
Measurement Protocol

Measurement Object	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
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Project	420703
Report Generation Date	3/8/2024 5:35 AM
Responsible Person	AC01-KS

Status Overview

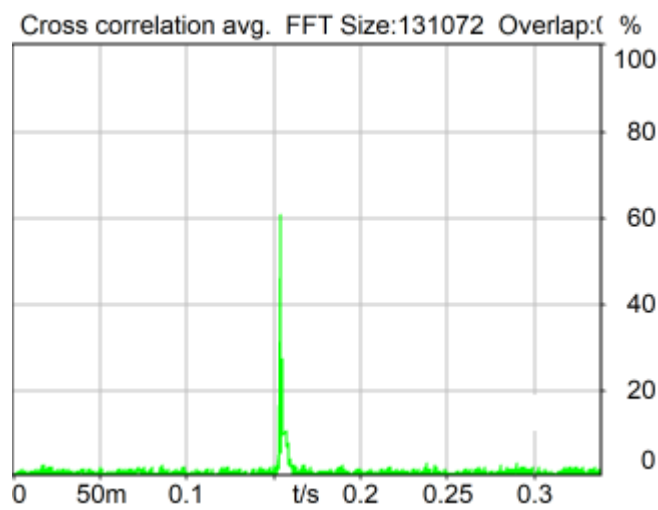
SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	155.2	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	86.79	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.36	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.46	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.40	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	39.78	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	44.81	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	45.89	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	47.63	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.82	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	59.19	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	58.02	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	54.44	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	58.74	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	60.92	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	65.21	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
Report - Receive Distortion	Ok	Minimum SDNR [dB]	21.36	LTE Band

and Noise (Conversational Gain)		, (occured at 250Hz)		30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 4870.0 Hz	1.63	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N
5.3 Frequency Response 8N DF	Ok	Min. dist. to tolerance scheme [dB], 4870.0 Hz	0.56	LTE Band 30_10M_QPSK_1RB_0Offset_EVS WB 128kbps_Ch27710_8N

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

Overall Receive Delay WB

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

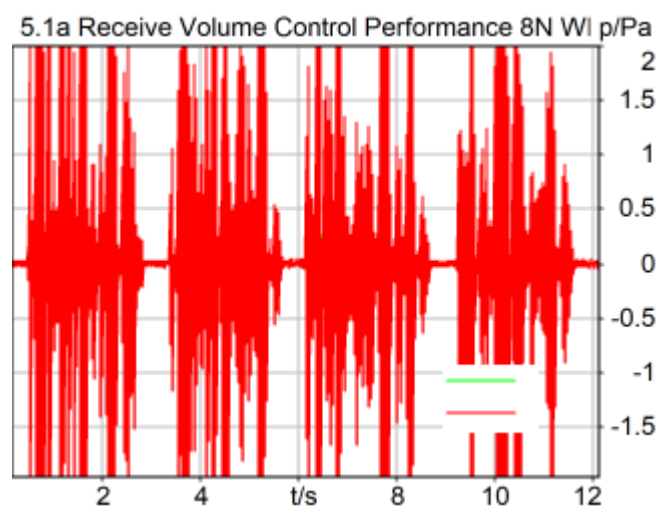


Delay (Cross): 155.2 ms

3/8/2024 5:32 AM ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



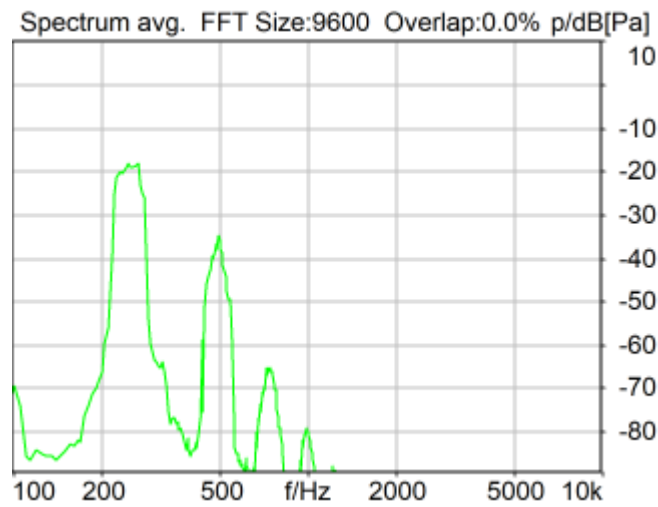
Speech Level RCV: 86.79 dB[SPL], Act.: 82.93% Ok

Ok

3/8/2024 5:32 AM 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



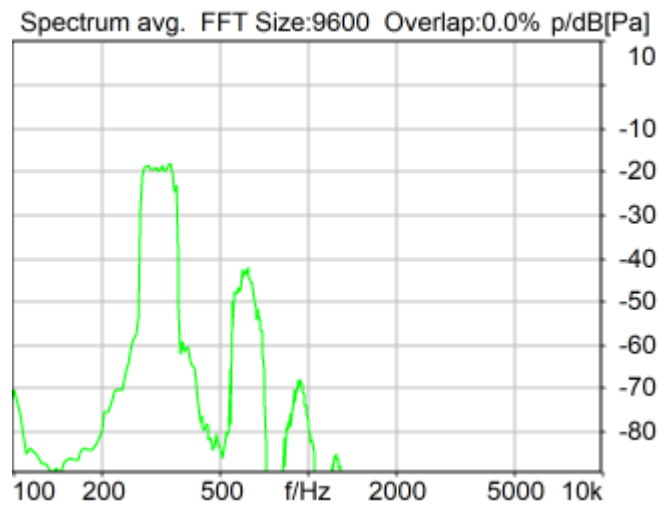
Distortion (Noise) RCV (packed): 21.36 dB (8.55%) Ok

Ok

3/8/2024 4:22 AM 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



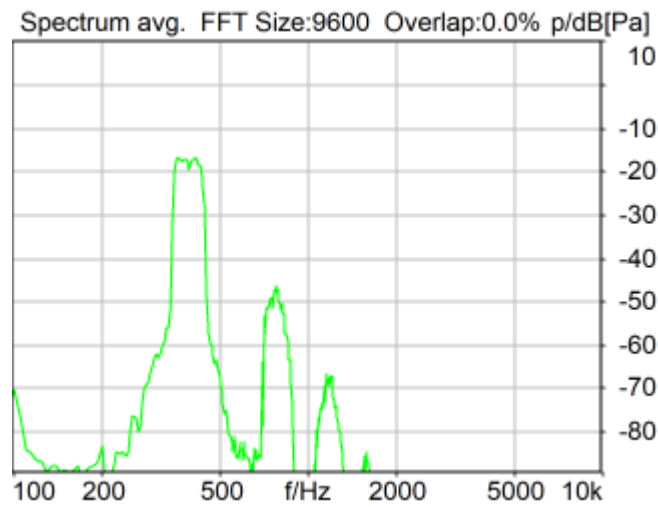
Distortion (Noise) RCV (packed): 26.46 dB (4.75%) Ok

Ok

3/8/2024 4:22 AM 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



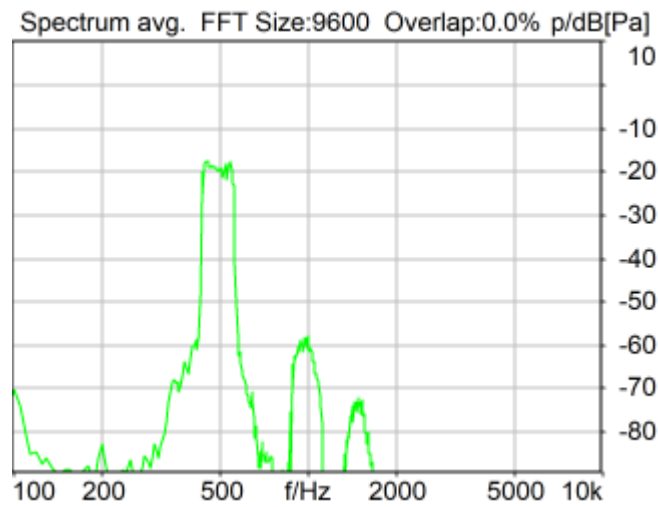
Distortion (Noise) RCV (packed): 31.40 dB (2.69%) Ok

Ok

3/8/2024 4:23 AM 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



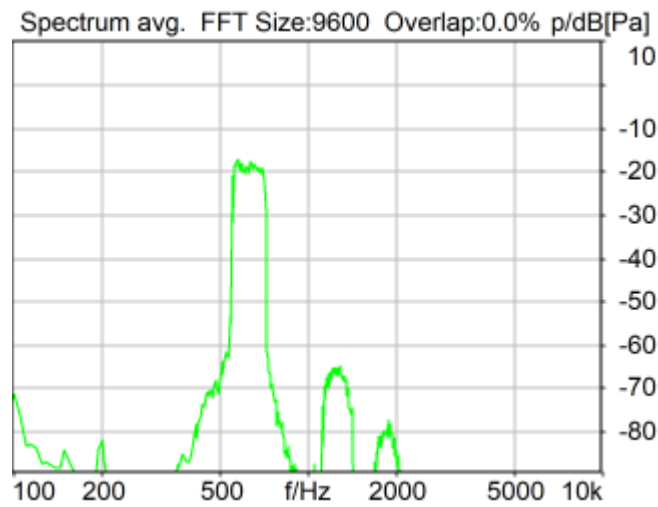
Distortion (Noise) RCV (packed): 39.78 dB (1.03%) Ok

Ok

3/8/2024 4:23 AM 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



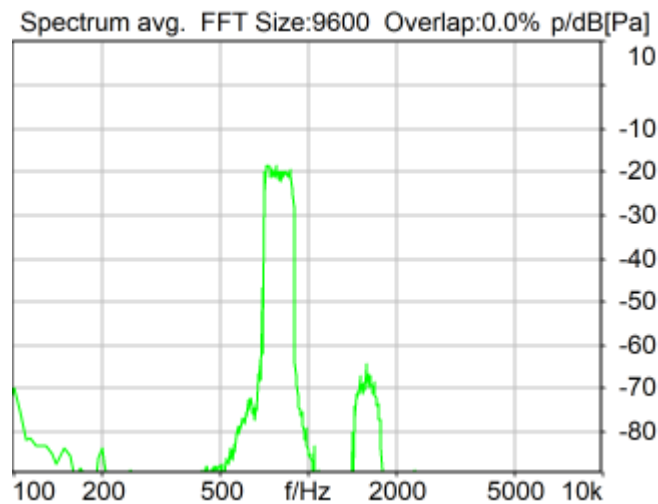
Distortion (Noise) RCV (packed): 44.81 dB (0.58%) Ok

