
Measurement Protocol

Measurement Object	LTE Band 7_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
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Project	561221
Report Generation Date	25/06/19 14:41
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	110.2	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.59	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.06	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.49	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.43	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.50	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.23	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.46	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.67	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.62	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.40	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.41	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.68	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	48.35	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.27	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	52.11	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	21.06	LTE Band

ACQUA Report
WB 128kbps_Ch21100_8N

Title: LTE Band 7_20M_QPSK_1RB_0Offset_EVS

and Noise (Conversational Gain)		(occured at 250Hz)		7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	2.49	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 272.2 Hz	1.37	LTE Band 7_20M_QPSK_1RB_0Offset_EV S WB 128kbps_Ch21100_8N

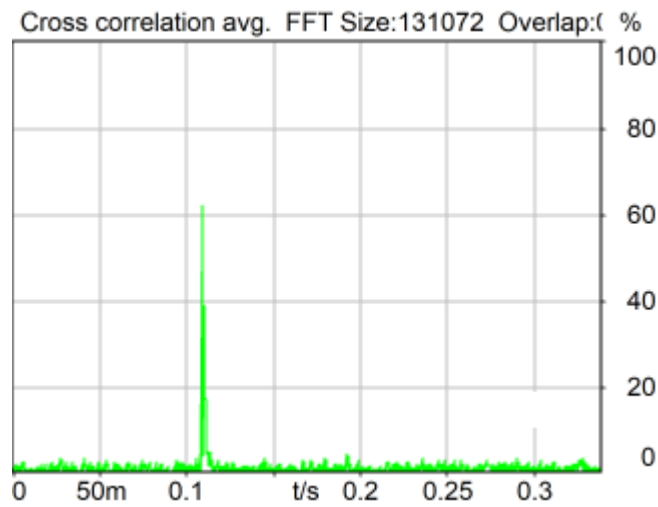
ACQUA Report
WB 128kbps_Ch21100_8N

Title: LTE Band 7_20M_QPSK_1RB_0Offset_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

Overall Receive Delay WB

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

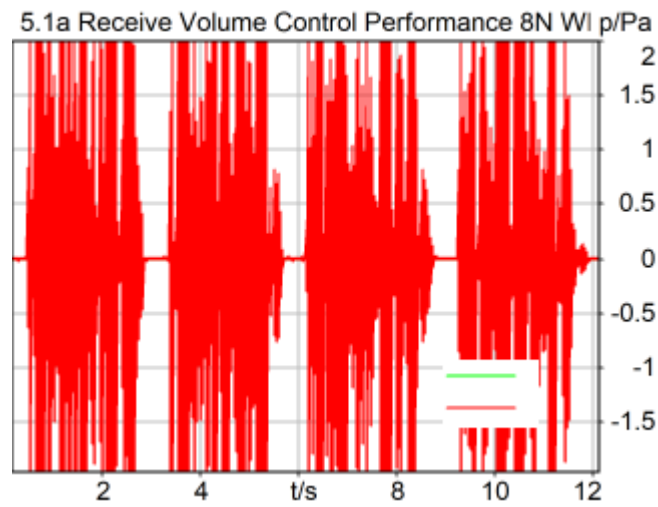


Delay (Cross): 110.2 ms

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5.1a Receive Volume Control Performance 8N WB

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



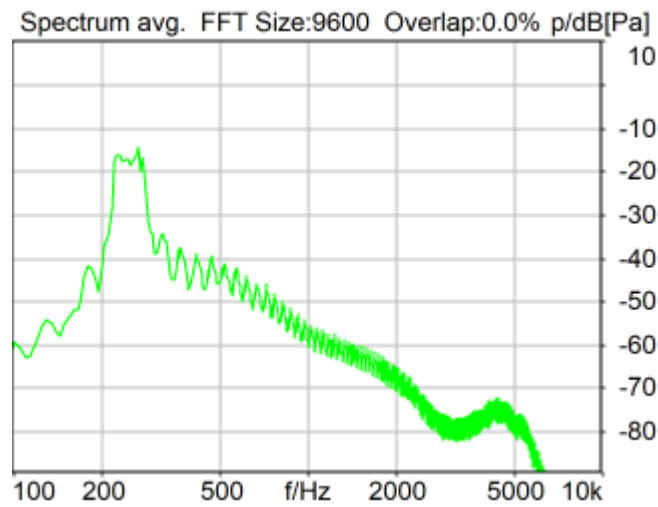
Speech Level RCV: 90.59 dB[SPL], Act.: 85.16% Ok

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 8N



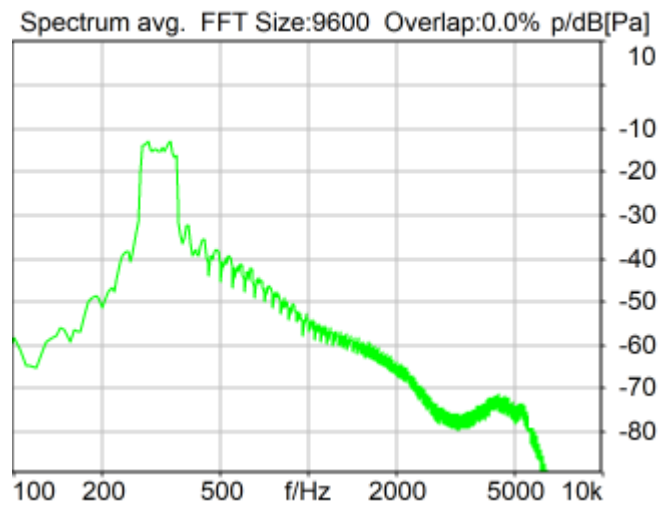
Distortion (Noise) RCV (packed): 21.06 dB (8.85%) Ok

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 8N



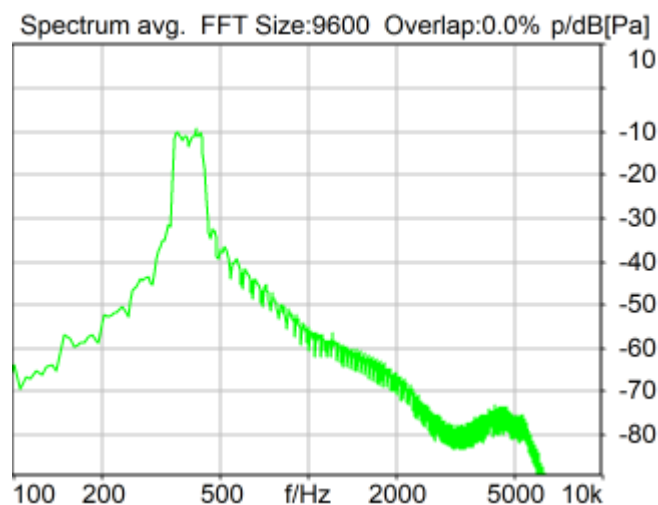
Distortion (Noise) RCV (packed): 22.49 dB (7.50%) Ok

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 8N



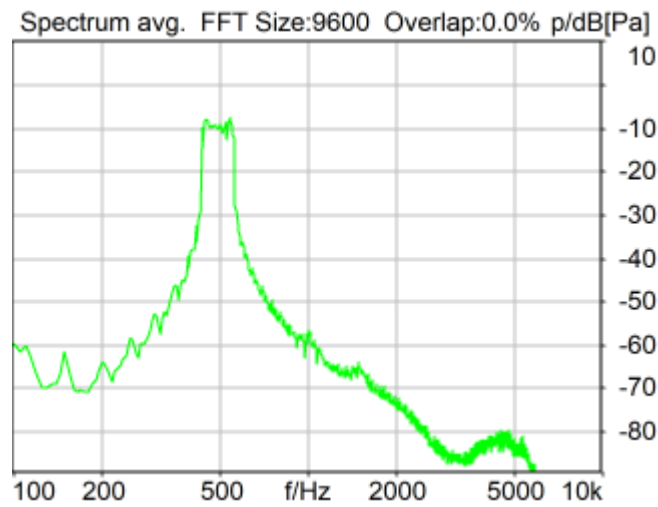
Distortion (Noise) RCV (packed): 27.43 dB (4.25%) Ok

Ok

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5.2 RCV Distortion and Noise - 500 Hz WB

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



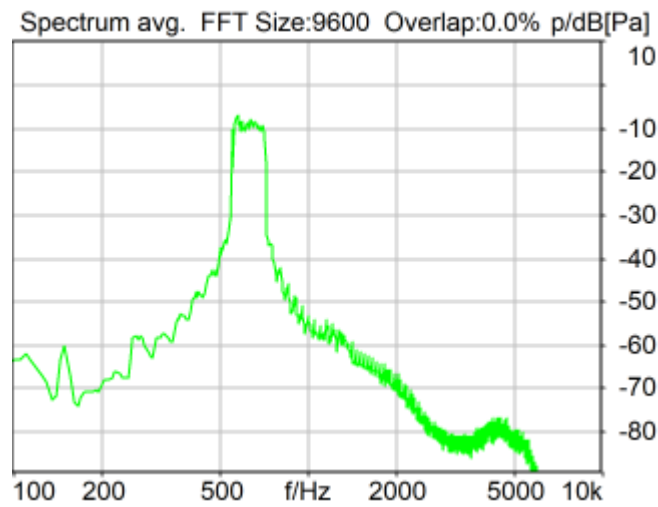
Distortion (Noise) RCV (packed): 33.50 dB (2.11%) Ok

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 8N



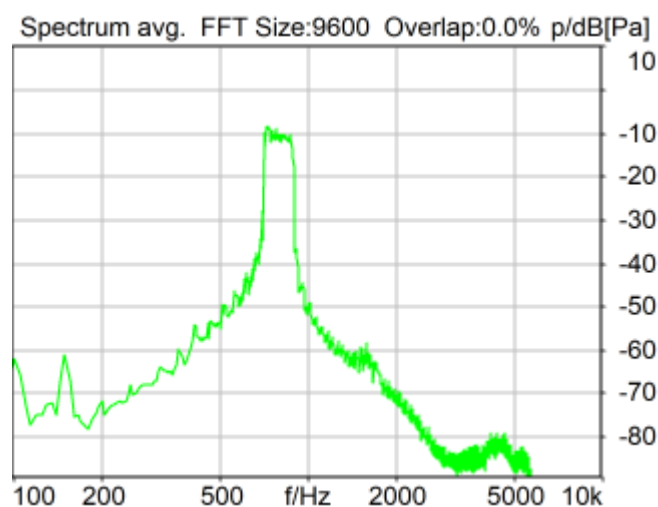
Distortion (Noise) RCV (packed): 33.23 dB (2.18%) Ok

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 8N



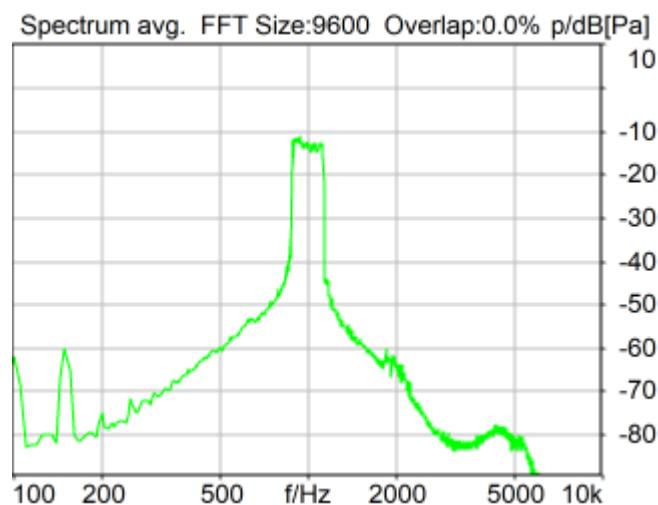
Distortion (Noise) RCV (packed): 34.46 dB (1.89%) Ok

Ok

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5.2 RCV Distortion and Noise - 1000 Hz WB

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



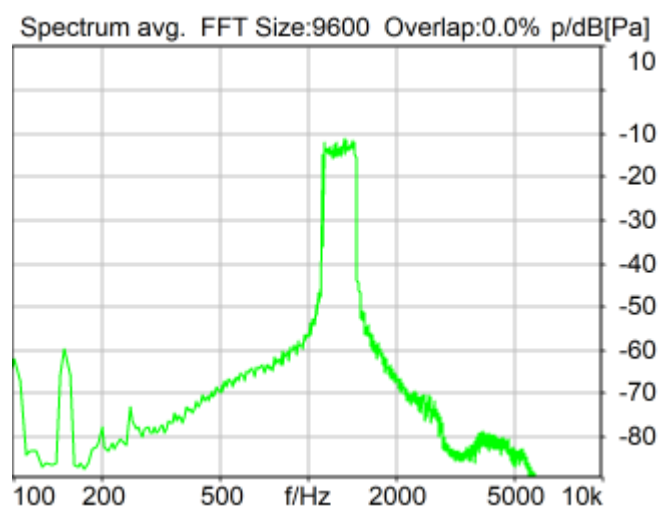
Distortion (Noise) RCV (packed): 33.67 dB (2.07%) Ok

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 8N



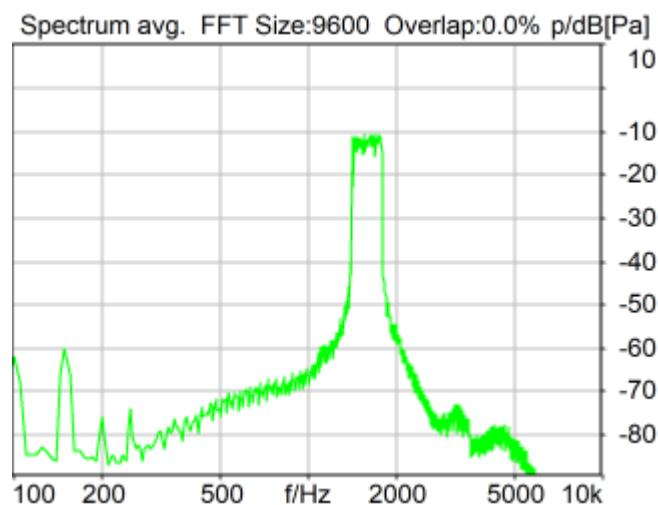
Distortion (Noise) RCV (packed): 31.62 dB (2.62%) Ok

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 8N



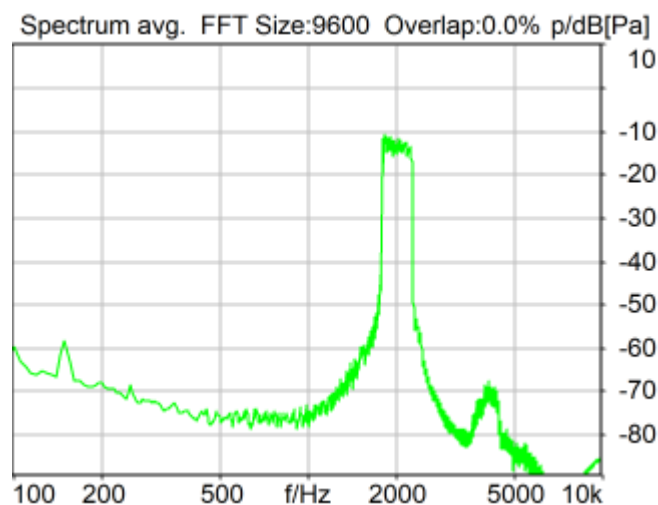
Distortion (Noise) RCV (packed): 39.40 dB (1.07%) Ok

Ok

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5.2 RCV Distortion and Noise - 2000 Hz WB

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



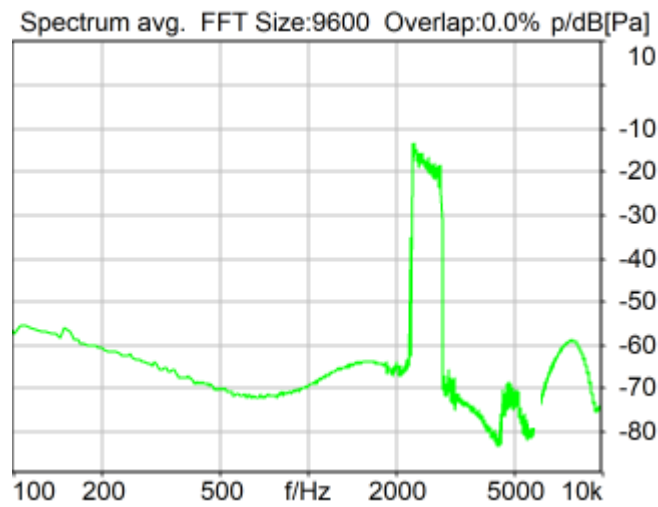
Distortion (Noise) RCV (packed): 41.41 dB (0.85%) Ok

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 8N



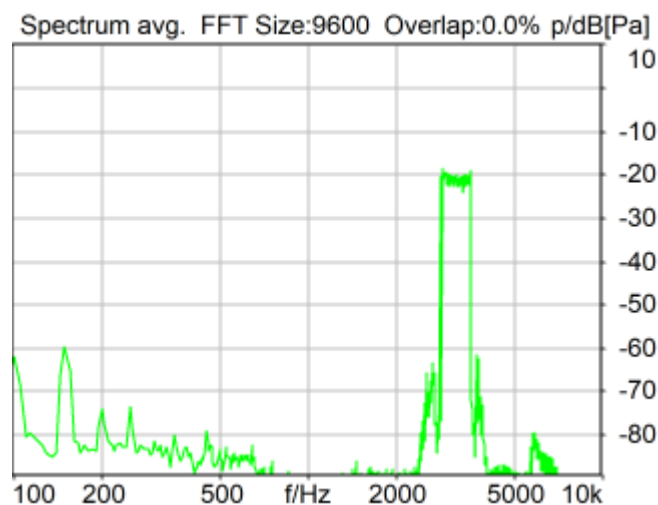
Distortion (Noise) RCV (packed): 35.68 dB (1.64%) Ok

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 8N



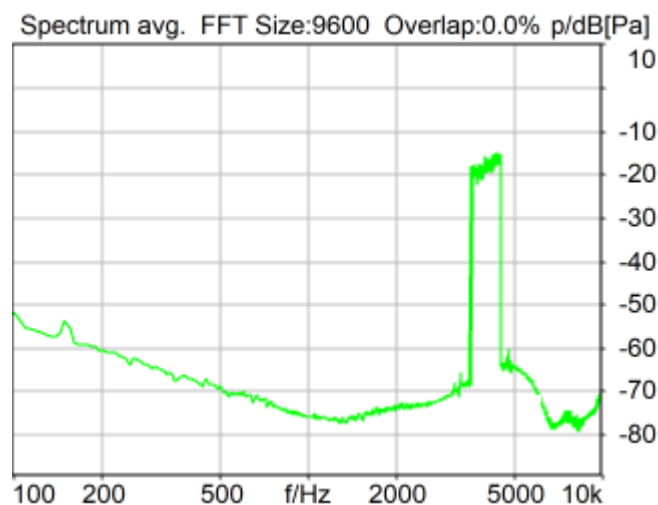
Distortion (Noise) RCV (packed): 48.35 dB (0.38%) Ok

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 8N



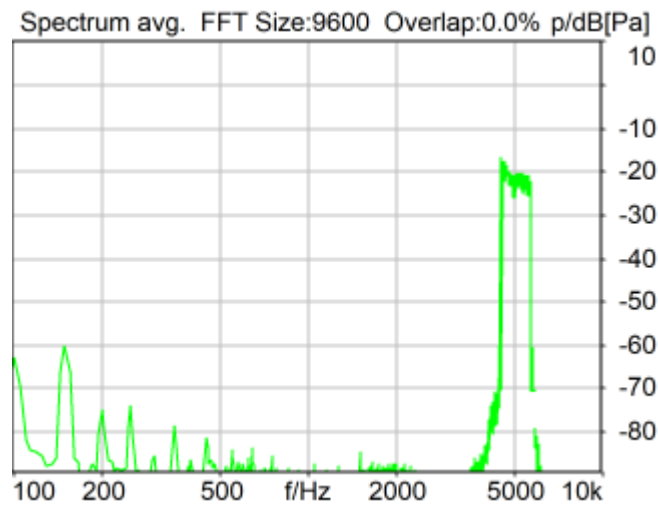
Distortion (Noise) RCV (packed): 36.27 dB (1.54%) Ok

Ok

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5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 52.11 dB (0.25%) 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 8N

Region	Frequency	SDNR
1	250Hz	21.06 dB
2	315Hz	22.49 dB
3	400Hz	27.43 dB
4	500Hz	33.50 dB
5	630Hz	33.23 dB
6	800Hz	34.46 dB
7	1000Hz	33.67 dB
8	1250Hz	31.62 dB
9	1600Hz	39.40 dB
10	2000Hz	41.41 dB
11	2500Hz	35.68 dB
12	3150Hz	48.35 dB
13	4000Hz	36.27 dB
14	5000Hz	52.11 dB

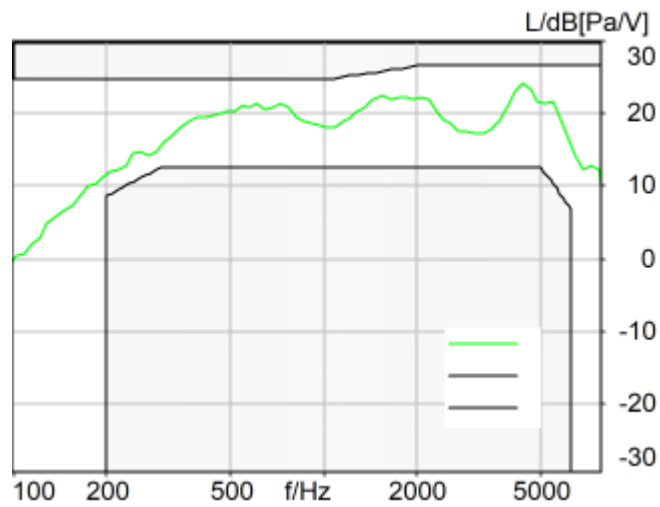
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.06dB at 250Hz.

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5.3 Frequency Response 8N FF

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



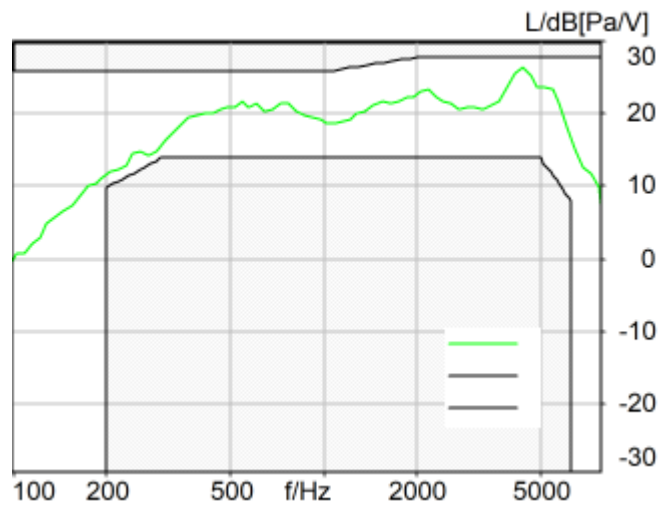
Absolute minimal distance
2.49 dB at 4369.4 Hz Ok

Ok

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5.3 Frequency Response 8N DF

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



Absolute minimal distance
1.37 dB at 272.2 Hz Ok

Ok

25/06/19 14:38 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
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Project	561221
Report Generation Date	25/06/19 15:05
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	111.4	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.97	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.74	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.29	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.42	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.27	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.40	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.70	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.81	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.54	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.80	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.59	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	49.16	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	50.20	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	57.54	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	53.02	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	21.74	LTE Band

ACQUA Report

Title: LTE Band

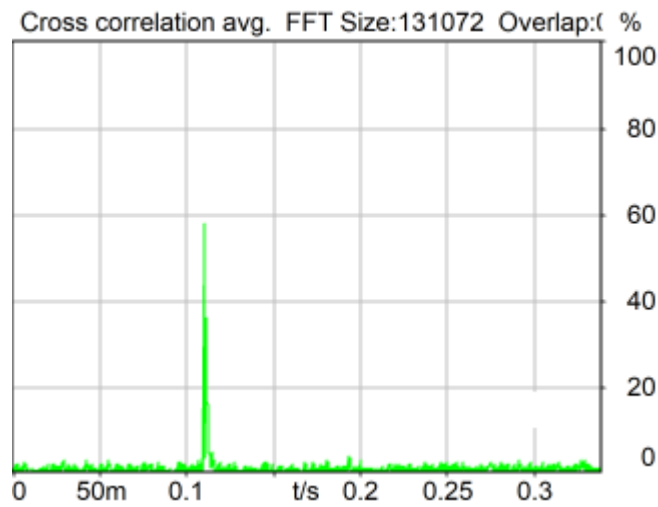
26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N

and Noise (Conversational Gain)		, (occured at 250Hz)		26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	1.31	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 288.4 Hz	0.21	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_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

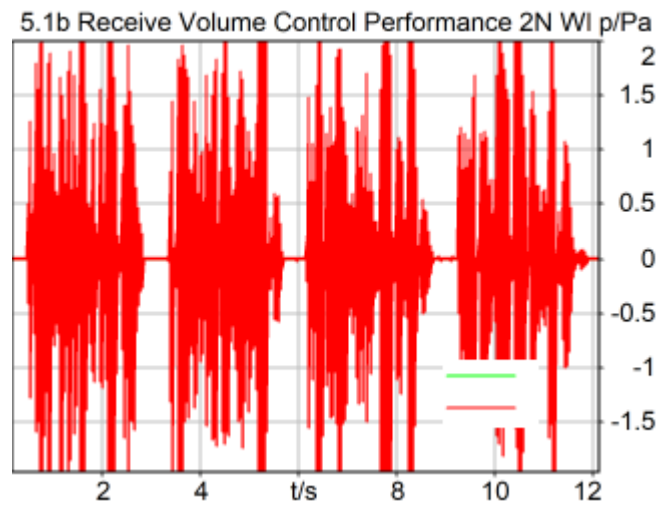


Delay (Cross): 111.4 ms

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5.1b Receive Volume Control Performance 2N WB

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



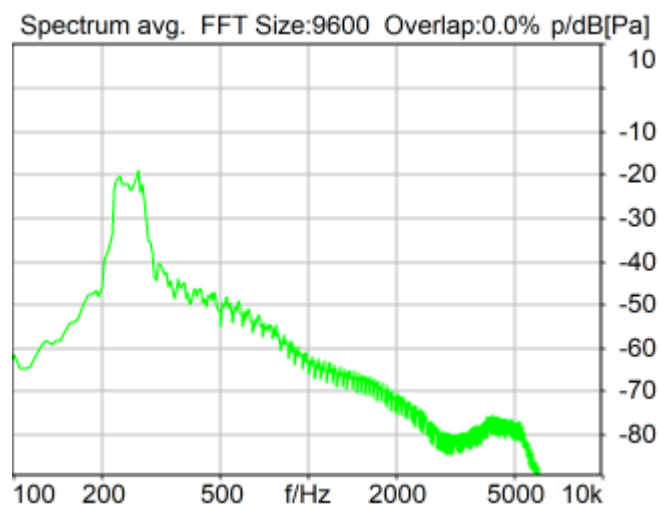
Speech Level RCV: 85.97 dB[SPL], Act.: 84.80% Ok

