

Measurement Protocol

Measurement Object	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
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Project	460505-02
Report Generation Date	24/10/11 18:45
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	148.4	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.65	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.24	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.06	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.89	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.87	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.56	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.33	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.67	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.09	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.09	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.38	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.78	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.58	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.59	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.81	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	21.09	LTE Band

ACQUA Report

Title: LTE Band

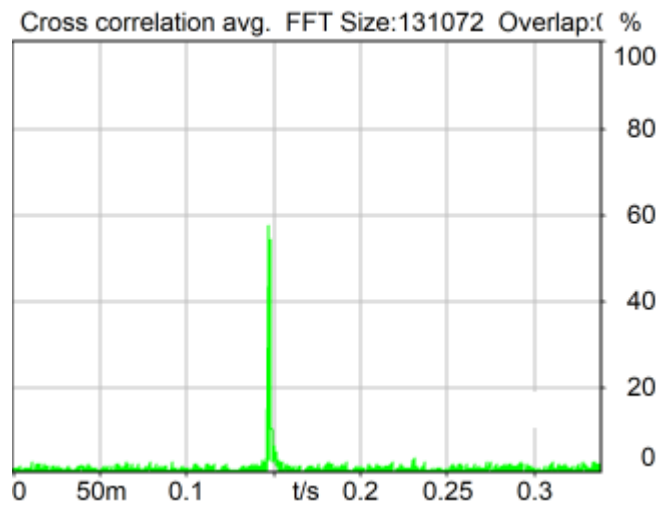
41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N

and Noise (Conversational Gain)		, (occured at 1250Hz)		41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 649.1 Hz	1.13	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.30	LTE Band 41_20M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch40620_2N

Overall Receive Delay WB	6
5.1b Receive Volume Control Performance 2N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 2N FF	23
5.3 Frequency Response 2N DF	24

Overall Receive Delay WB

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

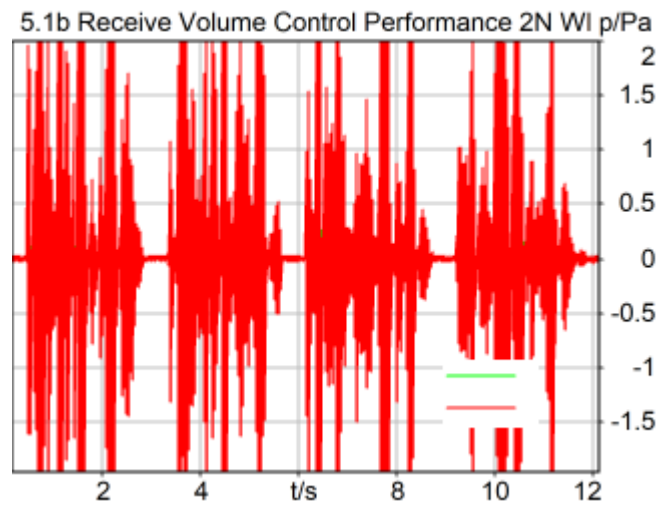


Delay (Cross): 148.4 ms

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5.1b Receive Volume Control Performance 2N WB

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



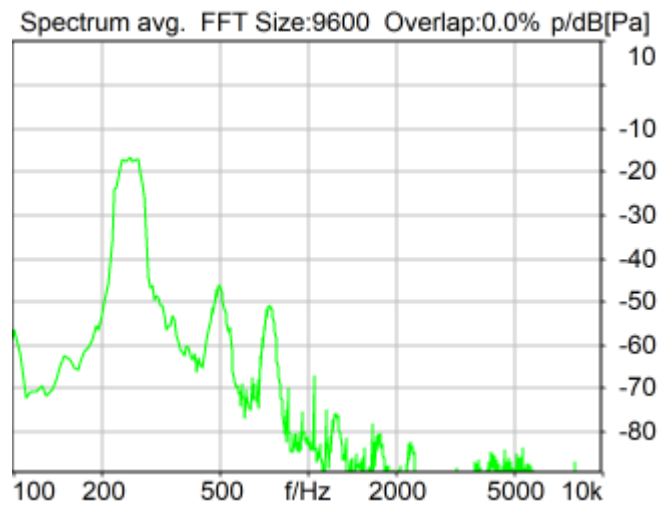
Speech Level RCV: 86.65 dB[SPL], Act.: 83.85% Ok

Ok

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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



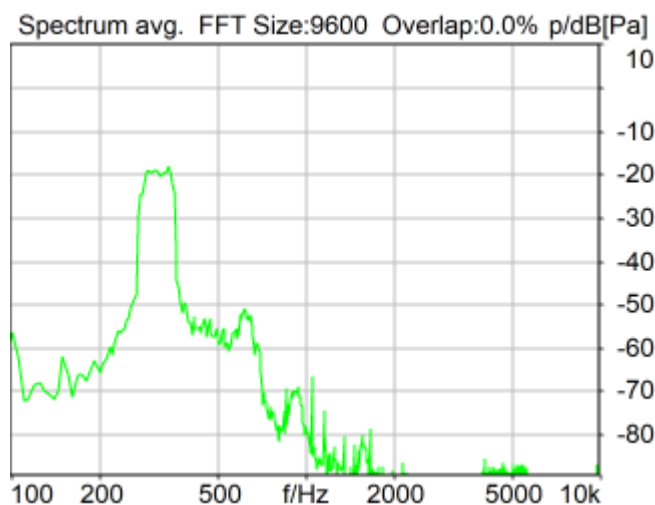
Distortion (Noise) RCV (packed): 30.24 dB (3.08%) Ok

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



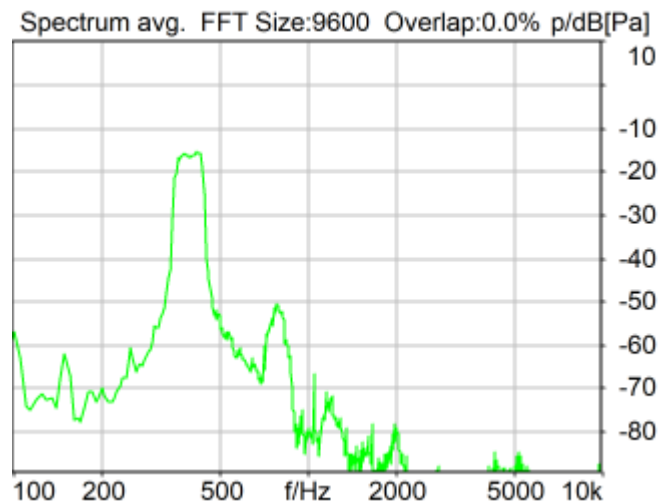
Distortion (Noise) RCV (packed): 32.06 dB (2.50%) Ok

Ok

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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



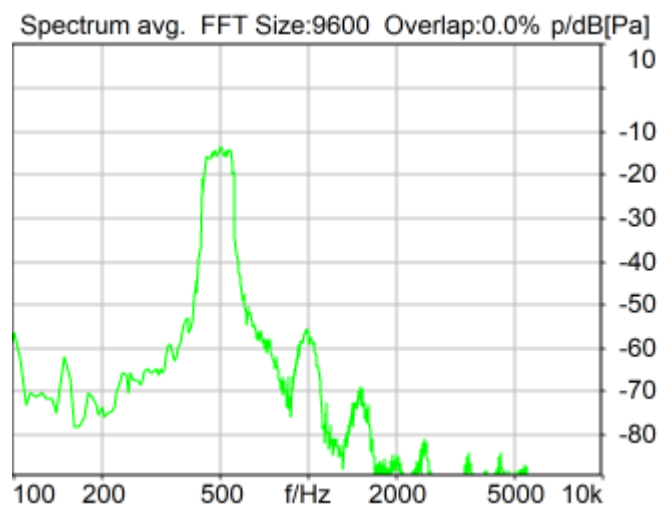
Distortion (Noise) RCV (packed): 34.89 dB (1.80%) Ok

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



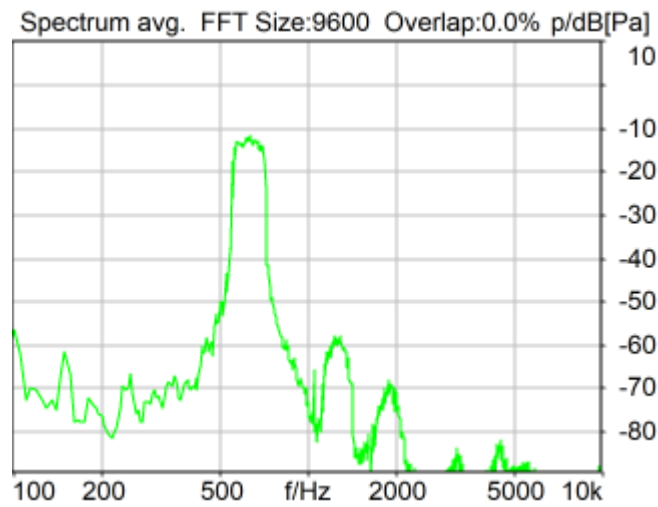
Distortion (Noise) RCV (packed): 36.87 dB (1.43%) Ok

Ok

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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



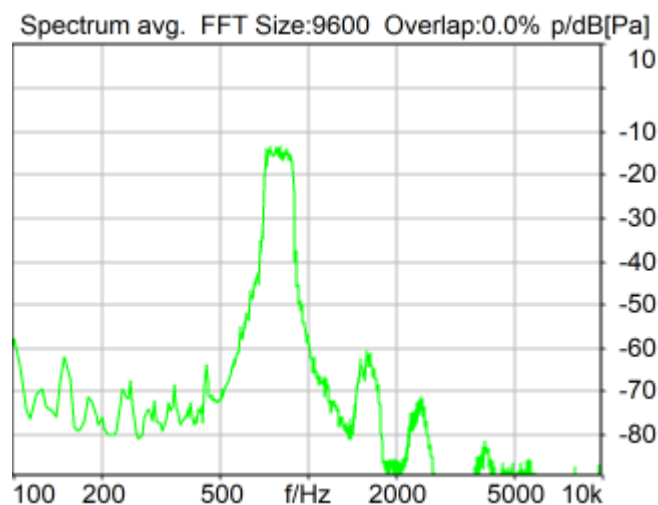
Distortion (Noise) RCV (packed): 39.56 dB (1.05%) Ok

Ok

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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



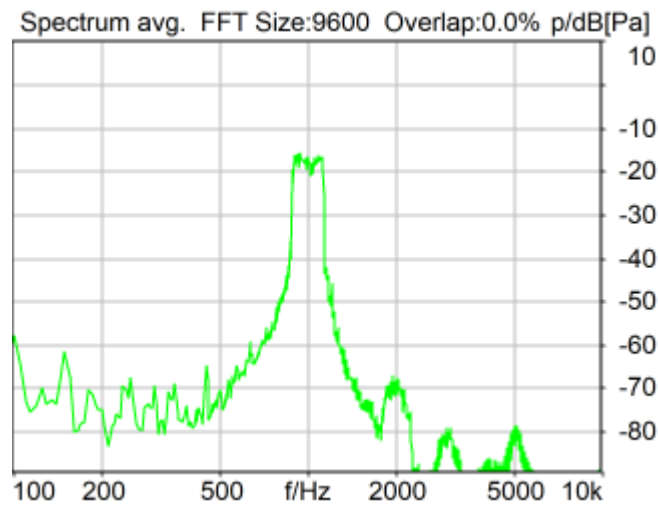
Distortion (Noise) RCV (packed): 36.33 dB (1.53%) Ok

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 2N



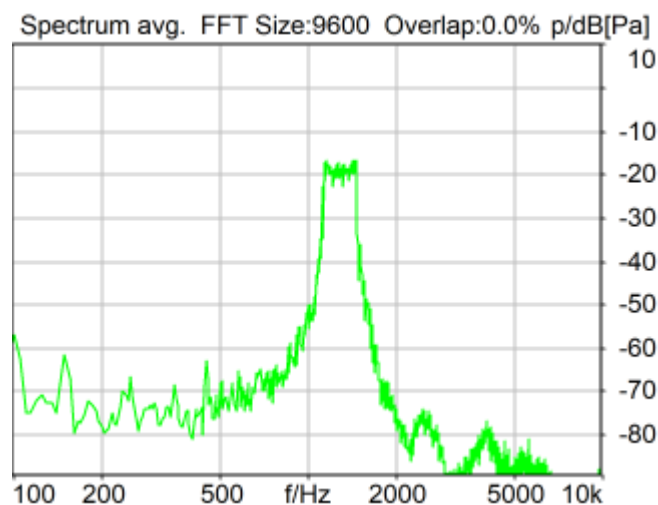
Distortion (Noise) RCV (packed): 32.67 dB (2.32%) Ok

Ok

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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



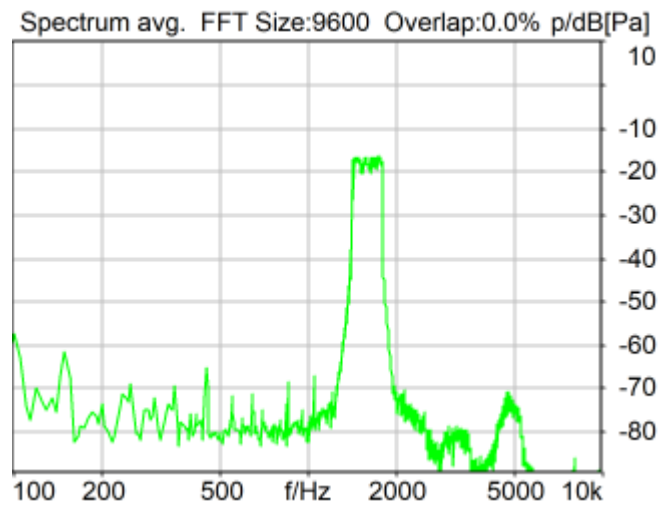
Distortion (Noise) RCV (packed): 21.09 dB (8.82%) Ok

Ok

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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



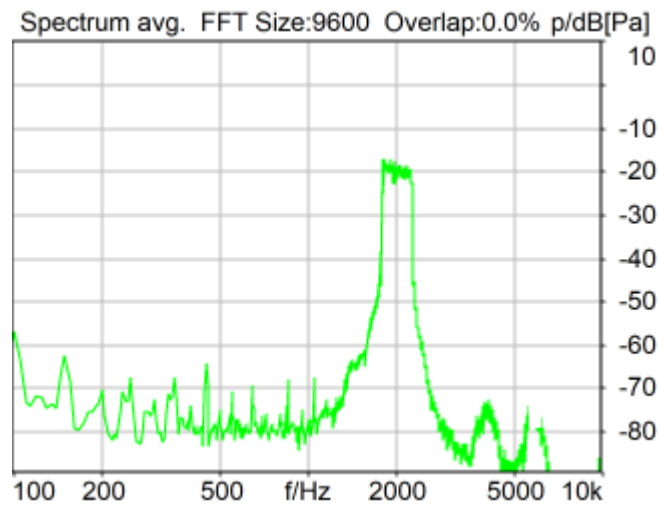
Distortion (Noise) RCV (packed): 39.09 dB (1.11%) Ok

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



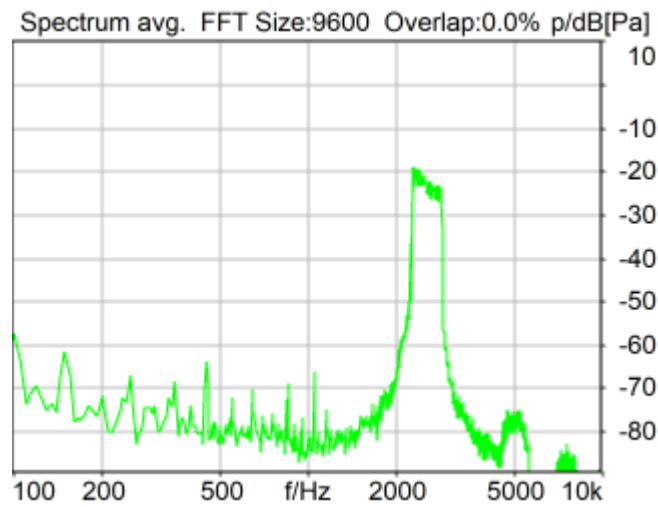
Distortion (Noise) RCV (packed): 33.38 dB (2.14%) Ok

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



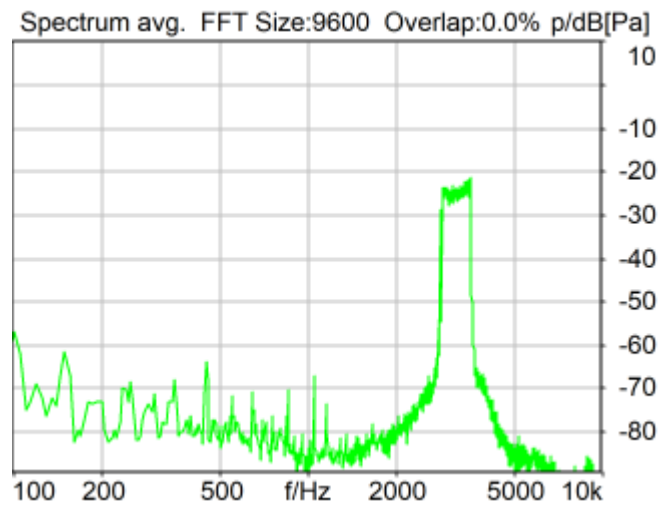
Distortion (Noise) RCV (packed): 35.78 dB (1.62%) Ok

Ok

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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



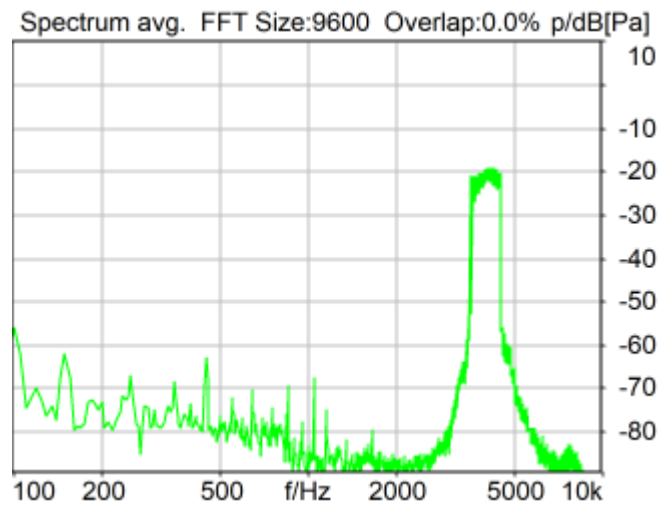
Distortion (Noise) RCV (packed): 38.58 dB (1.18%) Ok

Ok

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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



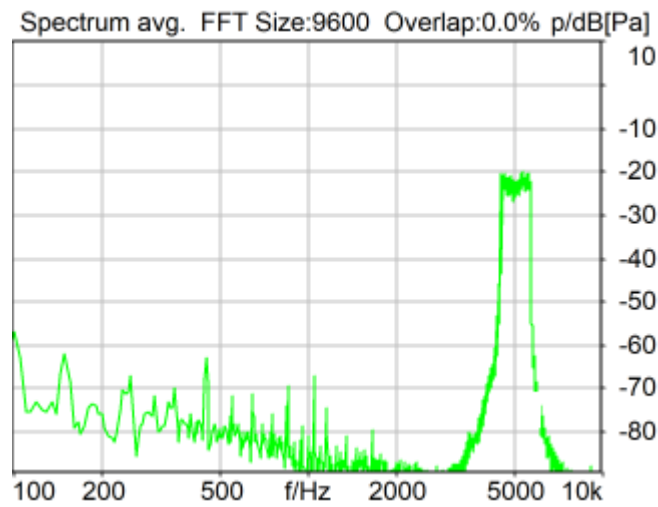
Distortion (Noise) RCV (packed): 39.59 dB (1.05%) Ok

Ok

24/10/11 18:43 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): 37.81 dB (1.29%) Ok

Ok

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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	30.24 dB
2	315Hz	32.06 dB
3	400Hz	34.89 dB
4	500Hz	36.87 dB
5	630Hz	39.56 dB
6	800Hz	36.33 dB
7	1000Hz	32.67 dB
8	1250Hz	21.09 dB
9	1600Hz	39.09 dB
10	2000Hz	33.38 dB
11	2500Hz	35.78 dB
12	3150Hz	38.58 dB
13	4000Hz	39.59 dB
14	5000Hz	37.81 dB

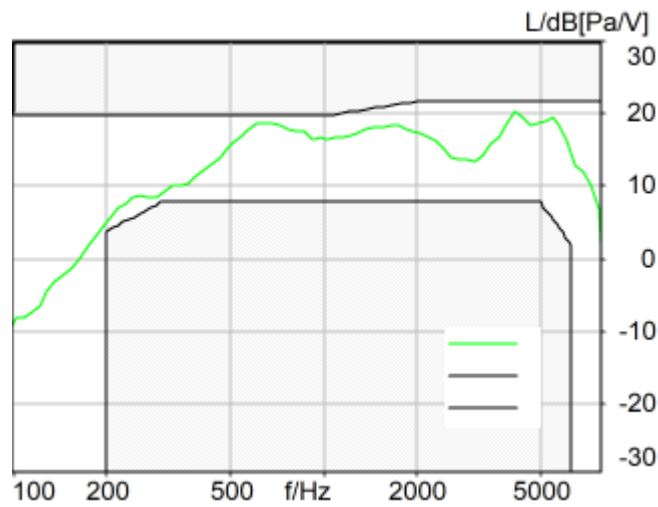
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.09dB at 1250Hz.