Ok

3/8/2024 4:24 AM 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



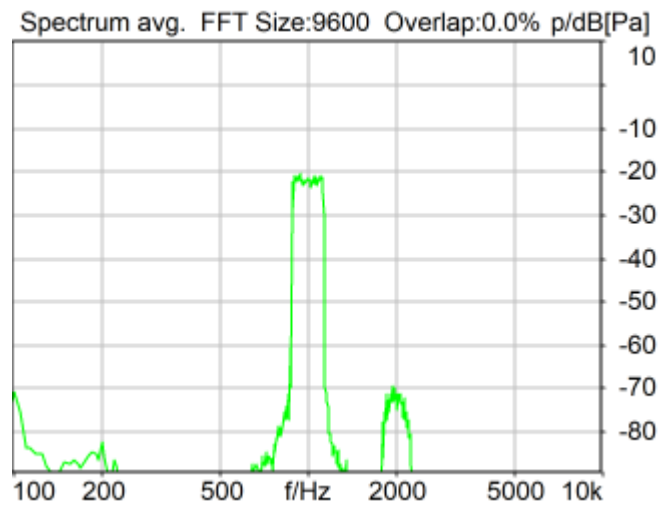
Distortion (Noise) RCV (packed): 45.89 dB (0.51%) Ok

Ok

3/8/2024 4:24 AM 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



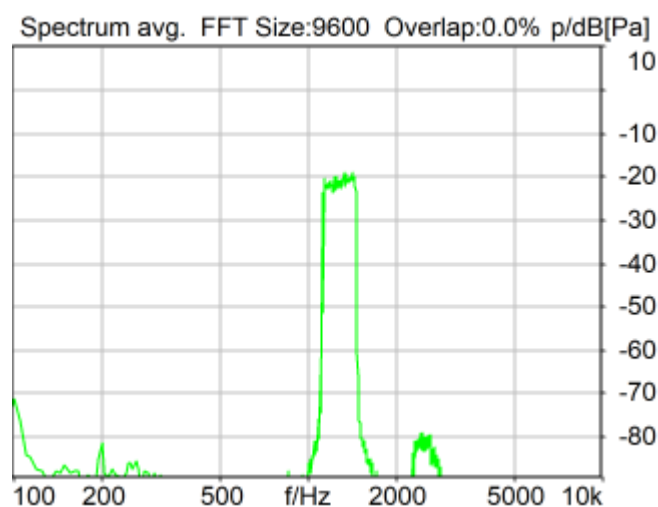
Distortion (Noise) RCV (packed): 47.63 dB (0.42%) Ok

Ok

3/8/2024 4:24 AM 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



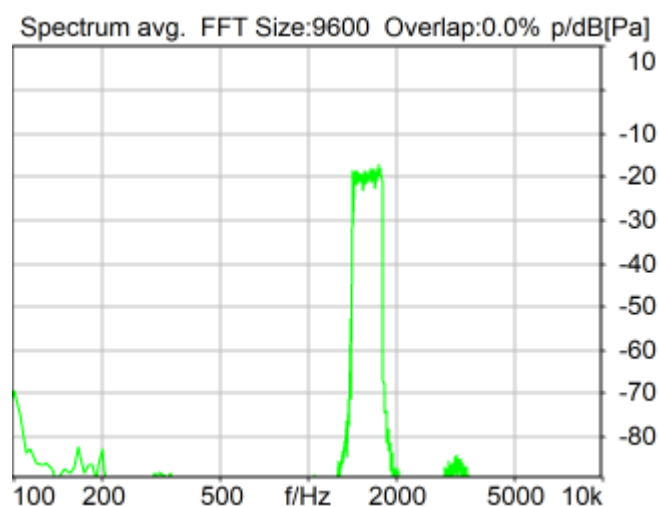
Distortion (Noise) RCV (packed): 33.82 dB (2.04%) Ok

Ok

3/8/2024 4:25 AM 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



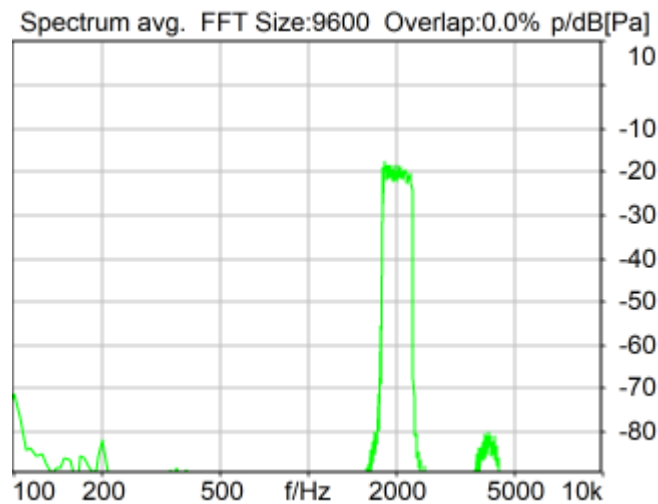
Distortion (Noise) RCV (packed): 59.19 dB (0.11%) Ok

Ok

3/8/2024 4:25 AM 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



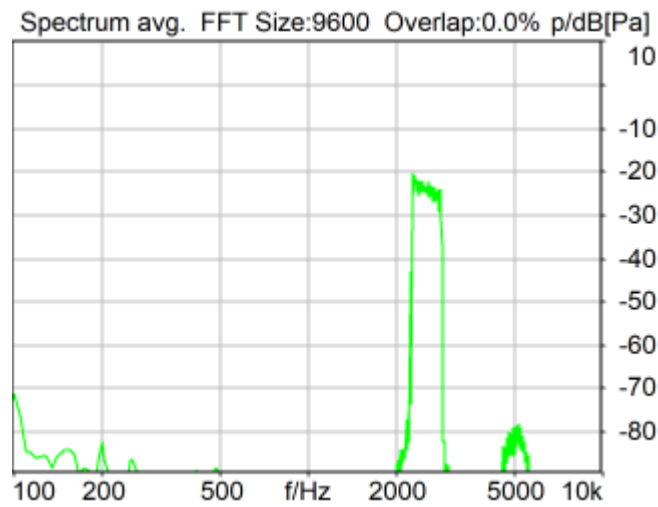
Distortion (Noise) RCV (packed): 58.02 dB (0.13%) Ok

Ok

3/8/2024 4:26 AM 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



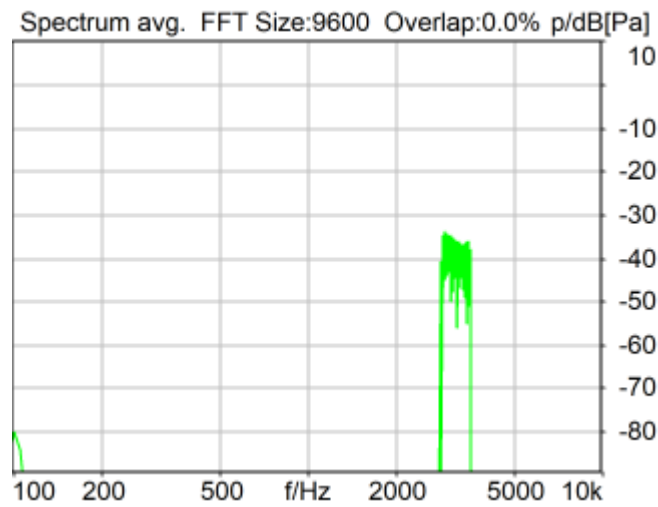
Distortion (Noise) RCV (packed): 54.44 dB (0.19%) Ok

Ok

3/8/2024 4:26 AM 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



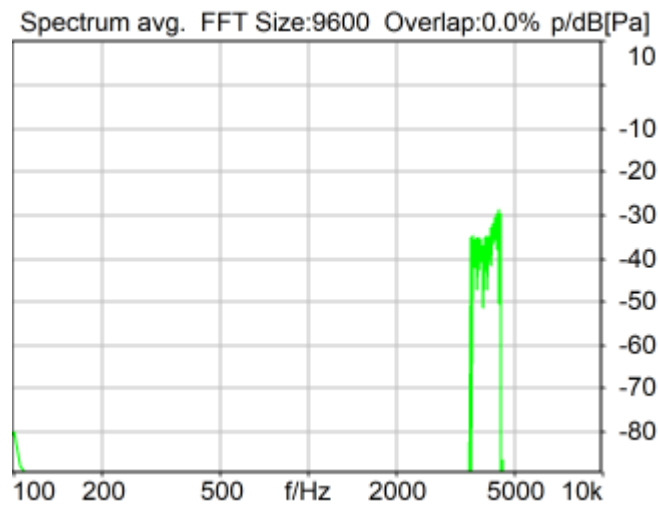
Distortion (Noise) RCV (packed): 58.74 dB (0.12%) Ok

Ok

3/8/2024 4:27 AM 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



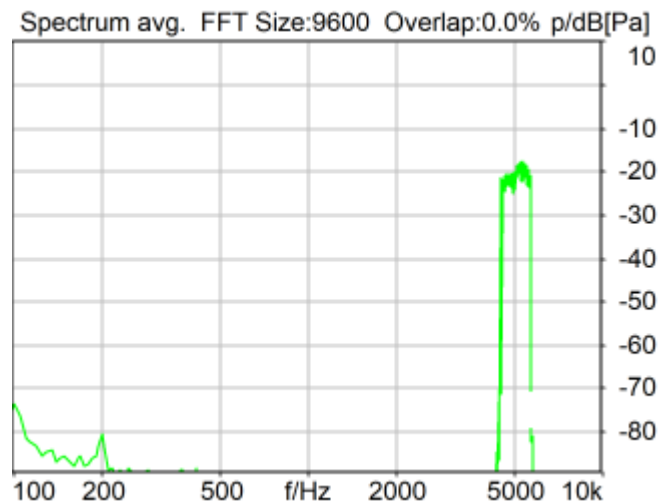
Distortion (Noise) RCV (packed): 60.92 dB (0.09%) Ok

Ok

3/8/2024 4:27 AM 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): 65.21 dB (0.05%) Ok

Ok

3/8/2024 4:27 AM 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	21.36 dB
2	315Hz	26.46 dB
3	400Hz	31.40 dB
4	500Hz	39.78 dB
5	630Hz	44.81 dB
6	800Hz	45.89 dB
7	1000Hz	47.63 dB
8	1250Hz	33.82 dB
9	1600Hz	59.19 dB
10	2000Hz	58.02 dB
11	2500Hz	54.44 dB
12	3150Hz	58.74 dB
13	4000Hz	60.92 dB
14	5000Hz	65.21 dB

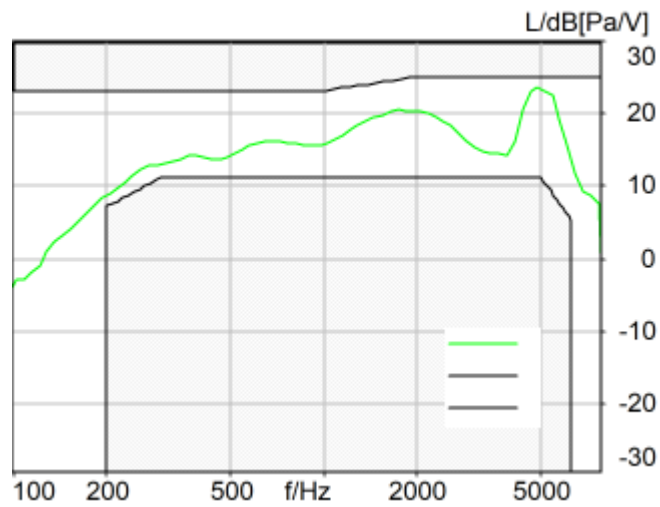
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 21.36dB at 250Hz.

