Appendix A. Volume Control Evaluation Results

Report No.: HA451606C

<Evaluation results for KDB 285076 D05 2.a>

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SPORTON LAB. Volume Control Evaluation Report

#1 LTE B13 EVS WB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	180.3
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.75
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	91.46
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.34
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.18
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.64
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.72
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.44
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.11
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.15
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.87
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	23.28
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.61
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.08
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.94
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.98
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.40
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	28.48
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.59
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.72
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.87
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.19
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	24.04
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.49
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.07
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.37
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.19
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.15
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.91
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 487.0 Hz	0.85
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 487.0 Hz	3.43

Report No. :HA451606C

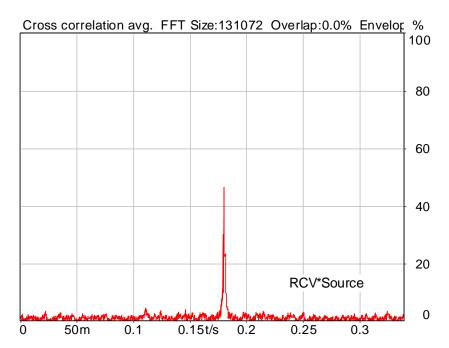
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Overall Receive Delay WB

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

Report No.: HA451606C



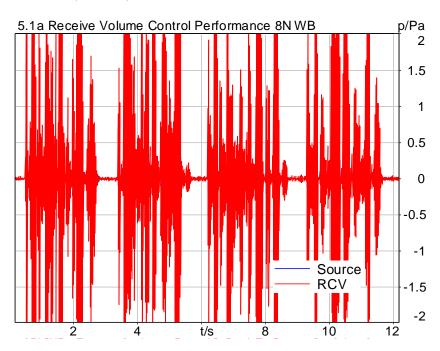
Channel	Delay
RCV*Source	180.3 ms

2024-08-14 上午 12:04 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	89.75 dB[SPL]	60.72%	Ok

Ok

2024-08-14 上午 12:28 ACQUA 6.0.200

Limits

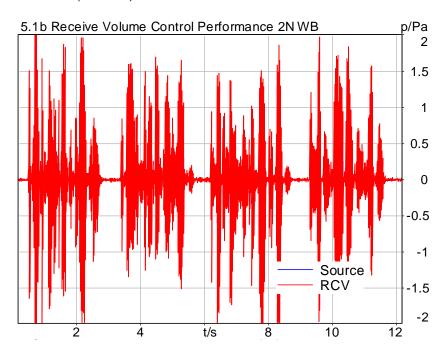
	lower
Run 1	76.00 dB20uPa

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5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	91.46 dB[SPL]	11.49%	Ok

Ok

2024-08-14 上午 12:16 ACQUA 6.0.200

Limits

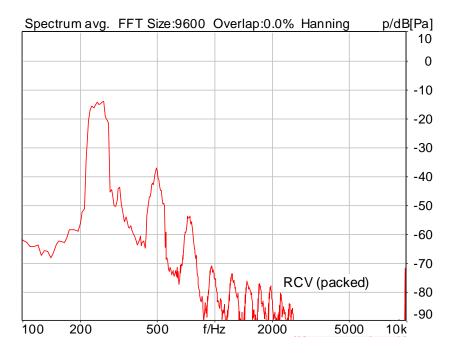
	lower
Run 1	76.00 dB20uPa

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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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 27.34 dB (4.30%) Ok

Ok

2024-08-14 上午 12:17 ACQUA 6.0.200

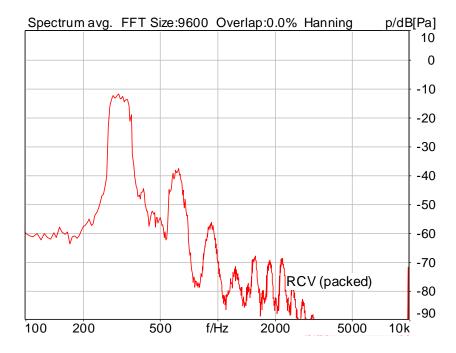
Limits

	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



Distortion (Noise) RCV (packed): 27.18 dB (4.37%) Ok

Ok

2024-08-14 上午 12:18 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

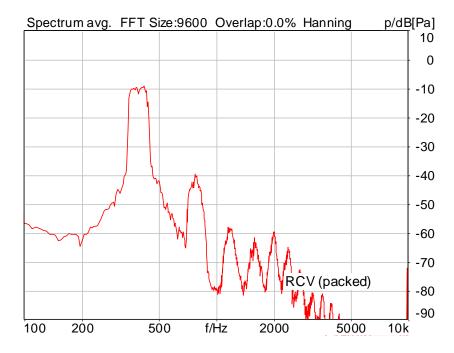
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Report No. :HA451606C

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



Distortion (Noise) RCV (packed): 30.64 dB (2.94%) Ok

Ok

2024-08-14 上午 12:18 ACQUA 6.0.200

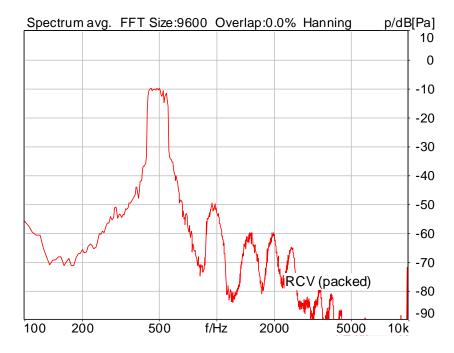
Limits

	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): 33.72 dB (2.06%) Ok

Ok

2024-08-14 上午 12:19 ACQUA 6.0.200

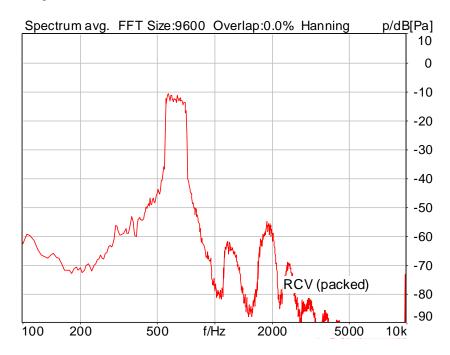
Limits

	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



Distortion (Noise) RCV (packed): 35.44 dB (1.69%) Ok

Ok

2024-08-14 上午 12:19 ACQUA 6.0.200

Limits

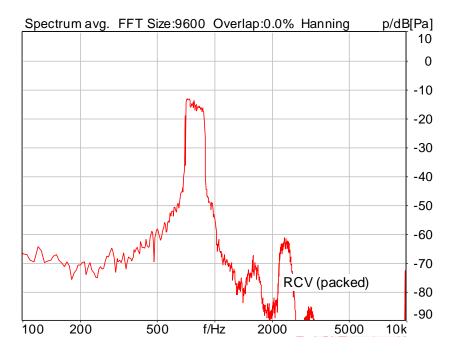
	lower
Run 1	20.00 dB

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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.: HA451606C



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

Ok

2024-08-14 上午 12:20 ACQUA 6.0.200

Limits

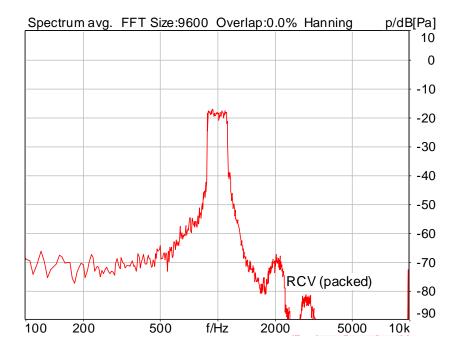
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 31.15 dB (2.77%) Ok

Ok

2024-08-14 上午 12:21 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

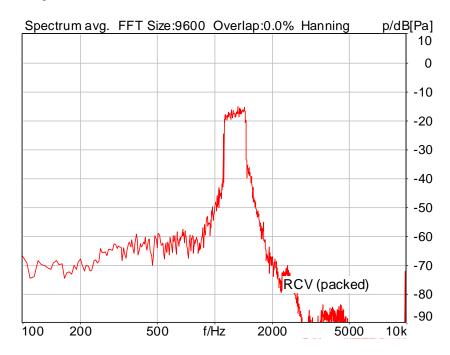
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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 22.87 dB (7.19%) Ok

Ok

2024-08-14 上午 12:21 ACQUA 6.0.200

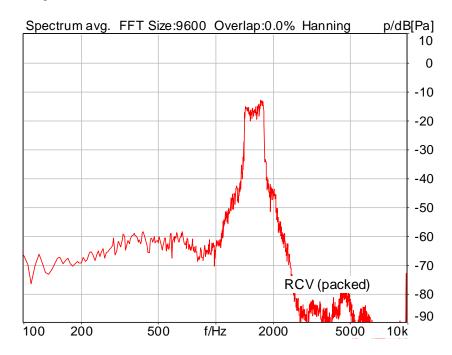
Limits

	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



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

Ok

2024-08-14 上午 12:22 ACQUA 6.0.200

Limits

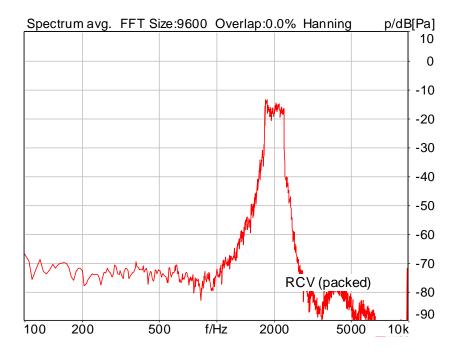
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 23.28 dB (6.85%) Ok

Ok

2024-08-14 上午 12:22 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

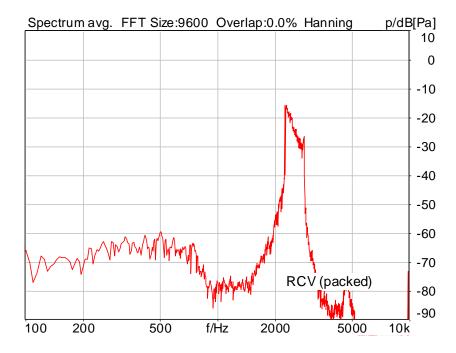
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Report No. :HA451606C

