



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

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



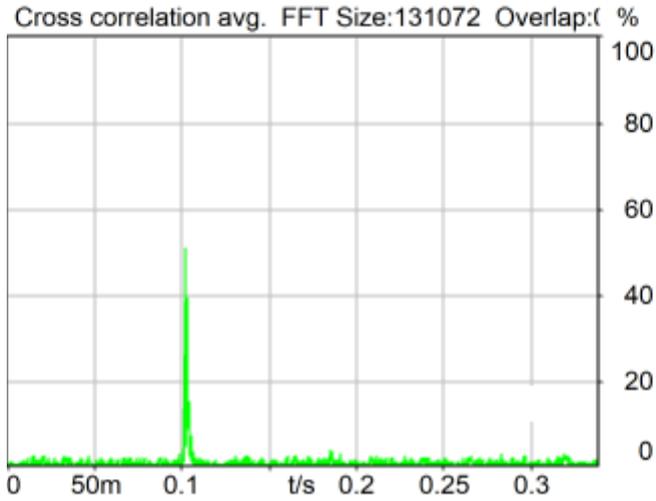
#1 LTE Band 66 EVS NB 24.4kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	103.1
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	87.32
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	34.39
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.15
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	39.12
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	39.06
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.44
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.76
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	41.26
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	41.77
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.78
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	41.76
Report - ReceiveDistortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 2500Hz)	21.78
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1547.5 Hz	3.66
5.3 Frequency Response 2N DF HANB	Ok	Min. dist. to tolerance scheme [dB], 3657.5 Hz	2.63



### Overall Receive Delay NB

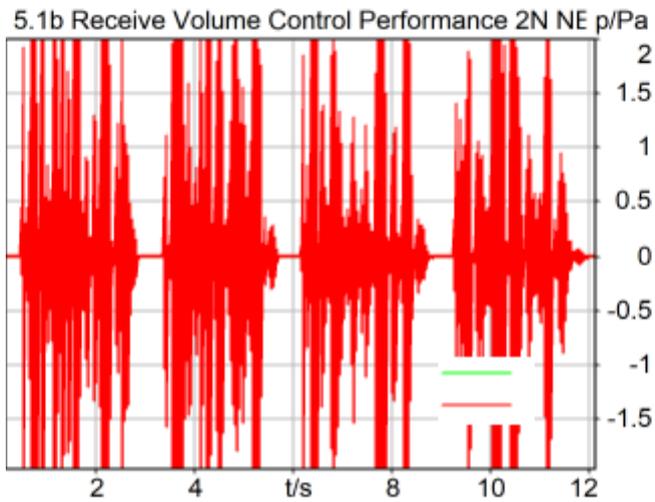
TIA-5050 (2018-01) \ Measurements \ Narrowband \ Preparation - Delay measurement



Delay (Cross): 103.1 ms

## 5.1b Receive Volume Control Performance 2N NB

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



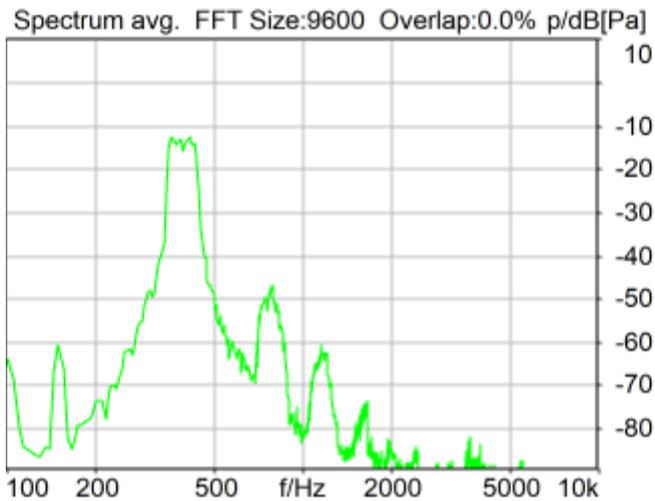
Speech Level RCV: 87.32 dB[SPL], Act.: 81.62% Ok

Ok

25/02/08 3:41 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 400 Hz NB

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



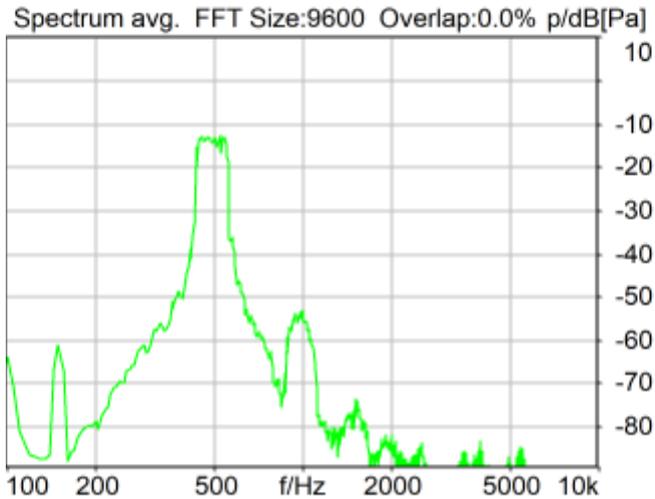
Distortion (Noise) RCV (packed): 34.39 dB (1.91%) Ok

Ok

25/02/08 3:42 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 500 Hz NB

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



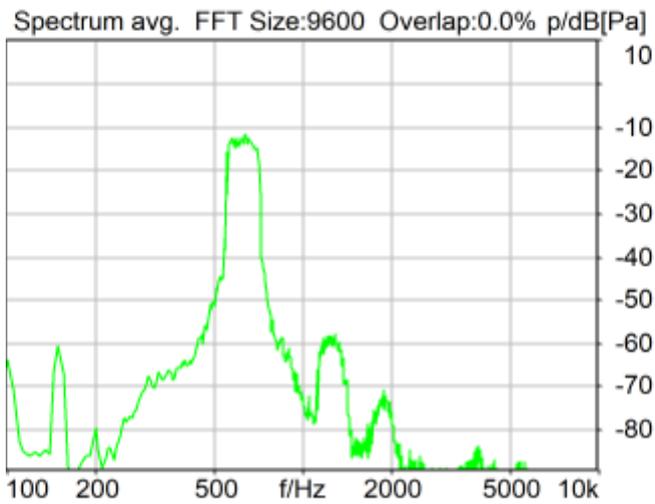
Distortion (Noise) RCV (packed): 36.15 dB (1.56%) Ok

Ok

25/02/08 3:42 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 630 Hz NB

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



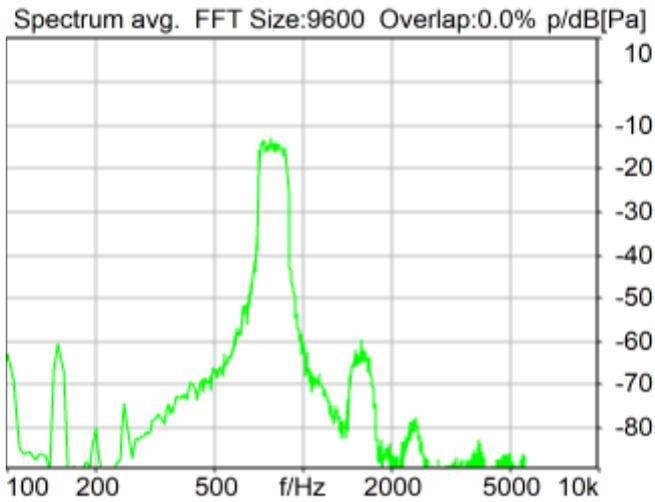
Distortion (Noise) RCV (packed): 39.12 dB (1.11%) Ok

Ok

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## 5.2 RCV Distortion and Noise - 800 Hz NB

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



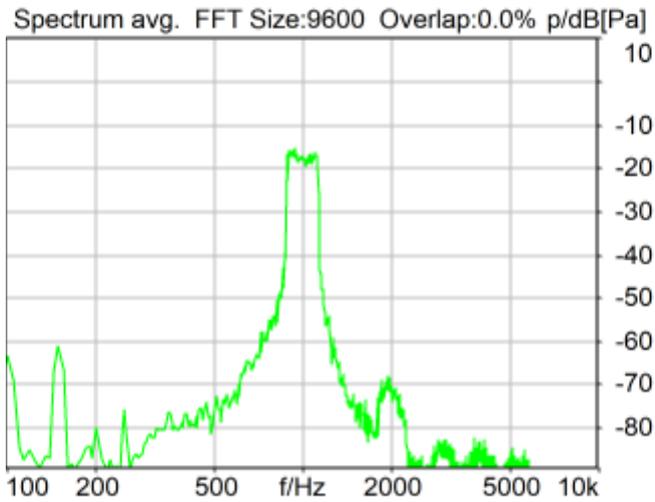
Distortion (Noise) RCV (packed): 39.06 dB (1.11%) Ok

Ok

25/02/08 3:43 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1000 Hz NB

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



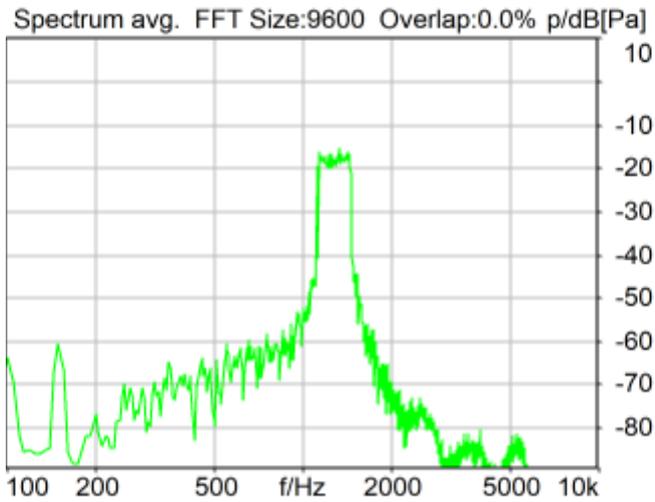
Distortion (Noise) RCV (packed): 36.44 dB (1.51%) Ok

Ok

25/02/08 3:44 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1250 Hz NB

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



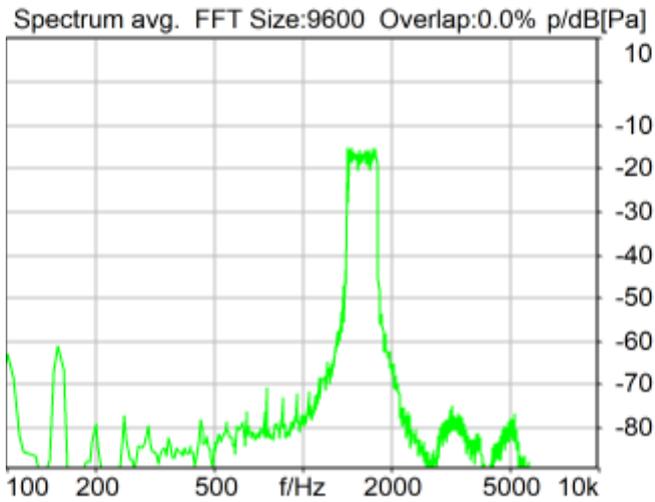
Distortion (Noise) RCV (packed): 28.76 dB (3.65%) Ok

Ok

25/02/08 3:44 ACQUA 5.1.200

## **5.2 RCV Distortion and Noise - 1600 Hz NB**

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



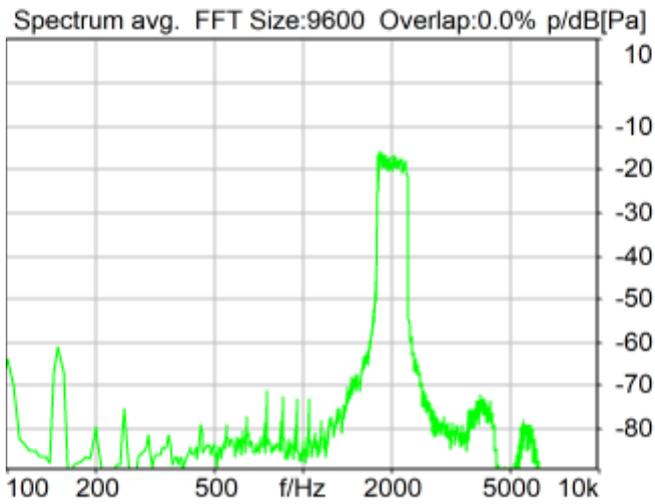
Distortion (Noise) RCV (packed): 41.26 dB (0.86%) Ok

**Ok**

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## 5.2 RCV Distortion and Noise - 2000 Hz NB

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



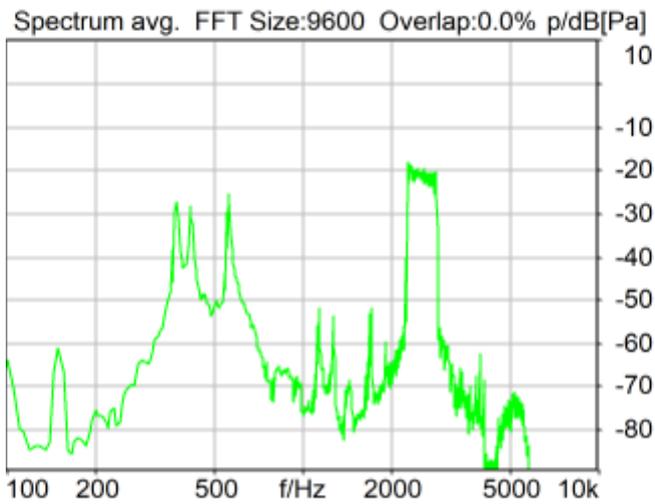
Distortion (Noise) RCV (packed): 41.77 dB (0.82%) Ok

Ok

25/02/08 3:45 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 2500 Hz NB

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



Distortion (Noise) RCV (packed): 21.78 dB (8.15%) Ok

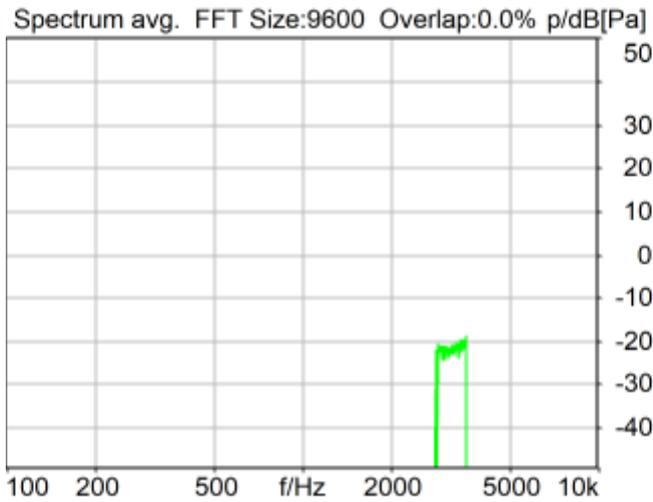
Ok

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## 5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 41.76 dB (0.82%) Ok

Ok

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**Report - Receive Distortion and Noise (Conversational Gain)**

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

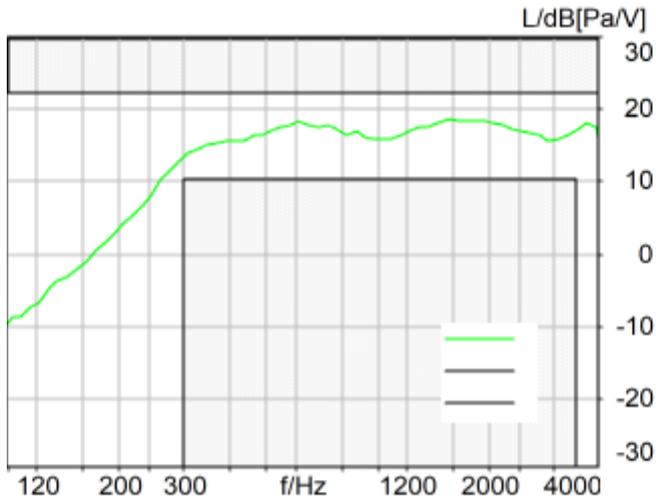
Region	Frequency	SDNR
1	400Hz	34.39 dB
2	500Hz	36.15 dB
3	630Hz	39.12 dB
4	800Hz	39.06 dB
5	1000Hz	36.44 dB
6	1250Hz	28.76 dB
7	1600Hz	41.26 dB
8	2000Hz	41.77 dB
9	2500Hz	21.78 dB
10	3150Hz	41.76 dB

All SDNRs were greater than 20.0 dB, requirement was met. Smallest SDNR was 21.78dB at 2500Hz.

