Receive Delay WB

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

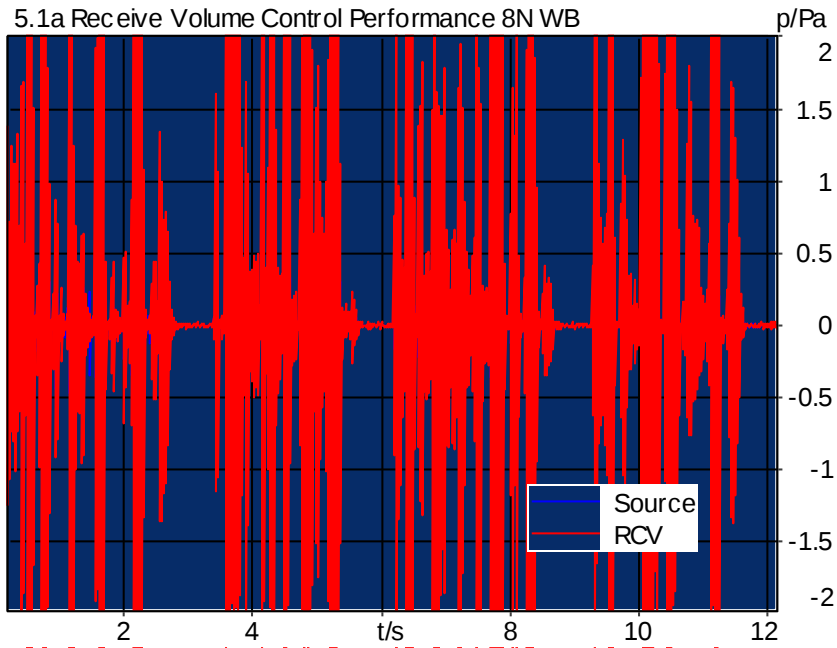


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 217.9 ms | 36.33 %     |

2026-03-09 下午 08:20 ACQUA 6.2.210

## 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.48 dB[SPL] | 81.28%   | Ok |

Ok

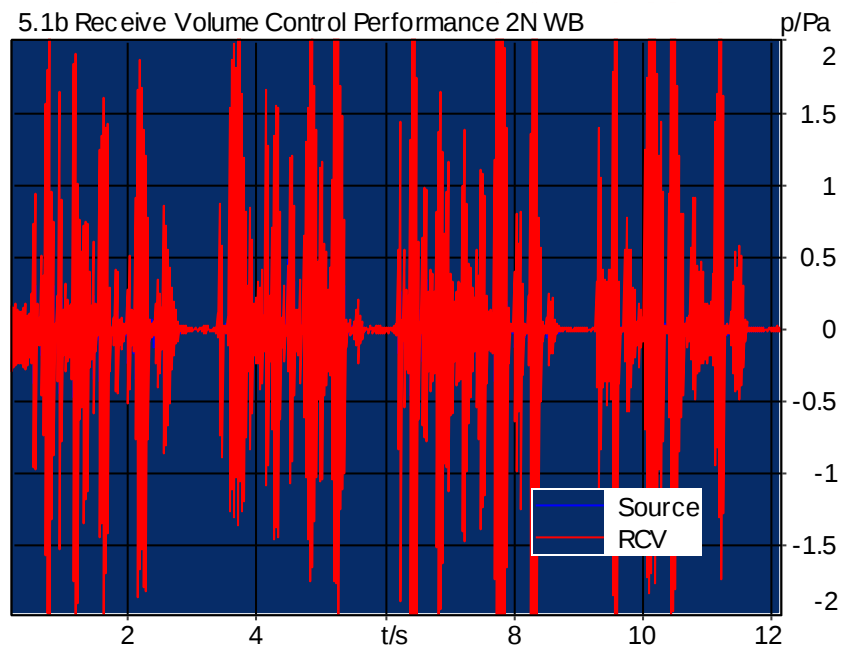
2026-03-09 下午 08:22 ACQUA 6.2.210

### 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     | 84.33 dB[SPL] | 80.12%   | Ok |

Ok

2026-03-09 下午 08:21 ACQUA 6.2.210

### Limits

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



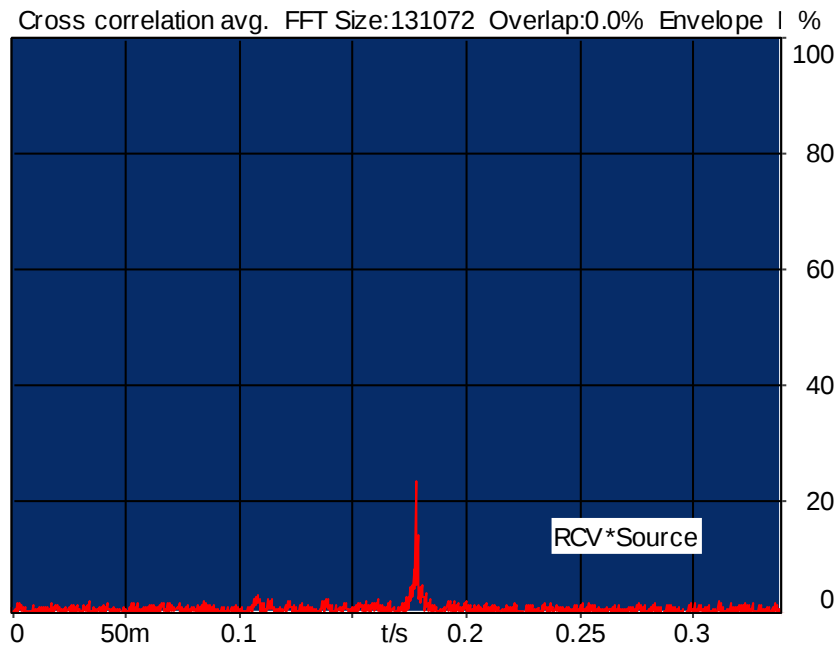