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): 29.61 dB (3.31%) Ok

Ok

2024-08-14 上午 12:23 ACQUA 6.0.200

Limits

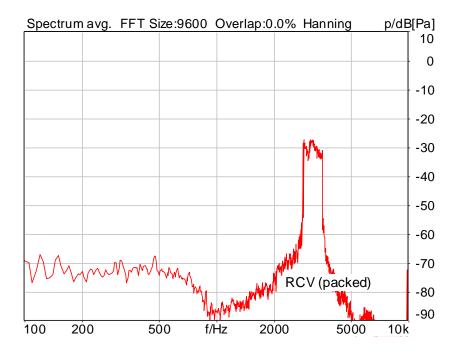
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 32.08 dB (2.49%) Ok

Ok

2024-08-14 上午 12:23 ACQUA 6.0.200

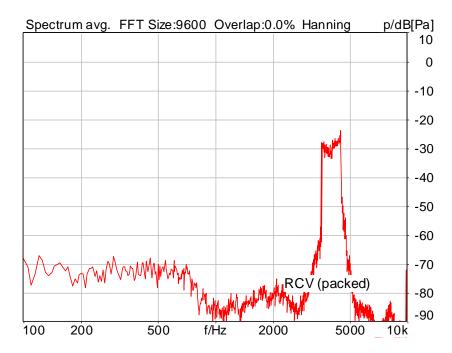
Limits

	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



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

Ok

2024-08-14 上午 12:24 ACQUA 6.0.200

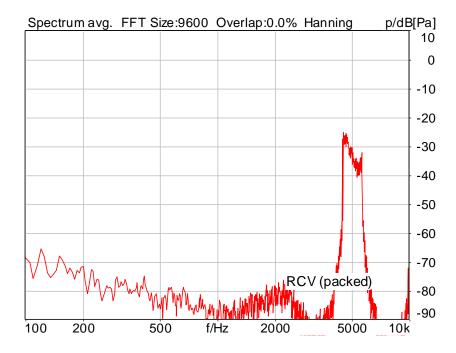
Limits

	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



Distortion (Noise) RCV (packed): 33.98 dB (2.00%) Ok

Ok

2024-08-14 上午 12:24 ACQUA 6.0.200

Limits

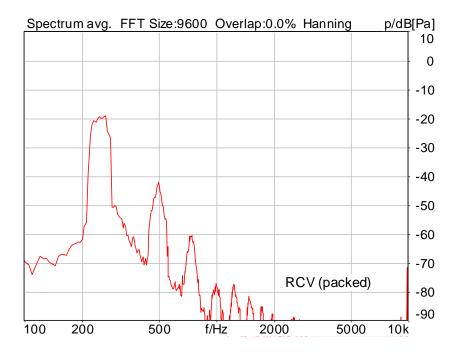
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 27.40 dB (4.27%) Ok

Ok

2024-08-14 上午 12:05 ACQUA 6.0.200

Limits

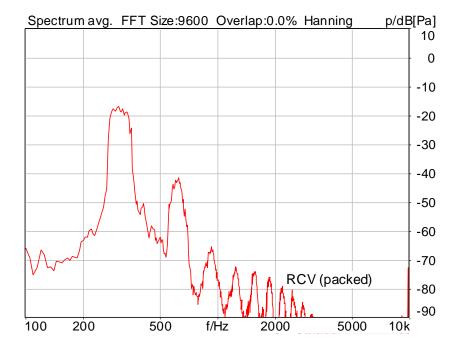
	lower
Run 1	20.00 dB

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5.2 RCV Distortion and Noise - 315 Hz WB

Report No. :HA451606C

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



Distortion (Noise) RCV (packed): 26.30 dB (4.84%) Ok

Ok

2024-08-14 上午 12:05 ACQUA 6.0.200

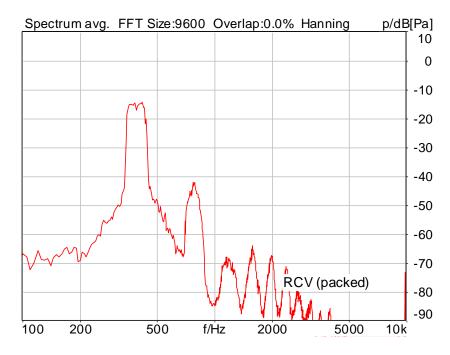
Limits

	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



Distortion (Noise) RCV (packed): 28.48 dB (3.77%) Ok

Ok

2024-08-14 上午 12:06 ACQUA 6.0.200

Limits

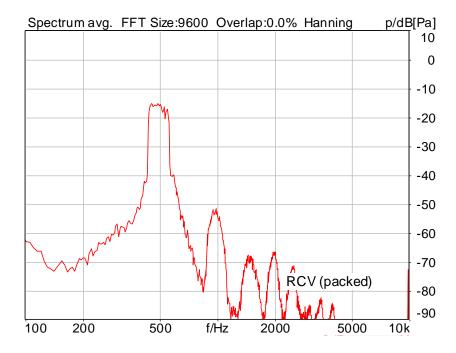
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 32.59 dB (2.35%) Ok

Ok

2024-08-14 上午 12:06 ACQUA 6.0.200

Limits

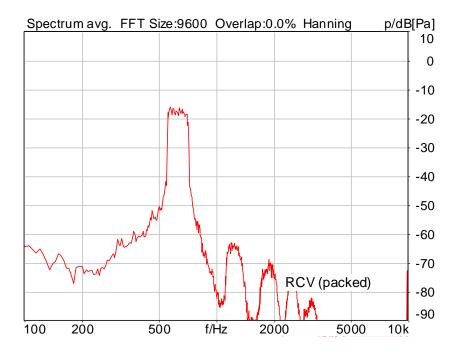
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 36.72 dB (1.46%) Ok

Ok

2024-08-14 上午 12:07 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

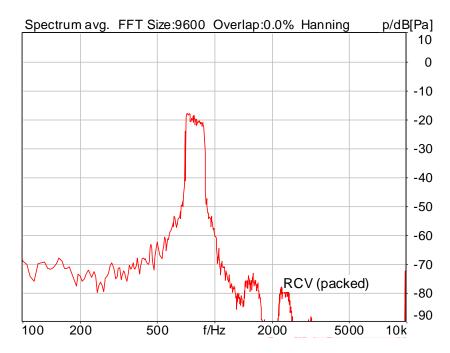
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5.2 RCV Distortion and Noise - 800 Hz WB

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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 35.87 dB (1.61%) Ok

Ok

2024-08-14 上午 12:07 ACQUA 6.0.200

Limits

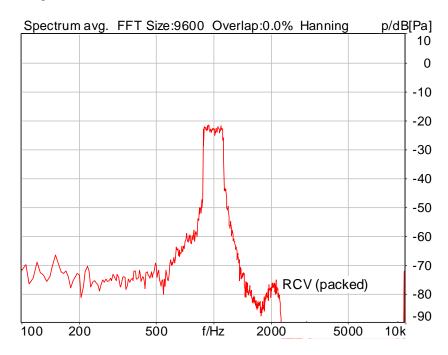
	lower
Run 1	20.00 dB

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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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 31.19 dB (2.76%) Ok

Ok

2024-08-14 上午 12:08 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

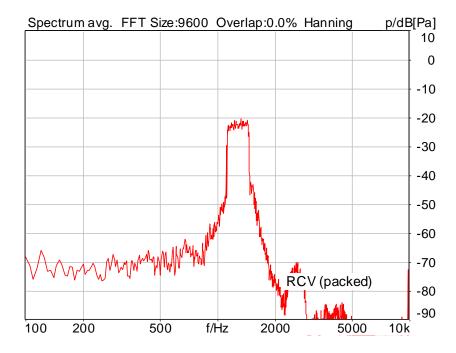
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5.2 RCV Distortion and Noise - 1250 Hz WB

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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 24.04 dB (6.28%) Ok

Ok

2024-08-14 上午 12:08 ACQUA 6.0.200

Limits

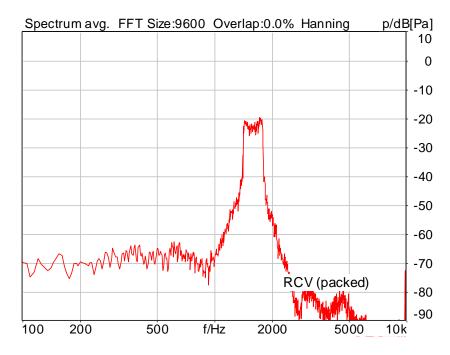
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 25.49 dB (5.32%) Ok

Ok

2024-08-14 上午 12:09 ACQUA 6.0.200

Limits

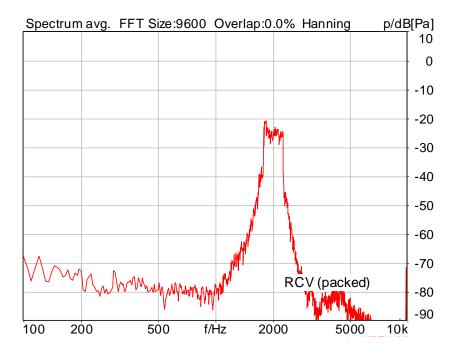
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 21.07 dB (8.84%) Ok

Ok

2024-08-14 上午 12:09 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

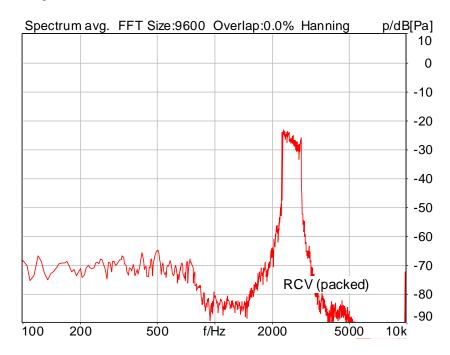
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SPORTON LAB.