3/8/2024 5:33 AM ACQUA

5.3 Frequency Response 8N FF

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



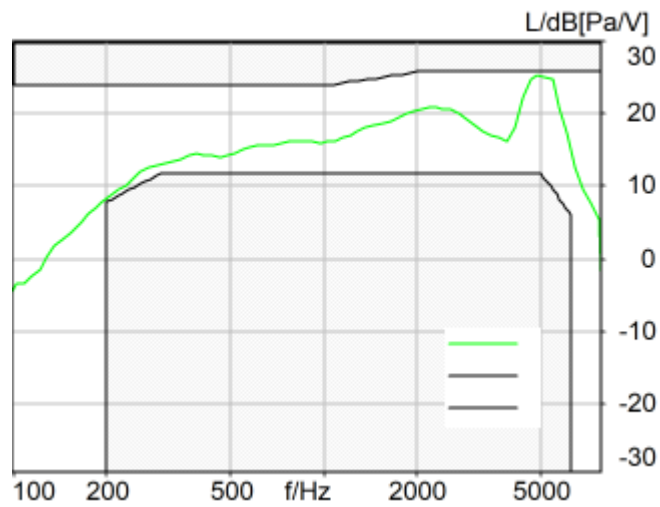
Absolute minimal distance
1.63 dB at 4870.0 Hz Ok

Ok

3/8/2024 5:33 AM ACQUA 5.1.200

5.3 Frequency Response 8N DF

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



Absolute minimal distance
0.56 dB at 4870.0 Hz Ok

Ok

3/8/2024 5:33 AM ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
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Project	420703
Report Generation Date	3/15/2024 12:41 AM
Responsible Person	AC01-KS

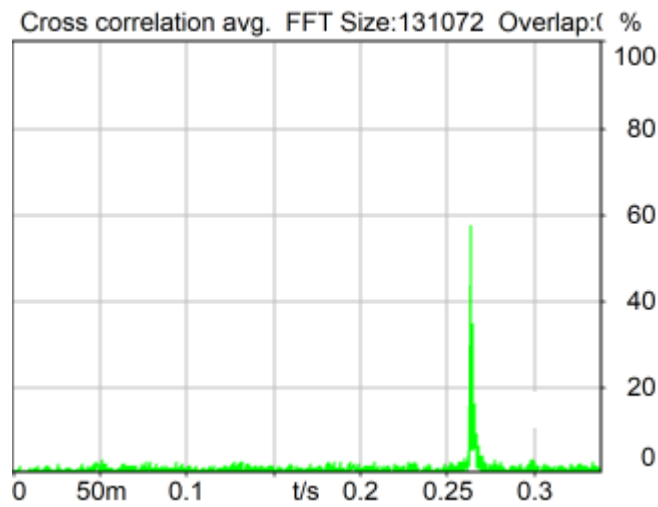
Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	264.6	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	86.84	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.42	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.65	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.94	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	41.99	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.39	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	32.34	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	44.18	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	45.53	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	39.23	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	37.80	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 500Hz)	26.65	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1747.8 Hz	1.52	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N
5.3 Frequency Response 8N DF HANB	Ok	Min. dist. to tolerance scheme [dB], 3657.5 Hz	1.45	FR1 n41_100M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch518598_8N

Overall Receive Delay NB	5
5.1a Receive Volume Control Performance 8N NB	6
5.2 RCV Distortion and Noise - 400 Hz NB	7
5.2 RCV Distortion and Noise - 500 Hz NB	8
5.2 RCV Distortion and Noise - 630 Hz NB	9
5.2 RCV Distortion and Noise - 800 Hz NB	10
5.2 RCV Distortion and Noise - 1000 Hz NB	11
5.2 RCV Distortion and Noise - 1250 Hz NB	12
5.2 RCV Distortion and Noise - 1600 Hz NB	13
5.2 RCV Distortion and Noise - 2000 Hz NB	14
5.2 RCV Distortion and Noise - 2500 Hz NB	15
5.2 RCV Distortion and Noise - 3150 Hz NB	16
Report - Receive Distortion and Noise (Conversational Gain)	17
5.3 Frequency Response 8N FF HANB	18
5.3 Frequency Response 8N DF HANB	19

Overall Receive Delay NB

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

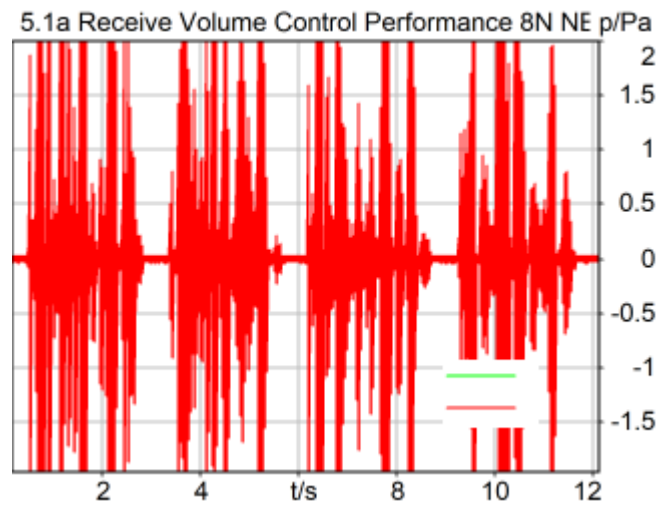


Delay (Cross): 264.6 ms

3/15/2024 12:35 AM ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N NB

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



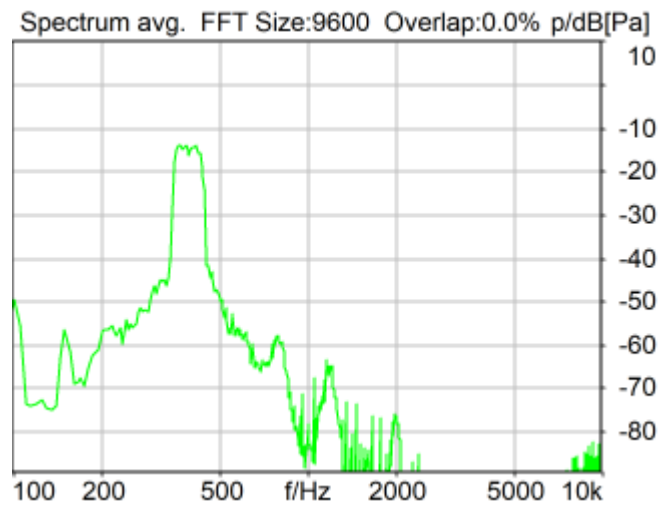
Speech Level RCV: 86.84 dB[SPL], Act.: 79.11% Ok

Ok

3/15/2024 12:35 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 400 Hz NB

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



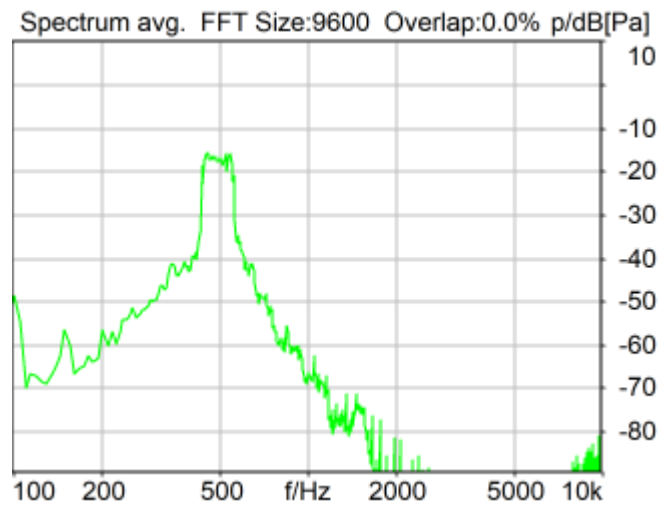
Distortion (Noise) RCV (packed): 36.42 dB (1.51%) Ok

Ok

3/15/2024 12:35 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 500 Hz NB

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



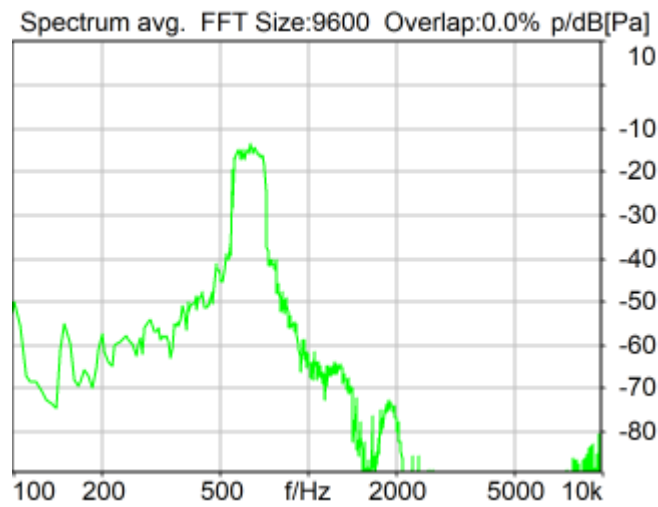
Distortion (Noise) RCV (packed): 26.65 dB (4.65%) Ok

Ok

3/15/2024 12:36 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 630 Hz NB

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



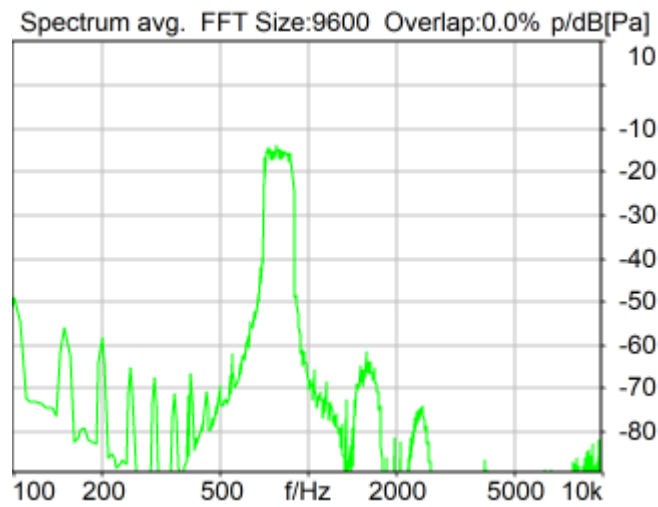
Distortion (Noise) RCV (packed): 29.94 dB (3.19%) Ok