25/02/08 3:46 ACQUA

### 5.3 Frequency Response 2N FF HANB

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



Absolute minimal distance

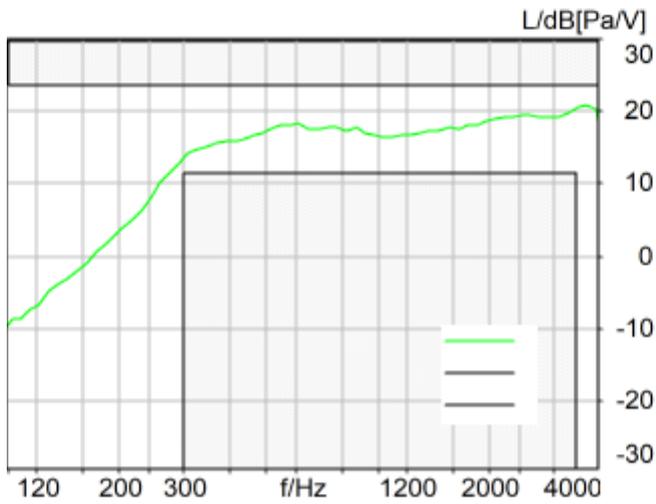
3.66 dB at 1547.5 Hz Ok

**Ok**

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### 5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance

2.63 dB at 3657.5 Hz Ok

Ok

25/02/08 3:46 ACQUA 5.1.200

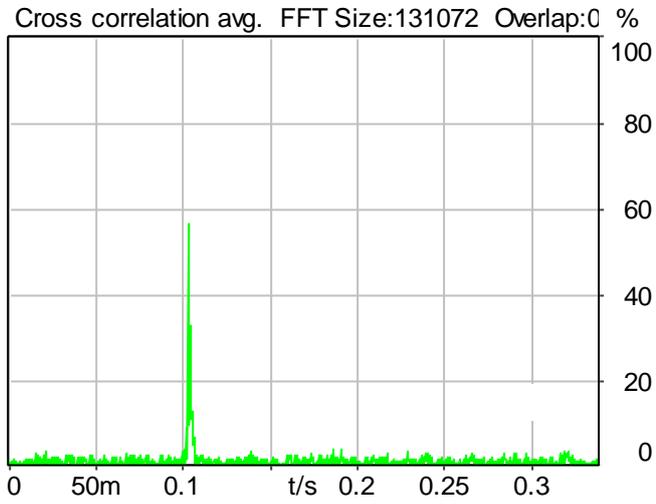


SMD	Status	Single Value Description	Single Value
Overall Receive Delay NB	Done	Delay (Cross) [ms]	103.9
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	91.38
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	34.70
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.68
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	37.99
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	38.72
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	37.60
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	32.67
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	41.98
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	42.73
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.16
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.69
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 1250Hz)	32.67
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1547.5 Hz	3.47
5.3 Frequency Response 8N DF HANB	Ok	Min. dist. to tolerance scheme [dB], 305.9 Hz	3.37



### Overall Receive Delay NB

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



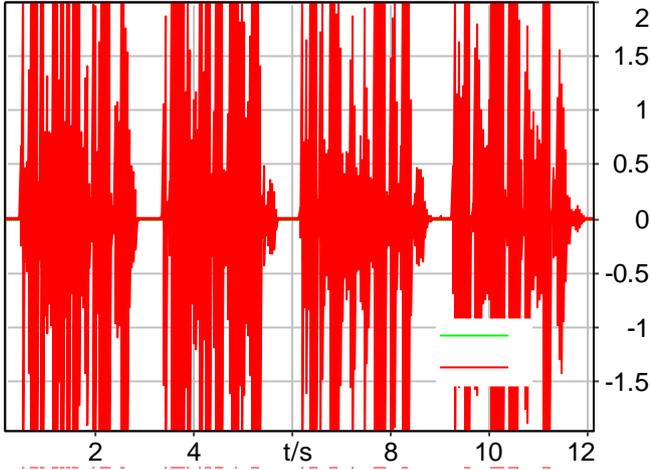
Delay (Cross): 103.9 ms

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

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

5.1a Receive Volume Control Performance 8N NB p/Pa



Speech Level RCV: 91.38 dB[SPL], Act.: 81.77% Ok

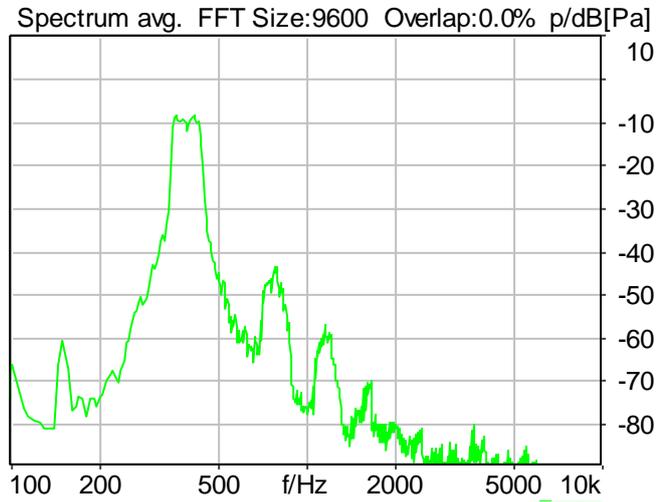
Ok

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## 5.2 RCV Distortion and Noise - 400 Hz NB

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



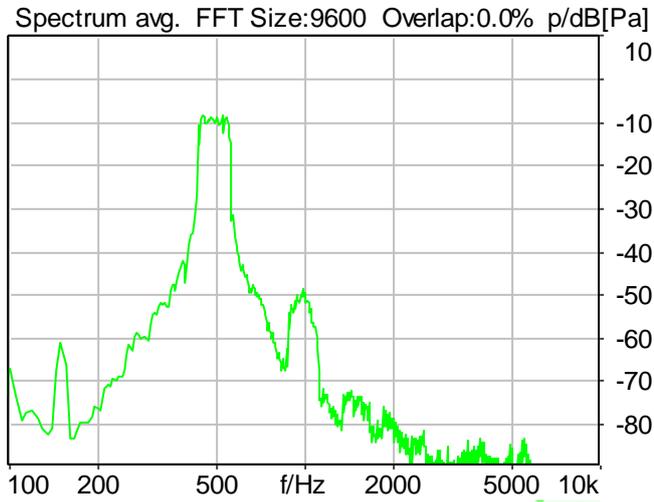
Distortion (Noise) RCV (packed): 34.70 dB (1.84%) Ok

Ok

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## 5.2 RCV Distortion and Noise - 500 Hz NB

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



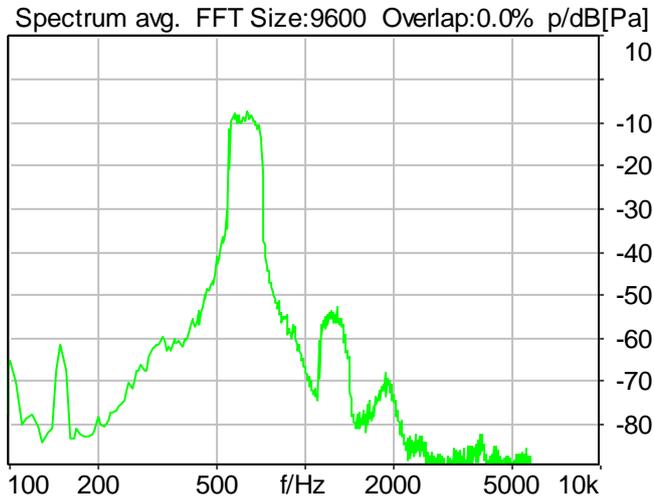
Distortion (Noise) RCV (packed): 35.68 dB (1.64%) Ok

Ok

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## 5.2 RCV Distortion and Noise - 630 Hz NB

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



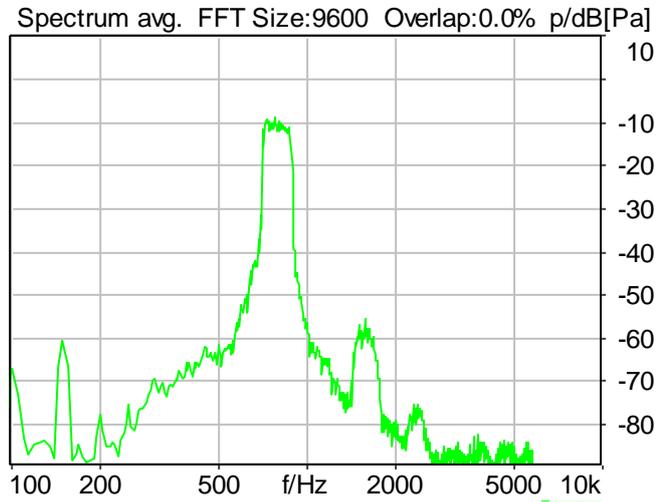
Distortion (Noise) RCV (packed): 37.99 dB (1.26%) Ok

Ok

25/02/08 3:51 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 800 Hz NB

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



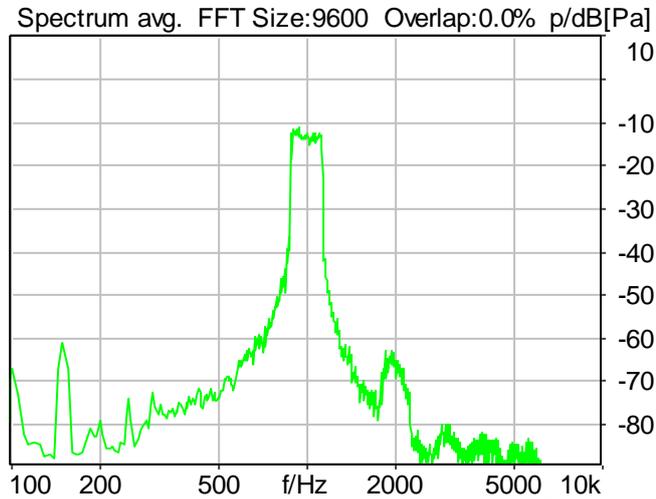
Distortion (Noise) RCV (packed): 38.72 dB (1.16%) Ok

Ok

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## 5.2 RCV Distortion and Noise - 1000 Hz NB

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



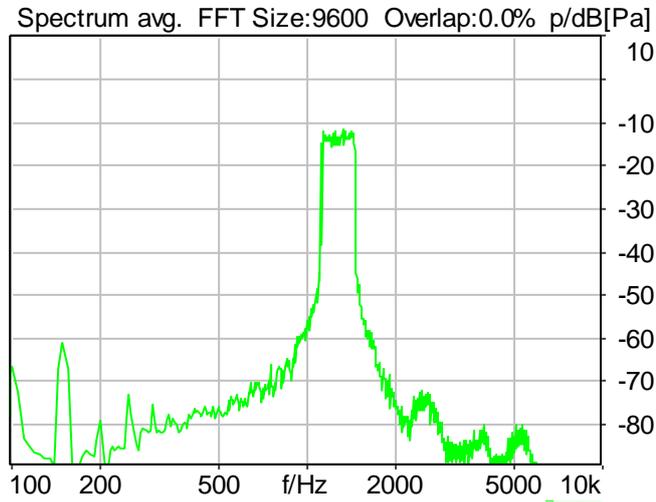
Distortion (Noise) RCV (packed): 37.60 dB (1.32%) Ok

Ok

25/02/08 3:52 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1250 Hz NB

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



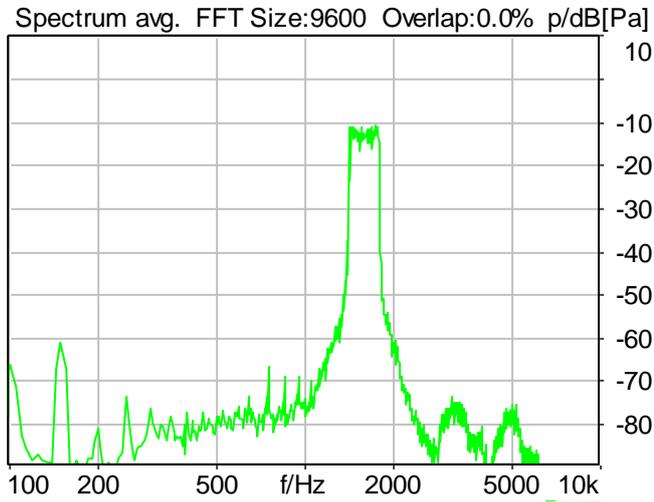
Distortion (Noise) RCV (packed): 32.67 dB (2.33%) Ok

Ok

25/02/08 3:52 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1600 Hz NB

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



Distortion (Noise) RCV (packed): 41.98 dB (0.80%) Ok

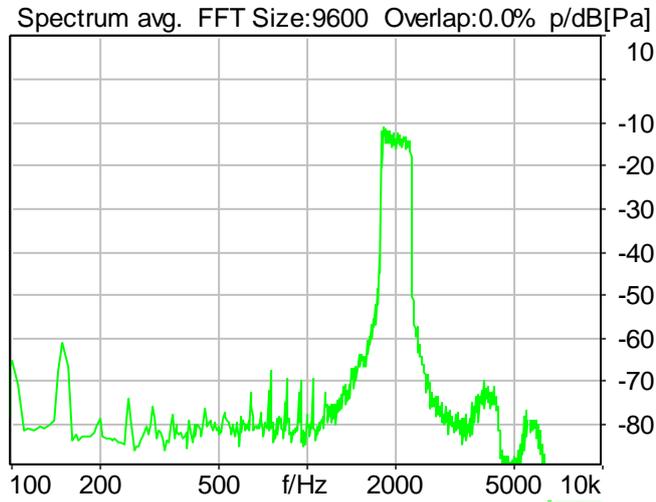
Ok

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## 5.2 RCV Distortion and Noise - 2000 Hz NB

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



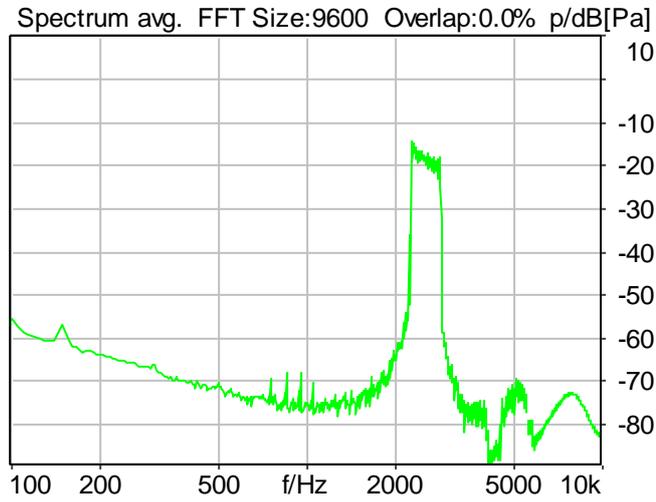
Distortion (Noise) RCV (packed): 42.73 dB (0.73%) Ok

Ok

25/02/08 3:53 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 2500 Hz NB

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



Distortion (Noise) RCV (packed): 40.16 dB (0.98%) Ok

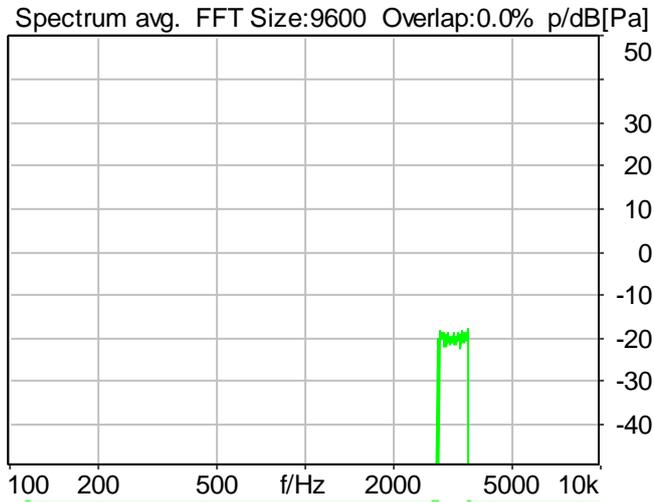
Ok

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## 5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 36.69 dB (1.46%) Ok

Ok

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**Report - Receive Distortion and Noise (Conversational Gain)**

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

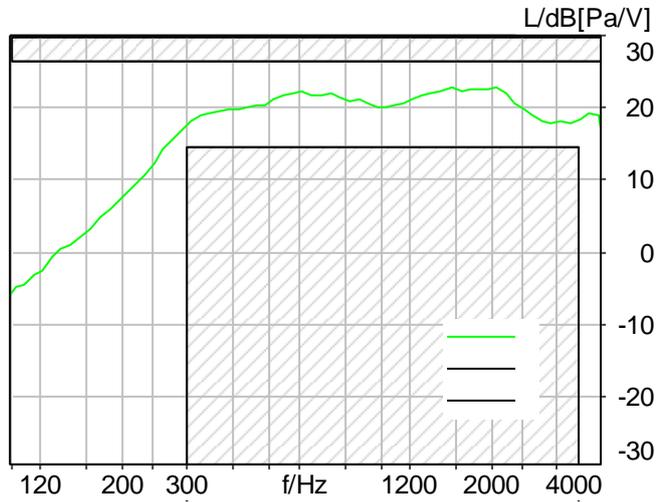
Region	Frequency	SDNR
1	400Hz	34.70 dB
2	500Hz	35.68 dB
3	630Hz	37.99 dB
4	800Hz	38.72 dB
5	1000Hz	37.60 dB
6	1250Hz	32.67 dB
7	1600Hz	41.98 dB
8	2000Hz	42.73 dB
9	2500Hz	40.16 dB
10	3150Hz	36.69 dB

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

Smallest SDNR was 32.67dB at 1250Hz.

### 5.3 Frequency Response 8N FF HANB

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



Absolute minimal distance

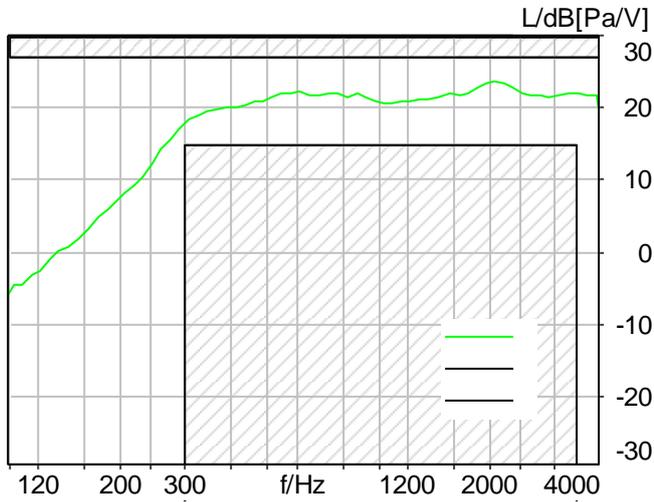
3.47 dB at 1547.5 Hz Ok

Ok

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### 5.3 Frequency Response 8N DF HANB

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



Absolute minimal distance

3.37 dB at 305.9 Hz Ok

Ok

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#2 FR1 n70 EVS WB 128kbps

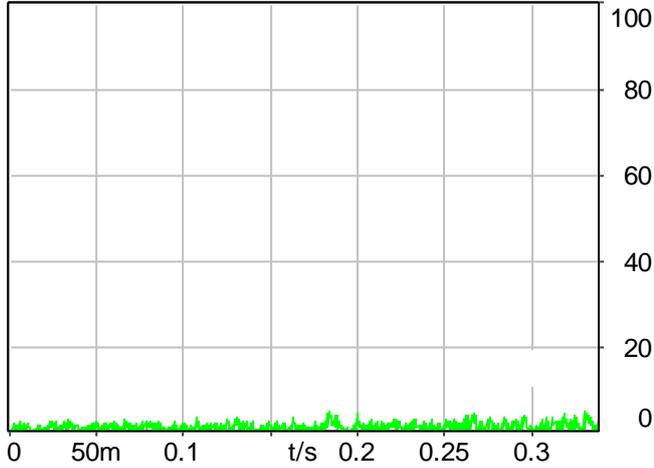
SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	400.7
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.58
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.28
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.89
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.85
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.87
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.93
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.52
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.50
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.76
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.21
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.11
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	44.19
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.67
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.71
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.04
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 250Hz)	30.28
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 388.2 Hz	1.68
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 388.2 Hz	2.51



### Overall Receive Delay WB

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

Cross correlation avg. FFT Size:131072 Overlap:0 %

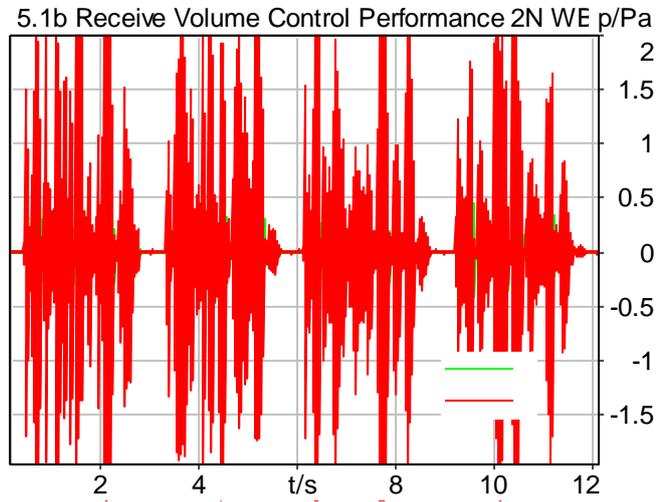


Delay (Cross): 400.7 ms

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## 5.1b Receive Volume Control Performance 2N WB