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.: HA451606C



Distortion (Noise) RCV (packed): 31.37 dB (2.70%) Ok

Ok

2024-08-14 上午 12:10 ACQUA 6.0.200

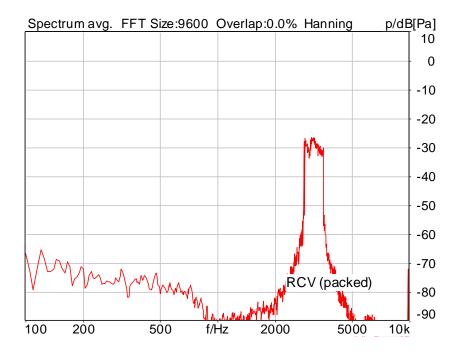
Limits

	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): 33.19 dB (2.19%) Ok

Ok

2024-08-14 上午 12:11 ACQUA 6.0.200

Limits

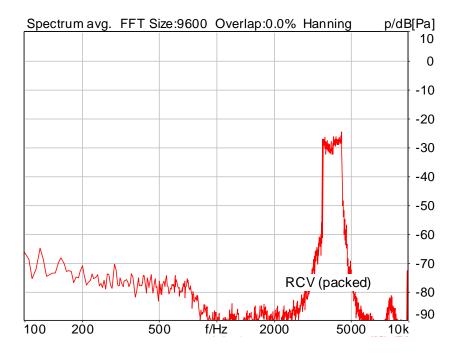
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 30.15 dB (3.11%) Ok

Ok

2024-08-14 上午 12:11 ACQUA 6.0.200

Limits

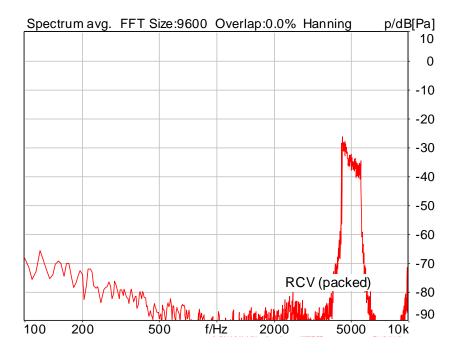
	lower
Run 1	20.00 dB

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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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 33.91 dB (2.02%) Ok

Ok

2024-08-14 上午 12:12 ACQUA 6.0.200

Limits

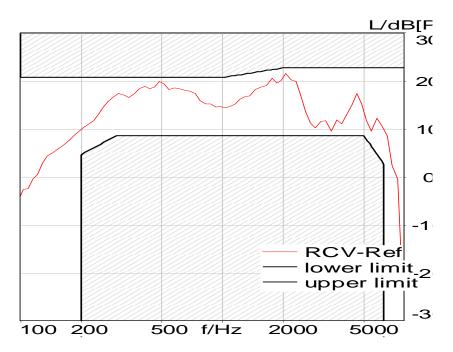
	lower
Run 1	20.00 dB

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5.3 Frequency Response 8N DF

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



Absolute minimal distance

0.85 dB at 487.0 Hz Ok

Ok

2024-08-14 上午 12:29 ACQUA 6.0.200

Limits

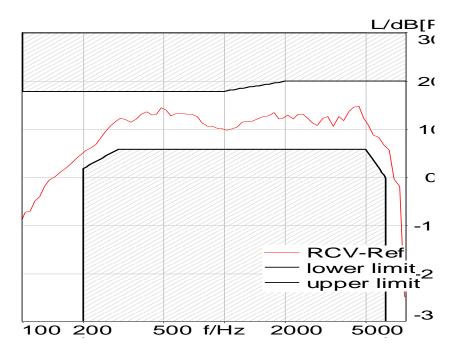
	lower
Run 1	Fit into tolerance

Form version: 231017 Page A34 of A124



5.3 Frequency Response 2N DF

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



Absolute minimal distance

3.43 dB at 487.0 Hz Ok

Ok

2024-08-14 上午 12:13 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

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SPORTION LAB. Volume Control Evaluation Report

#2 NR n71 EVS WB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	198.6
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.07
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	90.84
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.38
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.64
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.18
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.24
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.17
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.54
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.11
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	24.91
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.43
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.27
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.92
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.03
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.01
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.42
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.05
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.06
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.22
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.21
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.70
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.25
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.62
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.50
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.06
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.58
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.19
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.58
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.62
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 2057.5 Hz	1.61
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	2.70

Report No. :HA451606C

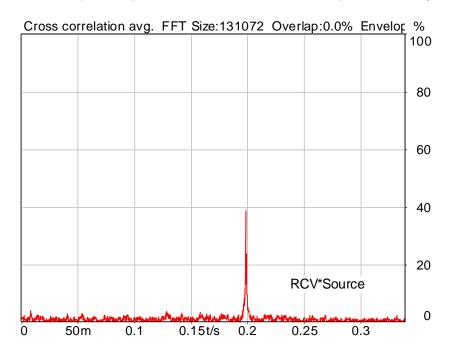
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Overall Receive Delay WB

Report No.: HA451606C

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



Channel	Delay
RCV*Source	198.6 ms

2024-08-18 下午 02:57 ACQUA 6.0.200

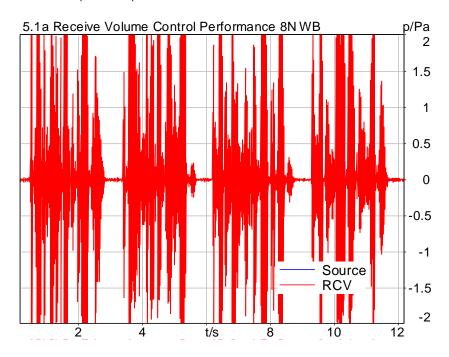
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Report No.: HA451606C

5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	89.07 dB[SPL]	62.61%	Ok

Ok

2024-08-18 下午 03:05 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

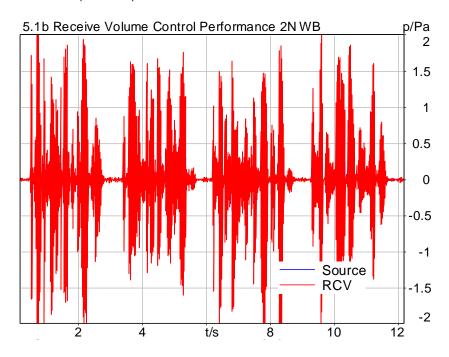
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Report No. :HA451606C

5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	90.84 dB[SPL]	14.92%	Ok

Ok

2024-08-18 下午 03:17 ACQUA 6.0.200

Limits

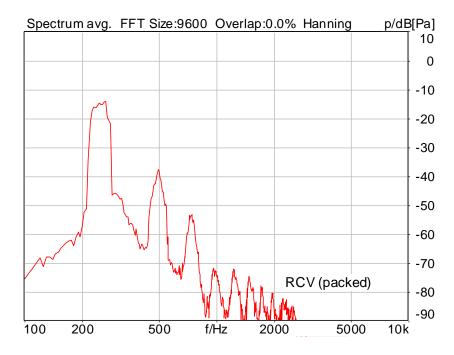
	lower
Run 1	76.00 dB20uPa

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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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 27.38 dB (4.28%) Ok

Ok

2024-08-18 下午 03:06 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

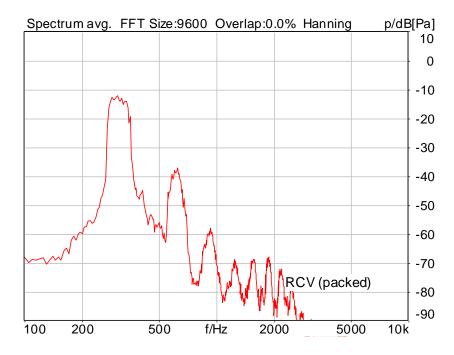
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SPORTON LAR.

Report No.: HA451606C

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): 26.64 dB (4.66%) Ok

Ok

2024-08-18 下午 03:07 ACQUA 6.0.200

Limits

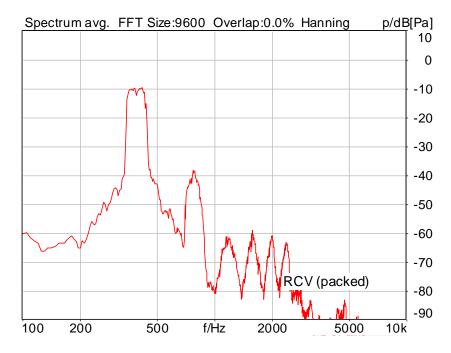
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 29.18 dB (3.48%) Ok

Ok

2024-08-18 下午 03:07 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

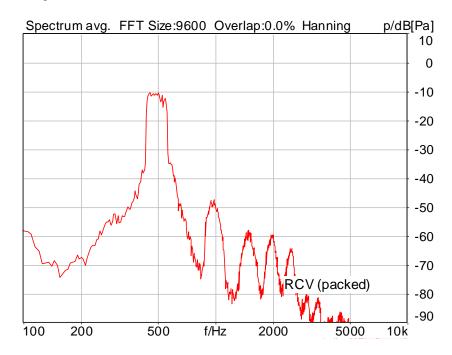
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SPORTON LAR

5.2 RCV Distortion and Noise - 500 Hz WB

Report No.: HA451606C

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



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

Ok

2024-08-18 下午 03:08 ACQUA 6.0.200

Limits

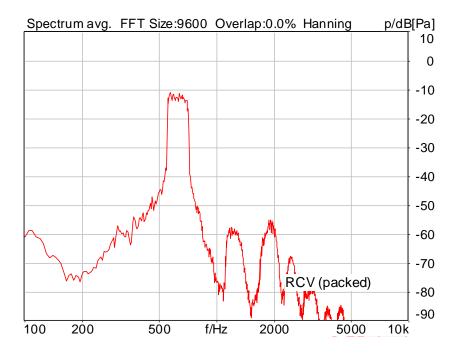
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 35.17 dB (1.74%) Ok

Ok

2024-08-18 下午 03:08 ACQUA 6.0.200

Limits

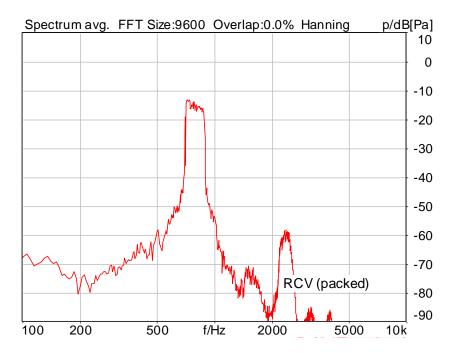
	lower
Run 1	20.00 dB

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Report No. :HA451606C

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): 35.54 dB (1.67%) Ok

Ok

2024-08-18 下午 03:09 ACQUA 6.0.200

Limits

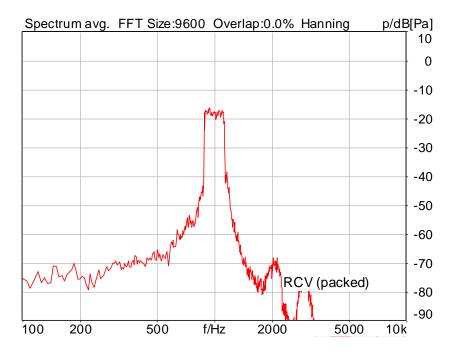
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 31.11 dB (2.78%) Ok