Ok

3/15/2024 12:36 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 800 Hz NB

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



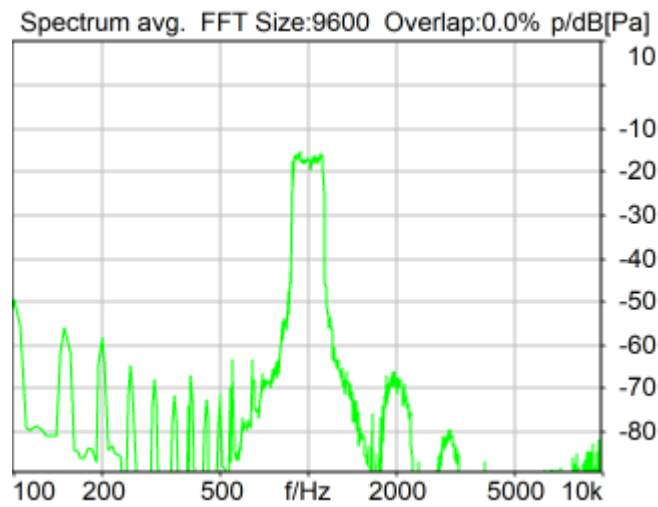
Distortion (Noise) RCV (packed): 41.99 dB (0.80%) Ok

Ok

3/15/2024 12:37 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1000 Hz NB

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



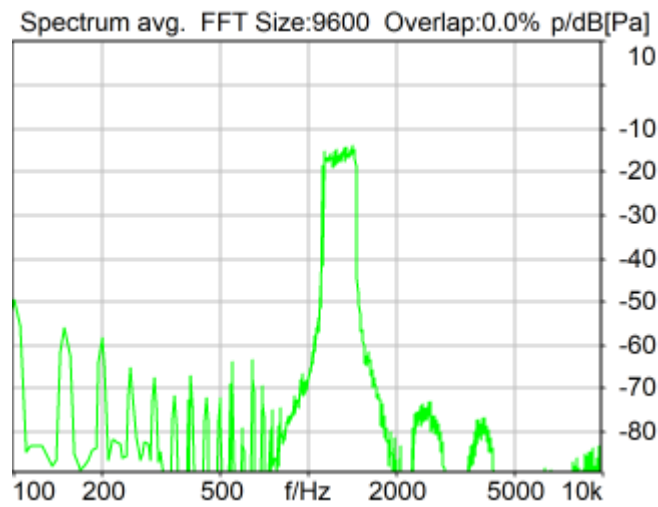
Distortion (Noise) RCV (packed): 40.39 dB (0.96%) Ok

Ok

3/15/2024 12:37 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1250 Hz NB

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



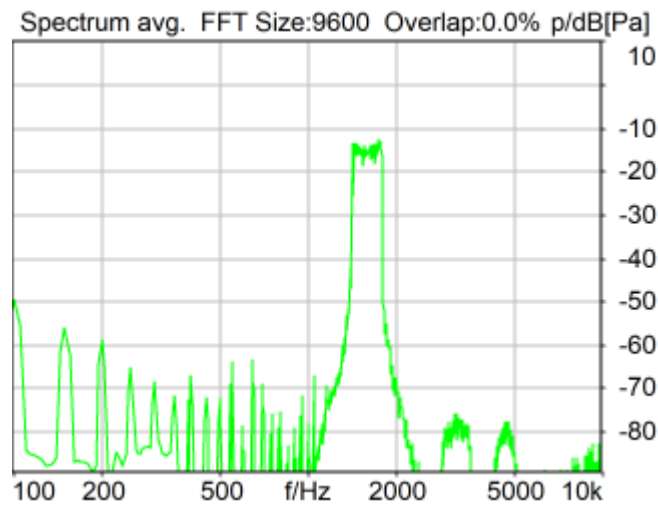
Distortion (Noise) RCV (packed): 32.34 dB (2.42%) Ok

Ok

3/15/2024 12:38 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1600 Hz NB

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



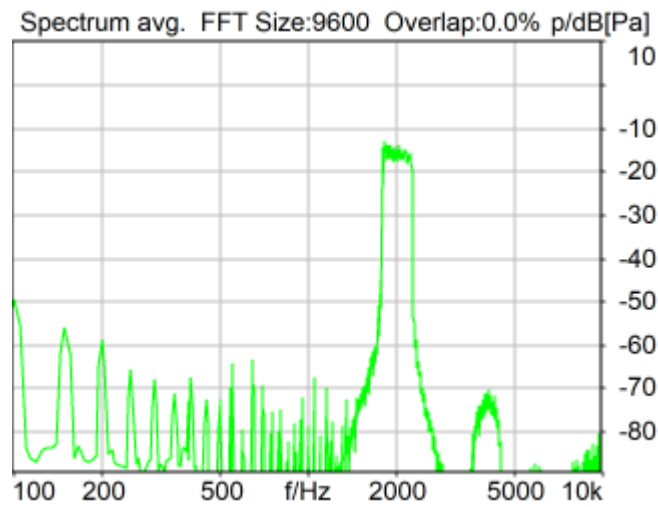
Distortion (Noise) RCV (packed): 44.18 dB (0.62%) Ok

Ok

3/15/2024 12:38 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2000 Hz NB

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



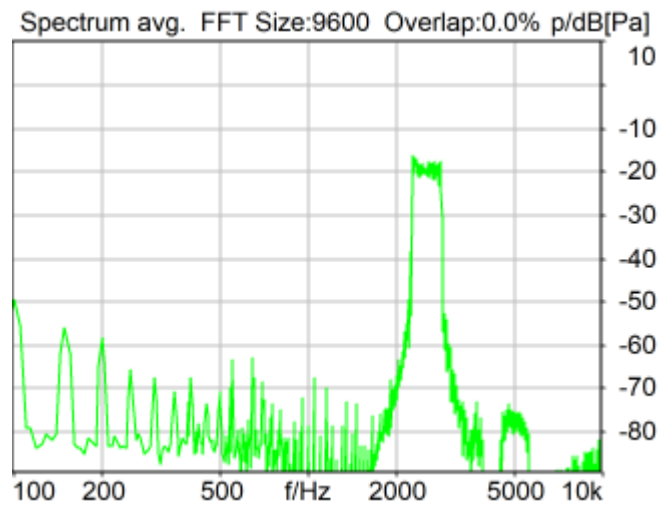
Distortion (Noise) RCV (packed): 45.53 dB (0.53%) Ok

Ok

3/15/2024 12:39 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2500 Hz NB

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



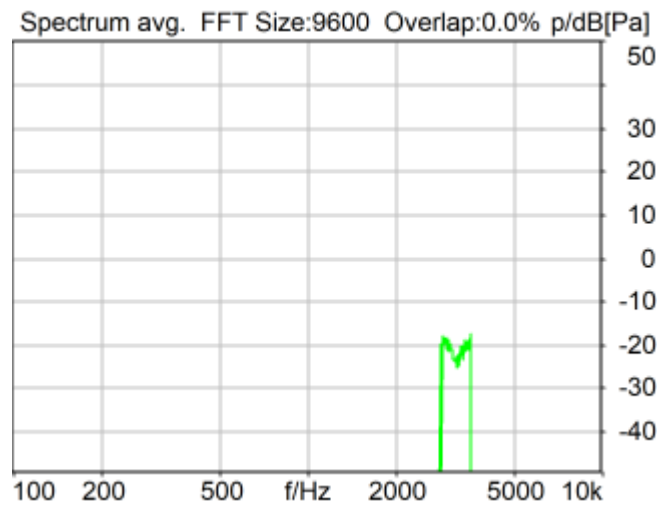
Distortion (Noise) RCV (packed): 39.23 dB (1.09%) Ok

Ok

3/15/2024 12:39 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 37.80 dB (1.29%) Ok

Ok

3/15/2024 12:39 AM ACQUA 5.1.200

Report - Receive Distortion and Noise (Conversational Gain)

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

Region	Frequency	SDNR
1	400Hz	36.42 dB
2	500Hz	26.65 dB
3	630Hz	29.94 dB
4	800Hz	41.99 dB
5	1000Hz	40.39 dB
6	1250Hz	32.34 dB
7	1600Hz	44.18 dB
8	2000Hz	45.53 dB
9	2500Hz	39.23 dB
10	3150Hz	37.80 dB

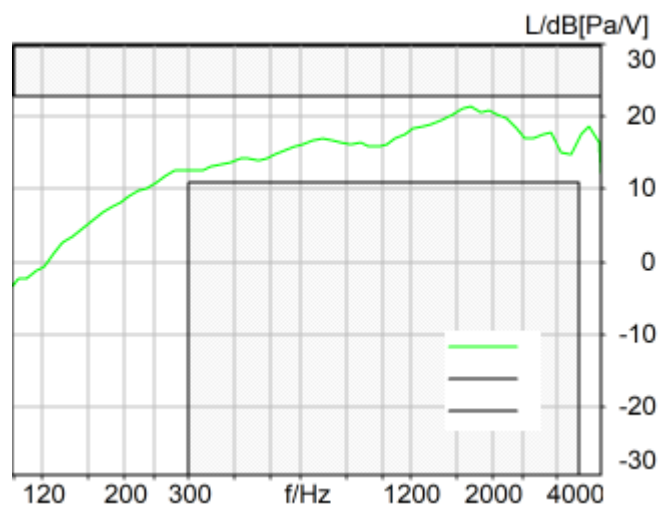
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 26.65dB at 500Hz.