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



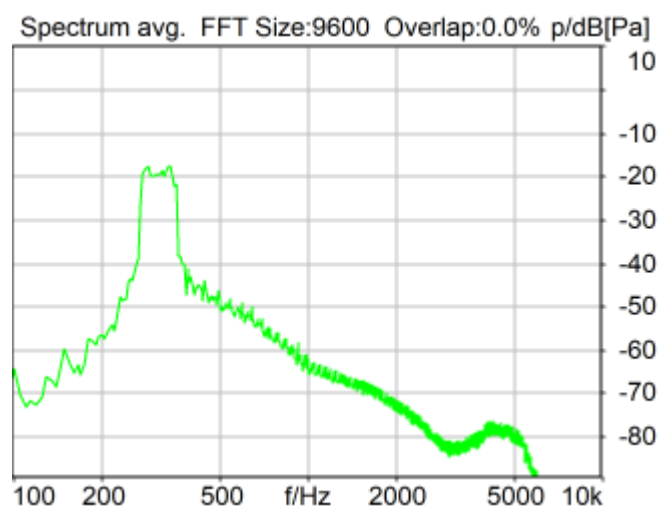
Distortion (Noise) RCV (packed): 21.74 dB (8.18%) Ok

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



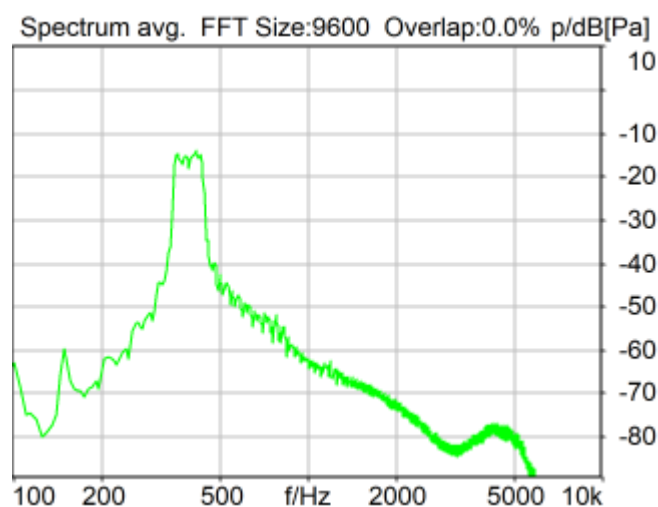
Distortion (Noise) RCV (packed): 26.29 dB (4.85%) Ok

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



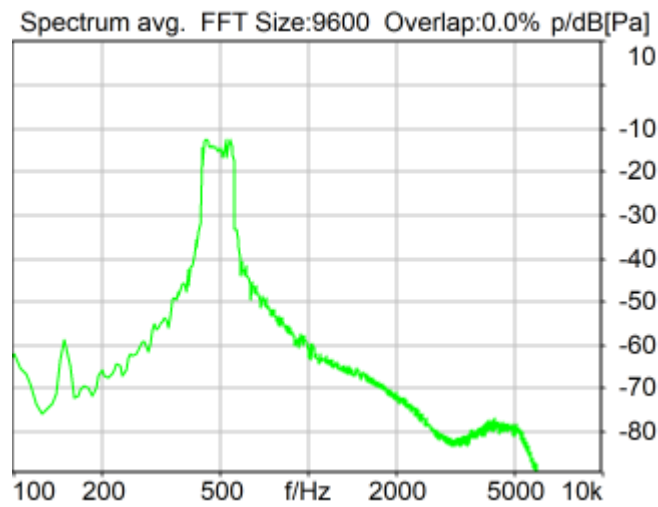
Distortion (Noise) RCV (packed): 29.42 dB (3.38%) Ok

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



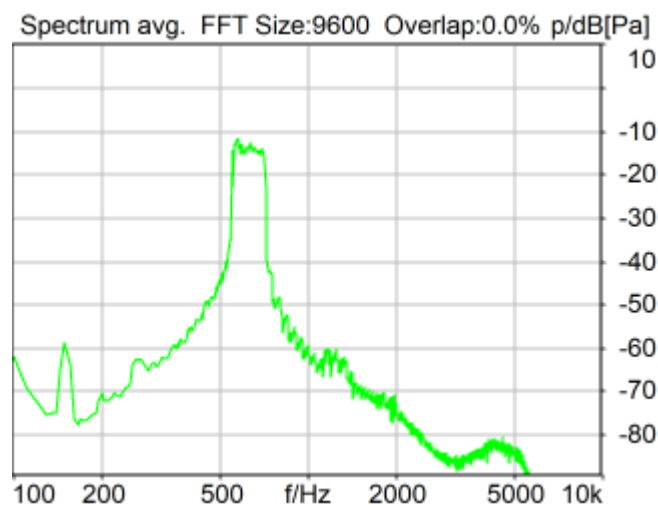
Distortion (Noise) RCV (packed): 31.27 dB (2.73%) Ok

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



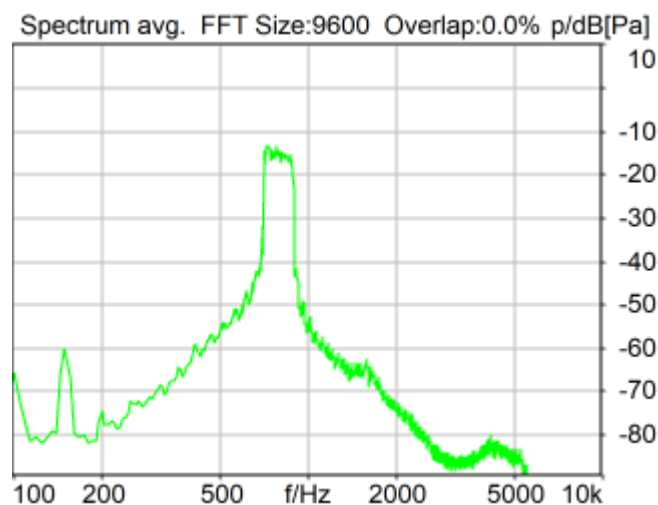
Distortion (Noise) RCV (packed): 34.40 dB (1.91%) Ok

Ok

25/06/19 15:00 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



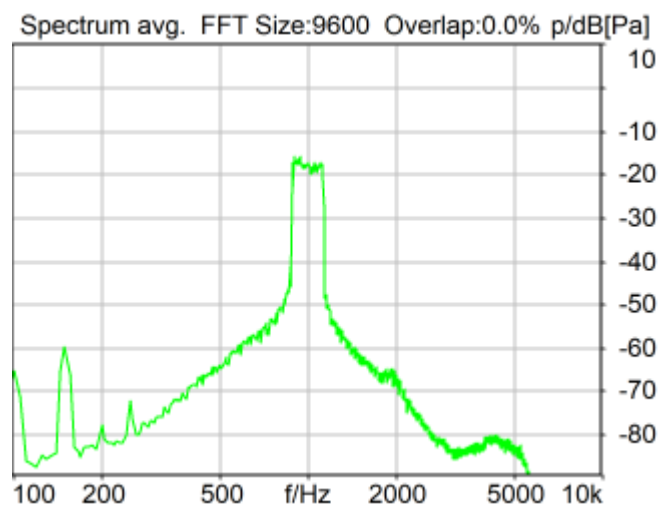
Distortion (Noise) RCV (packed): 33.70 dB (2.07%) Ok

Ok

25/06/19 15:00 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



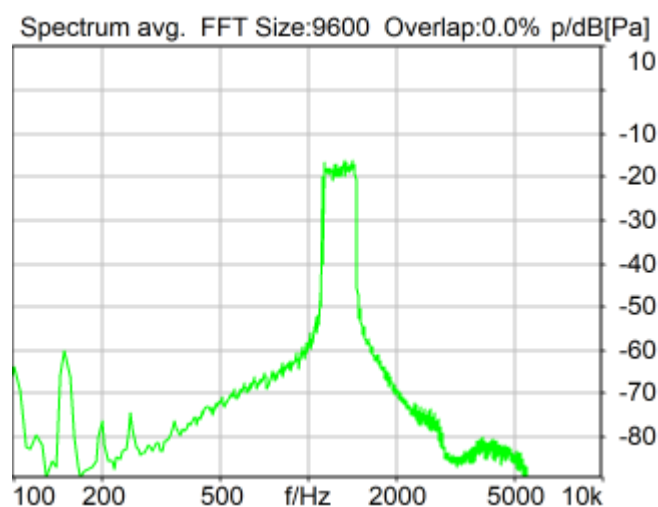
Distortion (Noise) RCV (packed): 32.81 dB (2.29%) Ok

Ok

25/06/19 15:00 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



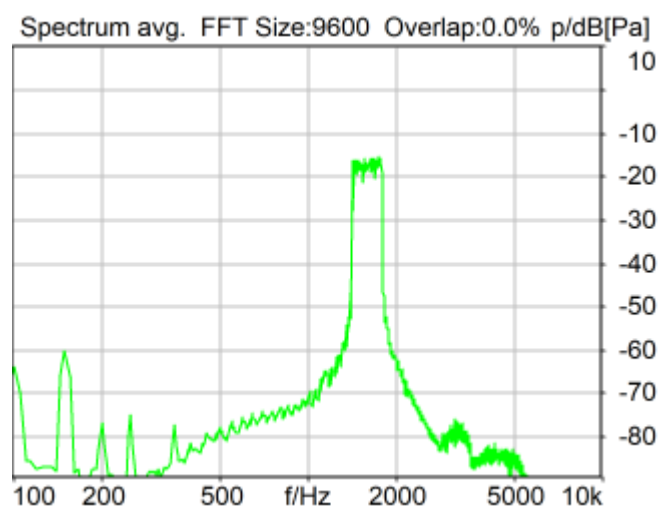
Distortion (Noise) RCV (packed): 31.54 dB (2.65%) Ok

Ok

25/06/19 15:01 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



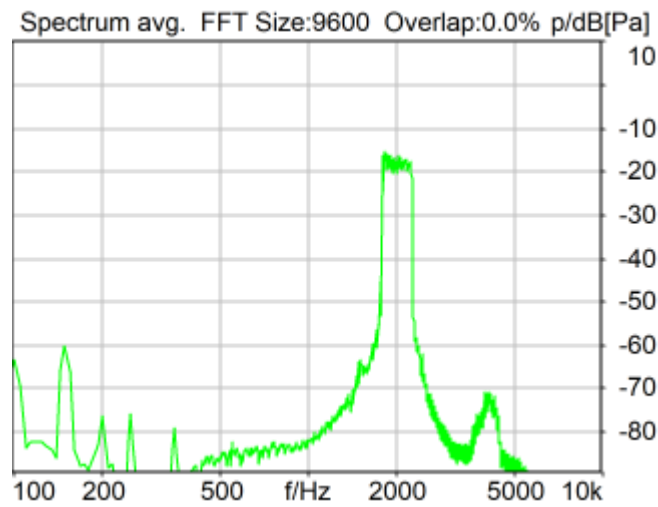
Distortion (Noise) RCV (packed): 39.80 dB (1.02%) Ok

Ok

25/06/19 15:01 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



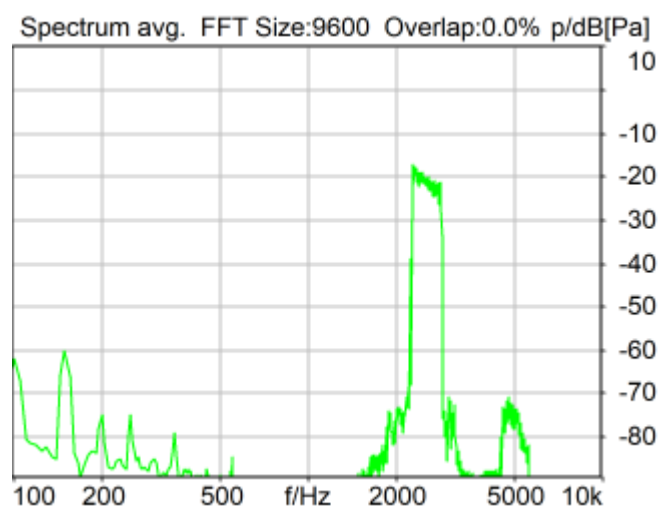
Distortion (Noise) RCV (packed): 41.59 dB (0.83%) Ok

Ok

25/06/19 15:02 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



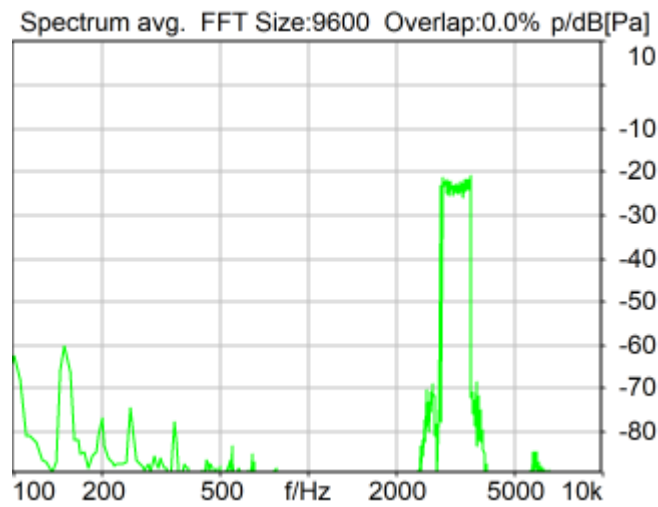
Distortion (Noise) RCV (packed): 49.16 dB (0.35%) Ok

Ok

25/06/19 15:02 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



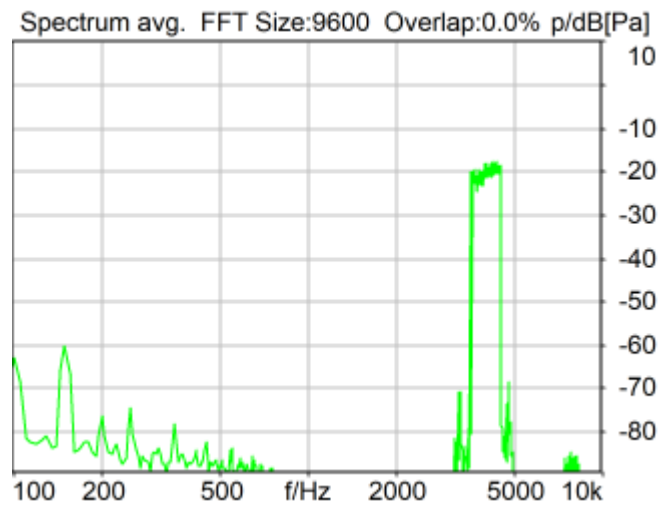
Distortion (Noise) RCV (packed): 50.20 dB (0.31%) Ok

Ok

25/06/19 15:03 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



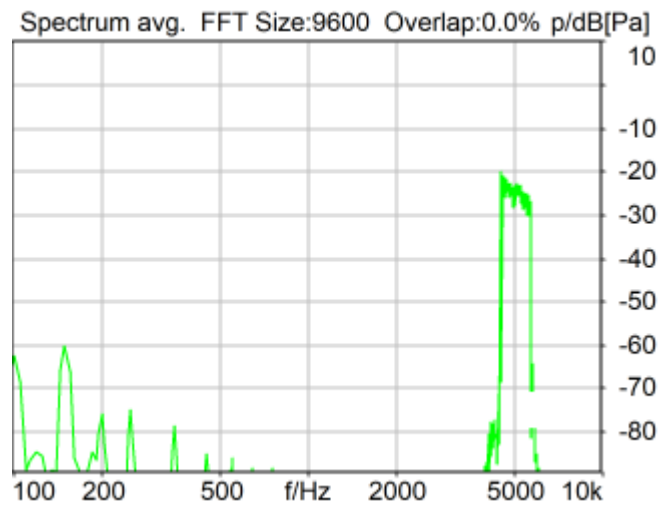
Distortion (Noise) RCV (packed): 57.54 dB (0.13%) Ok

Ok

25/06/19 15:03 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): 53.02 dB (0.22%) Ok

Ok

25/06/19 15:04 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	21.74 dB
2	315Hz	26.29 dB
3	400Hz	29.42 dB
4	500Hz	31.27 dB
5	630Hz	34.40 dB
6	800Hz	33.70 dB
7	1000Hz	32.81 dB
8	1250Hz	31.54 dB
9	1600Hz	39.80 dB
10	2000Hz	41.59 dB
11	2500Hz	49.16 dB
12	3150Hz	50.20 dB
13	4000Hz	57.54 dB
14	5000Hz	53.02 dB

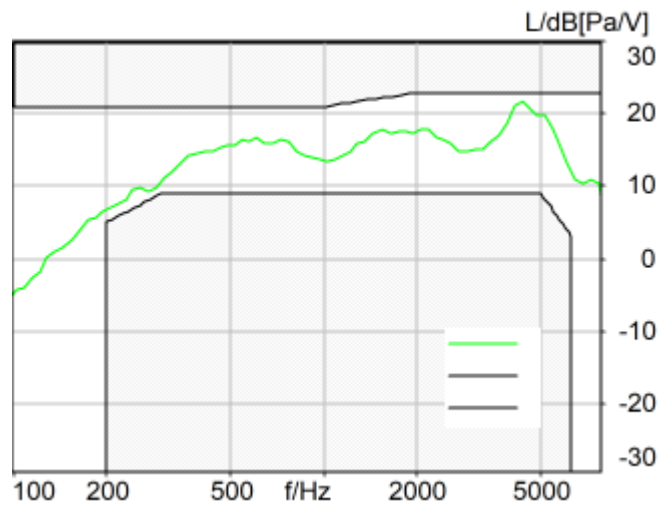
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.74dB at 250Hz.

25/06/19 15:04 ACQUA

5.3 Frequency Response 2N FF

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



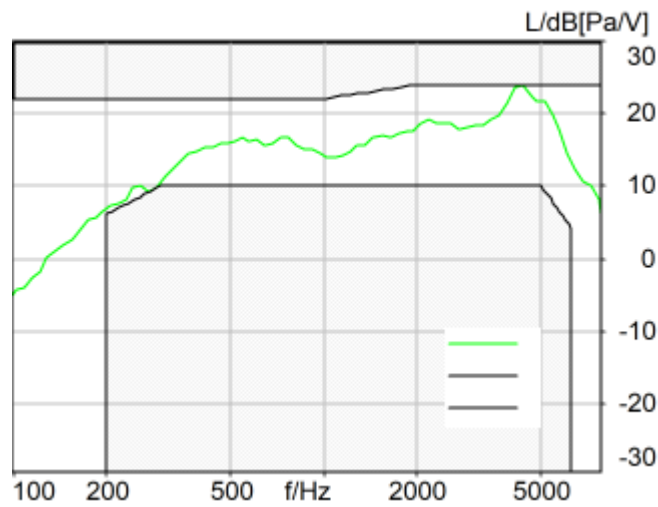
Absolute minimal distance
1.31 dB at 4369.4 Hz Ok

Ok

25/06/19 15:04 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.21 dB at 288.4 Hz Ok

Ok

25/06/19 15:04 ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
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Project	561221
Report Generation Date	25/06/19 16:26
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	280.0	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.17	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.71	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.99	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.44	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.21	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.44	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.88	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.65	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.31	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.07	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.73	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	48.14	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N

ACQUA Report
WB 128kbps_Ch136100_2N

Title: FR1 n71_35M_QPSK_1RB_1Offset_EVS

				EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	51.69	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	56.23	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	54.46	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 250Hz)	22.71	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	0.99	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.3 Frequency Response 2N DF	Not Ok	Min. dist. to tolerance scheme [dB], 272.2 Hz	-0.14	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N

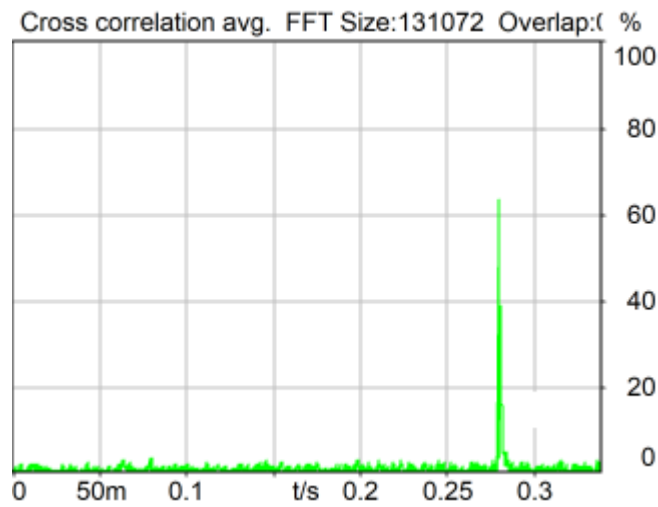
ACQUA Report
WB 128kbps_Ch136100_2N

Title: FR1 n71_35M_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

Overall Receive Delay WB

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

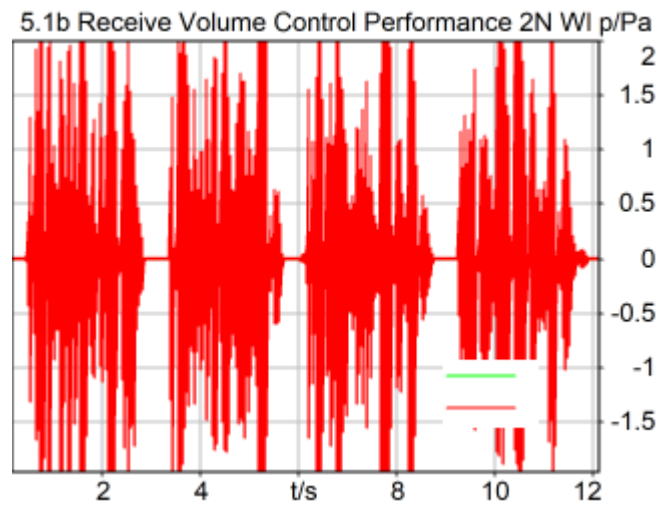


Delay (Cross): 280.0 ms

25/06/19 16:19 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



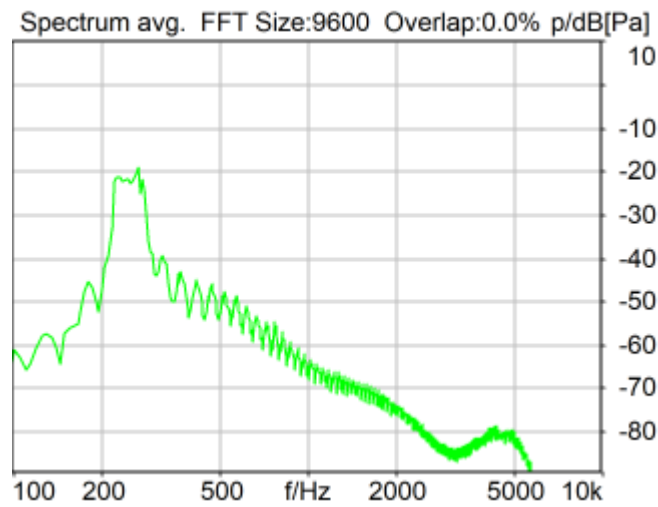
Speech Level RCV: 86.17 dB[SPL], Act.: 84.94% Ok

Ok

25/06/19 16:16 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



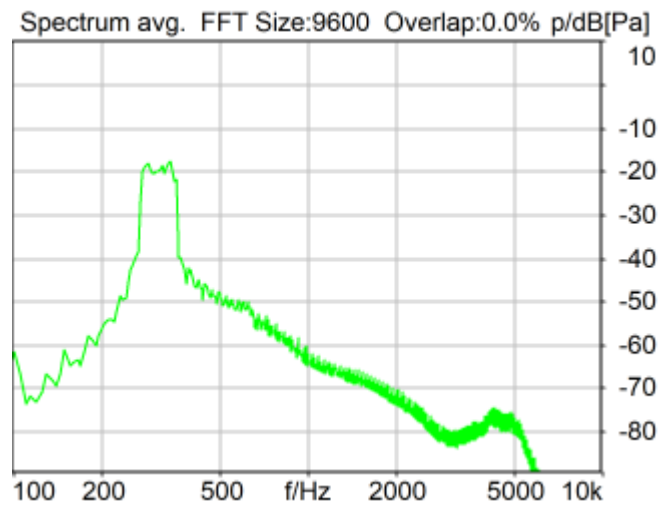
Distortion (Noise) RCV (packed): 22.71 dB (7.32%) Ok

Ok

25/06/19 16:19 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 2N



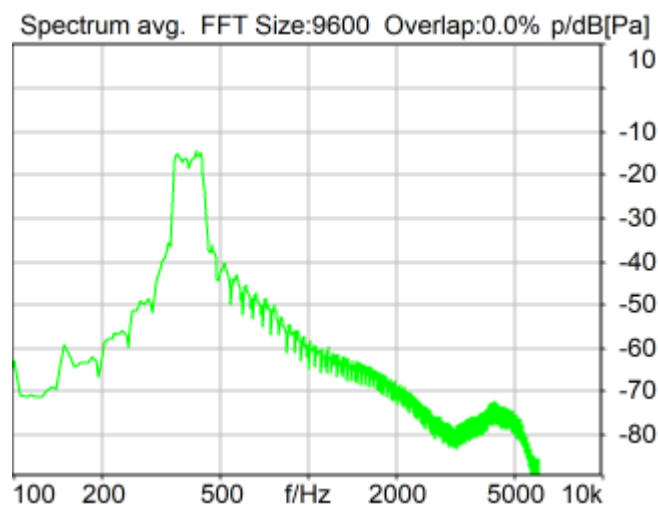
Distortion (Noise) RCV (packed): 25.99 dB (5.02%) Ok

Ok

25/06/19 16:17 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



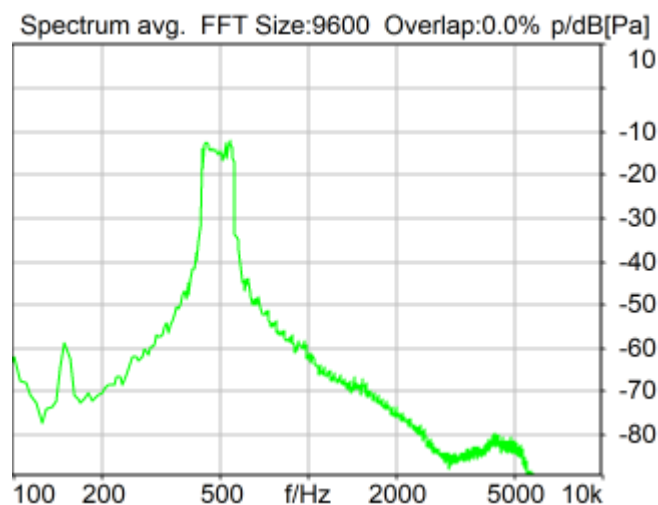
Distortion (Noise) RCV (packed): 26.44 dB (4.76%) Ok

Ok

25/06/19 16:17 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



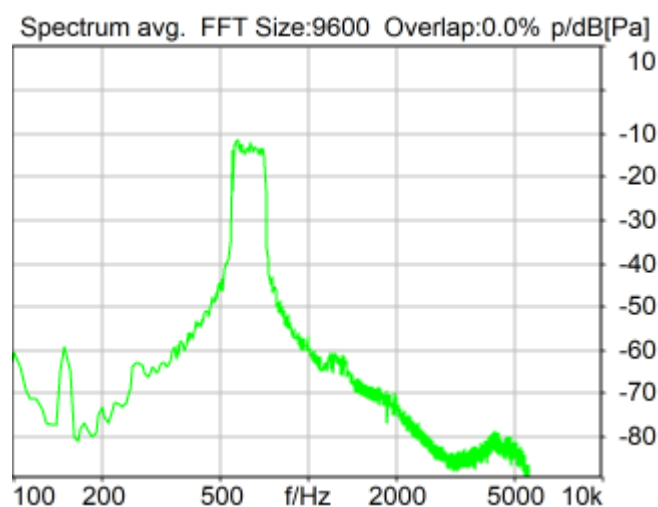
Distortion (Noise) RCV (packed): 33.21 dB (2.19%) Ok

