# Appendix A. Volume Control Evaluation Results

<Evaluation results for KDB 285076 D05 2.a>

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# SPORTION LAB. Volume Control Evaluation Report

# #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

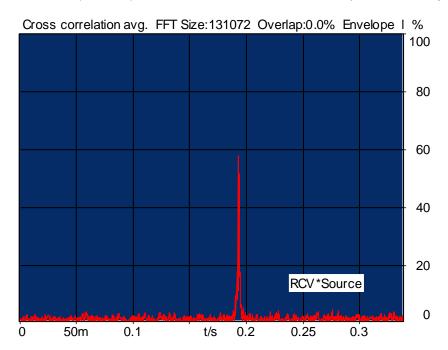
Report No. :HA4N0918C

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# **Overall Receive Delay NB**

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



Channel	Delay	Correlation
RCV*Source	193.4 ms	58.04 %

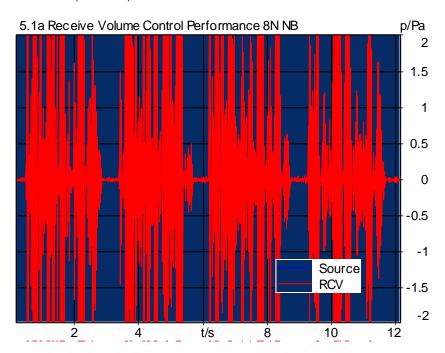
2025-02-08 上午 07:38 ACQUA 6.1.100

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# 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

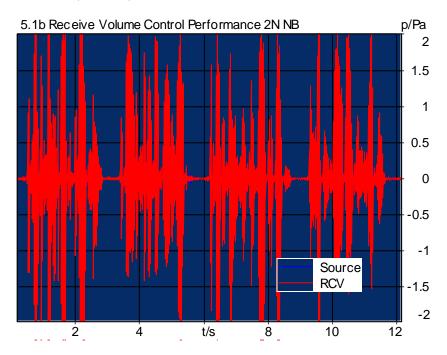
lower
76.00 dB[SPL]

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# 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

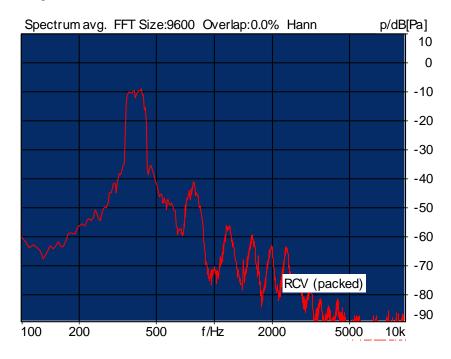
lower
76.00 dB[SPL]

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# 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

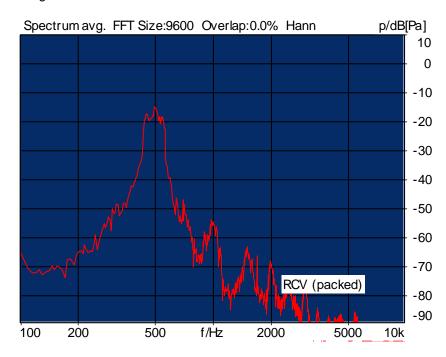
20.00 dB

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# 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

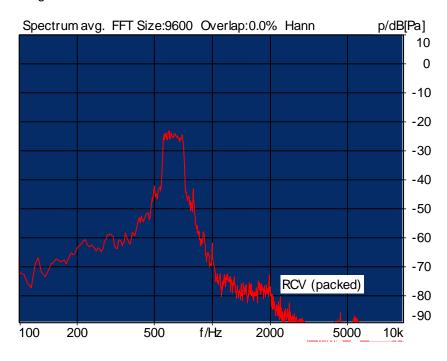
20.00 dB

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## 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

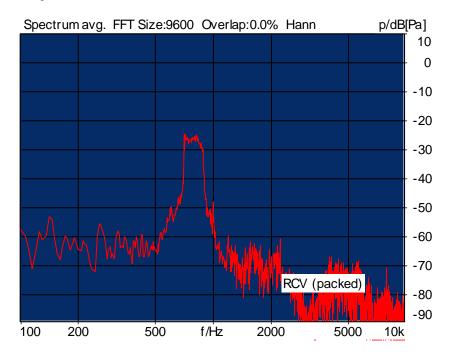
20.00 dB

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## 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

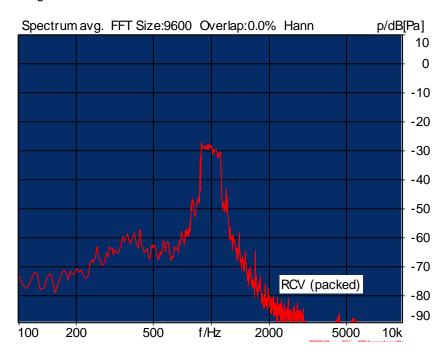
20.00 dB

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## 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

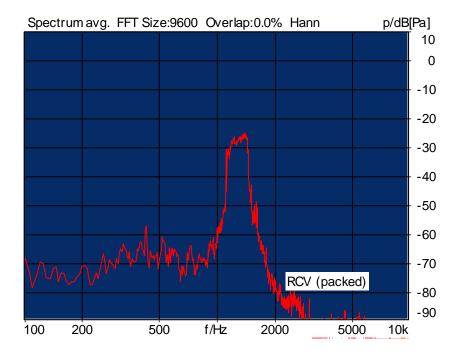
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# 5.2 RCV Distortion and Noise - 1250 Hz 8N NB

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

Report No.: HA4N0918C



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

#### Ok

2025-02-08 上午 08:01 ACQUA 6.1.100

#### Limits

lower

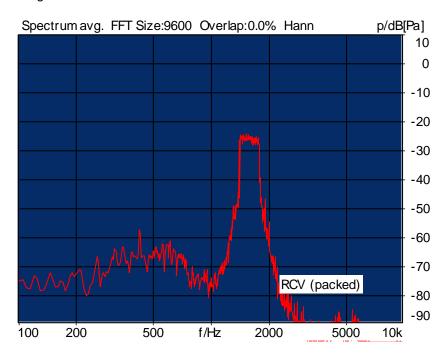
20.00 dB

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# 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

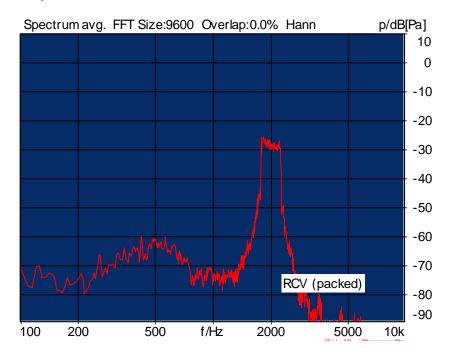
20.00 dB

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## 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

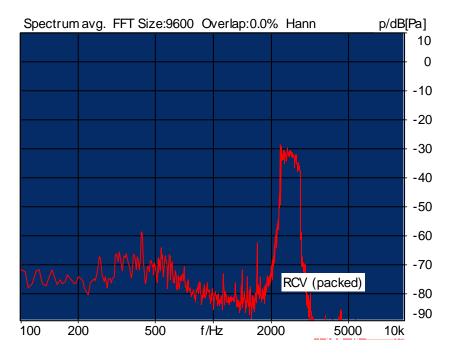
20.00 dB

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## 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