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



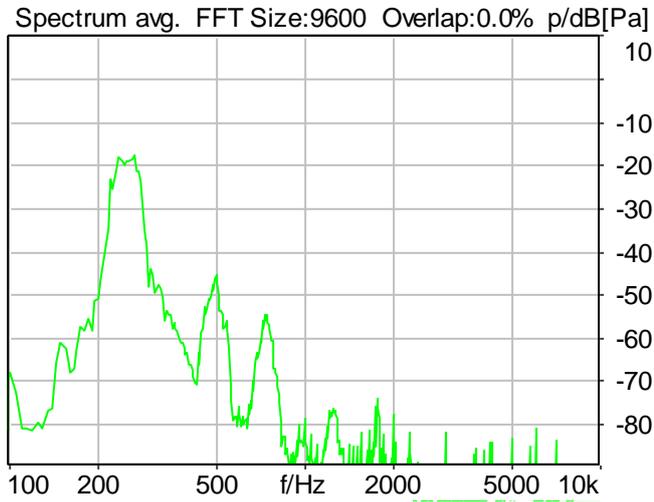
Speech Level RCV: 85.58 dB[SPL], Act.: 81.97% Ok

Ok

25/01/24 17:05 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 30.28 dB (3.06%) Ok

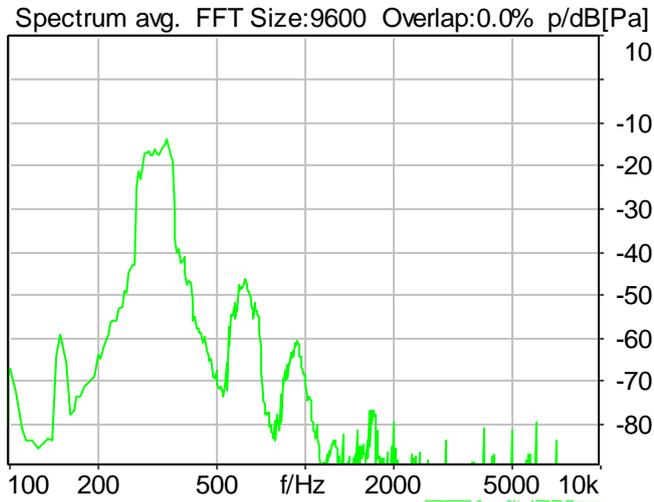
Ok

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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



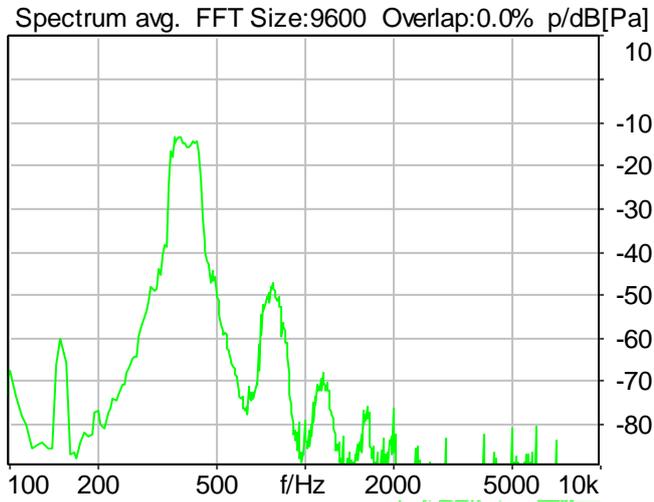
Distortion (Noise) RCV (packed): 31.89 dB (2.54%) Ok

Ok

25/01/24 17:06 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 400 Hz WB

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



Distortion (Noise) RCV (packed): 33.85 dB (2.03%) Ok

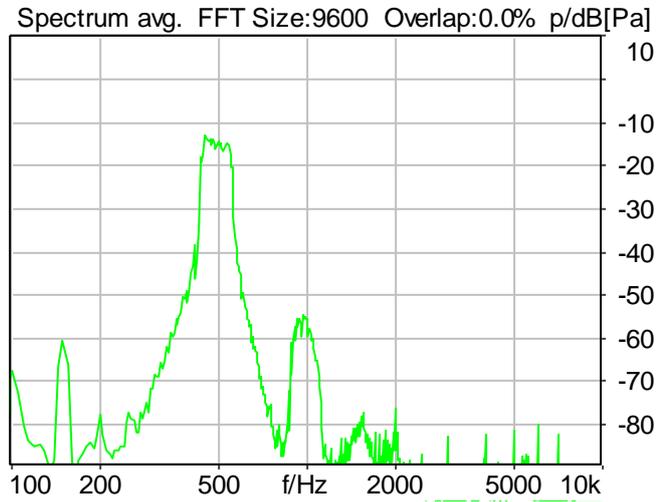
Ok

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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



Distortion (Noise) RCV (packed): 37.87 dB (1.28%) Ok

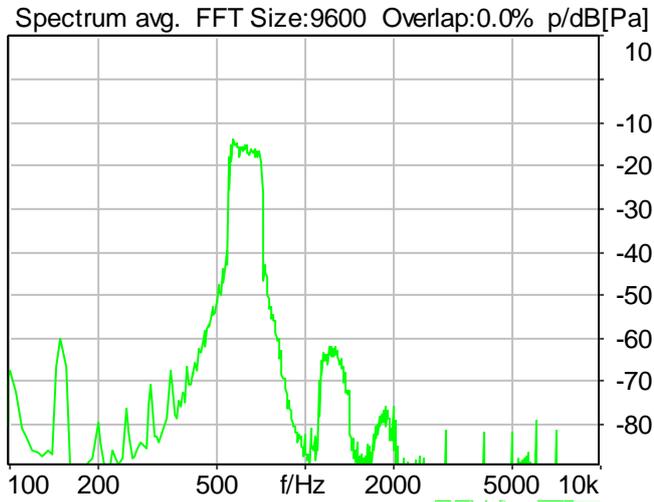
Ok

25/01/24 17:07 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 630 Hz WB

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



Distortion (Noise) RCV (packed): 38.93 dB (1.13%) Ok

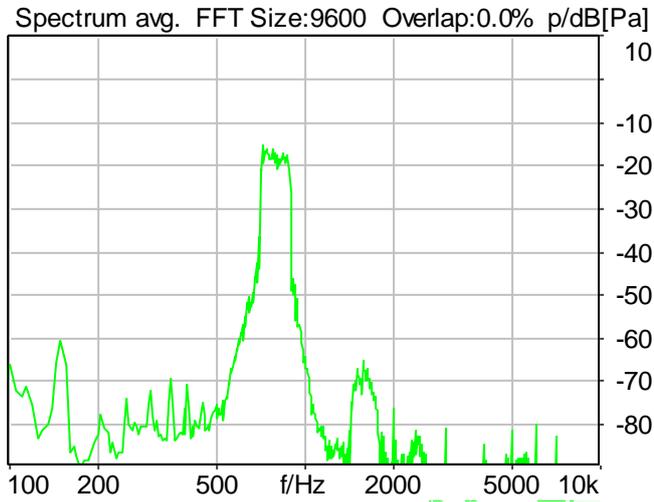
Ok

25/01/24 17:07 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 800 Hz WB

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



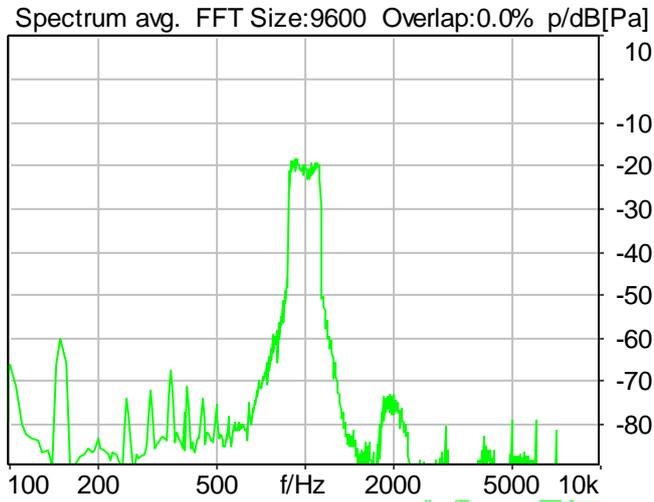
Distortion (Noise) RCV (packed): 38.52 dB (1.19%) Ok

Ok

25/01/24 17:08 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1000 Hz WB

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



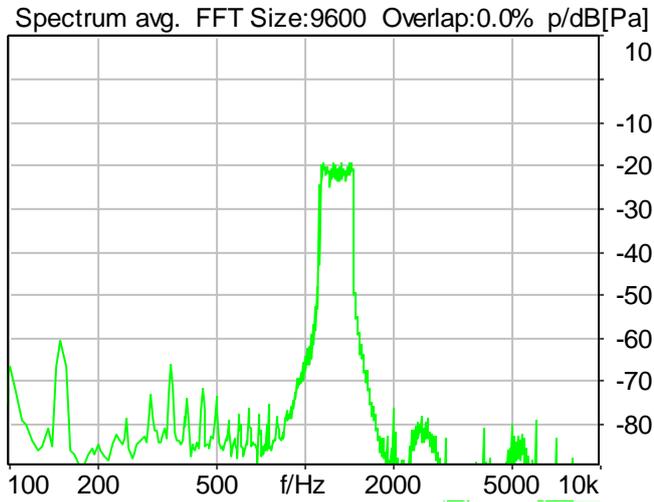
Distortion (Noise) RCV (packed): 38.50 dB (1.19%) Ok

Ok

25/01/24 17:08 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1250 Hz WB

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



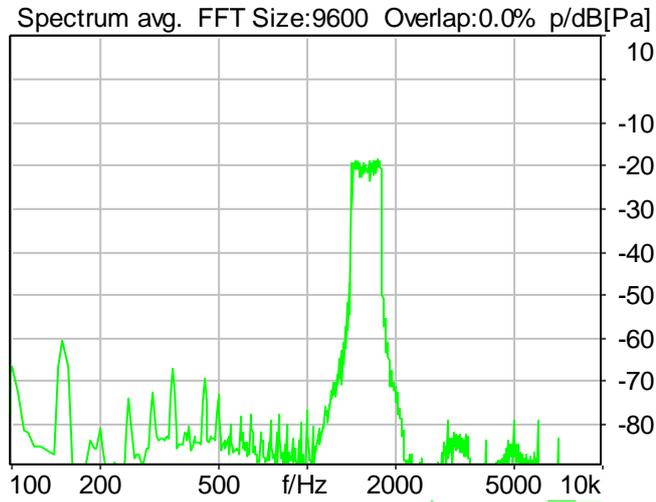
Distortion (Noise) RCV (packed): 31.76 dB (2.58%) Ok

Ok

25/01/24 17:09 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1600 Hz WB

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



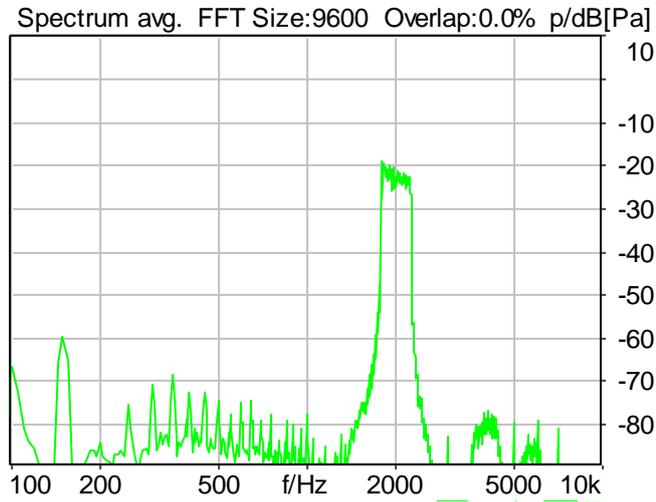
Distortion (Noise) RCV (packed): 42.21 dB (0.78%) Ok

Ok

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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



Distortion (Noise) RCV (packed): 42.11 dB (0.78%) Ok

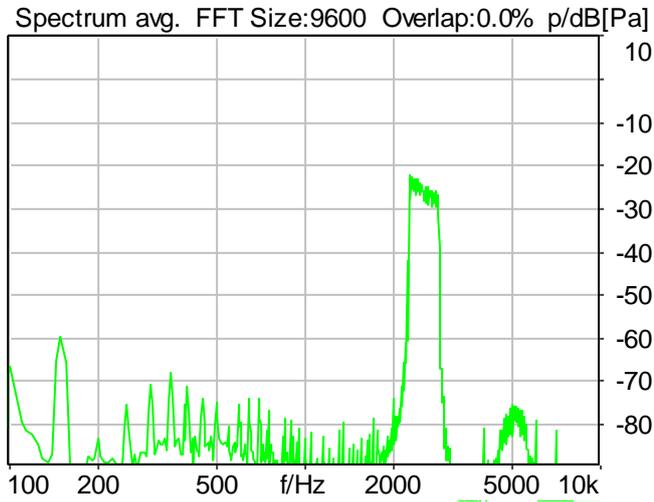
Ok

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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



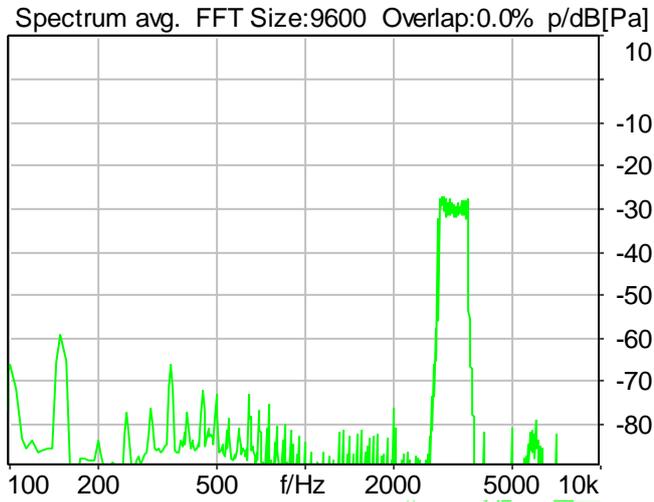
Distortion (Noise) RCV (packed): 44.19 dB (0.62%) Ok

Ok

25/01/24 17:10 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 3150 Hz WB

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



Distortion (Noise) RCV (packed): 39.67 dB (1.04%) Ok

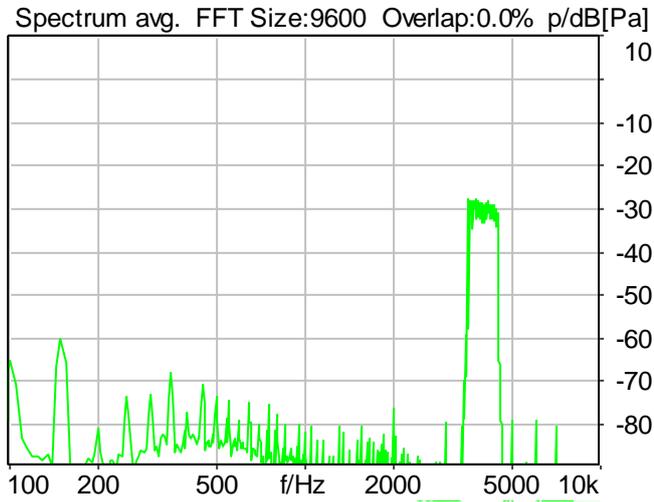
Ok

25/01/24 17:11 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 42.71 dB (0.73%) Ok

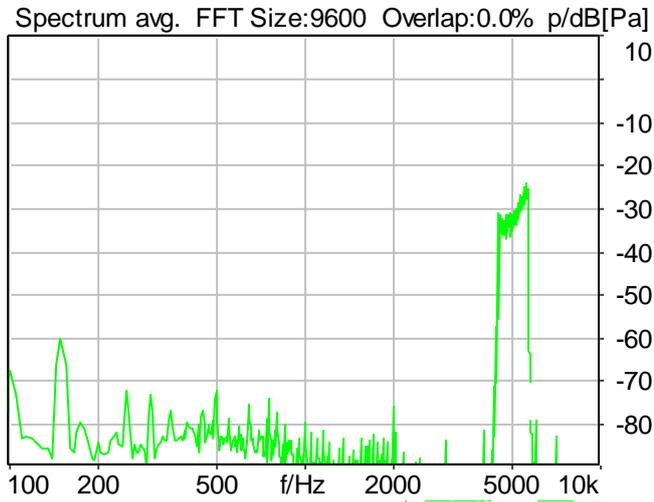
Ok

25/01/24 17:11 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 41.04 dB (0.89%) Ok

Ok

25/01/24 17:12 ACQUA 5.1.200



**Report - Receive Distortion and Noise (Conversational Gain)**

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

Region	Frequency	SDNR
1	250Hz	30.28 dB
2	315Hz	31.89 dB
3	400Hz	33.85 dB
4	500Hz	37.87 dB
5	630Hz	38.93 dB
6	800Hz	38.52 dB
7	1000Hz	38.50 dB
8	1250Hz	31.76 dB
9	1600Hz	42.21 dB
10	2000Hz	42.11 dB
11	2500Hz	44.19 dB
12	3150Hz	39.67 dB
13	4000Hz	42.71 dB
14	5000Hz	41.04 dB

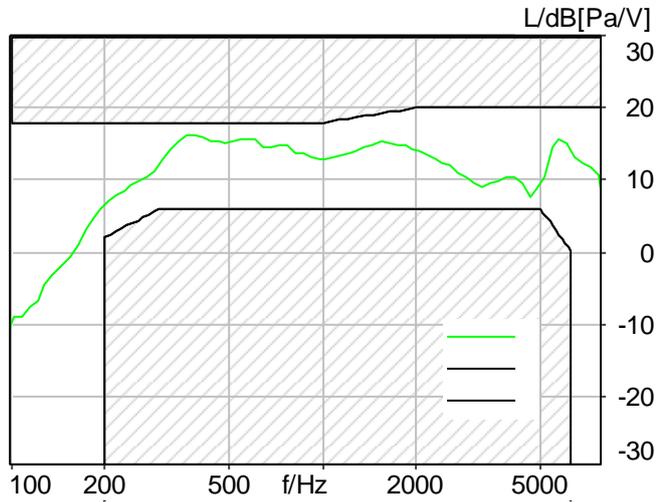
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 30.28dB at 250Hz.