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5.3 Frequency Response 2N FF

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



Absolute minimal distance

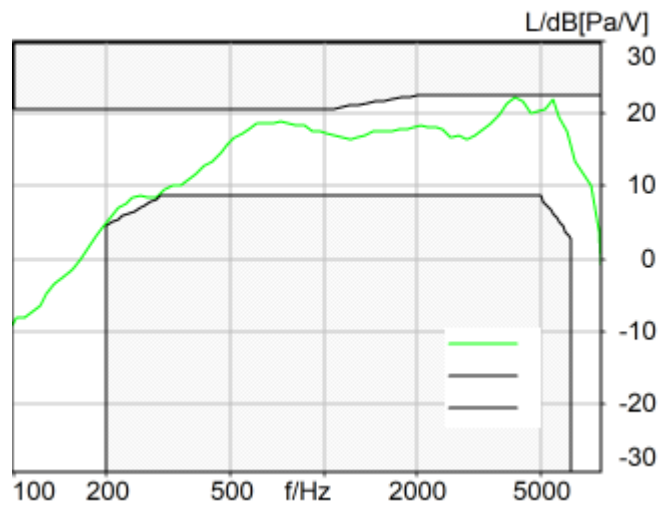
1.13 dB at 649.1 Hz Ok

Ok

24/10/11 18:44 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.30 dB at 4119.5 Hz Ok

Ok

24/10/11 18:44 ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n77 27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
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Project	460505-02
Report Generation Date	24/10/10 16:35
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	291.0	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.64	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.37	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.04	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.06	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.04	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.31	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.84	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.99	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.81	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.42	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.56	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.71	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.32	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.45	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.12	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	20.81	FR1 n77

ACQUA Report

Title: FR1 n77

27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N

and Noise (Conversational Gain)		, (occured at 1250Hz)		27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 649.1 Hz	1.02	FR1 n77 27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.37	FR1 n77 27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N

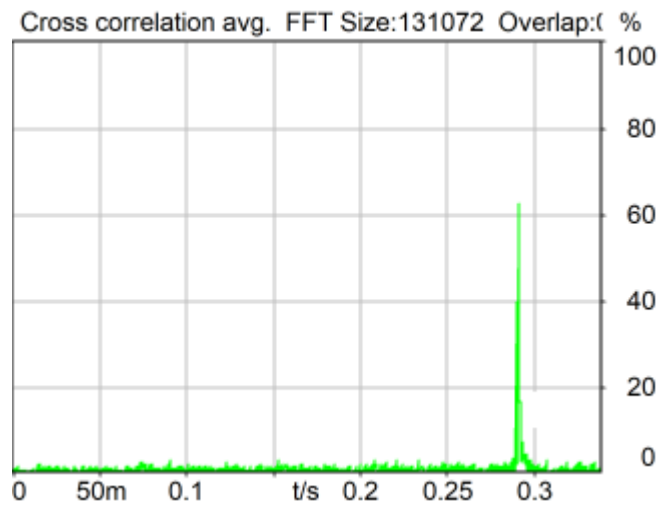
ACQUA Report
27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_2N

Title: FR1 n77

Overall Receive Delay WB	6
5.1b Receive Volume Control Performance 2N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 2N FF	23
5.3 Frequency Response 2N DF	24

Overall Receive Delay WB

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

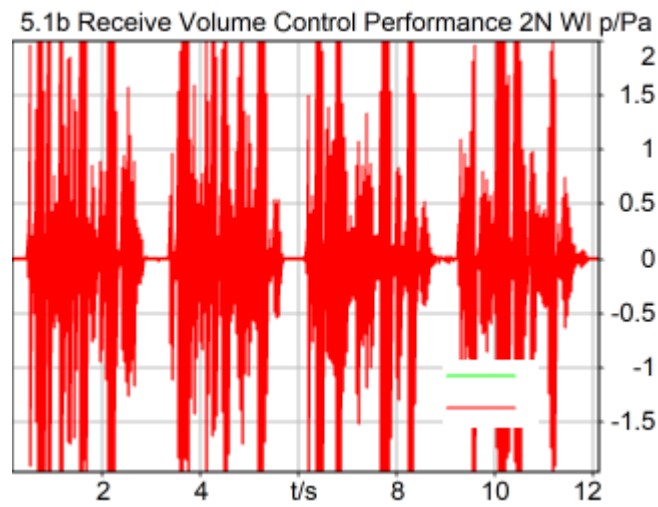


Delay (Cross): 291.0 ms

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5.1b Receive Volume Control Performance 2N WB

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



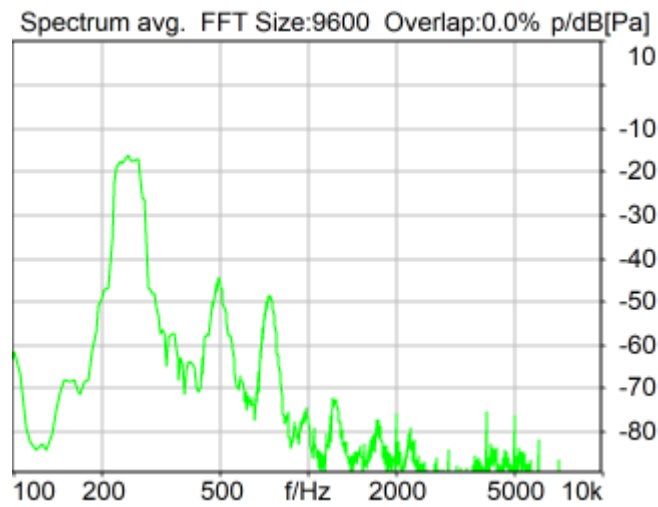
Speech Level RCV: 86.64 dB[SPL], Act.: 84.02% Ok

Ok

24/10/10 16:27 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



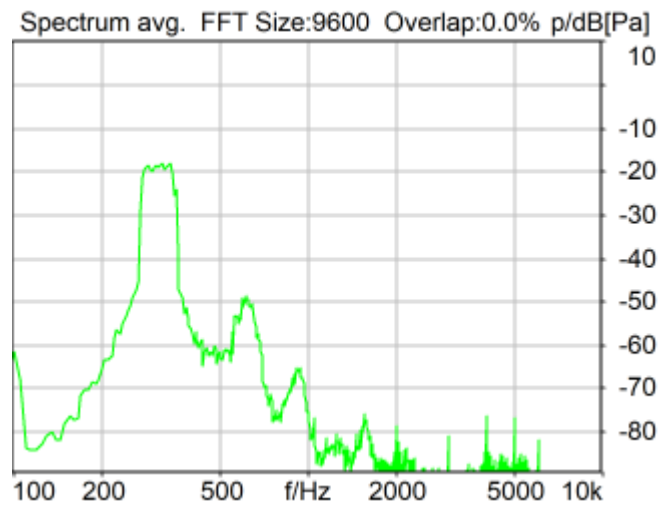
Distortion (Noise) RCV (packed): 29.37 dB (3.40%) Ok

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



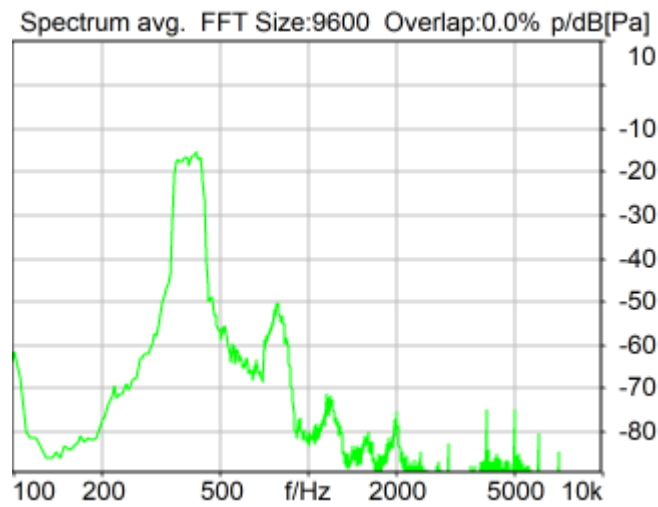
Distortion (Noise) RCV (packed): 32.04 dB (2.50%) Ok

Ok

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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



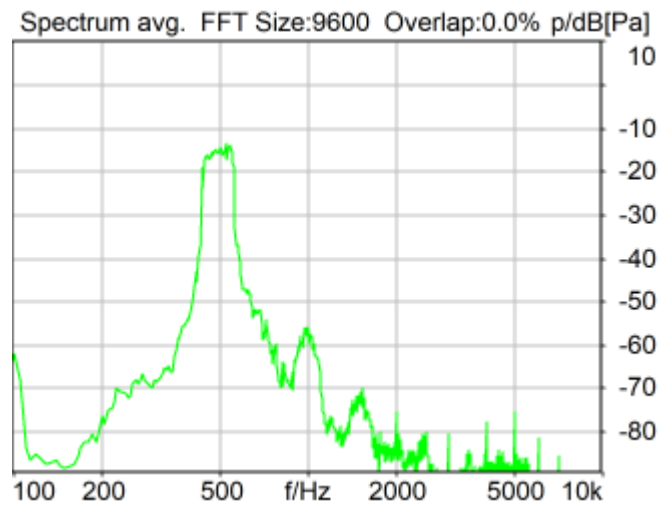
Distortion (Noise) RCV (packed): 35.06 dB (1.77%) Ok

Ok

24/10/10 16:28 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



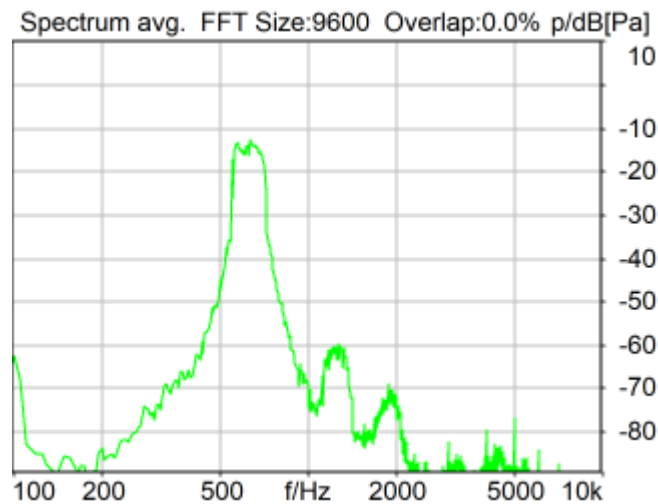
Distortion (Noise) RCV (packed): 35.04 dB (1.77%) Ok

Ok

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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



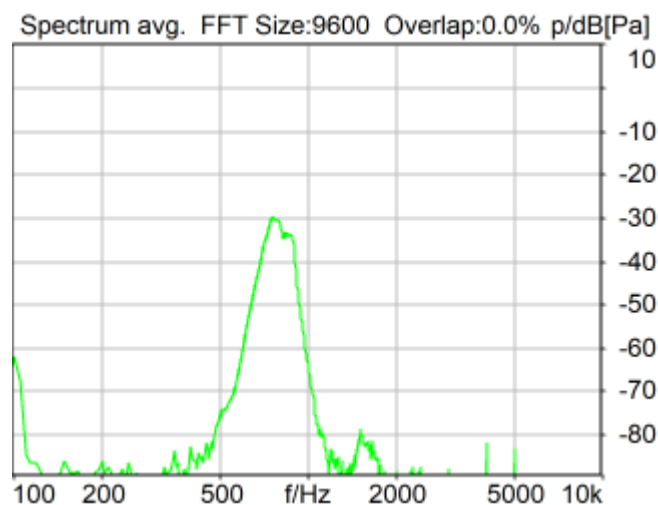
Distortion (Noise) RCV (packed): 33.31 dB (2.16%) Ok

Ok

24/10/10 16:29 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



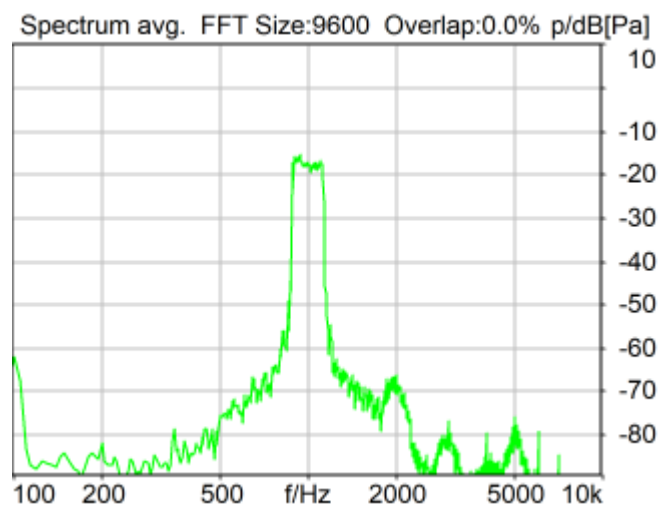
Distortion (Noise) RCV (packed): 21.84 dB (8.09%) Ok

Ok

24/10/10 16:29 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



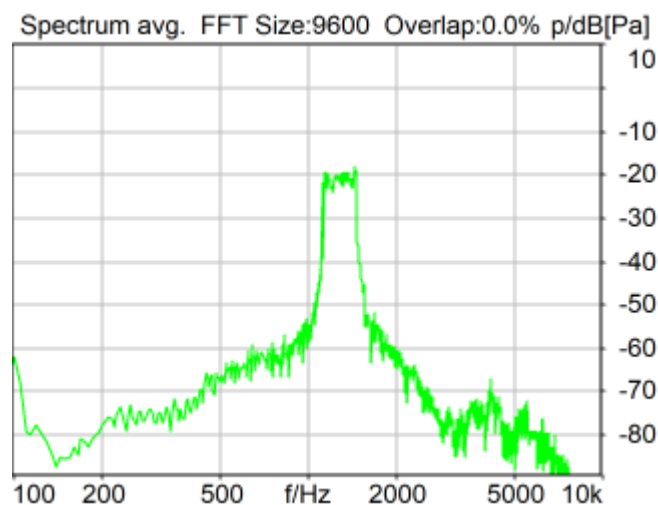
Distortion (Noise) RCV (packed): 40.99 dB (0.89%) Ok

Ok

24/10/10 16:30 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



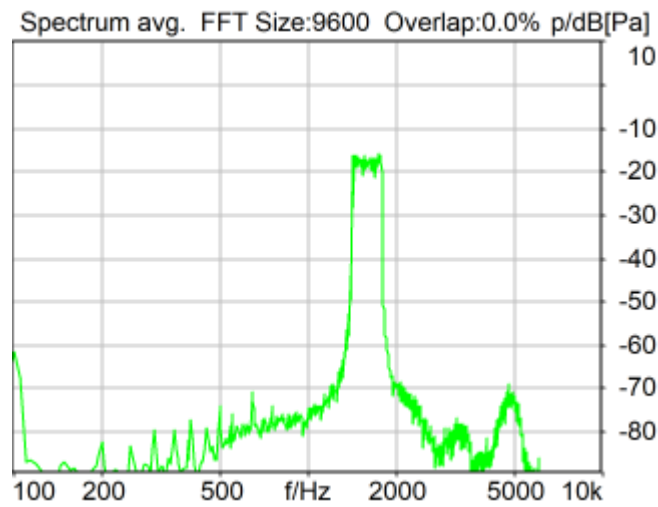
Distortion (Noise) RCV (packed): 20.81 dB (9.11%) Ok

Ok

24/10/10 16:30 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



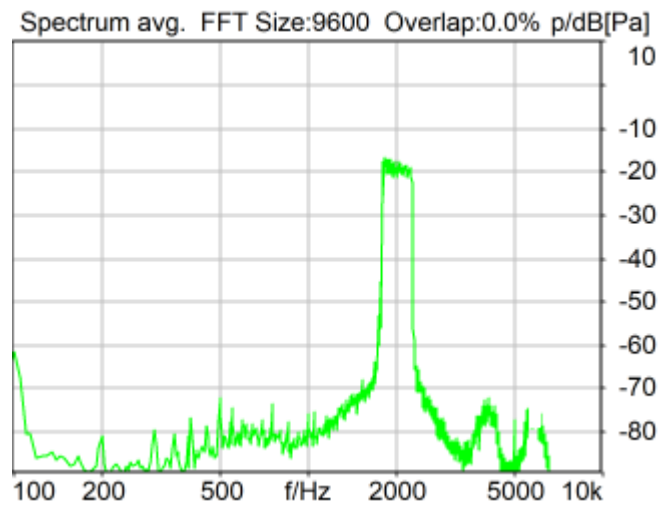
Distortion (Noise) RCV (packed): 43.42 dB (0.67%) Ok

Ok

24/10/10 16:31 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



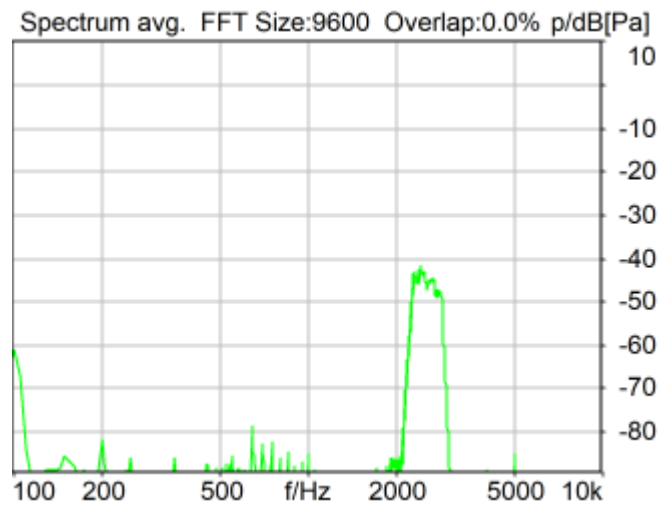
Distortion (Noise) RCV (packed): 43.56 dB (0.66%) Ok

Ok

24/10/10 16:31 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



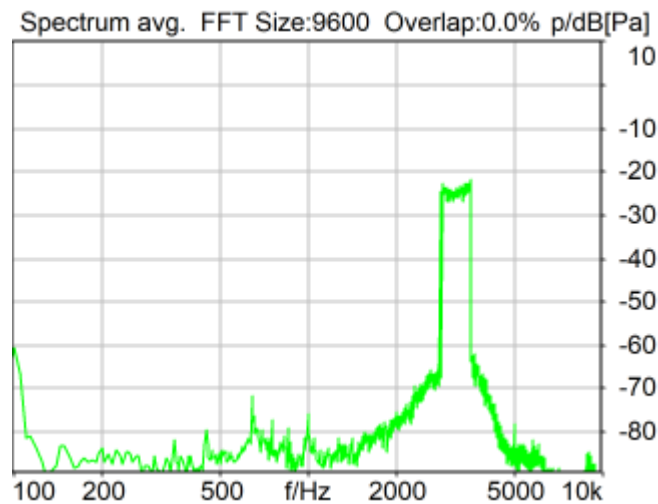
Distortion (Noise) RCV (packed): 22.71 dB (7.32%) Ok

Ok

24/10/10 16:32 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



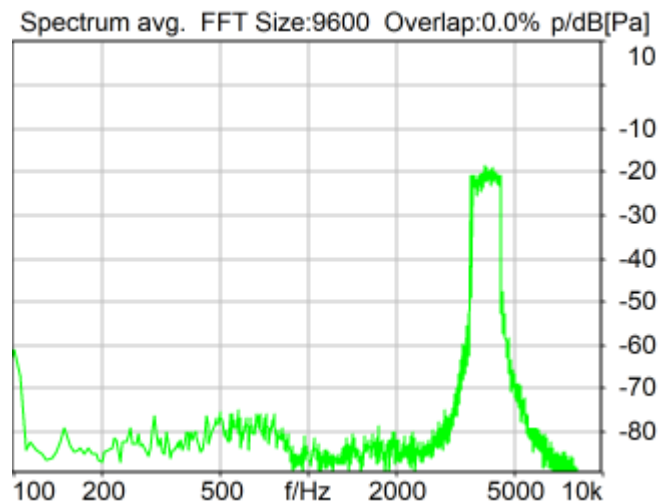
Distortion (Noise) RCV (packed): 40.32 dB (0.96%) Ok

Ok

24/10/10 16:32 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



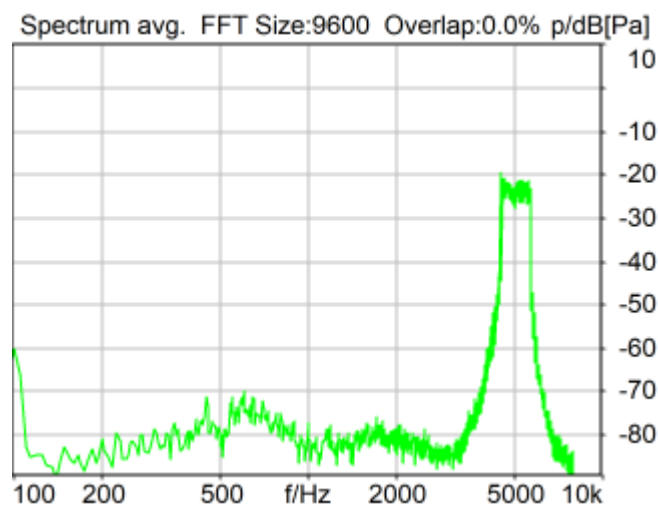
Distortion (Noise) RCV (packed): 36.45 dB (1.51%) Ok

Ok

24/10/10 16:33 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): 31.12 dB (2.78%) Ok

Ok

24/10/10 16:33 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	29.37 dB
2	315Hz	32.04 dB
3	400Hz	35.06 dB
4	500Hz	35.04 dB
5	630Hz	33.31 dB
6	800Hz	21.84 dB
7	1000Hz	40.99 dB
8	1250Hz	20.81 dB
9	1600Hz	43.42 dB
10	2000Hz	43.56 dB
11	2500Hz	22.71 dB
12	3150Hz	40.32 dB
13	4000Hz	36.45 dB
14	5000Hz	31.12 dB

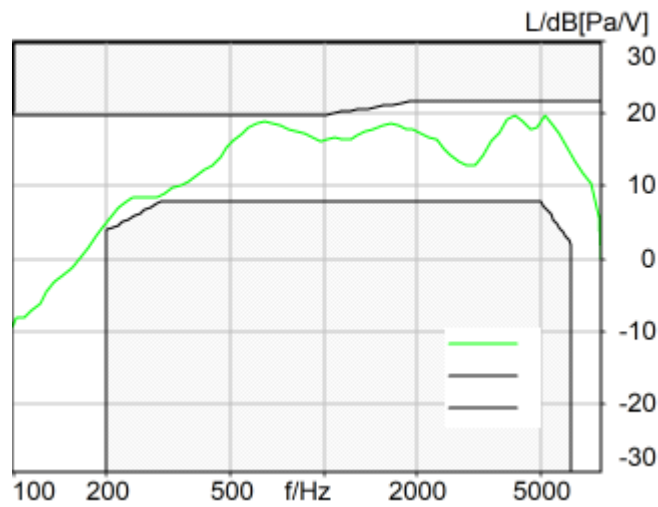
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.81dB at 1250Hz.

