Appendix A. Volume Control Evaluation Results

Report No.: HA451607C

<Evaluation results for KDB 285076 D05 2.a>

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SPORTION LAB. Volume Control Evaluation Report

Report No. :HA451607C

#1 LTE B7 EVS WB 24.4Kbps

SMD	Status	Single Value Description	Singl Valu
Overall Receive Delay WB	Done	Delay (Cross) [ms]	184.
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.2
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	90.8
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.0
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.2
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.8
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.2
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.0
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.8
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.0
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.4
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.1
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.7
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.9
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.2
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.5
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.8
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.0
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.6
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.9
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.4
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.7
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.7
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.4
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.6
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.5
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.1
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.2
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.0
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.4
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.6
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 487.0 Hz	1.22
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 487.0 Hz	3.47

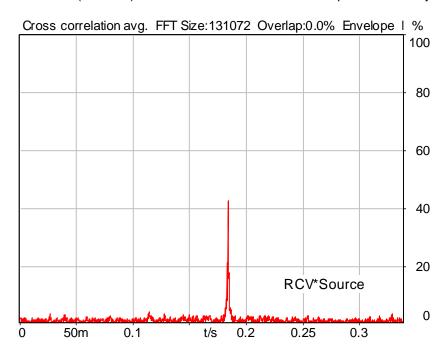
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Overall Receive Delay WB

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

Report No.: HA451607C



Channel	Delay
RCV*Source	184.5 ms

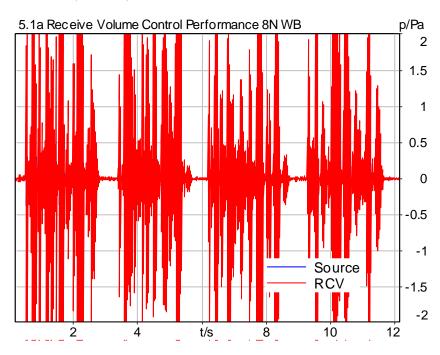
2024-08-29 下午 11:05 ACQUA 6.0.200

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Report No. :HA451607C

5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	89.21 dB[SPL]	62.99%	Ok

Ok

2024-08-29 下午 11:18 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

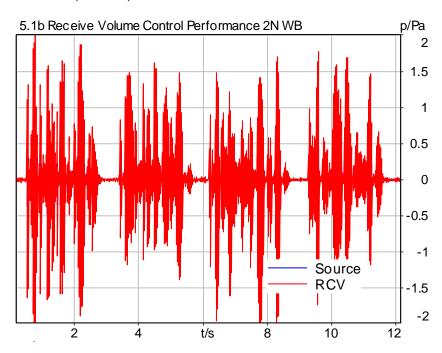
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SPORTION LAB

Report No.: HA451607C

5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	90.87 dB[SPL]	11.38%	Ok

Ok

2024-08-29 下午 11:16 ACQUA 6.0.200

Limits

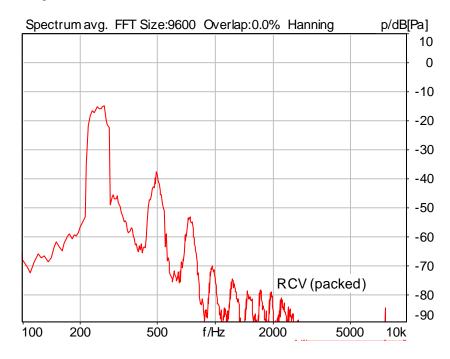
	lower
Run 1	76.00 dB20uPa

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5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 27.03 dB (4.45%) Ok

Ok

2024-08-29 下午 11:18 ACQUA 6.0.200

Limits

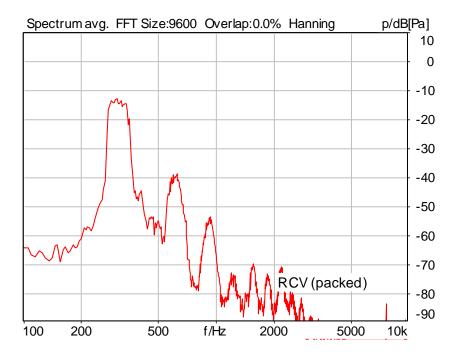
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 315 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 27.27 dB (4.33%) Ok

Ok

2024-08-29 下午 11:19 ACQUA 6.0.200

Limits

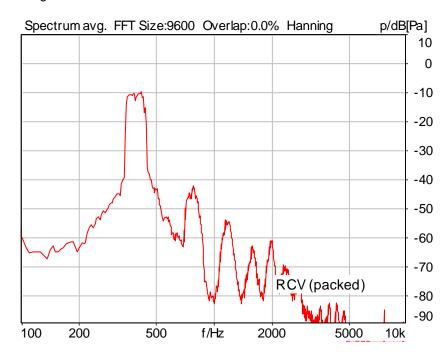
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 400 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 31.82 dB (2.57%) Ok

Ok

2024-08-29 下午 11:19 ACQUA 6.0.200

Limits

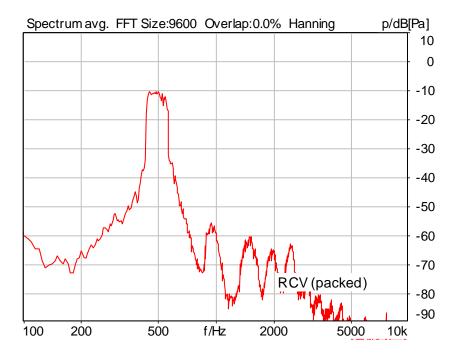
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 34.28 dB (1.93%) Ok

Ok

2024-08-29 下午 11:20 ACQUA 6.0.200

Limits

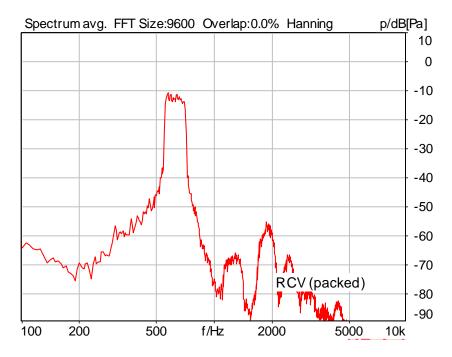
	lower
Run 1	20.00 dB

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Report No. :HA451607C

5.2 RCV Distortion and Noise - 630 Hz 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

2024-08-29 下午 11:20 ACQUA 6.0.200

Limits

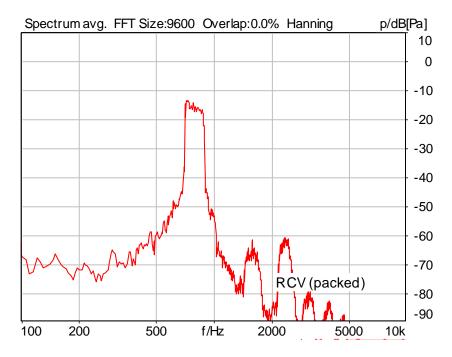
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 800 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 34.88 dB (1.80%) Ok

Ok

2024-08-29 下午 11:21 ACQUA 6.0.200

Limits

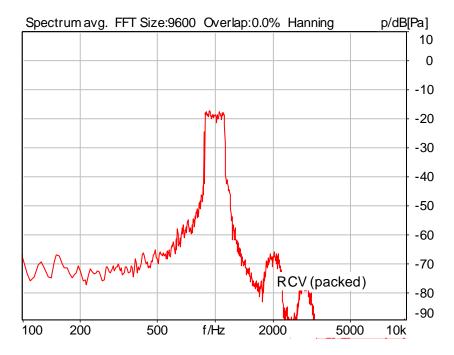
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 31.02 dB (2.81%) Ok

Ok

2024-08-29 下午 11:21 ACQUA 6.0.200

Limits

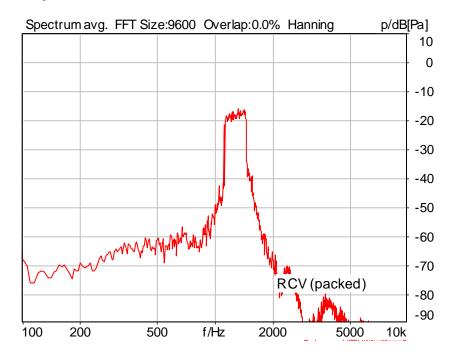
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 23.47 dB (6.71%) Ok

Ok

2024-08-29 下午 11:22 ACQUA 6.0.200

Limits

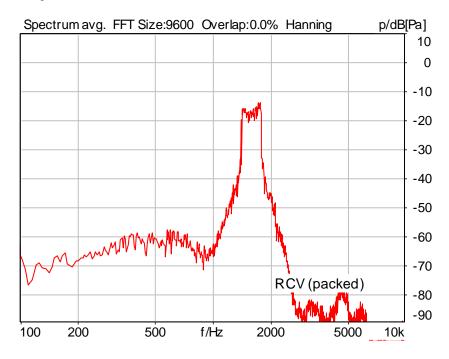
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1600 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 25.10 dB (5.56%) Ok

Ok

2024-08-29 下午 11:22 ACQUA 6.0.200

Limits

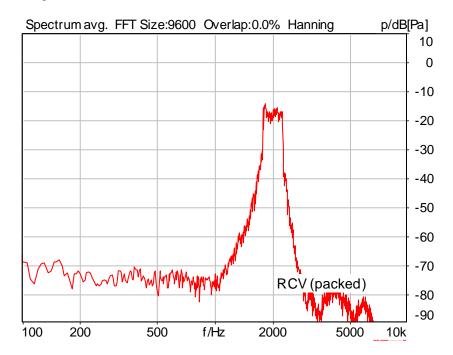
	lower
Run 1	20.00 dB

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Report No.: HA451607C

5.2 RCV Distortion and Noise - 2000 Hz WB

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



Distortion (Noise) RCV (packed): 22.78 dB (7.26%) Ok

Ok

2024-08-29 下午 11:23 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

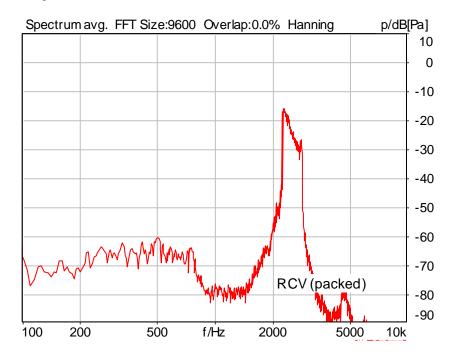
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Report No. :HA451607C