25/01/24 17:12 ACQUA

### 5.3 Frequency Response 2N FF

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



Absolute minimal distance

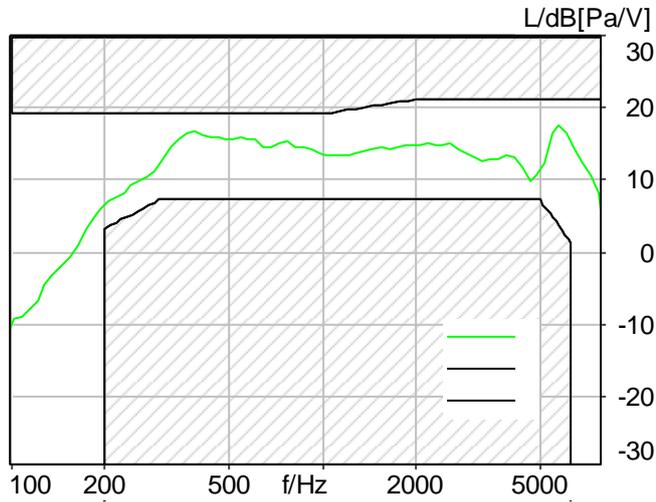
1.68 dB at 388.2 Hz Ok

Ok

25/01/24 17:12 ACQUA 5.1.200

### 5.3 Frequency Response 2N DF

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



Absolute minimal distance

2.51 dB at 388.2 Hz Ok

Ok

25/01/24 17:12 ACQUA 5.1.200

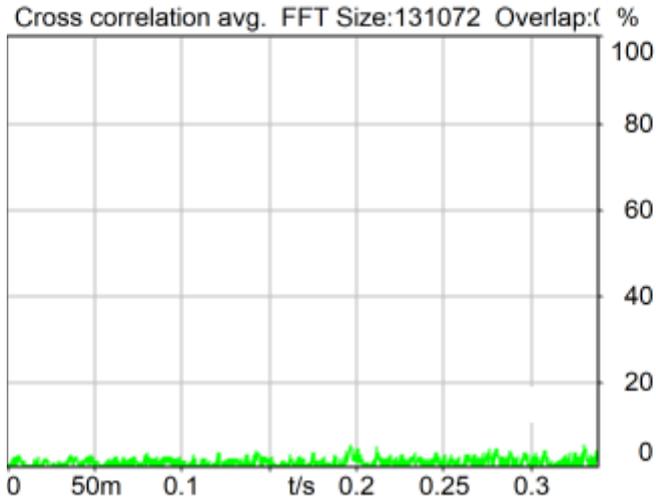


SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	412.8
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.60
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.34
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.76
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.42
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.12
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.36
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.89
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.50
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.49
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.46
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.38
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.11
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.04
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.14
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.53
Report - ReceiveDistortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 1250Hz)	25.49
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 388.2 Hz	0.71
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 4620.1 Hz	1.56



### Overall Receive Delay WB

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

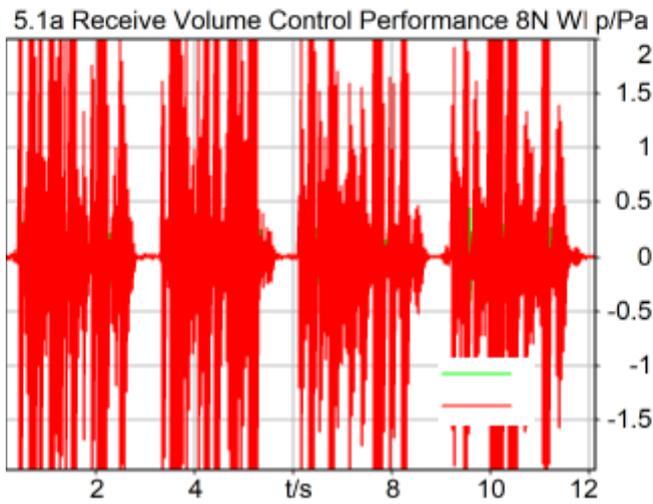


Delay (Cross): 412.8 ms

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## 5.1a Receive Volume Control Performance 8N WB

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



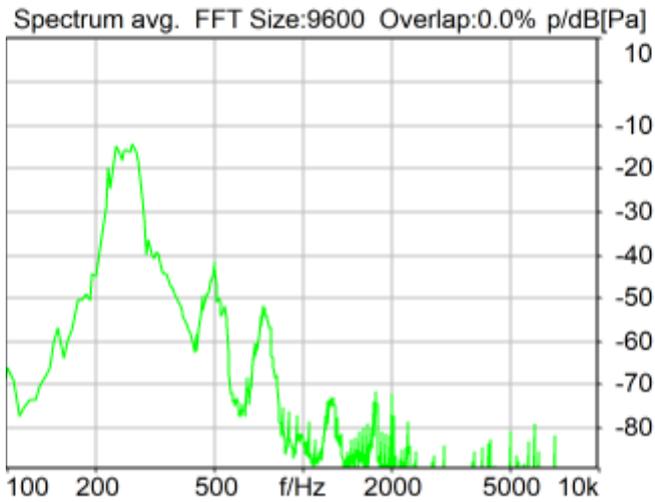
Speech Level RCV: 89.60 dB[SPL], Act.: 82.07% Ok

Ok

25/01/24 17:21 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 250 Hz WB

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



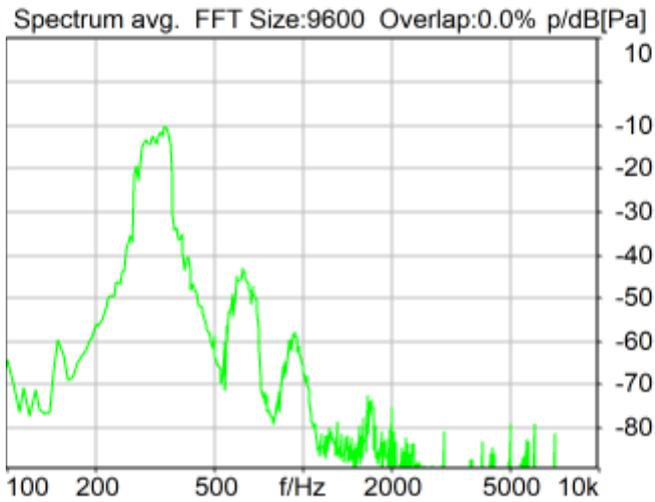
Distortion (Noise) RCV (packed): 29.34 dB (3.41%) Ok

Ok

25/01/24 17:21 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 315 Hz WB

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



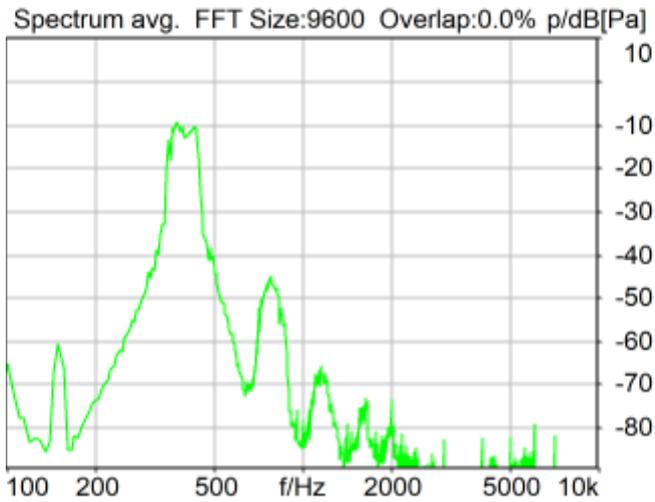
Distortion (Noise) RCV (packed): 31.76 dB (2.58%) Ok

Ok

25/01/24 17:21 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 400 Hz WB

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



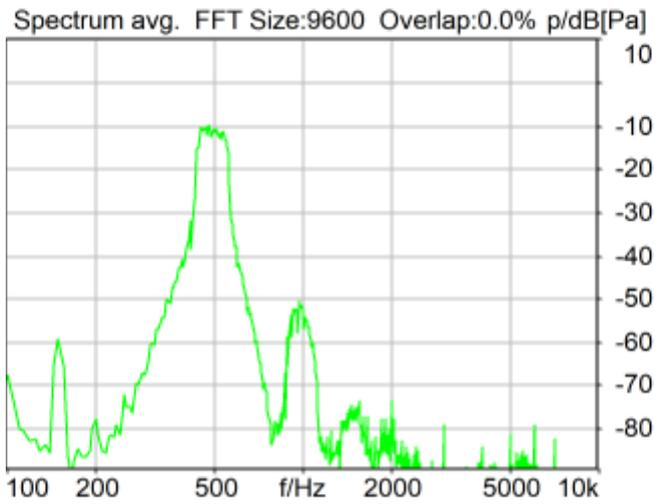
Distortion (Noise) RCV (packed): 33.42 dB (2.13%) Ok

Ok

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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



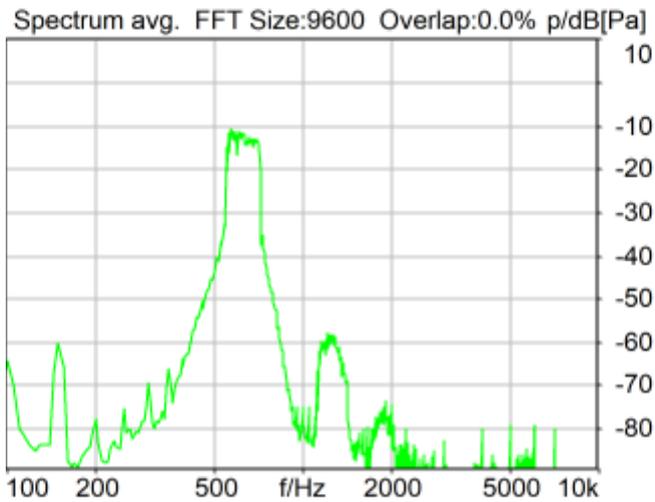
Distortion (Noise) RCV (packed): 35.12 dB (1.75%) Ok

Ok

25/01/24 17:22 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 630 Hz WB

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



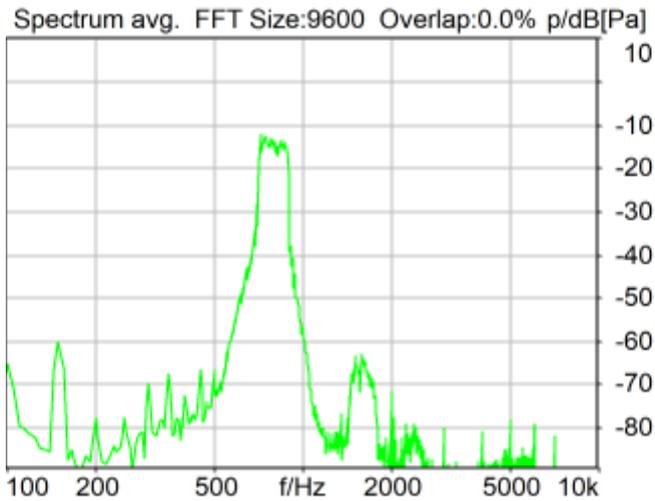
Distortion (Noise) RCV (packed): 35.36 dB (1.71%) Ok

Ok

25/01/24 17:23 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 800 Hz WB

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



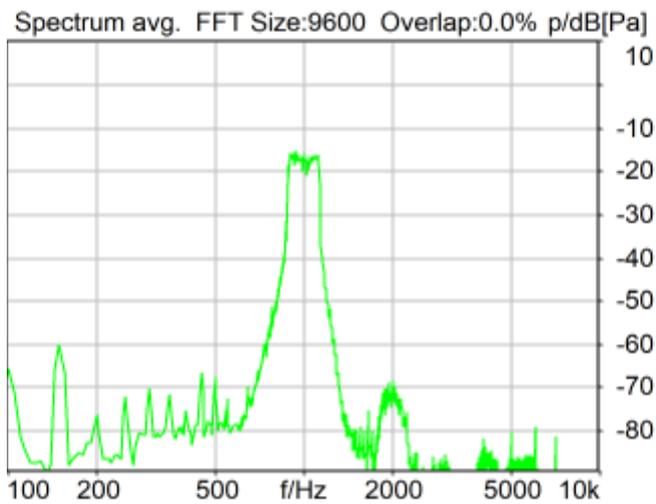
Distortion (Noise) RCV (packed): 34.89 dB (1.80%) Ok

Ok

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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



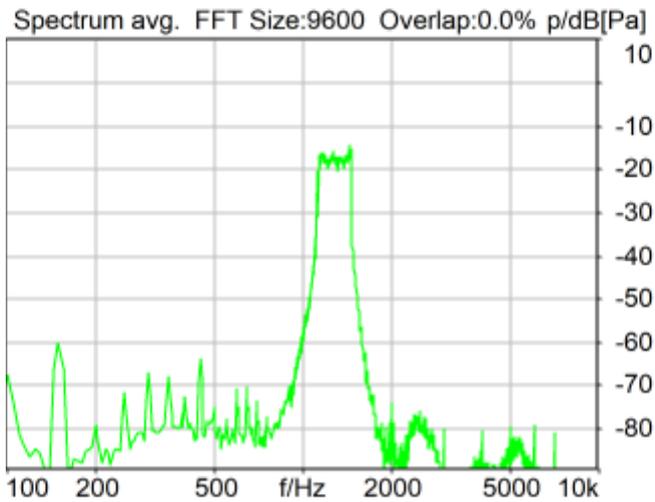
Distortion (Noise) RCV (packed): 32.50 dB (2.37%) Ok

Ok

25/01/24 17:24 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1250 Hz WB

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



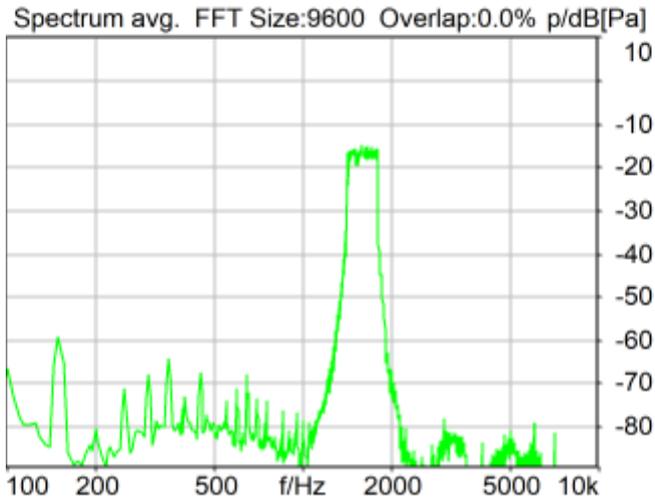
Distortion (Noise) RCV (packed): 25.49 dB (5.31%) Ok

Ok

25/01/24 17:24 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1600 Hz WB

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



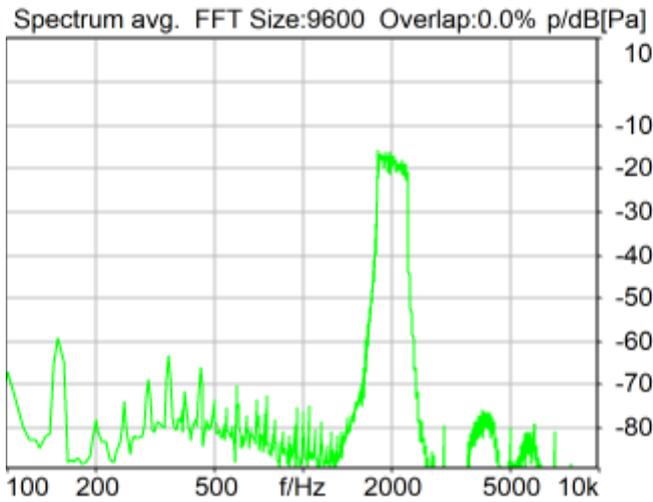
Distortion (Noise) RCV (packed): 35.46 dB (1.69%) Ok

Ok

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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



Distortion (Noise) RCV (packed): 34.38 dB (1.91%) Ok

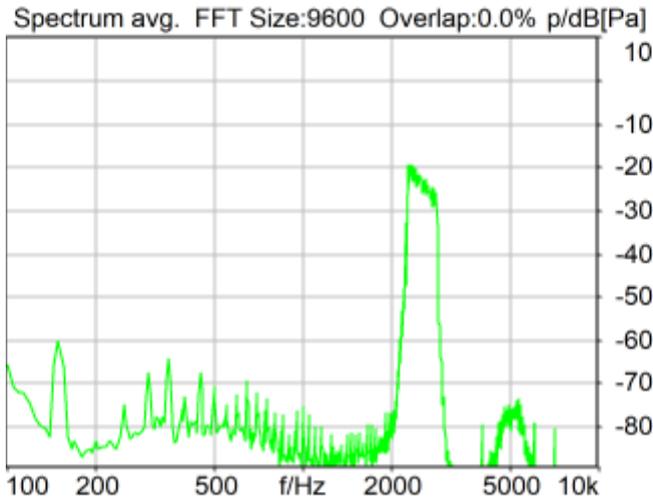
Ok

25/01/24 17:25 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 36.11 dB (1.57%) Ok

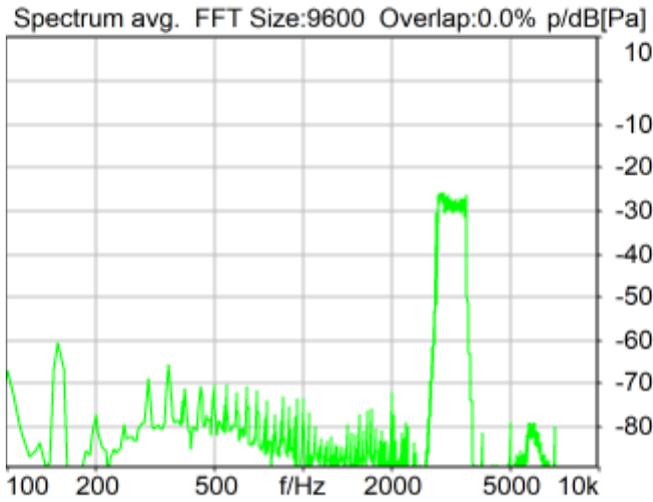
Ok

25/01/24 17:26 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 3150 Hz WB

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



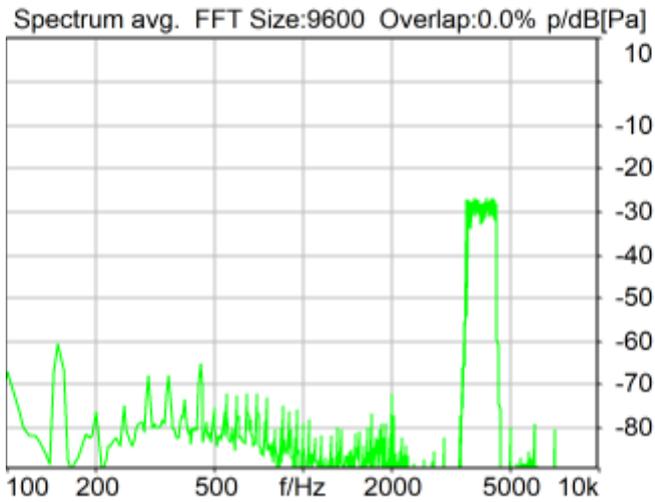
Distortion (Noise) RCV (packed): 37.04 dB (1.41%) Ok