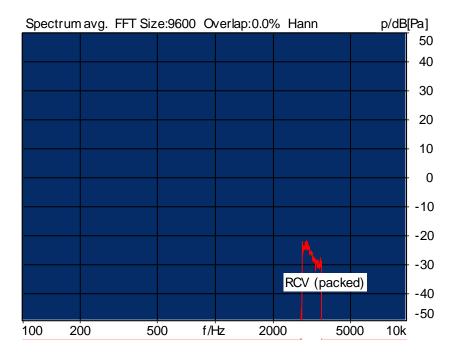
20.00 dB

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## 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

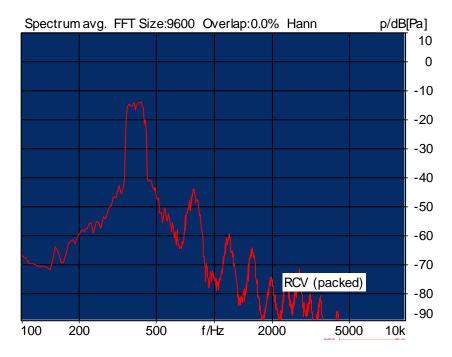
20.00 dB

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# 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

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## 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

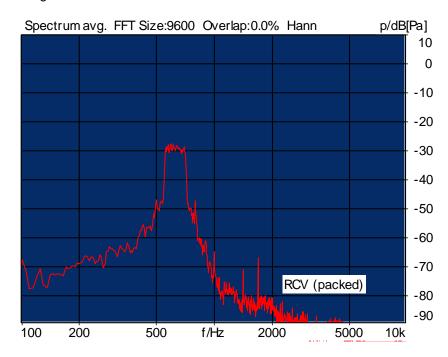
20.00 dB

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# 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

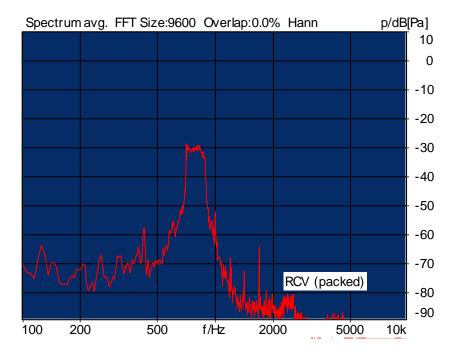
20.00 dB

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## 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

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## 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

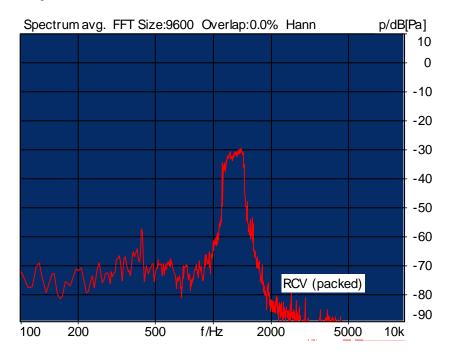
20.00 dB

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## 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

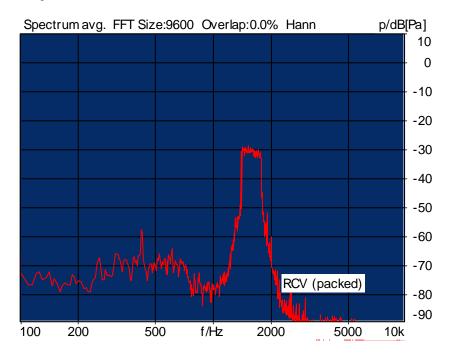
20.00 dB

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# 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

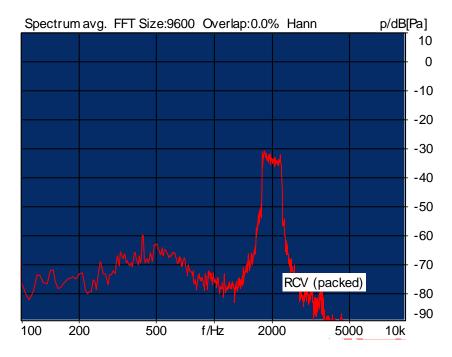
20.00 dB

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## 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

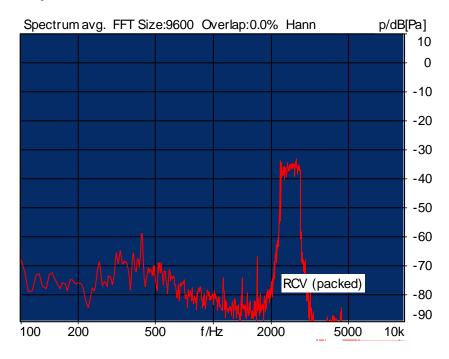
20.00 dB

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## 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

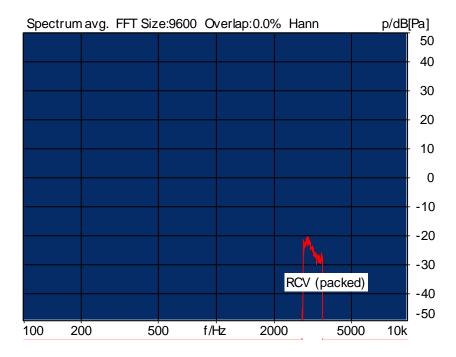
20.00 dB

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## 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

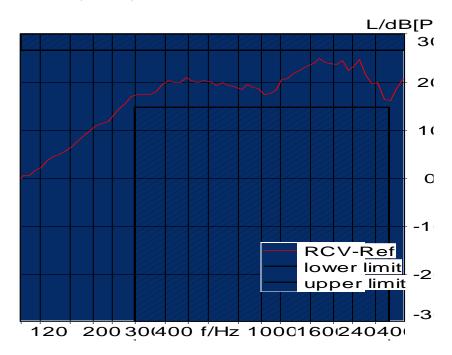
20.00 dB

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# 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

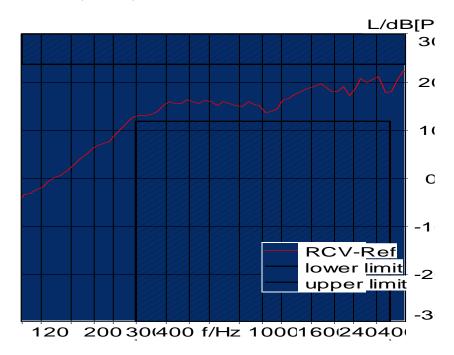
Fit into tolerance

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# 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

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# SPORTION LAB. Volume Control Evaluation Report

# #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

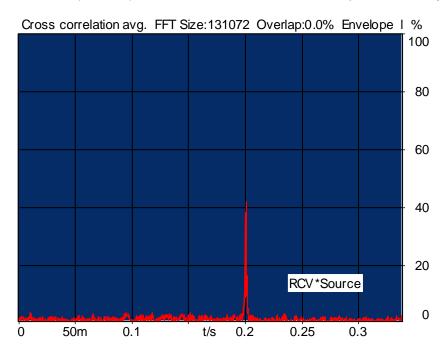
Report No. :HA4N0918C

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# **Overall Receive Delay NB**