5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 30.91 dB (2.85%) Ok

Ok

2024-08-29 下午 11:23 ACQUA 6.0.200

Limits

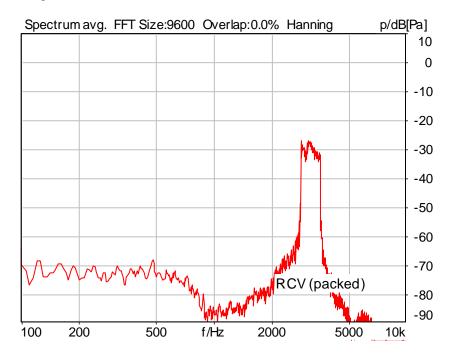
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 3150 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 32.24 dB (2.44%) Ok

Ok

2024-08-29 下午 11:24 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

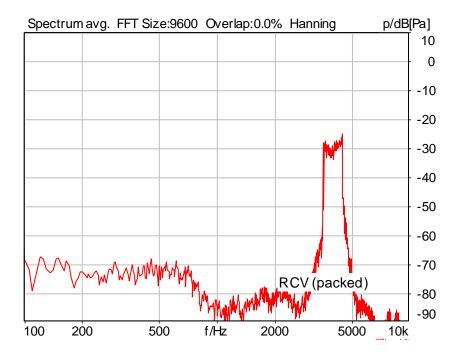
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5.2 RCV Distortion and Noise - 4000 Hz WB

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

Report No.: HA451607C



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

Ok

2024-08-29 下午 11:25 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

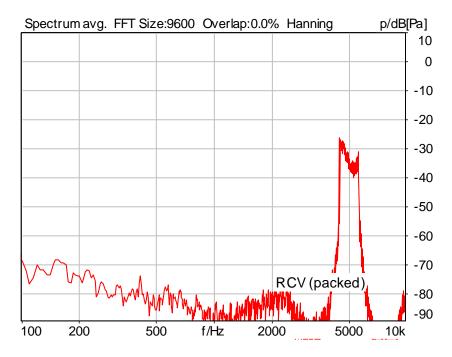
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5.2 RCV Distortion and Noise - 5000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 32.87 dB (2.27%) Ok

Ok

2024-08-29 下午 11:25 ACQUA 6.0.200

Limits

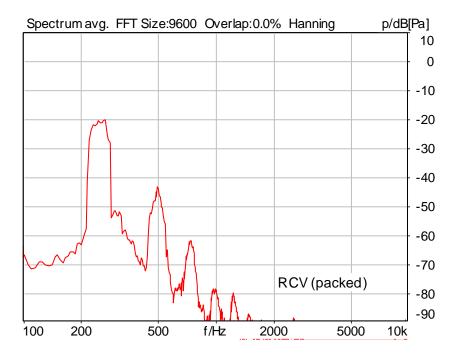
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 27.01 dB (4.46%) Ok

Ok

2024-08-29 下午 11:06 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

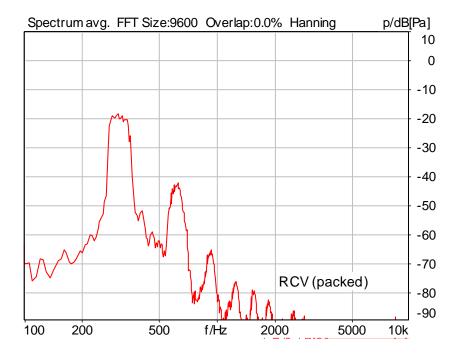
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SPORTON LAB

Report No.: HA451607C

5.2 RCV Distortion and Noise - 315 Hz WB

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



Distortion (Noise) RCV (packed): 25.62 dB (5.24%) Ok

Ok

2024-08-29 下午 11:07 ACQUA 6.0.200

Limits

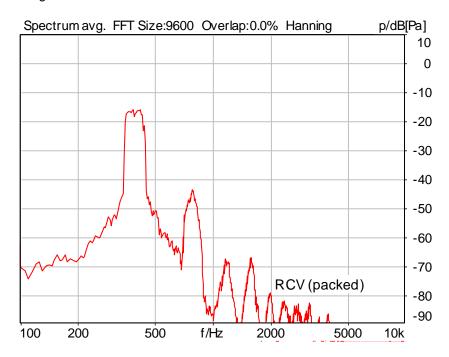
	lower
Run 1	20.00 dB

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Report No.: HA451607C

5.2 RCV Distortion and Noise - 400 Hz WB

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



Distortion (Noise) RCV (packed): 28.90 dB (3.59%) Ok

Ok

2024-08-29 下午 11:07 ACQUA 6.0.200

Limits

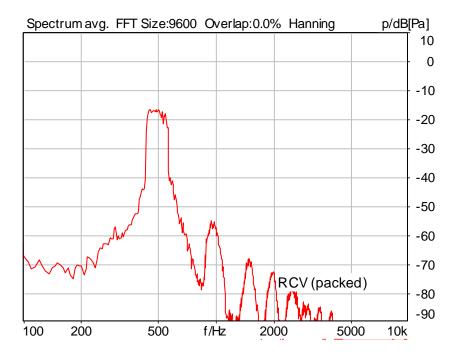
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 500 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 33.46 dB (2.12%) Ok

Ok

2024-08-29 下午 11:08 ACQUA 6.0.200

Limits

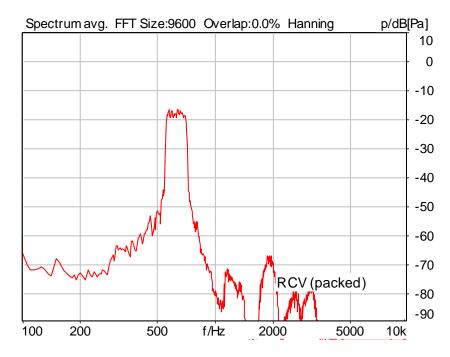
	lower
Run 1	20.00 dB

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Report No.: HA451607C

5.2 RCV Distortion and Noise - 630 Hz WB

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



Distortion (Noise) RCV (packed): 37.70 dB (1.30%) Ok

Ok

2024-08-29 下午 11:08 ACQUA 6.0.200

Limits

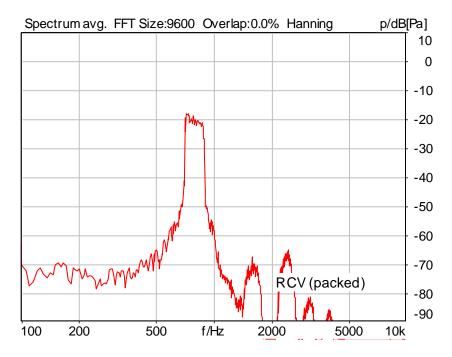
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 800 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 35.79 dB (1.62%) Ok

Ok

2024-08-29 下午 11:09 ACQUA 6.0.200

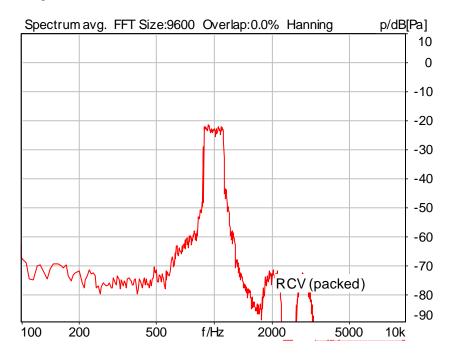
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1000 Hz WB

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



Distortion (Noise) RCV (packed): 31.41 dB (2.69%) Ok

Ok

2024-08-29 下午 11:10 ACQUA 6.0.200

Limits

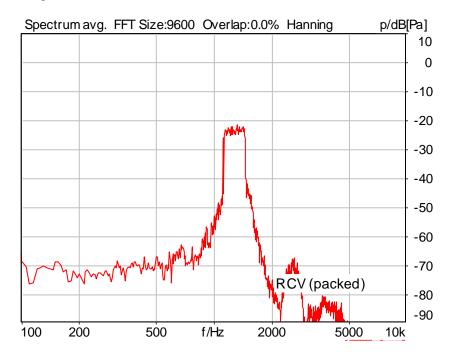
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 23.69 dB (6.54%) Ok

Ok

2024-08-29 下午 11:10 ACQUA 6.0.200

Limits

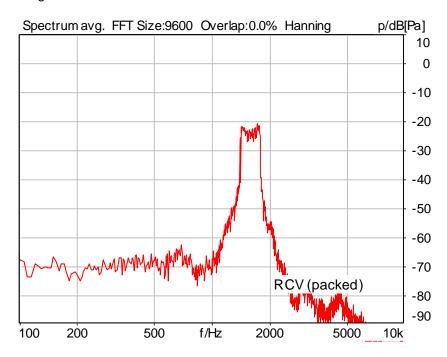
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1600 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 25.59 dB (5.25%) Ok

Ok

2024-08-29 下午 11:11 ACQUA 6.0.200

Limits

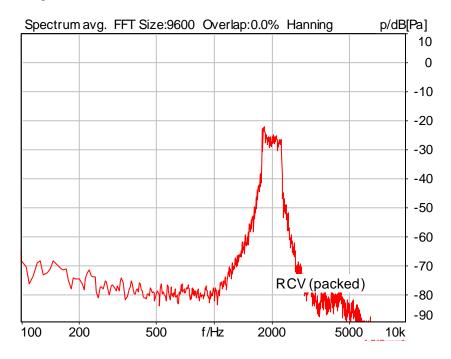
	lower
Run 1	20.00 dB

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Volume Control Evaluation Report 5.2 RCV Distortion and Noise - 2000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 21.18 dB (8.73%) Ok

Ok

2024-08-29 下午 11:11 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

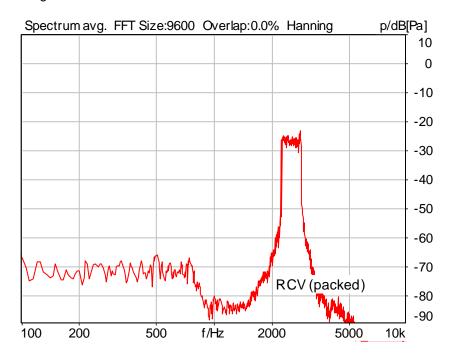
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5.2 RCV Distortion and Noise - 2500 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 31.24 dB (2.74%) Ok