Ok

2024-08-18 下午 03:09 ACQUA 6.0.200

Limits

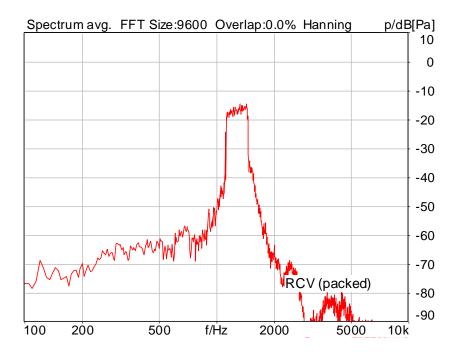
	lower
Run 1	20.00 dB

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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.: HA451606C



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

Ok

2024-08-18 下午 03:10 ACQUA 6.0.200

Limits

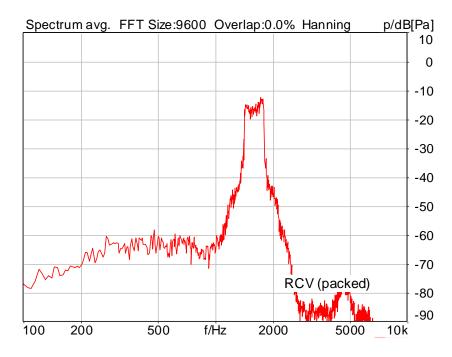
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 24.91 dB (5.68%) Ok

Ok

2024-08-18 下午 03:10 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

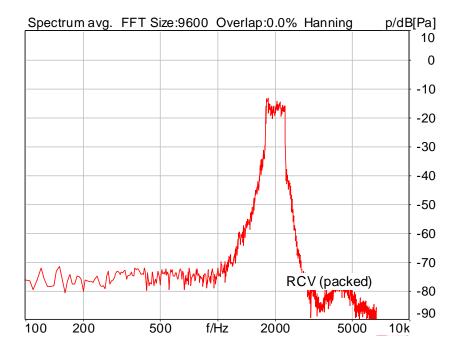
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SPORTON LAB.

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.: HA451606C



Distortion (Noise) RCV (packed): 23.43 dB (6.73%) Ok

Ok

2024-08-18 下午 03:11 ACQUA 6.0.200

Limits

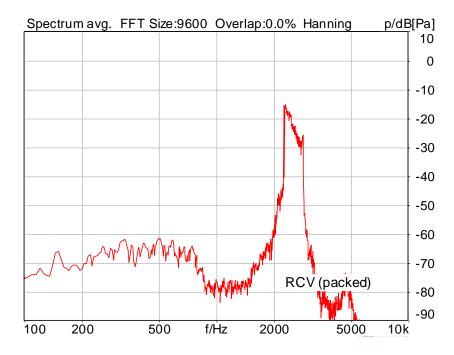
	lower
Run 1	20.00 dB

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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 8N change frequency range

Report No.: HA451606C



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

Ok

2024-08-18 下午 03:11 ACQUA 6.0.200

Limits

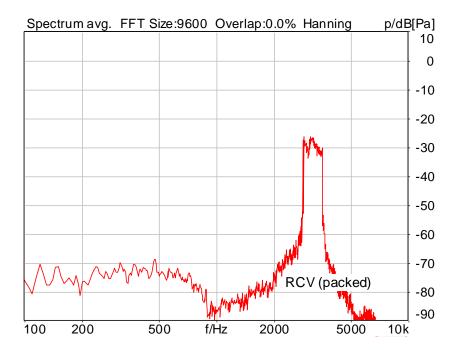
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 31.92 dB (2.54%) Ok

Ok

2024-08-18 下午 03:12 ACQUA 6.0.200

Limits

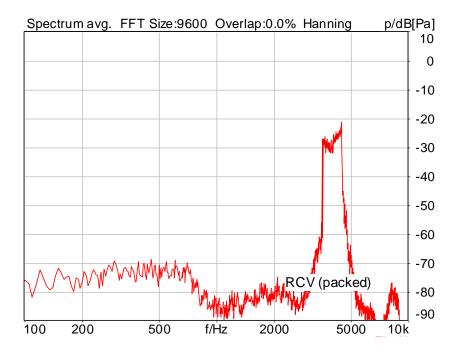
	lower
Run 1	20.00 dB

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Report No. :HA451606C

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): 28.03 dB (3.97%) Ok

Ok

2024-08-18 下午 03:12 ACQUA 6.0.200

Limits

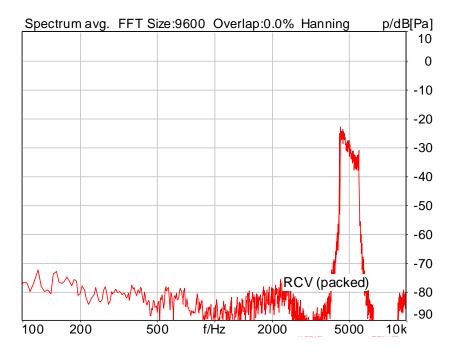
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 35.01 dB (1.78%) Ok

Ok

2024-08-18 下午 03:13 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

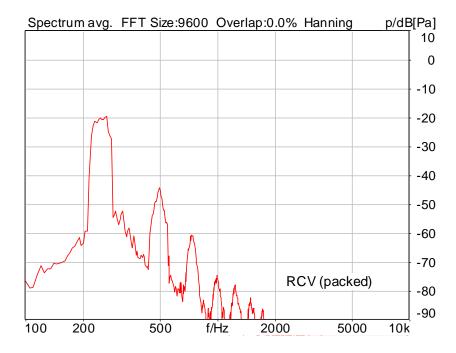
Form version: 231017 Page A53 of A124

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Report No. :HA451606C

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): 28.42 dB (3.79%) Ok

Ok

2024-08-18 下午 02:58 ACQUA 6.0.200

Limits

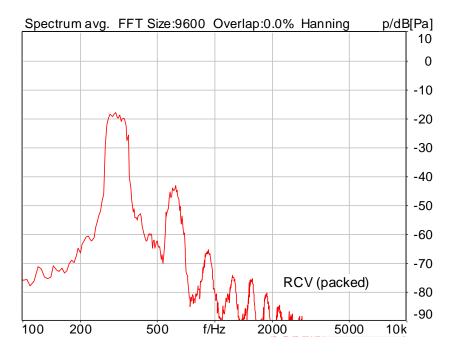
	lower
Run 1	20.00 dB

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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.: HA451606C



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

Ok

2024-08-18 下午 02:58 ACQUA 6.0.200

Limits

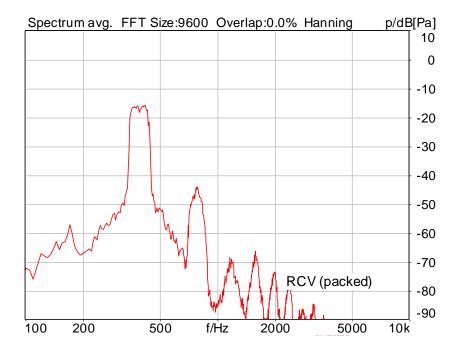
	lower
Run 1	20.00 dB

Form version: 231017 Page A55 of A124

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.: HA451606C



Distortion (Noise) RCV (packed): 29.06 dB (3.53%) Ok

Ok

2024-08-18 下午 02:59 ACQUA 6.0.200

Limits

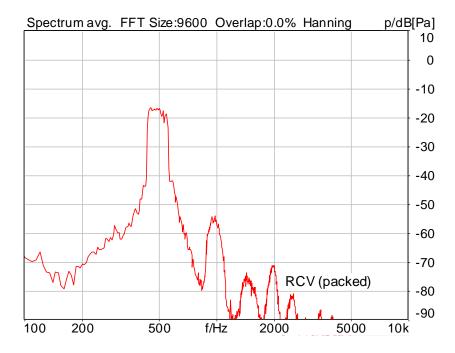
	lower
Run 1	20.00 dB

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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.: HA451606C



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

Ok

2024-08-18 下午 02:59 ACQUA 6.0.200

Limits

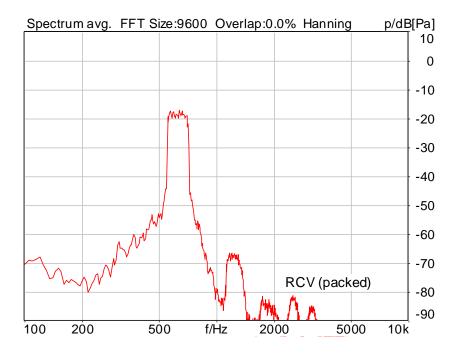
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 37.21 dB (1.38%) Ok

Ok

2024-08-18 下午 03:00 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

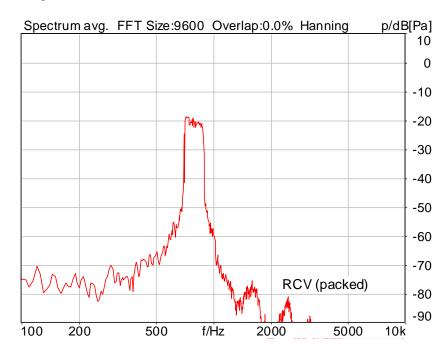
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PORTON LAB. VOIUM

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.: HA451606C



Distortion (Noise) RCV (packed): 36.70 dB (1.46%) Ok

Ok

2024-08-18 下午 03:00 ACQUA 6.0.200

Limits

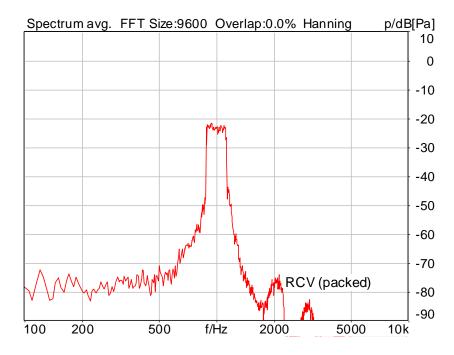
	lower
Run 1	20.00 dB

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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