Ok

25/06/19 16:18 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



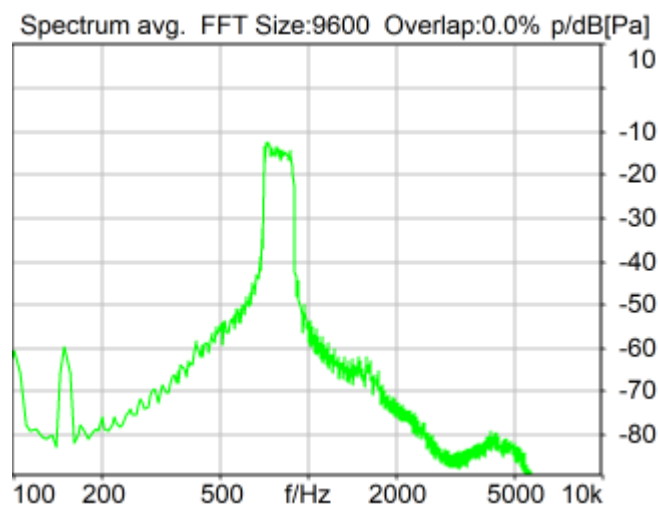
Distortion (Noise) RCV (packed): 34.44 dB (1.90%) Ok

Ok

25/06/19 16:20 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



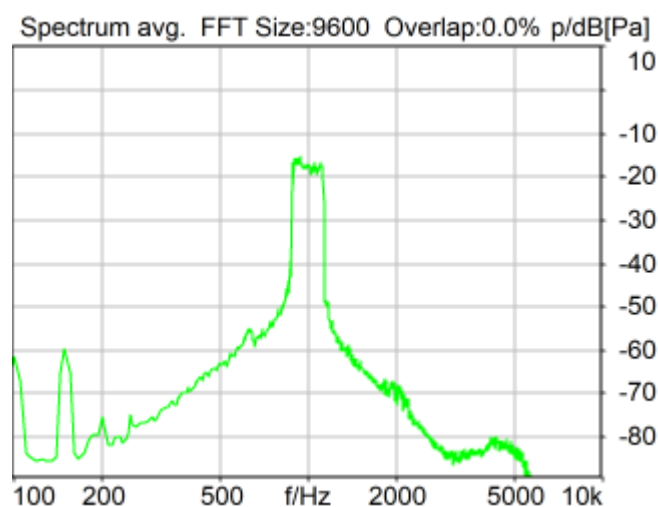
Distortion (Noise) RCV (packed): 34.88 dB (1.80%) Ok

Ok

25/06/19 16:20 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



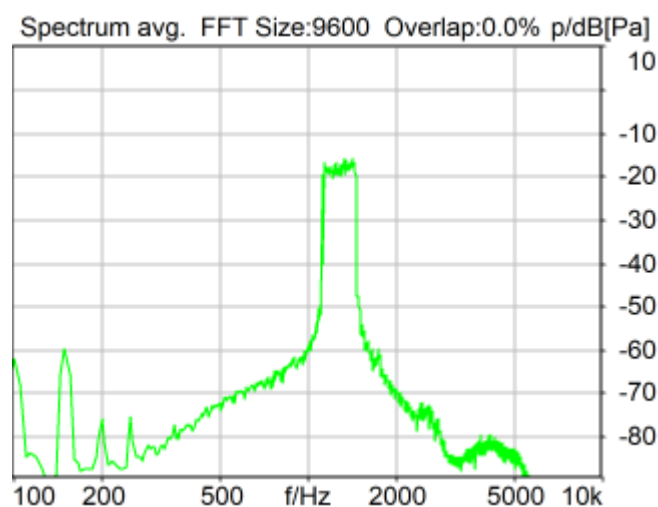
Distortion (Noise) RCV (packed): 33.65 dB (2.08%) Ok

Ok

25/06/19 16:21 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 2N



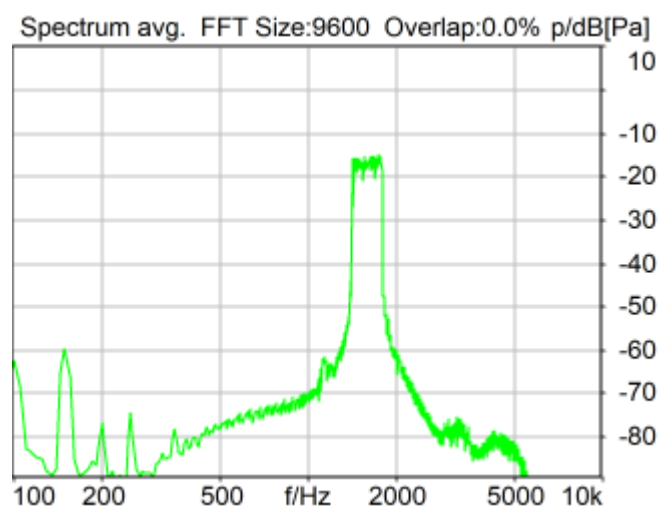
Distortion (Noise) RCV (packed): 31.31 dB (2.72%) Ok

Ok

25/06/19 16:21 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



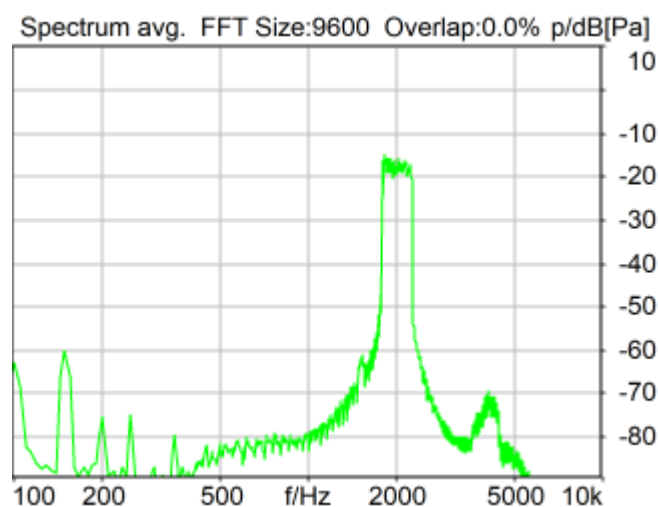
Distortion (Noise) RCV (packed): 39.07 dB (1.11%) Ok

Ok

25/06/19 16:22 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 2N



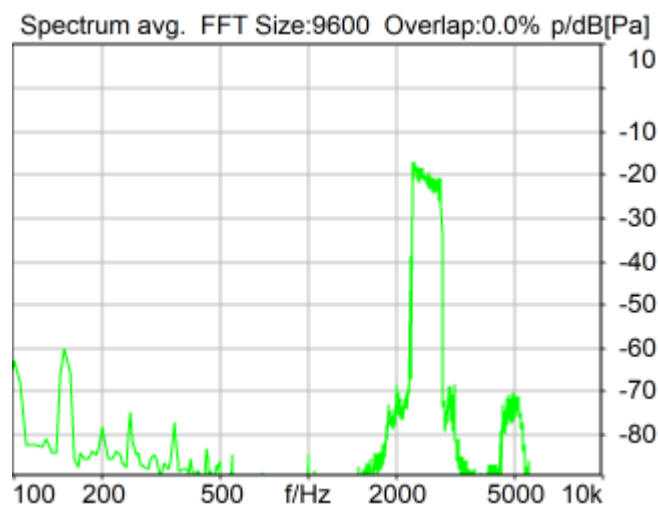
Distortion (Noise) RCV (packed): 40.73 dB (0.92%) Ok

Ok

25/06/19 16:22 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



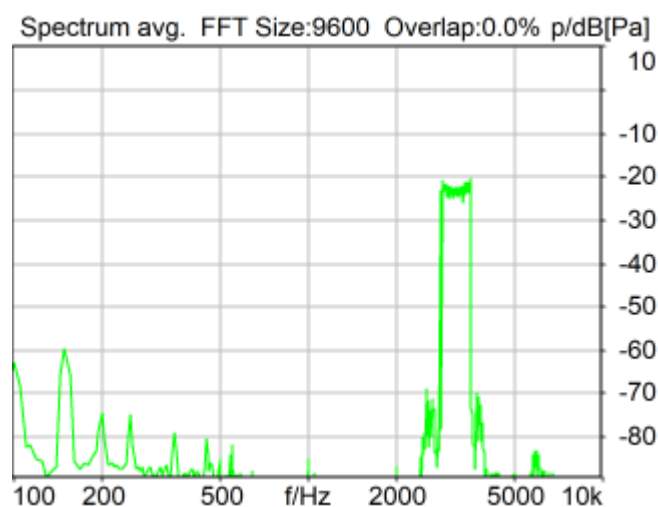
Distortion (Noise) RCV (packed): 48.14 dB (0.39%) Ok

Ok

25/06/19 16:23 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 2N



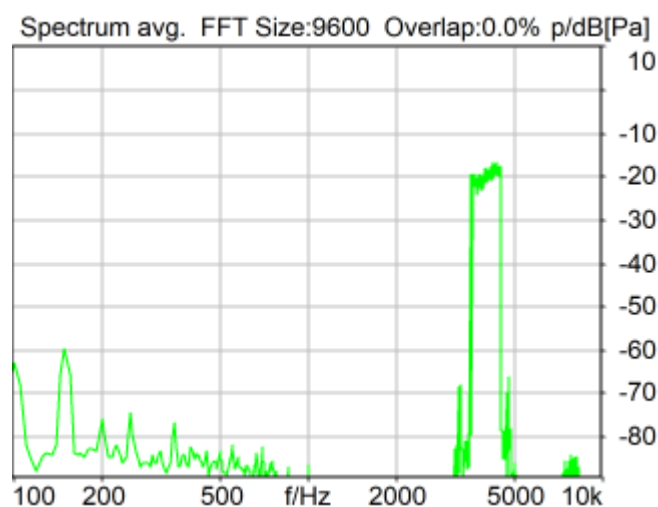
Distortion (Noise) RCV (packed): 51.69 dB (0.26%) Ok

Ok

25/06/19 16:23 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



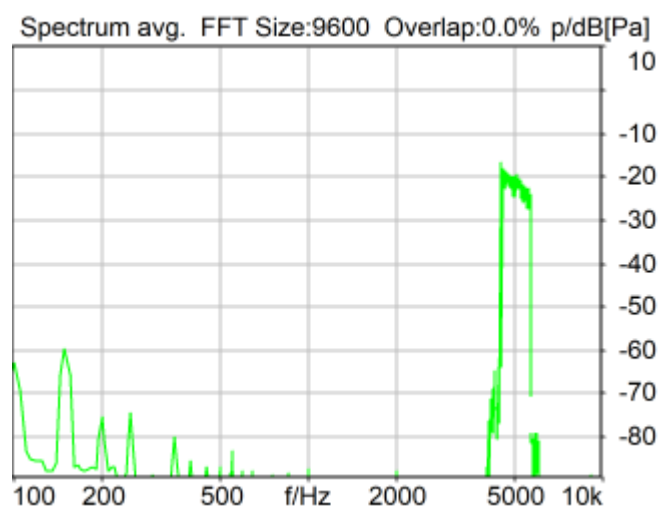
Distortion (Noise) RCV (packed): 56.23 dB (0.15%) Ok

Ok

25/06/19 16:24 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): 54.46 dB (0.19%) Ok

Ok

25/06/19 16:24 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	315Hz	25.99 dB
2	400Hz	26.44 dB
3	500Hz	33.21 dB
4	250Hz	22.71 dB
5	630Hz	34.44 dB
6	800Hz	34.88 dB
7	1000Hz	33.65 dB
8	1250Hz	31.31 dB
9	1600Hz	39.07 dB
10	2000Hz	40.73 dB
11	2500Hz	48.14 dB
12	3150Hz	51.69 dB
13	4000Hz	56.23 dB
14	5000Hz	54.46 dB

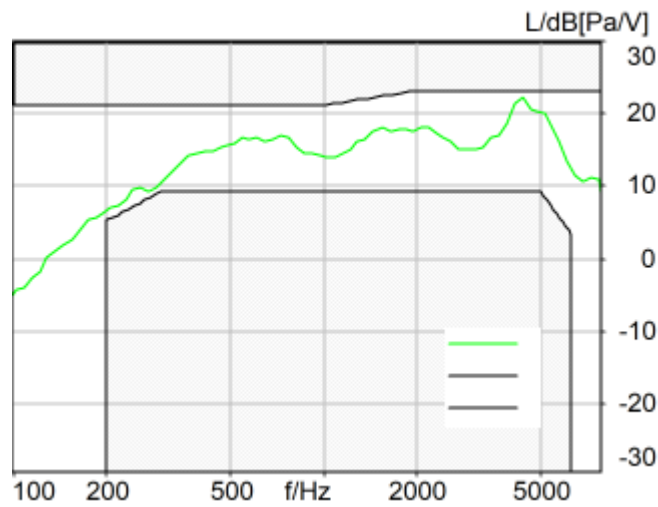
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 22.71dB at 250Hz.

25/06/19 16:24 ACQUA

5.3 Frequency Response 2N FF

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



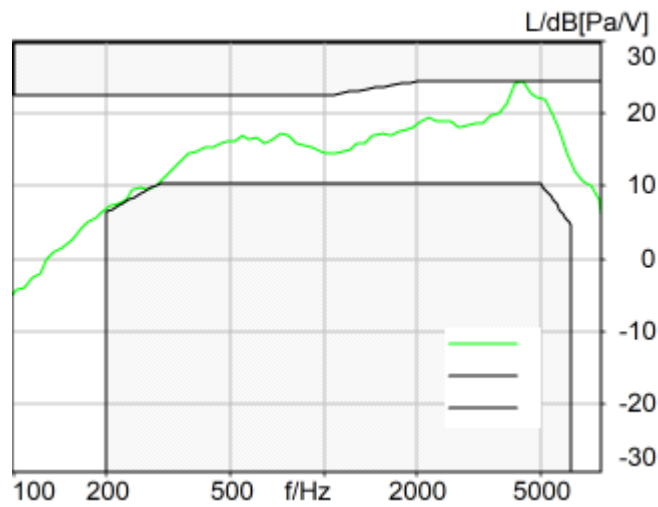
Absolute minimal distance
0.99 dB at 4369.4 Hz Ok

Ok

25/06/19 16:24 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
-0.14 dB at 272.2 Hz Not Ok

Not Ok

25/06/19 16:25 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
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Project	561221
Report Generation Date	25/06/19 16:47
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	182.9	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.71	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.81	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.87	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.33	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.79	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.94	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.64	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.03	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.13	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.29	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.01	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.99	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.18	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.51	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	46.24	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	21.81	WLAN5GHz_802.11a

ACQUA Report
128kbps_Ch157_8N

Title: WLAN5GHz_802.11a 6Mbps_EVS WB

and Noise (Conversational Gain)		(occured at 250Hz)		6Mbps_EVS WB 128kbps_Ch157_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	1.35	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	0.22	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_8N

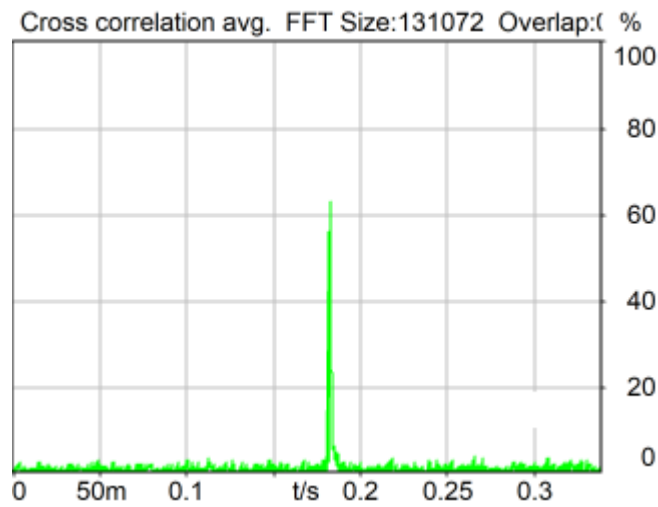
ACQUA Report
128kbps_Ch157_8N

Title: WLAN5GHz_802.11a 6Mbps_EVS WB

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

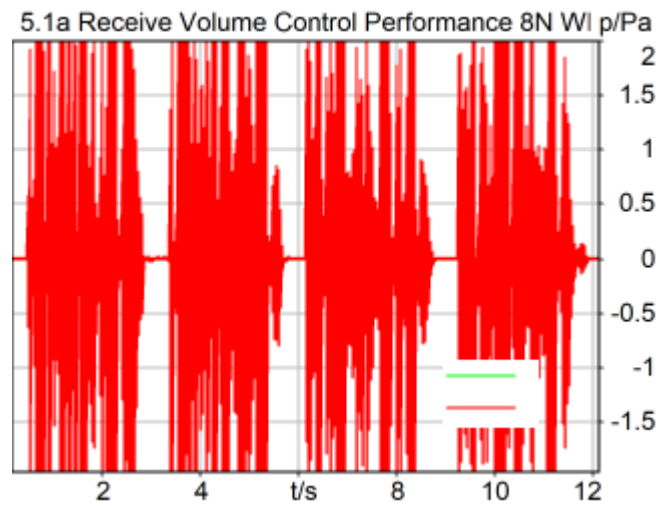


Delay (Cross): 182.9 ms

25/06/19 16:38 ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



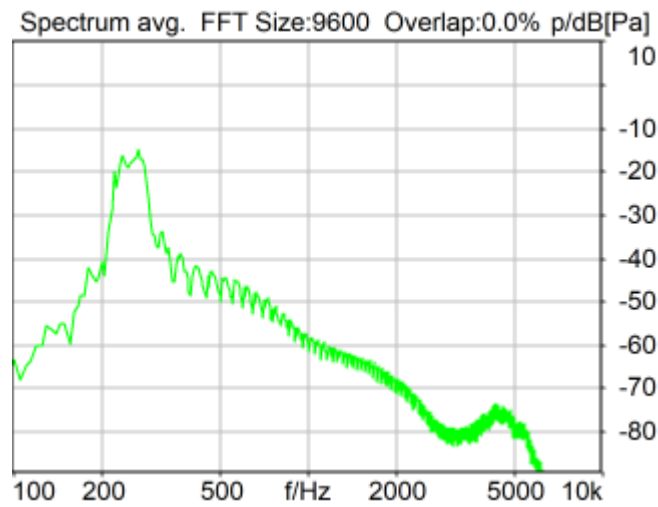
Speech Level RCV: 90.71 dB[SPL], Act.: 84.75% Ok

Ok

25/06/19 16:38 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



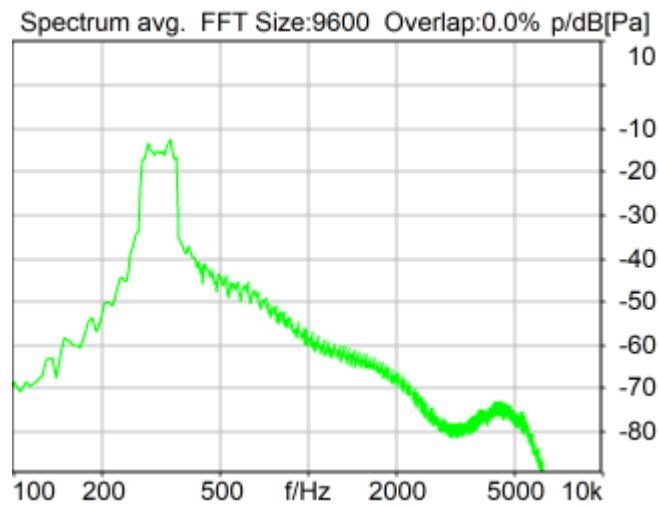
Distortion (Noise) RCV (packed): 21.81 dB (8.12%) Ok

Ok

25/06/19 16:38 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



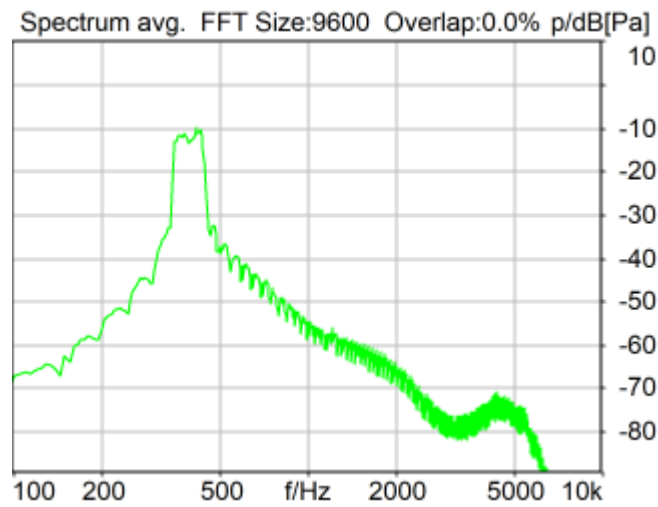
Distortion (Noise) RCV (packed): 25.87 dB (5.09%) Ok

Ok

25/06/19 16:39 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



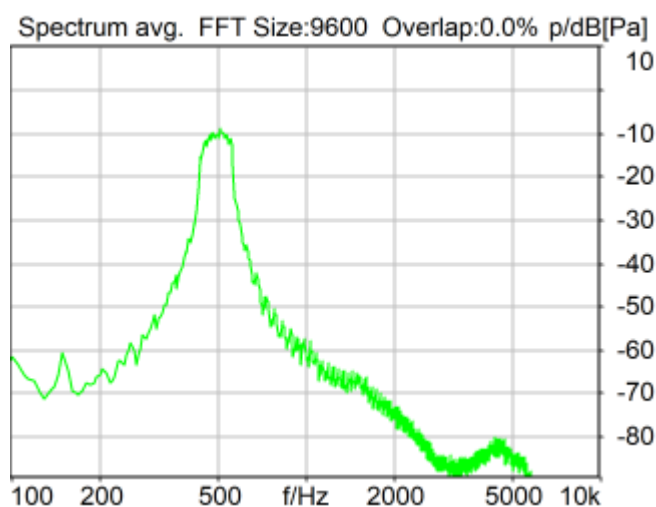
Distortion (Noise) RCV (packed): 26.33 dB (4.82%) Ok

Ok

25/06/19 16:39 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



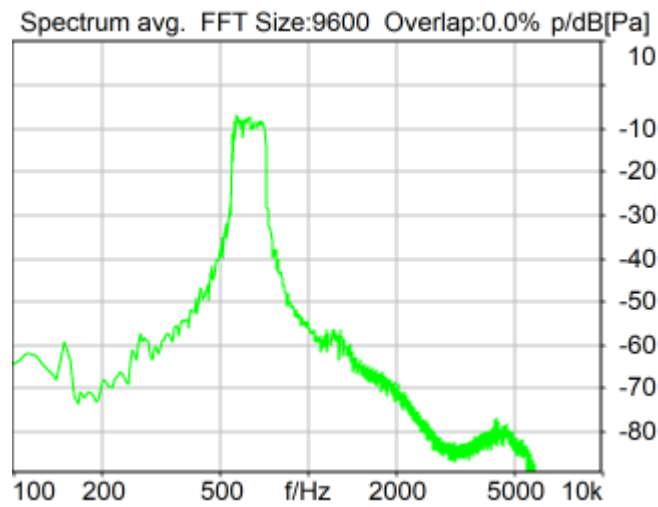
Distortion (Noise) RCV (packed): 28.79 dB (3.64%) Ok

Ok

25/06/19 16:40 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



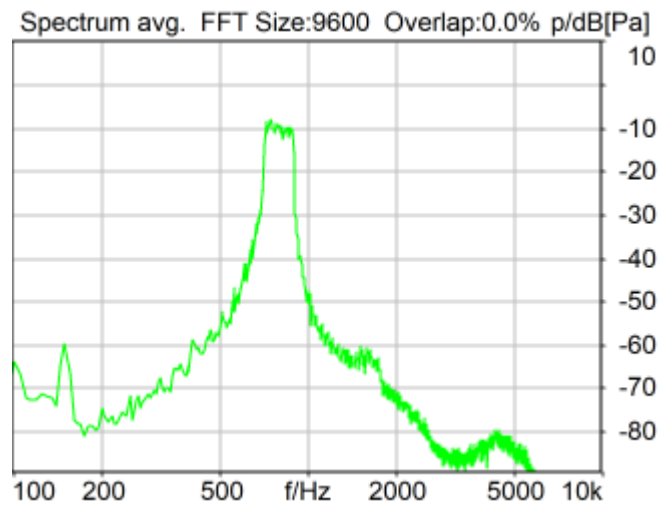
Distortion (Noise) RCV (packed): 32.94 dB (2.26%) Ok

Ok

25/06/19 16:40 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



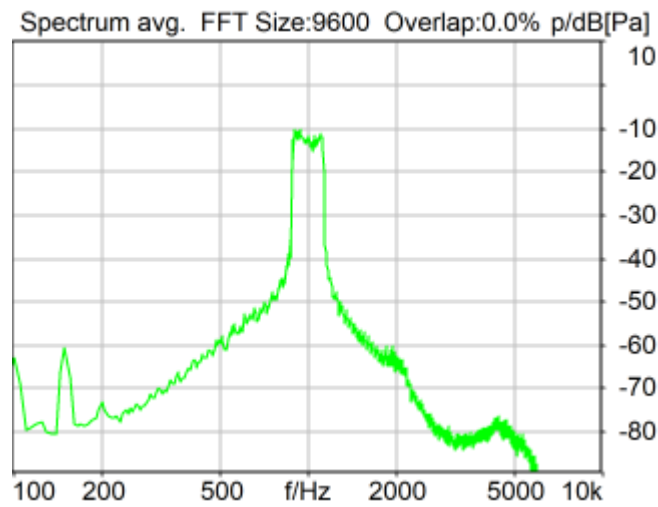
Distortion (Noise) RCV (packed): 31.64 dB (2.62%) Ok

Ok

25/06/19 16:41 ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1000 Hz WB

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



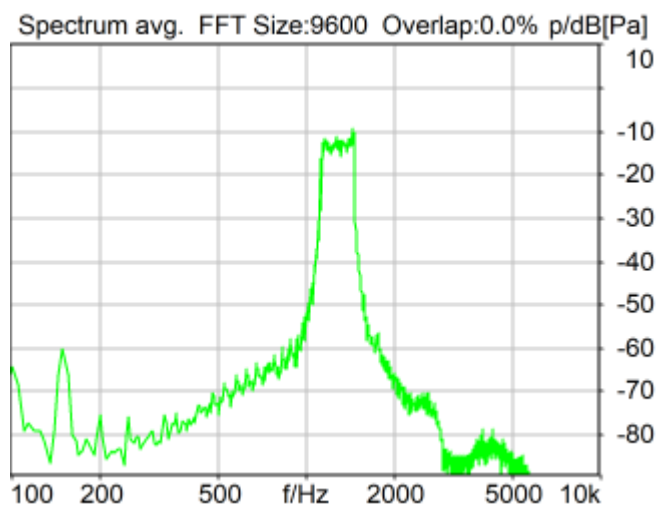
Distortion (Noise) RCV (packed): 33.03 dB (2.23%) Ok