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



Channel	Delay	Correlation
RCV*Source	200.9 ms	42.12 %

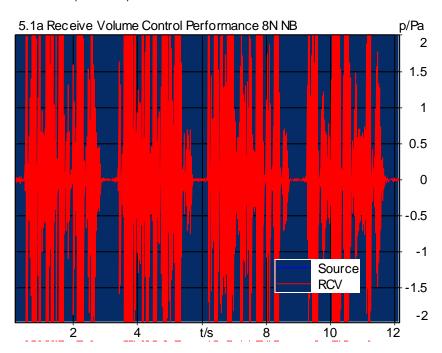
2025-02-17 下午 08:15 ACQUA 6.1.110

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# 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]

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## 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

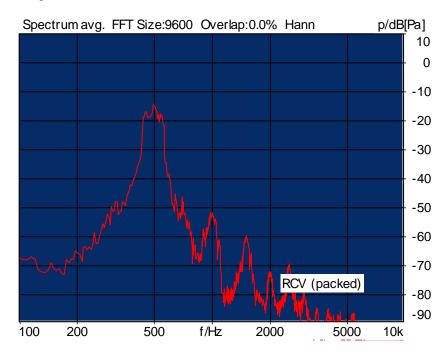
lower

20.00 dB

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## 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

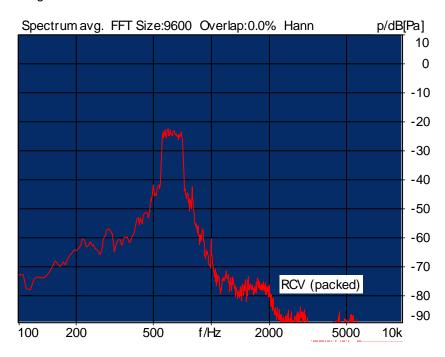
lower

20.00 dB

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# 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

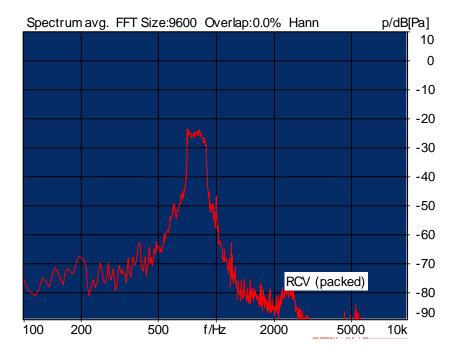
20.00 dB

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# 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

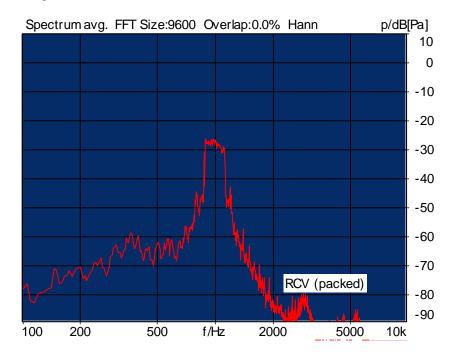
20.00 dB

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# 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

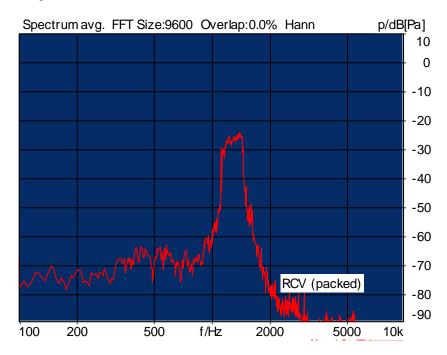
20.00 dB

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# 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

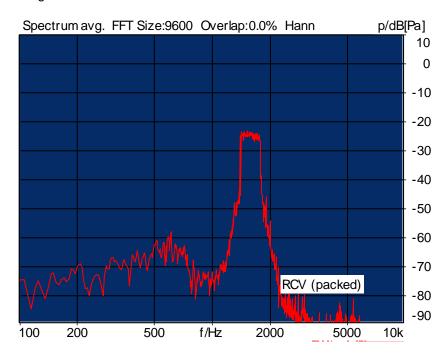
20.00 dB

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## 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

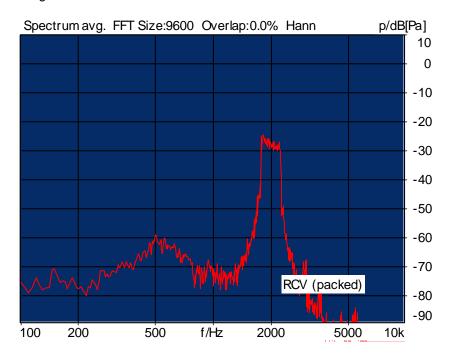
20.00 dB

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## 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

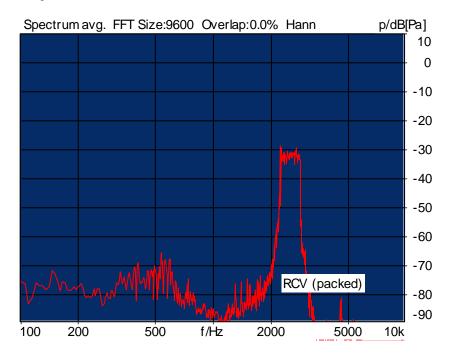
20.00 dB

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## 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

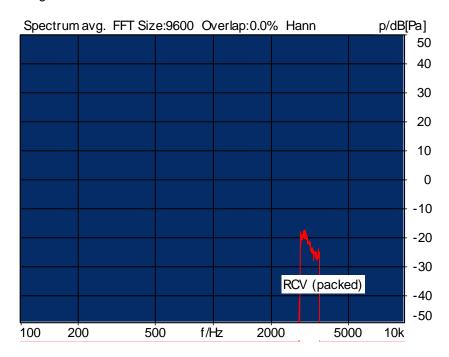
20.00 dB

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## 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

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## 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

Report No. :HA4N0918C

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.

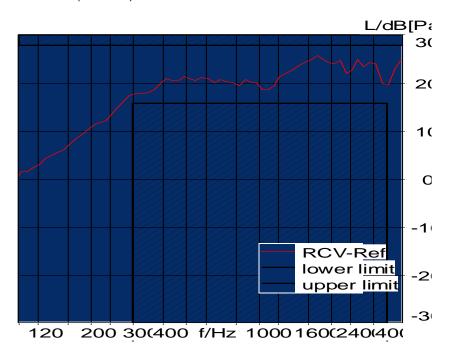
2025-02-17 下午 08:21 ACQUA

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# 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

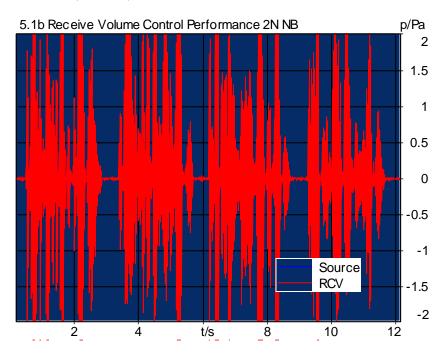
Fit into tolerance

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# 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