Report No.: HA451606C



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

Ok

2024-08-18 下午 03:01 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

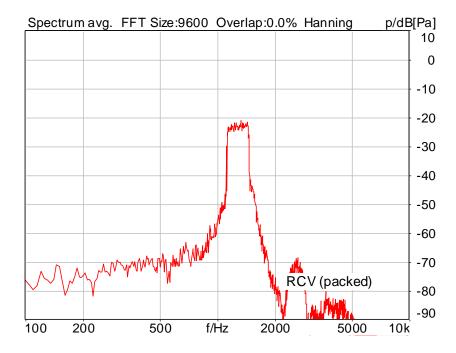
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SPORTON LAB. VO

Report No. :HA451606C

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



Distortion (Noise) RCV (packed): 23.62 dB (6.59%) Ok

Ok

2024-08-18 下午 03:01 ACQUA 6.0.200

Limits

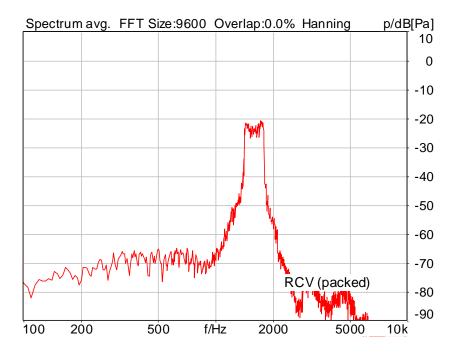
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 25.50 dB (5.31%) Ok

Ok

2024-08-18 下午 03:02 ACQUA 6.0.200

Limits

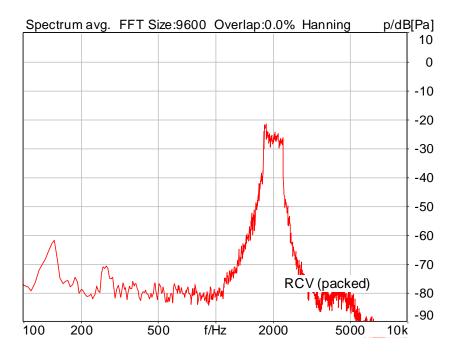
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 21.06 dB (8.85%) Ok

Ok

2024-08-18 下午 03:02 ACQUA 6.0.200

Limits

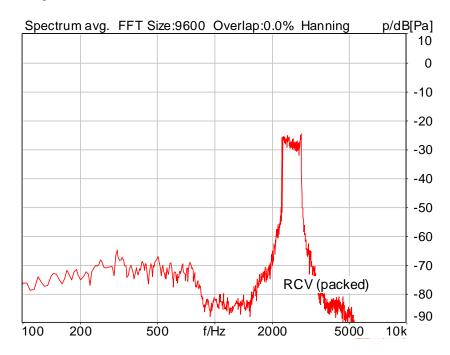
	lower
Run 1	20.00 dB

Form version: 231017 Page A63 of A124

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.: HA451606C



Distortion (Noise) RCV (packed): 30.58 dB (2.96%) Ok

Ok

2024-08-18 下午 03:03 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

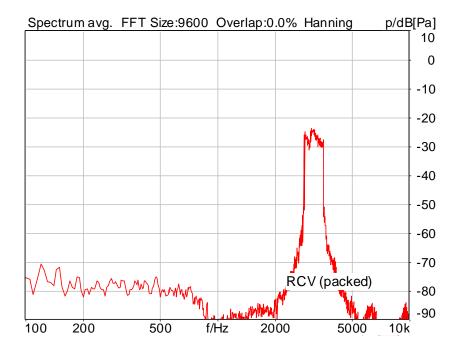
Form version: 231017 Page A64 of A124

SPORTON LAR.

Report No.: HA451606C

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): 34.19 dB (1.95%) Ok

Ok

2024-08-18 下午 03:03 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

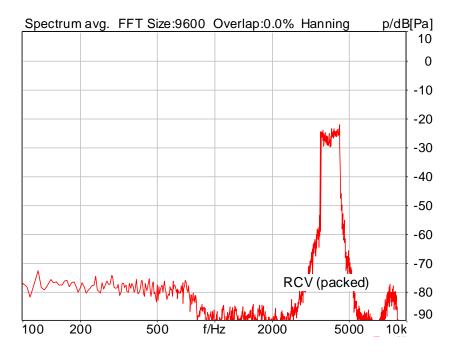
Form version: 231017 Page A65 of A124

SPORTON LAB.

Report No. :HA451606C

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): 30.58 dB (2.96%) Ok

Ok

2024-08-18 下午 03:04 ACQUA 6.0.200

Limits

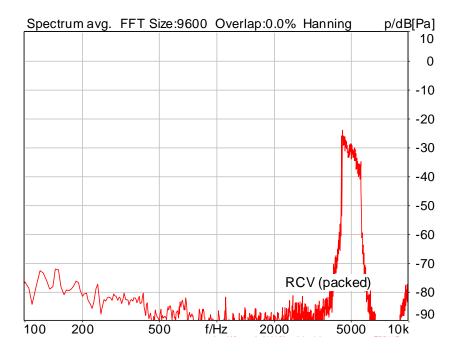
	lower
Run 1	20.00 dB

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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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 34.62 dB (1.86%) Ok

Ok

2024-08-18 下午 03:04 ACQUA 6.0.200

Limits

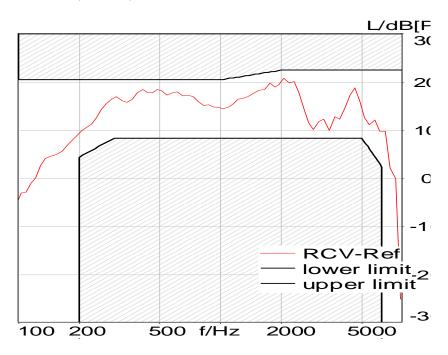
	lower
Run 1	20.00 dB

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Report No.: HA451606C

5.3 Frequency Response 8N DF

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



Absolute minimal distance

1.61 dB at 2057.5 Hz Ok

Ok

2024-08-18 下午 03:13 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

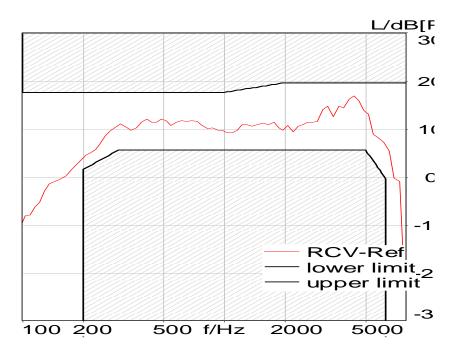
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Report No. :HA451606C

5.3 Frequency Response 2N DF

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



Absolute minimal distance

2.70 dB at 4369.4 Hz Ok

Ok

2024-08-18 下午 03:05 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

Form version: 231017 Page A69 of A124



SPORTON LAB. Volume Control Evaluation Report

#3 WiFi 5.8GHz EVS WB 24.4Kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	292.7
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.75
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	90.92
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.88
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.51
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.56
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.94
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.60
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.01
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.69
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.06
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.70
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.68
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.09
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.40
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.01
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.54
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.81
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.83
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.23
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.01
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.37
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.41
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.36
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.64
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.41
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.90
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.74
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.19
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.04
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.99
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 2057.5 Hz	0.99
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 487.0 Hz	3.63

Report No. :HA451606C

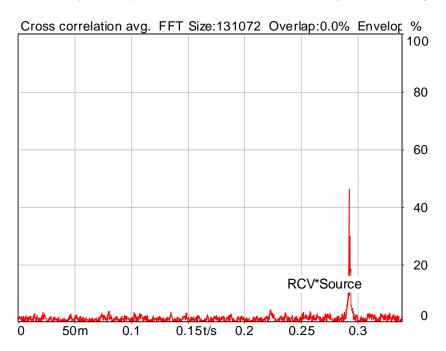
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Overall Receive Delay WB

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

Report No.: HA451606C



Channel	Delay
RCV*Source	292.7 ms

2024-08-17 上午 01:31 ACQUA 6.0.200

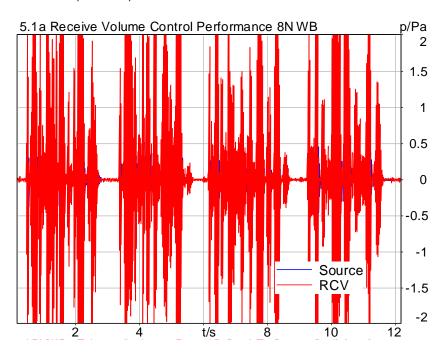
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SPORTON LAB

Report No. :HA451606C

5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	89.75 dB[SPL]	60.10%	Ok

Ok

2024-08-17 上午 01:52 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

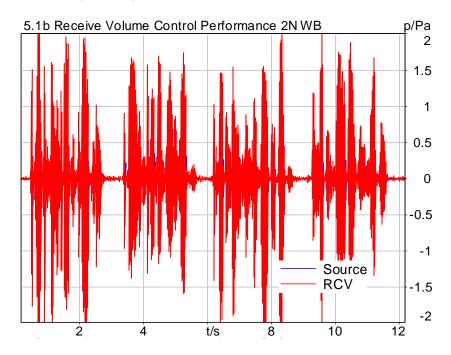
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Report No. :HA451606C

5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	90.92 dB[SPL]	14.79%	Ok

Ok

2024-08-17 上午 01:41 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

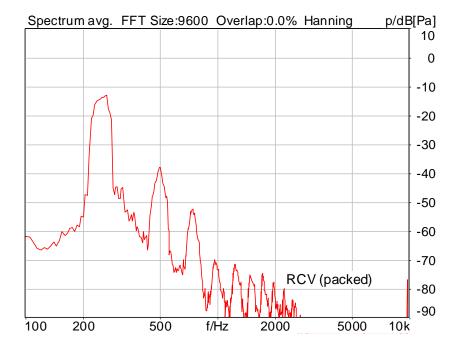
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SPORTON LAB.