Ok

25/06/19 16:41 ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1250 Hz WB

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



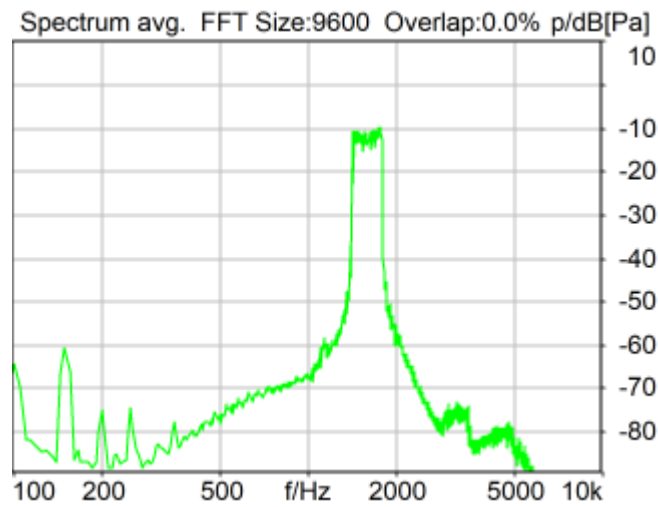
Distortion (Noise) RCV (packed): 25.13 dB (5.54%) Ok

Ok

25/06/19 16:42 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



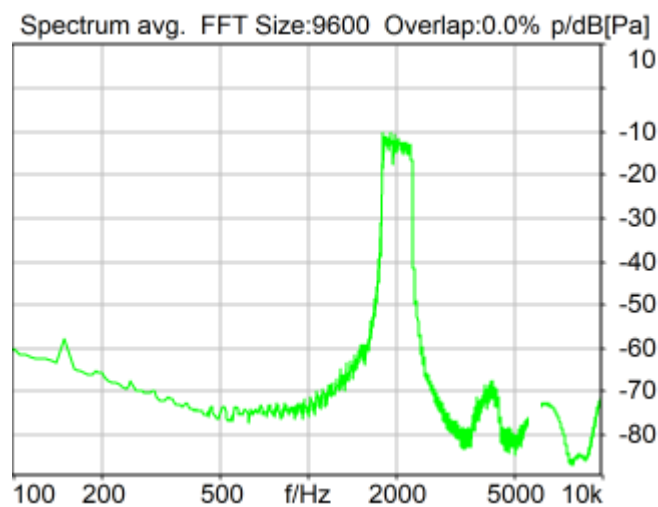
Distortion (Noise) RCV (packed): 39.29 dB (1.09%) Ok

Ok

25/06/19 16:42 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



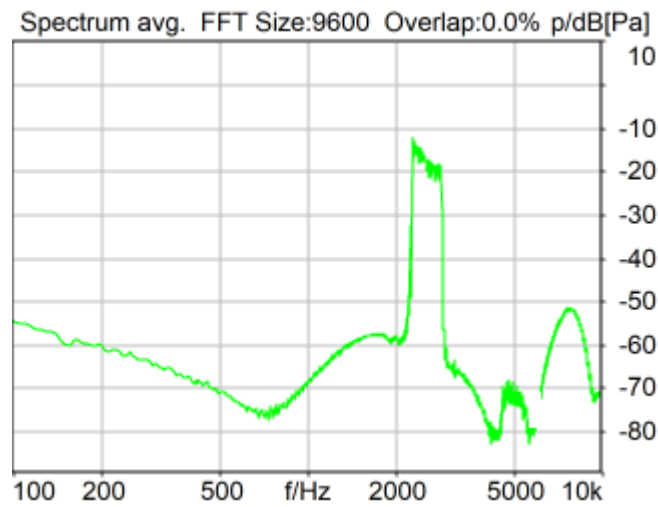
Distortion (Noise) RCV (packed): 37.01 dB (1.41%) Ok

Ok

25/06/19 16:43 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



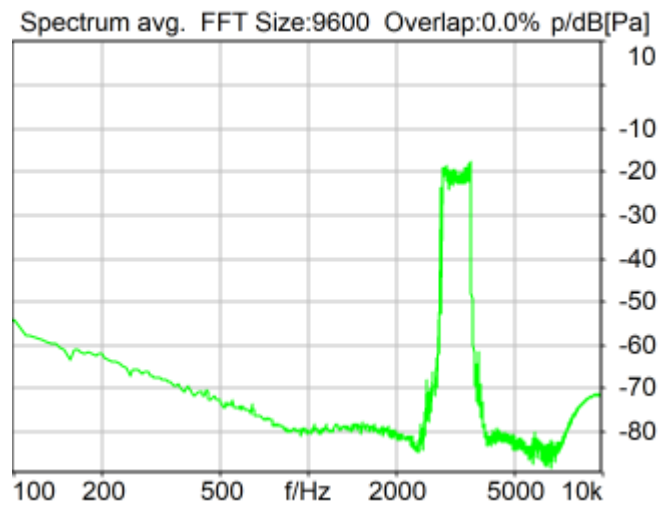
Distortion (Noise) RCV (packed): 29.99 dB (3.17%) Ok

Ok

25/06/19 16:43 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



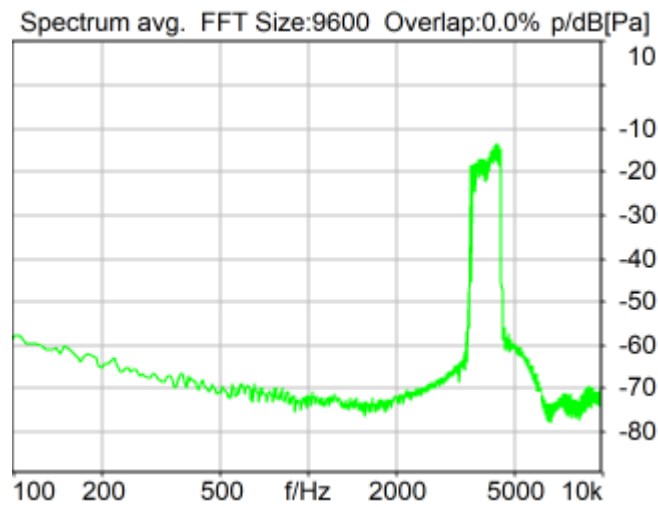
Distortion (Noise) RCV (packed): 41.18 dB (0.87%) Ok

Ok

25/06/19 16:43 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



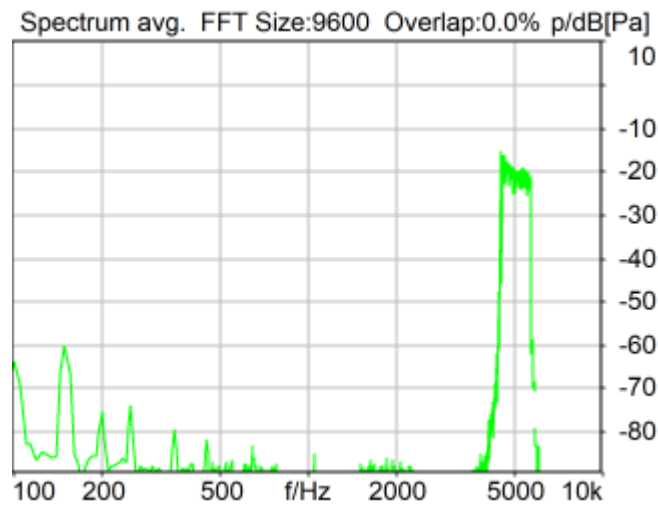
Distortion (Noise) RCV (packed): 32.51 dB (2.37%) Ok

Ok

25/06/19 16:44 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): 46.24 dB (0.49%) Ok

Ok

25/06/19 16:44 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	21.81 dB
2	315Hz	25.87 dB
3	400Hz	26.33 dB
4	500Hz	28.79 dB
5	630Hz	32.94 dB
6	800Hz	31.64 dB
7	1000Hz	33.03 dB
8	1250Hz	25.13 dB
9	1600Hz	39.29 dB
10	2000Hz	37.01 dB
11	2500Hz	29.99 dB
12	3150Hz	41.18 dB
13	4000Hz	32.51 dB
14	5000Hz	46.24 dB

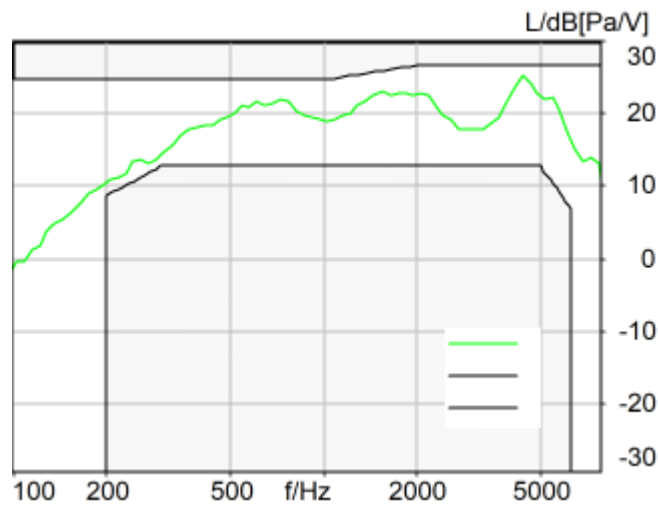
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.81dB at 250Hz.

25/06/19 16:46 ACQUA

5.3 Frequency Response 8N FF

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



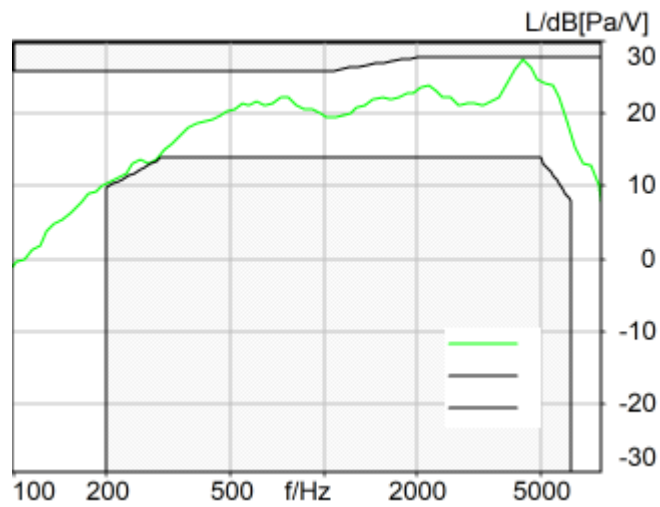
Absolute minimal distance
1.35 dB at 4369.4 Hz Ok

Ok

25/06/19 16:46 ACQUA 5.1.200

5.3 Frequency Response 8N DF

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



Absolute minimal distance
0.22 dB at 4369.4 Hz Ok

Ok

25/06/19 16:47 ACQUA 5.1.200

Measurement Protocol

Measurement Object	GSM1900_GSM Voice_AMR WB 6.60kbps_Ch661_2N
--------------------	--

Project	561221
Report Generation Date	25/06/19 15:15
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	202.9	GSM1900_GSM Voice_AMR WB 6.60kbps_Ch661_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.72	GSM1900_GSM Voice_AMR WB 6.60kbps_Ch661_2N

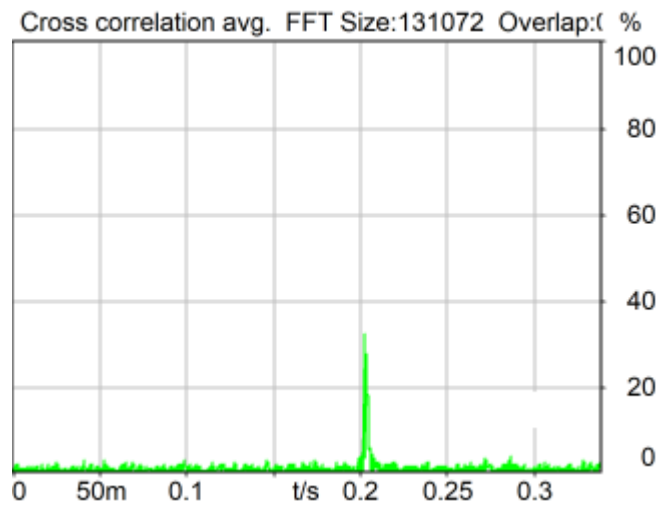
ACQUA Report
60kbps_Ch661_2N

Title: GSM1900_GSM Voice_AMR WB 6.

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

Overall Receive Delay WB

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

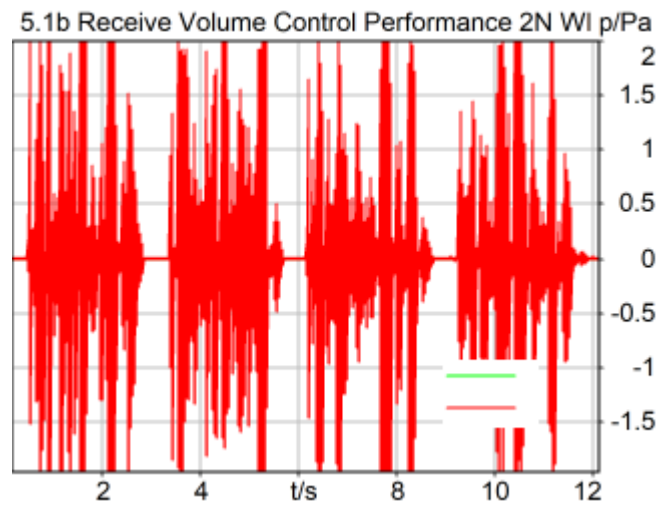


Delay (Cross): 202.9 ms

25/06/19 15:14 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 85.72 dB[SPL], Act.: 82.67% Ok

Ok

25/06/19 15:14 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WCDMA II_Voice_AMR WB 6.60kbps_Ch9400_2N
--------------------	--

Project	561221
Report Generation Date	25/06/19 15:23
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	198.4	WCDMA II_Voice_AMR WB 6. 60kbps_Ch9400_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.65	WCDMA II_Voice_AMR WB 6. 60kbps_Ch9400_2N

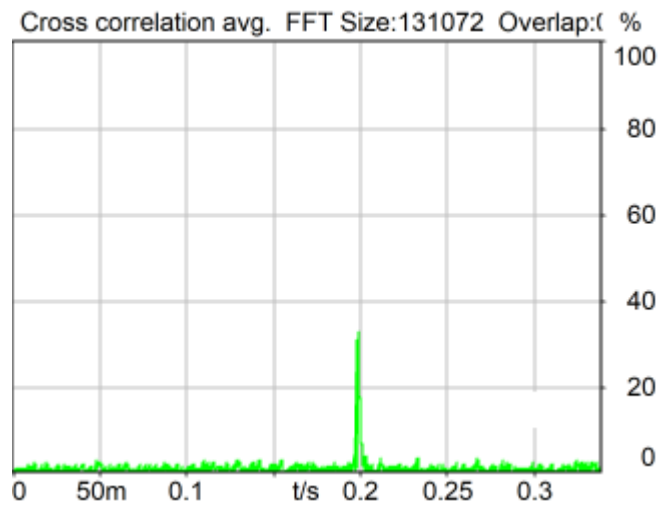
ACQUA Report
60kbps_Ch9400_2N

Title: WCDMA II_Voice_AMR WB 6.

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

Overall Receive Delay WB

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

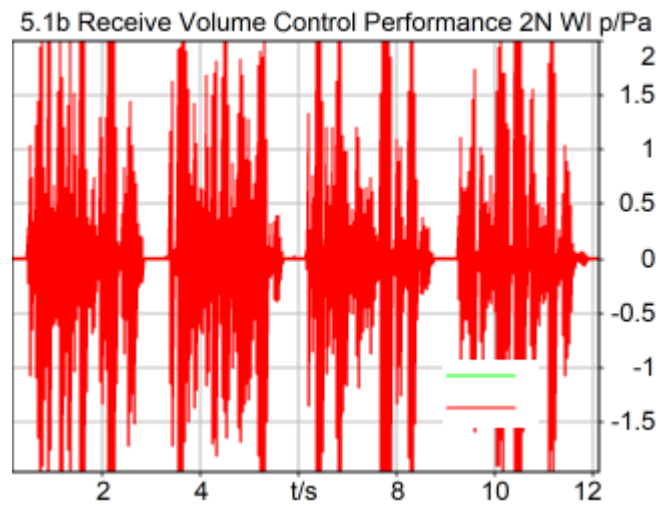


Delay (Cross): 198.4 ms

25/06/19 15:22 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 85.65 dB[SPL], Act.: 83.64% Ok

Ok

25/06/19 15:22 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 66_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N
--------------------	---

Project	561221
Report Generation Date	25/06/19 14:56
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	110.7	LTE Band 66_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.96	LTE Band 66_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N

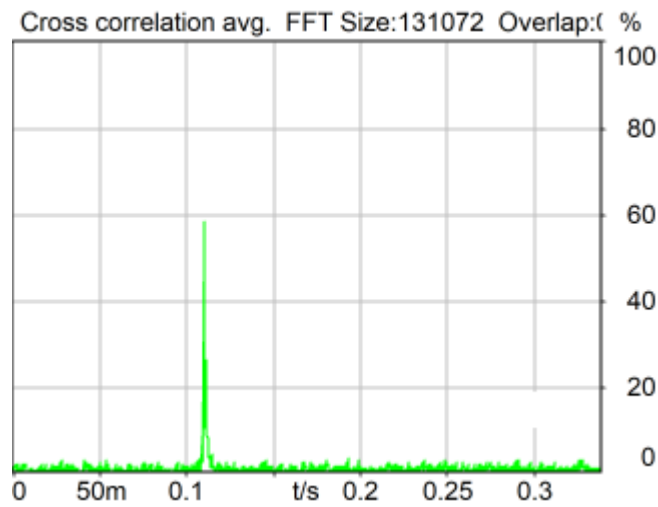
ACQUA Report
66_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N

Title: LTE Band

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

Overall Receive Delay WB

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

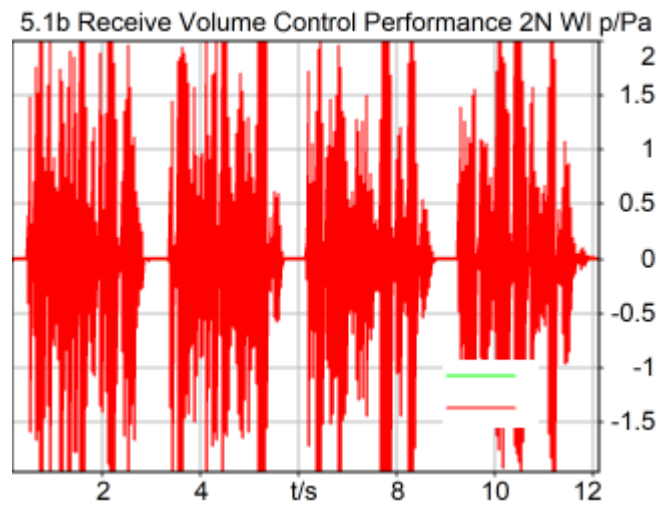


Delay (Cross): 110.7 ms

25/06/19 14:55 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 85.96 dB[SPL], Act.: 84.81% Ok

Ok

25/06/19 14:55 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 71_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N
--------------------	---

Project	561221
Report Generation Date	25/06/19 14:51
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	110.3	LTE Band 71_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.58	LTE Band 71_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N

ACQUA Report

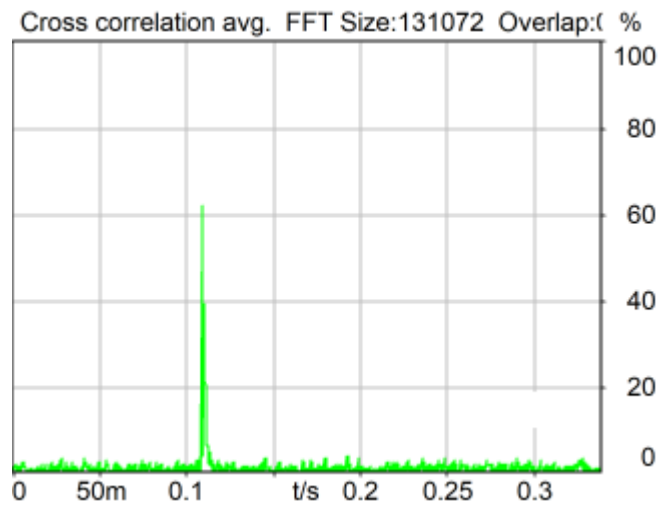
Title: LTE Band

71_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N

Overall Receive Delay WB	5
5.1a Receive Volume Control Performance 8N WB	6

Overall Receive Delay WB

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

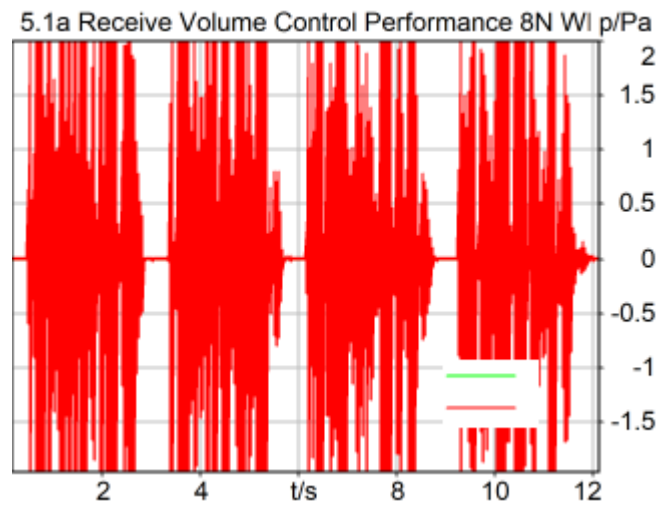


Delay (Cross): 110.3 ms

25/06/19 14:50 ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



Speech Level RCV: 90.58 dB[SPL], Act.: 84.93% Ok

Ok

25/06/19 14:50 ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n77_100M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch656000_2N
--------------------	--

Project	561221
Report Generation Date	25/06/19 16:07
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	260.0	FR1 n77_100M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch656000_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.07	FR1 n77_100M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch656000_2N

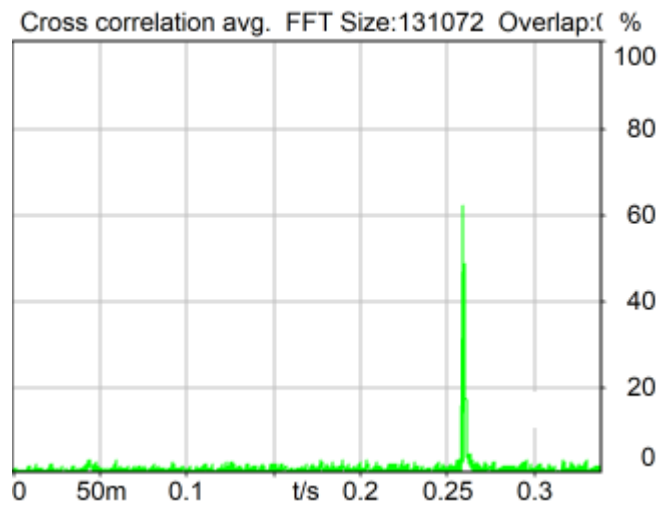
ACQUA Report
WB 128kbps_Ch656000_2N

Title: FR1 n77_100M_QPSK_1RB_1Offset_EVS

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

Overall Receive Delay WB

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

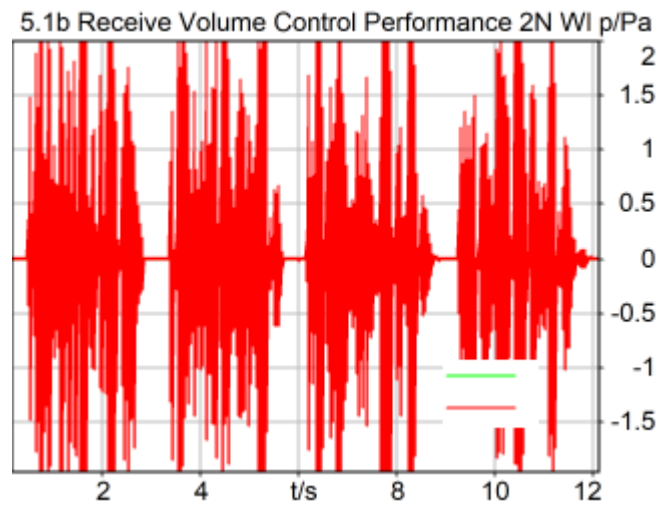


Delay (Cross): 260.0 ms

25/06/19 15:47 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 86.07 dB[SPL], Act.: 84.81% Ok

Ok

25/06/19 15:47 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_2N
--------------------	--

Project	561221
Report Generation Date	25/06/19 16:36
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	168.7	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	85.92	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch157_2N

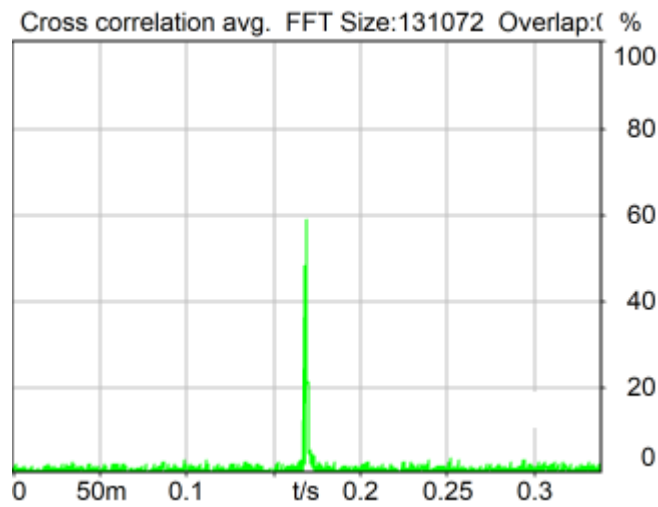
ACQUA Report
128kbps_Ch157_2N

Title: WLAN5GHz_802.11a 6Mbps_EVS WB

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

Overall Receive Delay WB

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

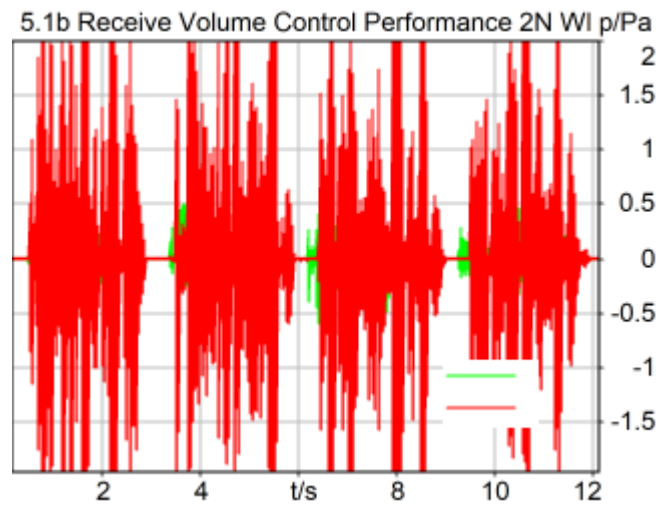


Delay (Cross): 168.7 ms

25/06/19 16:36 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 85.92 dB[SPL], Act.: 84.85% Ok

Ok

25/06/19 16:36 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 7_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
--------------------	---

Project	561221
Report Generation Date	25/07/14 19:38
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	111.0	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.61	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.75	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	24.84	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.82	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.02	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.83	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.08	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.99	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.73	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.12	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.87	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.37	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	48.14	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	45.00	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	50.73	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	20.75	LTE Band 7_20M

ACQUA Report
_QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N

Title: LTE Band 7_20M

and Noise (Conversational Gain)		(occured at 250Hz)		_QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	2.26	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 272.2 Hz	1.08	LTE Band 7_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N