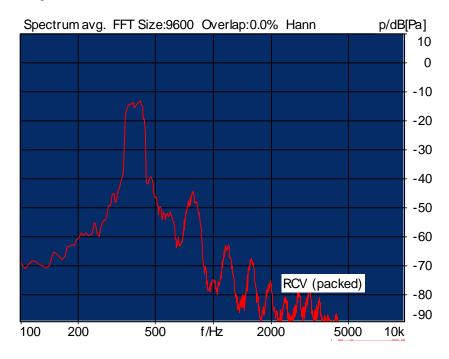
lower			
76.00 dB[SPL]			

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## 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

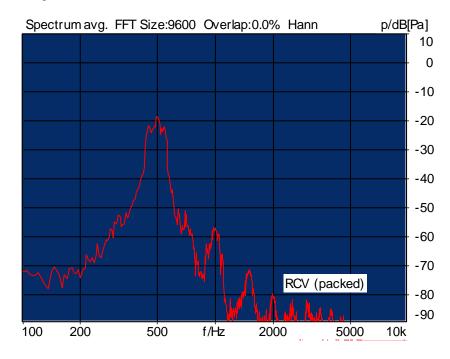
20.00 dB

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## 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

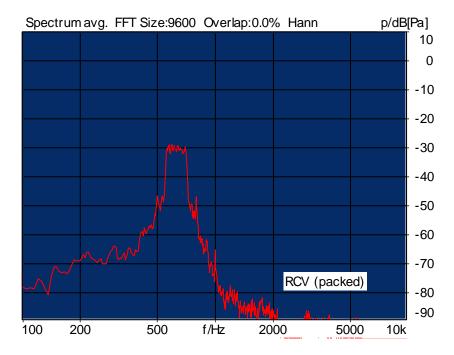
20.00 dB

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## 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

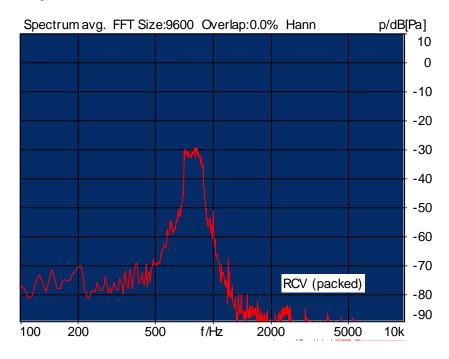
lower

20.00 dB

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## 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

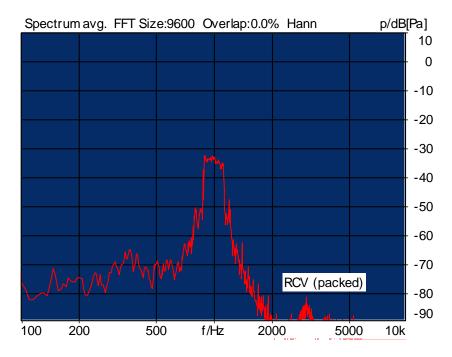
20.00 dB

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## 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

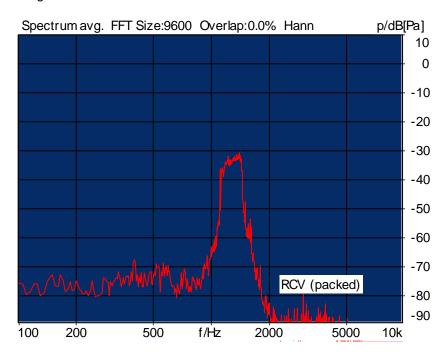
20.00 dB

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## 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

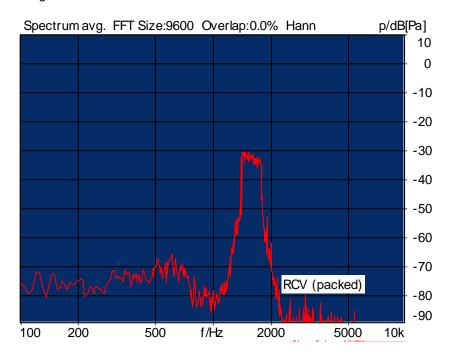
20.00 dB

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## 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

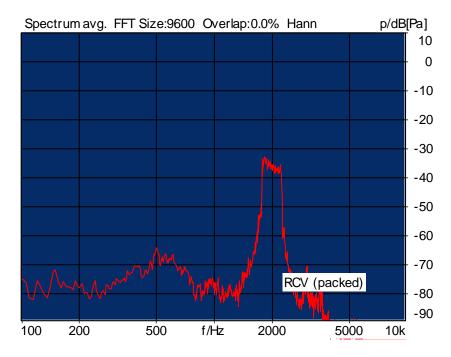
20.00 dB

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## 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

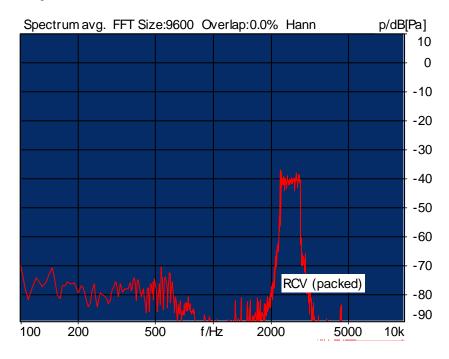
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## 5.2 RCV Distortion and Noise - 2500 Hz 2N NB

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

Report No.: HA4N0918C



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

### Ok

2025-02-17 下午 08:28 ACQUA 6.1.110

### Limits

lower

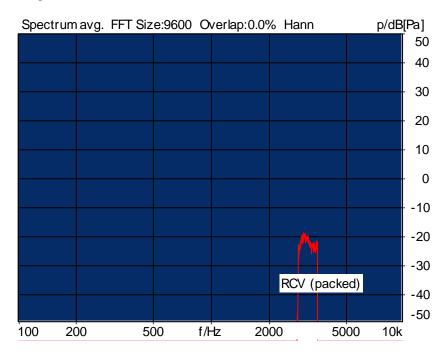
20.00 dB

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## 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

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## 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

Report No. :HA4N0918C

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.

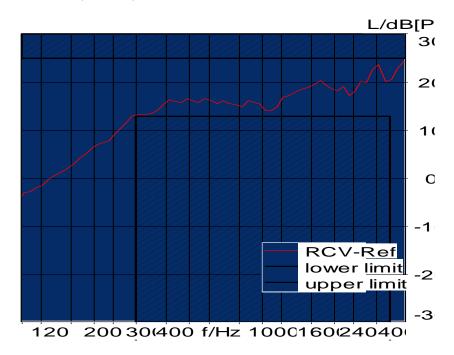
2025-02-17 下午 08:28 ACQUA

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# 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

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# #3 WiFi 6GHz EVS WB 24.4kbps

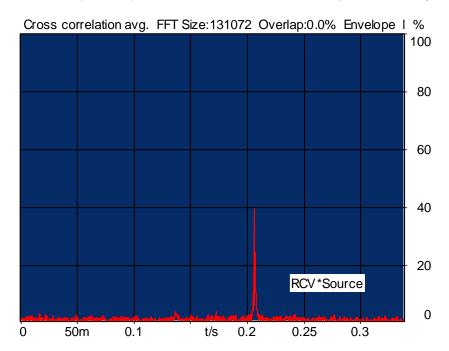
SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	207.1
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.65
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	88.23
5.2 RCV Distortion and Noise - 250 Hz 8N 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