**#6 LTE Band 14 EVS WB 5.9kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                      | Done   | Delay (Cross) [ms]       | 178.3        |
| 5.1a Receive Volume Control Performance 8N WB | Ok     | Speech Level [dB[SPL]]   | 89.97        |
| 5.1b Receive Volume Control Performance 2N WB | Ok     | Speech Level [dB[SPL]]   | 84.70        |



## Overall Receive Delay WB

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

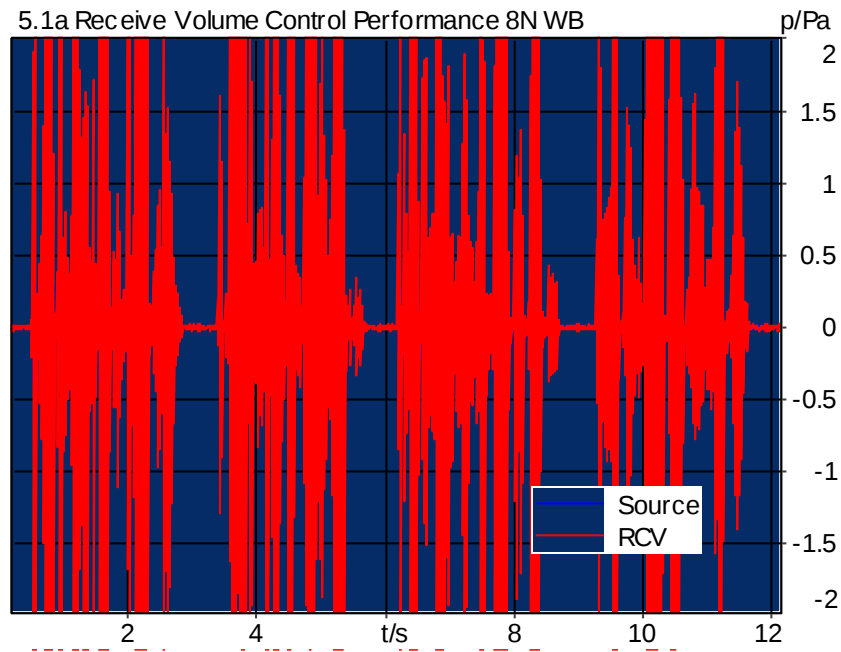


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 178.3 ms | 23.44 %     |

2025-12-16 上午 06:49 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.97 dB[SPL] | 81.03%   | Ok |