24/10/10 16:33 ACQUA

5.3 Frequency Response 2N FF

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



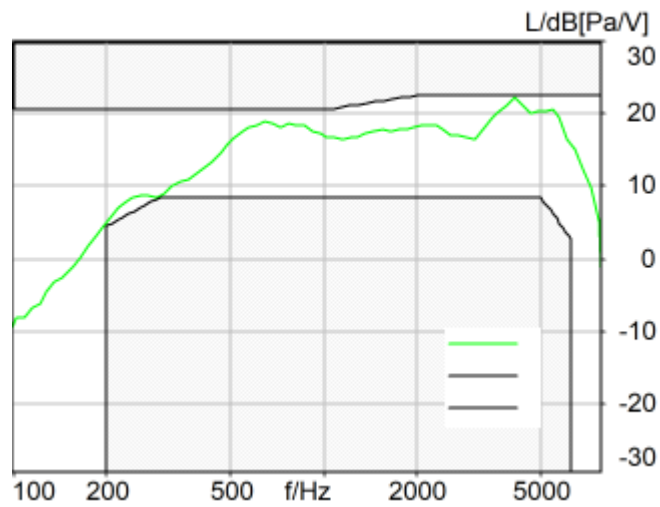
Absolute minimal distance
1.02 dB at 649.1 Hz Ok

Ok

24/10/10 16:33 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.37 dB at 4119.5 Hz Ok

Ok

24/10/10 16:34 ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n77 27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
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Project	460505-02
Report Generation Date	24/10/10 16:44
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	293.0	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.42	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.24	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.49	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.70	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.77	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.63	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.50	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.28	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.55	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.10	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.85	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.33	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.60	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.73	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.87	FR1 n77 270_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	20.85	FR1 n77

ACQUA Report

Title: FR1 n77

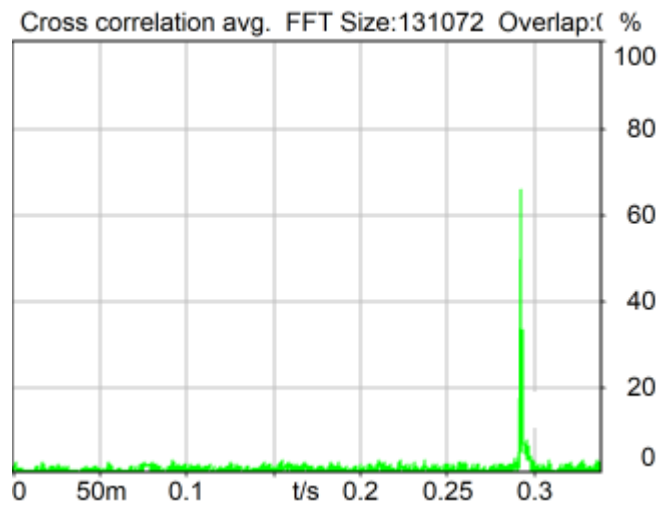
27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N

and Noise (Conversational Gain)		, (occured at 2000Hz)		27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 689.1 Hz	1.47	FR1 n77 27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	1.51	FR1 n77 27O_100M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch656000_8N

Overall Receive Delay WB	6
5.1a Receive Volume Control Performance 8N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 8N FF	23
5.3 Frequency Response 8N DF	24

Overall Receive Delay WB

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

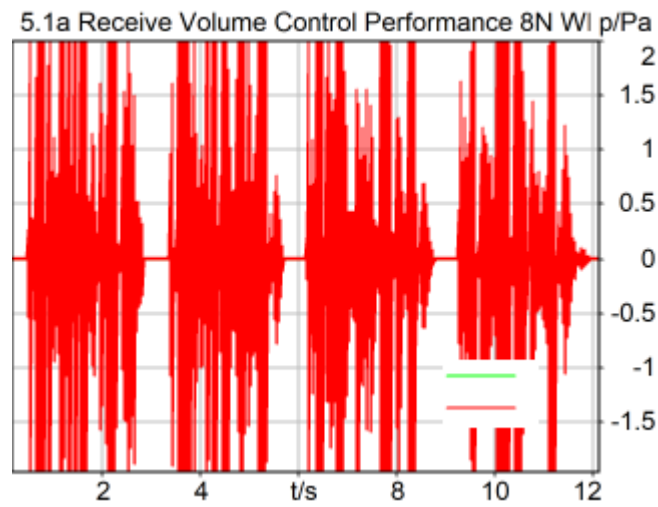


Delay (Cross): 293.0 ms

24/10/10 16:36 ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



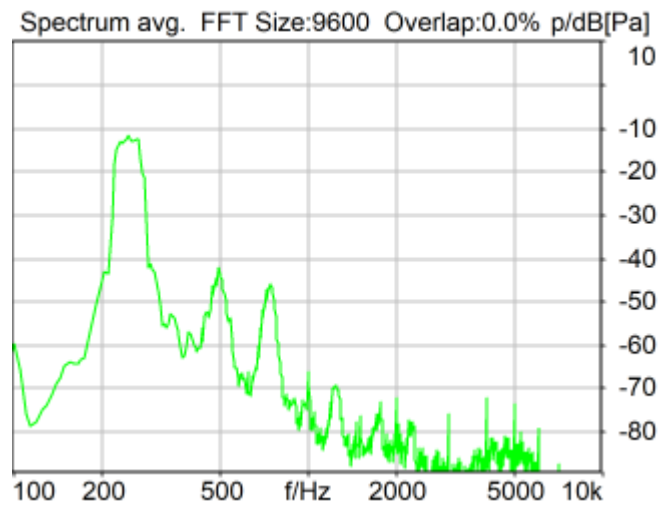
Speech Level RCV: 90.42 dB[SPL], Act.: 83.76% Ok

Ok

24/10/10 16:37 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



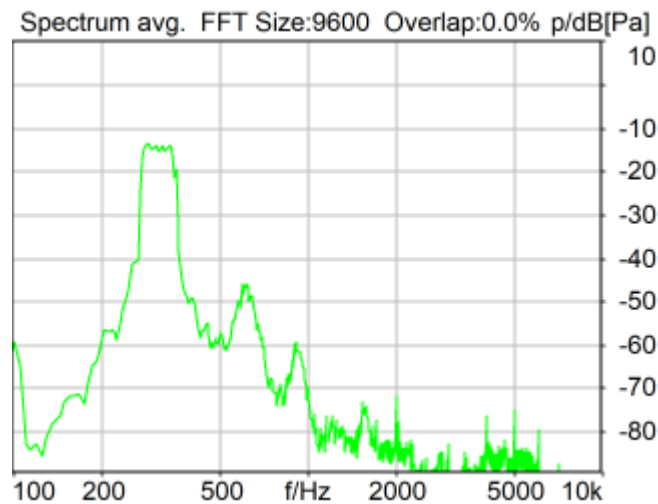
Distortion (Noise) RCV (packed): 31.24 dB (2.74%) Ok

Ok

24/10/10 16:37 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



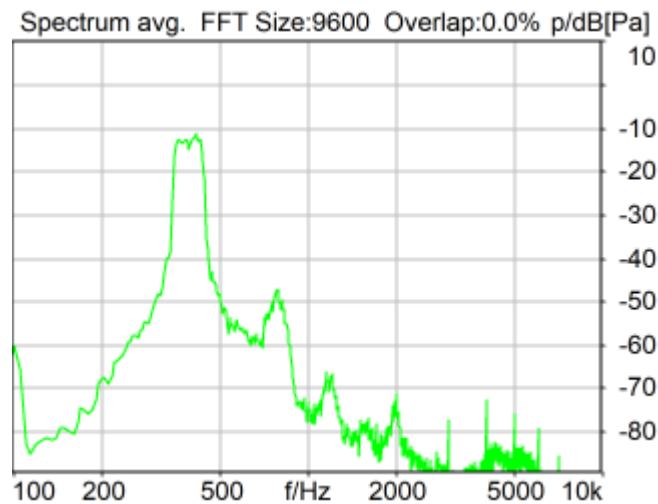
Distortion (Noise) RCV (packed): 33.49 dB (2.12%) Ok

Ok

24/10/10 16:37 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



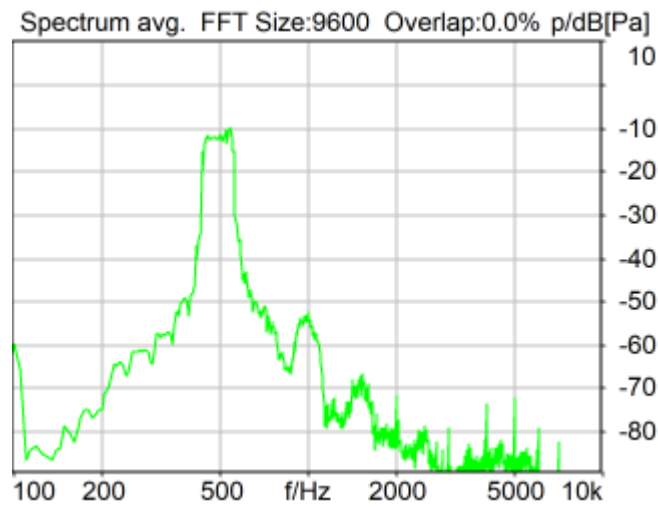
Distortion (Noise) RCV (packed): 34.70 dB (1.84%) Ok

Ok

24/10/10 16:38 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



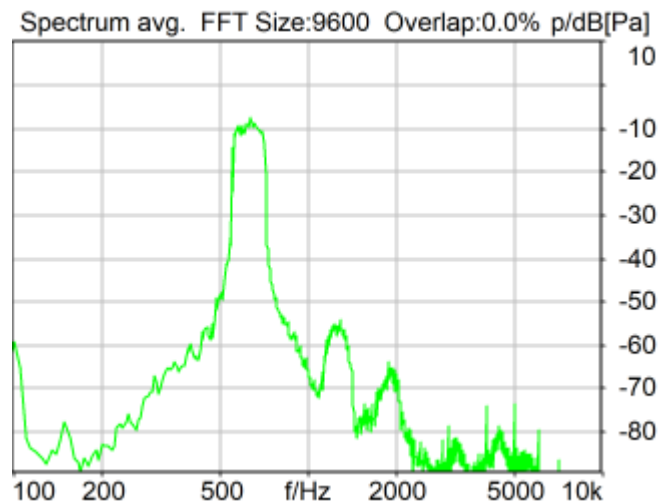
Distortion (Noise) RCV (packed): 35.77 dB (1.63%) Ok

Ok

24/10/10 16:38 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



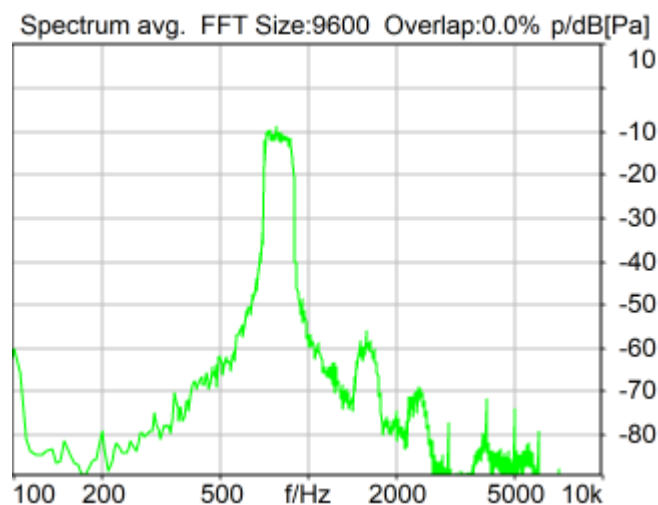
Distortion (Noise) RCV (packed): 39.63 dB (1.04%) Ok

Ok

24/10/10 16:39 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



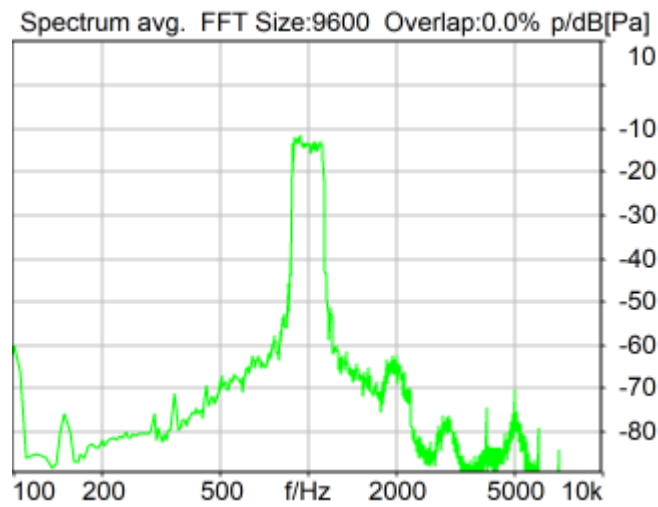
Distortion (Noise) RCV (packed): 39.50 dB (1.06%) Ok

Ok

24/10/10 16:39 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



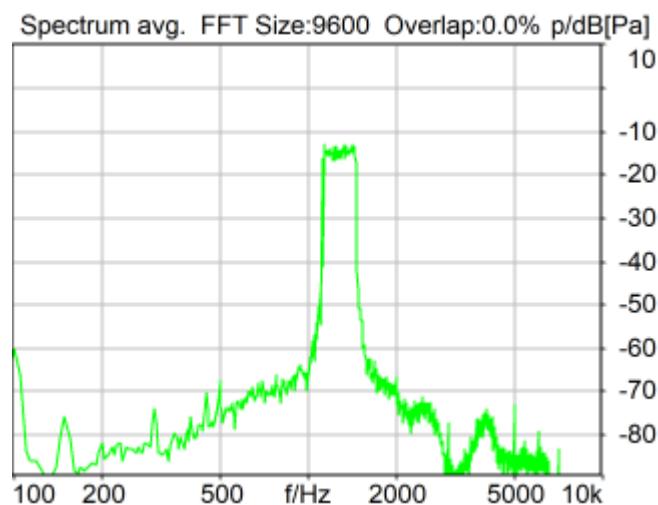
Distortion (Noise) RCV (packed): 41.28 dB (0.86%) Ok

Ok

24/10/10 16:40 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



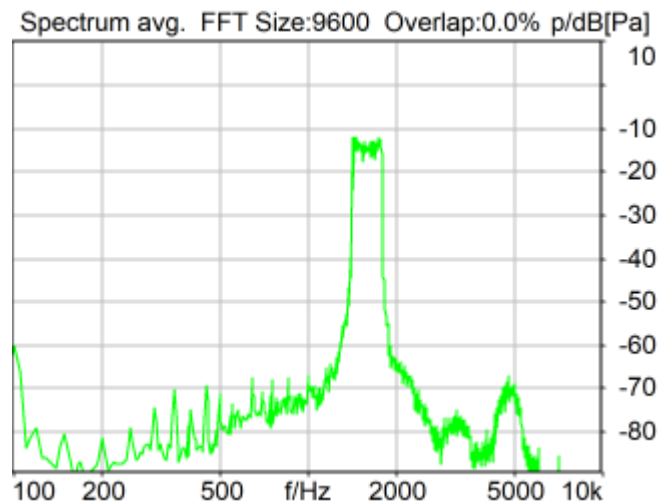
Distortion (Noise) RCV (packed): 32.55 dB (2.36%) Ok

Ok

24/10/10 16:40 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



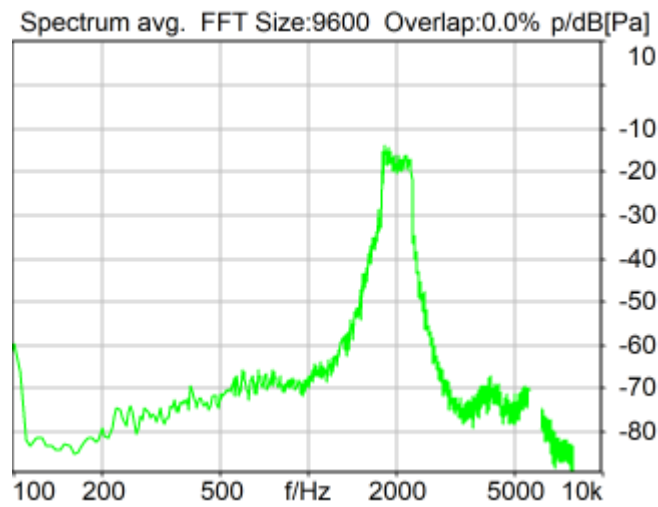
Distortion (Noise) RCV (packed): 42.10 dB (0.79%) Ok

Ok

24/10/10 16:41 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



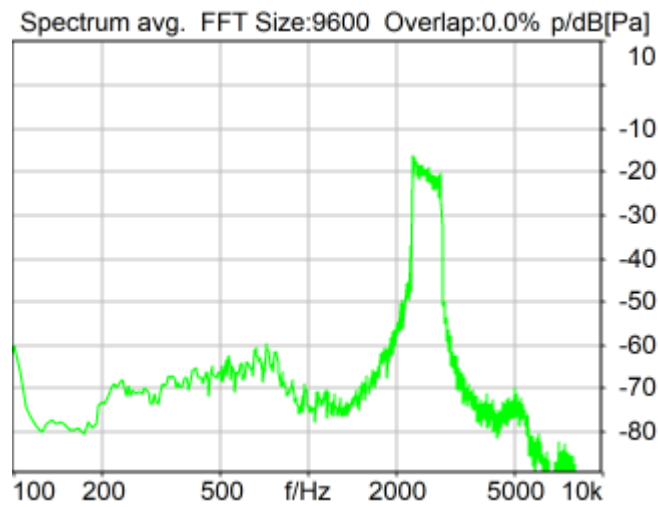
Distortion (Noise) RCV (packed): 20.85 dB (9.07%) Ok

Ok

24/10/10 16:41 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



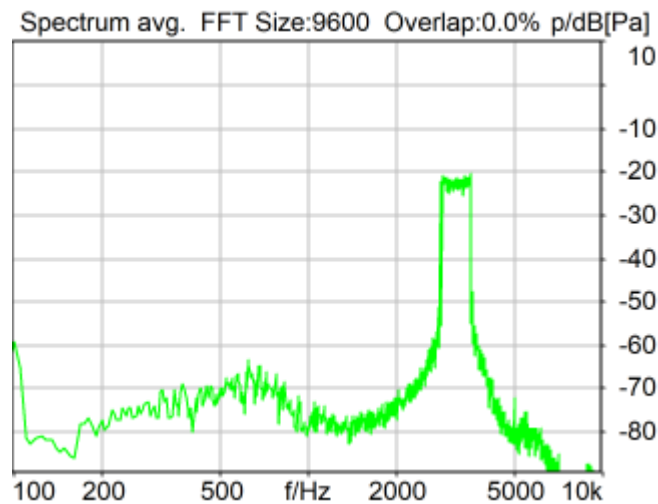
Distortion (Noise) RCV (packed): 31.33 dB (2.71%) Ok

Ok

24/10/10 16:42 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



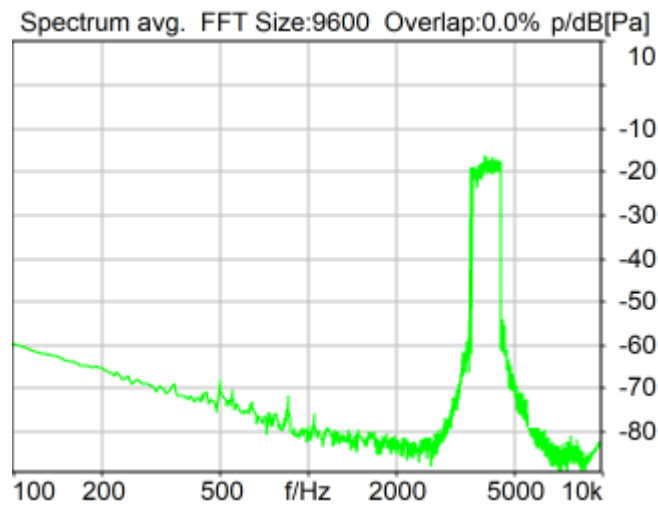
Distortion (Noise) RCV (packed): 35.60 dB (1.66%) Ok

Ok

24/10/10 16:42 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



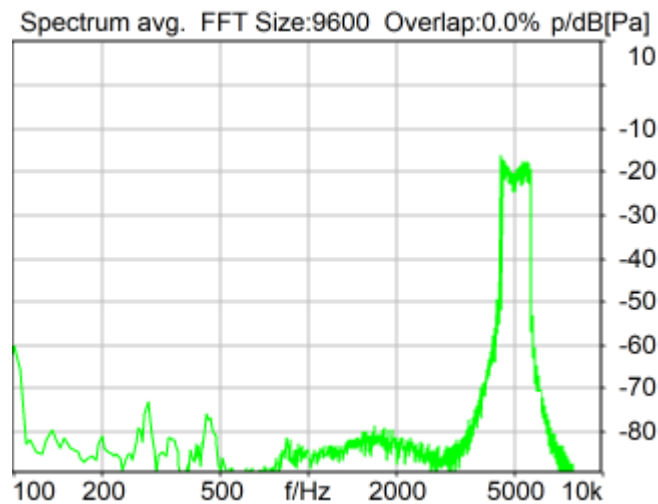
Distortion (Noise) RCV (packed): 42.73 dB (0.73%) Ok

Ok

24/10/10 16:42 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): 38.87 dB (1.14%) Ok

Ok

24/10/10 16:43 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	31.24 dB
2	315Hz	33.49 dB
3	400Hz	34.70 dB
4	500Hz	35.77 dB
5	630Hz	39.63 dB
6	800Hz	39.50 dB
7	1000Hz	41.28 dB
8	1250Hz	32.55 dB
9	1600Hz	42.10 dB
10	2000Hz	20.85 dB
11	2500Hz	31.33 dB
12	3150Hz	35.60 dB
13	4000Hz	42.73 dB
14	5000Hz	38.87 dB

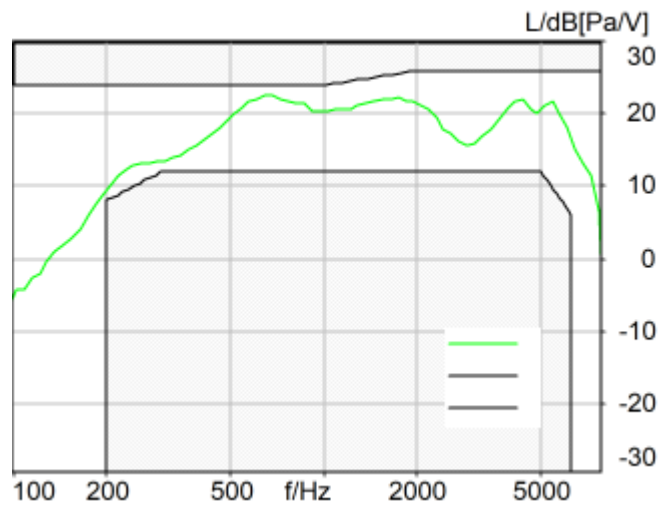
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.85dB at 2000Hz.

24/10/10 16:43 ACQUA

5.3 Frequency Response 8N FF

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



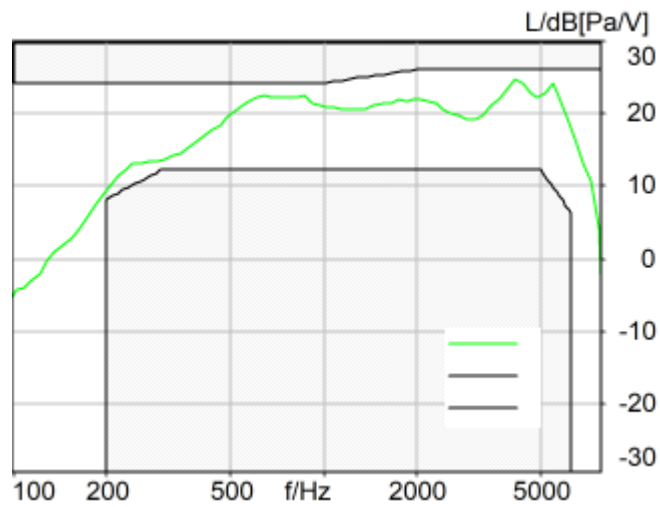
Absolute minimal distance
1.47 dB at 689.1 Hz Ok

Ok

24/10/10 16:43 ACQUA 5.1.200

5.3 Frequency Response 8N DF

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



Absolute minimal distance
1.51 dB at 4119.5 Hz Ok

Ok

24/10/10 16:44 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24.4kbps_Ch6_2N
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Project	460505-02
Report Generation Date	24/10/12 16:52
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	156.8	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.67	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.99	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.97	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.15	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.16	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.16	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.97	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.37	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.23	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.48	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.22	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.43	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.16	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.96	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.05	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	21.23	WLAN2.4GHz_802.11b

ACQUA Report
4kbps_Ch6_2N

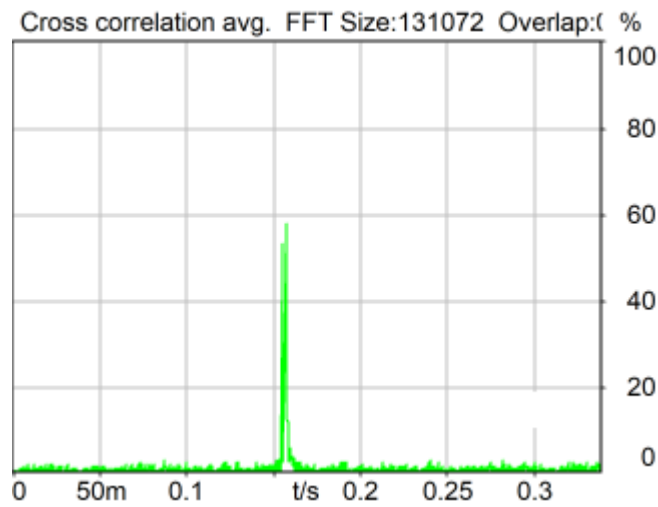
Title: WLAN2.4GHz_802.11b 1Mbps_EVS WB 24.

and Noise (Conversational Gain)		(occured at 1250Hz)		1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 731.5 Hz	1.18	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.49	WLAN2.4GHz_802.11b 1Mbps_EVS WB 24. 4kbps_Ch6_2N

Overall Receive Delay WB	6
5.1b Receive Volume Control Performance 2N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 2N FF	23
5.3 Frequency Response 2N DF	24