3/15/2024 12:40 AM ACQUA

5.3 Frequency Response 8N FF HANB

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



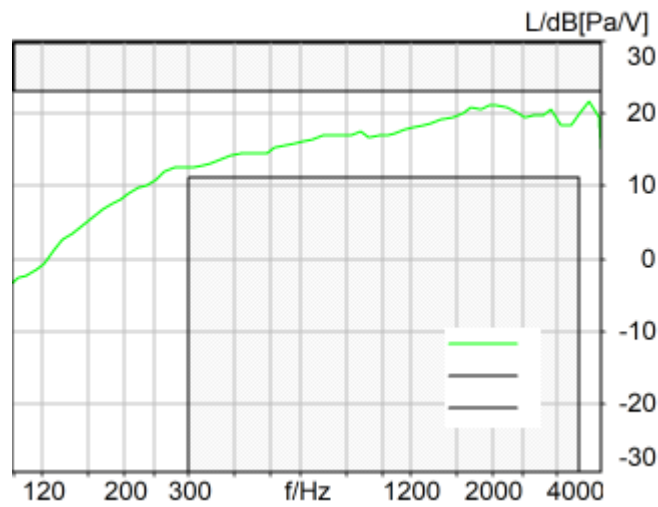
Absolute minimal distance
1.52 dB at 1747.8 Hz Ok

Ok

3/15/2024 12:40 AM ACQUA 5.1.200

5.3 Frequency Response 8N DF HANB

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



Absolute minimal distance
1.45 dB at 3657.5 Hz Ok

Ok

3/15/2024 12:40 AM ACQUA 5.1.200

Measurement Protocol

Measurement Object	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
--------------------	--

Project	420703
Report Generation Date	3/9/2024 7:47 AM
Responsible Person	AC01-KS

Status Overview

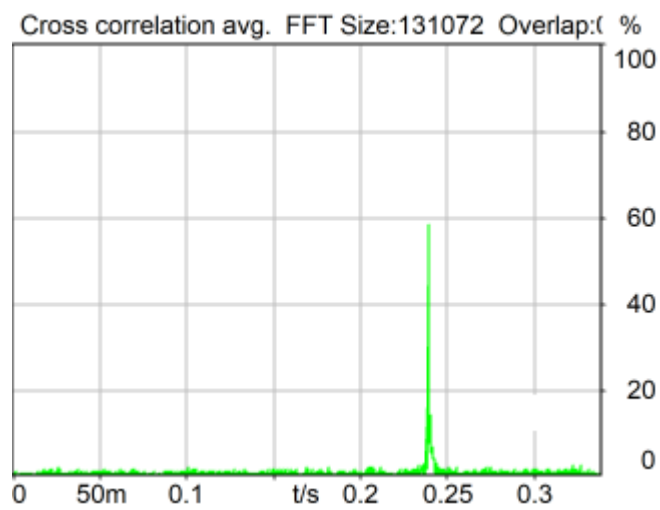
SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	239.0	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	82.90	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.98	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.82	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.80	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.90	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.93	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.40	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.19	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.38	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.98	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.17	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.92	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.75	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.22	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	33.59	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
Report - Receive Distortion	Ok	Minimum SDNR [dB],	20.38	WLAN5GHz_802.11a

and Noise (Conversational Gain)		(occured at 1250Hz)		6Mbps_EVS WB 128kbps_Ch116_2N
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	0.62	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_2N
5.3 Frequency Response 2N DF	Not Ok	Min. dist. to tolerance scheme [dB], 4369.4 Hz	-0.51	WLAN5GHz_802.11a 6Mbps_EVS WB 128kbps_Ch116_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

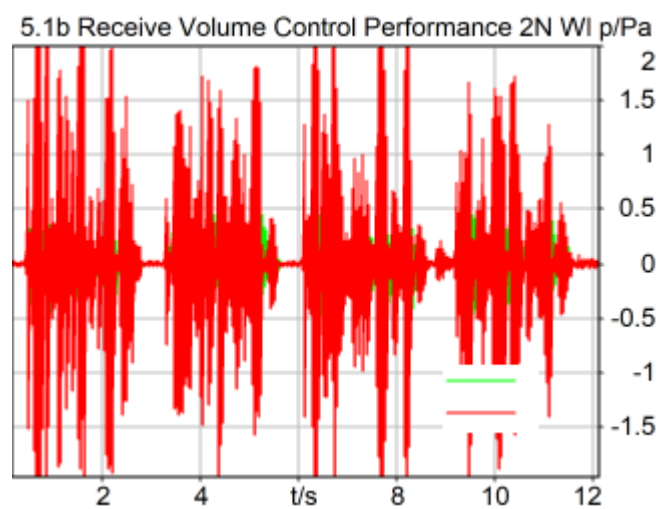


Delay (Cross): 239.0 ms

3/9/2024 7:00 AM ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N WB

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



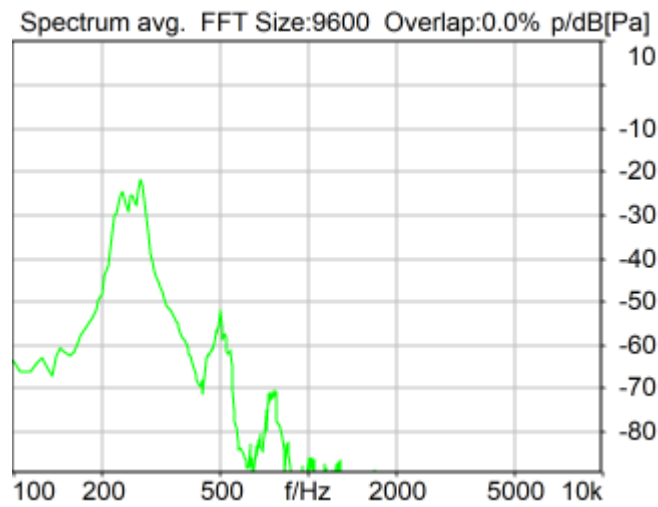
Speech Level RCV: 82.90 dB[SPL], Act.: 83.96% Ok

Ok

3/9/2024 7:00 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 250 Hz WB

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



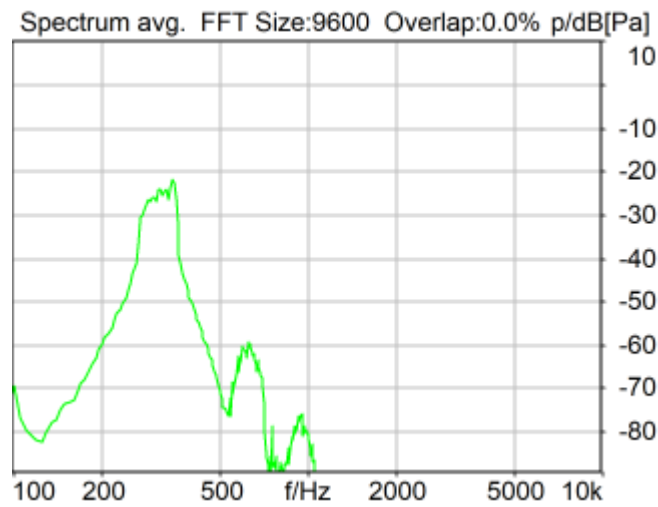
Distortion (Noise) RCV (packed): 29.98 dB (3.17%) Ok

Ok

3/9/2024 7:01 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 315 Hz WB

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



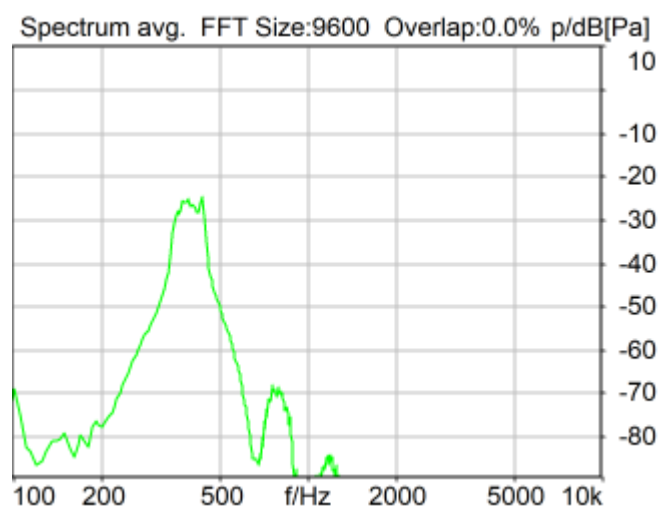
Distortion (Noise) RCV (packed): 31.82 dB (2.57%) Ok

Ok

3/9/2024 7:01 AM 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



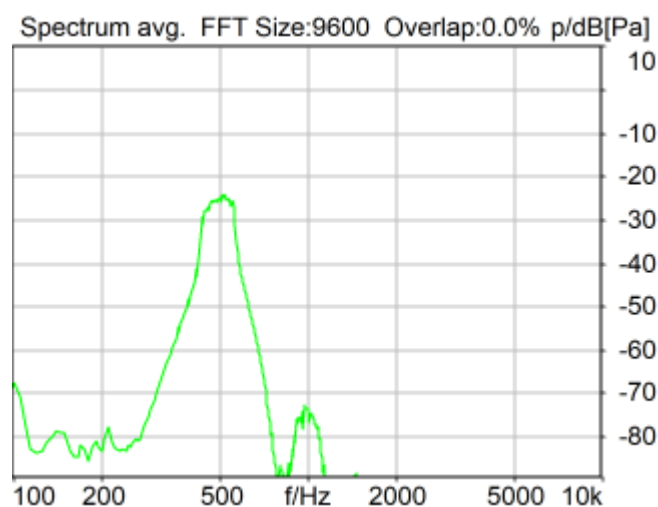
Distortion (Noise) RCV (packed): 28.80 dB (3.63%) Ok

Ok

3/9/2024 7:02 AM 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



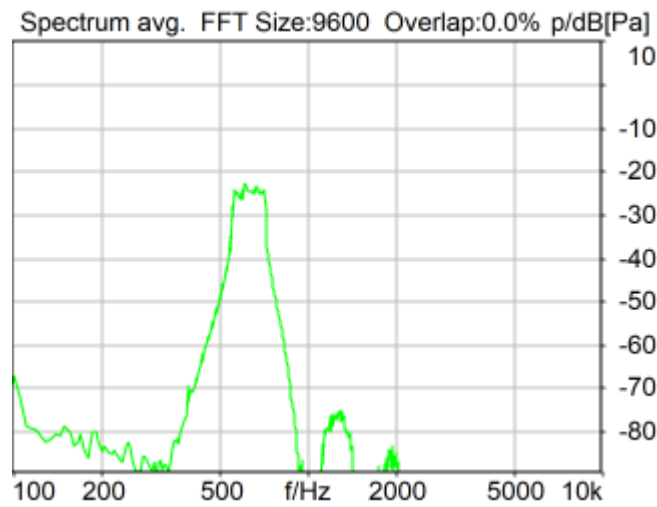
Distortion (Noise) RCV (packed): 26.90 dB (4.52%) Ok

Ok

3/9/2024 7:02 AM 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



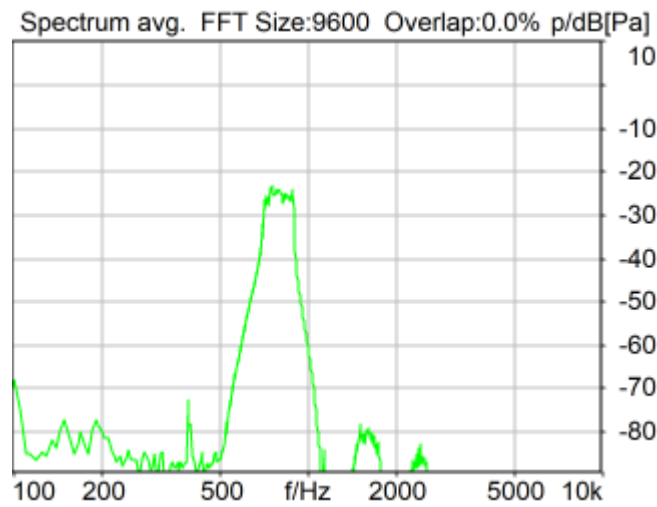
Distortion (Noise) RCV (packed): 27.93 dB (4.01%) Ok