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## **Overall Receive Delay WB**

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



Channel	Delay	Correlation
RCV*Source	207.1 ms	39.73 %

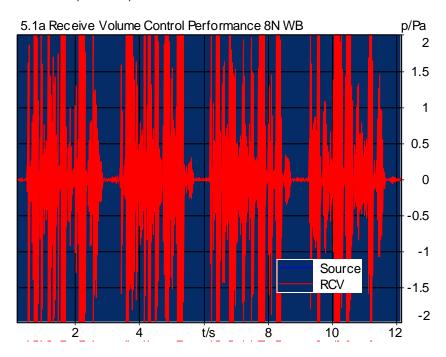
2025-02-18 上午 09:07 ACQUA 6.1.110

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## 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

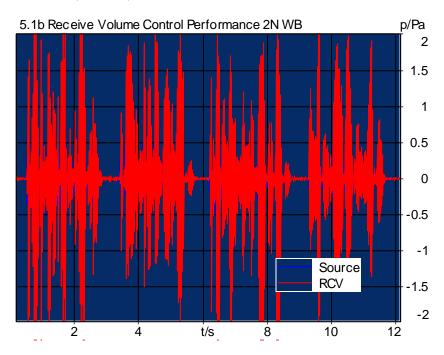
lower			
76.00 dB[SPL]			

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# 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

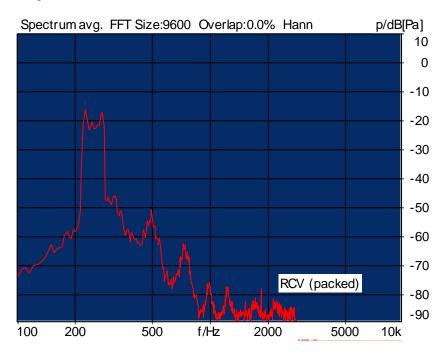
lower				
76.00 dB[SPL]				

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## 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

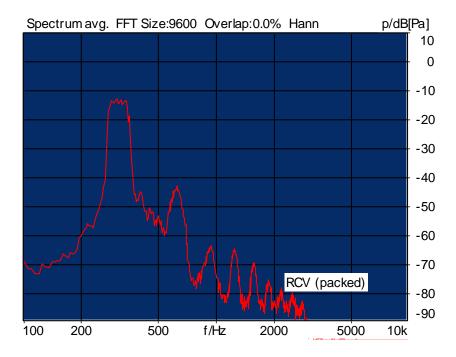
20.00 dB

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## 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

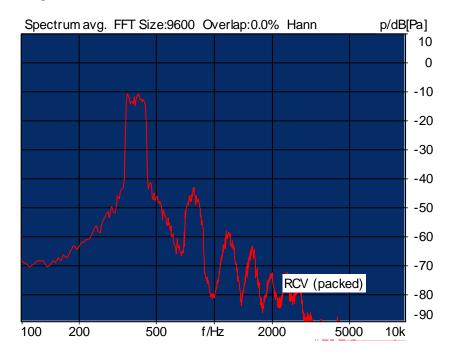
20.00 dB

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## 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

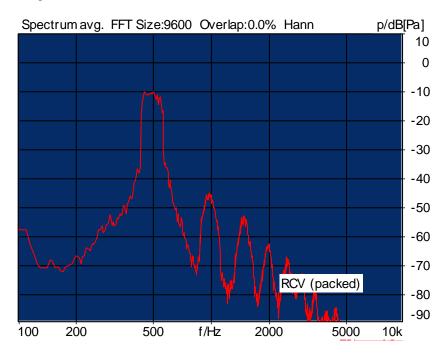
20.00 dB

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## 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

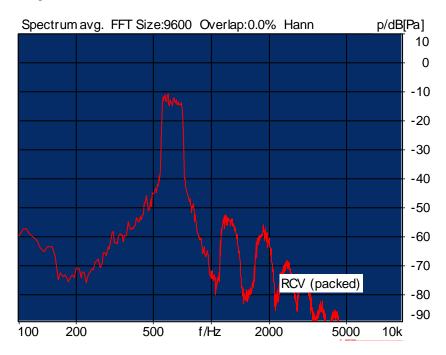
20.00 dB

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## 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

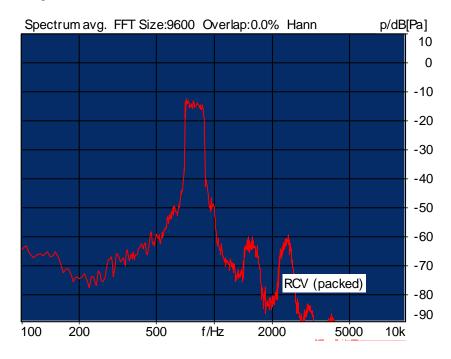
20.00 dB

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## 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

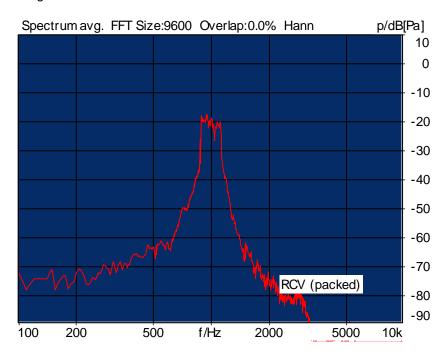
20.00 dB

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## 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

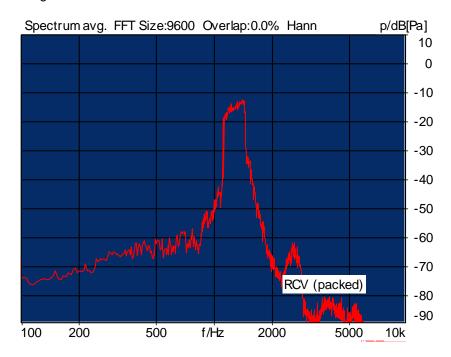
20.00 dB

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## 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

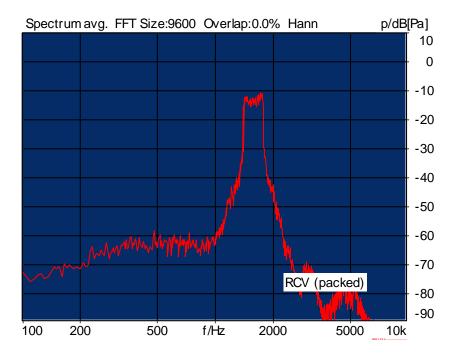
20.00 dB

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## 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

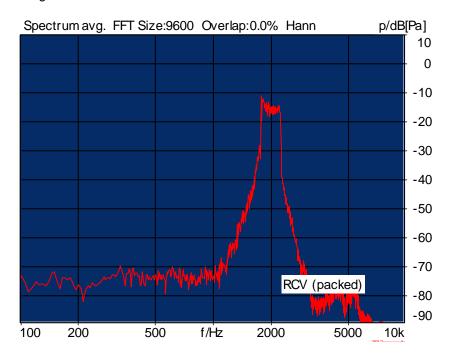
20.00 dB

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## 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