Ok

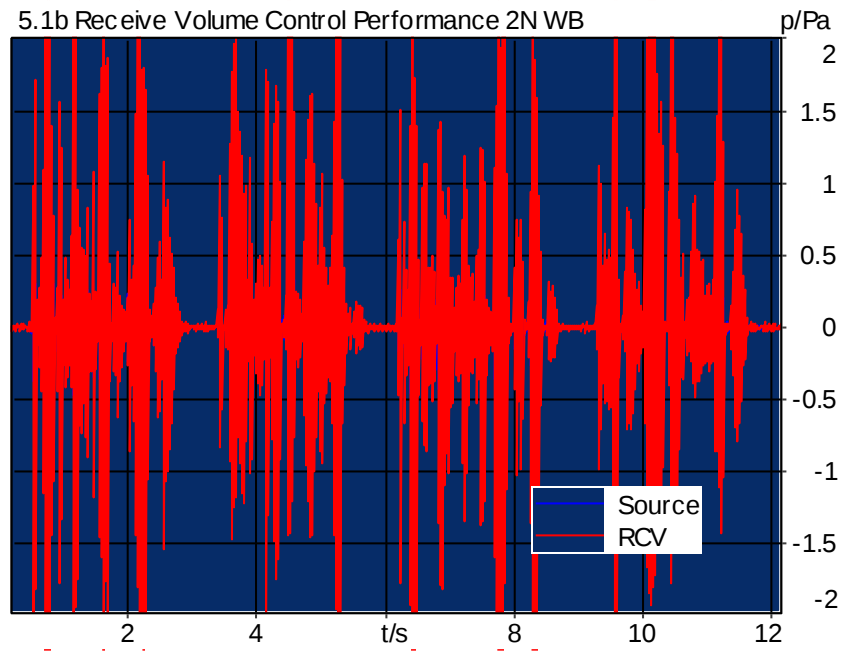
2025-12-16 上午 06:50 ACQUA 6.1.110

### 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     | 84.70 dB[SPL] | 80.47%   | Ok |

Ok

2025-12-16 上午 06:50 ACQUA 6.1.110

### Limits

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



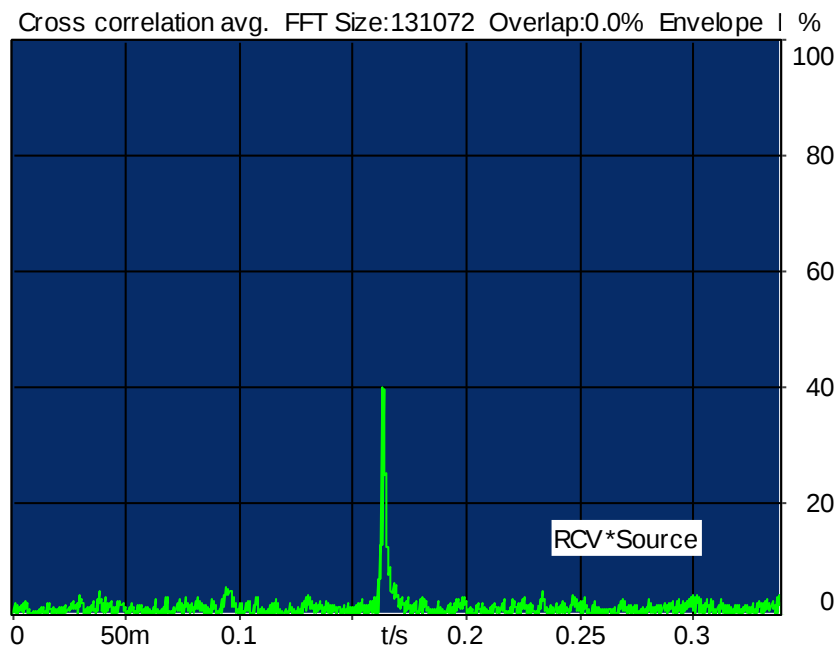
**#7 FR1 n7 AMR WB 6.60kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                      | Done   | Delay (Cross) [ms]       | 164.1        |
| 5.1a Receive Volume Control Performance 8N WB | Ok     | Speech Level [dB[SPL]]   | 89.58        |
| 5.1b Receive Volume Control Performance 2N WB | Ok     | Speech Level [dB[SPL]]   | 84.54        |