Ok

25/01/24 17:26 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 4000 Hz WB

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



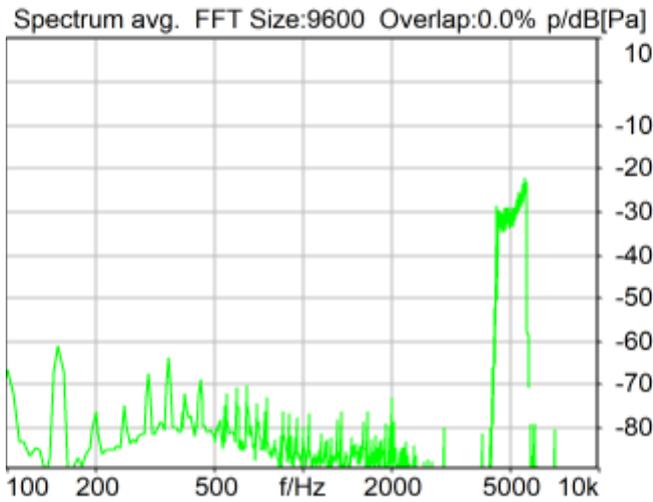
Distortion (Noise) RCV (packed): 40.14 dB (0.98%) Ok

Ok

25/01/24 17:27 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 37.53 dB (1.33%) Ok

Ok

25/01/24 17:27 ACQUA 5.1.200



**Report - Receive Distortion and Noise (Conversational Gain)**

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

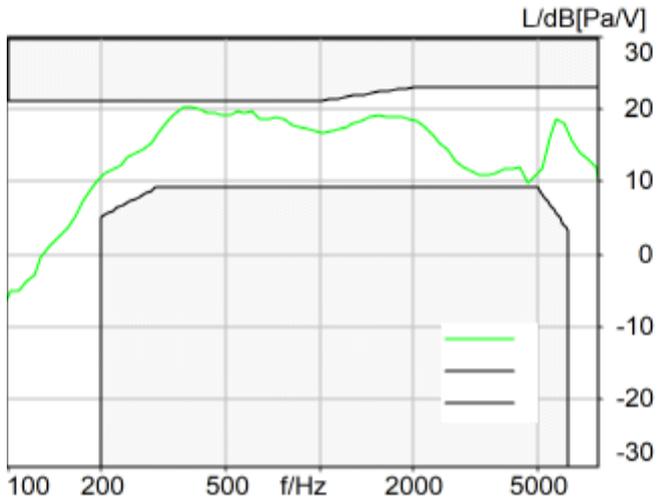
Region	Frequency	SDNR
1	250Hz	29.34 dB
2	315Hz	31.76 dB
3	400Hz	33.42 dB
4	500Hz	35.12 dB
5	630Hz	35.36 dB
6	800Hz	34.89 dB
7	1000Hz	32.50 dB
8	1250Hz	25.49 dB
9	1600Hz	35.46 dB
10	2000Hz	34.38 dB
11	2500Hz	36.11 dB
12	3150Hz	37.04 dB
13	4000Hz	40.14 dB
14	5000Hz	37.53 dB

All SDNRs were greater than 20.0 dB, requirement was met. Smallest SDNR was 25.49dB at 1250Hz.

25/01/24 17:27 ACQUA

### 5.3 Frequency Response 8N FF

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



Absolute minimal distance

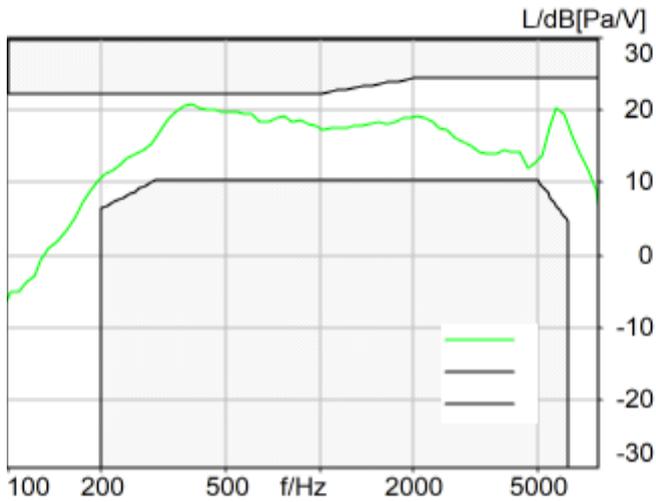
0.71 dB at 388.2 Hz Ok

Ok

25/01/24 17:27 ACQUA 5.1.200

### 5.3 Frequency Response 8N DF

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



Absolute minimal distance

1.56 dB at 4620.1 Hz Ok

**Ok**

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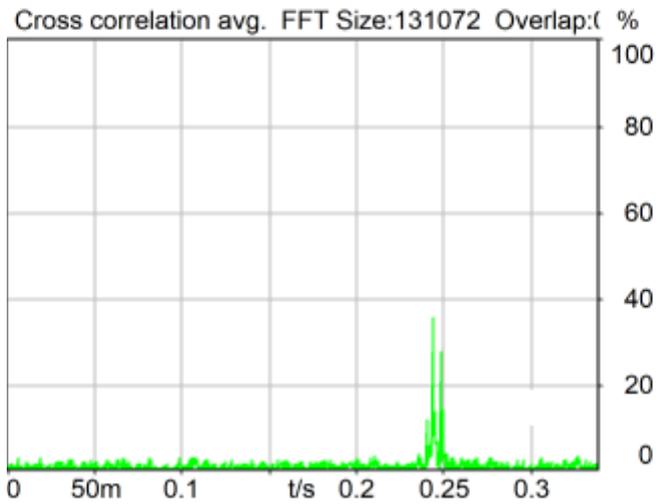
### #3 WiFi 5GHz EVS WB 128kbps

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	243.8
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.68
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.05
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.48
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.28
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.73
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.89
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.90
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.50
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.10
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.72
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.30
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.13
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.84
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.72
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.16
Report - Receive Distortionand Noise (Conversational Gain)	Ok	Minimum SDNR [dB],(ocured at 1250Hz)	21.10
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 205.7 Hz	1.58
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 776.5 Hz	1.52



## Overall Receive Delay WB

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

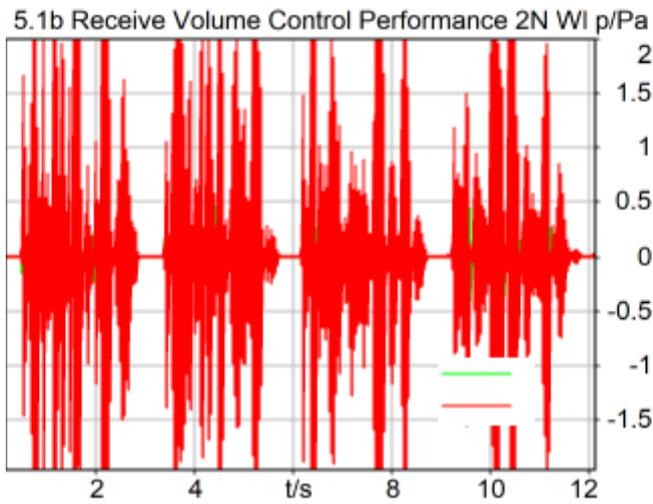


Delay (Cross): 243.8 ms

25/02/09 22:44 ACQUA 5.1.200

### 5.1b Receive Volume Control Performance 2N WB

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



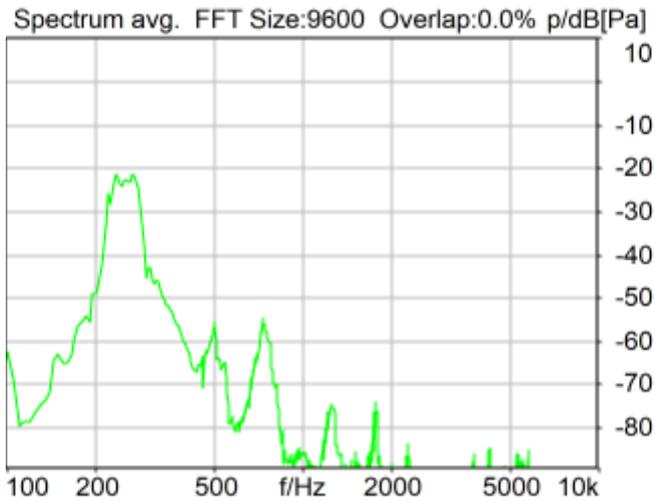
Speech Level RCV: 85.68 dB[SPL], Act.: 82.04% Ok

Ok

25/02/09 22:45 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 250 Hz WB

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



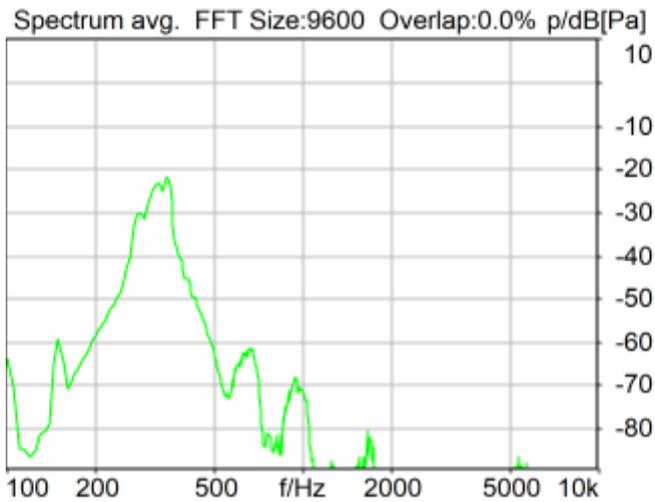
Distortion (Noise) RCV (packed): 30.05 dB (3.14%) Ok

**Ok**

25/02/09 22:45 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 315 Hz WB

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



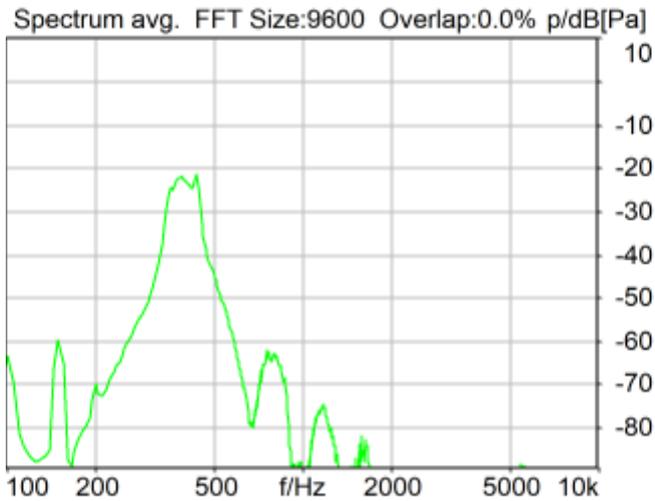
Distortion (Noise) RCV (packed): 27.48 dB (4.22%) Ok

Ok

25/02/09 22:46 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 400 Hz WB

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



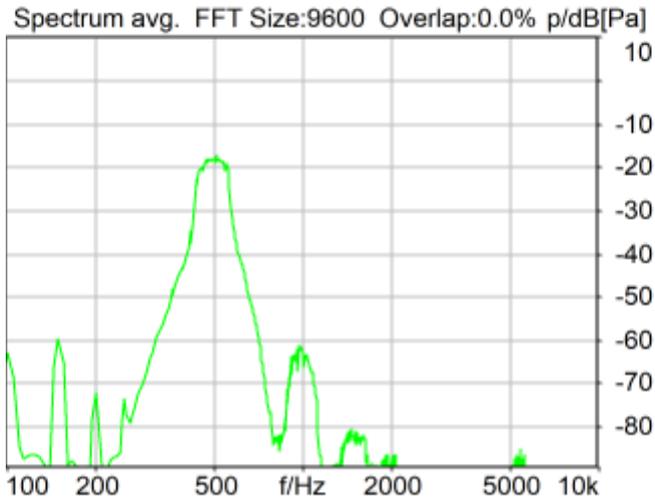
Distortion (Noise) RCV (packed): 27.28 dB (4.32%) Ok

Ok

25/02/09 22:46 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 500 Hz WB

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



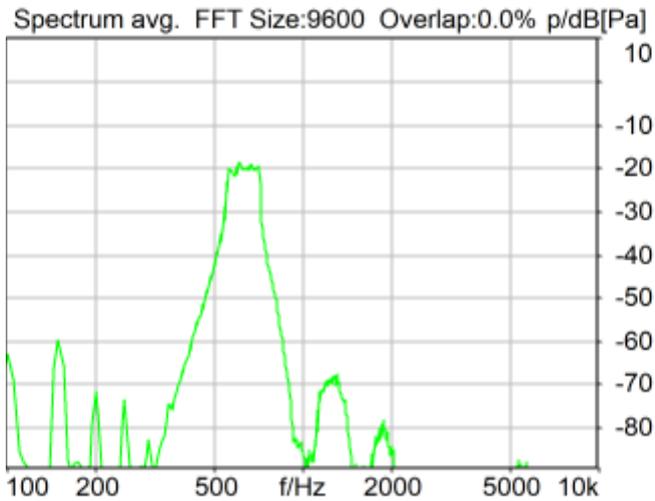
Distortion (Noise) RCV (packed): 27.73 dB (4.11%) Ok

**Ok**

25/02/09 22:47 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 630 Hz WB

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



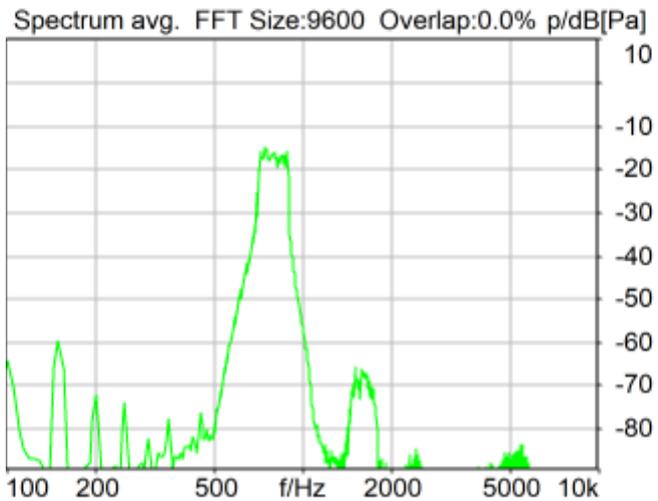
Distortion (Noise) RCV (packed): 26.89 dB (4.52%) Ok

Ok

25/02/09 22:47 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 800 Hz WB

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



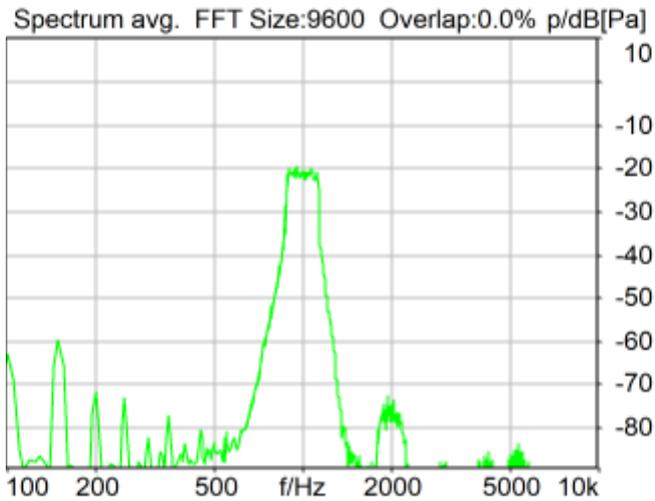
Distortion (Noise) RCV (packed): 30.90 dB (2.85%) Ok

Ok

25/02/09 22:48 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1000 Hz WB

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



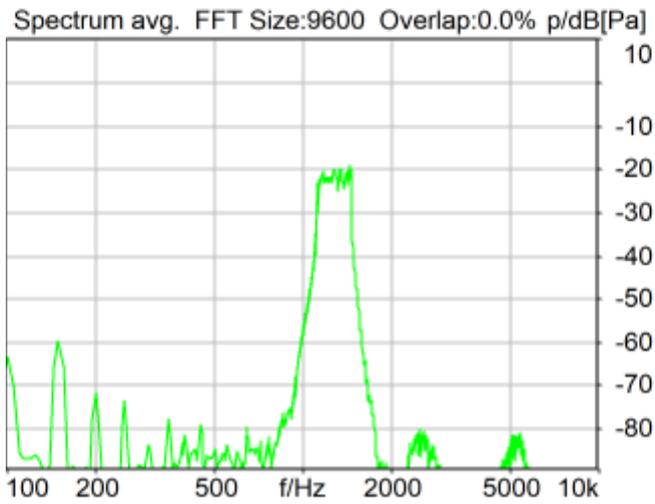
Distortion (Noise) RCV (packed): 27.50 dB (4.22%) Ok

**Ok**

25/02/09 22:48 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1250 Hz WB

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



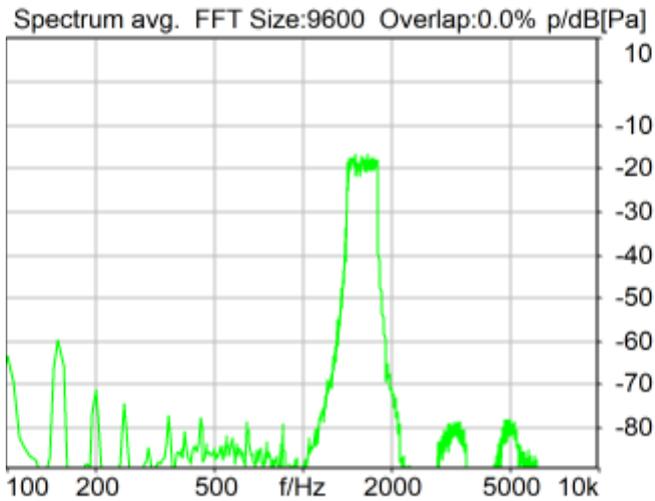
Distortion (Noise) RCV (packed): 21.10 dB (8.81%) Ok

**Ok**

25/02/09 22:48 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1600 Hz WB

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



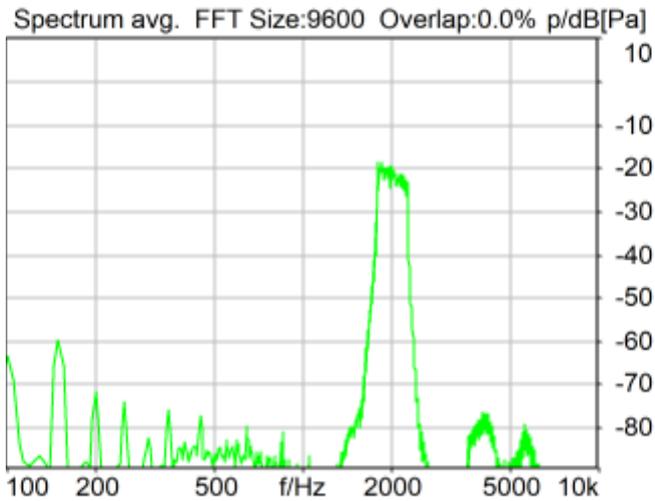
Distortion (Noise) RCV (packed): 35.72 dB (1.64%) Ok