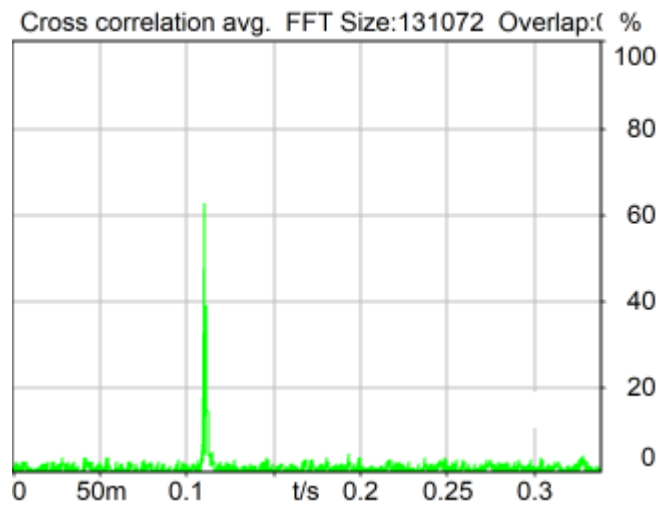
ACQUA Report
_QPSK_1RB_0Offset_EVS WB 128kbps_Ch21100_8N

Title: LTE Band 7_20M

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

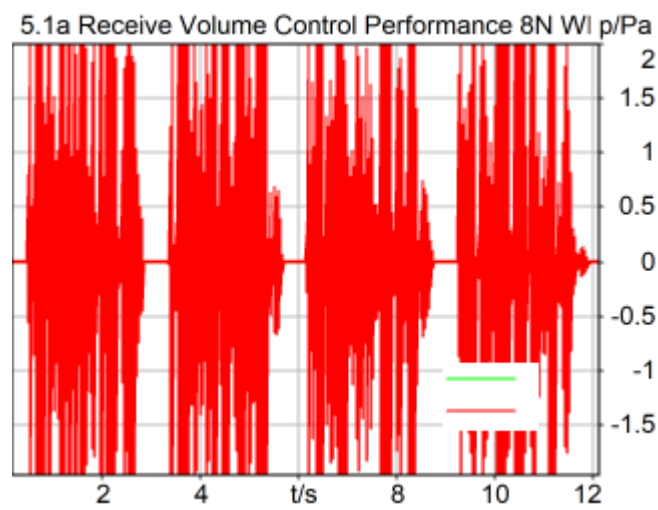


Delay (Cross): 111.0 ms

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5.1a Receive Volume Control Performance 8N WB

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



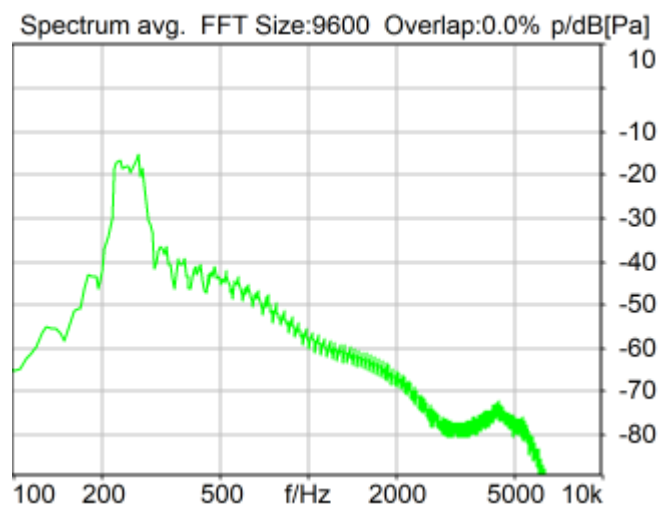
Speech Level RCV: 90.61 dB[SPL], Act.: 84.72% Ok

Ok

25/07/14 19:37 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



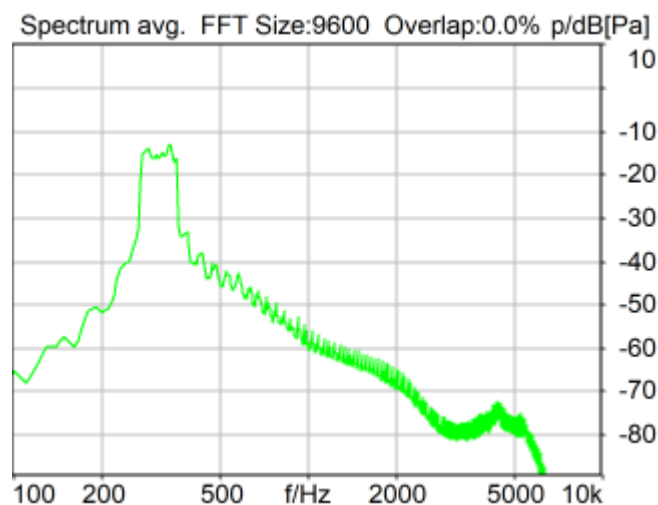
Distortion (Noise) RCV (packed): 20.75 dB (9.17%) Ok

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 8N



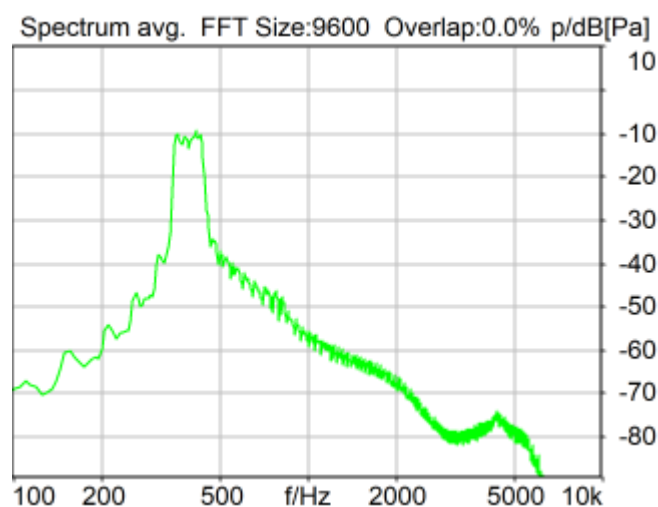
Distortion (Noise) RCV (packed): 24.84 dB (5.73%) Ok

Ok

25/07/14 19:27 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



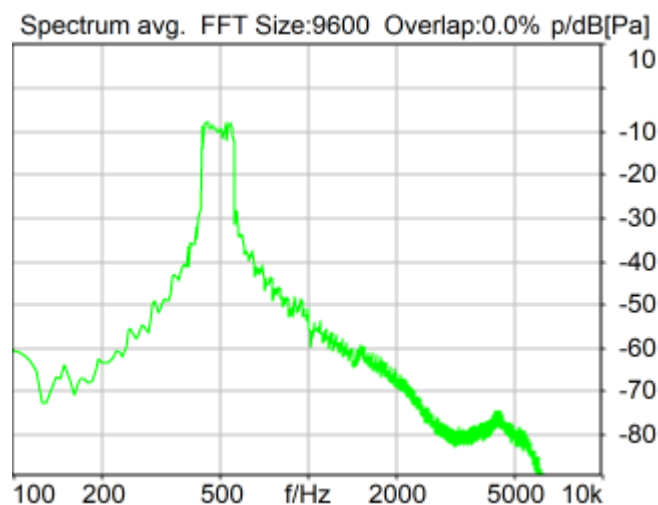
Distortion (Noise) RCV (packed): 27.82 dB (4.07%) Ok

Ok

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5.2 RCV Distortion and Noise - 500 Hz WB

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



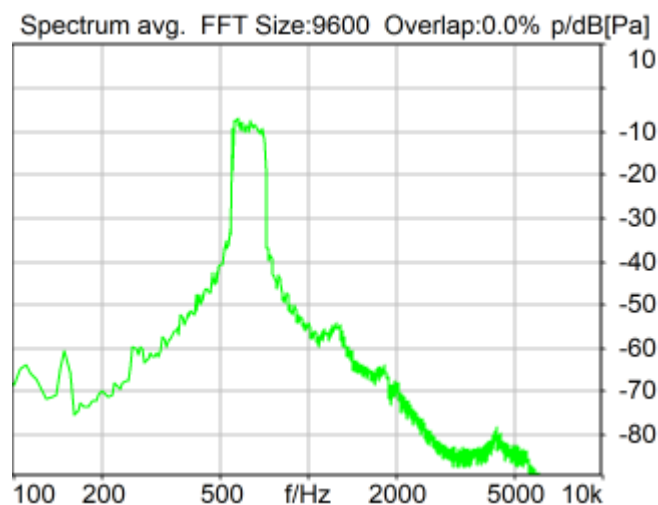
Distortion (Noise) RCV (packed): 30.02 dB (3.15%) Ok

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 8N



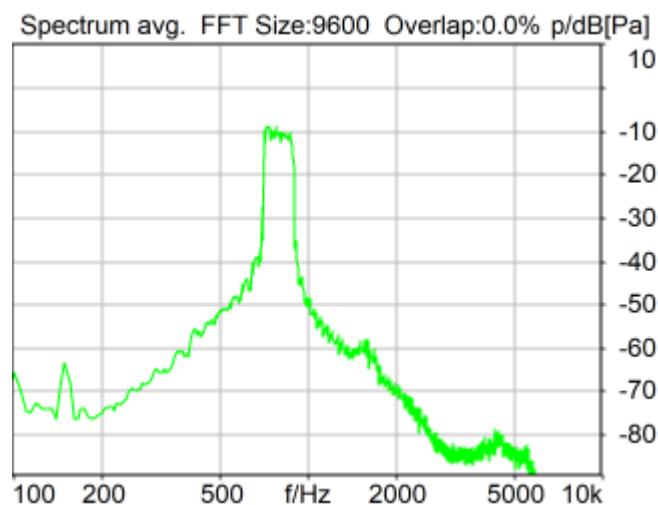
Distortion (Noise) RCV (packed): 34.83 dB (1.81%) Ok

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 8N



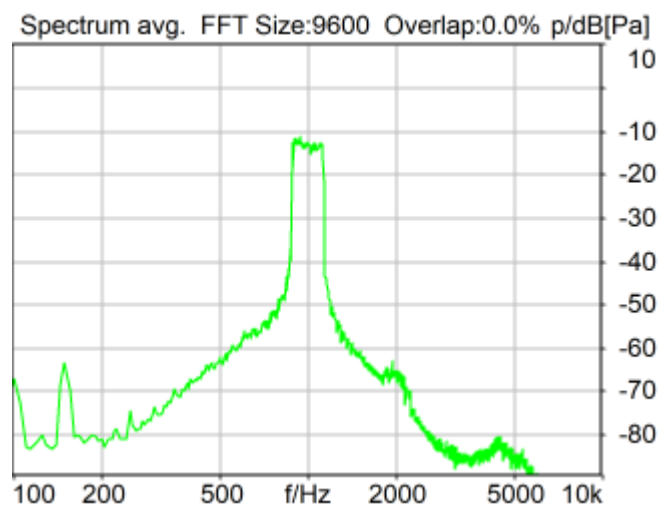
Distortion (Noise) RCV (packed): 34.08 dB (1.98%) Ok

Ok

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5.2 RCV Distortion and Noise - 1000 Hz WB

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



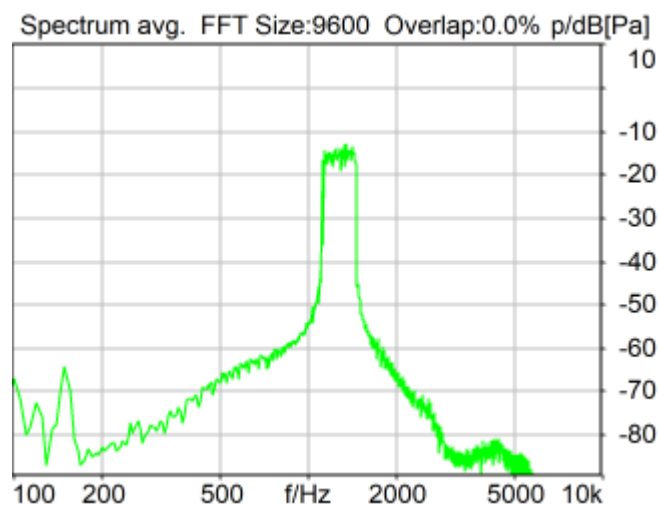
Distortion (Noise) RCV (packed): 35.99 dB (1.59%) Ok

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 8N



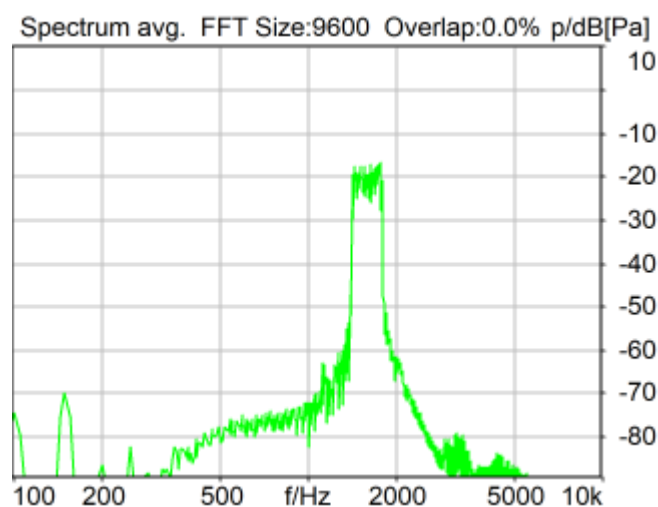
Distortion (Noise) RCV (packed): 30.73 dB (2.91%) Ok

Ok

25/07/14 19:29 ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1600 Hz WB

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



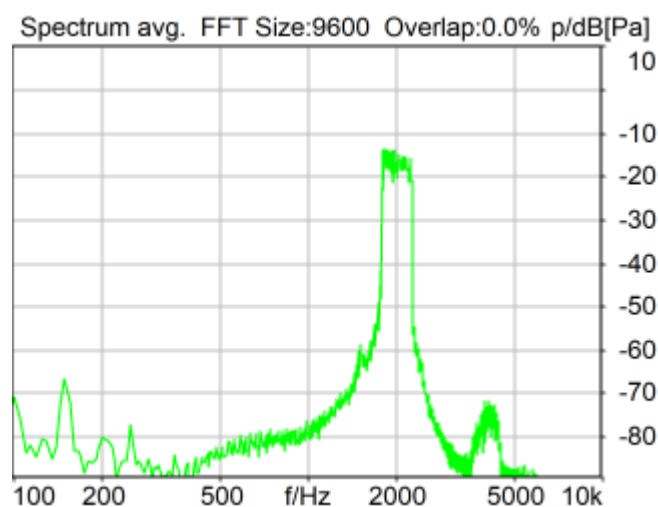
Distortion (Noise) RCV (packed): 38.12 dB (1.24%) Ok

Ok

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5.2 RCV Distortion and Noise - 2000 Hz WB

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



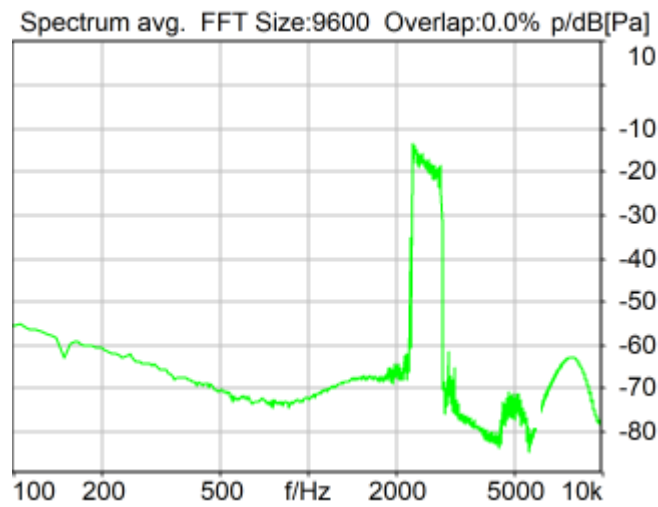
Distortion (Noise) RCV (packed): 40.87 dB (0.91%) Ok

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 8N



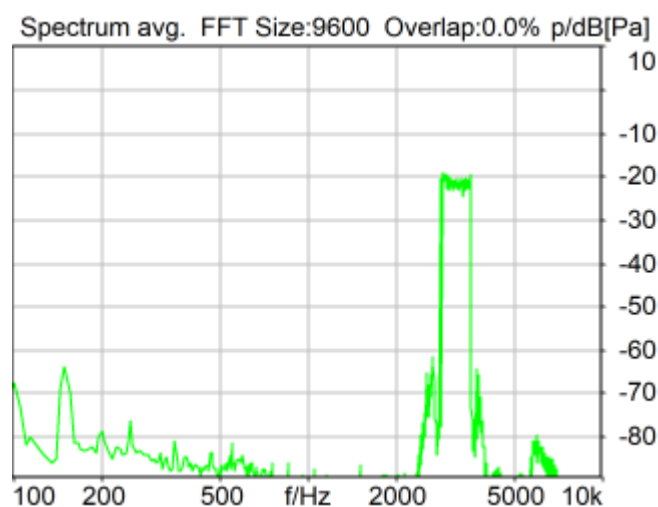
Distortion (Noise) RCV (packed): 38.37 dB (1.21%) Ok

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 8N



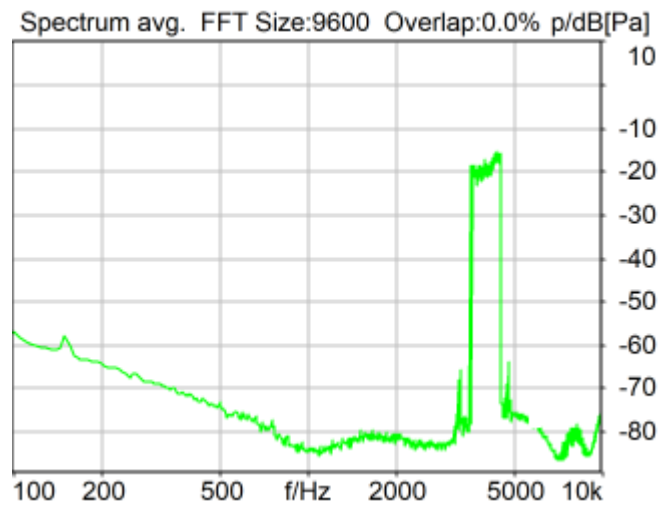
Distortion (Noise) RCV (packed): 48.14 dB (0.39%) Ok

Ok

25/07/14 19:31 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



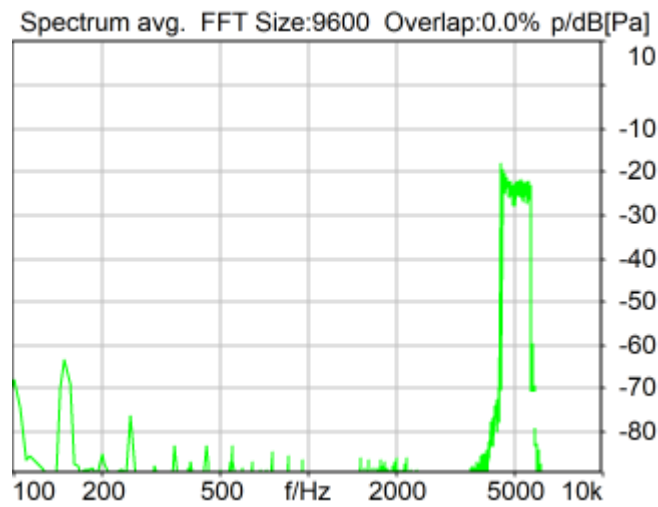
Distortion (Noise) RCV (packed): 45.00 dB (0.56%) Ok

Ok

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5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 50.73 dB (0.29%) 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 8N

Region	Frequency	SDNR
1	250Hz	20.75 dB
2	315Hz	24.84 dB
3	400Hz	27.82 dB
4	500Hz	30.02 dB
5	630Hz	34.83 dB
6	800Hz	34.08 dB
7	1000Hz	35.99 dB
8	1250Hz	30.73 dB
9	2000Hz	40.87 dB
10	2500Hz	38.37 dB
11	3150Hz	48.14 dB
12	4000Hz	45.00 dB
13	5000Hz	50.73 dB
14	1600Hz	38.12 dB

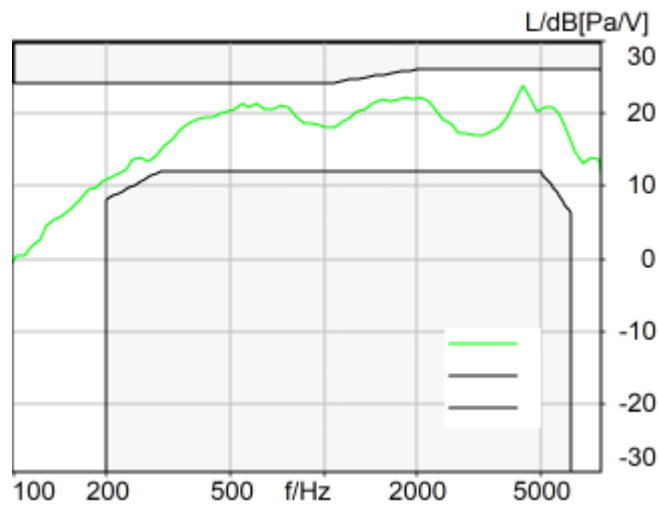
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.75dB at 250Hz.

25/07/14 19:36 ACQUA

5.3 Frequency Response 8N FF

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



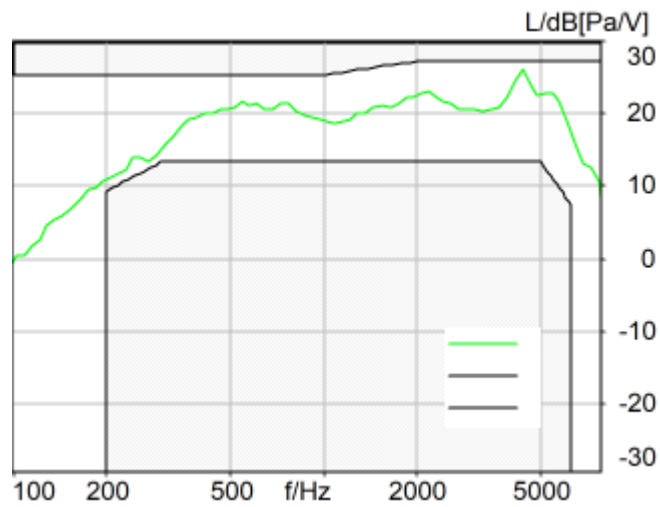
Absolute minimal distance
2.26 dB at 4369.4 Hz Ok

Ok

25/07/14 19:35 ACQUA 5.1.200

5.3 Frequency Response 8N DF

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



Absolute minimal distance
1.08 dB at 272.2 Hz Ok

Ok

25/07/14 19:35 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 26_15M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
--------------------	--

Project	561221
Report Generation Date	25/07/14 20:21
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	105.8	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.31	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.48	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.19	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.84	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.69	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.46	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.23	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.66	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.05	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.31	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.53	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	46.46	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	46.65	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	56.70	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	51.59	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	20.48	LTE Band 26_15M

ACQUA Report
_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N

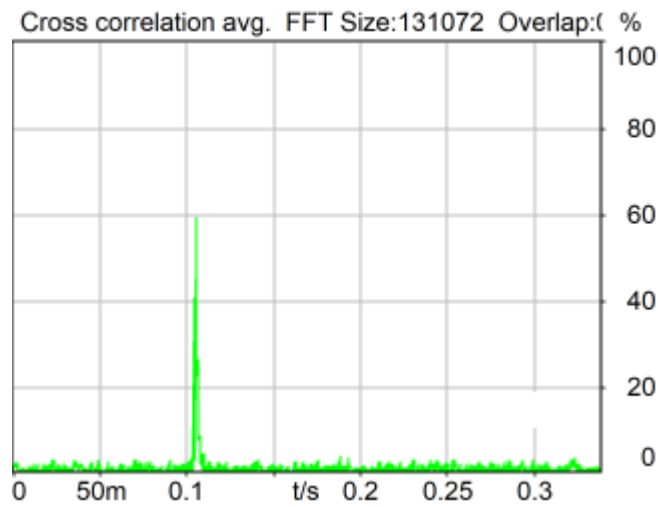
Title: LTE Band 26_15M

and Noise (Conversational Gain)		, (occured at 250Hz)		_QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	1.60	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_2N
5.3 Frequency Response 2N DF	Ok	Min. dist. to tolerance scheme [dB], 272.2 Hz	0.49	LTE Band 26_15M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch26865_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

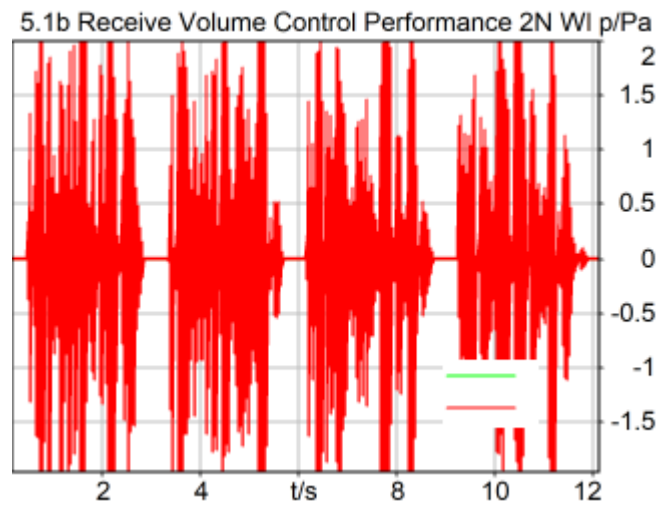


Delay (Cross): 105.8 ms

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5.1b Receive Volume Control Performance 2N WB

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



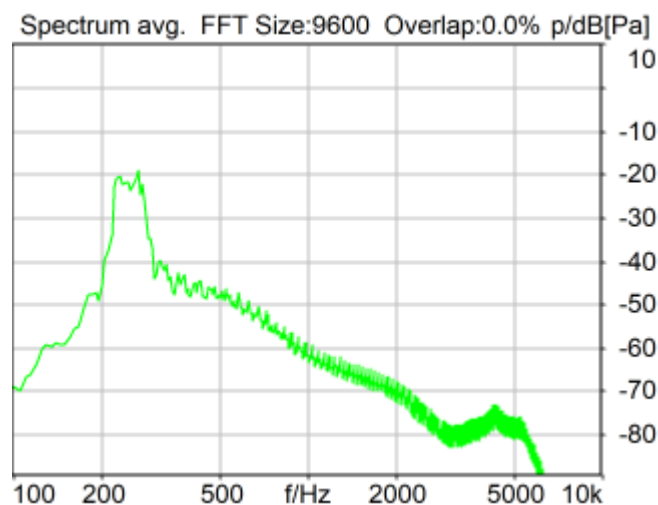
Speech Level RCV: 86.31 dB[SPL], Act.: 84.75% Ok

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



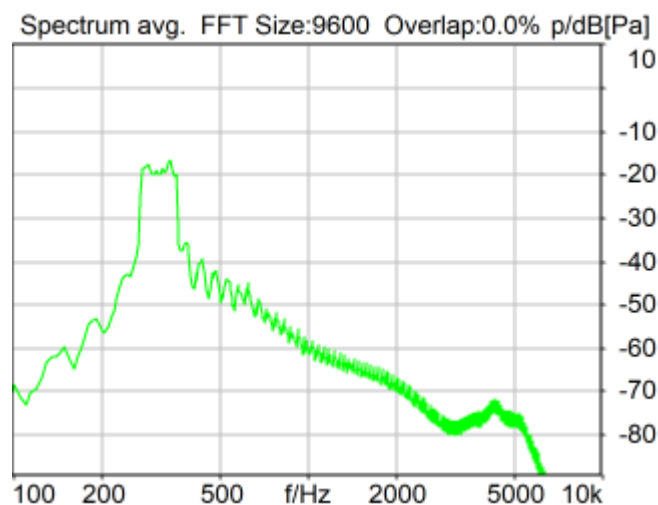
Distortion (Noise) RCV (packed): 20.48 dB (9.46%) Ok