Ok

3/9/2024 7:02 AM 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



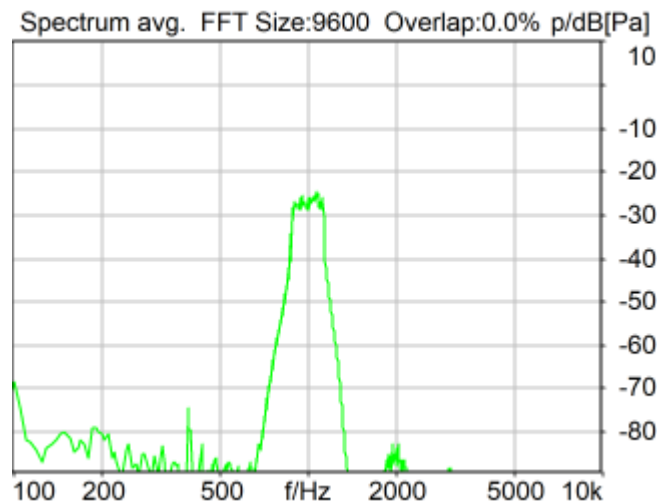
Distortion (Noise) RCV (packed): 27.40 dB (4.27%) Ok

Ok

3/9/2024 7:03 AM 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



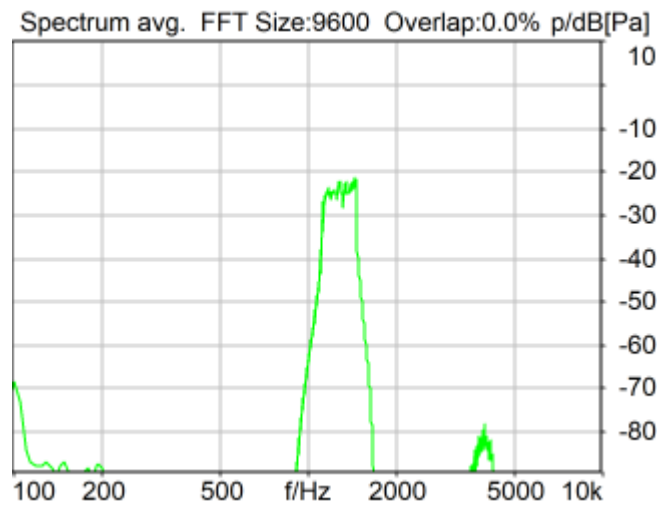
Distortion (Noise) RCV (packed): 26.19 dB (4.91%) Ok

Ok

3/9/2024 7:03 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1250 Hz WB

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



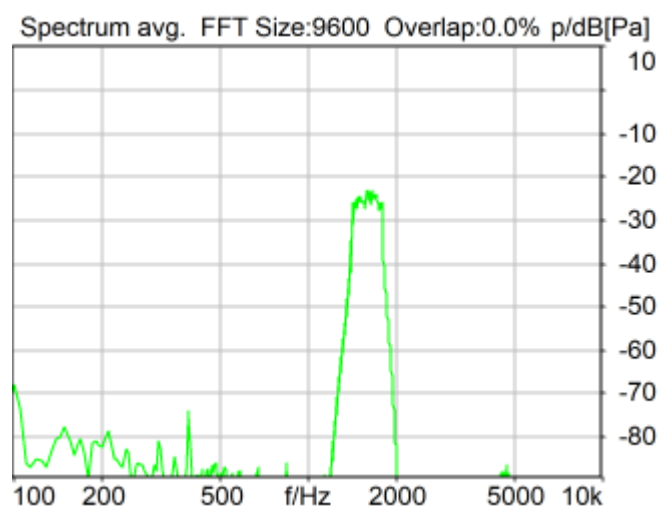
Distortion (Noise) RCV (packed): 20.38 dB (9.57%) Ok

Ok

3/9/2024 7:46 AM 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



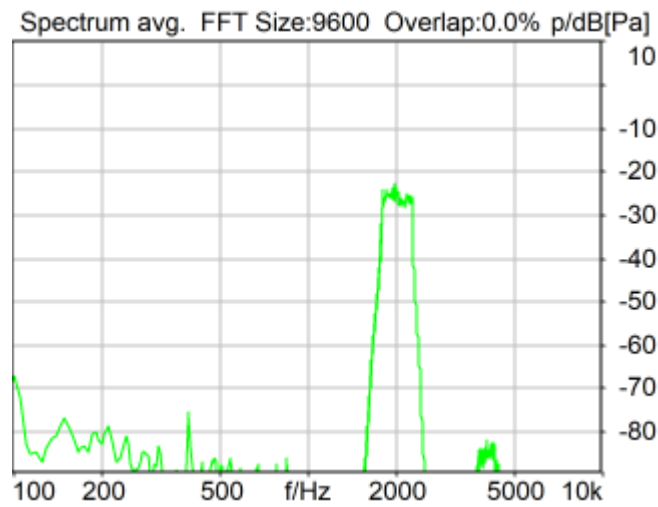
Distortion (Noise) RCV (packed): 28.98 dB (3.56%) Ok

Ok

3/9/2024 7:04 AM 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



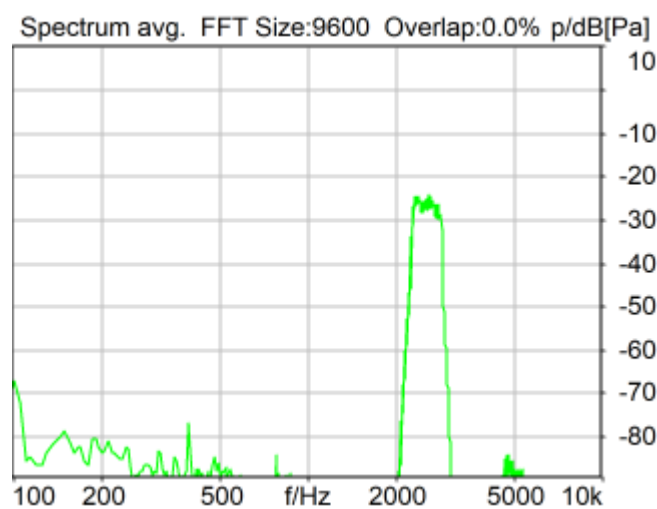
Distortion (Noise) RCV (packed): 27.17 dB (4.38%) Ok

Ok

3/9/2024 7:05 AM 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



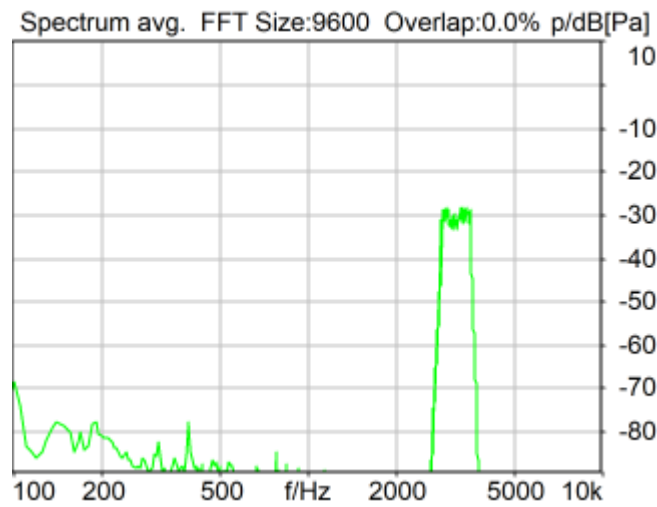
Distortion (Noise) RCV (packed): 30.92 dB (2.84%) Ok

Ok

3/9/2024 7:05 AM 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



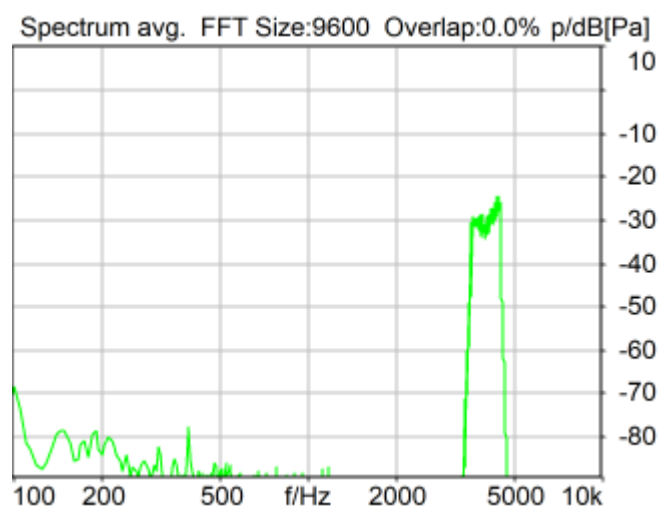
Distortion (Noise) RCV (packed): 29.75 dB (3.25%) Ok

Ok

3/9/2024 7:06 AM 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



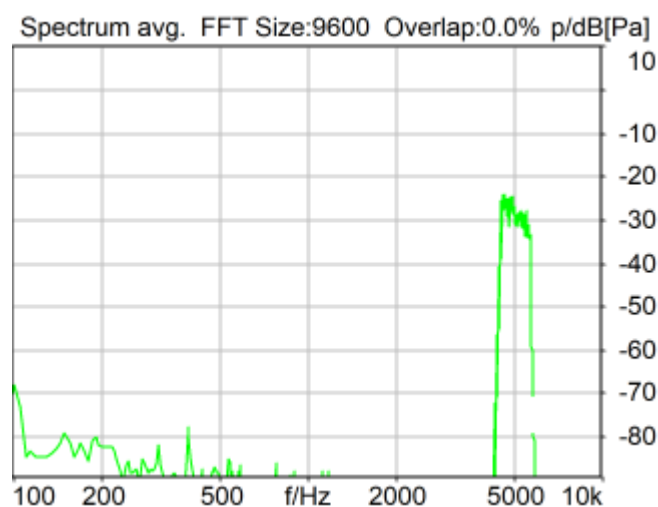
Distortion (Noise) RCV (packed): 31.22 dB (2.75%) Ok

Ok

3/9/2024 7:06 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 33.59 dB (2.09%) Ok

Ok

3/9/2024 7:06 AM ACQUA 5.1.200

Report - Receive Distortion and Noise (Conversational Gain)

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

Region	Frequency	SDNR
1	250Hz	29.98 dB
2	315Hz	31.82 dB
3	400Hz	28.80 dB
4	500Hz	26.90 dB
5	630Hz	27.93 dB
6	800Hz	27.40 dB
7	1000Hz	26.19 dB
8	2000Hz	27.17 dB
9	2500Hz	30.92 dB
10	3150Hz	29.75 dB
11	4000Hz	31.22 dB
12	5000Hz	33.59 dB
13	1250Hz	20.38 dB

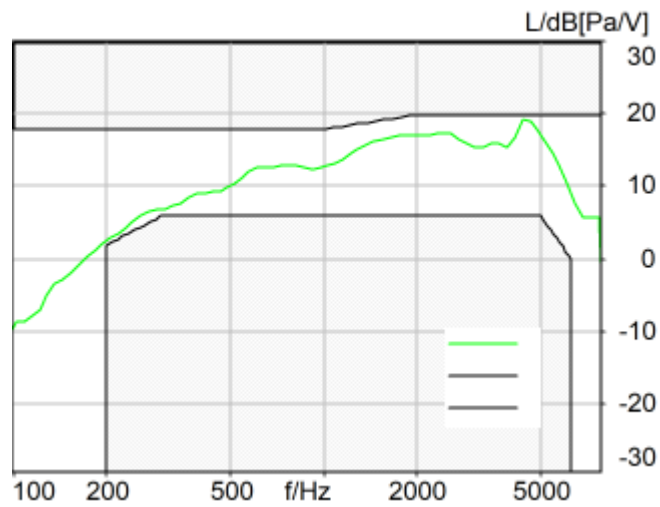
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 20.38dB at 1250Hz.