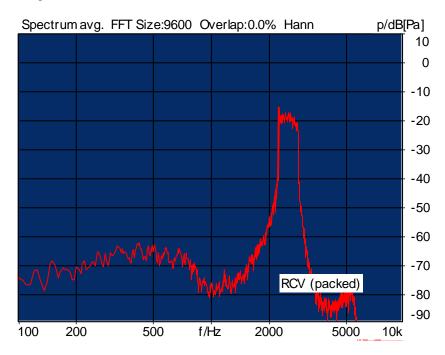
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## 5.2 RCV Distortion and Noise - 2500 Hz 8N WB

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

Report No.: HA4N0918C



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

### Ok

2025-02-18 上午 09:18 ACQUA 6.1.110

### Limits

lower

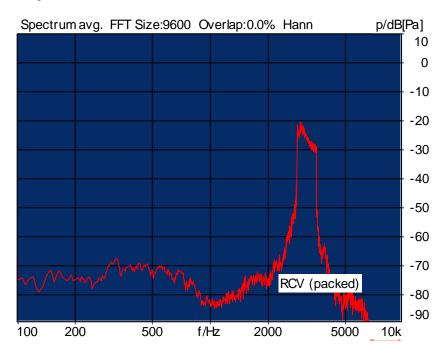
20.00 dB

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## 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

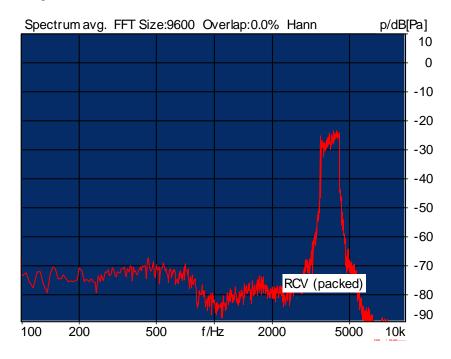
20.00 dB

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## 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

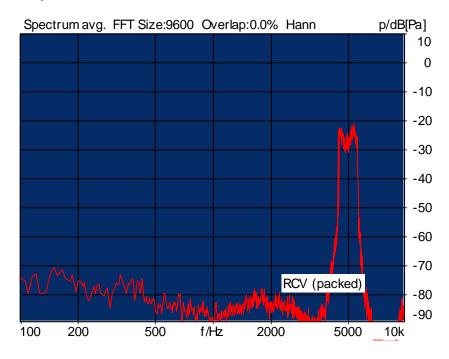
20.00 dB

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## 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

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

Report No.: HA4N0918C

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.

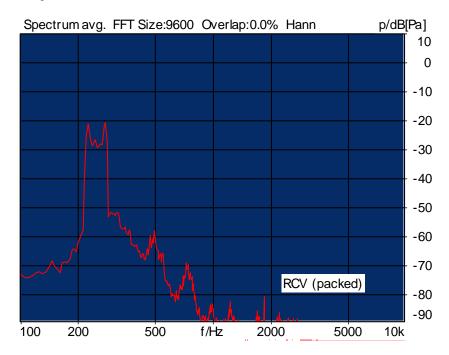
2025-02-18 上午 09:20 ACQUA

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## 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

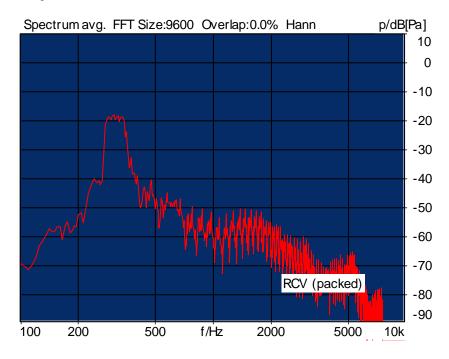
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# 5.2 RCV Distortion and Noise - 315 Hz 2N WB

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

Report No.: HA4N0918C



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

#### Ok

2025-02-18 上午 09:23 ACQUA 6.1.110

#### Limits

lower

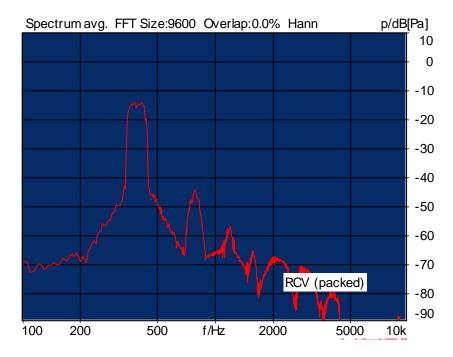
20.00 dB

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## 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

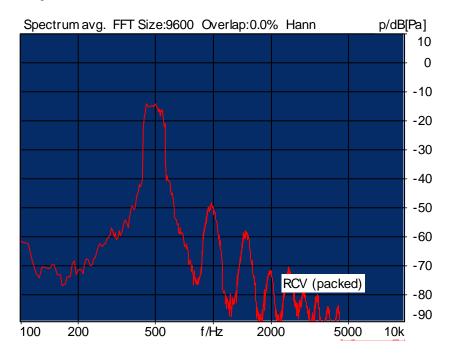
20.00 dB

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## 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

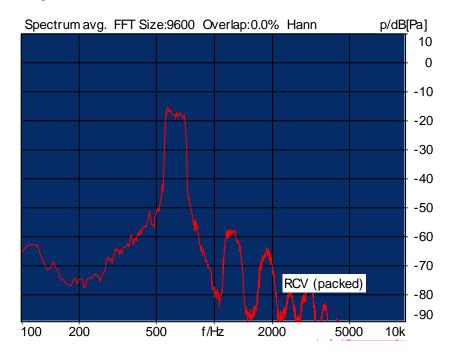
20.00 dB

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## 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

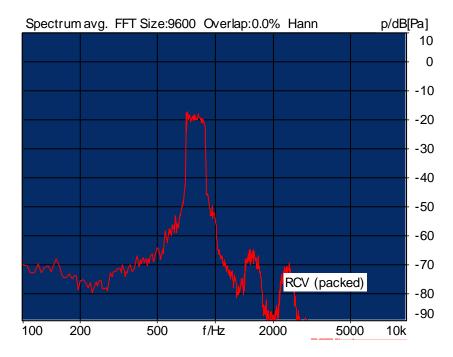
20.00 dB

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## 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

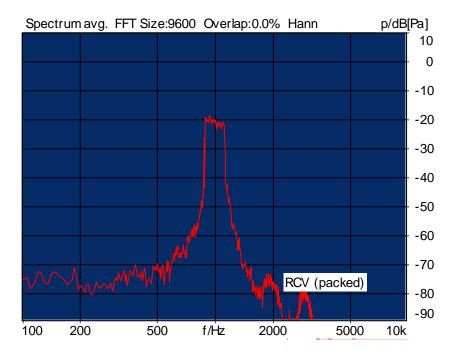
20.00 dB

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## 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