Report No. :HA451606C

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): 27.88 dB (4.03%) Ok

Ok

2024-08-17 上午 01:42 ACQUA 6.0.200

Limits

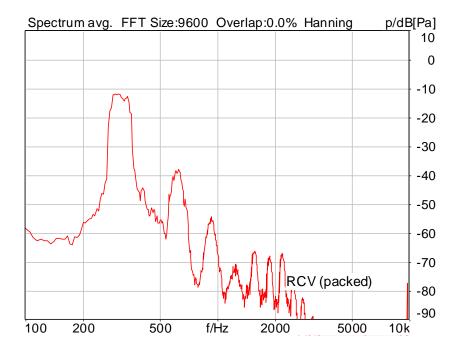
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 27.51 dB (4.21%) Ok

Ok

2024-08-17 上午 01:43 ACQUA 6.0.200

Limits

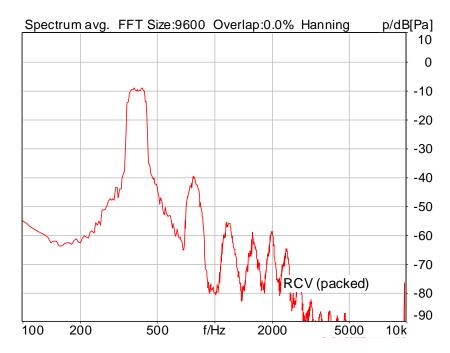
	lower
Run 1	20.00 dB

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Report No. :HA451606C

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



Distortion (Noise) RCV (packed): 30.56 dB (2.96%) Ok

Ok

2024-08-17 上午 01:44 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

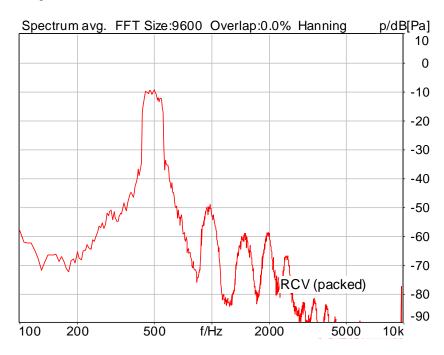
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5.2 RCV Distortion and Noise - 500 Hz WB

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

Report No.: HA451606C



Distortion (Noise) RCV (packed): 33.94 dB (2.01%) Ok

Ok

2024-08-17 上午 01:44 ACQUA 6.0.200

Limits

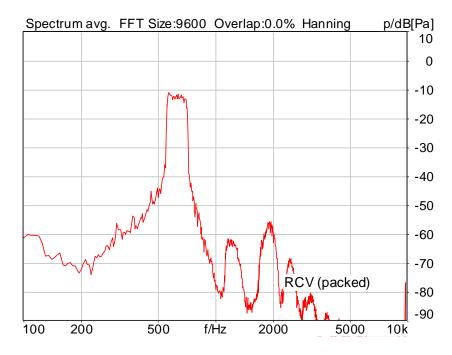
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 35.60 dB (1.66%) Ok

Ok

2024-08-17 上午 01:45 ACQUA 6.0.200

Limits

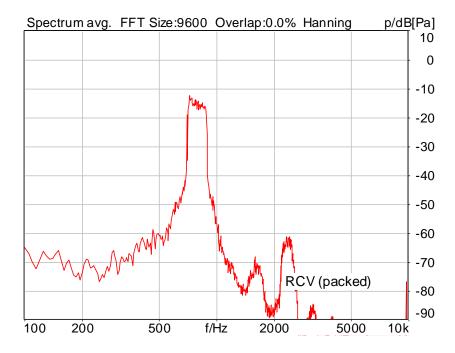
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 35.01 dB (1.78%) Ok

Ok

2024-08-17 上午 01:45 ACQUA 6.0.200

Limits

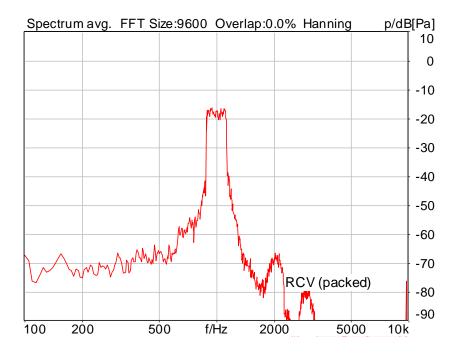
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 31.69 dB (2.60%) Ok

Ok

2024-08-17 上午 01:46 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

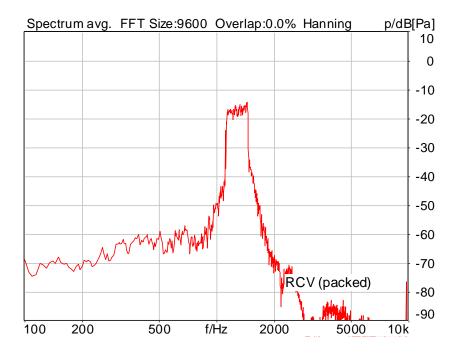
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SPORTON LAB.

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.: HA451606C



Distortion (Noise) RCV (packed): 23.06 dB (7.03%) Ok

Ok

2024-08-17 上午 01:46 ACQUA 6.0.200

Limits

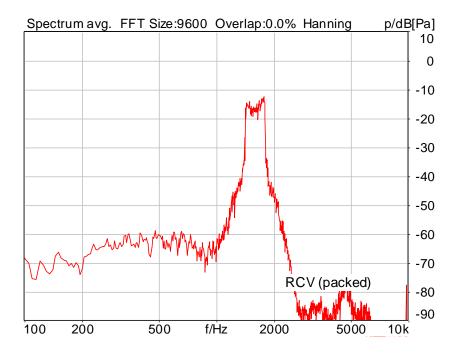
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 25.70 dB (5.19%) Ok

Ok

2024-08-17 上午 01:47 ACQUA 6.0.200

Limits

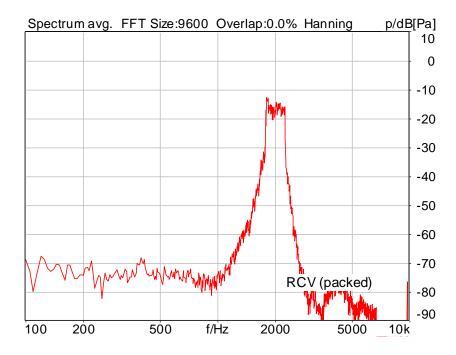
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 23.68 dB (6.55%) Ok

Ok

2024-08-17 上午 01:47 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

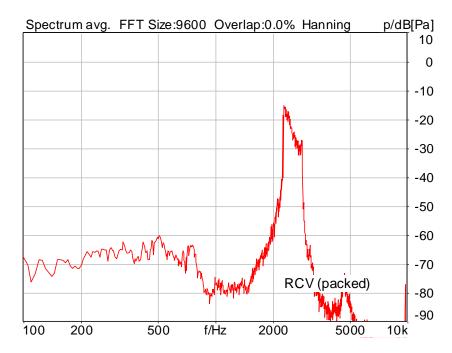
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SPORTON LAB.

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.: HA451606C



Distortion (Noise) RCV (packed): 30.09 dB (3.13%) Ok

Ok

2024-08-17 上午 01:48 ACQUA 6.0.200

Limits

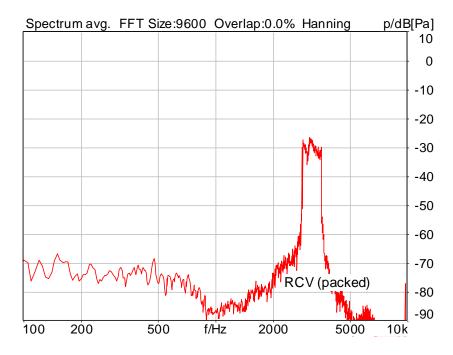
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 32.40 dB (2.40%) Ok

Ok

2024-08-17 上午 01:48 ACQUA 6.0.200

Limits

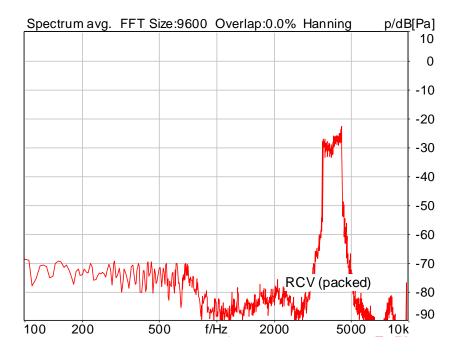
	lower
Run 1	20.00 dB

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Report No. :HA451606C

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): 31.01 dB (2.82%) Ok

Ok

2024-08-17 上午 01:49 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

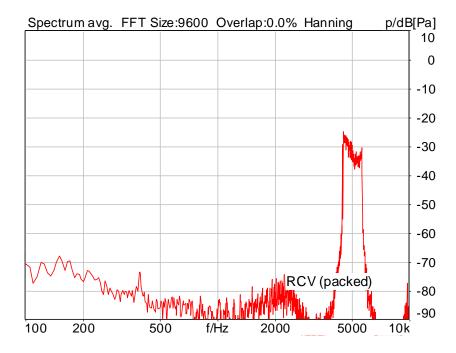
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PORTON LAB.

Report No. :HA451606C

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): 36.54 dB (1.49%) Ok

Ok

2024-08-17 上午 01:49 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

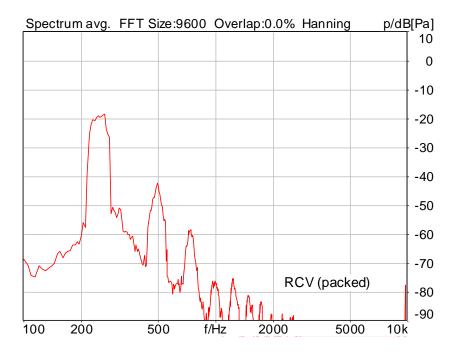
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SPORTON LAB.