## Overall Receive Delay WB

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

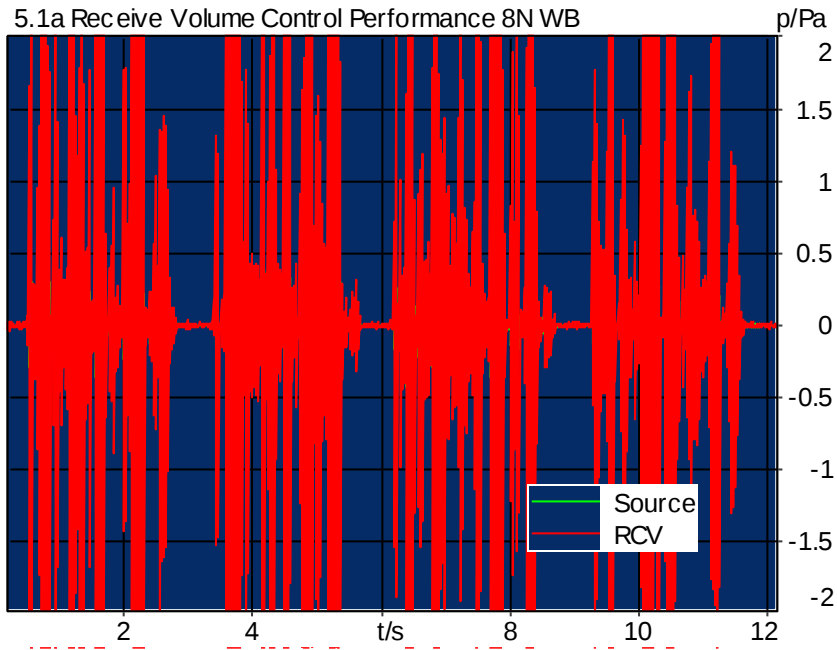


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 164.1 ms | 40.11 %     |

2026-01-06 上午 02:21 ACQUA 6.1.110

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

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.58 dB[SPL] | 80.18%   | Ok |