Ok

2024-08-29 下午 11:12 ACQUA 6.0.200

Limits

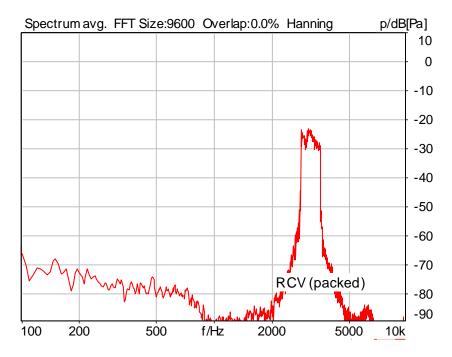
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 3150 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 34.06 dB (1.98%) Ok

Ok

2024-08-29 下午 11:12 ACQUA 6.0.200

Limits

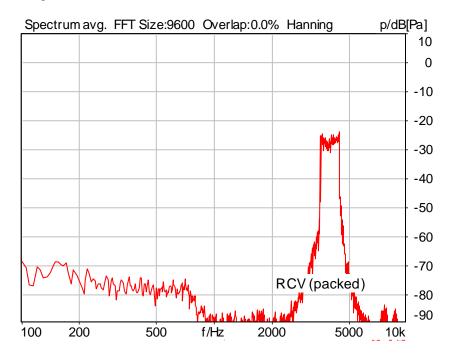
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 4000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 30.49 dB (2.99%) Ok

Ok

2024-08-29 下午 11:13 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

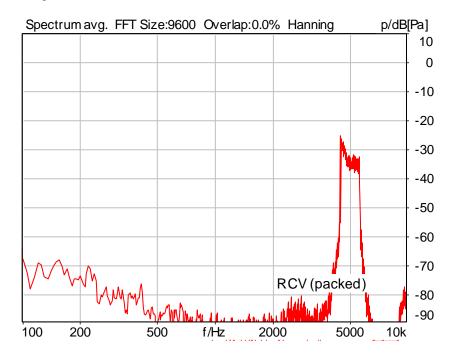
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SPORTON LAB

5.2 RCV Distortion and Noise - 5000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 33.61 dB (2.09%) Ok

Ok

2024-08-29 下午 11:13 ACQUA 6.0.200

Limits

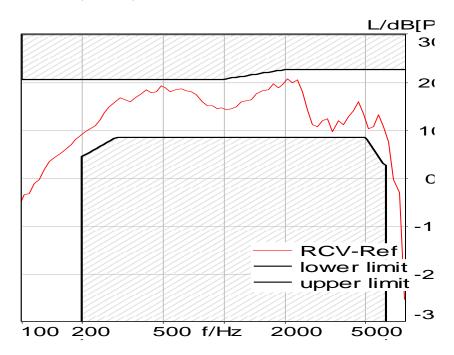
	lower
Run 1	20.00 dB

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Report No.: HA451607C

5.3 Frequency Response 8N DF

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



Absolute minimal distance

1.22 dB at 487.0 Hz Ok

Ok

2024-08-30 上午 12:45 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

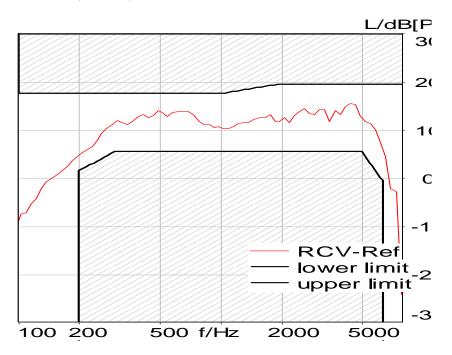
Form version: 231017 Page A34 of A124



Report No.: HA451607C

5.3 Frequency Response 2N DF

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



Absolute minimal distance

3.47 dB at 487.0 Hz Ok

Ok

2024-08-30 上午 12:43 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

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SPORTION LAB. Volume Control Evaluation Report

Report No. :HA451607C

#2 NR n26 EVS WB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	191.6
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.38
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	88.13
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.83
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.30
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.03
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.6
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.6
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.19
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.4
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.3
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.7
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.3
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.7
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.5
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.2
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.9
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.7
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.0
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.2
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.7
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.1
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.6
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.6
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.5
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.5
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.8
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.7
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.8
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.2
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.4
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 2057.5 Hz	1.17
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 2302.3 Hz	2.78

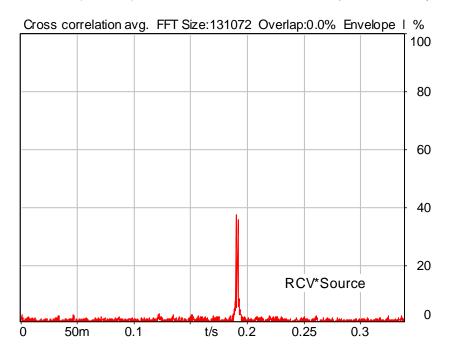
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Overall Receive Delay WB

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

Report No.: HA451607C



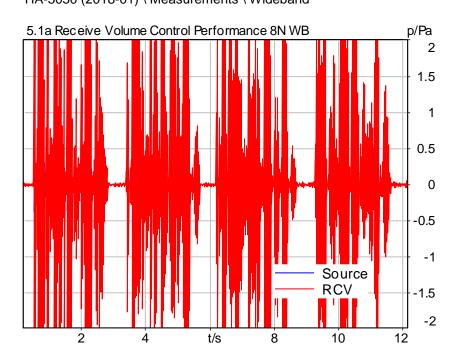
Channel	Delay
RCV*Source	191.6 ms

2024-08-31 上午 01:05 ACQUA 6.0.200

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ORTON LAB. Volume Control Evaluation Report Report No. :HA451607C

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



5.1a Receive Volume Control Performance 8N WB

Channel	Speech level	Activity	
RCV	90.38 dB[SPL]	59.35%	Ok

Ok

2024-08-31 上午 01:16 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

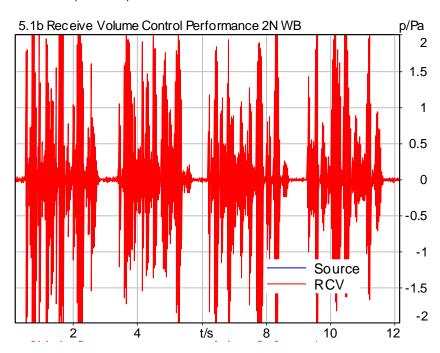
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SPORTON LAB. Volume Conti

5.1b Receive Volume Control Performance 2N WB

Report No.: HA451607C

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



Channel	Speech level	Activity	
RCV	88.13 dB[SPL]	41.30%	Ok

Ok

2024-08-31 上午 01:35 ACQUA 6.0.200

Limits

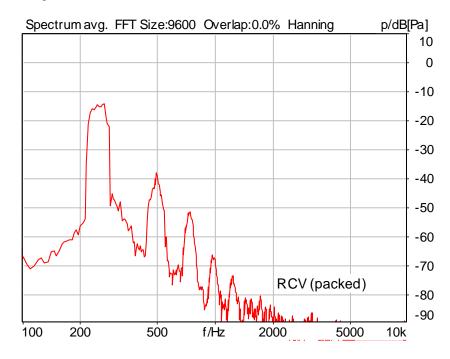
	lower
Run 1	76.00 dB20uPa

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Report No. :HA451607C

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 27.83 dB (4.06%) Ok

Ok

2024-08-31 上午 01:06 ACQUA 6.0.200

Limits

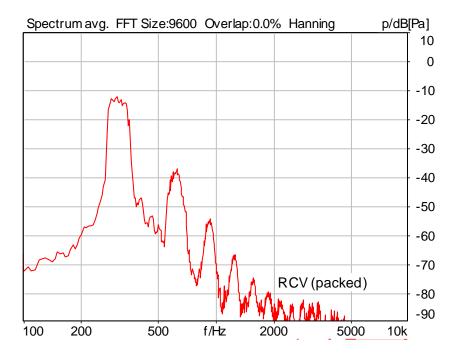
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 315 Hz WB

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

Report No.: HA451607C



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

Ok

2024-08-31 上午 01:07 ACQUA 6.0.200

Limits

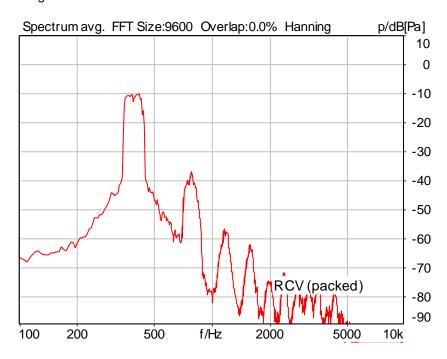
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 400 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 28.03 dB (3.97%) Ok

Ok

2024-08-31 上午 01:07 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

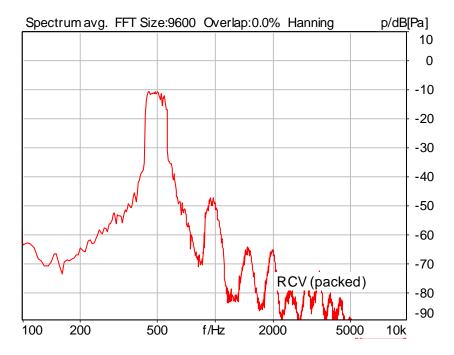
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SPORTON LAB.