**Ok**

25/02/09 22:49 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 2000 Hz WB

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



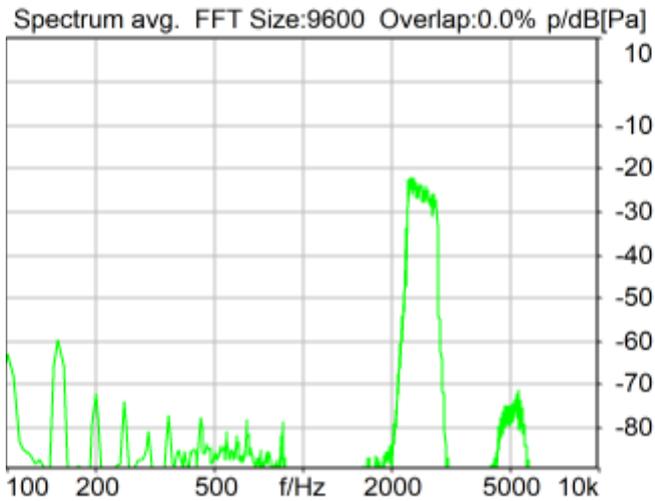
Distortion (Noise) RCV (packed): 31.30 dB (2.72%) Ok

**Ok**

25/02/09 22:49 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 2500 Hz WB

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



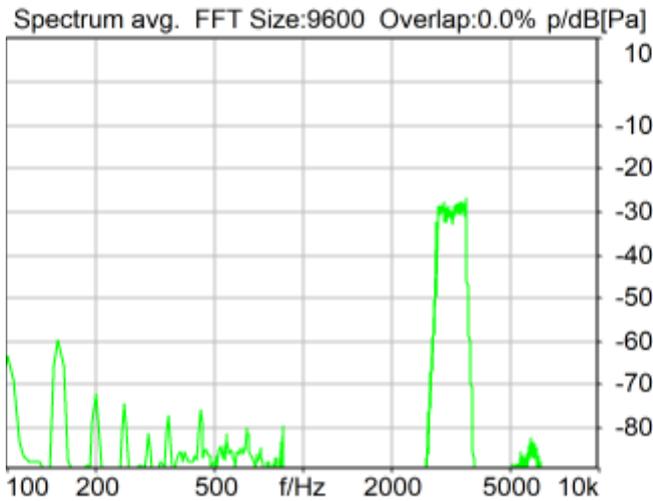
Distortion (Noise) RCV (packed): 34.13 dB (1.97%) Ok

Ok

25/02/09 22:50 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 3150 Hz WB

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



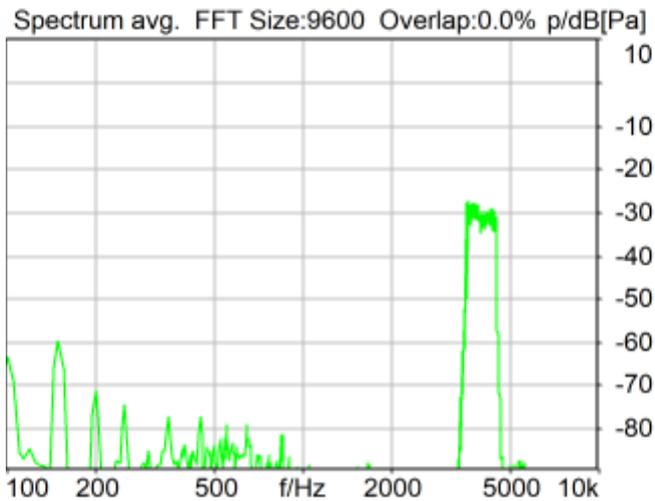
Distortion (Noise) RCV (packed): 32.84 dB (2.28%) Ok

Ok

25/02/09 22:50 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 4000 Hz WB

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



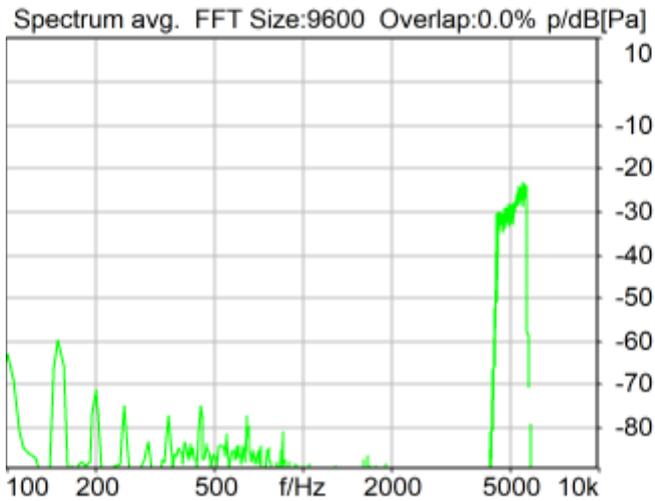
Distortion (Noise) RCV (packed): 35.72 dB (1.64%) Ok

**Ok**

25/02/09 22:51 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 38.16 dB (1.24%) Ok

**Ok**

25/02/09 22:51 ACQUA 5.1.200



**Report - Receive Distortion and Noise (Conversational Gain)**

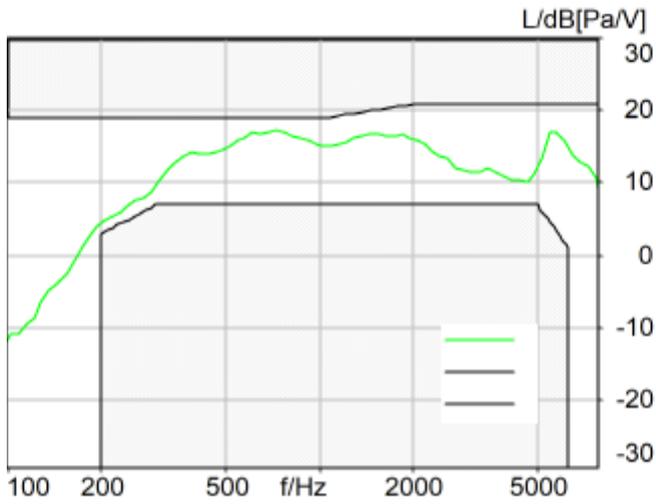
TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 2N

Region	Frequency	SDNR
1	250Hz	30.05 dB
2	315Hz	27.48 dB
3	400Hz	27.28 dB
4	500Hz	27.73 dB
5	630Hz	26.89 dB
6	800Hz	30.90 dB
7	1000Hz	27.50 dB
8	1250Hz	21.10 dB
9	1600Hz	35.72 dB
10	2000Hz	31.30 dB
11	2500Hz	34.13 dB
12	3150Hz	32.84 dB
13	4000Hz	35.72 dB
14	5000Hz	38.16 dB

All SDNRs were greater than 20.0 dB, requirement was met. Smallest SDNR was 21.10dB at 1250Hz.

### 5.3 Frequency Response 2N FF

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



Absolute minimal distance

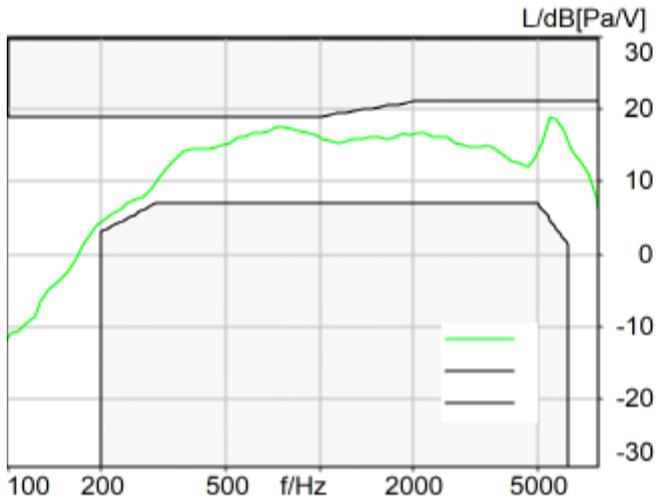
1.58 dB at 205.7 Hz Ok

Ok

25/02/09 22:52 ACQUA 5.1.200

### 5.3 Frequency Response 2N DF

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



Absolute minimal distance

1.52 dB at 776.5 Hz Ok

Ok

25/02/09 22:53 ACQUA 5.1.200

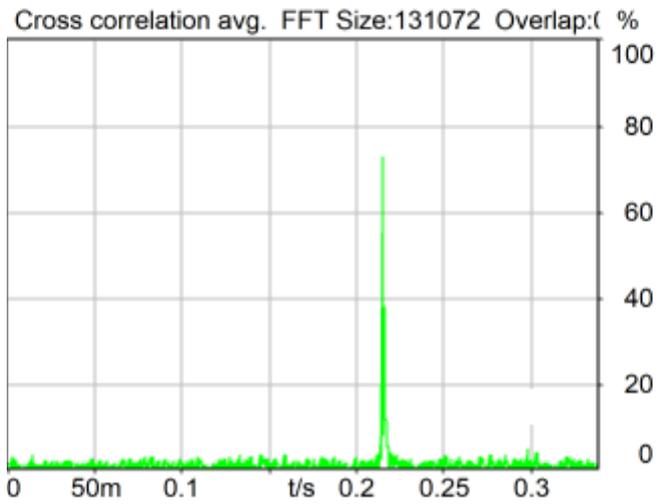


SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	215.5
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.93
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.27
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.98
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.27
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.87
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.59
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.41
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.04
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.14
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.39
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.42
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.37
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.22
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.66
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.61
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 1250Hz)	22.14
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 731.5 Hz	1.19
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 776.5 Hz	1.63



## Overall Receive Delay WB

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

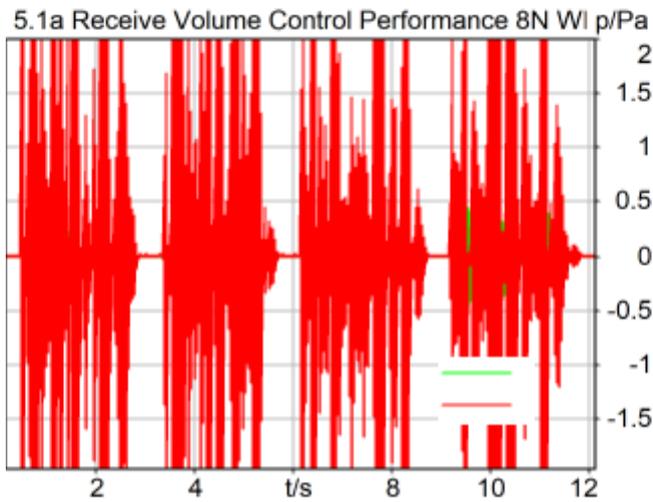


Delay (Cross): 215.5 ms

25/02/09 23:20 ACQUA 5.1.200

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

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



Speech Level RCV: 89.93 dB[SPL], Act.: 81.36% Ok

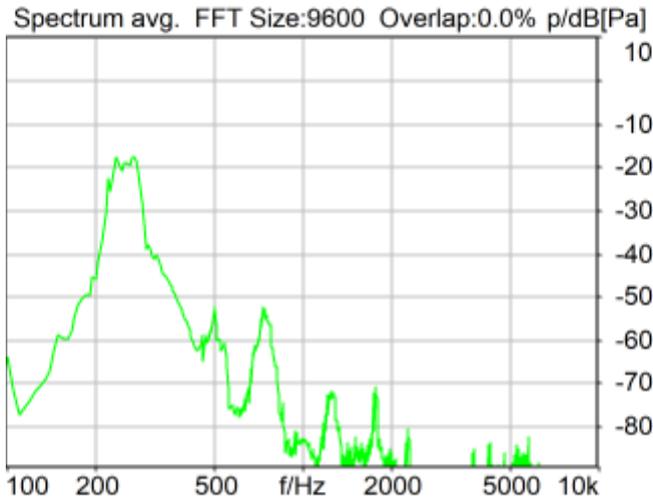
Ok

25/02/09 23:20 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 250 Hz WB

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



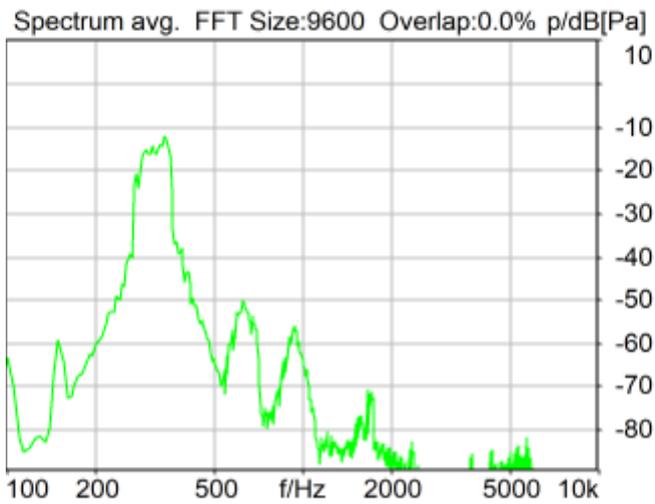
Distortion (Noise) RCV (packed): 29.27 dB (3.44%) Ok

Ok

25/02/09 23:21 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 315 Hz WB

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



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

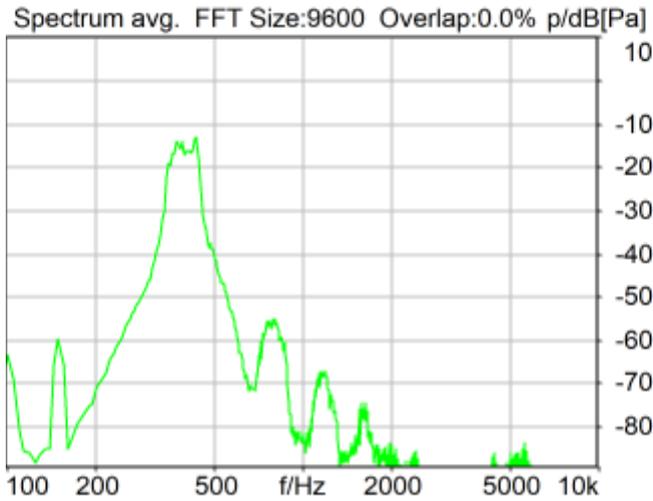
Ok

25/02/09 23:21 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 400 Hz WB

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



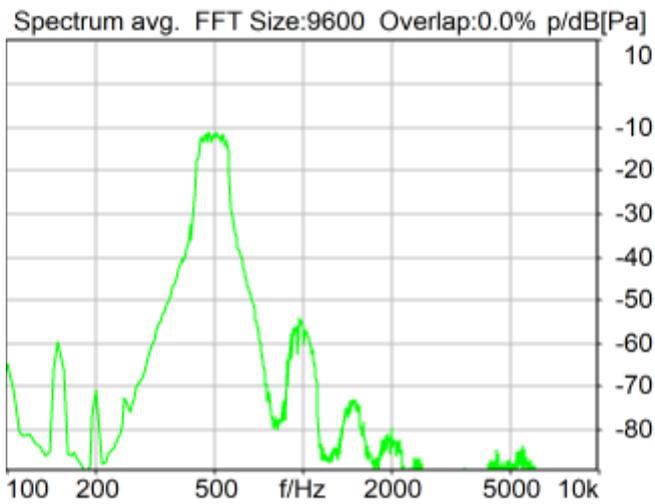
Distortion (Noise) RCV (packed): 30.27 dB (3.07%) Ok

**Ok**

25/02/09 23:22 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 500 Hz WB

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



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

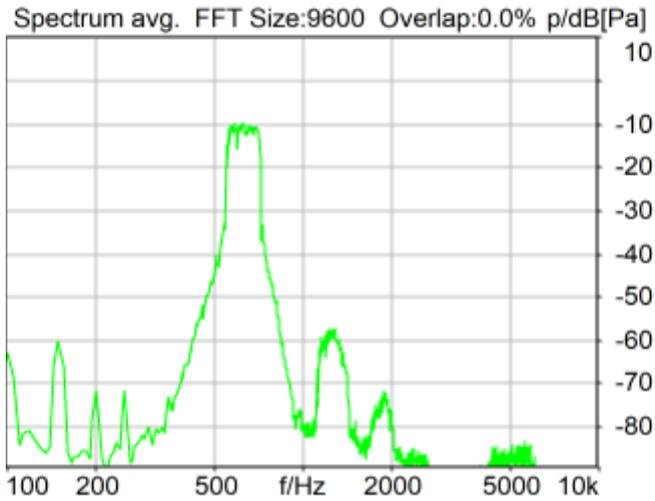
**Ok**

25/02/09 23:22 ACQUA 5.1.200



## 5.2 RCV Distortion and Noise - 630 Hz WB

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



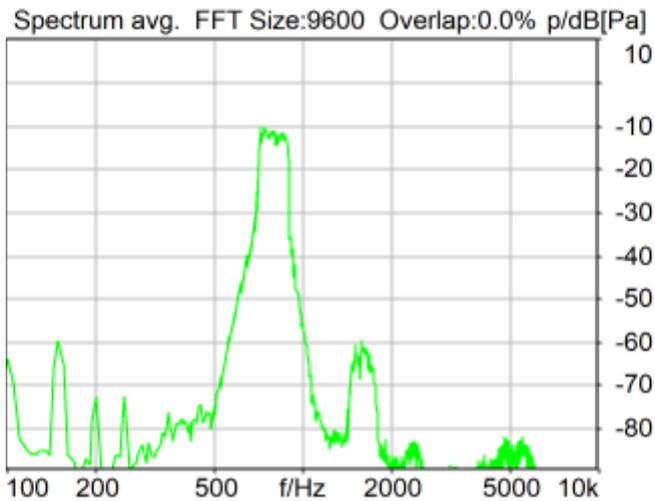
Distortion (Noise) RCV (packed): 36.59 dB (1.48%) Ok

**Ok**

25/02/09 23:23 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 800 Hz WB

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



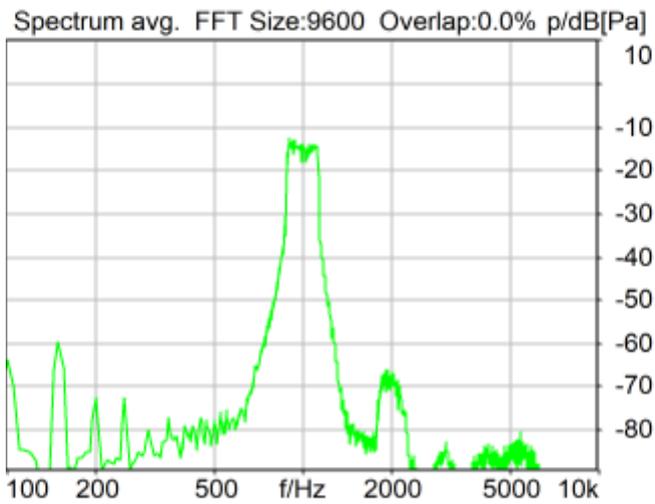
Distortion (Noise) RCV (packed): 34.41 dB (1.90%) Ok