Ok

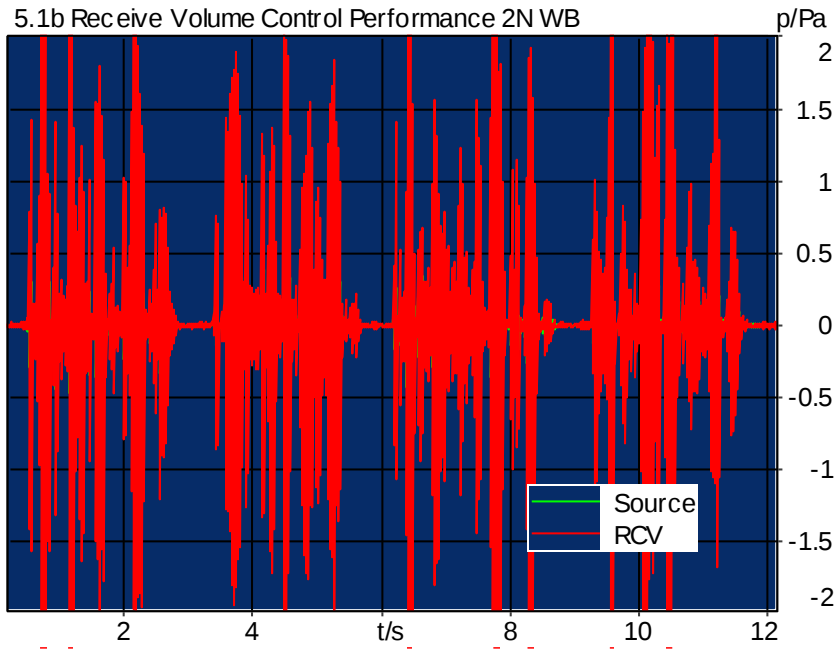
2026-01-06 上午 02:22 ACQUA 6.1.110

#### 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     | 84.54 dB[SPL] | 80.31%   | Ok |

Ok

2026-01-06 上午 02:21 ACQUA 6.1.110

### Limits

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



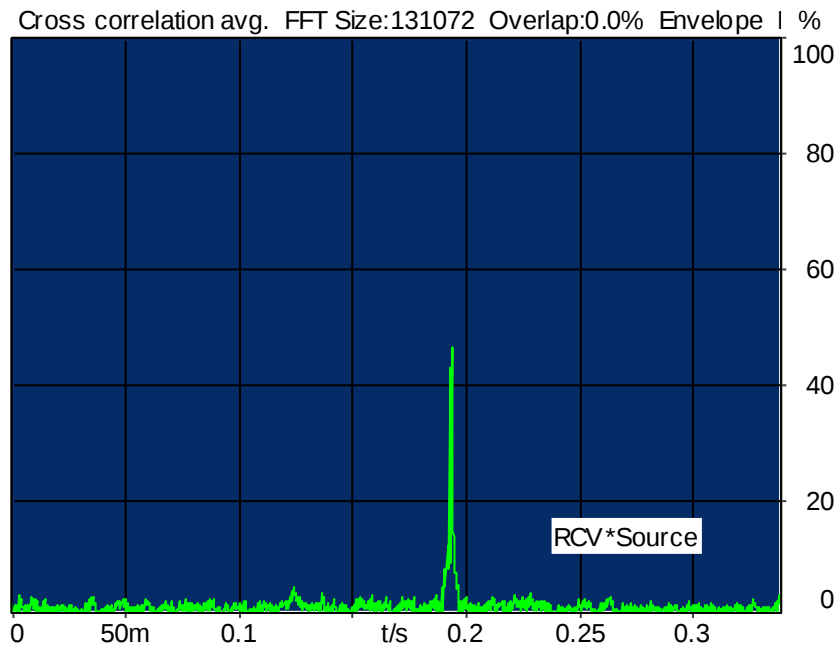
**#8 WiFi 6GHz EVS WB 24.4kbps**

| SMD                                           | Status | Single Value Description | Single Value |
|-----------------------------------------------|--------|--------------------------|--------------|
| Overall Receive Delay WB                      | Done   | Delay (Cross) [ms]       | 193.5        |
| 5.1a Receive Volume Control Performance 8N WB | Ok     | Speech Level [dB[SPL]]   | 89.66        |
| 5.1b Receive Volume Control Performance 2N WB | Ok     | Speech Level [dB[SPL]]   | 85.12        |