Report No.: HA451607C

5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 32.61 dB (2.34%) Ok

Ok

2024-08-31 上午 01:08 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

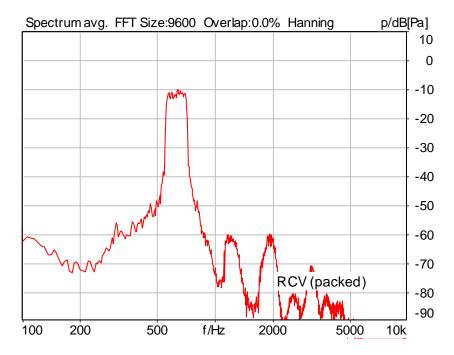
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SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 630 Hz WB

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



Distortion (Noise) RCV (packed): 37.64 dB (1.31%) Ok

Ok

2024-08-31 上午 01:08 ACQUA 6.0.200

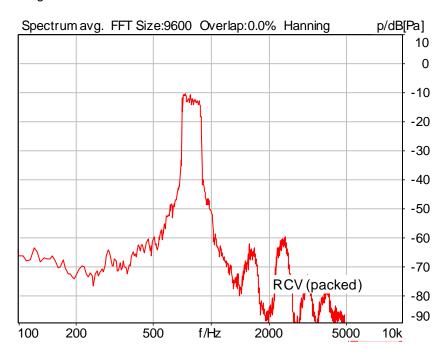
Limits

	lower
Run 1	20.00 dB

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Report No.: HA451607C 5.2 RCV Distortion and Noise - 800 Hz WB

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



Distortion (Noise) RCV (packed): 36.19 dB (1.55%) Ok

Ok

2024-08-31 上午 01:09 ACQUA 6.0.200

Limits

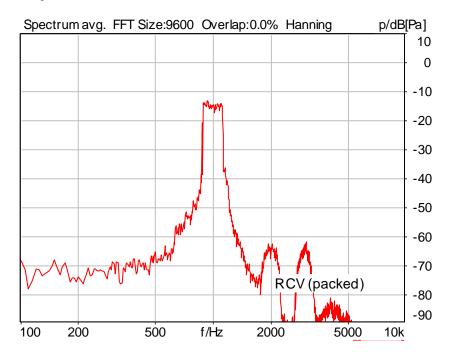
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 31.49 dB (2.66%) Ok

Ok

2024-08-31 上午 01:09 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

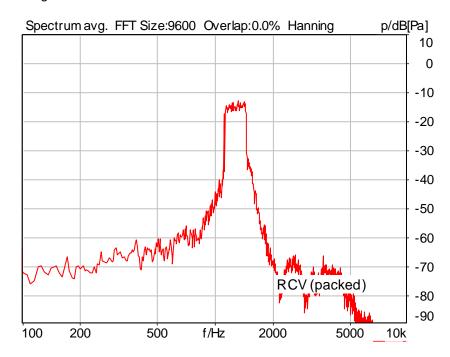
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SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 1250 Hz WB

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



Distortion (Noise) RCV (packed): 23.39 dB (6.77%) Ok

Ok

2024-08-31 上午 01:10 ACQUA 6.0.200

Limits

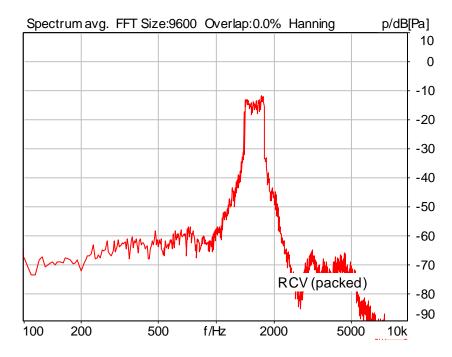
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1600 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 25.75 dB (5.16%) Ok

Ok

2024-08-31 上午 01:10 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

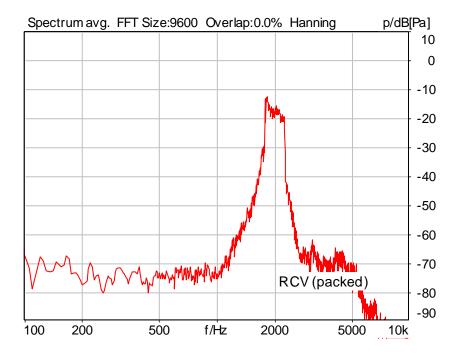
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SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 2000 Hz WB

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



Distortion (Noise) RCV (packed): 21.39 dB (8.53%) Ok

Ok

2024-08-31 上午 01:10 ACQUA 6.0.200

Limits

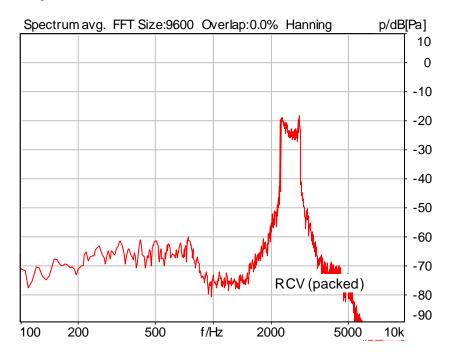
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 2500 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 26.70 dB (4.62%) Ok

Ok

2024-08-31 上午 01:11 ACQUA 6.0.200

Limits

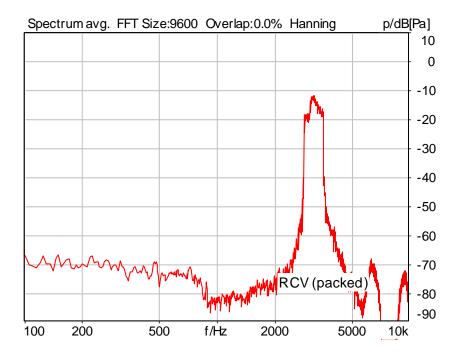
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 3150 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 36.56 dB (1.49%) Ok

Ok

2024-08-31 上午 01:11 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

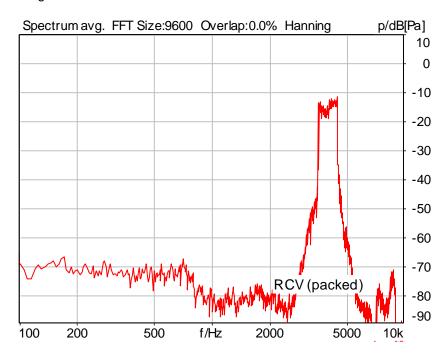
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CO

Report No. :HA451607C

5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 31.25 dB (2.74%) Ok

Ok

2024-08-31 上午 01:12 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

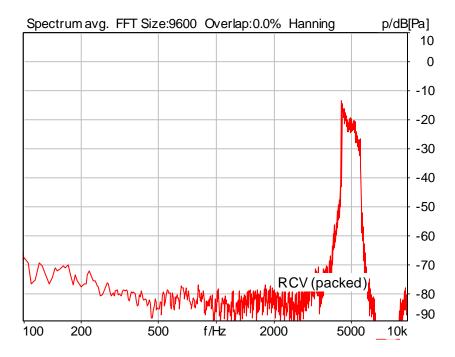
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SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 33.96 dB (2.00%) Ok

Ok

2024-08-31 上午 01:12 ACQUA 6.0.200

Limits

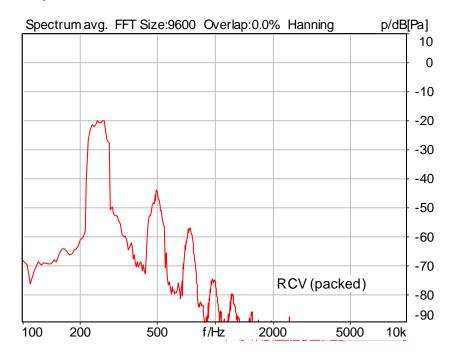
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 27.74 dB (4.10%) Ok

Ok

2024-08-31 上午 01:20 ACQUA 6.0.200

Limits

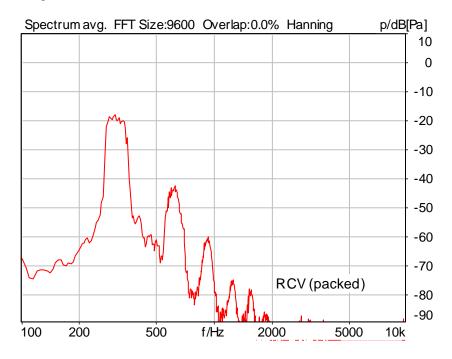
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 315 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 26.04 dB (4.99%) Ok

Ok

2024-08-31 上午 01:21 ACQUA 6.0.200

Limits

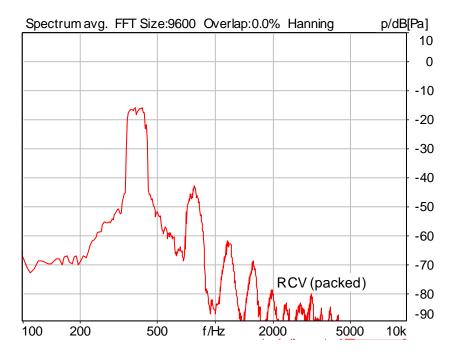
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 400 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 28.20 dB (3.89%) Ok

Ok

2024-08-31 上午 01:21 ACQUA 6.0.200

Limits

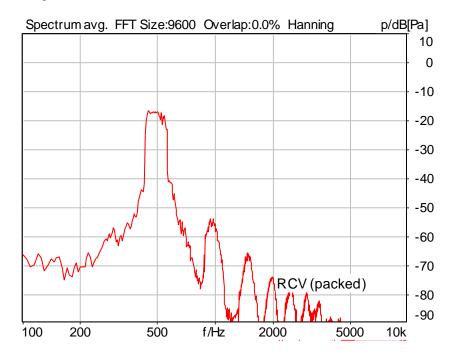
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 32.71 dB (2.31%) Ok

Ok

2024-08-31 上午 01:22 ACQUA 6.0.200

Limits

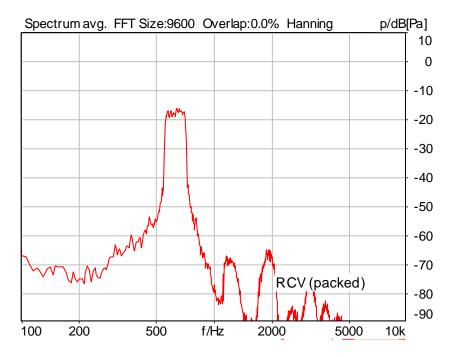
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 630 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 37.13 dB (1.39%) Ok

Ok

2024-08-31 上午 01:22 ACQUA 6.0.200

Limits

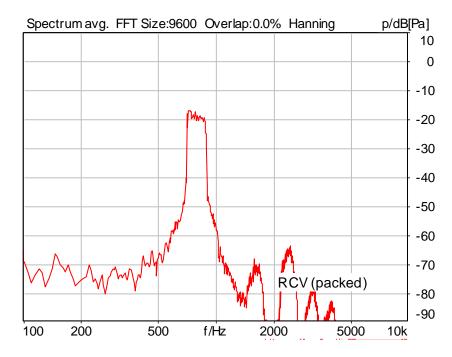
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 800 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 35.67 dB (1.65%) Ok

Ok

2024-08-31 上午 01:23 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

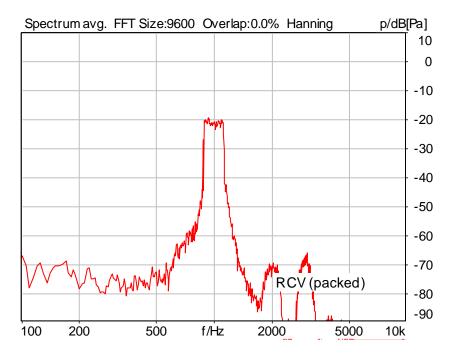
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SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 1000 Hz WB