3/9/2024 7:46 AM ACQUA

5.3 Frequency Response 2N FF

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



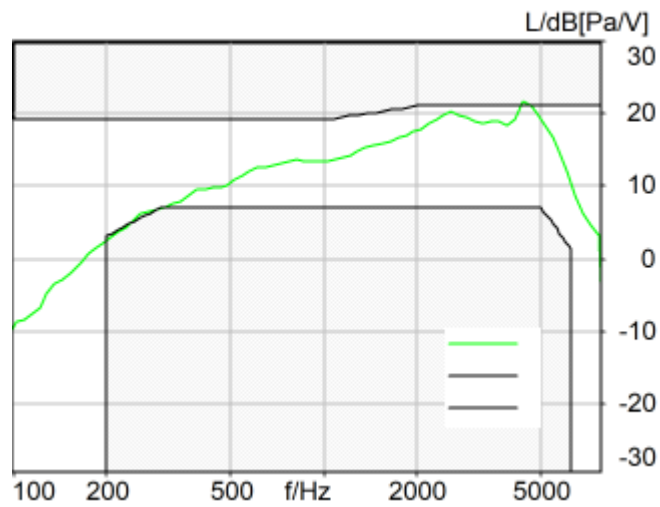
Absolute minimal distance
0.62 dB at 4369.4 Hz Ok

Ok

3/9/2024 7:31 AM ACQUA 5.1.200

5.3 Frequency Response 2N DF

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



Absolute minimal distance
-0.51 dB at 4369.4 Hz Not Ok

Not Ok

3/9/2024 7:31 AM ACQUA 5.1.200

Measurement Protocol

Measurement Object	GSM850_GSM Voice_AMR NB 4.75kbps_Ch189_2N
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Project	420703
Report Generation Date	3/10/2024 10:18 PM
Responsible Person	AC01-KS

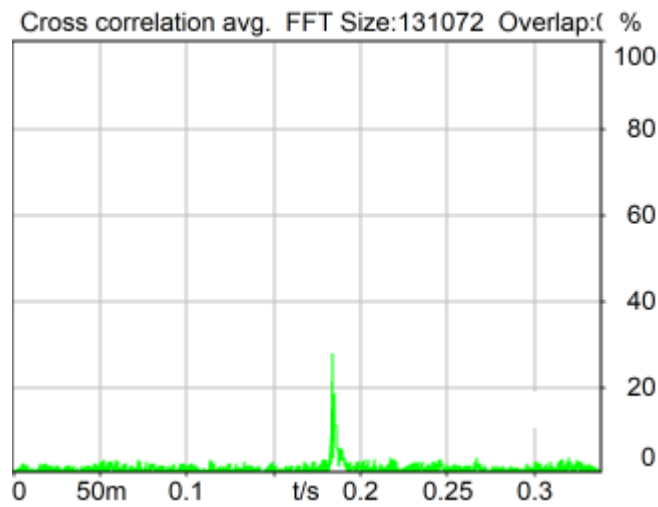
Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	184.6	GSM850_GSM Voice_AMR NB 4.75kbps_Ch189_2N
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.84	GSM850_GSM Voice_AMR NB 4.75kbps_Ch189_2N

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

Overall Receive Delay NB

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

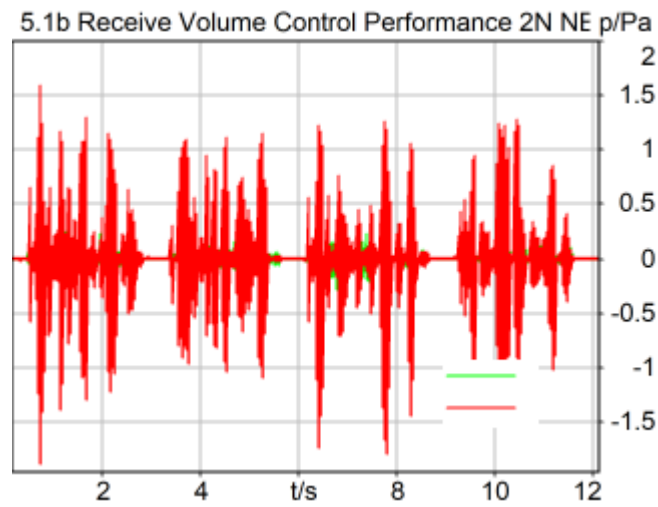


Delay (Cross): 184.6 ms

3/10/2024 10:17 PM ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N NB

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



Speech Level RCV: 78.84 dB[SPL], Act.: 78.46% Ok

Ok

3/10/2024 10:17 PM ACQUA 5.1.200

Measurement Protocol

Measurement Object	WCDMA II_Voice_AMR WB 6.60kbps_Ch9400_8N
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Project	420703
Report Generation Date	3/10/2024 11:49 PM
Responsible Person	AC01-KS

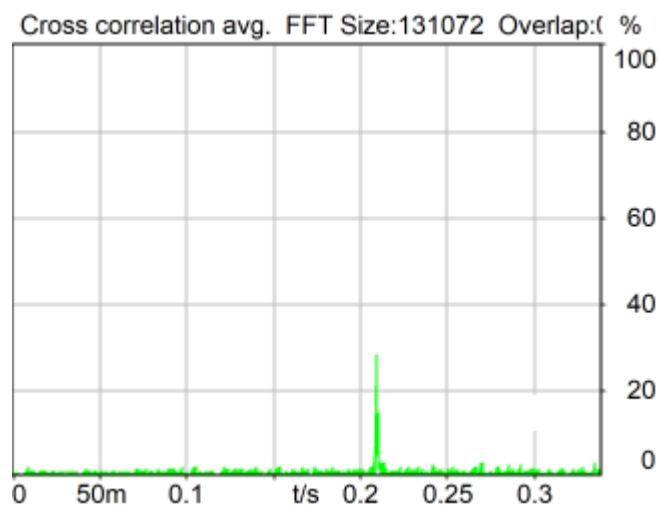
Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay WB	Done	Delay (Cross) [ms]	209.7	WCDMA II_Voice_AMR WB 6. 60kbps_Ch9400_8N
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	78.99	WCDMA II_Voice_AMR WB 6. 60kbps_Ch9400_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

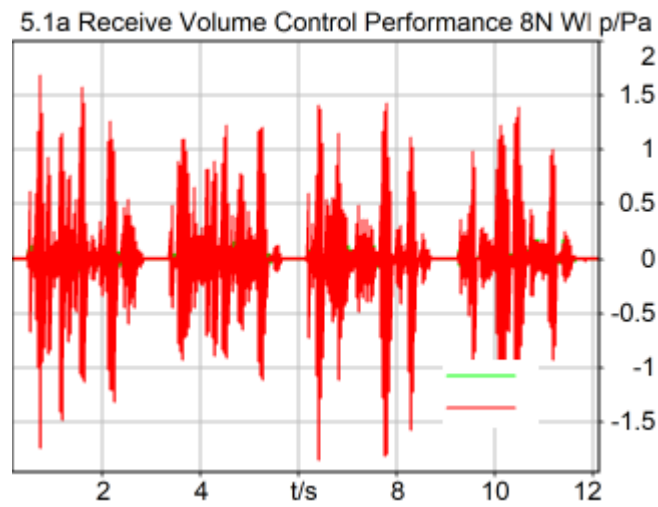


Delay (Cross): 209.7 ms

3/10/2024 11:49 PM ACQUA 5.1.200

5.1a Receive Volume Control Performance 8N WB

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



Speech Level RCV: 78.99 dB[SPL], Act.: 79.01% Ok

Ok

3/10/2024 11:49 PM ACQUA 5.1.200

Measurement Protocol

Measurement Object	WCDMA IV_Voice_AMR NB 4.75kbps_Ch1413_2N
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Project	420703
Report Generation Date	3/10/2024 11:57 PM
Responsible Person	AC01-KS

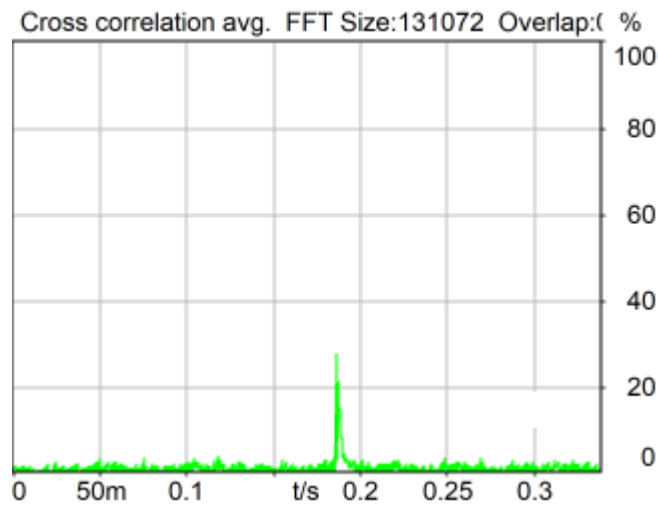
Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	187.4	WCDMA IV_Voice_AMR NB 4. 75kbps_Ch1413_2N
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	76.73	WCDMA IV_Voice_AMR NB 4. 75kbps_Ch1413_2N