Overall Receive Delay WB

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

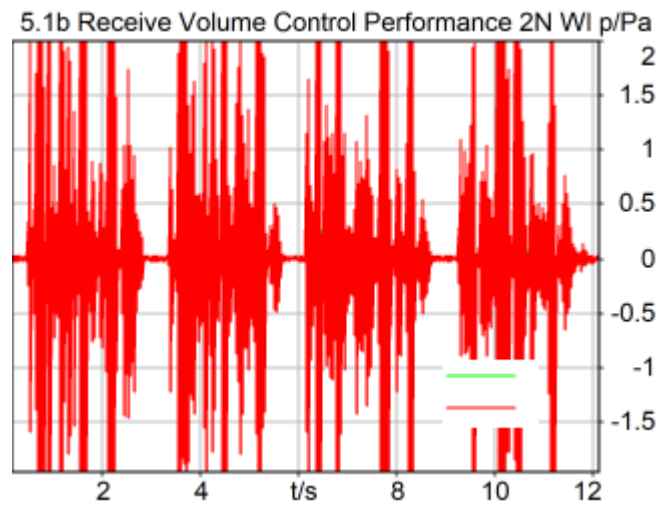


Delay (Cross): 156.8 ms

24/10/12 16:44 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



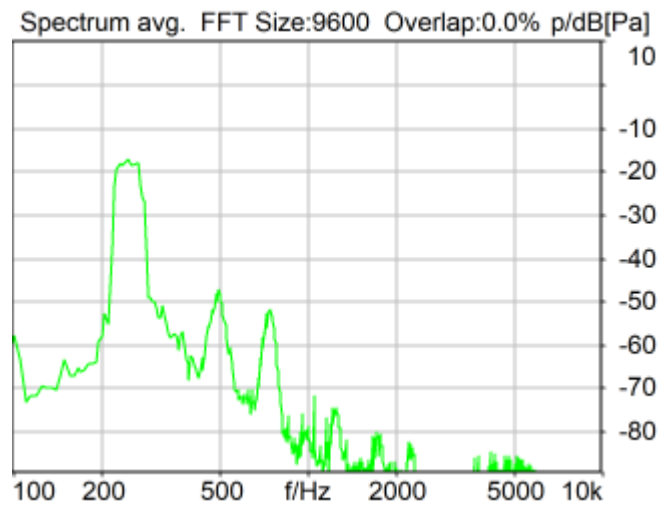
Speech Level RCV: 86.67 dB[SPL], Act.: 83.86% Ok

Ok

24/10/12 16:44 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



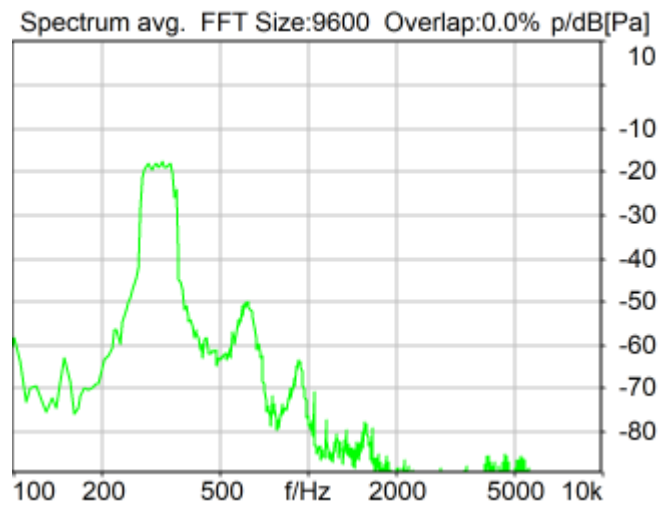
Distortion (Noise) RCV (packed): 30.99 dB (2.82%) Ok

Ok

24/10/12 16:44 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



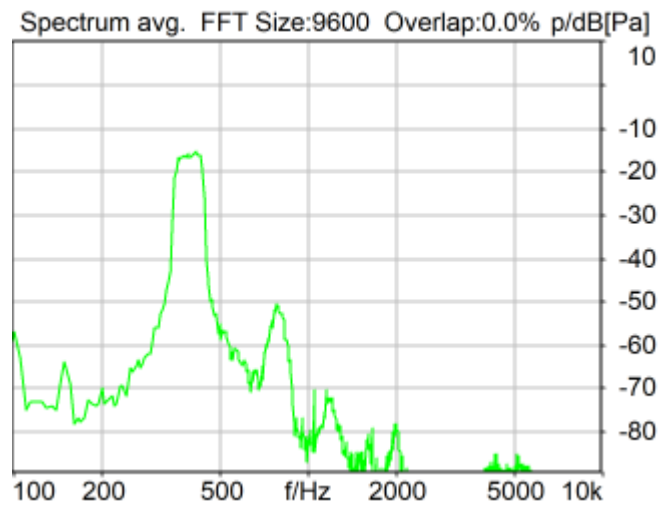
Distortion (Noise) RCV (packed): 32.97 dB (2.25%) Ok

Ok

24/10/12 16:45 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



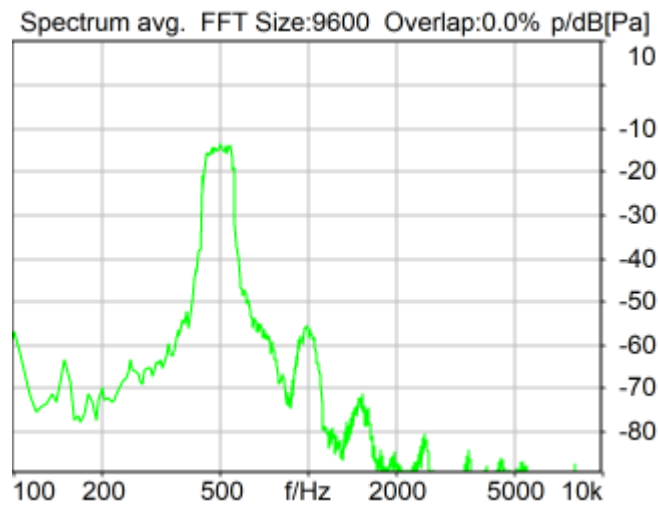
Distortion (Noise) RCV (packed): 35.15 dB (1.75%) Ok

Ok

24/10/12 16:45 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



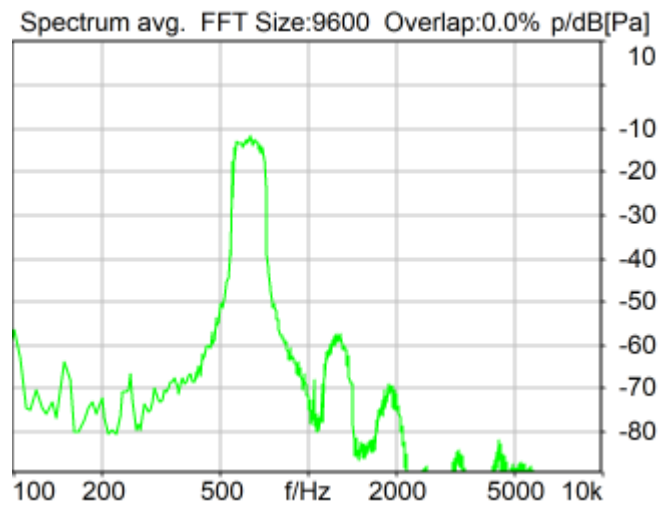
Distortion (Noise) RCV (packed): 36.16 dB (1.56%) Ok

Ok

24/10/12 16:46 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



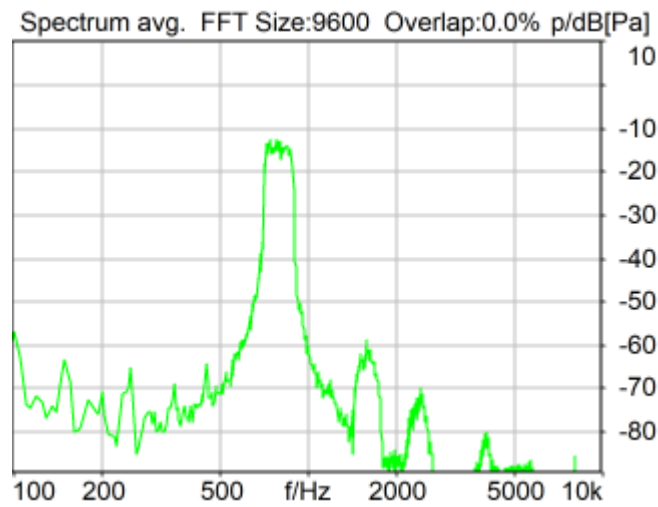
Distortion (Noise) RCV (packed): 39.16 dB (1.10%) Ok

Ok

24/10/12 16:46 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



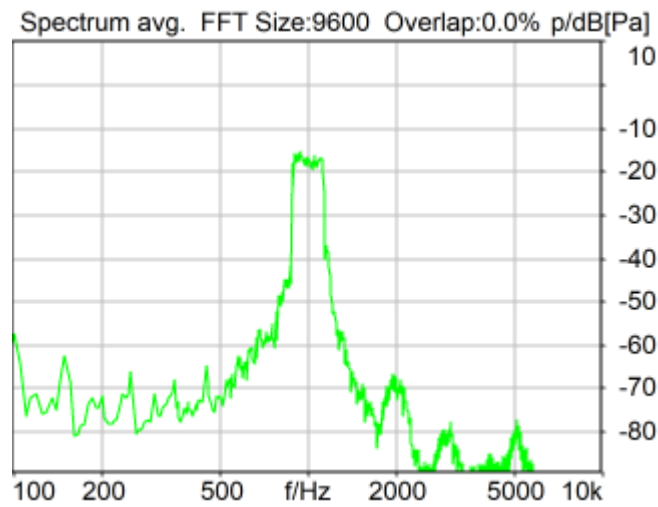
Distortion (Noise) RCV (packed): 38.97 dB (1.13%) Ok

Ok

24/10/12 16:47 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



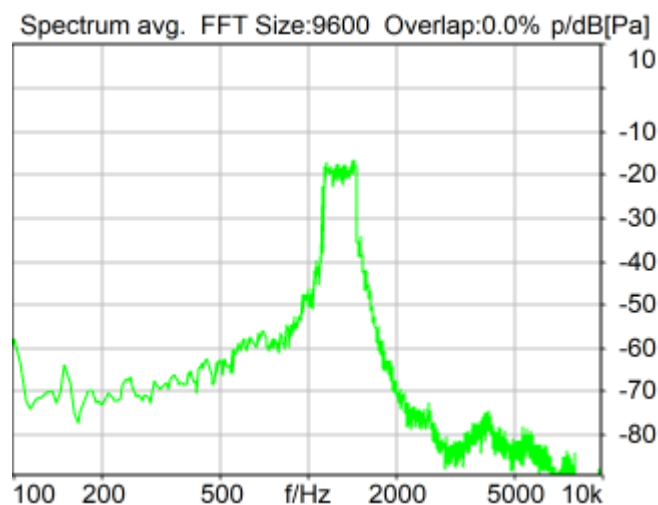
Distortion (Noise) RCV (packed): 30.37 dB (3.03%) Ok

Ok

24/10/12 16:47 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



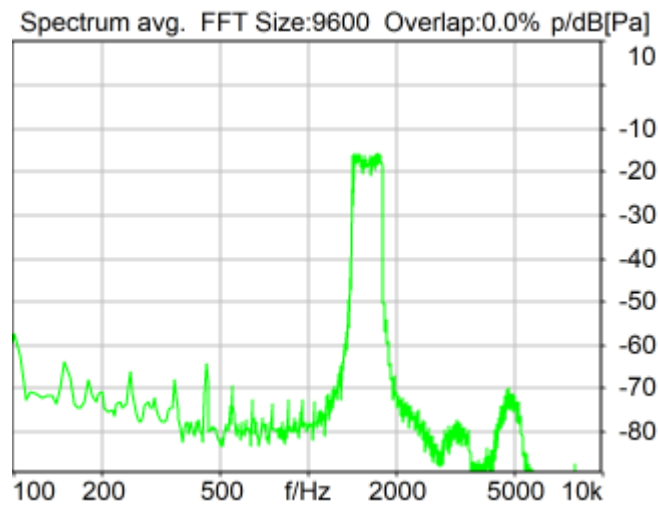
Distortion (Noise) RCV (packed): 21.23 dB (8.68%) Ok

Ok

24/10/12 16:48 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



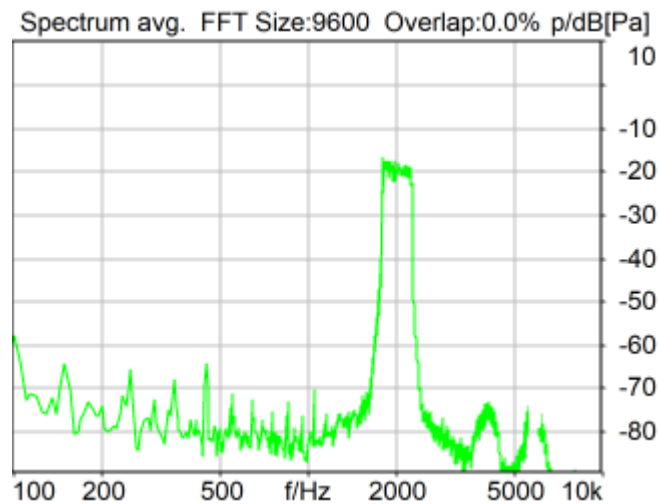
Distortion (Noise) RCV (packed): 42.48 dB (0.75%) Ok

Ok

24/10/12 16:48 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



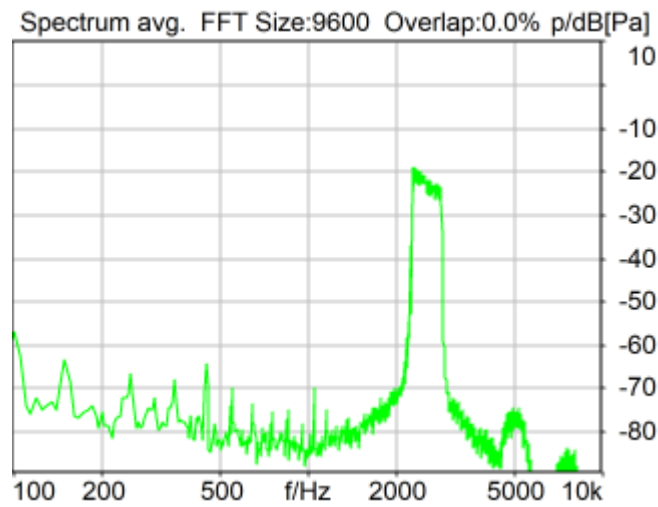
Distortion (Noise) RCV (packed): 39.22 dB (1.09%) Ok

Ok

24/10/12 16:48 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



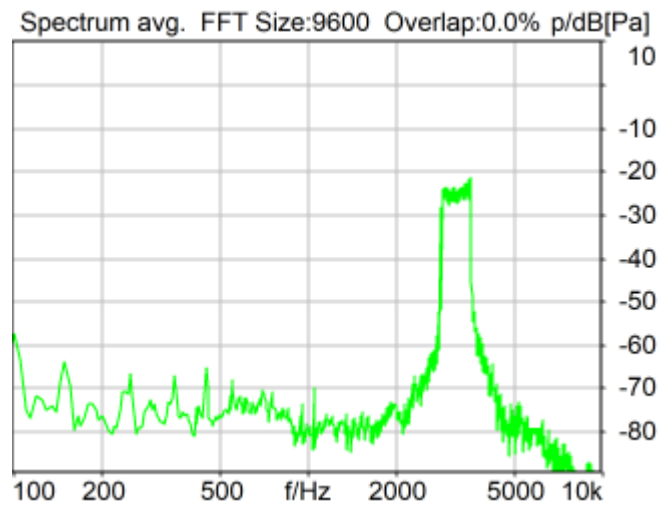
Distortion (Noise) RCV (packed): 40.43 dB (0.95%) Ok

Ok

24/10/12 16:49 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



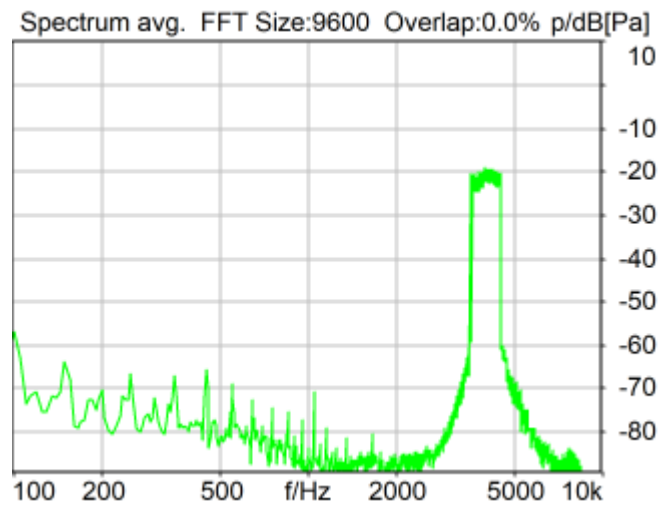
Distortion (Noise) RCV (packed): 32.16 dB (2.47%) Ok

Ok

24/10/12 16:49 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



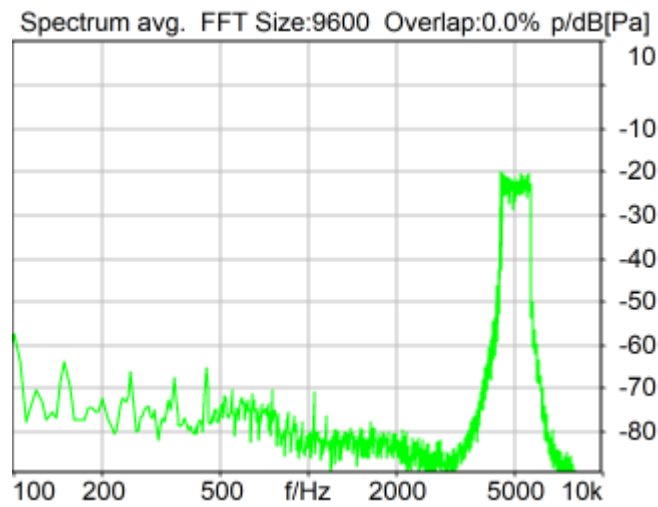
Distortion (Noise) RCV (packed): 42.96 dB (0.71%) Ok

Ok

24/10/12 16:50 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): 33.05 dB (2.22%) Ok

Ok

24/10/12 16:50 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	30.99 dB
2	315Hz	32.97 dB
3	400Hz	35.15 dB
4	500Hz	36.16 dB
5	630Hz	39.16 dB
6	800Hz	38.97 dB
7	1000Hz	30.37 dB
8	1250Hz	21.23 dB
9	1600Hz	42.48 dB
10	2000Hz	39.22 dB
11	2500Hz	40.43 dB
12	3150Hz	32.16 dB
13	4000Hz	42.96 dB
14	5000Hz	33.05 dB

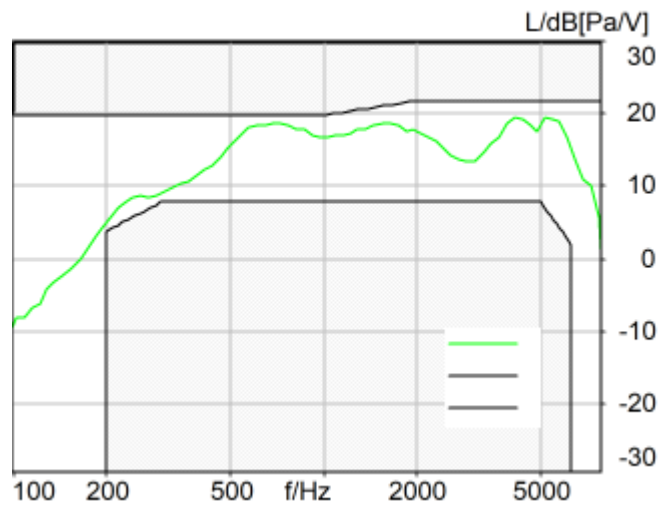
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.23dB at 1250Hz.

24/10/12 16:50 ACQUA

5.3 Frequency Response 2N FF

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



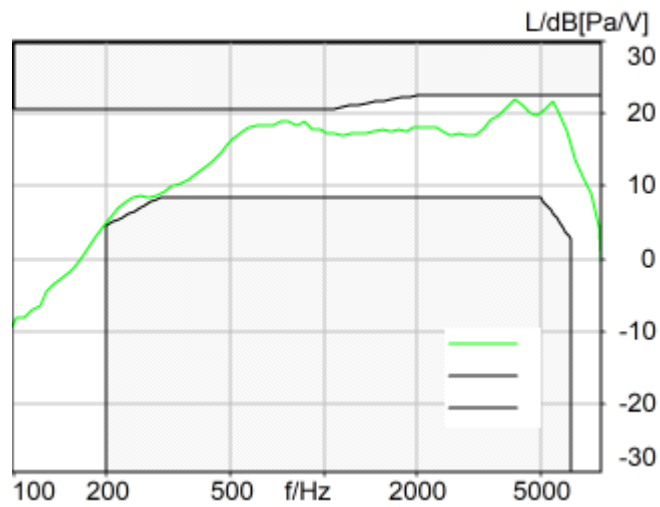
Absolute minimal distance
1.18 dB at 731.5 Hz Ok

Ok

24/10/12 16:51 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.49 dB at 4119.5 Hz Ok

Ok

24/10/12 16:51 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WCDMA IV_Voice_AMR NB 4.75kbps_Ch1413_2N
--------------------	--

Project	460505-02
Report Generation Date	24/10/18 18:52
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	182.0	WCDMA IV_Voice_AMR NB 4. 75kbps_Ch1413_2N
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	85.65	WCDMA IV_Voice_AMR NB 4. 75kbps_Ch1413_2N

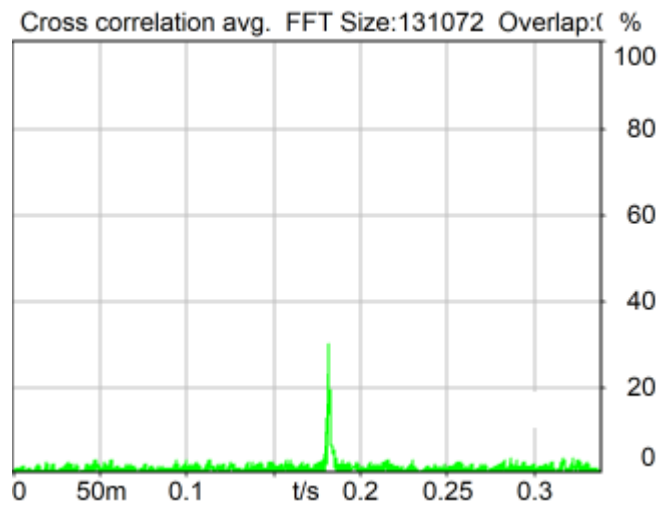
ACQUA Report
75kbps_Ch1413_2N

Title: WCDMA IV_Voice_AMR NB 4.