Ok

25/07/14 20:08 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



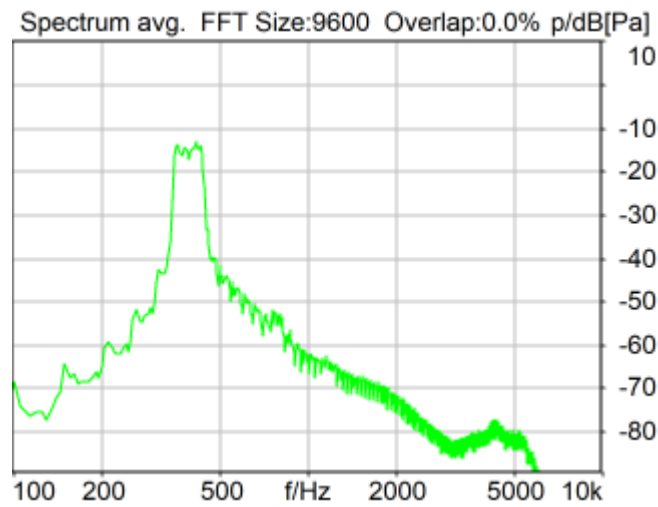
Distortion (Noise) RCV (packed): 23.19 dB (6.92%) Ok

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



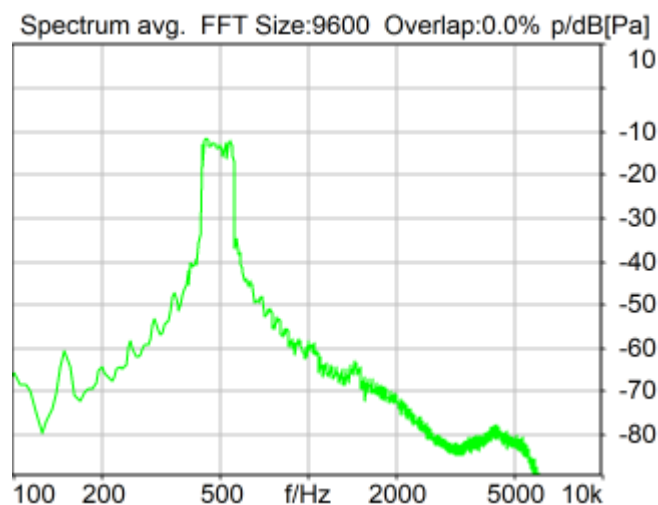
Distortion (Noise) RCV (packed): 29.84 dB (3.22%) Ok

Ok

25/07/14 20:09 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



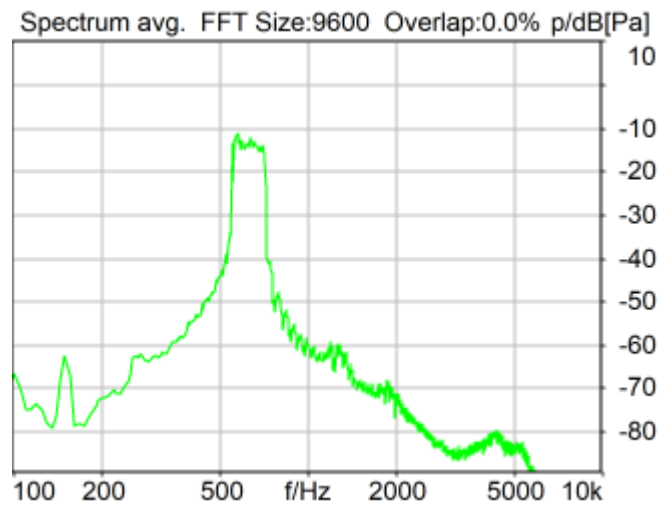
Distortion (Noise) RCV (packed): 32.69 dB (2.32%) Ok

Ok

25/07/14 20:09 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



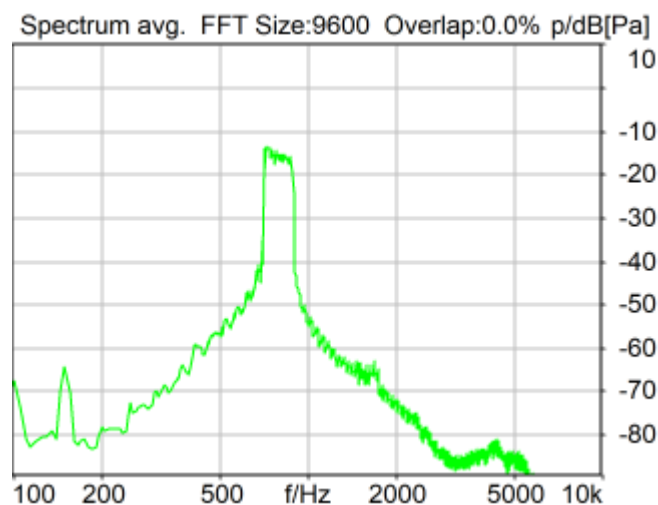
Distortion (Noise) RCV (packed): 34.46 dB (1.89%) Ok

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



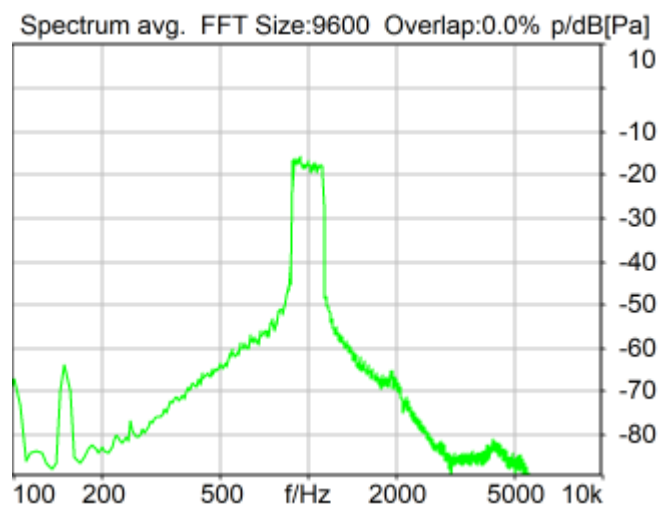
Distortion (Noise) RCV (packed): 33.23 dB (2.18%) Ok

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



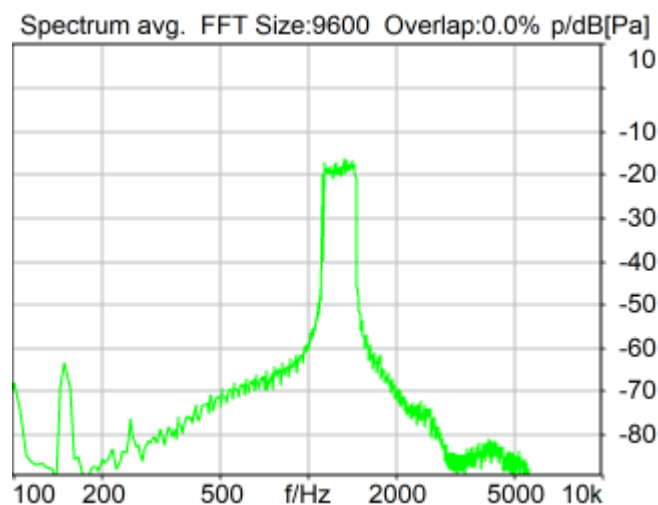
Distortion (Noise) RCV (packed): 33.66 dB (2.07%) Ok

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



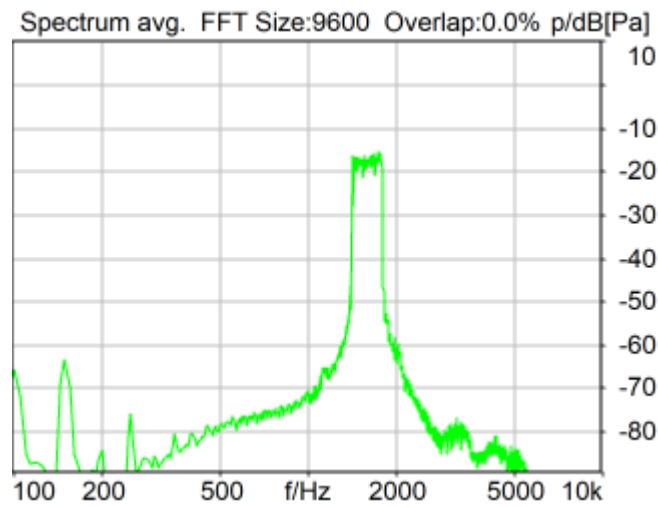
Distortion (Noise) RCV (packed): 31.05 dB (2.80%) Ok

Ok

25/07/14 20:11 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



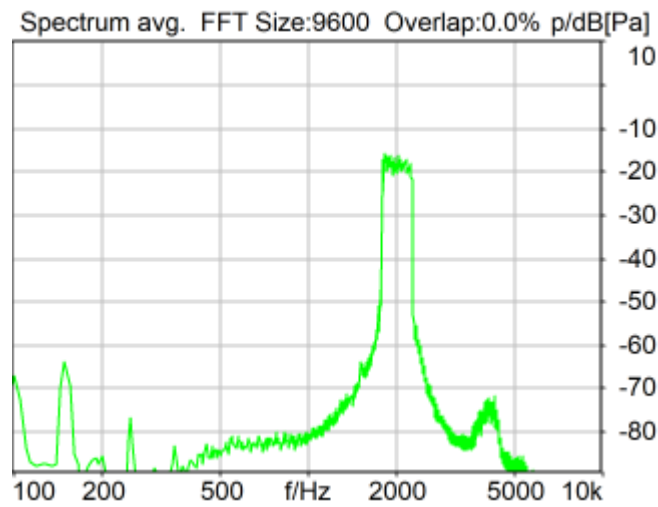
Distortion (Noise) RCV (packed): 39.31 dB (1.08%) Ok

Ok

25/07/14 20:21 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



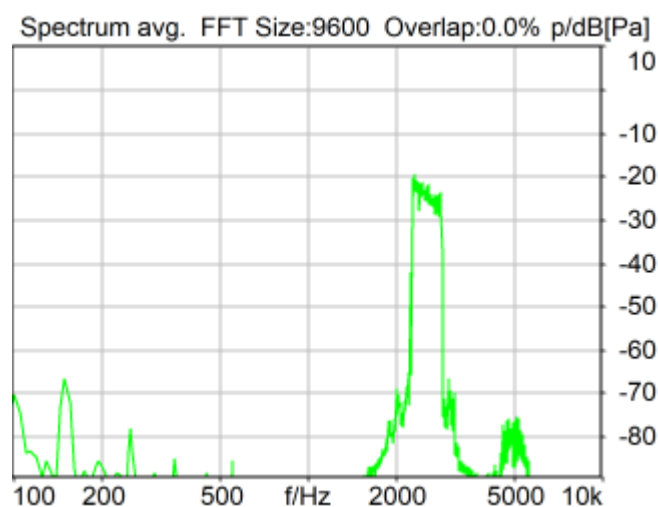
Distortion (Noise) RCV (packed): 40.53 dB (0.94%) Ok

Ok

25/07/14 20:12 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



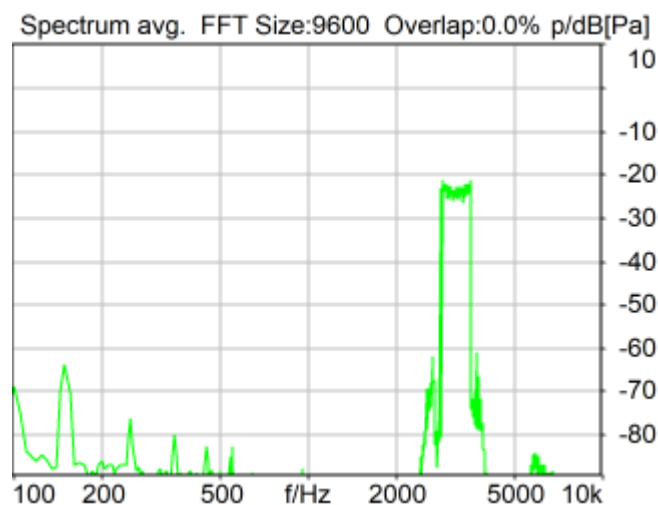
Distortion (Noise) RCV (packed): 46.46 dB (0.48%) Ok

Ok

25/07/14 20:12 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



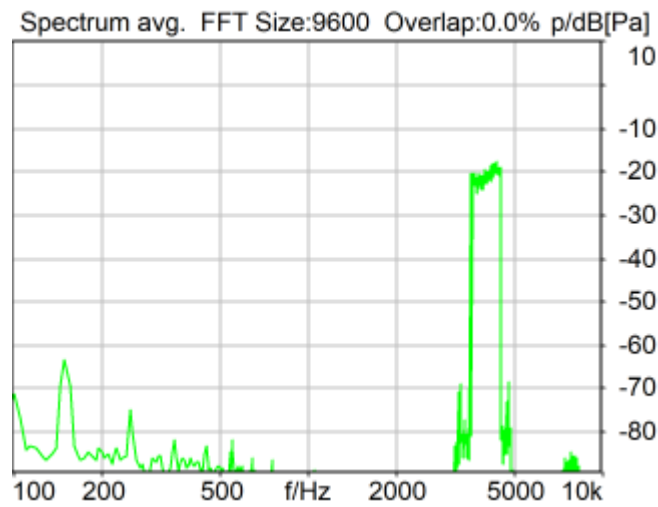
Distortion (Noise) RCV (packed): 46.65 dB (0.46%) Ok

Ok

25/07/14 20:13 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



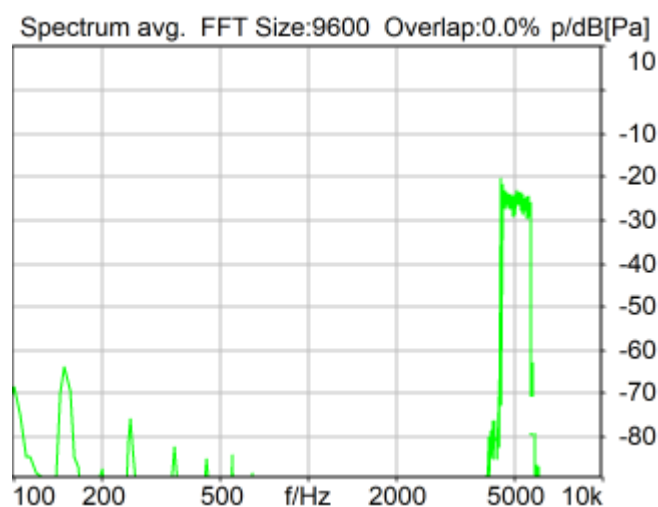
Distortion (Noise) RCV (packed): 56.70 dB (0.15%) Ok

Ok

25/07/14 20:13 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): 51.59 dB (0.26%) Ok

Ok

25/07/14 20:14 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	20.48 dB
2	315Hz	23.19 dB
3	400Hz	29.84 dB
4	500Hz	32.69 dB
5	630Hz	34.46 dB
6	800Hz	33.23 dB
7	1000Hz	33.66 dB
8	1250Hz	31.05 dB
9	2000Hz	40.53 dB
10	2500Hz	46.46 dB
11	3150Hz	46.65 dB
12	4000Hz	56.70 dB
13	5000Hz	51.59 dB
14	1600Hz	39.31 dB

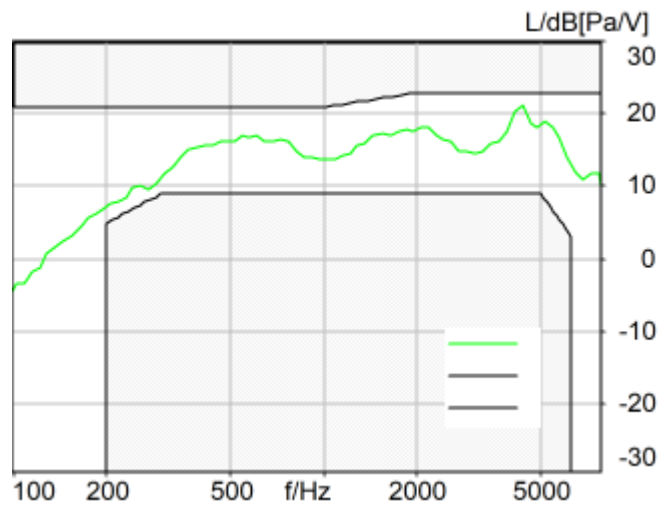
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.48dB at 250Hz.

25/07/14 20:21 ACQUA

5.3 Frequency Response 2N FF

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



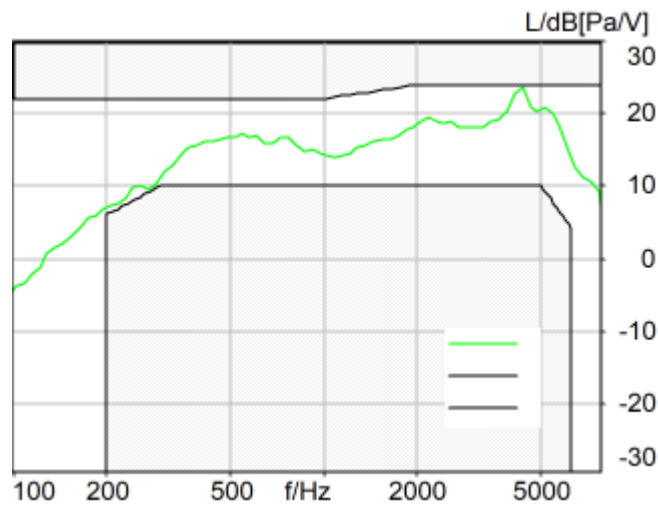
Absolute minimal distance
1.60 dB at 4369.4 Hz Ok

Ok

25/07/14 20:20 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
0.49 dB at 272.2 Hz Ok

Ok

25/07/14 20:20 ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
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Project	561221
Report Generation Date	25/07/14 19:19
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	286.3	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.48	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.32	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.65	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.68	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.93	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.11	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.46	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.12	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.05	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.71	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	40.37	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	44.62	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	50.59	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	56.73	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	51.36	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	21.32	FR1 n71_35M

ACQUA Report
WB 128kbps_Ch136100_2N

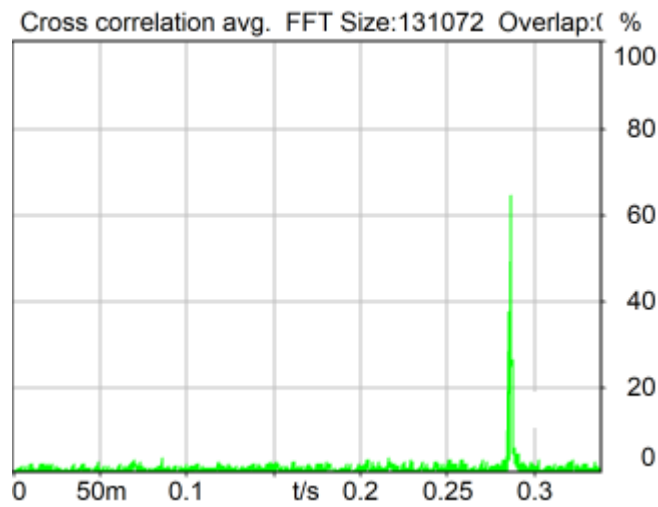
Title: FR1 n71_35M_QPSK_1RB_1Offset_EVS

and Noise (Conversational Gain)		(occured at 250Hz)		_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	0.85	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_2N
5.3 Frequency Response 2N DF	Not Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	-0.24	FR1 n71_35M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch136100_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

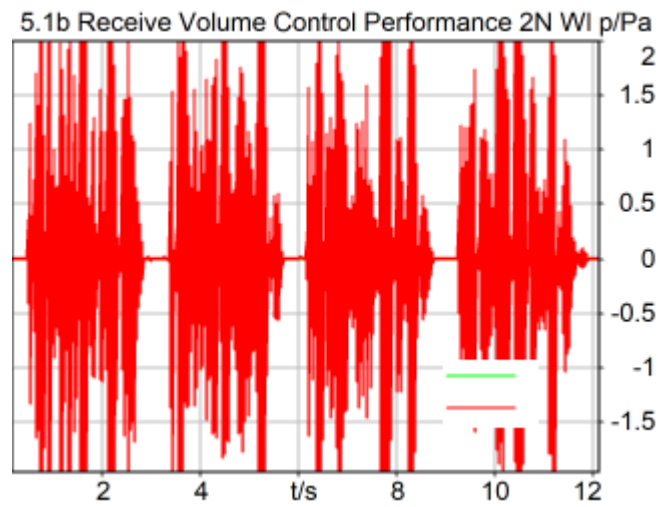


Delay (Cross): 286.3 ms

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5.1b Receive Volume Control Performance 2N WB

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



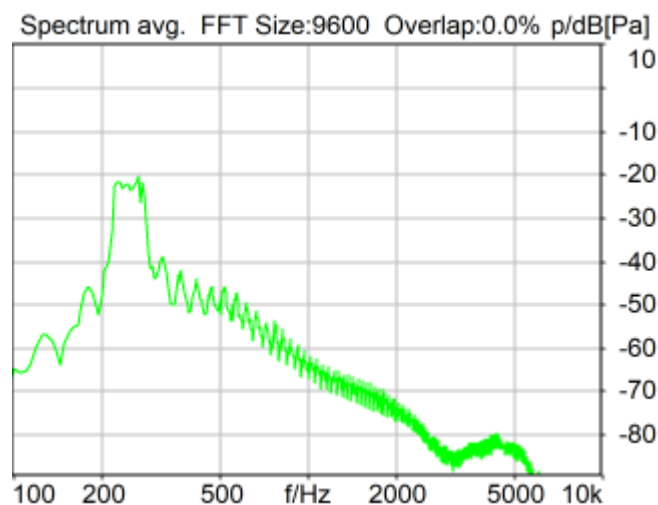
Speech Level RCV: 86.48 dB[SPL], Act.: 85.00% Ok

Ok

25/07/14 19:11 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



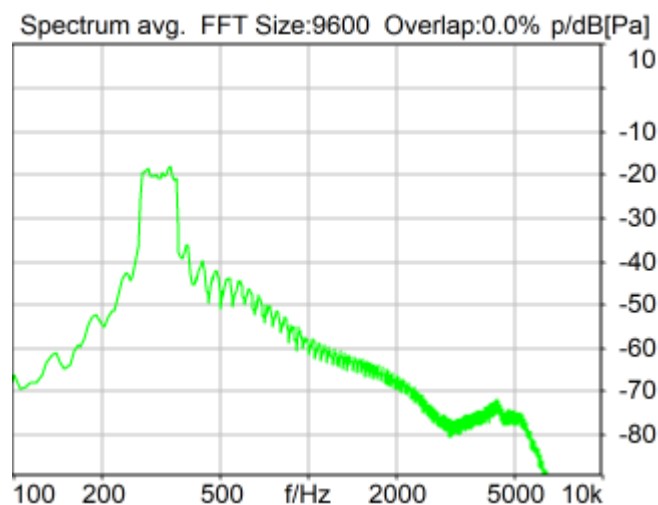
Distortion (Noise) RCV (packed): 21.32 dB (8.59%) Ok

Ok

25/07/14 19:11 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



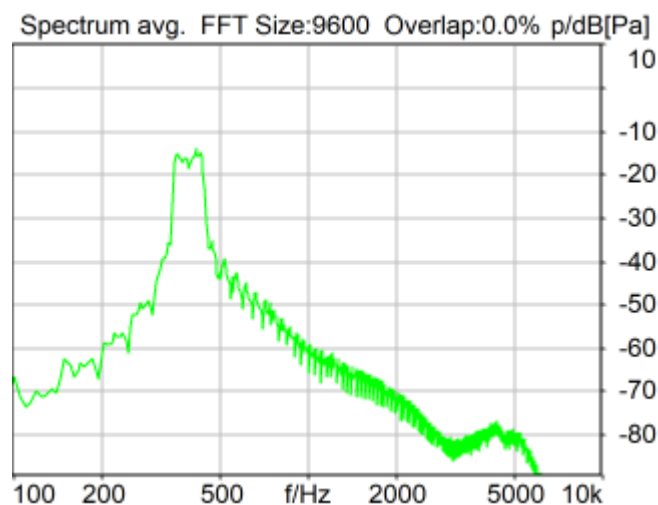
Distortion (Noise) RCV (packed): 21.65 dB (8.27%) Ok

Ok

25/07/14 19:12 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



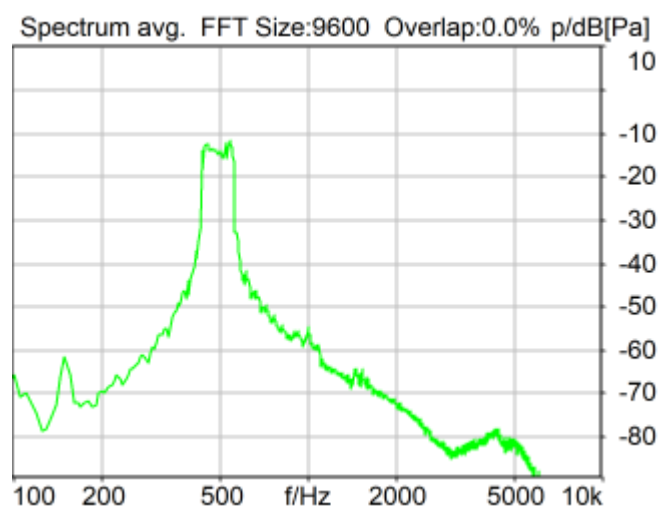
Distortion (Noise) RCV (packed): 26.68 dB (4.63%) Ok

Ok

25/07/14 19:12 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



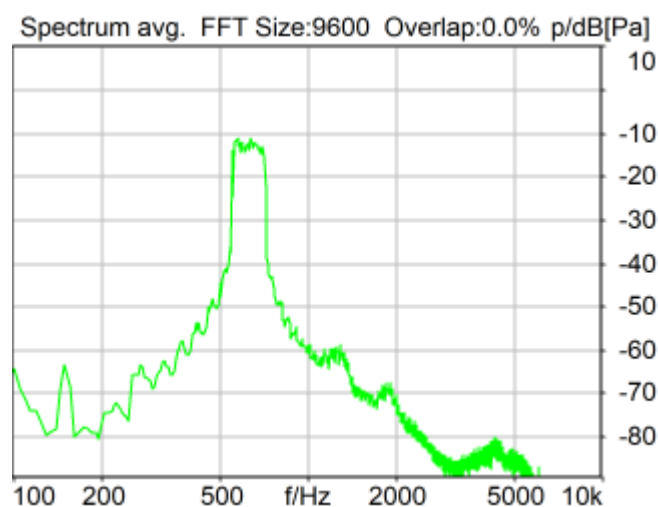
Distortion (Noise) RCV (packed): 31.93 dB (2.53%) Ok