**Ok**

25/02/09 23:23 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1000 Hz WB

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



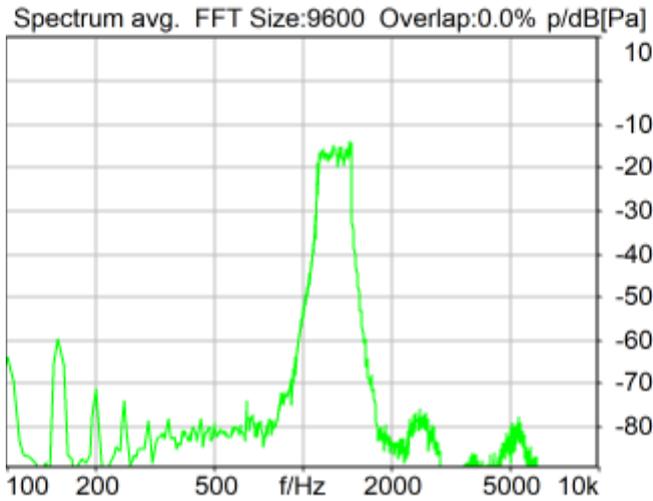
Distortion (Noise) RCV (packed): 33.04 dB (2.23%) Ok

Ok

25/02/09 23:23 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1250 Hz WB

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



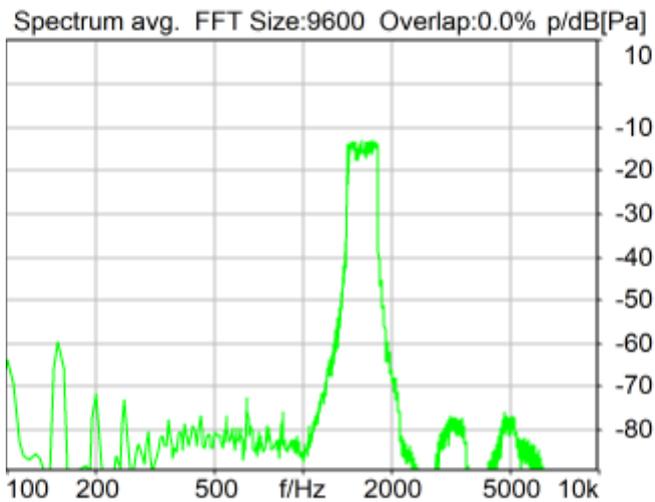
Distortion (Noise) RCV (packed): 22.14 dB (7.81%) Ok

**Ok**

25/02/09 23:24 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 1600 Hz WB

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



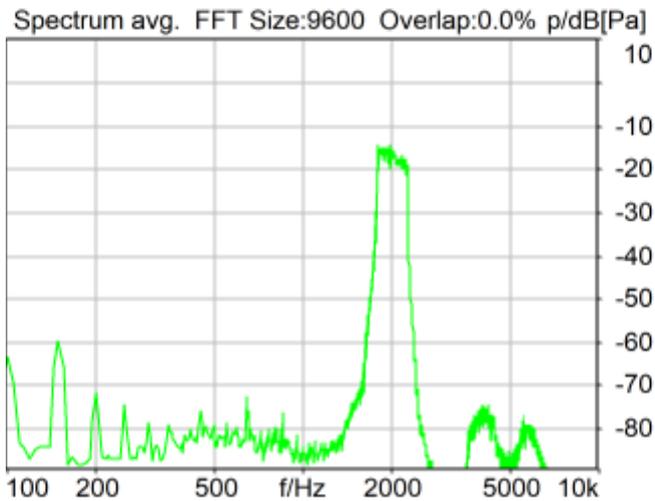
Distortion (Noise) RCV (packed): 38.39 dB (1.20%) Ok

Ok

25/02/09 23:24 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 2000 Hz WB

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



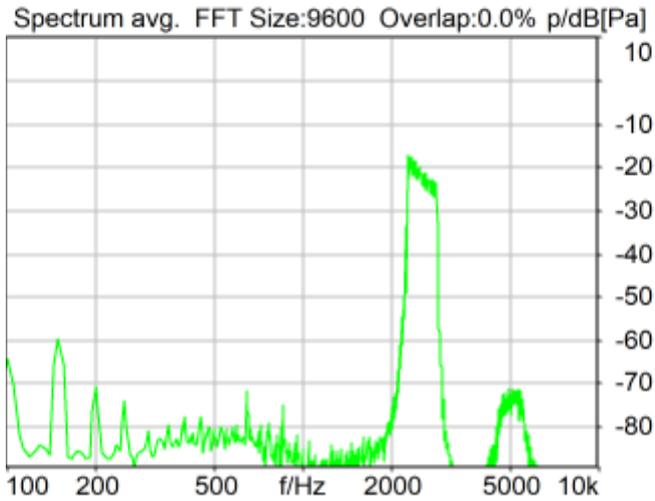
Distortion (Noise) RCV (packed): 33.42 dB (2.13%) Ok

Ok

25/02/09 23:25 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 2500 Hz WB

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



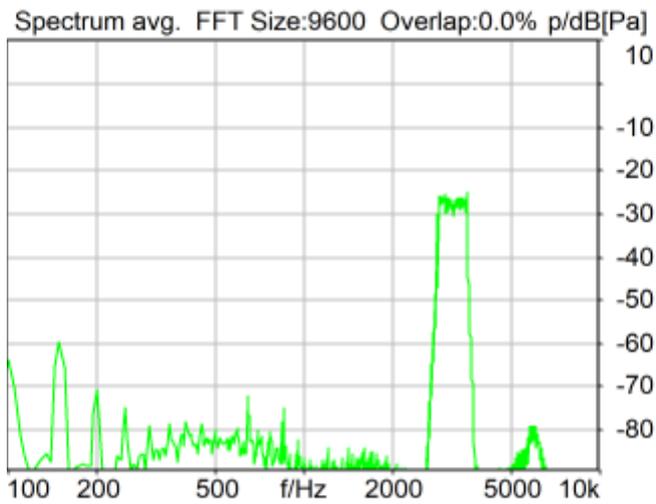
Distortion (Noise) RCV (packed): 39.37 dB (1.08%) Ok

Ok

25/02/09 23:25 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 3150 Hz WB

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



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

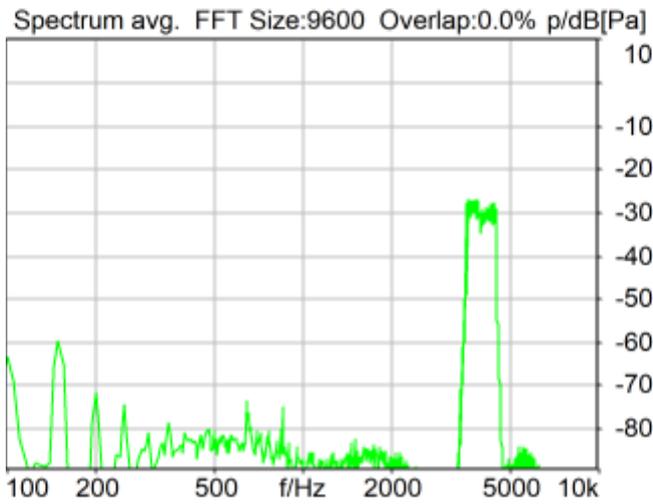
Ok

25/02/09 23:26 ACQUA 5.1.200



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

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



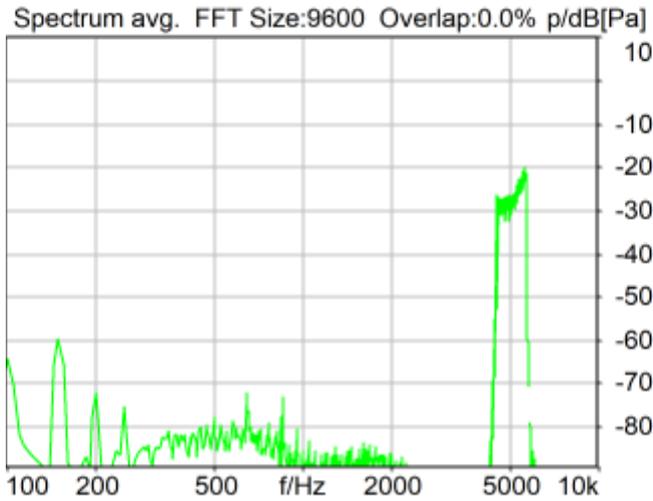
Distortion (Noise) RCV (packed): 34.66 dB (1.85%) Ok

**Ok**

25/02/09 23:26 ACQUA 5.1.200

## 5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 42.61 dB (0.74%) Ok

Ok

25/02/09 23:27 ACQUA 5.1.200



**Report - Receive Distortion and Noise (Conversational Gain)**

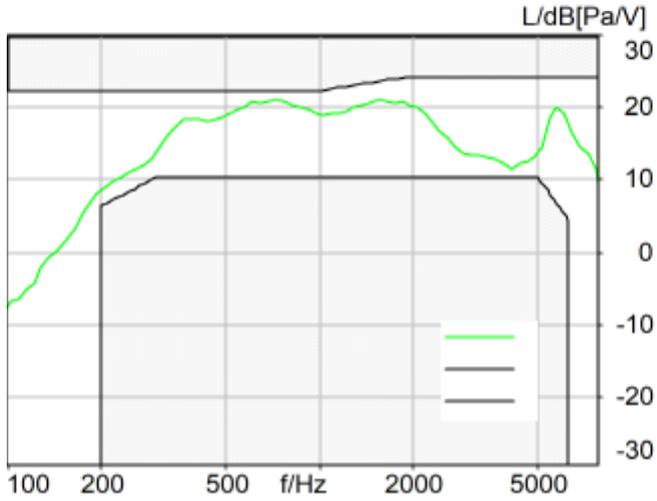
TIA-5050 (2018-01) \ Measurements \ Wideband \ 5.2 Receive Distortion and Noise 8N

Region	Frequency	SDNR
1	250Hz	29.27 dB
2	315Hz	33.98 dB
3	400Hz	30.27 dB
4	500Hz	31.87 dB
5	630Hz	36.59 dB
6	800Hz	34.41 dB
7	1000Hz	33.04 dB
8	1250Hz	22.14 dB
9	1600Hz	38.39 dB
10	2000Hz	33.42 dB
11	2500Hz	39.37 dB
12	3150Hz	33.22 dB
13	4000Hz	34.66 dB
14	5000Hz	42.61 dB

All SDNRs were greater than 20.0 dB, requirement was met. Smallest SDNR was 22.14dB at 1250Hz.

### 5.3 Frequency Response 8N FF

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



Absolute minimal distance

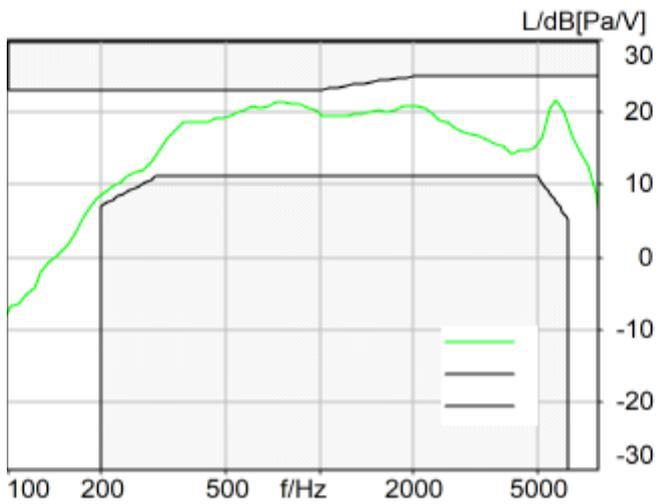
1.19 dB at 731.5 Hz Ok

**Ok**

25/02/09 23:30 ACQUA 5.1.200

### 5.3 Frequency Response 8N DF

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



Absolute minimal distance

1.63 dB at 776.5 Hz Ok

**Ok**

25/02/09 23:31 ACQUA 5.1.200



**Appendix A. Volume Control Evaluation Results**

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



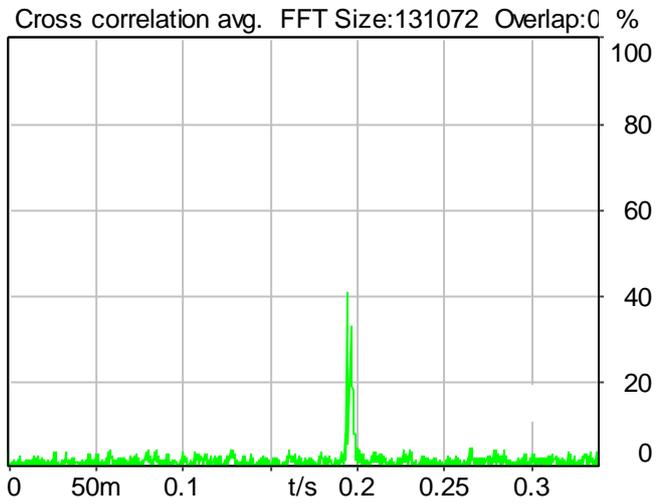
**#4 GSM1900 AMR WB 6.60kbps**

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	195.7
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.14



## Overall Receive Delay WB

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

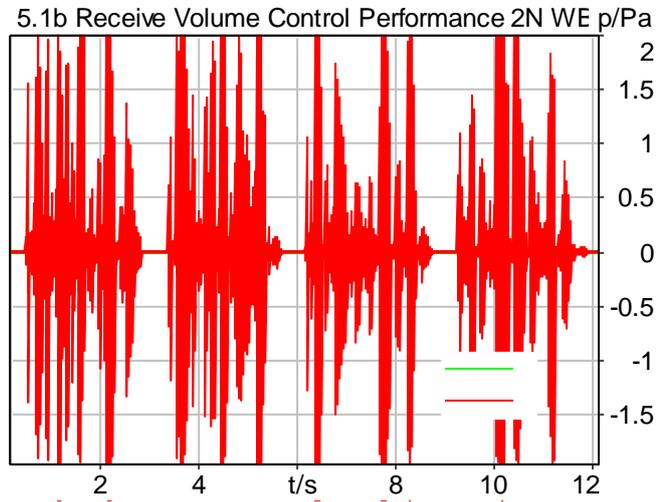


Delay (Cross): 195.7 ms

25/02/13 2:59 ACQUA 5.1.200

## 5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 85.14 dB[SPL], Act.: 80.55% Ok

Ok

25/02/13 3:00 ACQUA 5.1.200



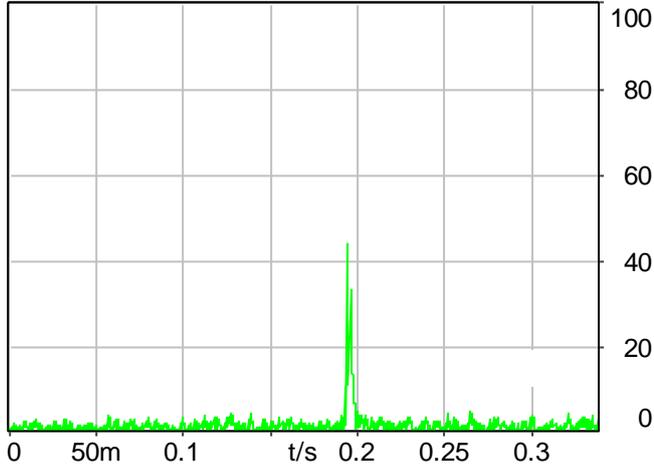
SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	195.3
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.19



### Overall Receive Delay WB

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

Cross correlation avg. FFT Size:131072 Overlap:0 %

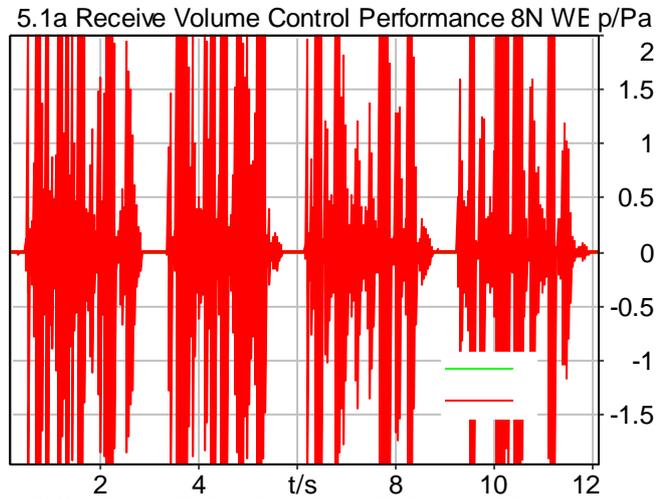


Delay (Cross): 195.3 ms

25/02/13 3:14 ACQUA 5.1.200

## 5.1a Receive Volume Control Performance 8N WB

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



Speech Level RCV: 89.19 dB[SPL], Act.: 80.55% Ok

Ok

25/02/13 3:15 ACQUA 5.1.200



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

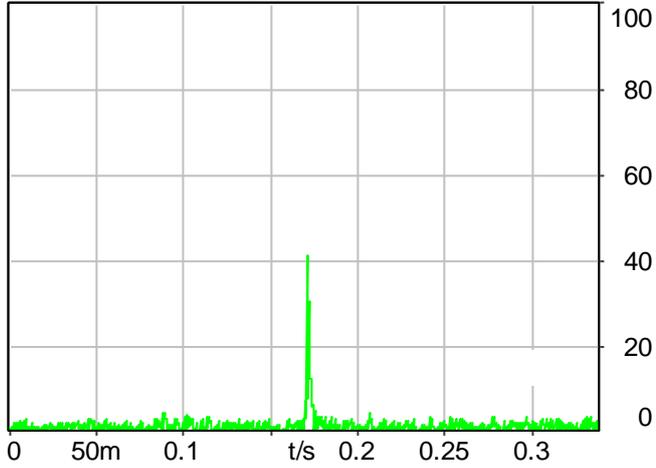
SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	171.7
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.13