## Overall Receive Delay WB

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

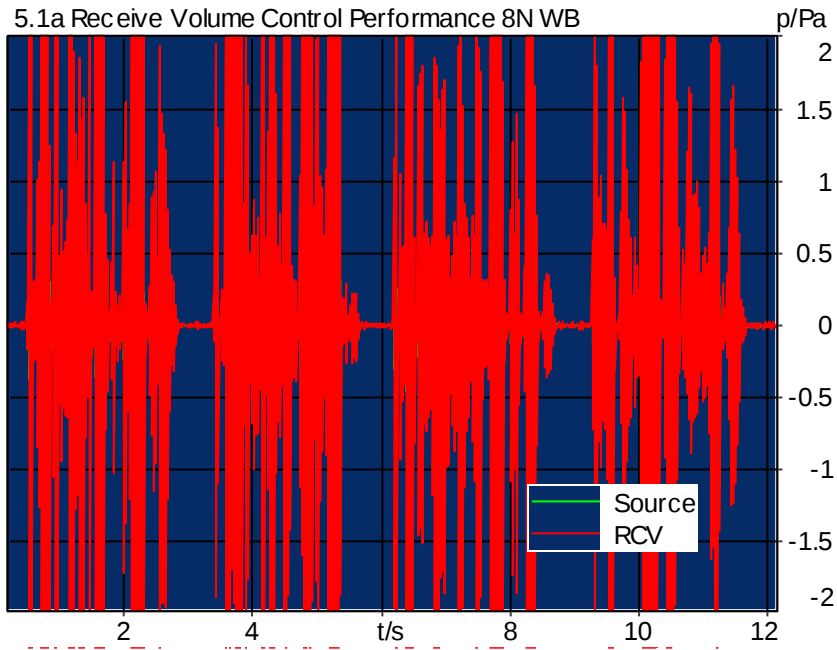


| Channel    | Delay    | Correlation |
|------------|----------|-------------|
| RCV*Source | 193.5 ms | 46.42 %     |

2026-01-29 上午 06:01 ACQUA 6.1.110

## 5.1a Receive Volume Control Performance 8N WB

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



| Channel | Speech level  | Activity |    |
|---------|---------------|----------|----|
| RCV     | 89.66 dB[SPL] | 80.60%   | Ok |

Ok

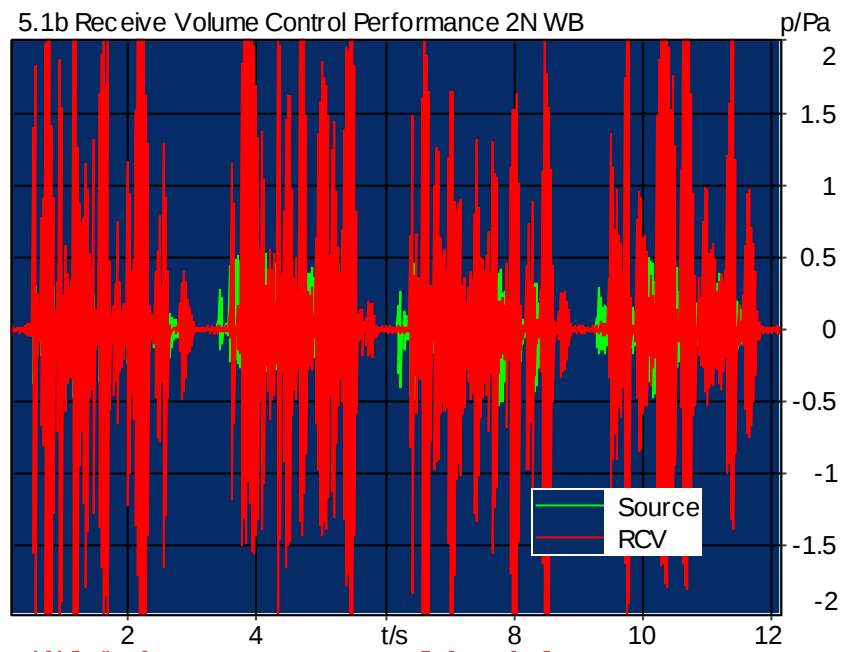
2026-01-29 上午 06:01 ACQUA 6.1.110

### 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     | 85.12 dB[SPL] | 82.17%   | Ok |

Ok

2026-01-29 上午 06:18 ACQUA 6.1.110

### Limits

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