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



Distortion (Noise) RCV (packed): 31.64 dB (2.62%) Ok

Ok

2024-08-31 上午 01:23 ACQUA 6.0.200

Limits

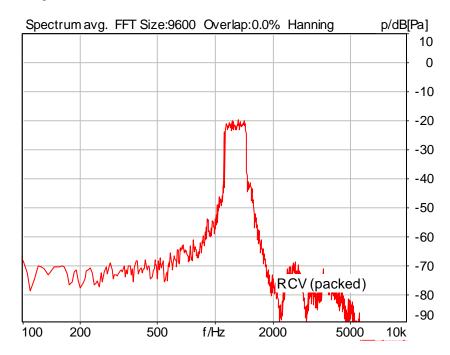
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 23.55 dB (6.64%) Ok

Ok

2024-08-31 上午 01:24 ACQUA 6.0.200

Limits

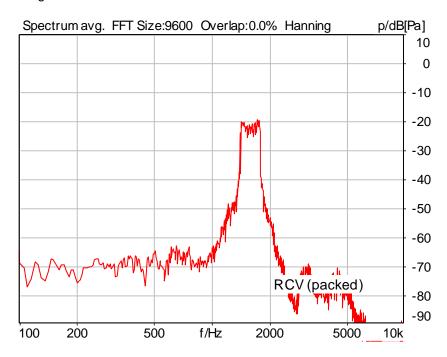
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1600 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 25.59 dB (5.25%) Ok

Ok

2024-08-31 上午 01:24 ACQUA 6.0.200

Limits

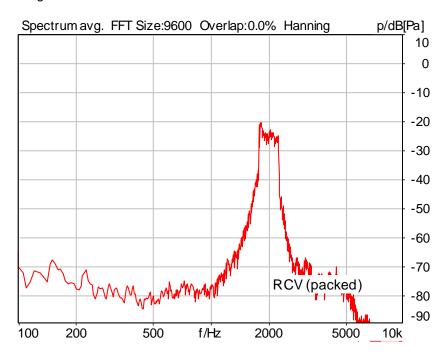
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 2000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 21.85 dB (8.08%) Ok

Ok

2024-08-31 上午 01:25 ACQUA 6.0.200

Limits

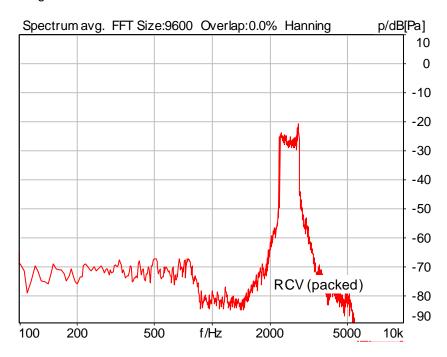
	lower
Run 1	20.00 dB

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Report No. :HA451607C

5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 26.77 dB (4.59%) Ok

Ok

2024-08-31 上午 01:25 ACQUA 6.0.200

Limits

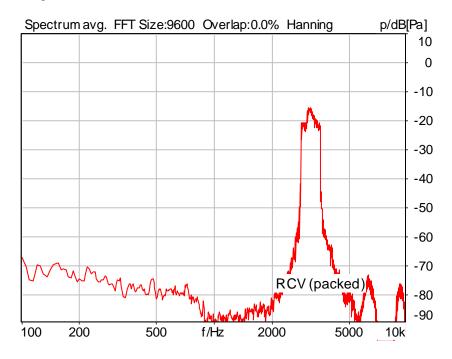
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 3150 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 36.89 dB (1.43%) Ok

Ok

2024-08-31 上午 01:26 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

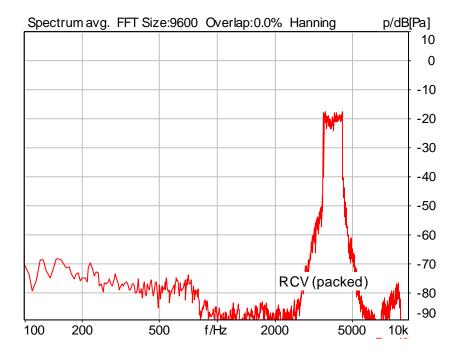
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*

Report No.: HA451607C

5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 31.22 dB (2.75%) Ok

Ok

2024-08-31 上午 01:26 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

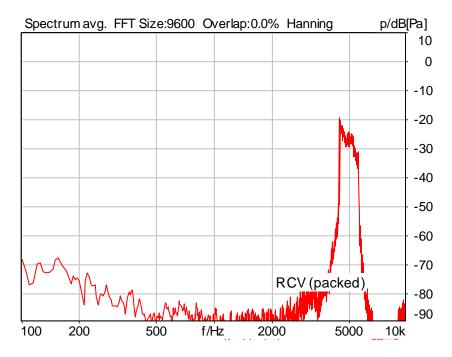
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SPORTON LAB.

Report No.: HA451607C

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 34.46 dB (1.89%) Ok

Ok

2024-08-31 上午 01:27 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

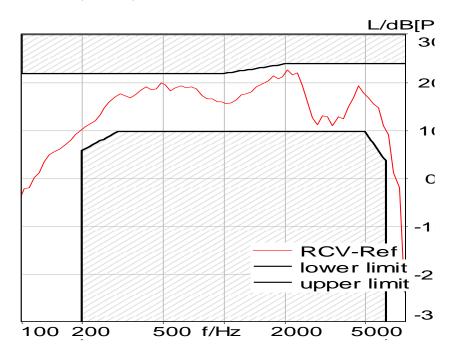
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Report No.: HA451607C

5.3 Frequency Response 8N DF

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



Absolute minimal distance

1.17 dB at 2057.5 Hz Ok

Ok

2024-08-31 上午 01:44 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

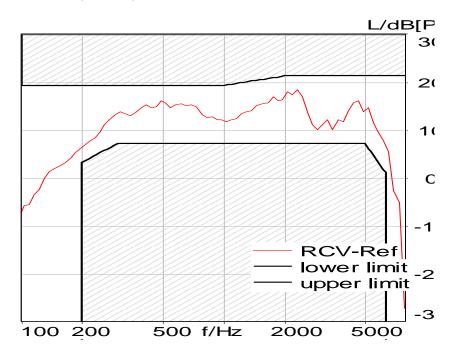
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5.3 Frequency Response 2N DF

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



Absolute minimal distance

2.78 dB at 2302.3 Hz Ok

Ok

2024-08-31 上午 01:34 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

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SPORTON LAB. Volume Control Evaluation Report

Report No. :HA451607C

#3 WiFi 5.5GHz EVS WB 24.4kbps

SMD	Status	Single Value Description	Singl Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	187.
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.4
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	90.3
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.7
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.7
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.5
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.2
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.5
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.2
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.02
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.10
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.43
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.6
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.7
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.3
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.6
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.3
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.5
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.9
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.99
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.0
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.4
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.69
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.3
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.8
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.7
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.9
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.87
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.0
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.2
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.4
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 2057.5 Hz	0.78
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 487.0 Hz	3.68

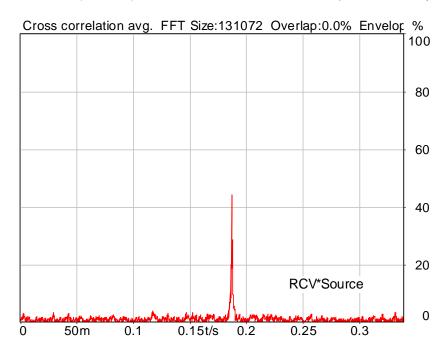
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Overall Receive Delay WB

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

Report No.: HA451607C



Channel	Delay
RCV*Source	187.2 ms

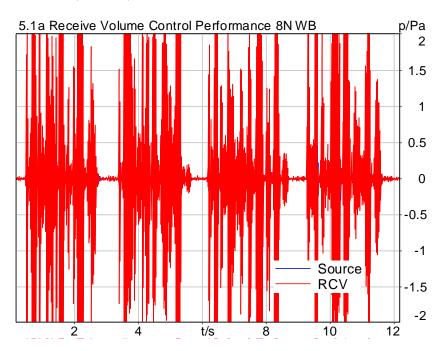
2024-08-20 上午 06:24 ACQUA 6.0.200

Form version: 231017 Page A71 of A124

Report No.: HA451607C

5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	89.41 dB[SPL]	63.86%	Ok

Ok

2024-08-20 上午 06:36 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

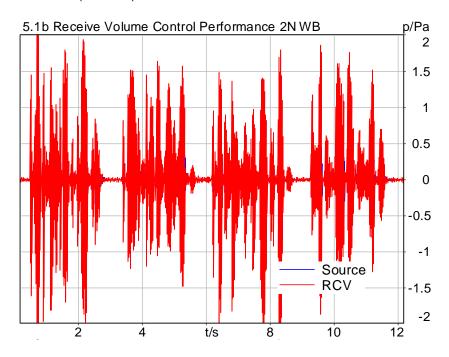
Form version: 231017 Page A72 of A124

CONTINUAR

Report No.: HA451607C

5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	90.30 dB[SPL]	13.87%	Ok

Ok

2024-08-20 上午 06:35 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

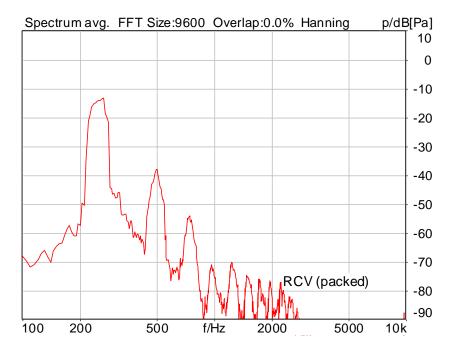
Form version: 231017 Page A73 of A124

SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 27.79 dB (4.08%) Ok

Ok

2024-08-20 上午 06:37 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

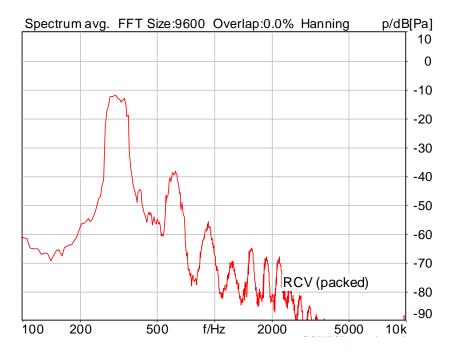
Form version: 231017 Page A74 of A124

SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 315 Hz WB

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



Distortion (Noise) RCV (packed): 27.75 dB (4.10%) Ok

Ok

2024-08-20 上午 06:37 ACQUA 6.0.200

Limits

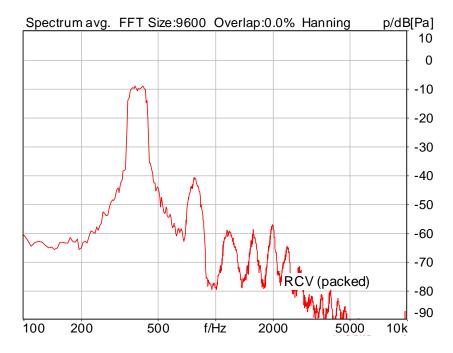
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 400 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 31.59 dB (2.63%) Ok