Overall Receive Delay NB	5
5.1b Receive Volume Control Performance 2N NB	6

Overall Receive Delay NB

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

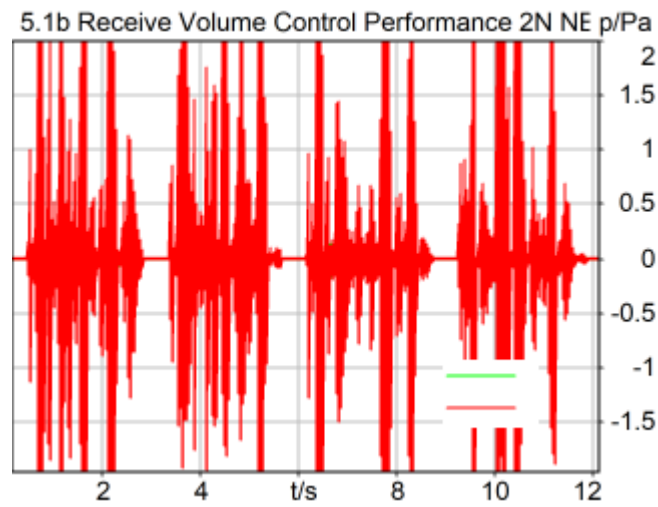


Delay (Cross): 182.0 ms

24/10/18 18:52 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N NB

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



Speech Level RCV: 85.65 dB[SPL], Act.: 80.12% Ok

Ok

24/10/18 18:52 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
--------------------	---

Project	460505-02
Report Generation Date	24/10/18 17:17
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	131.4	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.28	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.16	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.56	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.72	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.30	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.59	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.73	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.57	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.23	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.92	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.04	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.45	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.15	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.71	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.89	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	28.89	LTE Band

ACQUA Report

Title: LTE Band

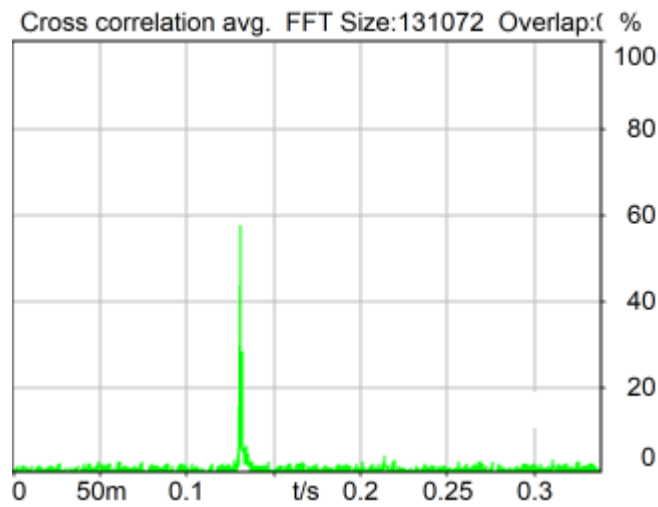
13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N

and Noise (Conversational Gain)		, (occured at 5000Hz)		13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 649.1 Hz	1.42	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.53	LTE Band 13_10M_QPSK_1RB_0Offset_EVS WB 24.4kbps_Ch23230_2N

Overall Receive Delay WB	6
5.1b Receive Volume Control Performance 2N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 2N FF	23
5.3 Frequency Response 2N DF	24

Overall Receive Delay WB

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

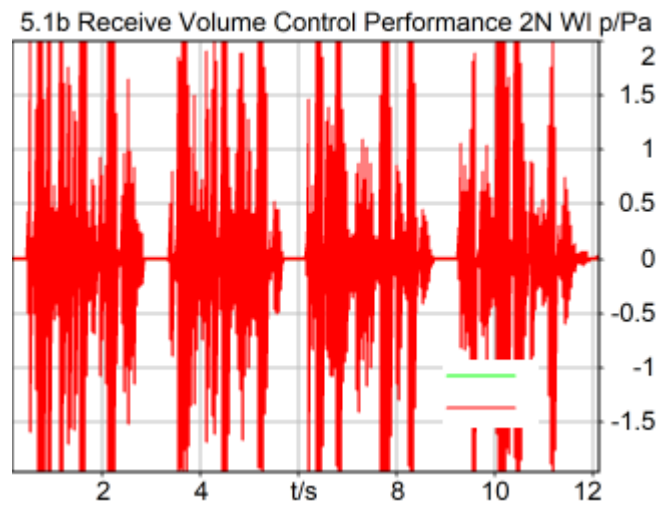


Delay (Cross): 131.4 ms

24/10/18 17:09 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



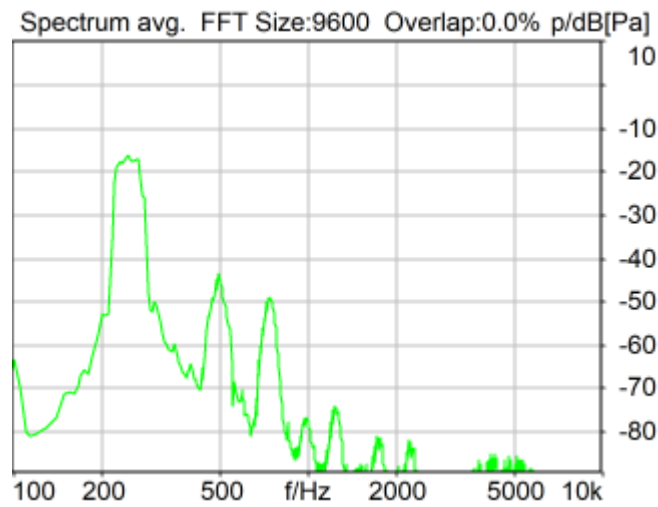
Speech Level RCV: 86.28 dB[SPL], Act.: 83.44% Ok

Ok

24/10/18 17:10 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



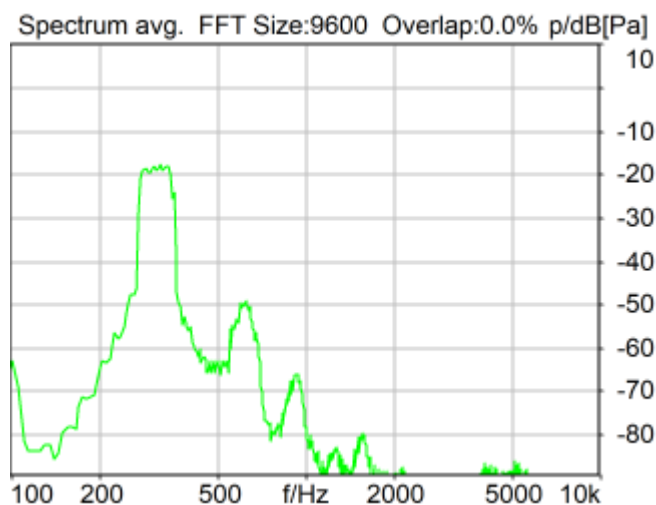
Distortion (Noise) RCV (packed): 29.16 dB (3.48%) Ok

Ok

24/10/18 17:10 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



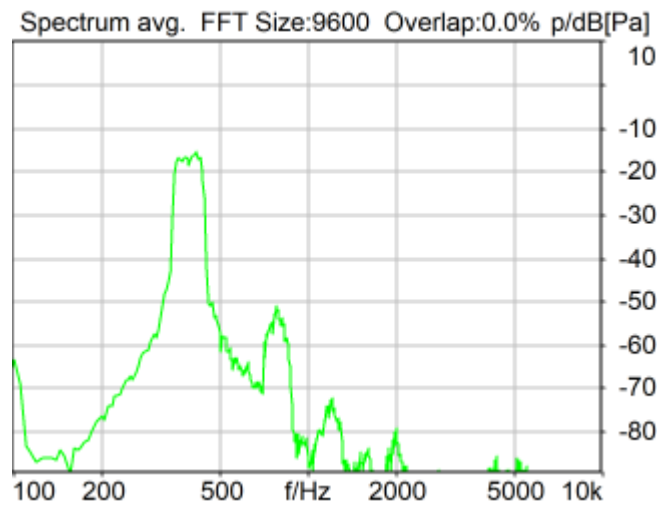
Distortion (Noise) RCV (packed): 32.56 dB (2.36%) Ok

Ok

24/10/18 17:11 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



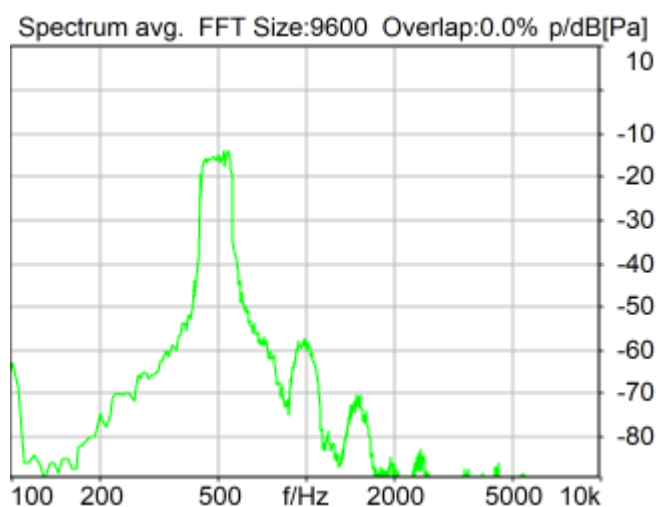
Distortion (Noise) RCV (packed): 35.72 dB (1.64%) Ok

Ok

24/10/18 17:11 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



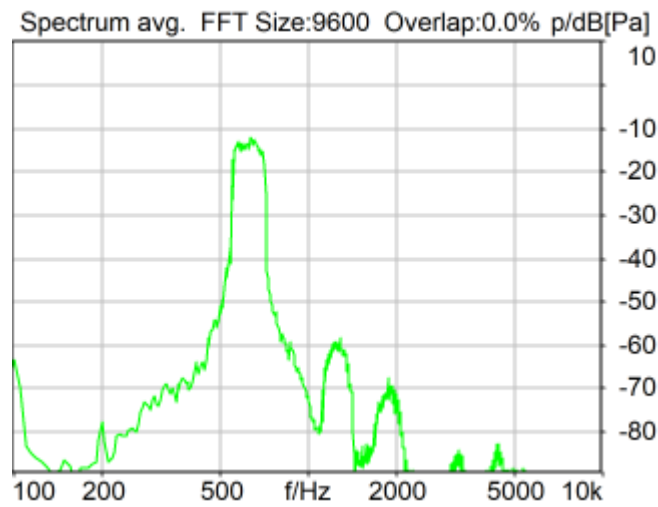
Distortion (Noise) RCV (packed): 36.30 dB (1.53%) Ok

Ok

24/10/18 17:11 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



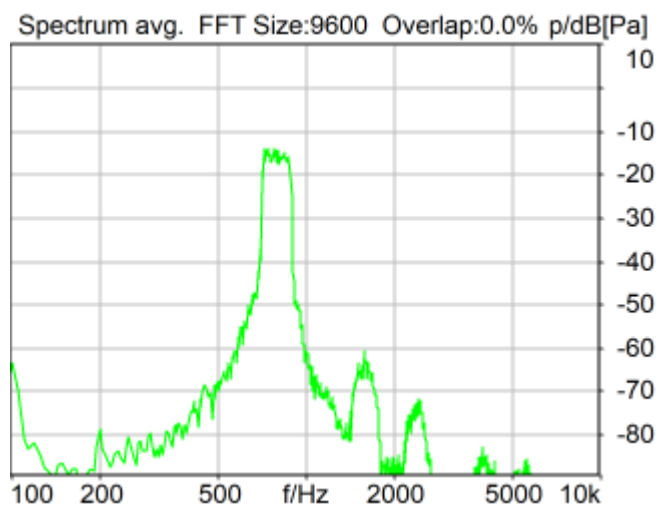
Distortion (Noise) RCV (packed): 39.59 dB (1.05%) Ok

Ok

24/10/18 17:12 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



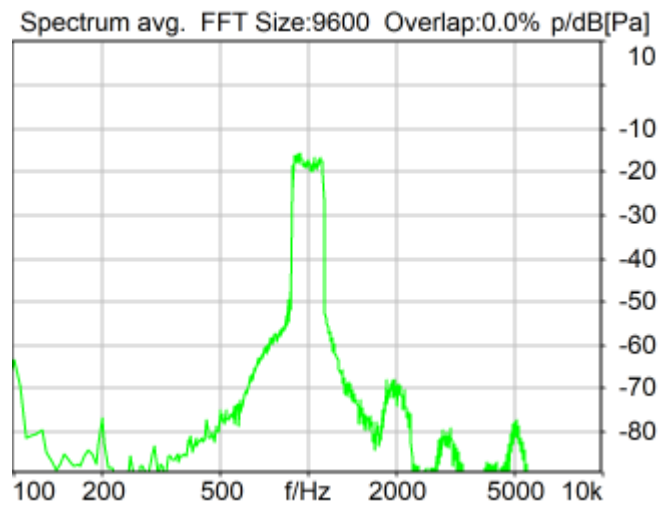
Distortion (Noise) RCV (packed): 37.73 dB (1.30%) Ok

Ok

24/10/18 17:12 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



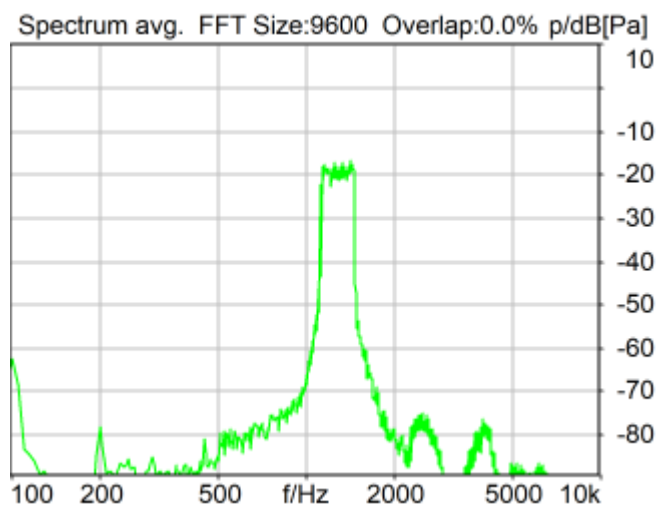
Distortion (Noise) RCV (packed): 39.57 dB (1.05%) Ok

Ok

24/10/18 17:13 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



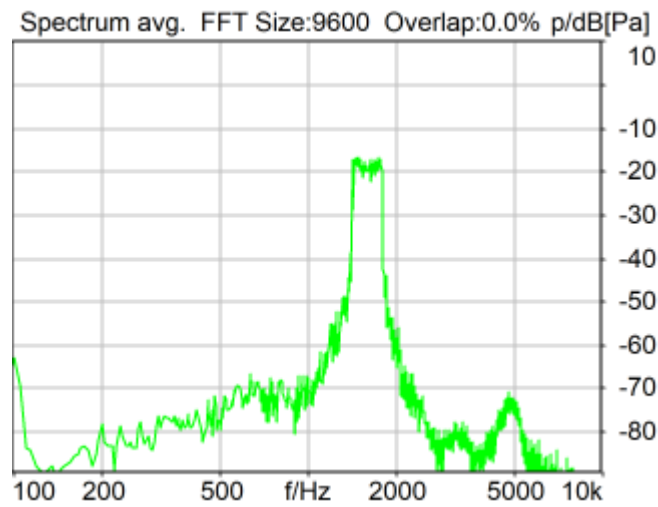
Distortion (Noise) RCV (packed): 32.23 dB (2.45%) Ok

Ok

24/10/18 17:13 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



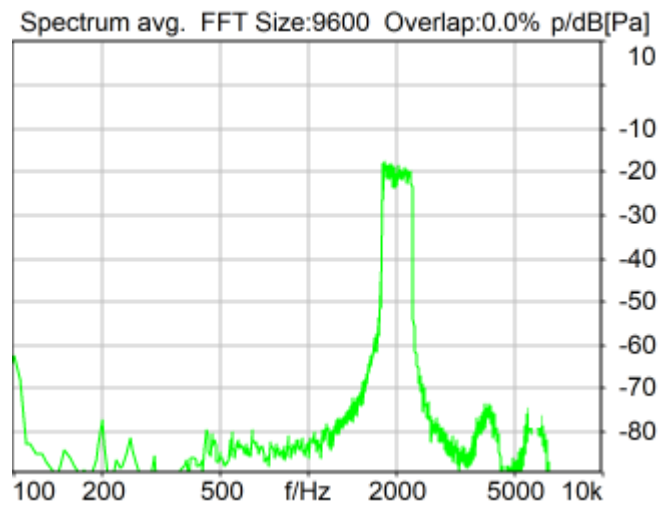
Distortion (Noise) RCV (packed): 32.92 dB (2.26%) Ok

Ok

24/10/18 17:14 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



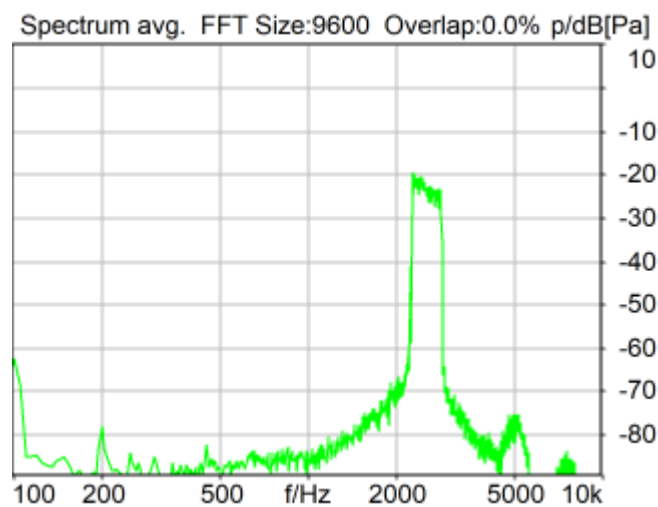
Distortion (Noise) RCV (packed): 41.04 dB (0.89%) Ok

Ok

24/10/18 17:14 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



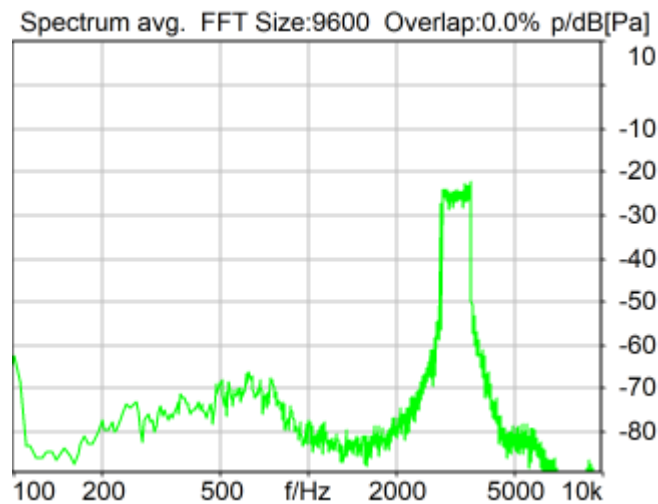
Distortion (Noise) RCV (packed): 42.45 dB (0.75%) Ok

Ok

24/10/18 17:15 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



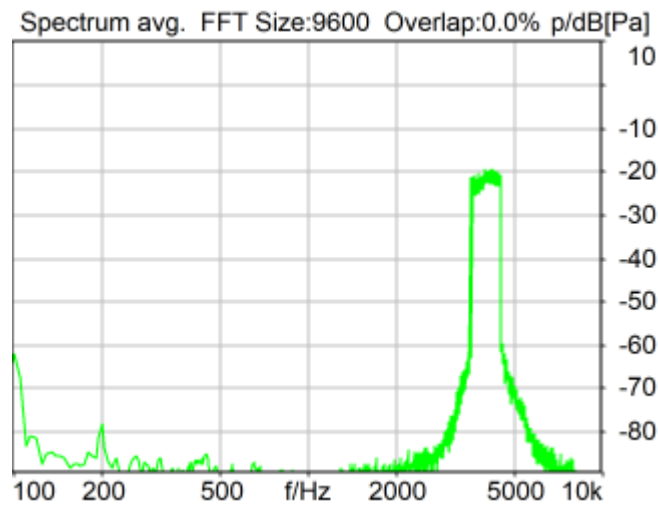
Distortion (Noise) RCV (packed): 33.15 dB (2.20%) Ok

Ok

24/10/18 17:15 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



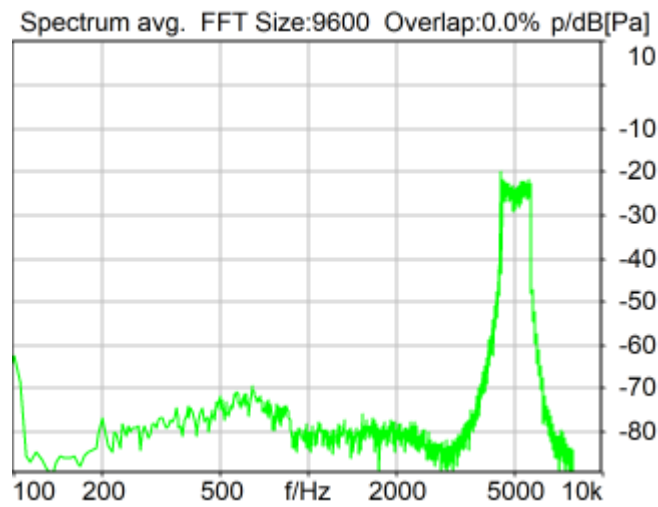
Distortion (Noise) RCV (packed): 43.71 dB (0.65%) Ok

Ok

24/10/18 17:15 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): 28.89 dB (3.59%) Ok

Ok

24/10/18 17:16 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	29.16 dB
2	315Hz	32.56 dB
3	400Hz	35.72 dB
4	500Hz	36.30 dB
5	630Hz	39.59 dB
6	800Hz	37.73 dB
7	1000Hz	39.57 dB
8	1250Hz	32.23 dB
9	1600Hz	32.92 dB
10	2000Hz	41.04 dB
11	2500Hz	42.45 dB
12	3150Hz	33.15 dB
13	4000Hz	43.71 dB
14	5000Hz	28.89 dB

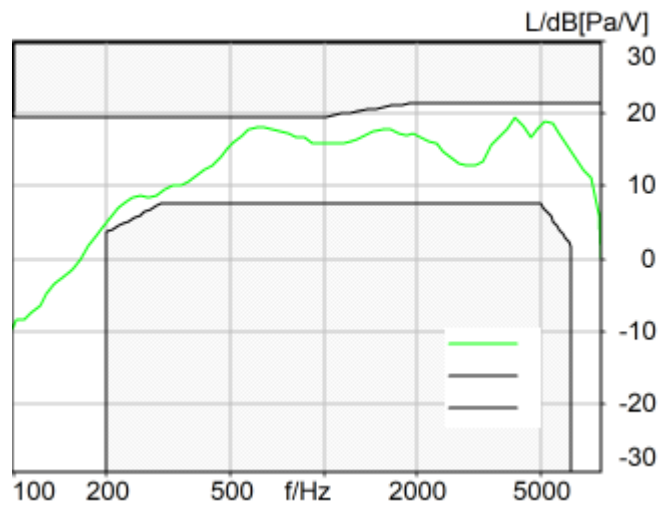
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 28.89dB at 5000Hz.