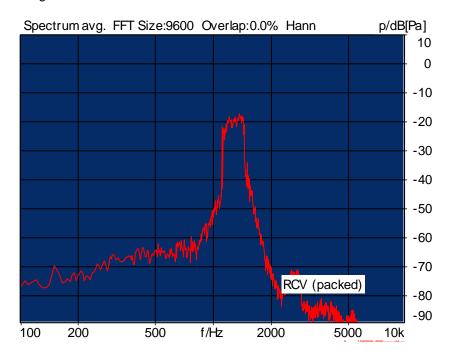
20.00 dB

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## 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

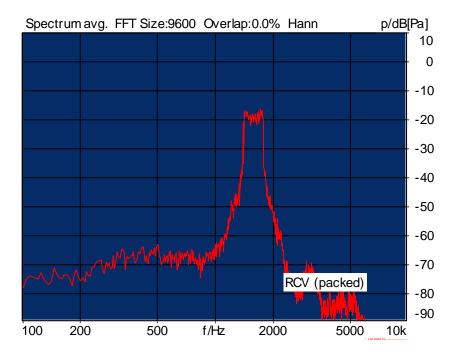
20.00 dB

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## 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

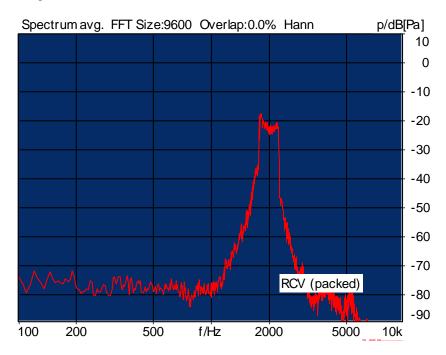
20.00 dB

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## 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

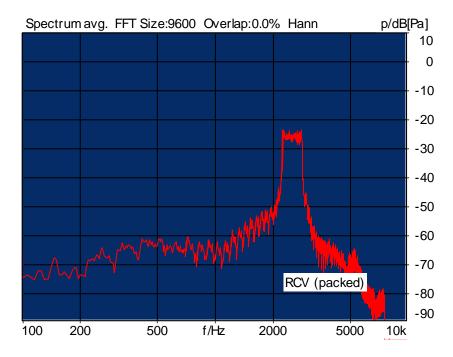
20.00 dB

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## 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

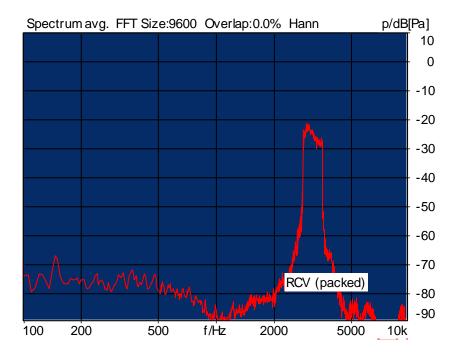
20.00 dB

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## 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

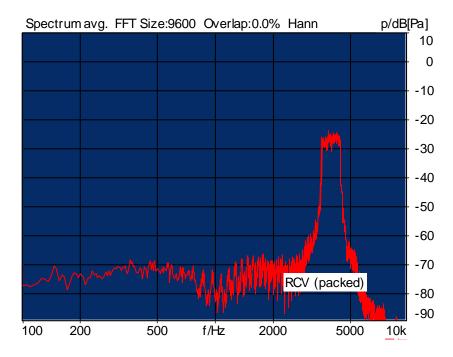
20.00 dB

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## 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

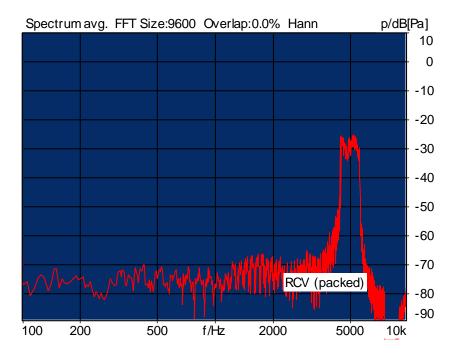
20.00 dB

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## 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

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

Report No. :HA4N0918C

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.

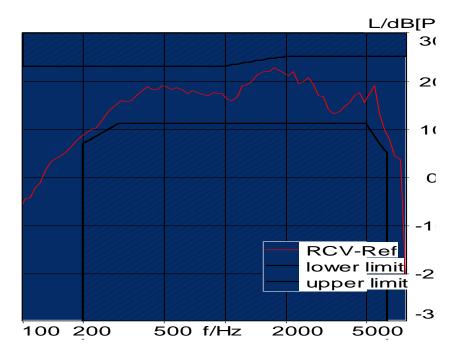
2025-02-18 上午 09:30 ACQUA

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## 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

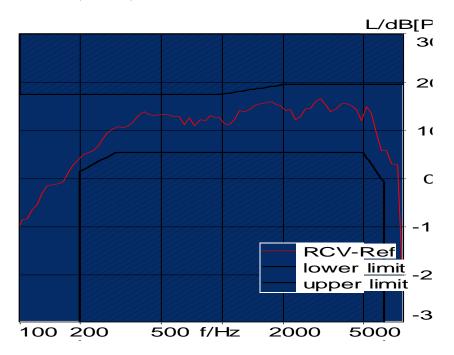
Fit into tolerance

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# 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

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# Appendix A. Volume Control Evaluation Results

<Evaluation results for KDB 285076 D05 2.b>

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# SPORTON LAB. Volume Control Evaluation Report

# #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

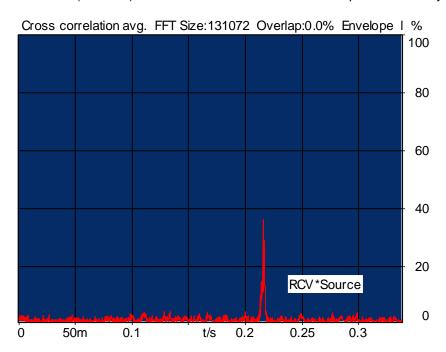
Report No. :HA4N0918C

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# **Overall Receive Delay NB**

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



Channel	Delay	Correlation
RCV*Source	216.1 ms	36.01 %

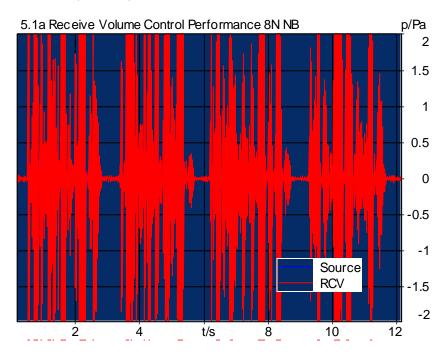
2025-02-13 上午 07:49 ACQUA 6.1.110

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# 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

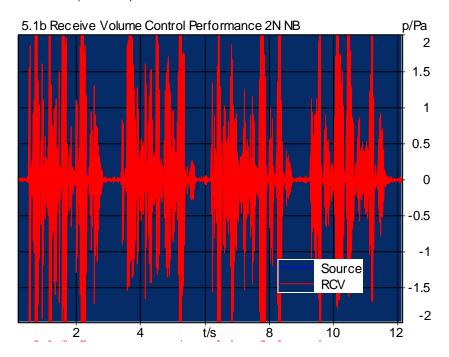
lower	
76.00 dB[SPL]	

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# 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]