Ok

2024-08-20 上午 06:38 ACQUA 6.0.200

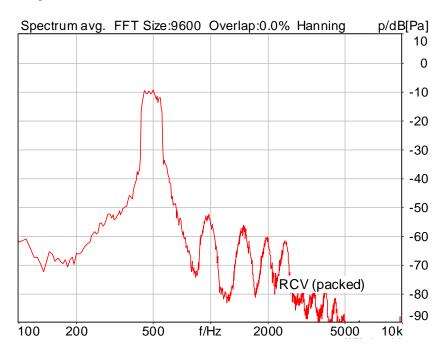
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 34.24 dB (1.94%) Ok

Ok

2024-08-20 上午 06:38 ACQUA 6.0.200

Limits

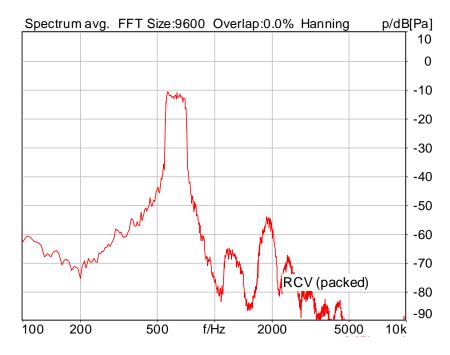
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 630 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 35.56 dB (1.67%) Ok

Ok

2024-08-20 上午 06:39 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

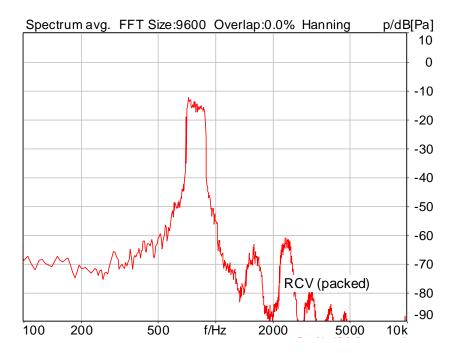
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SPORTON LAB.

5.2 RCV Distortion and Noise - 800 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 35.21 dB (1.74%) Ok

Ok

2024-08-20 上午 06:40 ACQUA 6.0.200

Limits

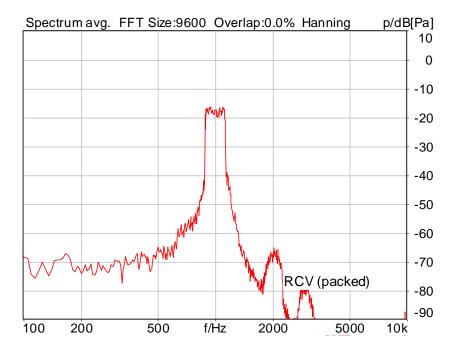
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 31.02 dB (2.81%) Ok

Ok

2024-08-20 上午 06:40 ACQUA 6.0.200

Limits

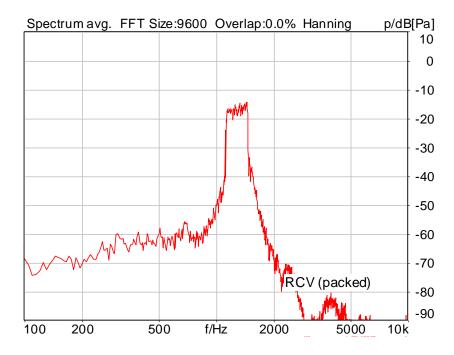
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 23.10 dB (7.00%) Ok

Ok

2024-08-20 上午 06:41 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

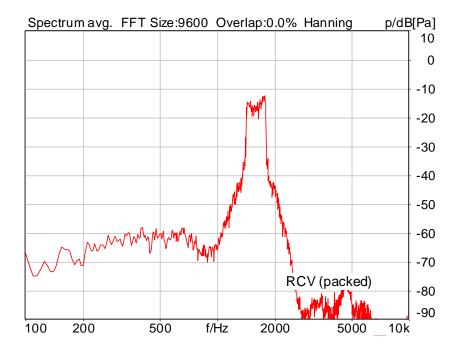
Form version: 231017 Page A81 of A124

SPORTON LAB.

Report No.: HA451607C

5.2 RCV Distortion and Noise - 1600 Hz WB

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



Distortion (Noise) RCV (packed): 25.43 dB (5.35%) Ok

Ok

2024-08-20 上午 06:41 ACQUA 6.0.200

Limits

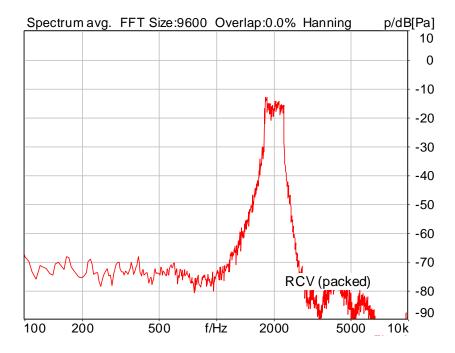
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 2000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 23.68 dB (6.54%) Ok

Ok

2024-08-20 上午 06:42 ACQUA 6.0.200

Limits

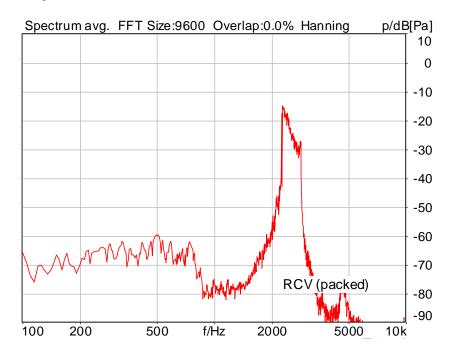
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 2500 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 29.76 dB (3.25%) Ok

Ok

2024-08-20 上午 06:42 ACQUA 6.0.200

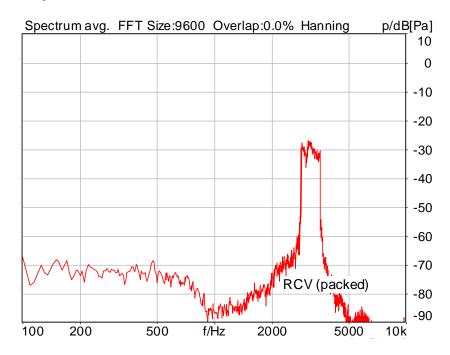
Limits

	lower
Run 1	20.00 dB

Form version: 231017 Page A84 of A124

5.2 RCV Distortion and Noise - 3150 Hz WB

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



Distortion (Noise) RCV (packed): 32.30 dB (2.43%) Ok

Ok

2024-08-20 上午 06:43 ACQUA 6.0.200

Limits

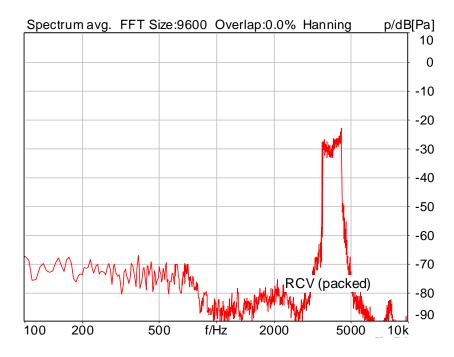
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 4000 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 30.66 dB (2.93%) Ok

Ok

2024-08-20 上午 06:43 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

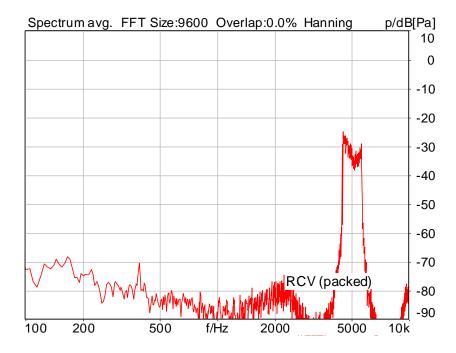
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PORTON LAB. Volume Cor

Report No.: HA451607C

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 35.33 dB (1.71%) Ok

Ok

2024-08-20 上午 06:44 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

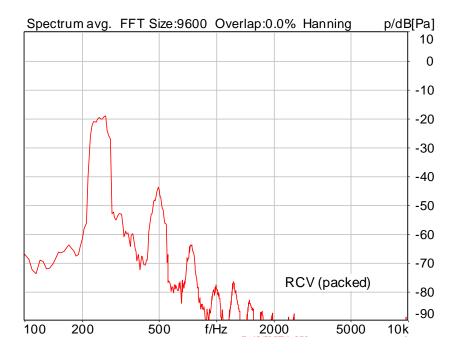
Form version: 231017 Page A87 of A124

SPORTON LAB.