24/10/18 17:16 ACQUA

5.3 Frequency Response 2N FF

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



Absolute minimal distance

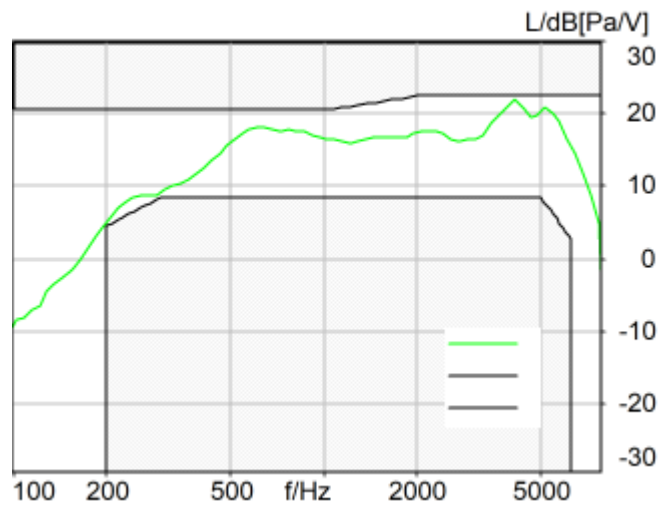
1.42 dB at 649.1 Hz Ok

Ok

24/10/18 17:16 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.53 dB at 4119.5 Hz Ok

Ok

24/10/18 17:17 ACQUA 5.1.200

ACQUA Report
WB 24.4kbps_Ch156400_2N

Title: 07_FR1 n13_10M_QPSK_1RB_1Offset_EVS

Measurement Protocol

Measurement Object	FR1 n13_10M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch156400_2N
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Project	460505-02
Report Generation Date	24/10/16 16:32
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	273.1	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.38	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.92	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.33	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.62	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.19	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.91	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.40	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.42	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.41	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.86	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.32	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.94	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.97	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.50	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.63	FR1 n13_10M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch156400_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	28.92	FR1

ACQUA Report
WB 24.4kbps_Ch156400_2N

Title: FR1 n13_10M_QPSK_1RB_1Offset_EVS

and Noise (Conversational Gain)		(occured at 250Hz)		n13_10M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch156400_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 611.7 Hz	1.58	FR1 n13_10M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch156400_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.59	FR1 n13_10M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch156400_2N

ACQUA Report
WB 24.4kbps_Ch156400_2N

Title: FR1 n13_10M_QPSK_1RB_1Offset_EVS

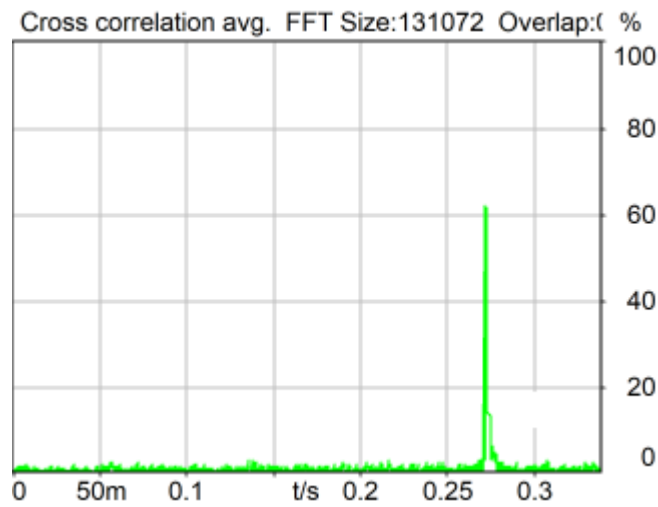
Overall Receive Delay WB	6
5.1b Receive Volume Control Performance 2N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 2N FF	23
5.3 Frequency Response 2N DF	24

ACQUA Report
WB 24.4kbps_Ch156400_2N

Title: FR1 n13_10M_QPSK_1RB_1Offset_EVS

Overall Receive Delay WB

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

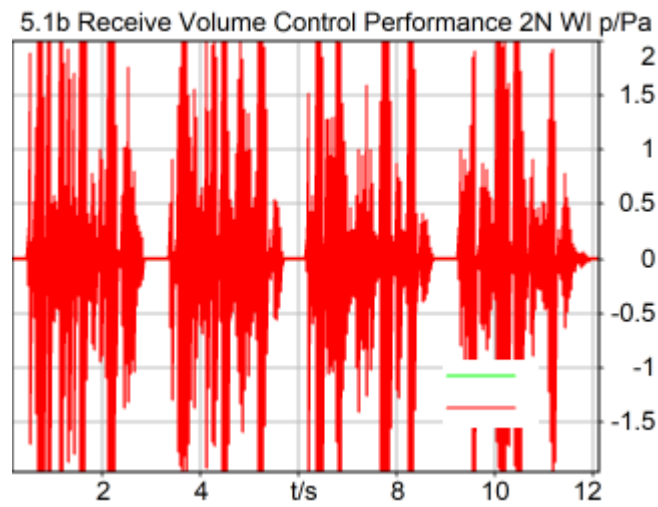


Delay (Cross): 273.1 ms

24/10/16 16:23 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



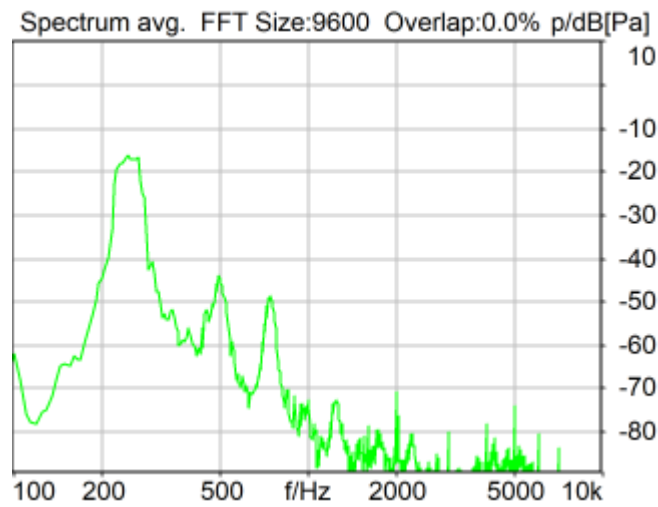
Speech Level RCV: 86.38 dB[SPL], Act.: 83.75% Ok

Ok

24/10/16 16:24 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



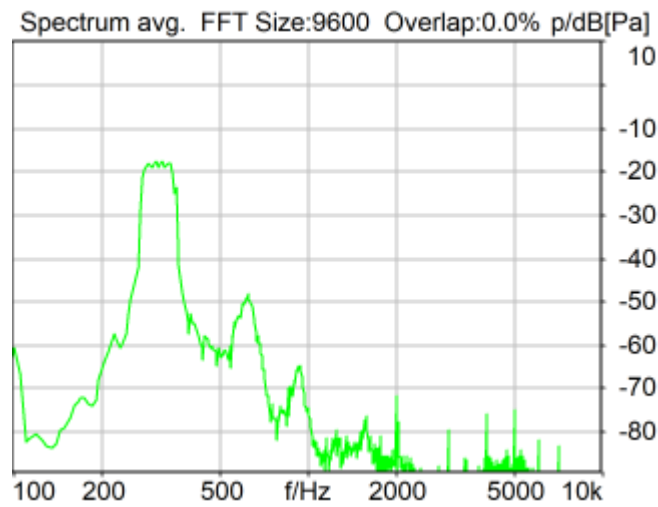
Distortion (Noise) RCV (packed): 28.92 dB (3.58%) Ok

Ok

24/10/16 16:24 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



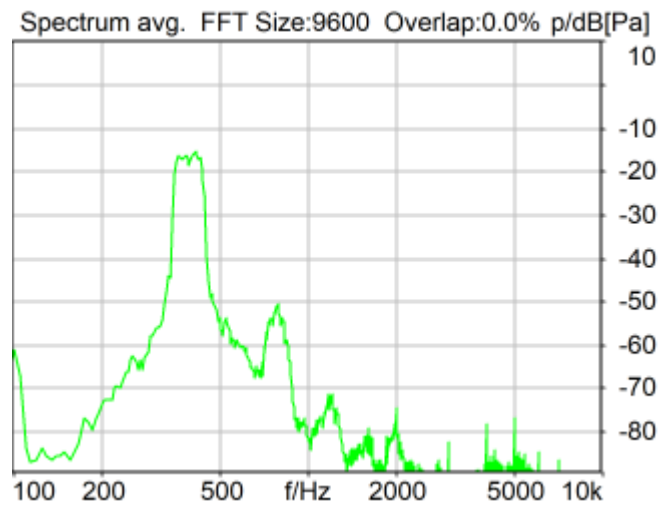
Distortion (Noise) RCV (packed): 32.33 dB (2.42%) Ok

Ok

24/10/16 16:24 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



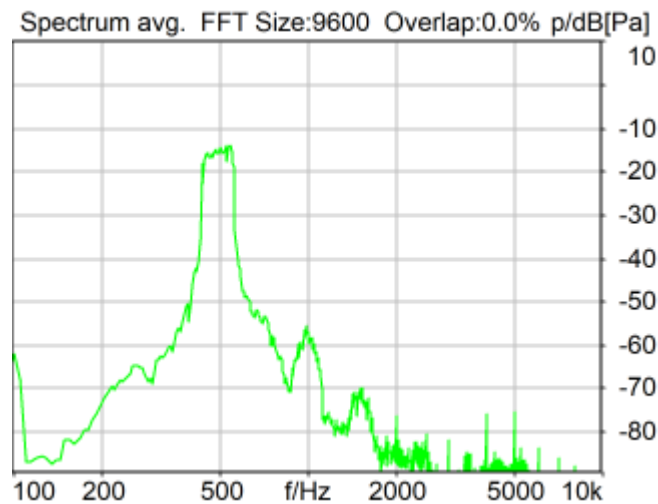
Distortion (Noise) RCV (packed): 34.62 dB (1.86%) Ok

Ok

24/10/16 16:25 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



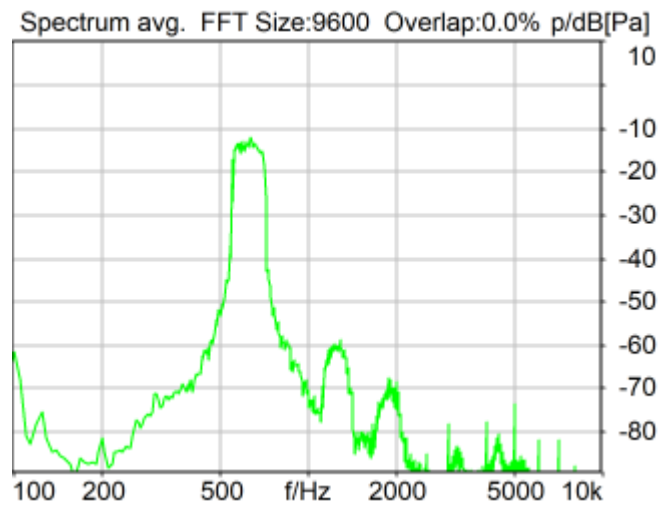
Distortion (Noise) RCV (packed): 35.19 dB (1.74%) Ok

Ok

24/10/16 16:25 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



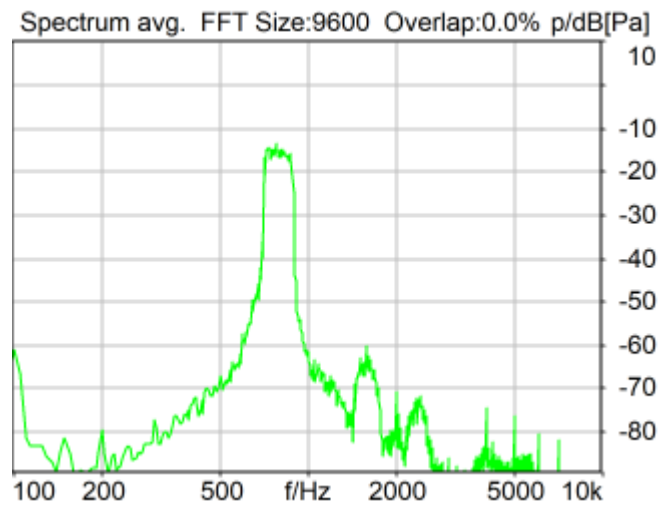
Distortion (Noise) RCV (packed): 39.91 dB (1.01%) Ok

Ok

24/10/16 16:26 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



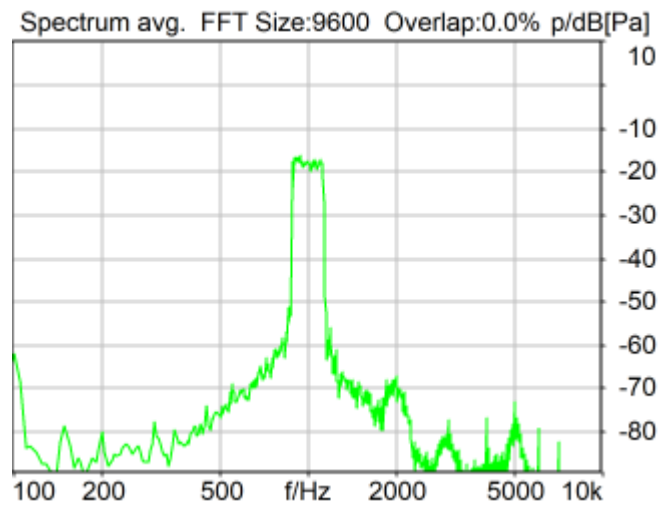
Distortion (Noise) RCV (packed): 39.40 dB (1.07%) Ok

Ok

24/10/16 16:26 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



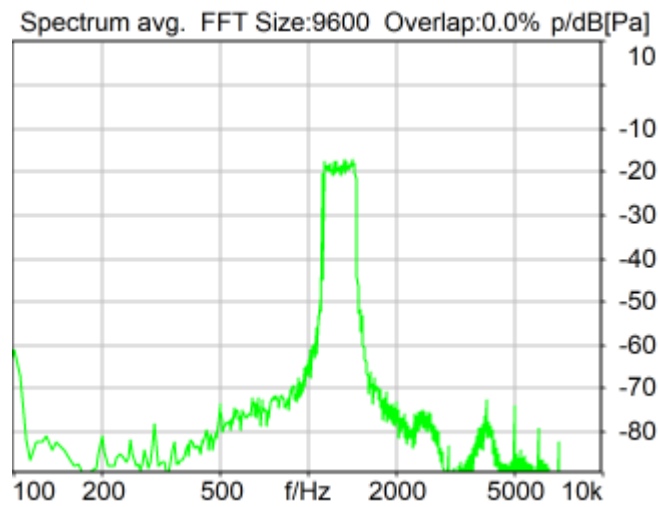
Distortion (Noise) RCV (packed): 41.42 dB (0.85%) Ok

Ok

24/10/16 16:27 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



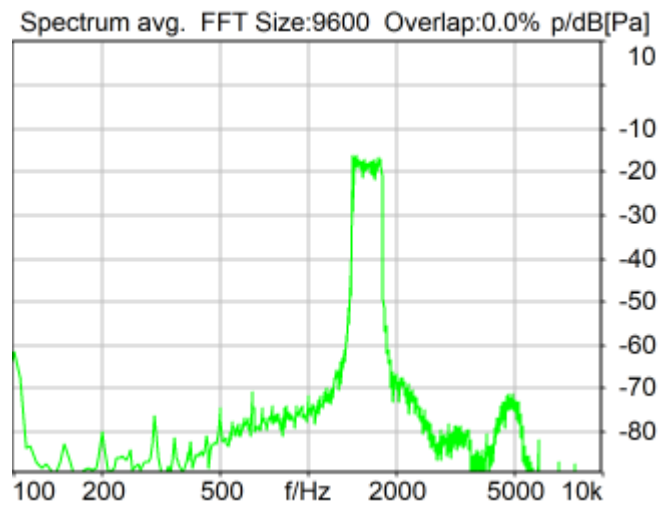
Distortion (Noise) RCV (packed): 31.41 dB (2.69%) Ok

Ok

24/10/16 16:27 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



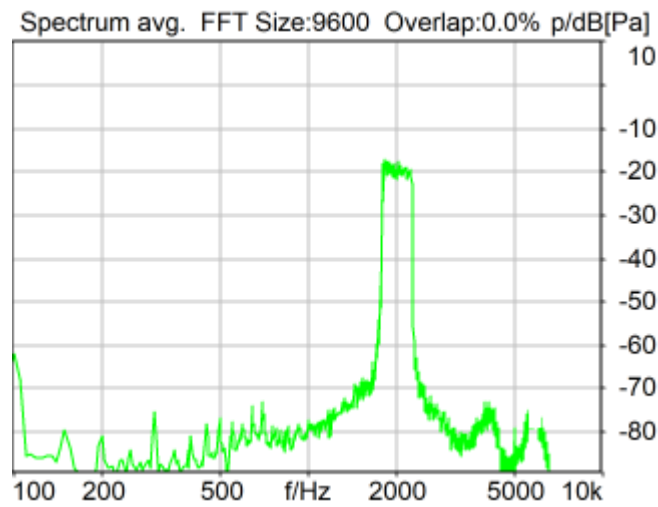
Distortion (Noise) RCV (packed): 41.86 dB (0.81%) Ok

Ok

24/10/16 16:28 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



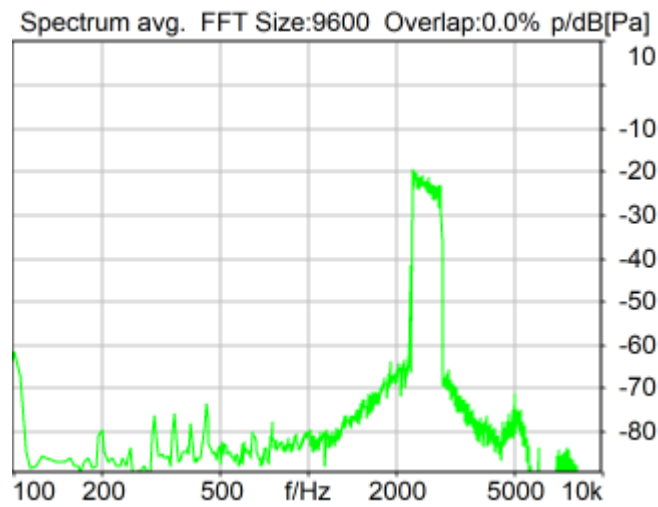
Distortion (Noise) RCV (packed): 43.32 dB (0.68%) Ok

Ok

24/10/16 16:28 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



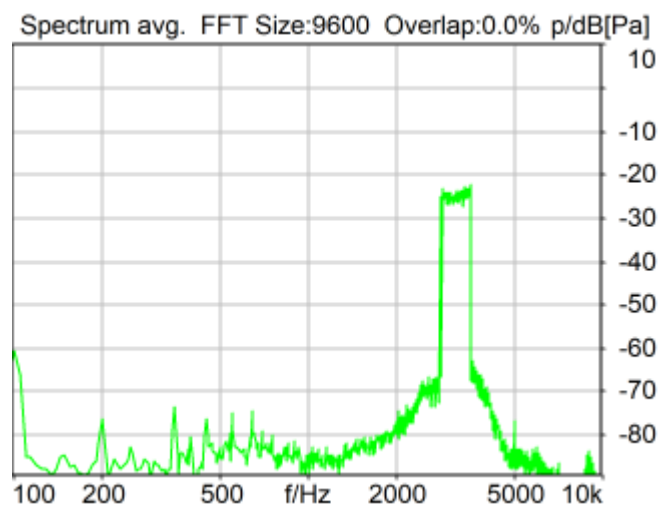
Distortion (Noise) RCV (packed): 40.94 dB (0.90%) Ok

Ok

24/10/16 16:29 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



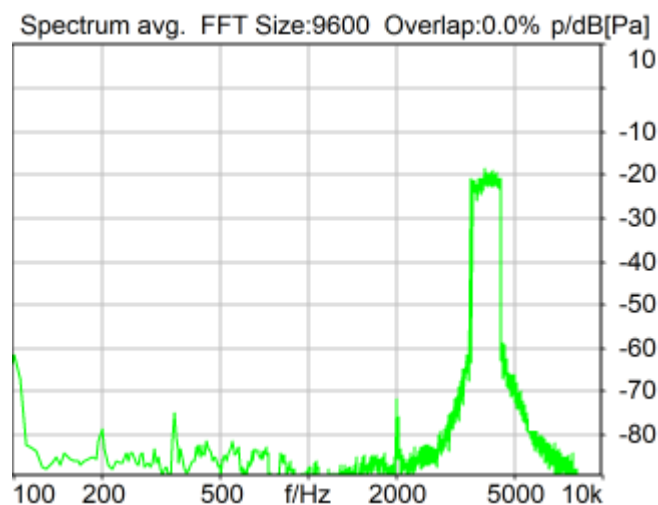
Distortion (Noise) RCV (packed): 40.97 dB (0.89%) Ok

Ok

24/10/16 16:29 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



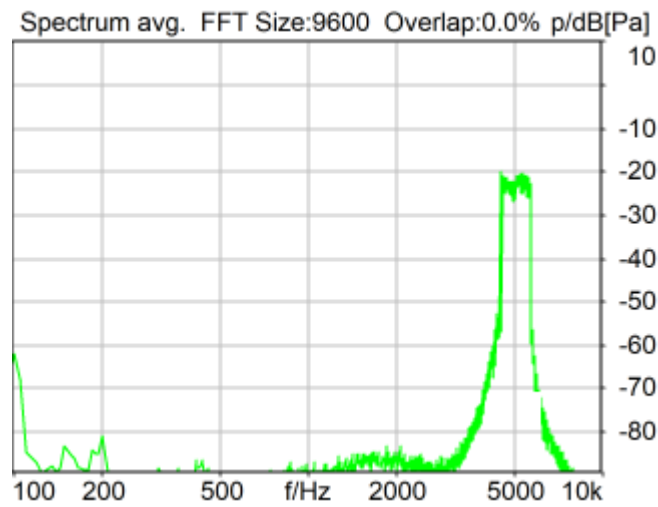
Distortion (Noise) RCV (packed): 42.50 dB (0.75%) Ok

Ok

24/10/16 16:29 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): 38.63 dB (1.17%) Ok

Ok

24/10/16 16:30 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	28.92 dB
2	315Hz	32.33 dB
3	400Hz	34.62 dB
4	500Hz	35.19 dB
5	630Hz	39.91 dB
6	800Hz	39.40 dB
7	1000Hz	41.42 dB
8	1250Hz	31.41 dB
9	1600Hz	41.86 dB
10	2000Hz	43.32 dB
11	2500Hz	40.94 dB
12	3150Hz	40.97 dB
13	4000Hz	42.50 dB
14	5000Hz	38.63 dB

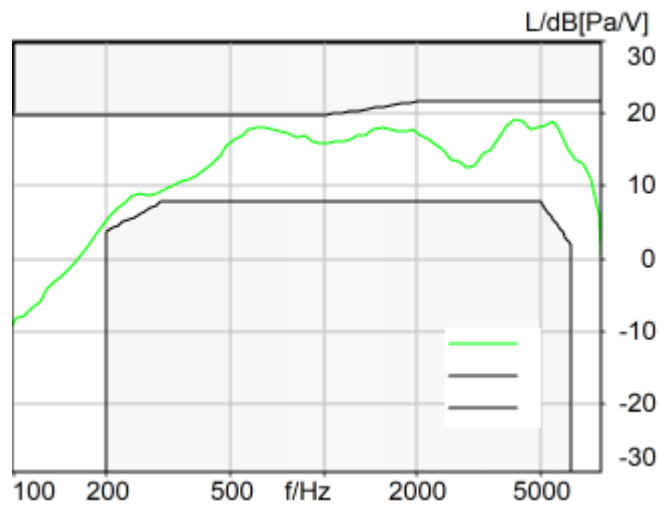
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 28.92dB at 250Hz.