Ok

25/07/14 19:12 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



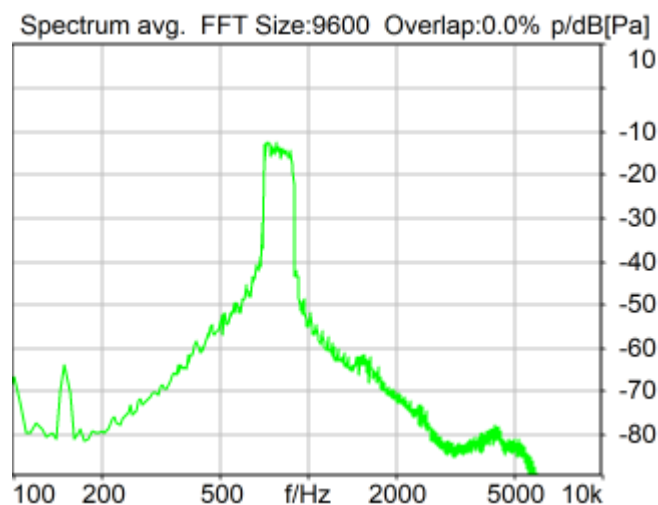
Distortion (Noise) RCV (packed): 35.11 dB (1.76%) Ok

Ok

25/07/14 19:13 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



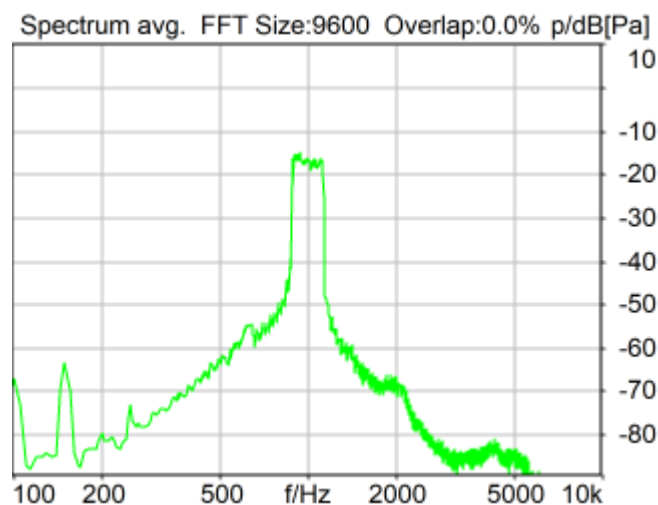
Distortion (Noise) RCV (packed): 33.46 dB (2.12%) Ok

Ok

25/07/14 19:13 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



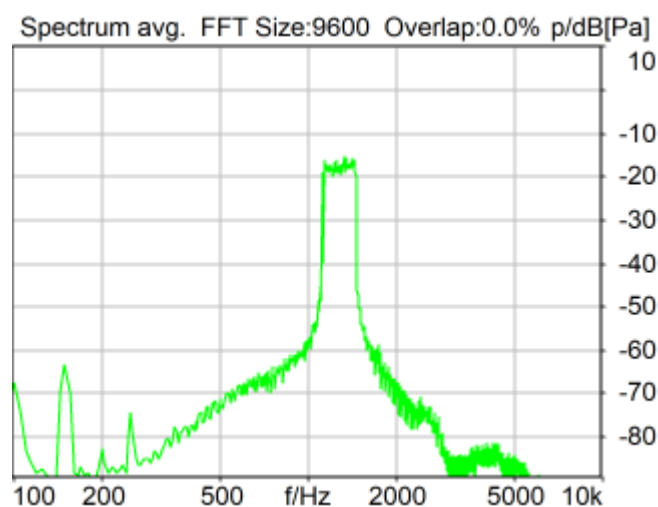
Distortion (Noise) RCV (packed): 34.12 dB (1.97%) Ok

Ok

25/07/14 19:14 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



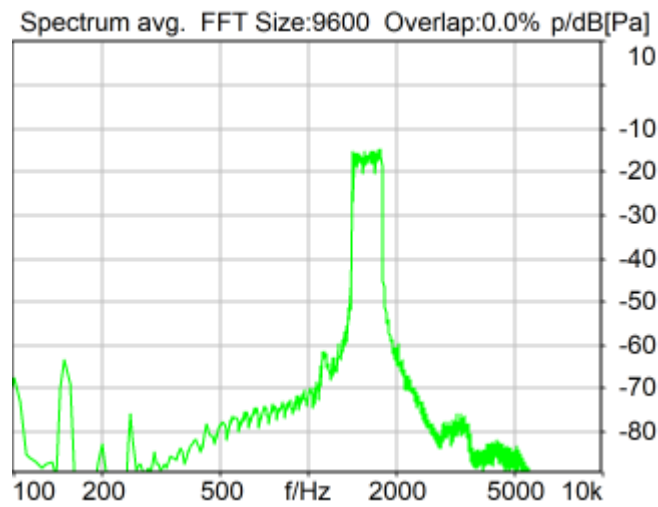
Distortion (Noise) RCV (packed): 31.05 dB (2.80%) Ok

Ok

25/07/14 19:14 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



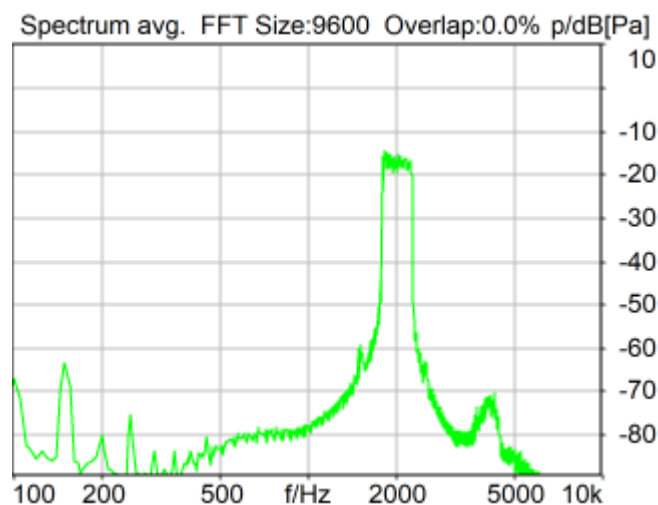
Distortion (Noise) RCV (packed): 39.71 dB (1.03%) Ok

Ok

25/07/14 19:15 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



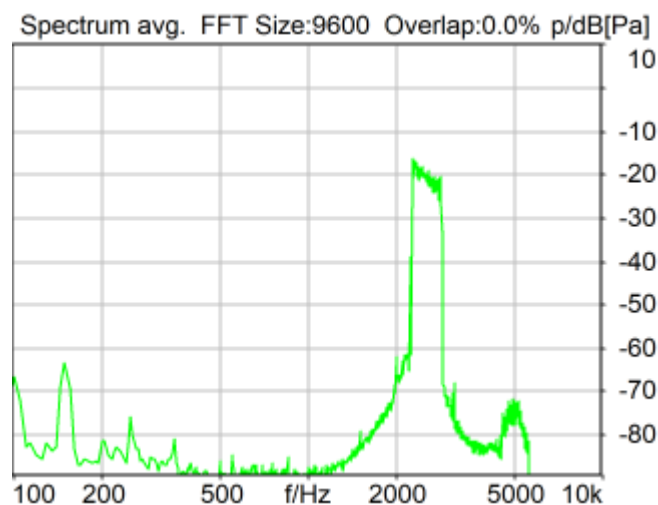
Distortion (Noise) RCV (packed): 40.37 dB (0.96%) Ok

Ok

25/07/14 19:15 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



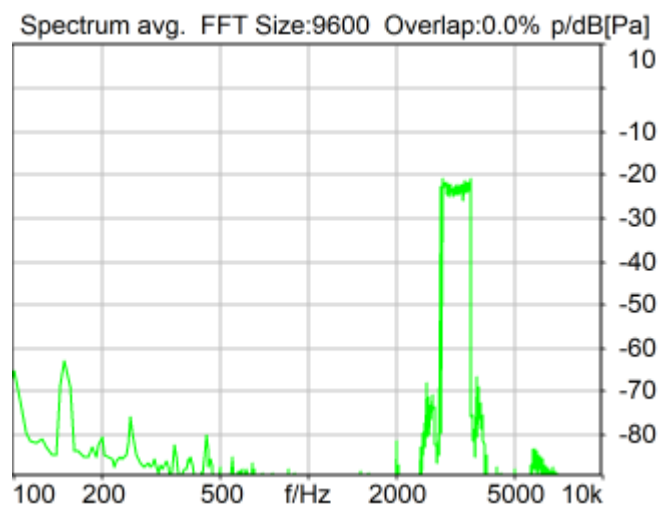
Distortion (Noise) RCV (packed): 44.62 dB (0.59%) Ok

Ok

25/07/14 19:16 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



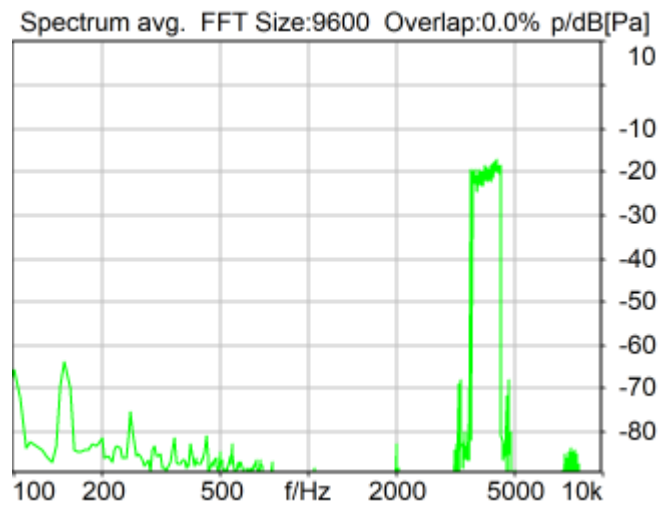
Distortion (Noise) RCV (packed): 50.59 dB (0.30%) Ok

Ok

25/07/14 19:16 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



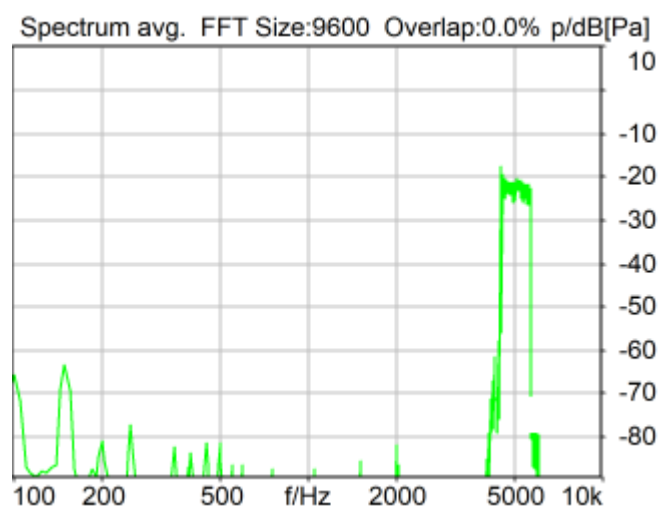
Distortion (Noise) RCV (packed): 56.73 dB (0.15%) Ok

Ok

25/07/14 19:17 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): 51.36 dB (0.27%) Ok

Ok

25/07/14 19:17 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	21.32 dB
2	315Hz	21.65 dB
3	400Hz	26.68 dB
4	500Hz	31.93 dB
5	630Hz	35.11 dB
6	800Hz	33.46 dB
7	1000Hz	34.12 dB
8	1250Hz	31.05 dB
9	1600Hz	39.71 dB
10	2000Hz	40.37 dB
11	2500Hz	44.62 dB
12	3150Hz	50.59 dB
13	4000Hz	56.73 dB
14	5000Hz	51.36 dB

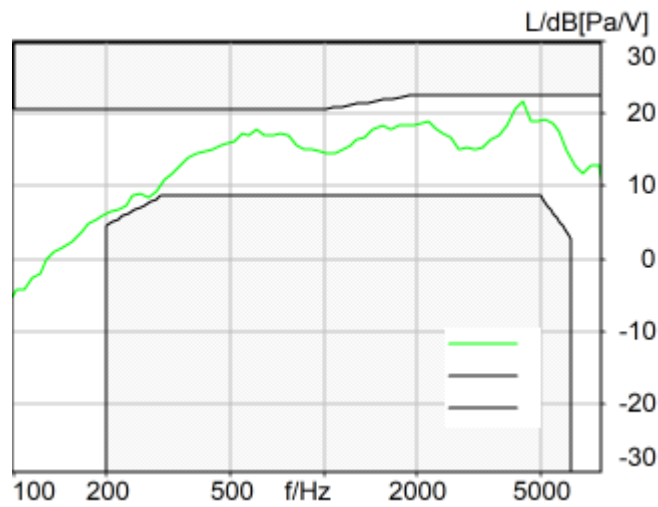
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.32dB at 250Hz.

25/07/14 19:17 ACQUA

5.3 Frequency Response 2N FF

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



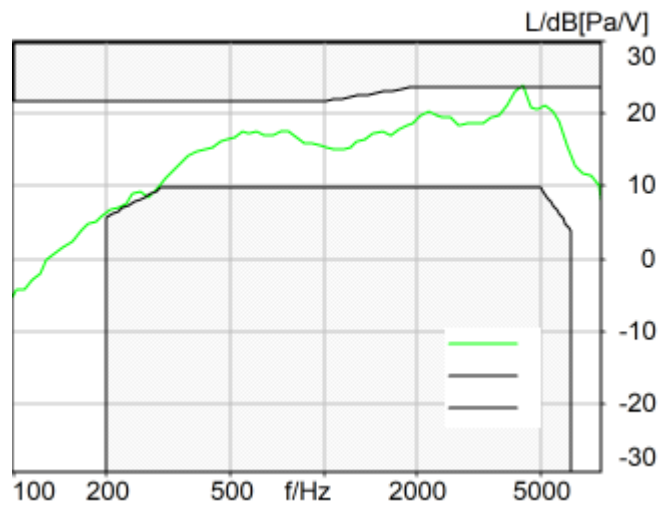
Absolute minimal distance
0.85 dB at 4369.4 Hz Ok

Ok

25/07/14 19:18 ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
-0.24 dB at 4369.4 Hz Not Ok

Not Ok

25/07/14 19:18 ACQUA 5.1.200

ACQUA Report
128kbps_Ch157_8N

Title: 04_WLAN5GHz_802.11a 6Mbps _EVS WB

Measurement Protocol

Measurement Object	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
--------------------	---

Project	561221
Report Generation Date	25/07/14 20:03
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	110.6	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.76	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.31	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	24.81	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.38	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.07	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.93	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.79	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.77	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.73	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.19	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	41.15	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.72	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	45.26	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.70	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	51.55	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	20.31	WLAN5GHz_802.11a 6Mbps

ACQUA Report
128kbps_Ch157_8N

Title: WLAN5GHz_802.11a 6Mbps _EVS WB

and Noise (Conversational Gain)		(occured at 250Hz)		_EVS WB 128kbps_Ch157_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	2.37	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	1.24	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_8N

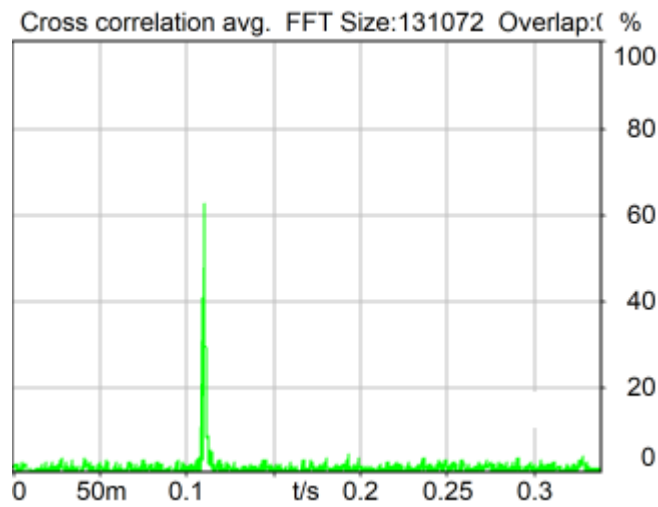
ACQUA Report
128kbps_Ch157_8N

Title: WLAN5GHz_802.11a 6Mbps _EVS WB

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

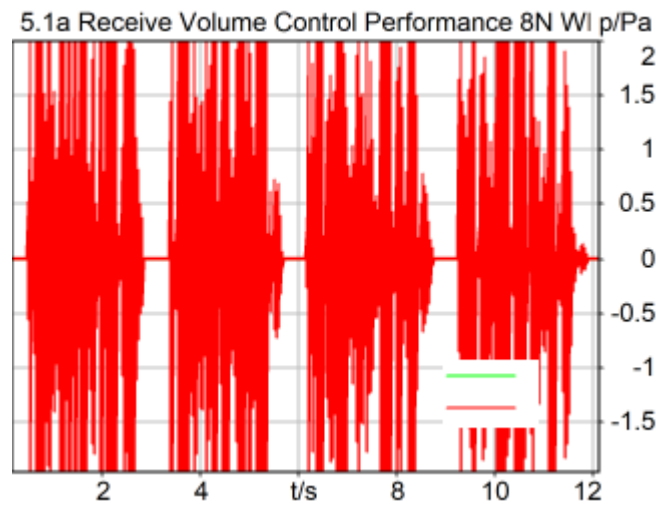


Delay (Cross): 110.6 ms

25/07/14 19:41 ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



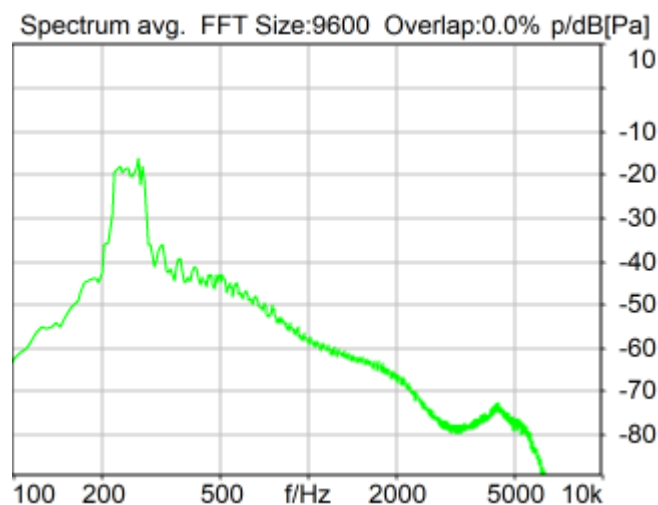
Speech Level RCV: 90.76 dB[SPL], Act.: 84.97% Ok

Ok

25/07/14 19:41 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



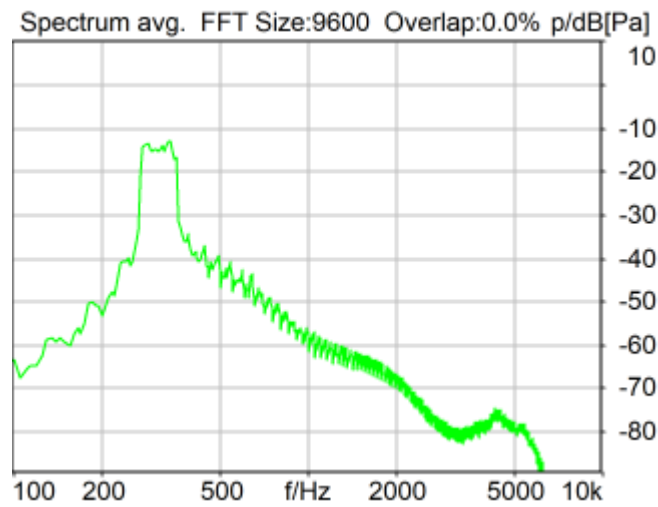
Distortion (Noise) RCV (packed): 20.31 dB (9.65%) Ok

Ok

25/07/14 19:42 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



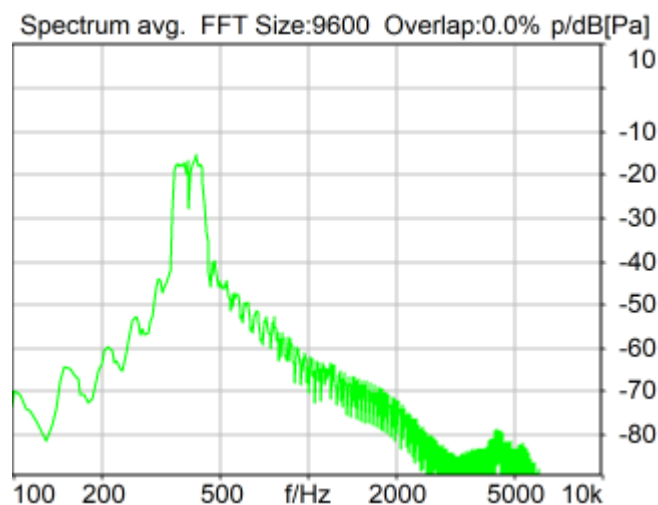
Distortion (Noise) RCV (packed): 24.81 dB (5.75%) Ok

Ok

25/07/14 19:42 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



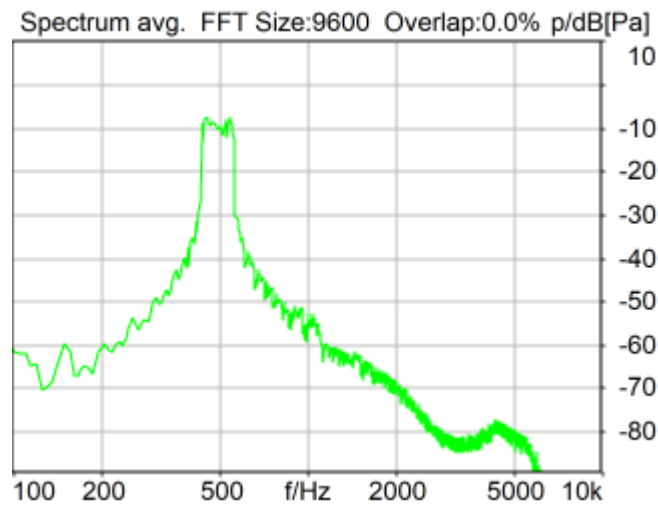
Distortion (Noise) RCV (packed): 28.38 dB (3.81%) Ok

Ok

25/07/14 19:43 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



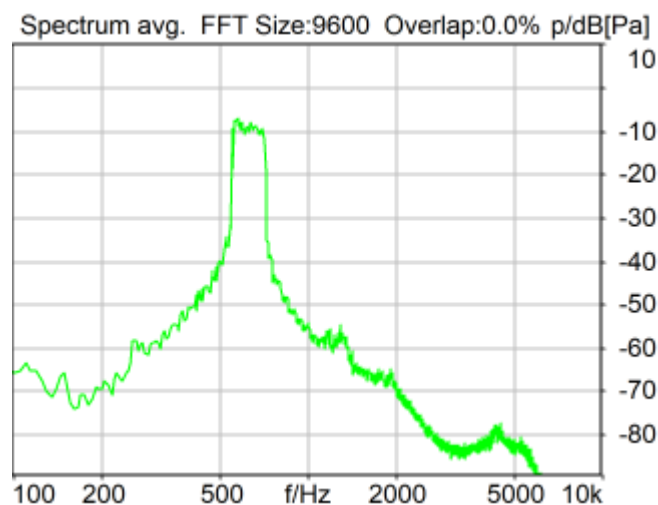
Distortion (Noise) RCV (packed): 32.07 dB (2.49%) Ok

Ok

25/07/14 20:02 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



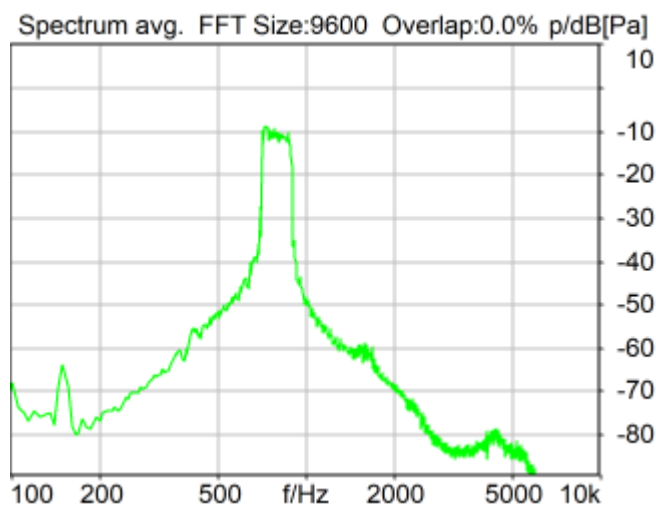
Distortion (Noise) RCV (packed): 34.93 dB (1.79%) Ok

Ok

25/07/14 19:43 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



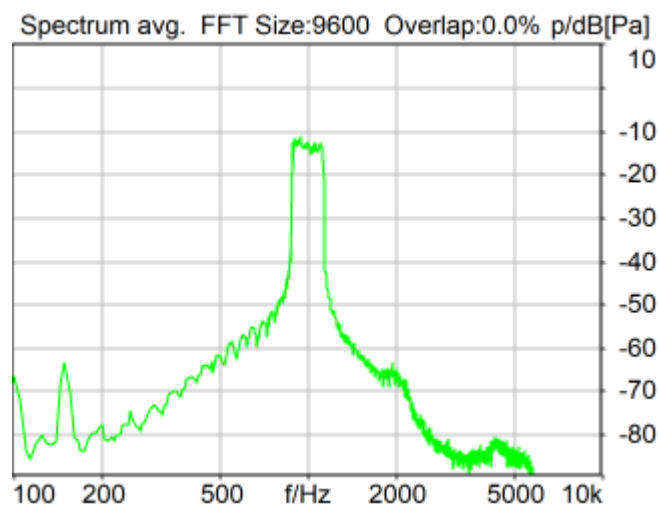
Distortion (Noise) RCV (packed): 33.79 dB (2.04%) Ok

Ok

25/07/14 19:44 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



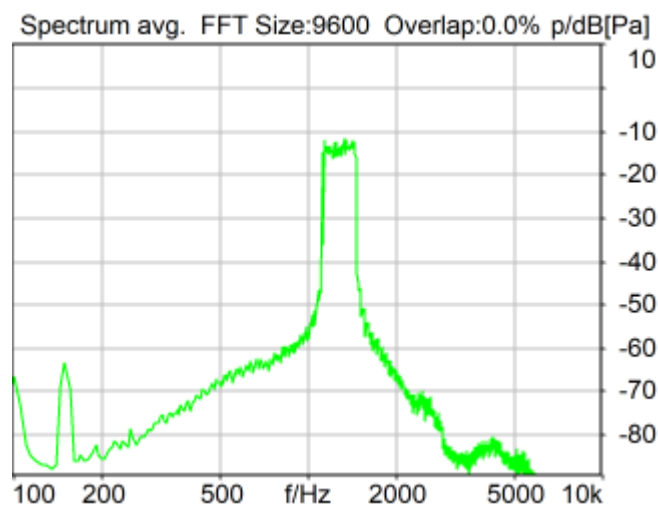
Distortion (Noise) RCV (packed): 35.77 dB (1.63%) Ok