Report No. :HA451607C

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 28.51 dB (3.76%) Ok

Ok

2024-08-20 上午 06:25 ACQUA 6.0.200

Limits

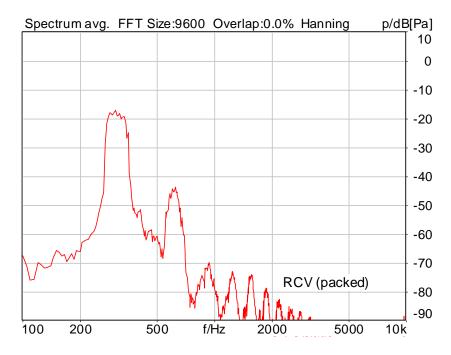
	lower
Run 1	20.00 dB

Form version: 231017 Page A88 of A124

5.2 RCV Distortion and Noise - 315 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 27.97 dB (3.99%) Ok

Ok

2024-08-20 上午 06:26 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

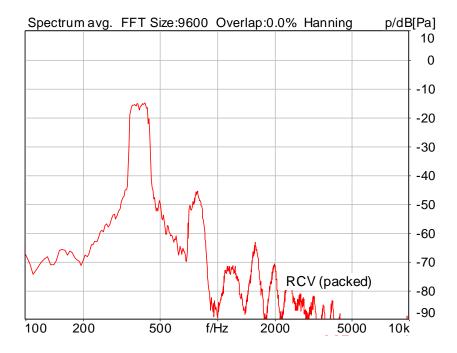
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SPORTON LAB. VOIU

Report No.: HA451607C

5.2 RCV Distortion and Noise - 400 Hz WB

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



Distortion (Noise) RCV (packed): 30.99 dB (2.82%) Ok

Ok

2024-08-20 上午 06:26 ACQUA 6.0.200

Limits

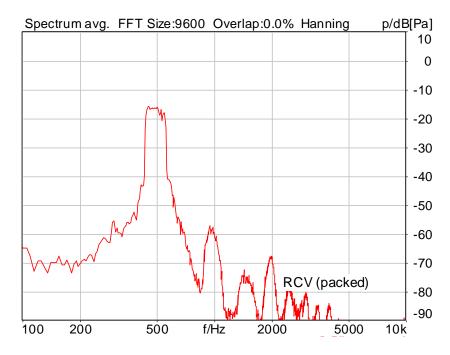
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 500 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 35.07 dB (1.76%) Ok

Ok

2024-08-20 上午 06:27 ACQUA 6.0.200

Limits

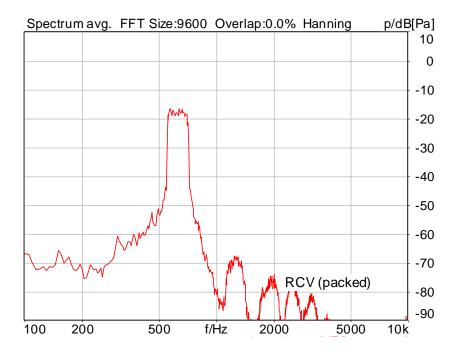
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 630 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 37.45 dB (1.34%) Ok

Ok

2024-08-20 上午 06:27 ACQUA 6.0.200

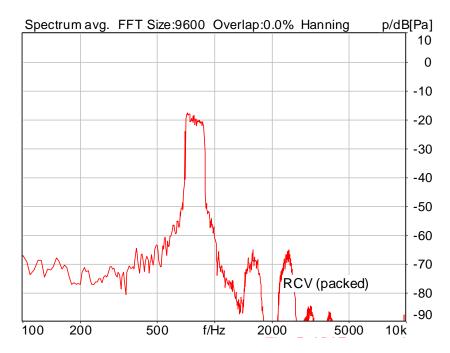
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 800 Hz WB

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



Distortion (Noise) RCV (packed): 35.69 dB (1.64%) Ok

Ok

2024-08-20 上午 06:28 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

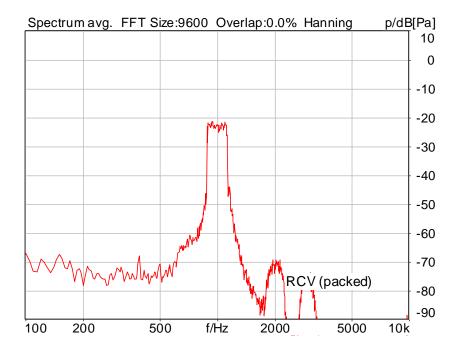
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SERVICIA LAB

Control Evaluation Report Report No. :HA451607C

5.2 RCV Distortion and Noise - 1000 Hz WB

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



Distortion (Noise) RCV (packed): 32.31 dB (2.42%) Ok

Ok

2024-08-20 上午 06:28 ACQUA 6.0.200

Limits

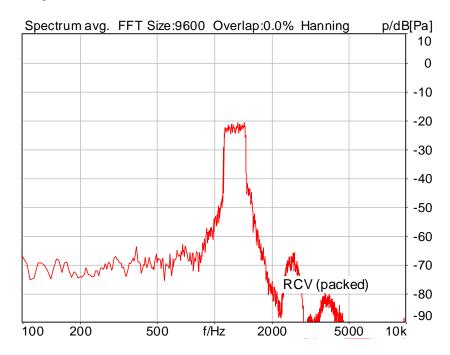
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 23.84 dB (6.43%) Ok

Ok

2024-08-20 上午 06:29 ACQUA 6.0.200

Limits

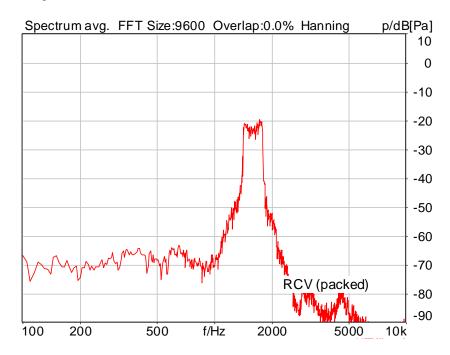
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 1600 Hz WB

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

Report No.: HA451607C



Distortion (Noise) RCV (packed): 25.74 dB (5.16%) Ok

Ok

2024-08-20 上午 06:29 ACQUA 6.0.200

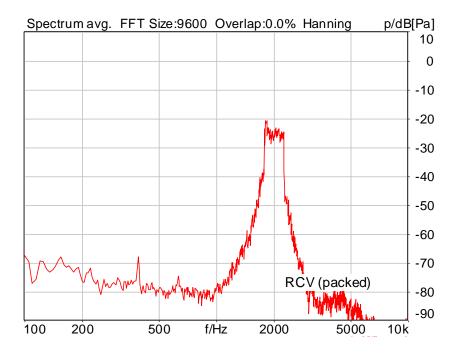
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 2000 Hz WB

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



Distortion (Noise) RCV (packed): 21.91 dB (8.02%) Ok

Ok

2024-08-20 上午 06:30 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

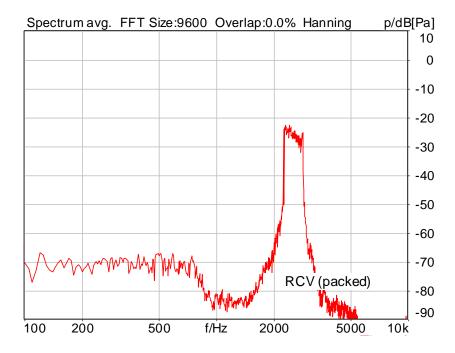
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SPORTON LAB.

Report No.: HA451607C

5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 31.87 dB (2.55%) Ok

Ok

2024-08-20 上午 06:30 ACQUA 6.0.200

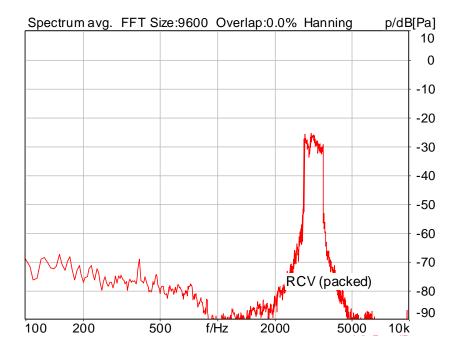
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 3150 Hz WB

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



Distortion (Noise) RCV (packed): 33.08 dB (2.22%) Ok

Ok

2024-08-20 上午 06:31 ACQUA 6.0.200

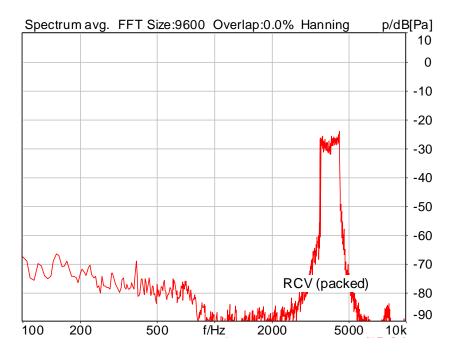
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 31.29 dB (2.72%) Ok

Ok

2024-08-20 上午 06:32 ACQUA 6.0.200

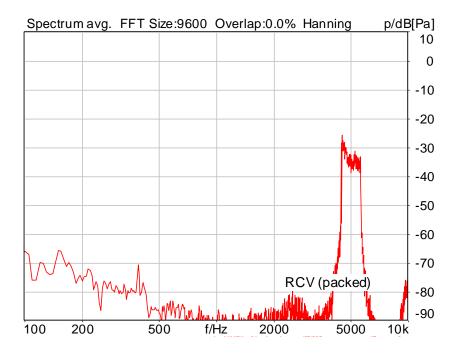
Limits

	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 34.46 dB (1.89%) Ok

Ok

2024-08-20 上午 06:32 ACQUA 6.0.200

Limits

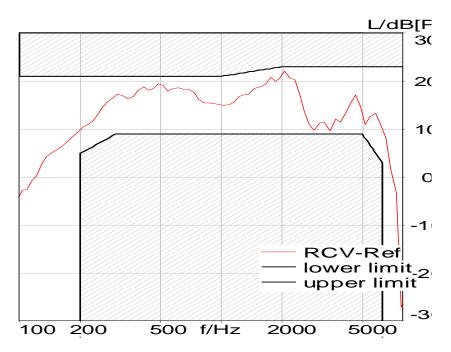
	lower
Run 1	20.00 dB

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5.3 Frequency Response 8N DF

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



Absolute minimal distance

0.78 dB at 2057.5 Hz Ok

Ok

2024-08-20 上午 06:45 ACQUA 6.0.200

Limits

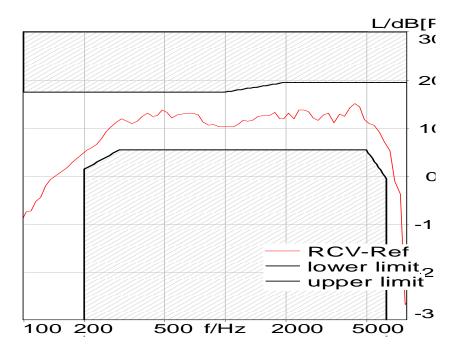
	lower
Run 1	Fit into tolerance

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5.3 Frequency Response 2N DF

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



Absolute minimal distance

3.68 dB at 487.0 Hz Ok

Ok

2024-08-20 上午 06:34 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

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Appendix A. Volume Control Evaluation Results

Report No.: HA451607C

<Evaluation results for KDB 285076 D05 2.b>

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SPORTON LAB. Volume Control Evaluation Report

#4 GSM850 EFR NB 12.2kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	222.2
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	89.80
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	87.17