24/10/16 16:30 ACQUA

5.3 Frequency Response 2N FF

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



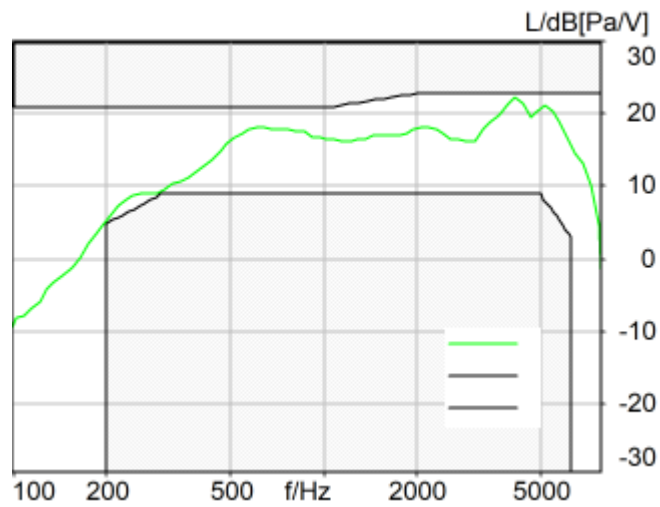
Absolute minimal distance
1.58 dB at 611.7 Hz Ok

Ok

24/10/16 16:30 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.59 dB at 4119.5 Hz Ok

Ok

24/10/16 16:31 ACQUA 5.1.200

ACQUA Report
WB 24.4kbps_Ch641666_8N

Title: 08_FR1 n48_40M_QPSK_1RB_1Offset_EVS

Measurement Protocol

Measurement Object	FR1 n48_40M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch641666_8N
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Project	460505-02
Report Generation Date	24/10/10 14:46
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	273.9	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	86.77	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.41	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.03	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.75	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.11	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.86	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.00	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.91	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.54	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.55	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	44.39	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.81	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.60	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.48	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.98	FR1 n48_40M_QPSK_1RB_1Offset_E VS WB 24.4kbps_Ch641666_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	26.54	FR1

ACQUA Report
WB 24.4kbps_Ch641666_8N

Title: FR1 n48_40M_QPSK_1RB_1Offset_EVS

and Noise (Conversational Gain)		(occured at 1250Hz)		n48_40M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch641666_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 649.1 Hz	0.98	FR1 n48_40M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch641666_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.10	FR1 n48_40M_QPSK_1RB_1Offset_EVS WB 24.4kbps_Ch641666_8N

ACQUA Report
WB 24.4kbps_Ch641666_8N

Title: FR1 n48_40M_QPSK_1RB_1Offset_EVS

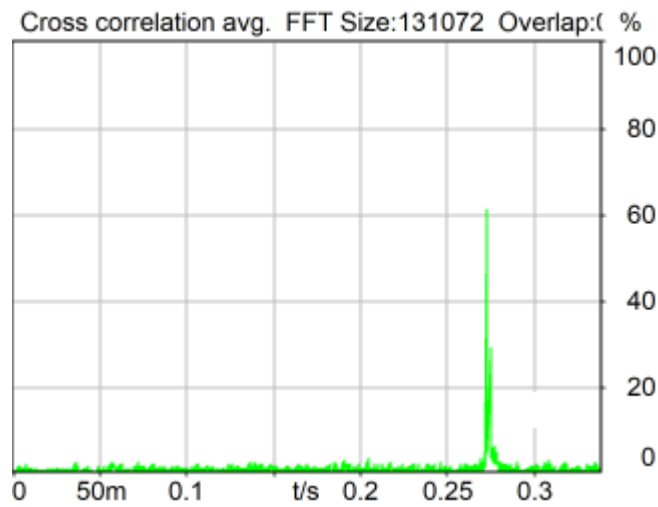
Overall Receive Delay WB	6
5.1a Receive Volume Control Performance 8N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 8N FF	23
5.3 Frequency Response 8N DF	24

ACQUA Report
WB 24.4kbps_Ch641666_8N

Title: FR1 n48_40M_QPSK_1RB_1Offset_EVS

Overall Receive Delay WB

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

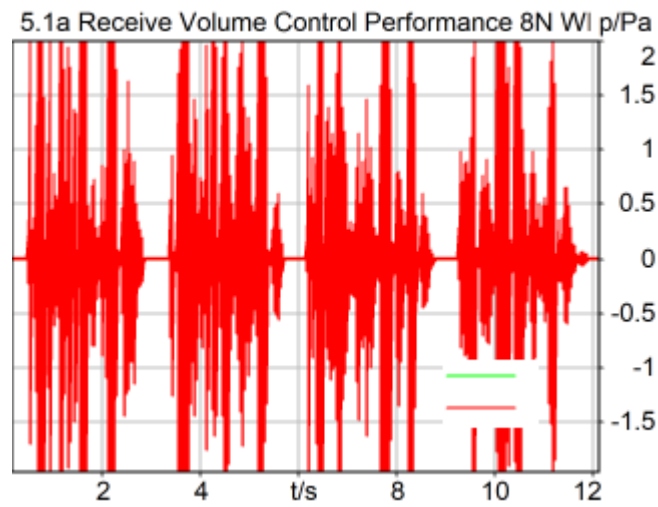


Delay (Cross): 273.9 ms

24/10/10 14:18 ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



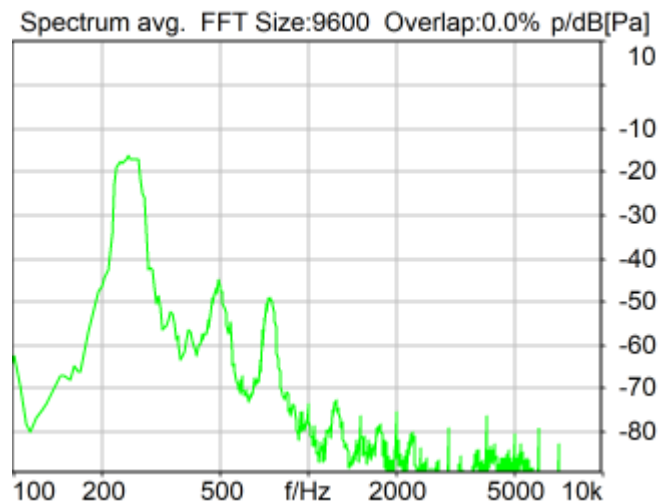
Speech Level RCV: 86.77 dB[SPL], Act.: 83.76% Ok

Ok

24/10/10 14:45 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 8N



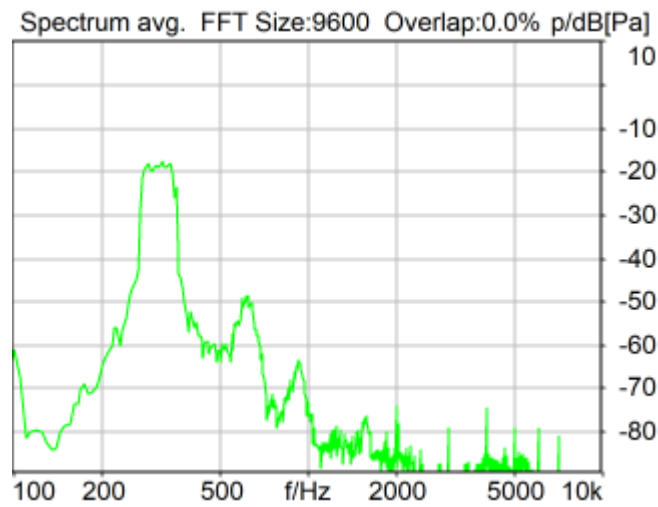
Distortion (Noise) RCV (packed): 29.41 dB (3.38%) Ok

Ok

24/10/10 14:19 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



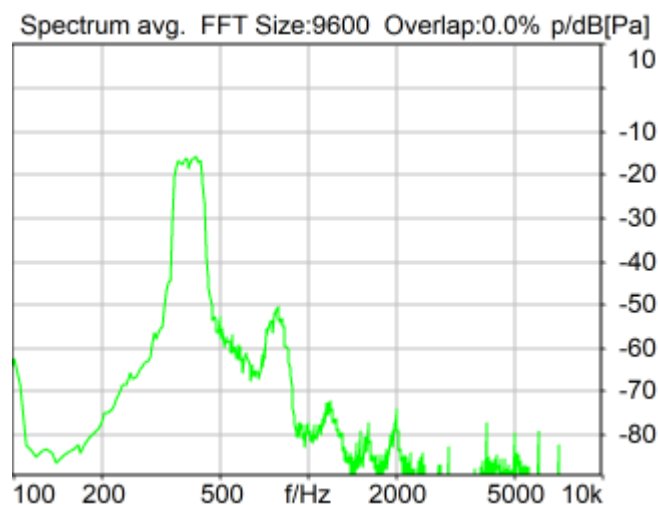
Distortion (Noise) RCV (packed): 32.03 dB (2.50%) Ok

Ok

24/10/10 14:19 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



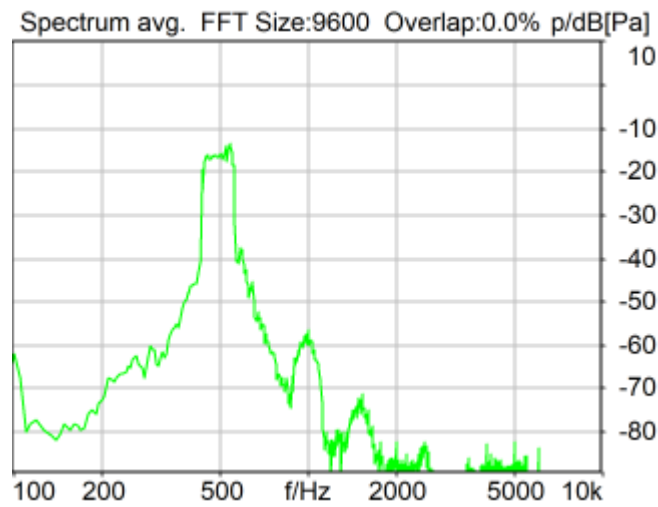
Distortion (Noise) RCV (packed): 34.75 dB (1.83%) Ok

Ok

24/10/10 14:20 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



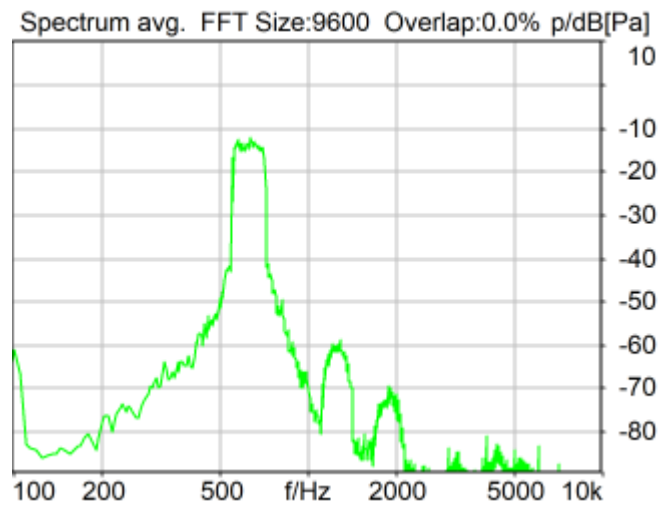
Distortion (Noise) RCV (packed): 32.11 dB (2.48%) Ok

Ok

24/10/10 14:20 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



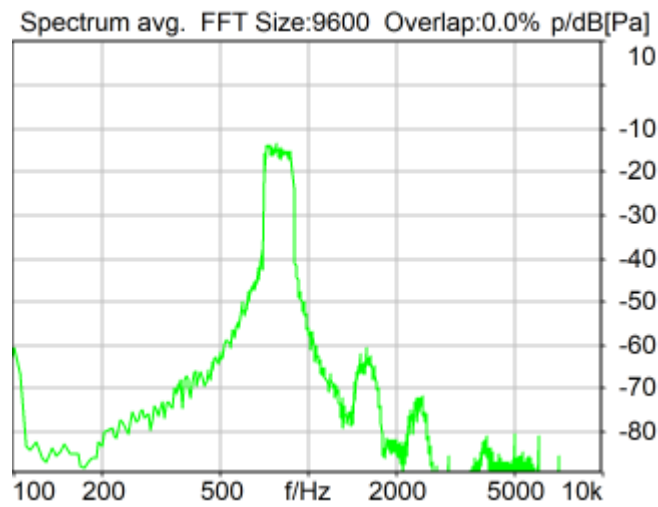
Distortion (Noise) RCV (packed): 36.86 dB (1.44%) Ok

Ok

24/10/10 14:21 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



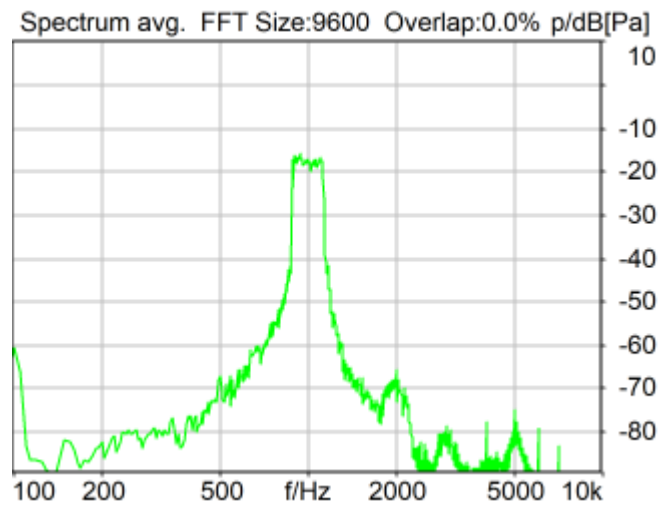
Distortion (Noise) RCV (packed): 35.00 dB (1.78%) Ok

Ok

24/10/10 14:21 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



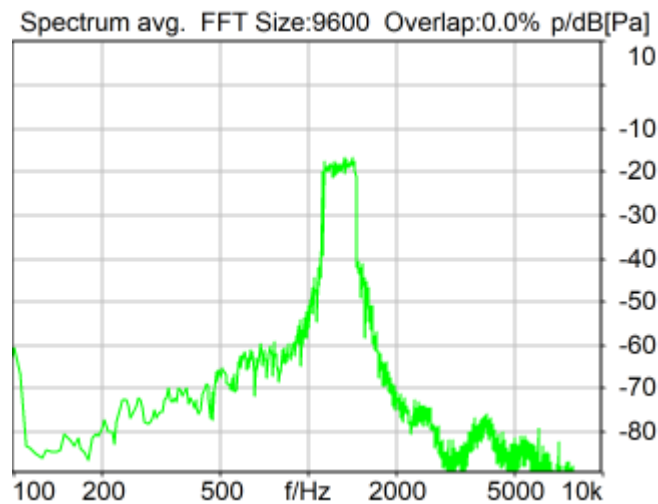
Distortion (Noise) RCV (packed): 32.91 dB (2.26%) Ok

Ok

24/10/10 14:21 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



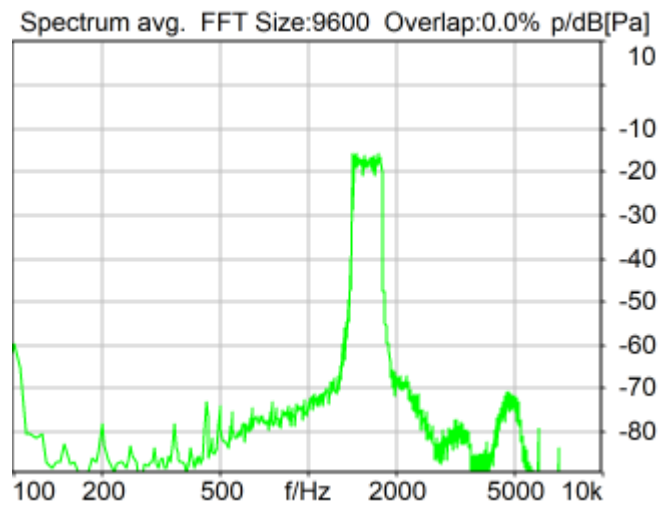
Distortion (Noise) RCV (packed): 26.54 dB (4.71%) Ok

Ok

24/10/10 14:22 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



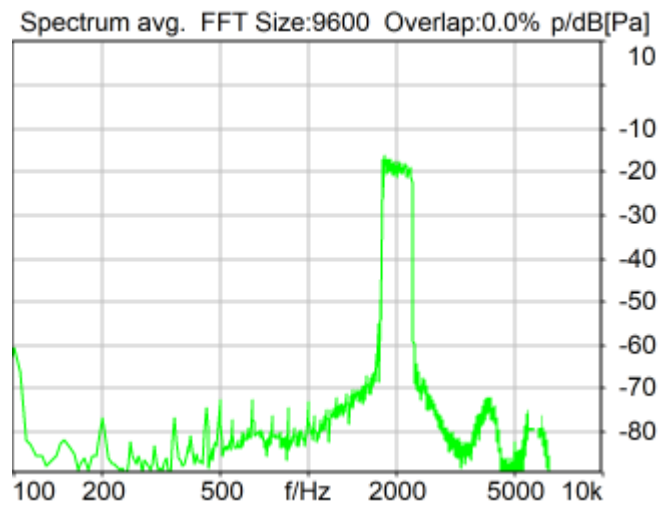
Distortion (Noise) RCV (packed): 41.55 dB (0.84%) Ok

Ok

24/10/10 14:22 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



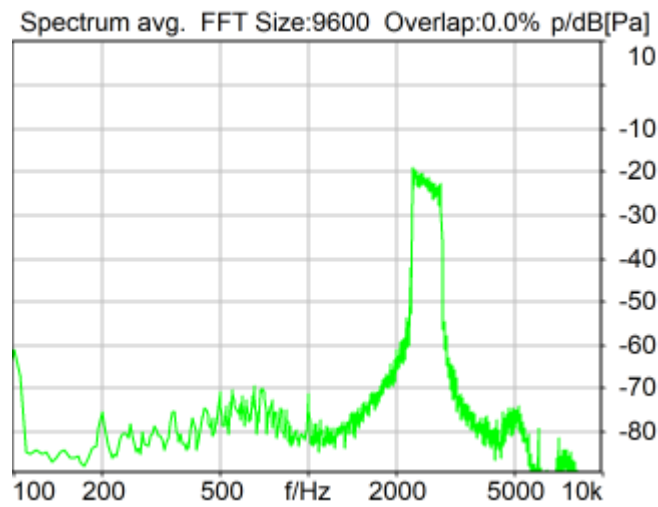
Distortion (Noise) RCV (packed): 44.39 dB (0.60%) Ok

Ok

24/10/10 14:23 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



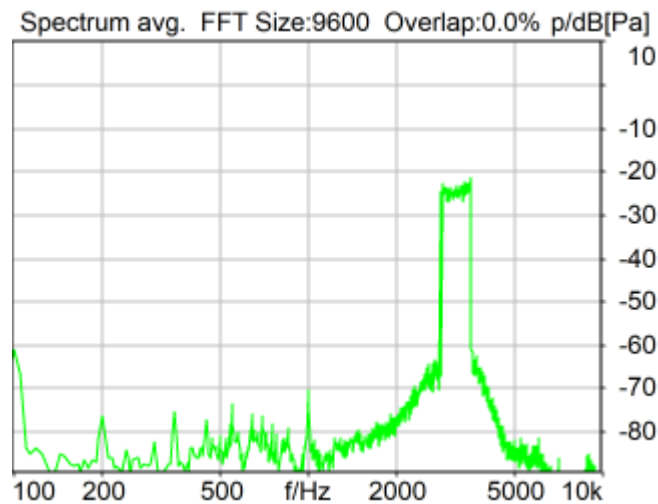
Distortion (Noise) RCV (packed): 36.81 dB (1.44%) Ok

Ok

24/10/10 14:23 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): 39.60 dB (1.05%) Ok

Ok

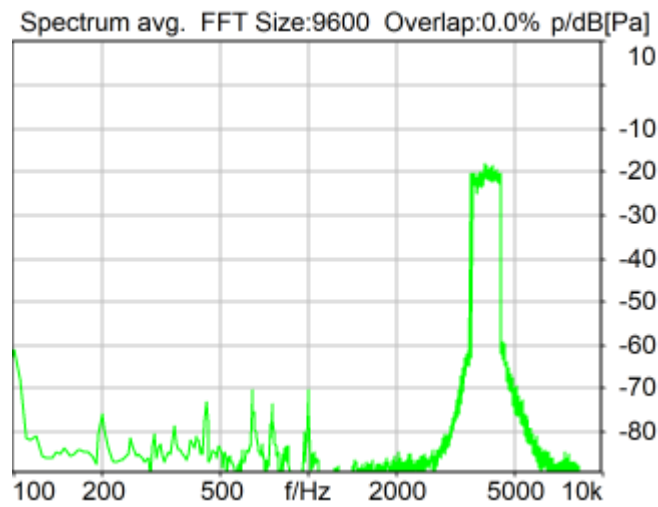
24/10/10 14:24 ACQUA 5.1.200

ACQUA Report
WB 24.4kbps_Ch641666_8N

Title: FR1 n48_40M_QPSK_1RB_1Offset_EVS

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): 43.48 dB (0.67%) Ok

Ok

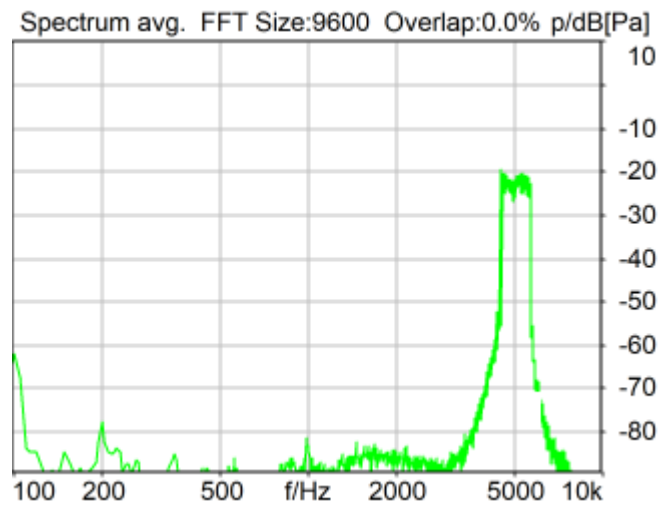
24/10/10 14:24 ACQUA 5.1.200

ACQUA Report
WB 24.4kbps_Ch641666_8N

Title: FR1 n48_40M_QPSK_1RB_1Offset_EVS

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): 38.98 dB (1.12%) Ok

Ok

24/10/10 14:25 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	29.41 dB
2	315Hz	32.03 dB
3	400Hz	34.75 dB
4	500Hz	32.11 dB
5	630Hz	36.86 dB
6	800Hz	35.00 dB
7	1000Hz	32.91 dB
8	1250Hz	26.54 dB
9	1600Hz	41.55 dB
10	2000Hz	44.39 dB
11	2500Hz	36.81 dB
12	3150Hz	39.60 dB
13	4000Hz	43.48 dB
14	5000Hz	38.98 dB

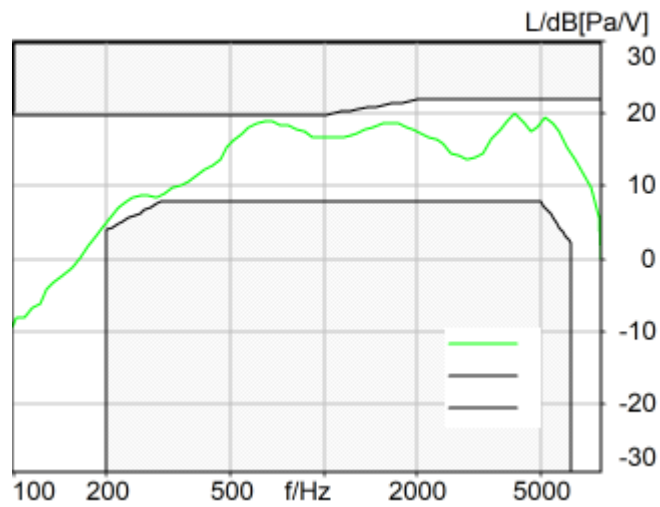
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 26.54dB at 1250Hz.