### Overall Receive Delay WB

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

Cross correlation avg. FFT Size:131072 Overlap:0 %

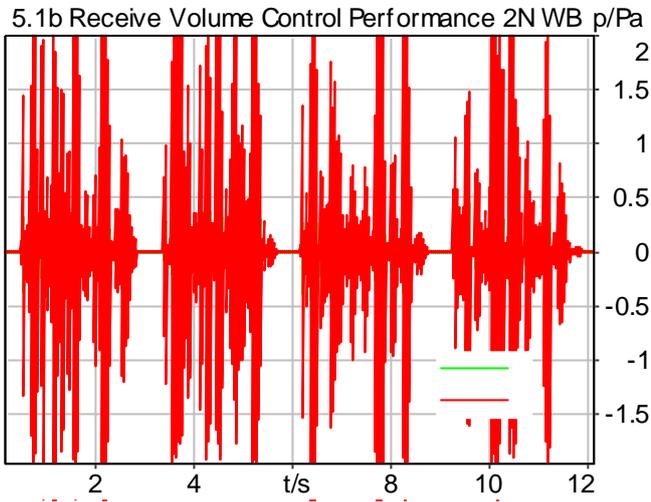


Delay (Cross): 171.7 ms

25/02/13 4:03 ACQUA 5.1.200

### 5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 85.13 dB[SPL], Act.: 80.48% Ok

Ok

25/02/13 4:03 ACQUA 5.1.200



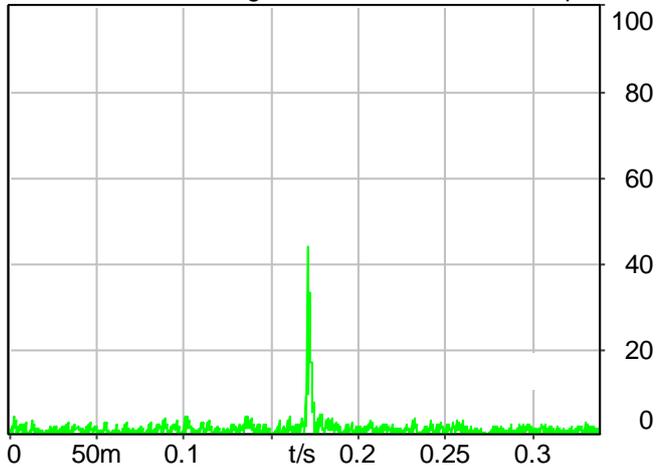
SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	171.7
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.39



### Overall Receive Delay WB

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

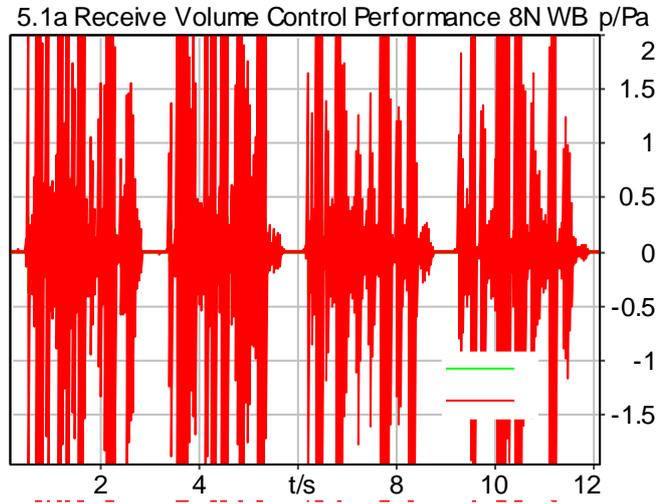
Cross correlation avg. FFT Size:131072 Overlap:0 %



Delay (Cross): 171.7 ms

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

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



Speech Level RCV: 89.39 dB[SPL], Act.: 80.72% Ok

Ok

25/02/13 4:28 ACQUA 5.1.200



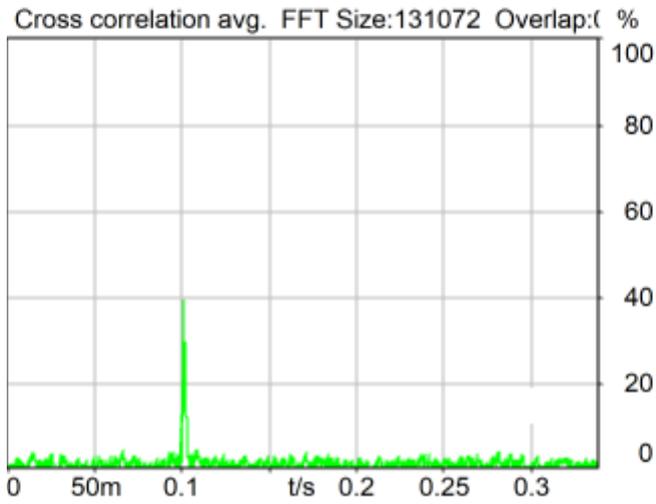
**#6 LTE Band 41 AMR WB 6.60kbps**

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	101.3
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	84.83



## Overall Receive Delay WB

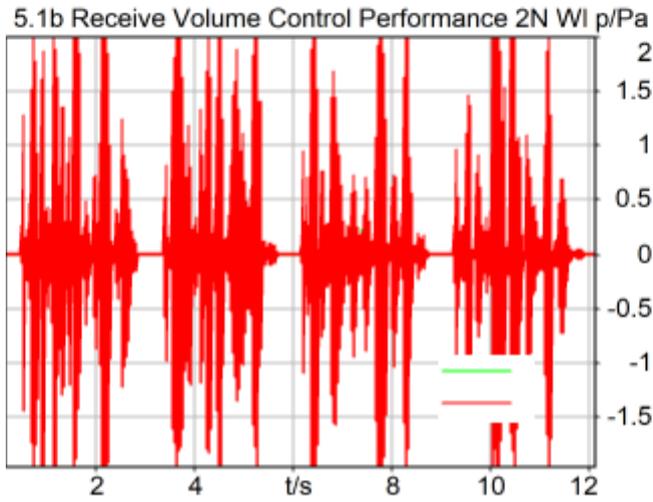
TIA-5050 (2018-01) \ Measurements \ Wideband \ Preparation - Delay measurement



Delay (Cross): 101.3 ms

### 5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 84.83 dB[SPL], Act.: 80.40% Ok

Ok

25/02/12 20:01 ACQUA 5.1.200



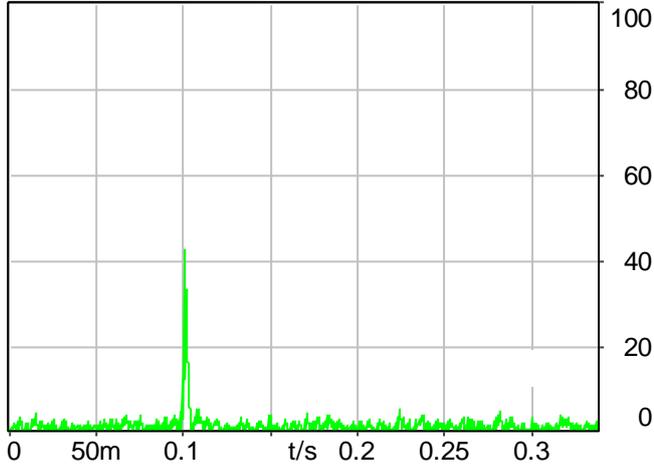
SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	101.5
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	88.88



### Overall Receive Delay WB

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

Cross correlation avg. FFT Size:131072 Overlap:0 %



Delay (Cross): 101.5 ms

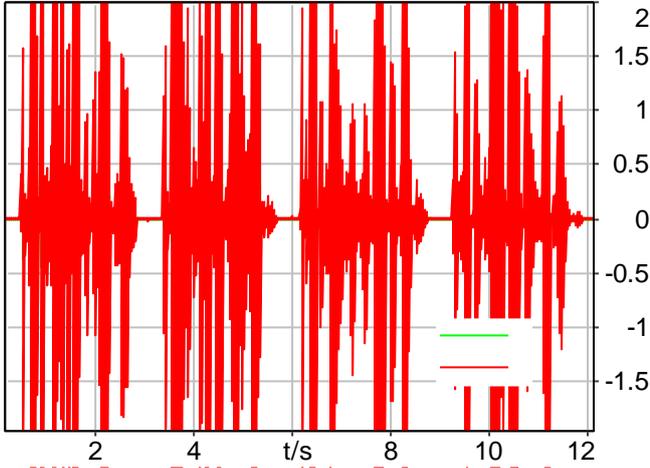
25/02/12 20:04 ACQUA 5.1.200



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

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

5.1a Receive Volume Control Performance 8N WE p/Pa



Speech Level RCV: 88.88 dB[SPL], Act.: 80.49% Ok

Ok

25/02/12 20:05 ACQUA 5.1.200



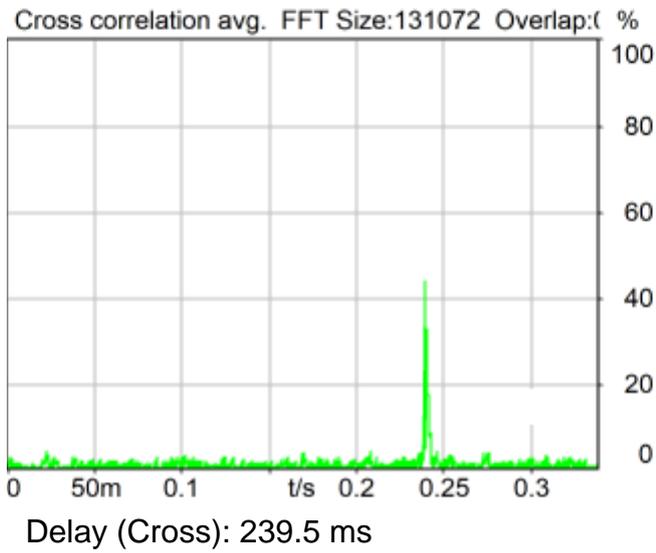
**#7 FR1 n66 EVS WB 5.9kbps**

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	239.5
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	84.35



## Overall Receive Delay WB

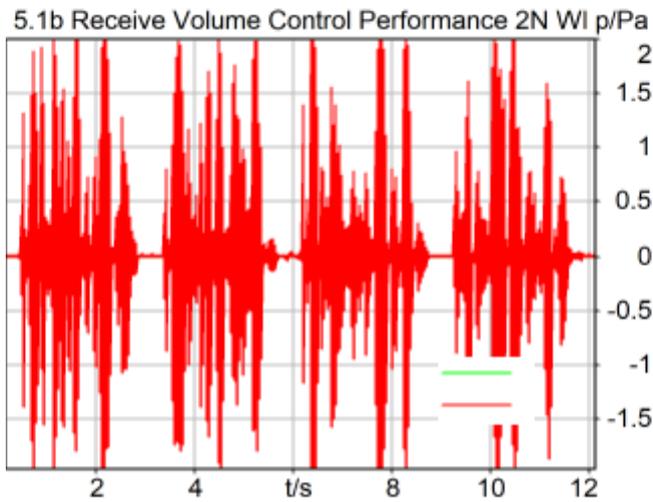
TIA-5050 (2018-01) \ Measurements \ Wideband \ Preparation - Delay measurement



25/02/11 20:11 ACQUA 5.1.200

### 5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 84.35 dB[SPL], Act.: 80.73% Ok

Ok

25/02/11 20:12 ACQUA 5.1.200

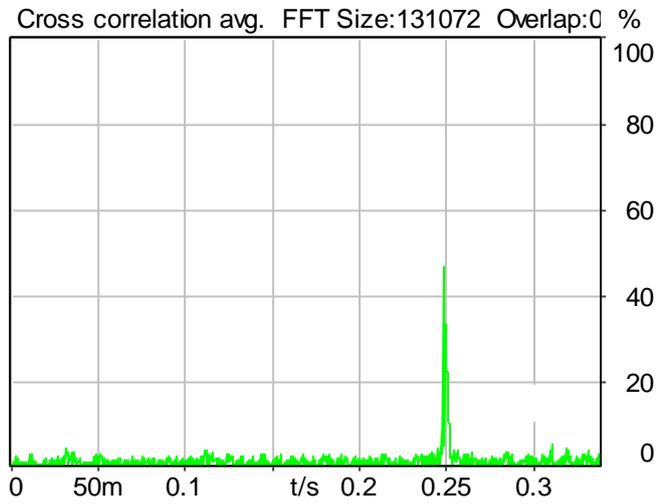


SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	249.1
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	88.69



## Overall Receive Delay WB

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

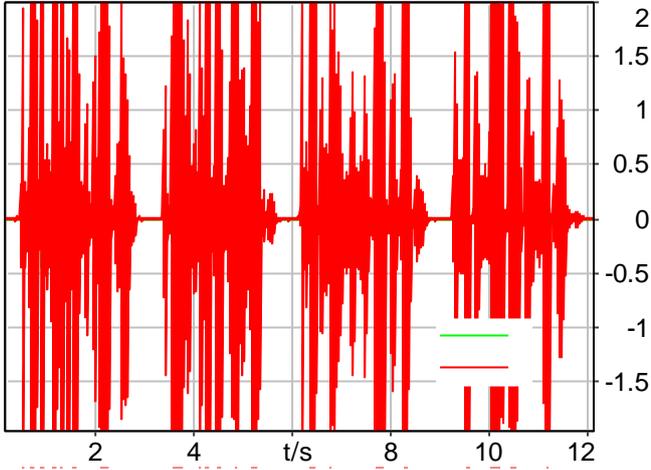


Delay (Cross): 249.1 ms

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

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

5.1a Receive Volume Control Performance 8N WE p/Pa



Speech Level RCV: 88.69 dB[SPL], Act.: 80.78% Ok

Ok

25/02/11 20:16 ACQUA 5.1.200



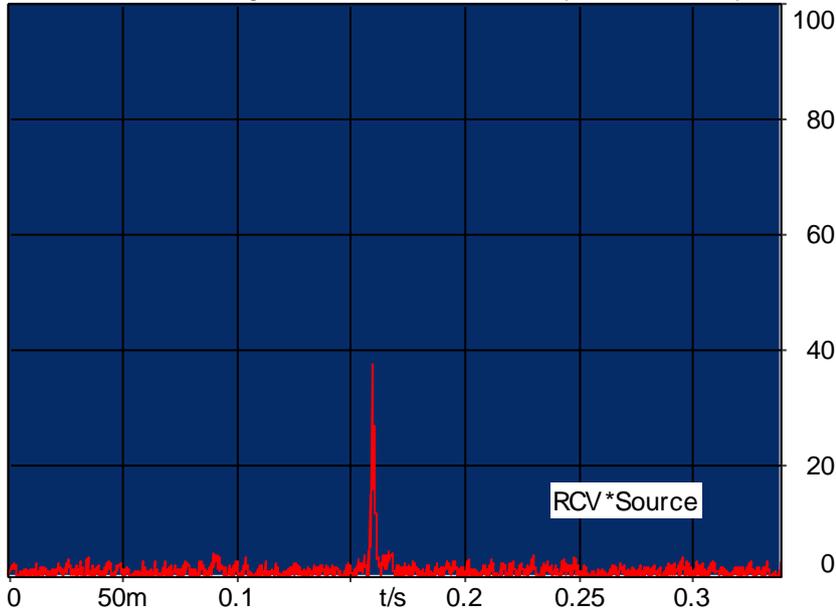
**#8 WiFi 6GHz AMR WB 6.60kbps**

SMD	Status	Single Value Description	Single Value
Overall Receive Delay WB	Done	Delay (Cross) [ms]	159.8
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	89.74
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	84.60

**Overall Receive Delay WB**

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

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

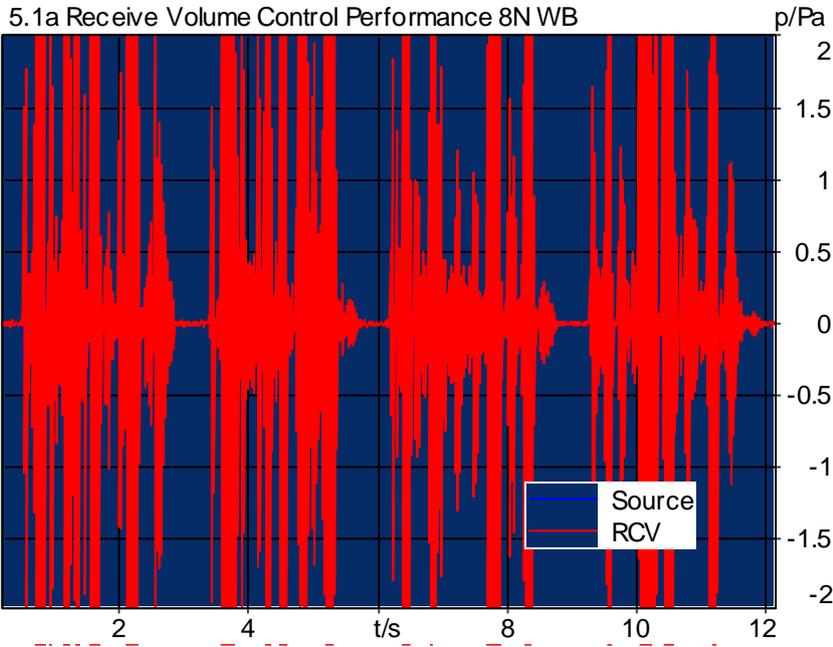


Channel	Delay	Correlation
RCV*Source	159.8 ms	37.65 %

2025-02-07 下午 09:56 ACQUA 6.1.100

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

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



Channel	Speech level	Activity	
RCV	89.74 dB[SPL]	80.16%	Ok

Ok

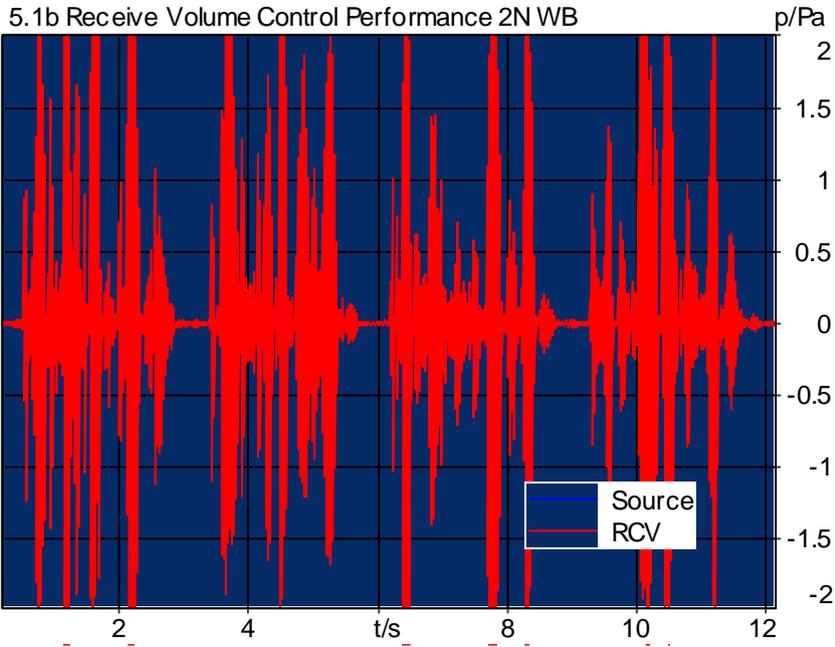
2025-02-07 下午 09:58 ACQUA 6.1.100

Limits

lower
76.00 dB[SPL]

### 5.1b Receive Volume Control Performance 2N WB

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



Channel	Speech level	Activity	
RCV	84.60 dB[SPL]	80.37%	Ok

Ok

2025-02-07 下午 09:57 ACQUA 6.1.100

Limits

lower
76.00 dB[SPL]