Report No. :HA451607C

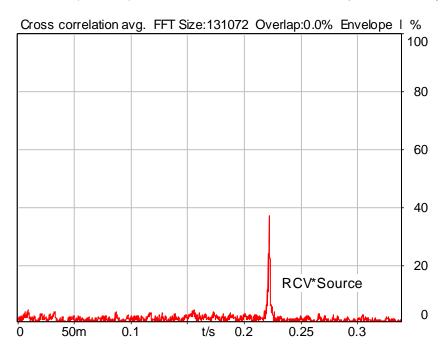
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Overall Receive Delay NB

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

Report No.: HA451607C



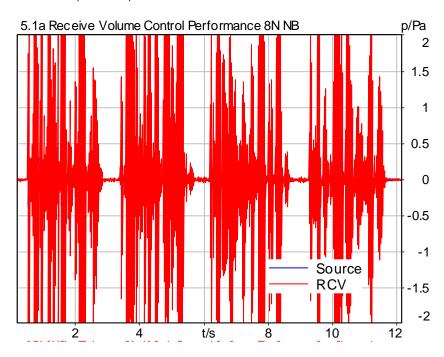
Channel	Delay
RCV*Source	222.2 ms

2024-08-31 下午 08:17 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	89.80 dB[SPL]	63.80%	Ok

Ok

2024-08-31 下午 08:31 ACQUA 6.0.200

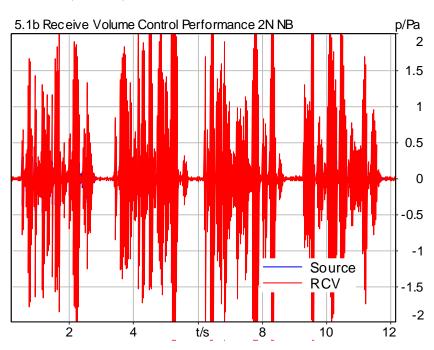
Limits

	lower
Run 1	76.00 dB20uPa

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5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	87.17 dB[SPL]	49.13%	Ok

Ok

2024-08-31 下午 08:18 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#5 WCDMA V AMR NB 4.75kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	221.1
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	89.32
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	87.22

Report No. :HA451607C

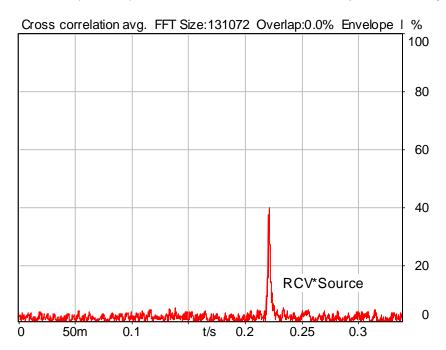
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Overall Receive Delay NB

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

Report No.: HA451607C



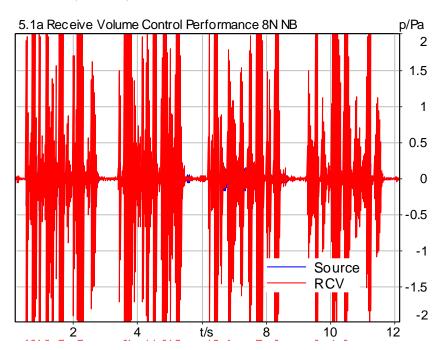
Channel	Delay
RCV*Source	221.1 ms

2024-08-31 下午 07:45 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	89.32 dB[SPL]	59.10%	Ok

Ok

2024-08-31 下午 07:48 ACQUA 6.0.200

Limits

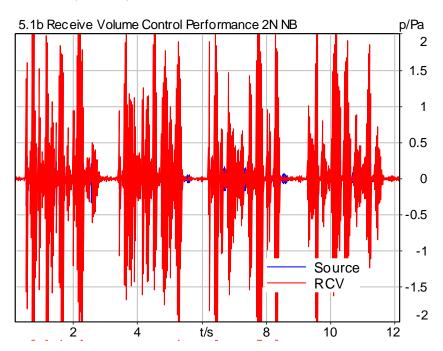
	lower
Run 1	76.00 dB20uPa

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5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	87.22 dB[SPL]	39.02%	Ok

Ok

2024-08-31 下午 07:46 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#6 LTE Band 41 EVS NB 5.9kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	194.9
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	90.48
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	87.12

Report No. :HA451607C

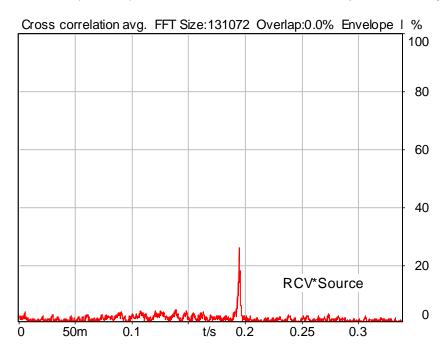
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Overall Receive Delay NB

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

Report No.: HA451607C



Channel	Delay
RCV*Source	194.9 ms

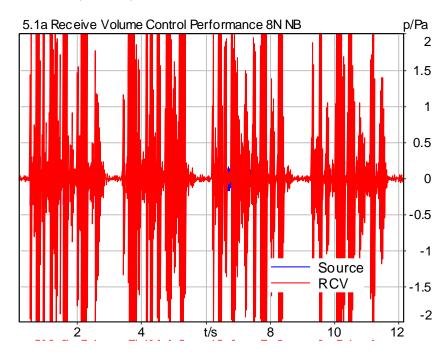
2024-08-30 下午 01:42 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

Report No.: HA451607C

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



Channel	Speech level	Activity	
RCV	90.48 dB[SPL]	59.35%	Ok

Ok

2024-08-30 下午 01:44 ACQUA 6.0.200

Limits

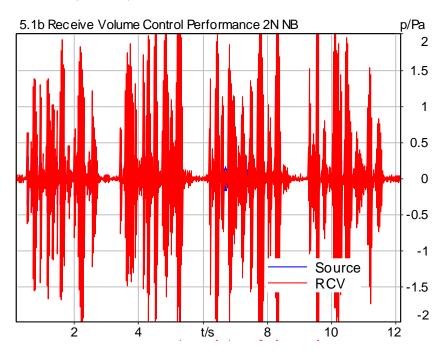
	lower
Run 1	88.00 dB20uPa

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5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	87.12 dB[SPL]	44.15%	Ok

Ok

2024-08-30 下午 01:42 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#7 FR1 n40 EVS NB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	191.0
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	90.15
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	86.93

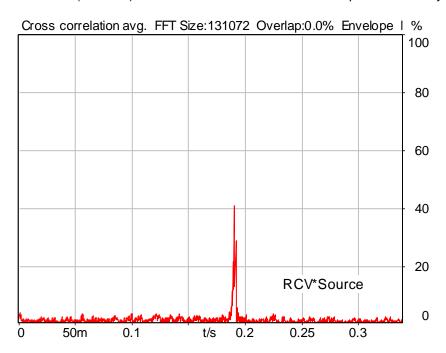
Report No. :HA451607C

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Overall Receive Delay NB

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



Channel	Delay
RCV*Source	191.0 ms

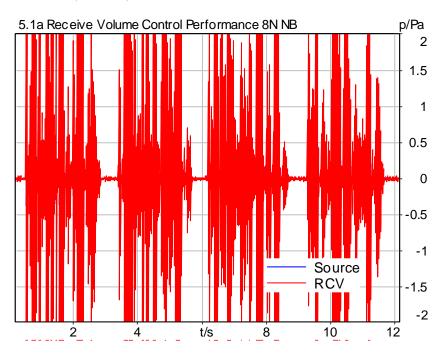
2024-08-31 上午 08:57 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	90.15 dB[SPL]	82.38%	Ok

Ok

2024-08-31 上午 09:10 ACQUA 6.0.200

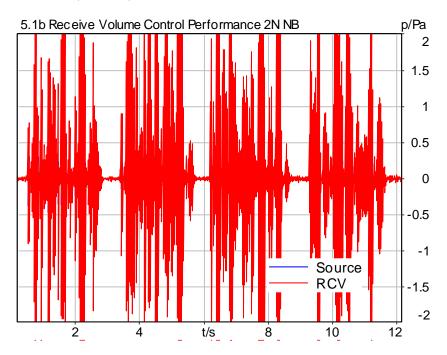
Limits

	lower
Run 1	76.00 dB20uPa

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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]	82.50%	Ok

Ok

2024-08-31 上午 08:58 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#8 WiFi 6GHz EVS NB 5.9kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	201.6
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	90.09
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	88.24

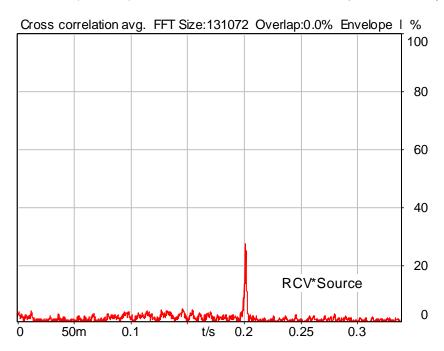
Report No. :HA451607C

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DRITON LAB. Volume Control Evaluation Report Report No. :HA451607C

Overall Receive Delay NB

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



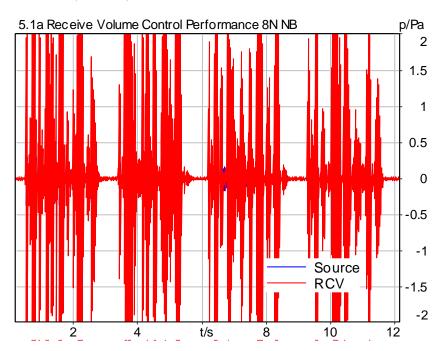
Channel	Delay	
RCV*Source	201.6 ms	

2024-09-01 上午 12:35 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	90.09 dB[SPL]	57.71%	Ok

Ok

2024-09-01 上午 12:39 ACQUA 6.0.200

Limits

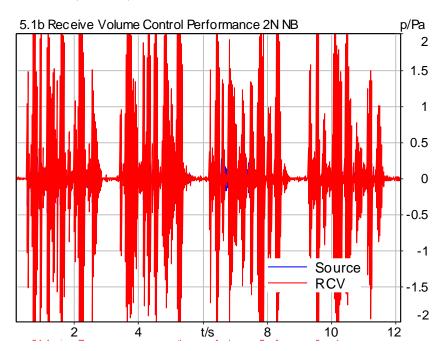
	lower
Run 1	76.00 dB20uPa

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5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	88.24 dB[SPL]	50.41%	Ok

Ok

2024-09-01 上午 12:47 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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