Report No. :HA451606C

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): 27.81 dB (4.07%) Ok

Ok

2024-08-17 上午 01:32 ACQUA 6.0.200

Limits

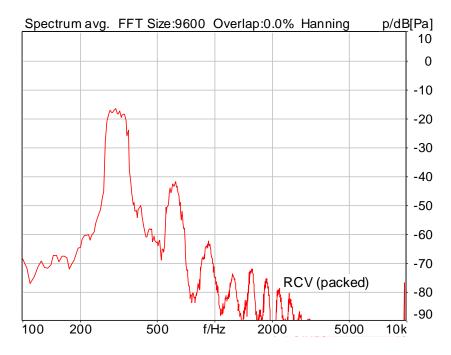
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 26.83 dB (4.55%) Ok

Ok

2024-08-17 上午 01:32 ACQUA 6.0.200

Limits

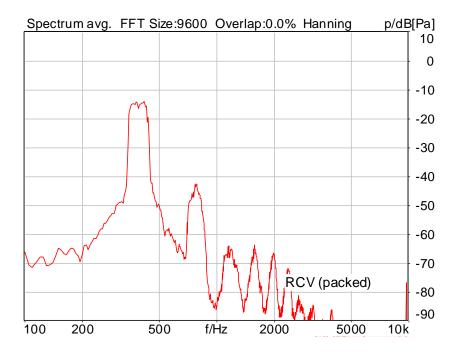
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 29.23 dB (3.46%) Ok

Ok

2024-08-17 上午 01:33 ACQUA 6.0.200

Limits

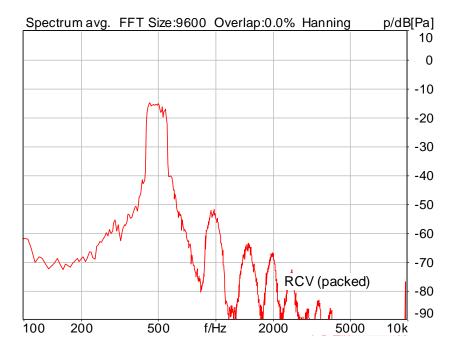
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 33.01 dB (2.23%) Ok

Ok

2024-08-17 上午 01:33 ACQUA 6.0.200

Limits

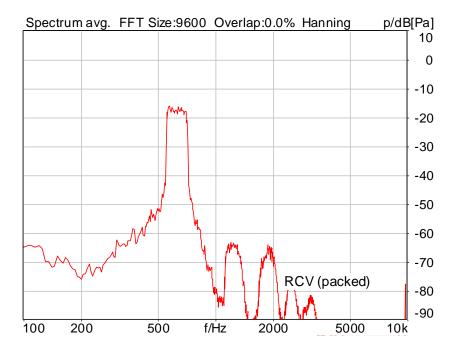
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 36.37 dB (1.52%) Ok

Ok

2024-08-17 上午 01:34 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

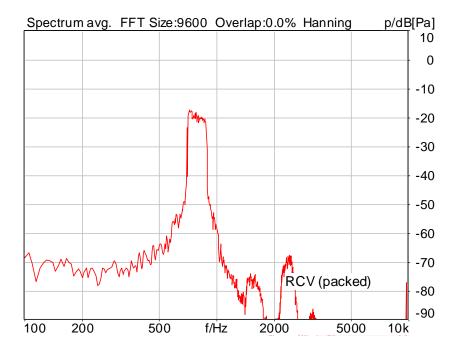
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SPORTON LAB.

Report No. :HA451606C

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): 35.41 dB (1.70%) Ok

Ok

2024-08-17 上午 01:34 ACQUA 6.0.200

Limits

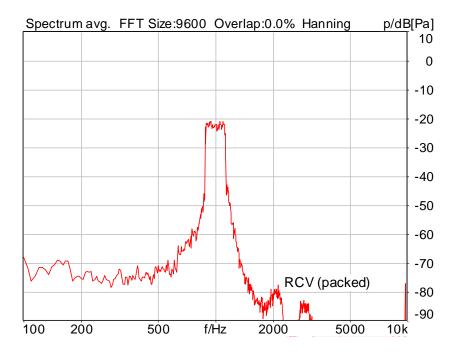
	lower
Run 1	20.00 dB

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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

Report No.: HA451606C



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

Ok

2024-08-17 上午 01:35 ACQUA 6.0.200

Limits

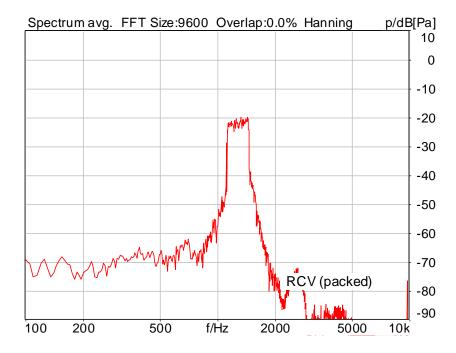
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 23.64 dB (6.58%) Ok

Ok

2024-08-17 上午 01:35 ACQUA 6.0.200

Limits

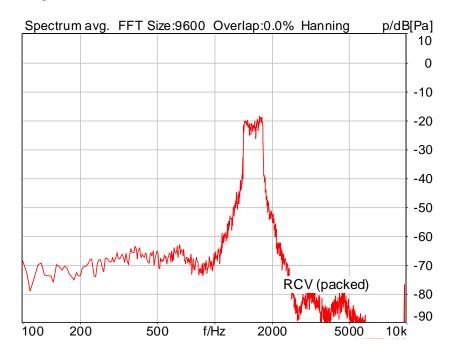
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 25.41 dB (5.37%) Ok

Ok

2024-08-17 上午 01:36 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

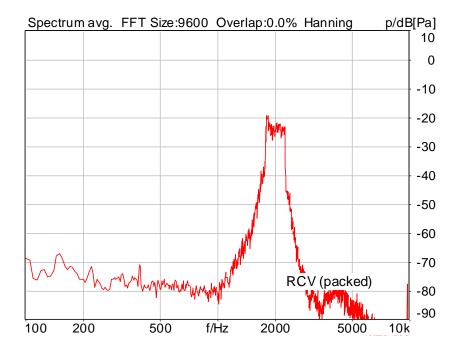
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PORTON LAB.

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.: HA451606C



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

Ok

2024-08-17 上午 01:36 ACQUA 6.0.200

Limits

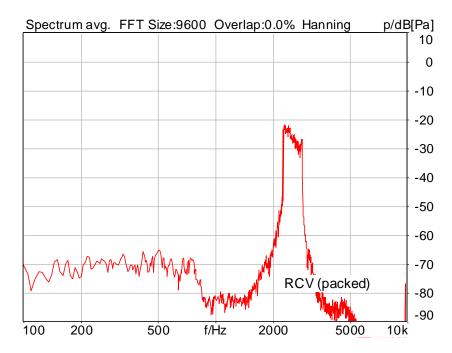
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 31.74 dB (2.59%) Ok

Ok

2024-08-17 上午 01:37 ACQUA 6.0.200

Limits

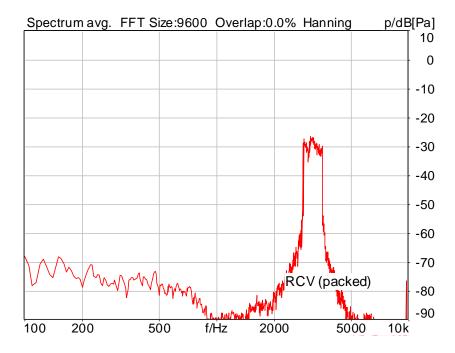
	lower
Run 1	20.00 dB

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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.: HA451606C



Distortion (Noise) RCV (packed): 33.19 dB (2.19%) Ok

Ok

2024-08-17 上午 01:38 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

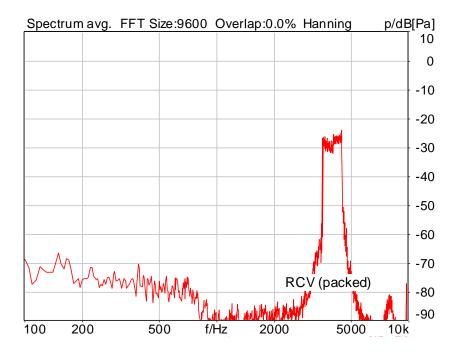
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SPORTON LAB.

Iume Control Evaluation Report Report No. :HA451606C

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): 32.04 dB (2.50%) Ok

Ok

2024-08-17 上午 01:38 ACQUA 6.0.200

Limits

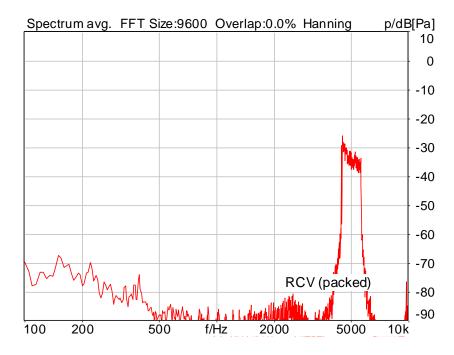
	lower
Run 1	20.00 dB

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Report No. :HA451606C

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): 34.99 dB (1.78%) Ok

Ok

2024-08-17 上午 01:39 ACQUA 6.0.200

Limits

	lower
Run 1	20.00 dB

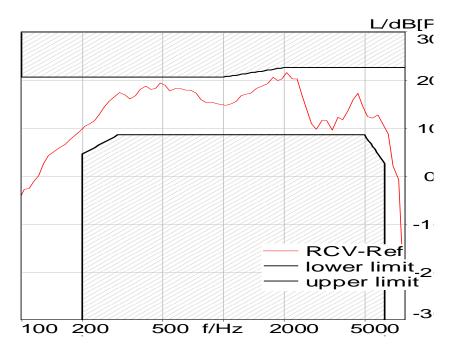
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Report No.: HA451606C

5.3 Frequency Response 8N DF

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



Absolute minimal distance

0.99 dB at 2057.5 Hz Ok

Ok

2024-08-17 上午 01:51 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

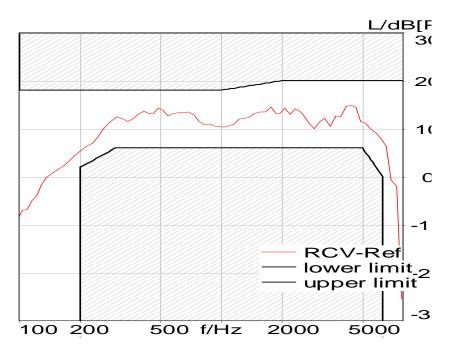
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Report No.: HA451606C

5.3 Frequency Response 2N DF

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



Absolute minimal distance

3.63 dB at 487.0 Hz Ok

Ok

2024-08-17 上午 01:40 ACQUA 6.0.200

Limits

	lower
Run 1	Fit into tolerance

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Appendix A. Volume Control Evaluation Results

Report No.: HA451606C

<Evaluation results for KDB 285076 D05 2.b>

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SPORTON LAB. Volume Control Evaluation Report

#4 GSM850 AMR WB 6.60kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	248.7
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.09
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	90.16

Report No. :HA451606C

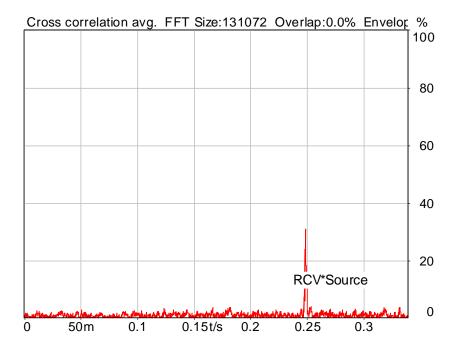
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Overall Receive Delay WB