24/10/10 14:35 ACQUA

5.3 Frequency Response 8N FF

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



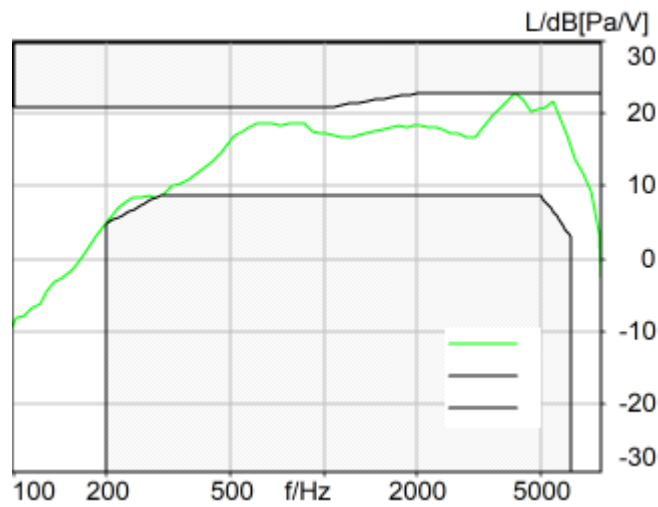
Absolute minimal distance
0.98 dB at 649.1 Hz Ok

Ok

24/10/10 14:36 ACQUA 5.1.200

5.3 Frequency Response 8N DF

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



Absolute minimal distance
0.10 dB at 4119.5 Hz Ok

Ok

24/10/10 14:46 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WLAN5GHz_802.11a 6Mbps_EVS WB 24.4kbps_Ch40_2N
--------------------	--

Project	460505-02
Report Generation Date	24/10/14 11:37
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	208.9	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.42	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.06	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.25	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.82	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.10	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.76	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.86	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.88	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.87	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	42.82	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.30	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.75	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.30	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	43.82	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.27	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	30.06	WLAN5GHz_802.11a

ACQUA Report
4kbps_Ch40_2N

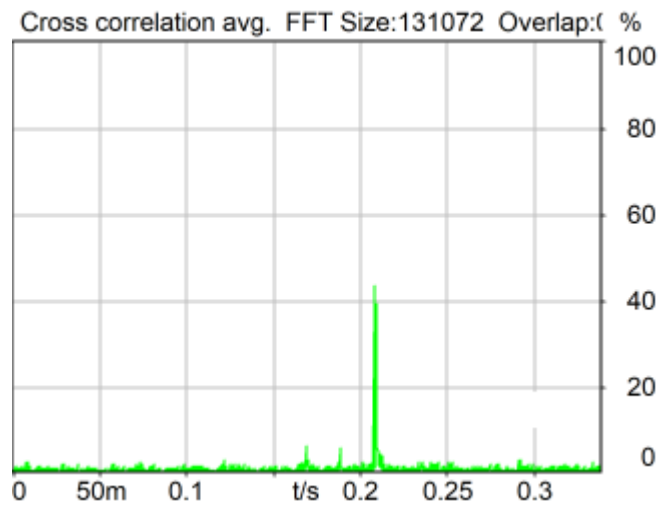
Title: WLAN5GHz_802.11a 6Mbps_EVS WB 24.

and Noise (Conversational Gain)		(occured at 250Hz)		6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 288.4 Hz	0.81	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 4119.5 Hz	0.01	WLAN5GHz_802.11a 6Mbps_EVS WB 24. 4kbps_Ch40_2N

Overall Receive Delay WB	6
5.1b Receive Volume Control Performance 2N WB	7
5.2 RCV Distortion and Noise - 250 Hz WB	8
5.2 RCV Distortion and Noise - 315 Hz WB	9
5.2 RCV Distortion and Noise - 400 Hz WB	10
5.2 RCV Distortion and Noise - 500 Hz WB	11
5.2 RCV Distortion and Noise - 630 Hz WB	12
5.2 RCV Distortion and Noise - 800 Hz WB	13
5.2 RCV Distortion and Noise - 1000 Hz WB	14
5.2 RCV Distortion and Noise - 1250 Hz WB	15
5.2 RCV Distortion and Noise - 1600 Hz WB	16
5.2 RCV Distortion and Noise - 2000 Hz WB	17
5.2 RCV Distortion and Noise - 2500 Hz WB	18
5.2 RCV Distortion and Noise - 3150 Hz WB	19
5.2 RCV Distortion and Noise - 4000 Hz WB	20
5.2 RCV Distortion and Noise - 5000 Hz WB	21
Report - Receive Distortion and Noise (Conversational Gain)	22
5.3 Frequency Response 2N FF	23
5.3 Frequency Response 2N DF	24

Overall Receive Delay WB

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

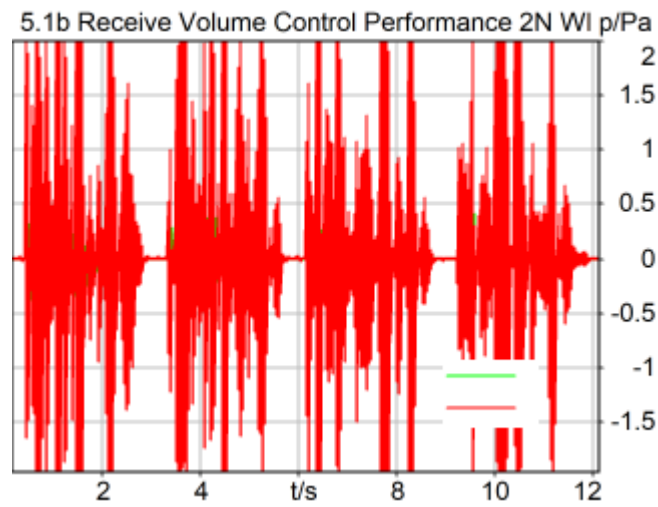


Delay (Cross): 208.9 ms

24/10/14 11:29 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



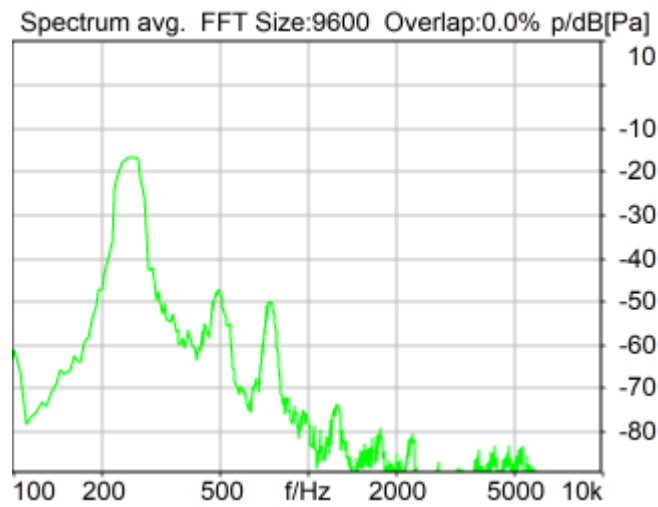
Speech Level RCV: 86.42 dB[SPL], Act.: 84.90% Ok

Ok

24/10/14 11:29 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



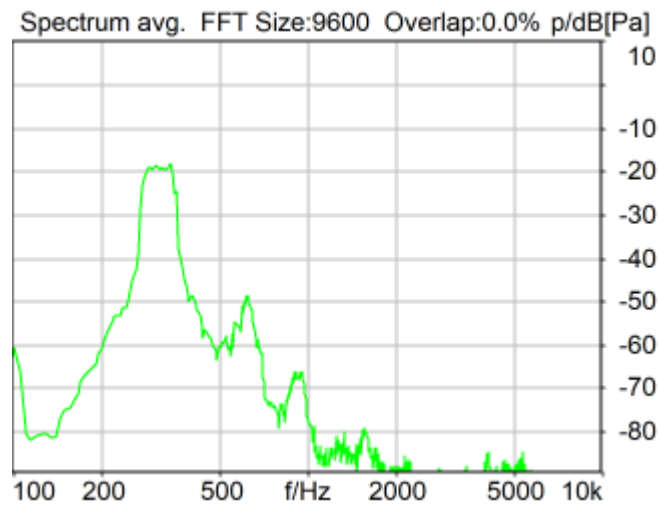
Distortion (Noise) RCV (packed): 30.06 dB (3.14%) Ok

Ok

24/10/14 11:30 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



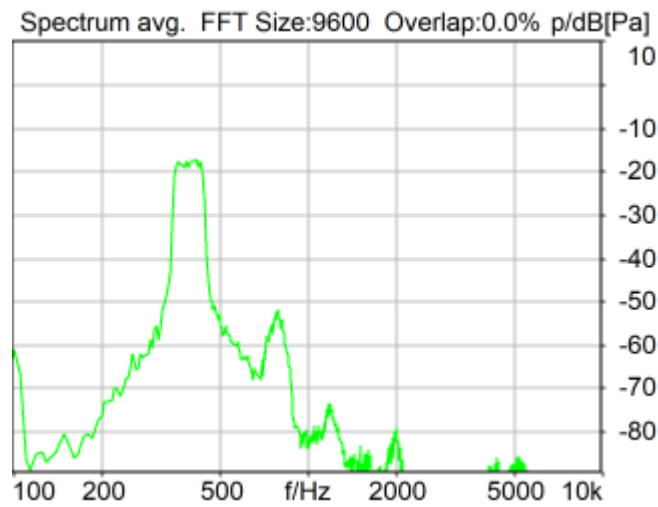
Distortion (Noise) RCV (packed): 31.25 dB (2.74%) Ok

Ok

24/10/14 11:30 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



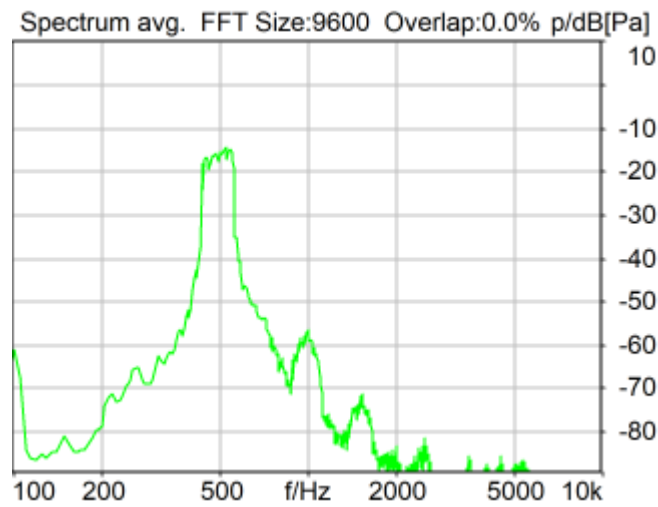
Distortion (Noise) RCV (packed): 34.82 dB (1.82%) Ok

Ok

24/10/14 11:31 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



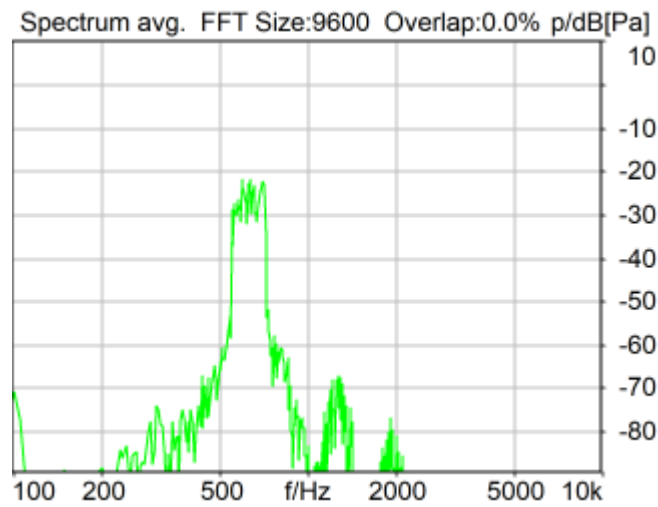
Distortion (Noise) RCV (packed): 34.10 dB (1.97%) Ok

Ok

24/10/14 11:31 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



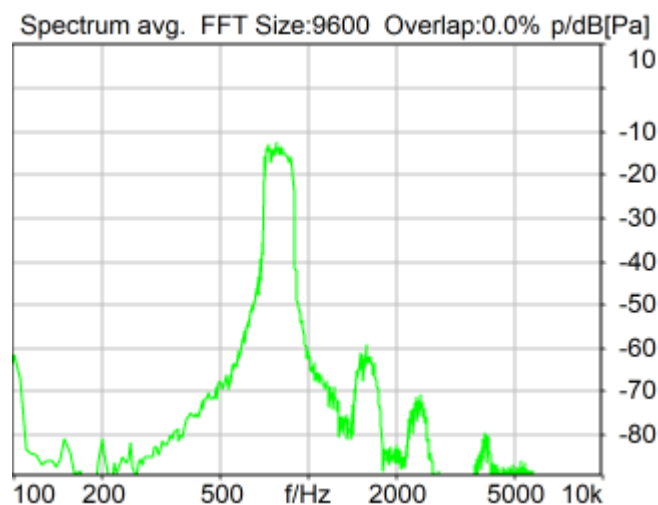
Distortion (Noise) RCV (packed): 37.76 dB (1.29%) Ok

Ok

24/10/14 11:32 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



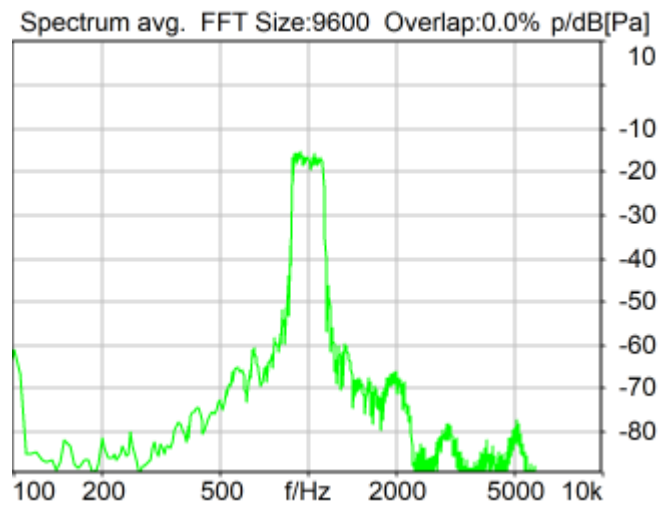
Distortion (Noise) RCV (packed): 38.86 dB (1.14%) Ok

Ok

24/10/14 11:32 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



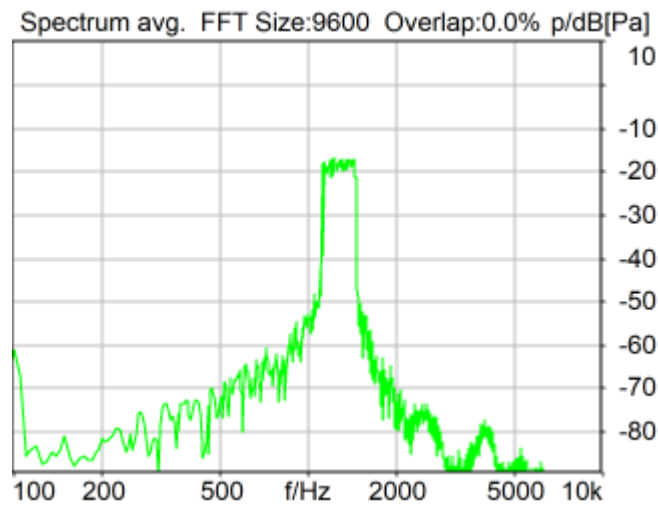
Distortion (Noise) RCV (packed): 36.88 dB (1.43%) Ok

Ok

24/10/14 11:32 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



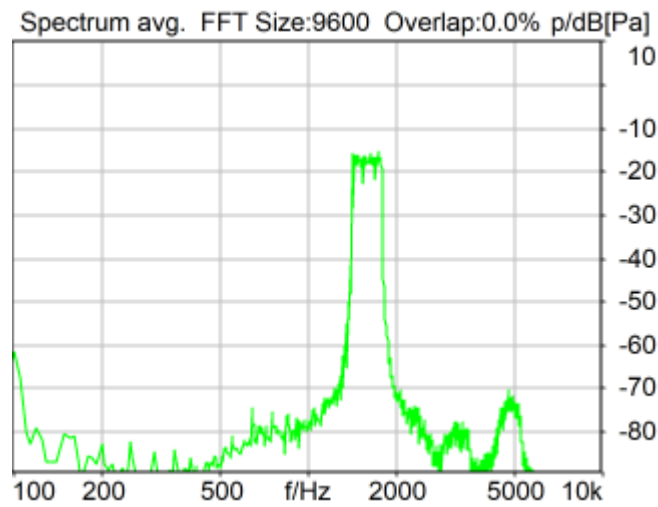
Distortion (Noise) RCV (packed): 30.87 dB (2.86%) Ok

Ok

24/10/14 11:33 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



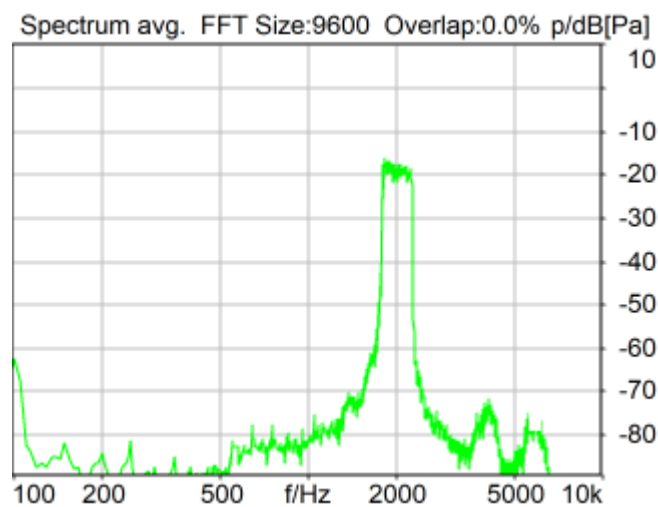
Distortion (Noise) RCV (packed): 42.82 dB (0.72%) Ok

Ok

24/10/14 11:33 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



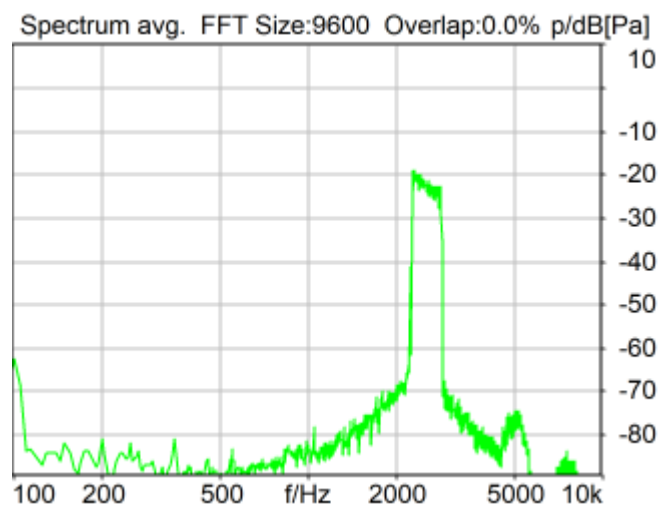
Distortion (Noise) RCV (packed): 41.30 dB (0.86%) Ok

Ok

24/10/14 11:34 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



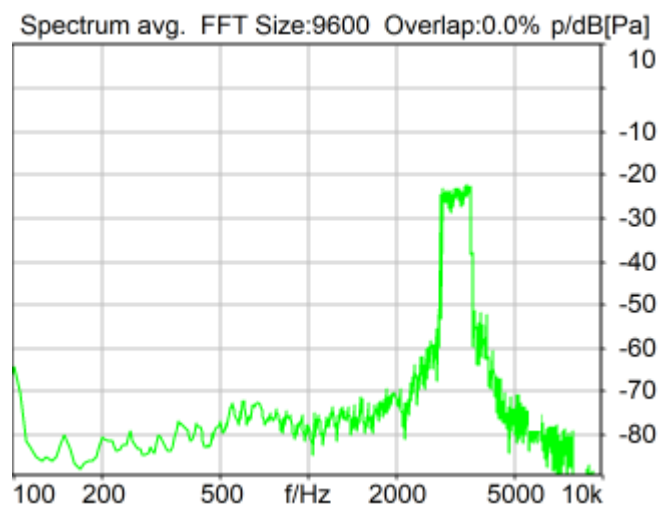
Distortion (Noise) RCV (packed): 43.75 dB (0.65%) Ok

Ok

24/10/14 11:34 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



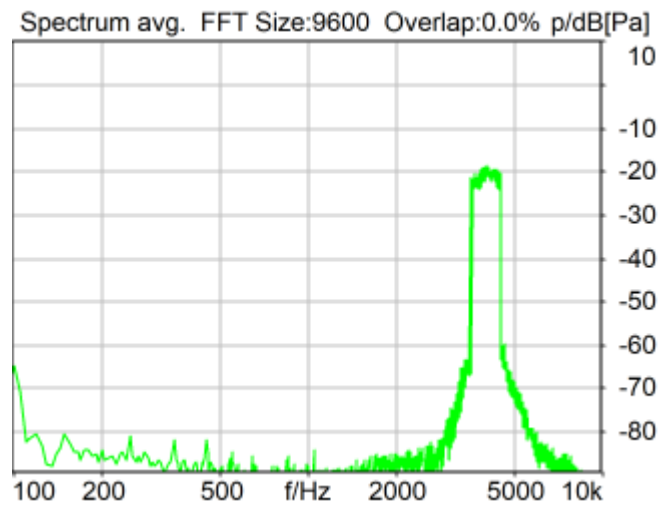
Distortion (Noise) RCV (packed): 30.30 dB (3.06%) Ok

Ok

24/10/14 11:35 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



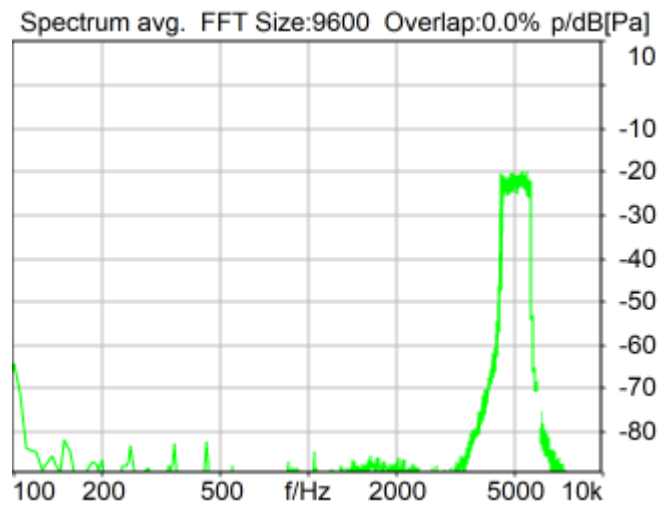
Distortion (Noise) RCV (packed): 43.82 dB (0.64%) Ok

Ok

24/10/14 11:35 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): 37.27 dB (1.37%) Ok

Ok

24/10/14 11:36 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	30.06 dB
2	315Hz	31.25 dB
3	400Hz	34.82 dB
4	500Hz	34.10 dB
5	630Hz	37.76 dB
6	800Hz	38.86 dB
7	1000Hz	36.88 dB
8	1250Hz	30.87 dB
9	1600Hz	42.82 dB
10	2000Hz	41.30 dB
11	2500Hz	43.75 dB
12	3150Hz	30.30 dB
13	4000Hz	43.82 dB
14	5000Hz	37.27 dB

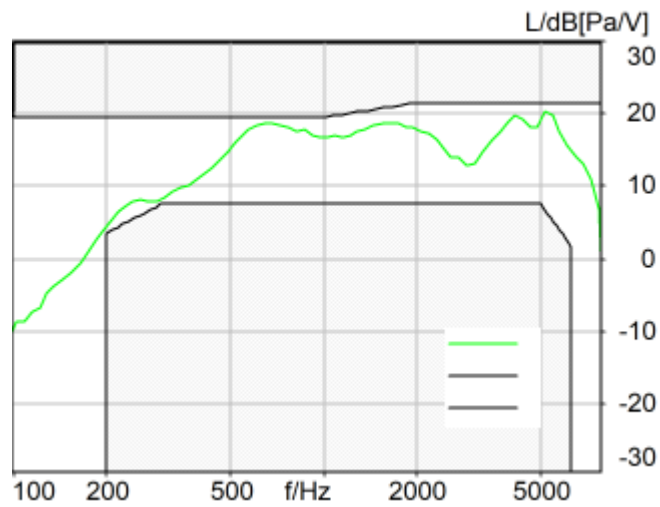
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 30.06dB at 250Hz.

24/10/14 11:36 ACQUA

5.3 Frequency Response 2N FF

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



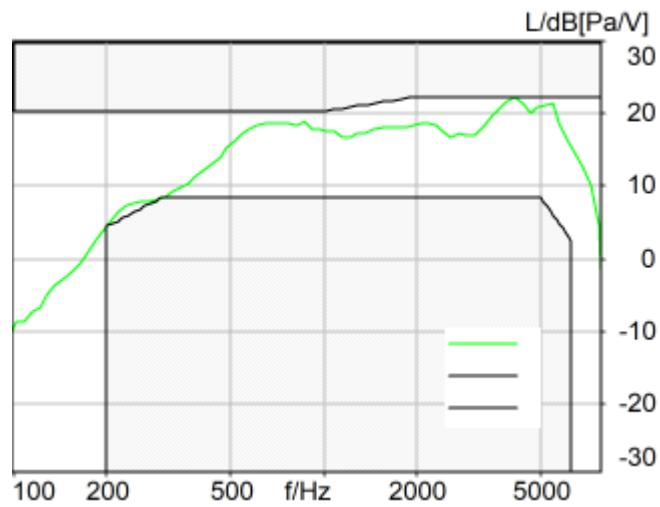
Absolute minimal distance
0.81 dB at 288.4 Hz Ok

Ok

24/10/14 11:36 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.01 dB at 4119.5 Hz Ok

Ok

24/10/14 11:36 ACQUA 5.1.200