Ok

25/07/14 19:44 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



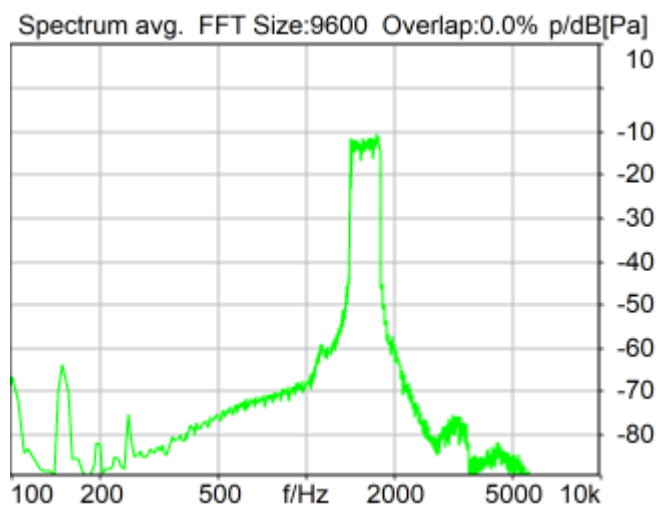
Distortion (Noise) RCV (packed): 31.73 dB (2.59%) Ok

Ok

25/07/14 19:45 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



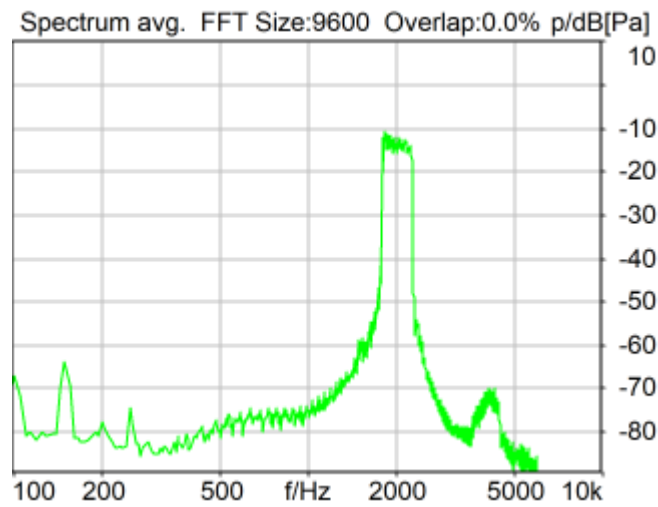
Distortion (Noise) RCV (packed): 41.19 dB (0.87%) Ok

Ok

25/07/14 19:45 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



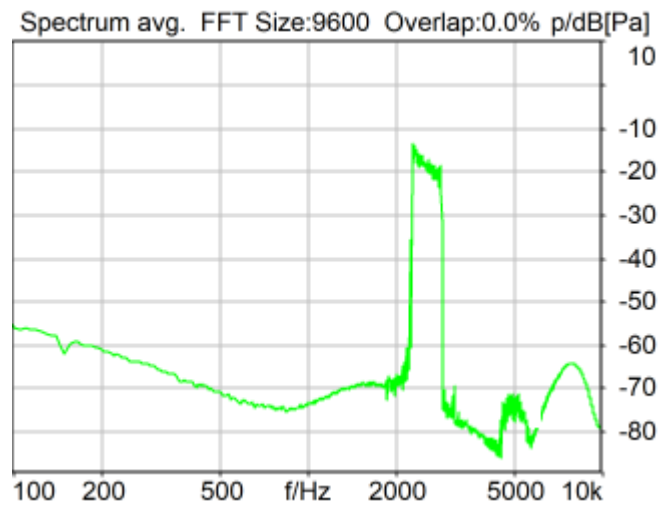
Distortion (Noise) RCV (packed): 41.15 dB (0.88%) Ok

Ok

25/07/14 19:46 ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2500 Hz WB

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



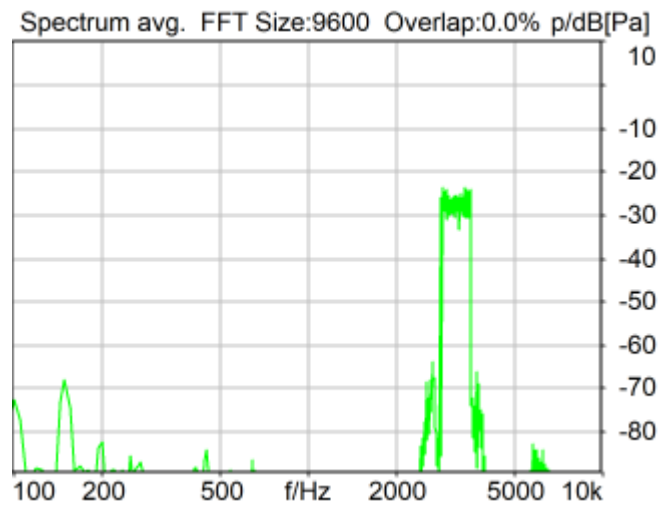
Distortion (Noise) RCV (packed): 39.72 dB (1.03%) Ok

Ok

25/07/14 19:46 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



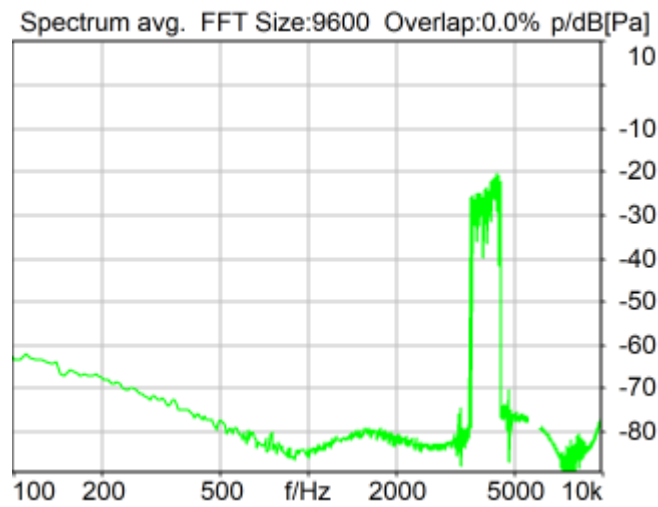
Distortion (Noise) RCV (packed): 45.26 dB (0.55%) Ok

Ok

25/07/14 19:47 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



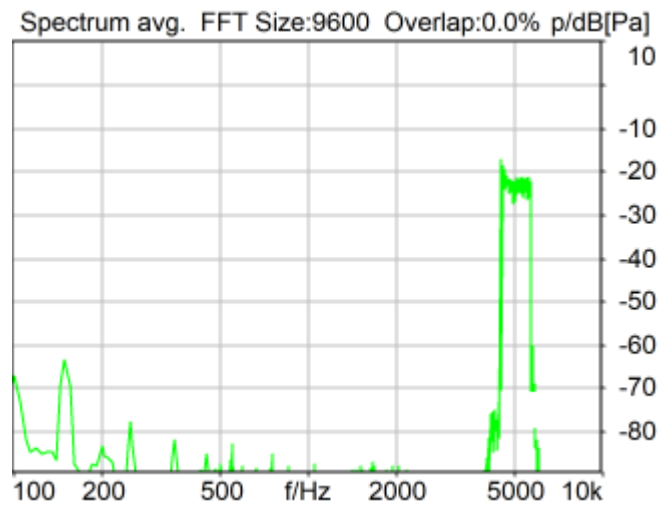
Distortion (Noise) RCV (packed): 39.70 dB (1.03%) Ok

Ok

25/07/14 19:47 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): 51.55 dB (0.26%) Ok

Ok

25/07/14 20:02 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	20.31 dB
2	315Hz	24.81 dB
3	400Hz	28.38 dB
4	630Hz	34.93 dB
5	800Hz	33.79 dB
6	1000Hz	35.77 dB
7	1250Hz	31.73 dB
8	1600Hz	41.19 dB
9	2000Hz	41.15 dB
10	2500Hz	39.72 dB
11	3150Hz	45.26 dB
12	4000Hz	39.70 dB
13	500Hz	32.07 dB
14	5000Hz	51.55 dB

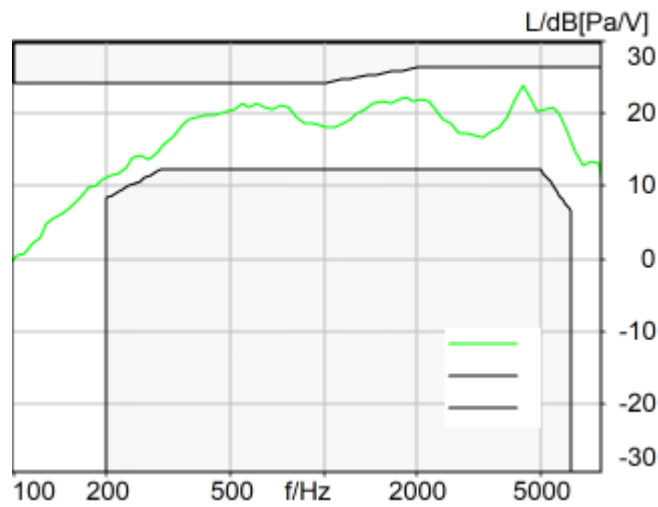
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.31dB at 250Hz.

25/07/14 20:03 ACQUA

5.3 Frequency Response 8N FF

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



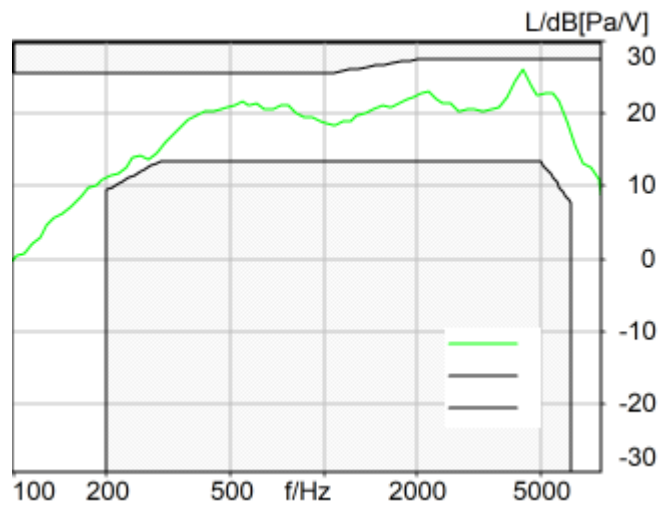
Absolute minimal distance
2.37 dB at 4369.4 Hz Ok

Ok

25/07/14 20:01 ACQUA 5.1.200

5.3 Frequency Response 8N DF

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



Absolute minimal distance
1.24 dB at 4369.4 Hz Ok

Ok

25/07/14 20:01 ACQUA 5.1.200

Measurement Protocol

Measurement Object	GSM1900_GSM Voice _AMR WB 6.60kbps_Ch661_2N
--------------------	---

Project	561221
Report Generation Date	25/07/14 20:35
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	107.0	GSM1900_GSM Voice _AMR WB 6.60kbps_Ch661_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.22	GSM1900_GSM Voice _AMR WB 6.60kbps_Ch661_2N

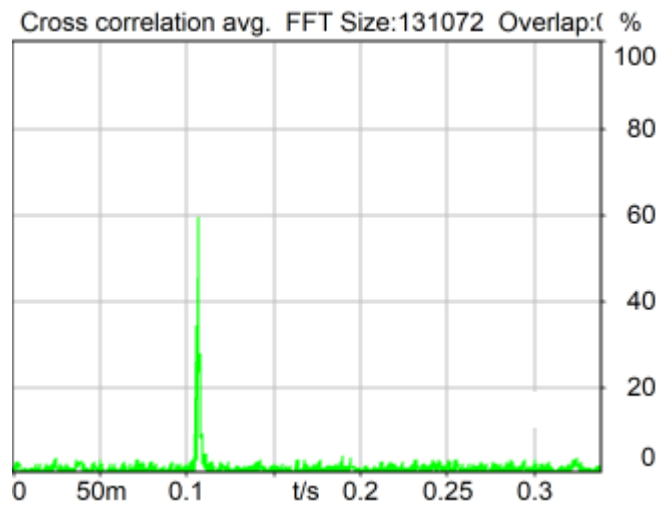
ACQUA Report
60kbps_Ch661_2N

Title: GSM1900_GSM Voice _AMR WB 6.

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

Overall Receive Delay WB

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

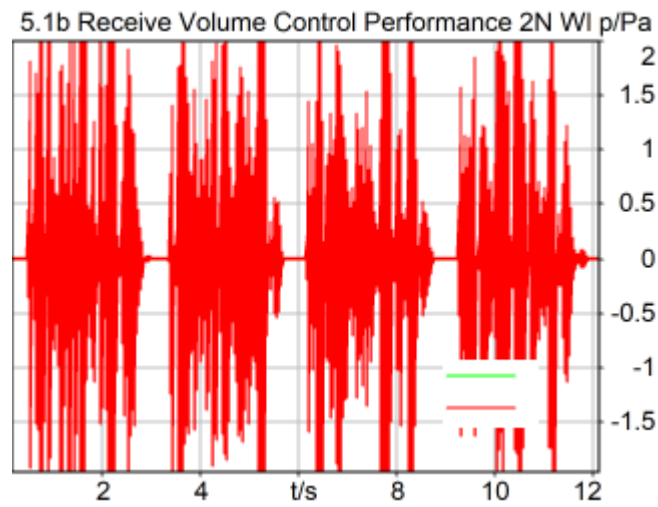


Delay (Cross): 107.0 ms

25/07/14 20:34 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 86.22 dB[SPL], Act.: 84.69% Ok

Ok

25/07/14 20:35 ACQUA 5.1.200

Measurement Protocol

Measurement Object	WCDMA II_Voice _AMR WB 6.60kbps_Ch9400_2N
--------------------	---

Project	561221
Report Generation Date	25/07/14 20:34
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	106.6	WCDMA II_Voice _AMR WB 6. 60kbps_Ch9400_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.23	WCDMA II_Voice _AMR WB 6. 60kbps_Ch9400_2N

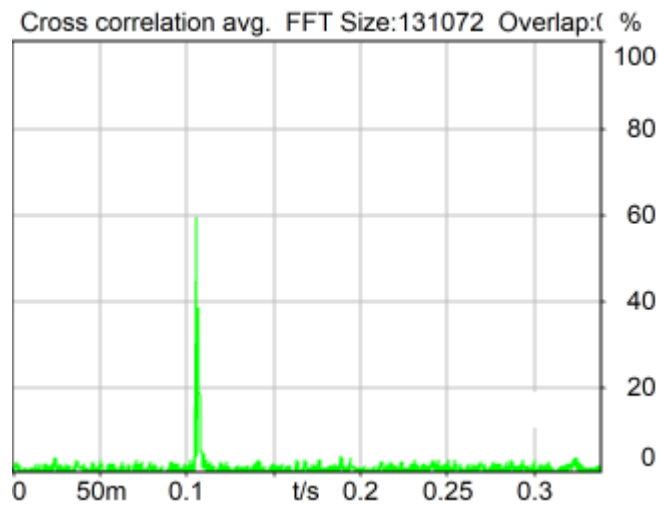
ACQUA Report
60kbps_Ch9400_2N

Title: WCDMA II_Voice _AMR WB 6.

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

Overall Receive Delay WB

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

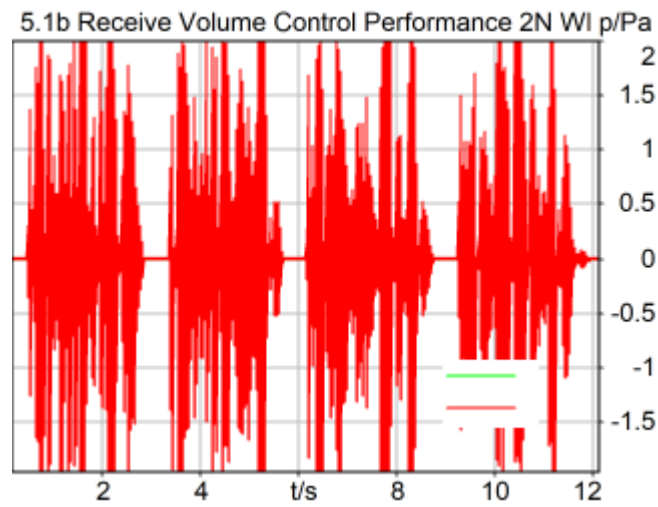


Delay (Cross): 106.6 ms

25/07/14 20:33 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 86.23 dB[SPL], Act.: 84.69% Ok

Ok

25/07/14 20:34 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 66_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N
--------------------	---

Project	561221
Report Generation Date	25/07/14 20:25
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	105.1	LTE Band 66_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.26	LTE Band 66_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N

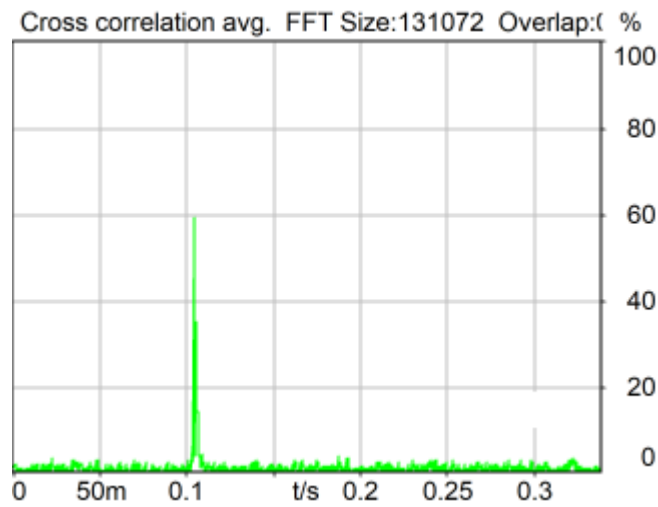
ACQUA Report
_QPSK_1RB_0Offset_EVS WB 128kbps_Ch132322_2N

Title: LTE Band 66_20M

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

Overall Receive Delay WB

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

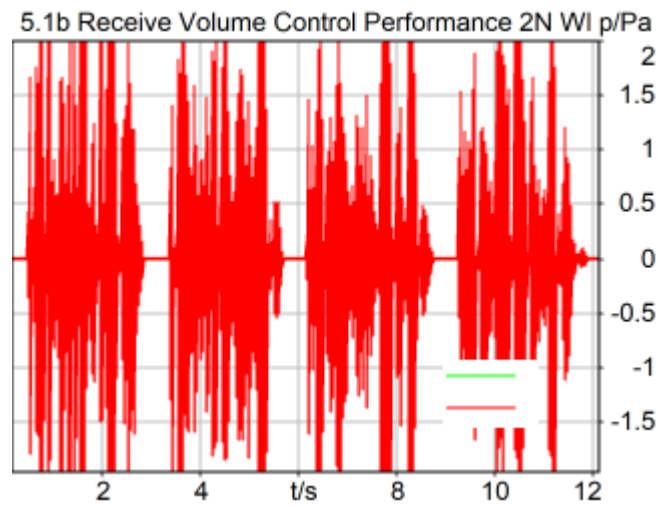


Delay (Cross): 105.1 ms

25/07/14 20:24 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 86.26 dB[SPL], Act.: 84.86% Ok

Ok

25/07/14 20:24 ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 71_20M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N
--------------------	---

Project	561221
Report Generation Date	25/07/14 20:27
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	105.7	LTE Band 71_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	90.59	LTE Band 71_20M _QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N

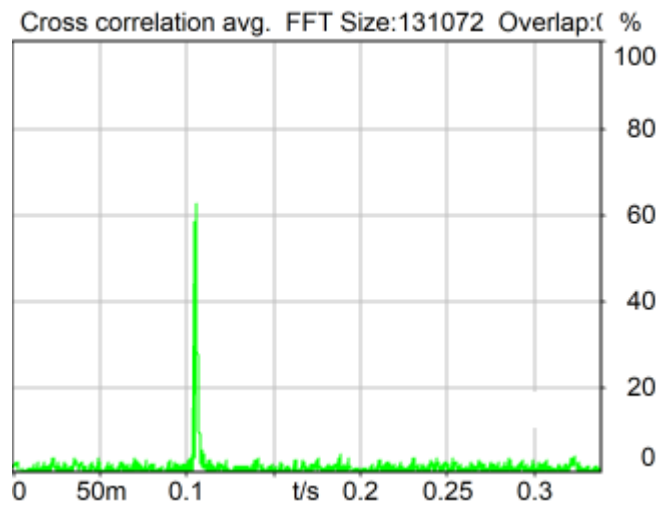
ACQUA Report
_QPSK_1RB_0Offset_EVS WB 128kbps_Ch133297_8N

Title: LTE Band 71_20M

Overall Receive Delay WB	5
5.1a Receive Volume Control Performance 8N WB	6

Overall Receive Delay WB

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

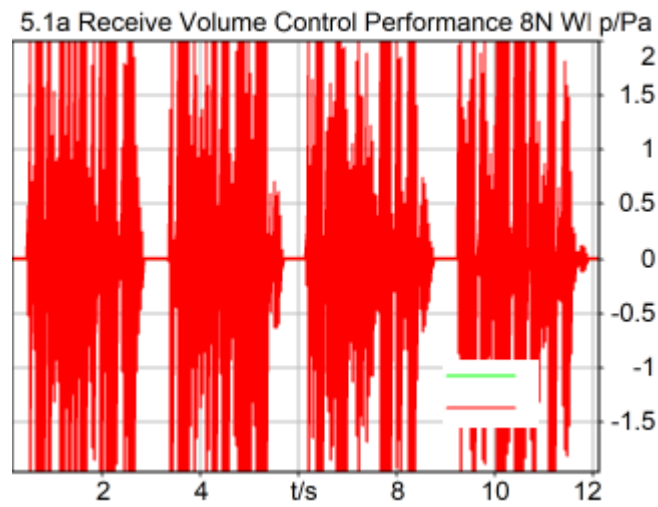


Delay (Cross): 105.7 ms

25/07/14 20:26 ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



Speech Level RCV: 90.59 dB[SPL], Act.: 84.63% Ok

Ok

25/07/14 20:26 ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n77_100M_QPSK_1RB_1Offset_EVS WB 128kbps_Ch656000_2N
--------------------	--

Project	561221
Report Generation Date	25/07/14 19:10
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	286.3	FR1 n77_100M _QPSK_1RB_1Offset_EVS WB 128kbps_Ch656000_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.49	FR1 n77_100M _QPSK_1RB_1Offset_EVS WB 128kbps_Ch656000_2N

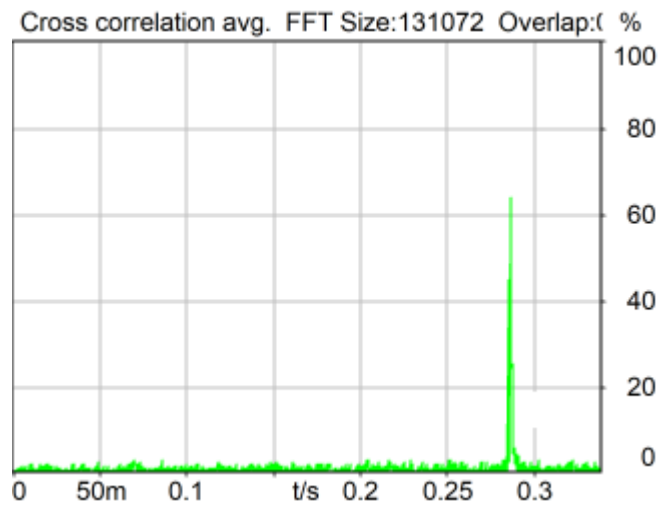
ACQUA Report
WB 128kbps_Ch656000_2N

Title: FR1 n77_100M_QPSK_1RB_1Offset_EVS

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

Overall Receive Delay WB

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

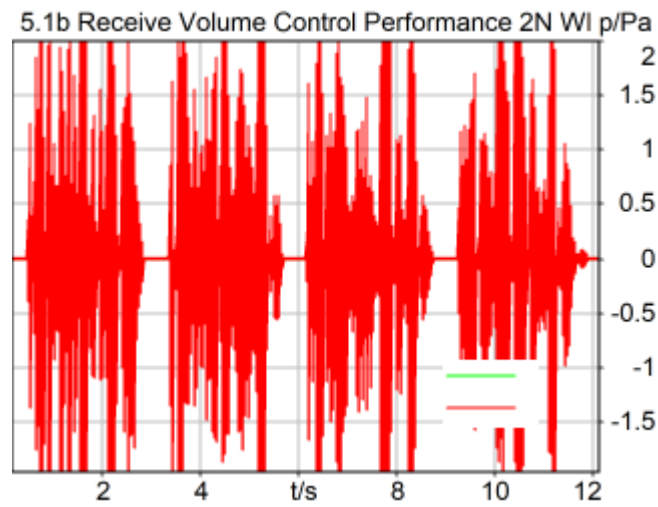


Delay (Cross): 286.3 ms

25/07/14 19:09 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 86.49 dB[SPL], Act.: 85.09% Ok

Ok

25/07/14 19:09 ACQUA 5.1.200

ACQUA Report
128kbps_Ch157_2N

Title: 10_WLAN5GHz_802.11a 6Mbps _EVS WB

Measurement Protocol

Measurement Object	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_2N
--------------------	---

Project	561221
Report Generation Date	25/07/14 20:23
Responsible Person	AC01-KS

Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	107.0	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	86.27	WLAN5GHz_802.11a 6Mbps _EVS WB 128kbps_Ch157_2N

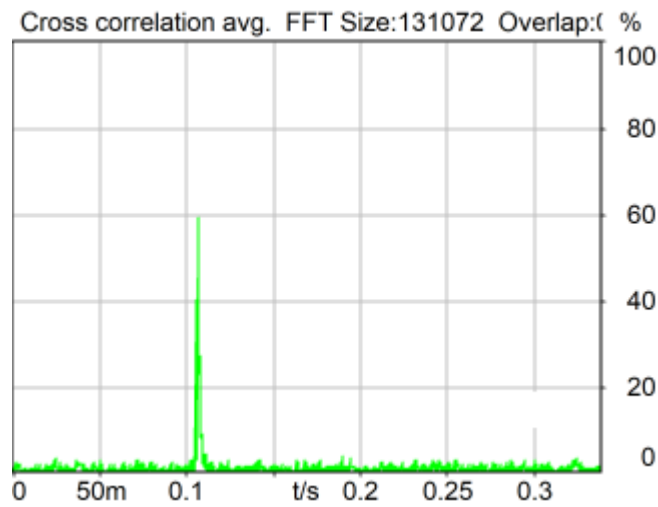
ACQUA Report
128kbps_Ch157_2N

Title: WLAN5GHz_802.11a 6Mbps _EVS WB

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

Overall Receive Delay WB

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

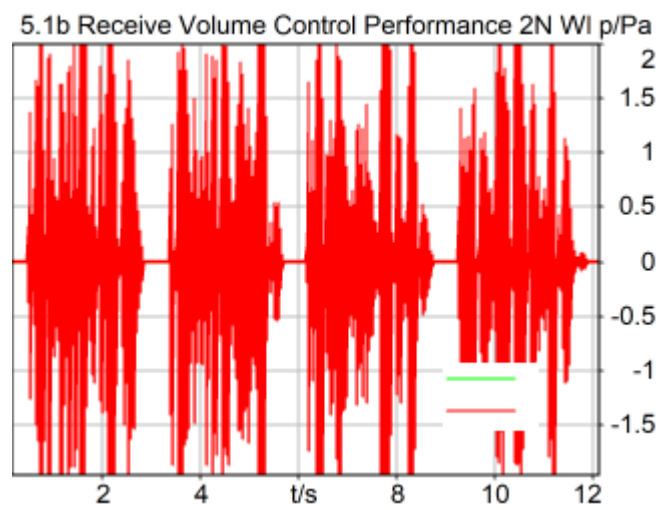


Delay (Cross): 107.0 ms

25/07/14 20:22 ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



Speech Level RCV: 86.27 dB[SPL], Act.: 84.78% Ok

Ok

25/07/14 20:23 ACQUA 5.1.200