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# SPORTON LAB. Volume Control Evaluation Report

# #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

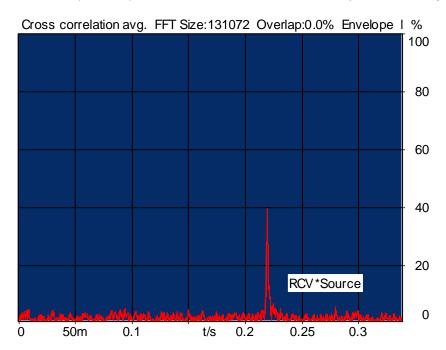
Report No. :HA4N0918C

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# **Overall Receive Delay NB**

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



Channel	Delay	Correlation
RCV*Source	219.4 ms	39.53 %

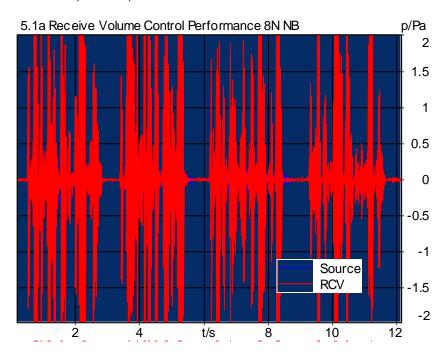
2025-02-12 上午 06:12 ACQUA 6.1.110

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# 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

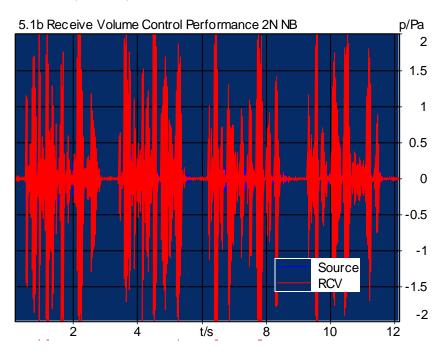
lower
76.00 dB[SPL]

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# 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]	

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# SPORTON LAB. Volume Control Evaluation Report

# #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

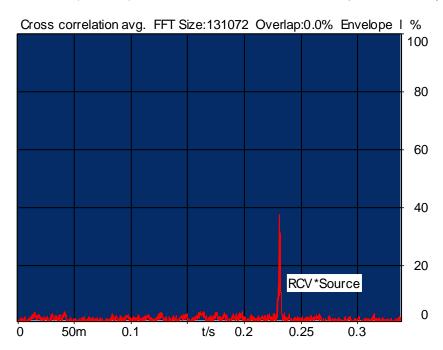
Report No. :HA4N0918C

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# **Overall Receive Delay NB**

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



Channel	Delay	Correlation
RCV*Source	231.6 ms	37.65 %

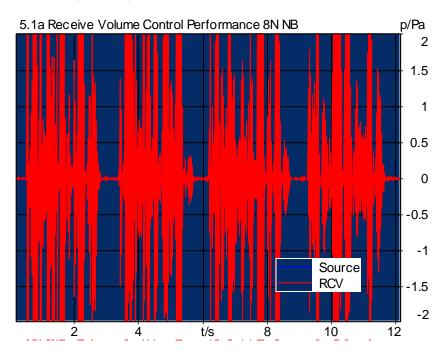
2025-01-24 上午 10:12 ACQUA 6.1.100

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# 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

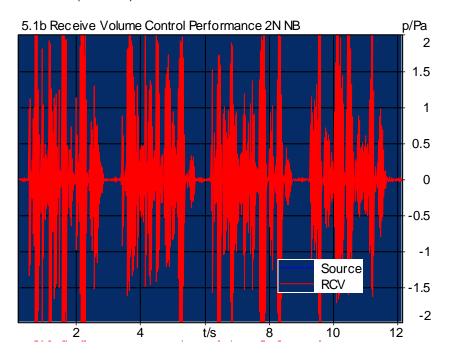
lower
76.00 dB[SPL]

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# 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]

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# SPORTION LAB. Volume Control Evaluation Report

# #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

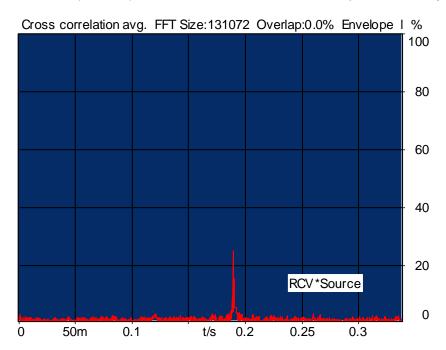
Report No. :HA4N0918C

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# **Overall Receive Delay NB**

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



Channel	Delay	Correlation
RCV*Source	190.5 ms	25.07 %

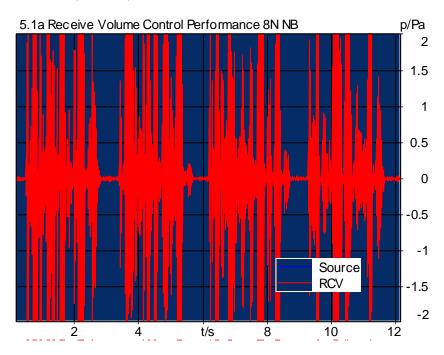
2025-02-18 上午 04:37 ACQUA 6.1.110

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# 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]

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# 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]

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# SPORTON LAB. Volume Control Evaluation Report

# #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

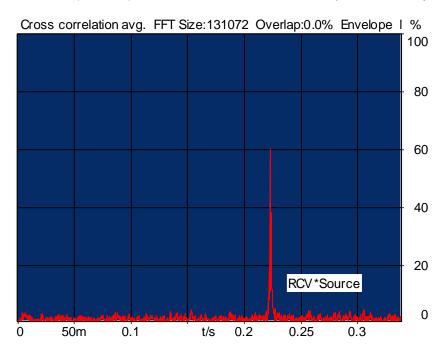
Report No. :HA4N0918C

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# **Overall Receive Delay WB**

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



Channel	Delay	Correlation
RCV*Source	223.3 ms	60.43 %

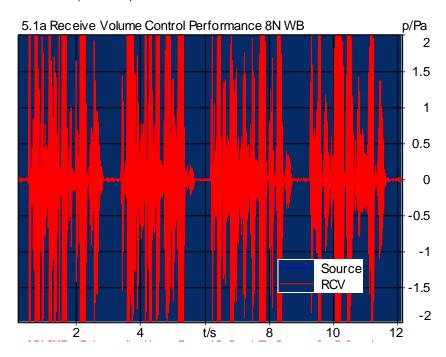
2025-02-13 上午 01:38 ACQUA 6.1.110

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# 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

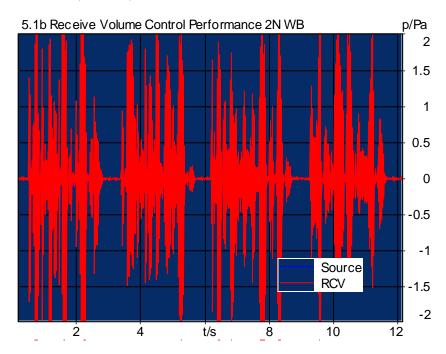
lower
76.00 dB[SPL]

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# 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]

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