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

Report No.: HA451606C



Channel	Delay
RCV*Source	248.7 ms

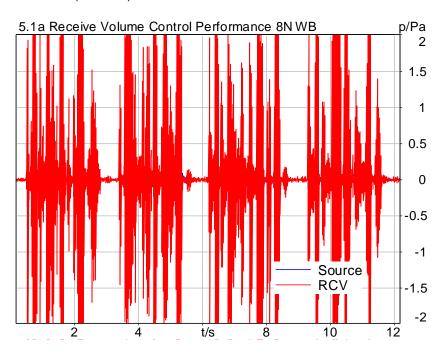
2024-08-16 下午 06:55 ACQUA 6.0.200

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Report No.: HA451606C

5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	89.09 dB[SPL]	57.74%	Ok

Ok

2024-08-16 下午 06:57 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

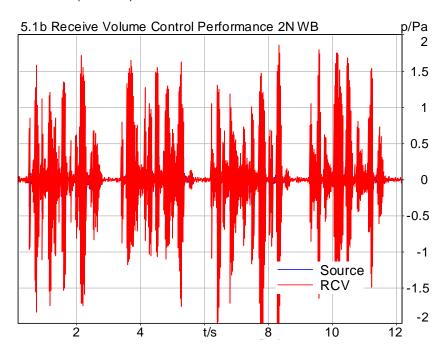
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Report No. :HA451606C

5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	90.16 dB[SPL]	13.28%	Ok

Ok

2024-08-16 下午 06:55 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#5 WCDMA V AMR WB 6.60kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	217.0
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	88.88
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	90.11

Report No. :HA451606C

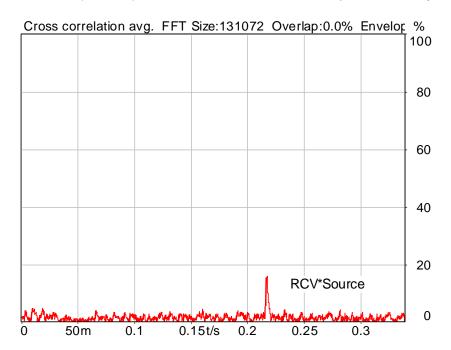
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Overall Receive Delay WB

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

Report No.: HA451606C



Channel	Delay
RCV*Source	217.0 ms

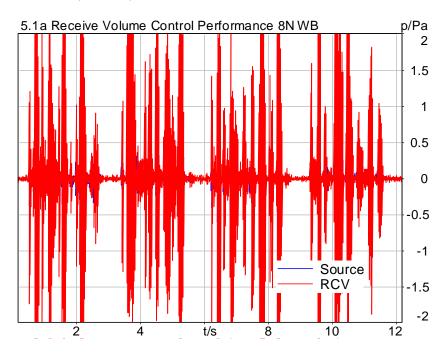
2024-08-16 下午 05:34 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N WB

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



Channel	Speech level	Activity	
RCV	88.88 dB[SPL]	48.80%	Ok

Ok

2024-08-16 下午 05:40 ACQUA 6.0.200

Limits

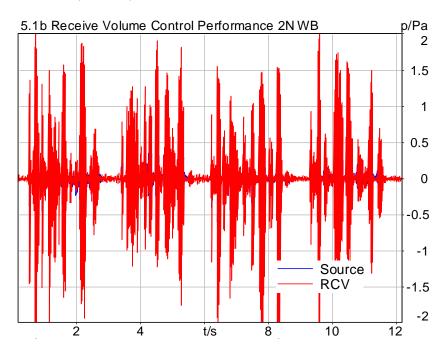
	lower
Run 1	88.00 dB20uPa

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5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	90.11 dB[SPL]	13.92%	Ok

Ok

2024-08-16 下午 05:36 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#6 LTE Band 25 EVS NB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	191.7
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	89.69
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	87.06

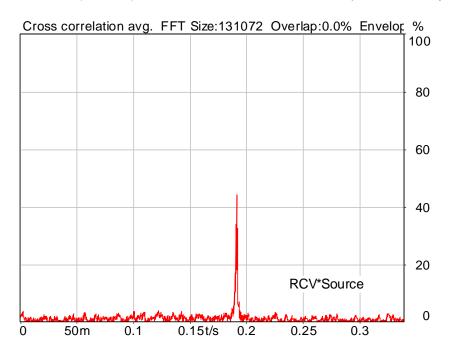
Report No. :HA451606C

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Report No.: HA451606C **Overall Receive Delay NB**

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



Channel	Delay
RCV*Source	191.7 ms

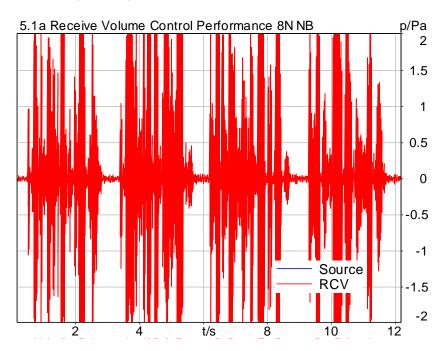
2024-08-13 下午 03:10 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	89.69 dB[SPL]	61.73%	Ok

Ok

2024-08-13 下午 03:11 ACQUA 6.0.200

Limits

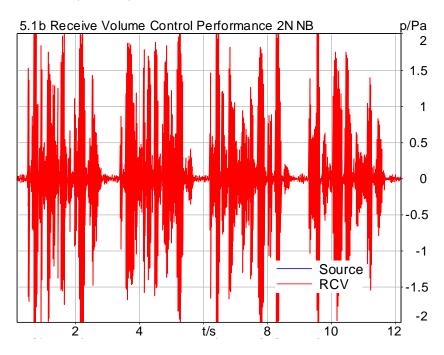
	lower
Run 1	76.00 dB20uPa

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5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	87.06 dB[SPL]	49.66%	Ok

Ok

2024-08-13 下午 03:15 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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#7 FR1 n48 EVS NB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	194.6
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	90.14
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	88.10

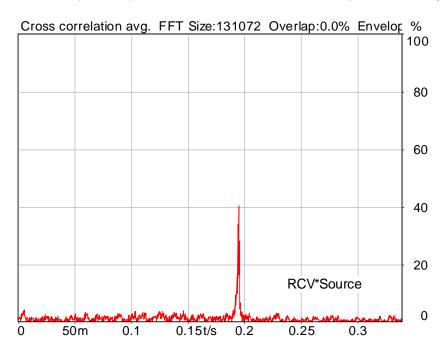
Report No. :HA451606C

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Overall Receive Delay NB

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



Channel	Delay	
RCV*Source	194.6 ms	

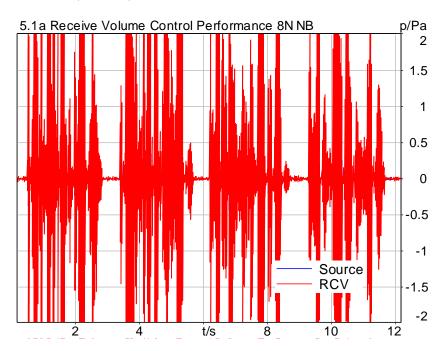
2024-08-18 下午 04:48 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	90.14 dB[SPL]	60.95%	Ok

Ok

2024-08-18 下午 04:55 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

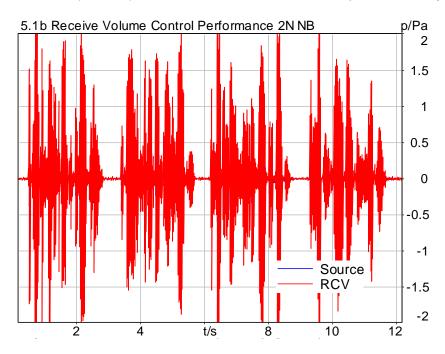
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G

Report No.: HA451606C

5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	88.10 dB[SPL]	32.29%	Ok

Ok

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Limits

	lower
Run 1	76.00 dB20uPa

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#8 WiFi 5.5GHz EVS NB 5.9kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	255.5
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	90.33
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	87.38

Report No. :HA451606C

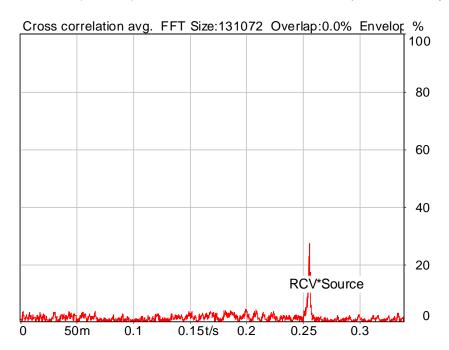
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Overall Receive Delay NB

Report No.: HA451606C

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



Channel	Delay	
RCV*Source	255.5 ms	

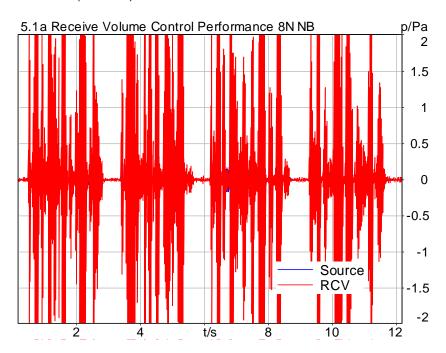
2024-08-17 上午 03:34 ACQUA 6.0.200

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5.1a Receive Volume Control Performance 8N NB

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



Channel	Speech level	Activity	
RCV	90.33 dB[SPL]	57.95%	Ok

Ok

2024-08-17 上午 03:37 ACQUA 6.0.200

Limits

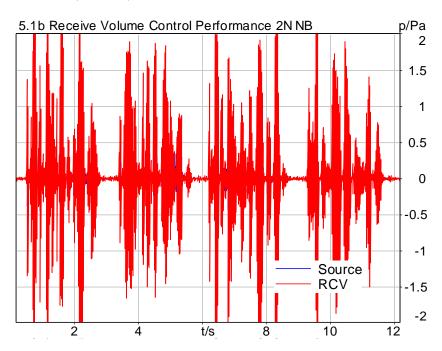
	lower
Run 1	76.00 dB20uPa

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5.1b Receive Volume Control Performance 2N NB

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



Channel	Speech level	Activity	
RCV	87.38 dB[SPL]	36.20%	Ok

Ok

2024-08-17 上午 03:36 ACQUA 6.0.200

Limits

	lower
Run 1	76.00 dB20uPa

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