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

Overall Receive Delay NB

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

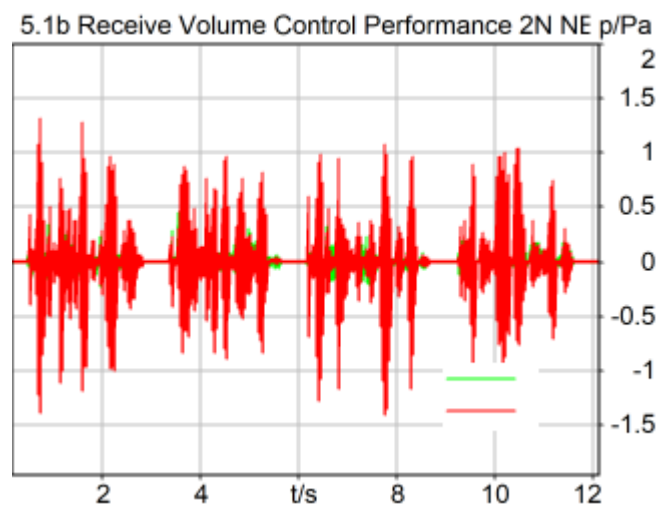


Delay (Cross): 187.4 ms

3/10/2024 11:57 PM ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N NB

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



Speech Level RCV: 76.73 dB[SPL], Act.: 79.37% Ok

Ok

3/10/2024 11:57 PM ACQUA 5.1.200

Measurement Protocol

Measurement Object	LTE Band 66_20M_QPSK_1RB_0Offset_EVS NB 24.4kbps_Ch132322_2N
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Project	420703
Report Generation Date	3/8/2024 5:46 AM
Responsible Person	AC01-KS

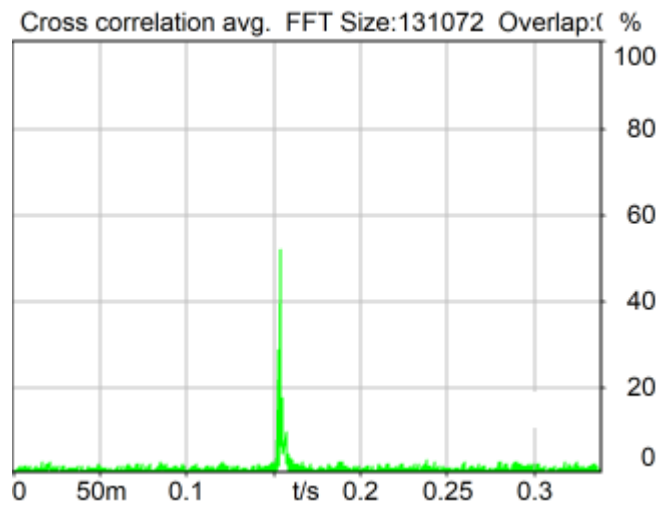
Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	154.6	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.39	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.51	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.31	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.30	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.75	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	41.47	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.97	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	38.61	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	39.29	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.46	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	39.93	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 1250Hz)	24.97	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1747.8 Hz	0.03	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N
5.3 Frequency Response 2N DF HANB	Not Ok	Min. dist. to tolerance scheme [dB], 305.9 Hz	-0.38	LTE Band 66_20M_QPSK_1RB_0Offset_EV S NB 24.4kbps_Ch132322_2N

Overall Receive Delay NB	5
5.1b Receive Volume Control Performance 2N NB	6
5.2 RCV Distortion and Noise - 400 Hz NB	7
5.2 RCV Distortion and Noise - 500 Hz NB	8
5.2 RCV Distortion and Noise - 630 Hz NB	9
5.2 RCV Distortion and Noise - 800 Hz NB	10
5.2 RCV Distortion and Noise - 1000 Hz NB	11
5.2 RCV Distortion and Noise - 1250 Hz NB	12
5.2 RCV Distortion and Noise - 1600 Hz NB	13
5.2 RCV Distortion and Noise - 2000 Hz NB	14
5.2 RCV Distortion and Noise - 2500 Hz NB	15
5.2 RCV Distortion and Noise - 3150 Hz NB	16
Report - Receive Distortion and Noise (Conversational Gain)	17
5.3 Frequency Response 2N FF HANB	18
5.3 Frequency Response 2N DF HANB	19

Overall Receive Delay NB

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

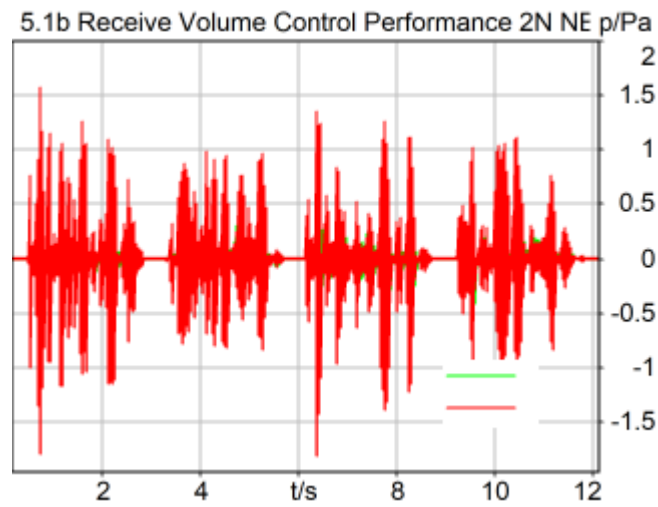


Delay (Cross): 154.6 ms

3/8/2024 5:40 AM ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N NB

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



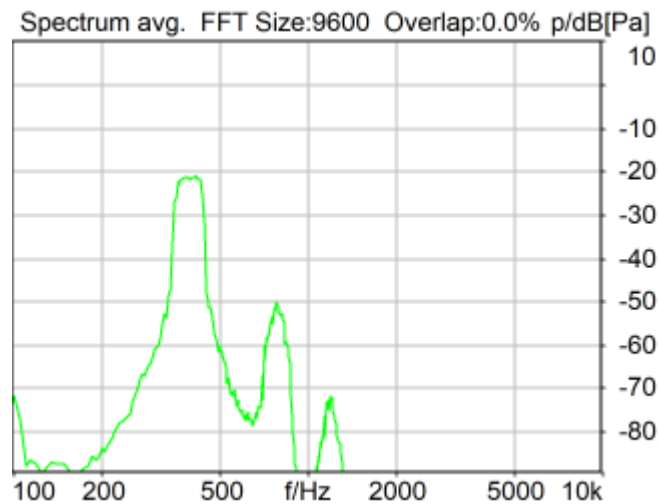
Speech Level RCV: 78.39 dB[SPL], Act.: 78.43% Ok

Ok

3/8/2024 5:40 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 400 Hz NB

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



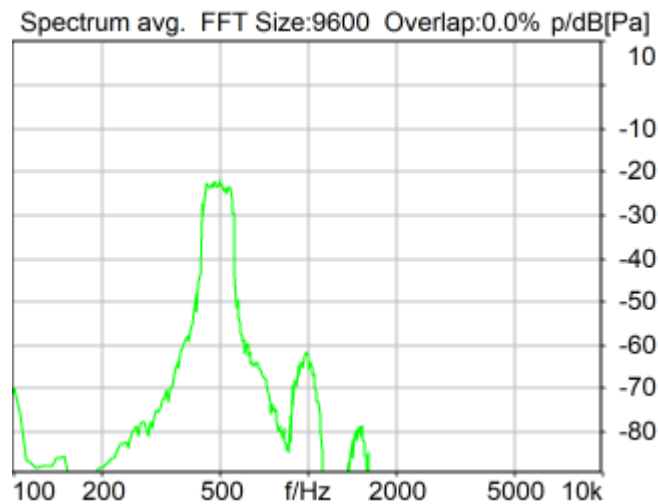
Distortion (Noise) RCV (packed): 30.51 dB (2.98%) Ok

Ok

3/8/2024 5:41 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 500 Hz NB

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



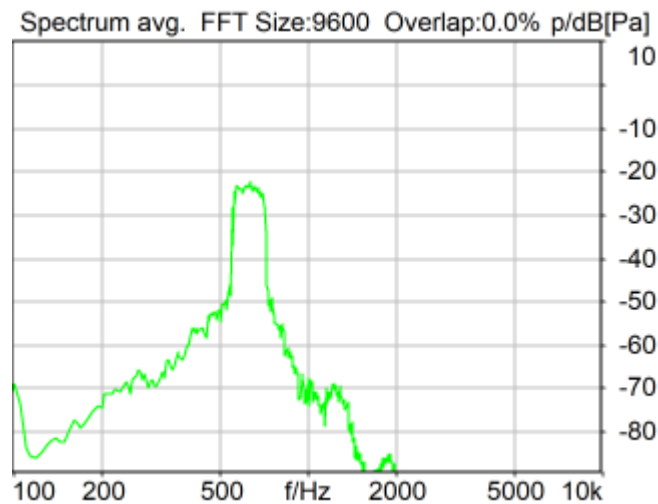
Distortion (Noise) RCV (packed): 36.31 dB (1.53%) Ok

Ok

3/8/2024 5:41 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 630 Hz NB

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



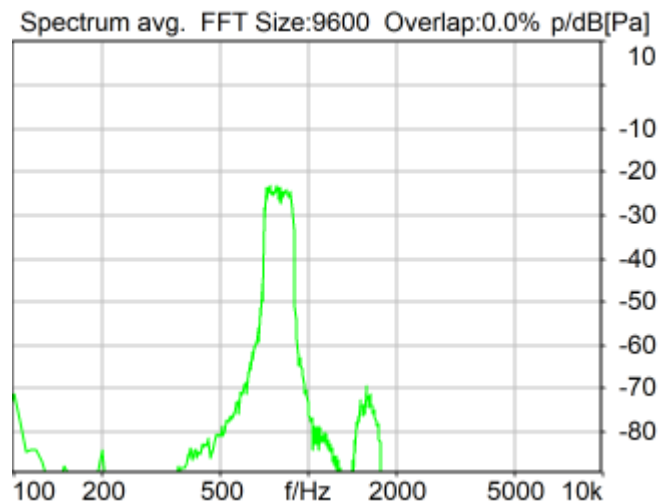
Distortion (Noise) RCV (packed): 30.30 dB (3.06%) Ok

Ok

3/8/2024 5:42 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 800 Hz NB

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



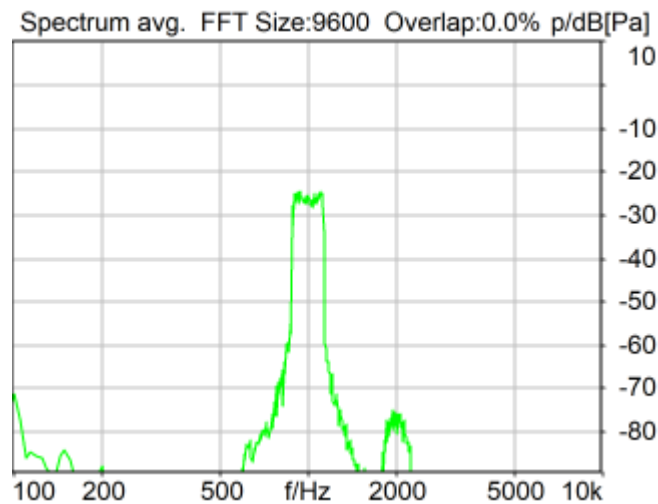
Distortion (Noise) RCV (packed): 40.75 dB (0.92%) Ok

Ok

3/8/2024 5:42 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1000 Hz NB

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



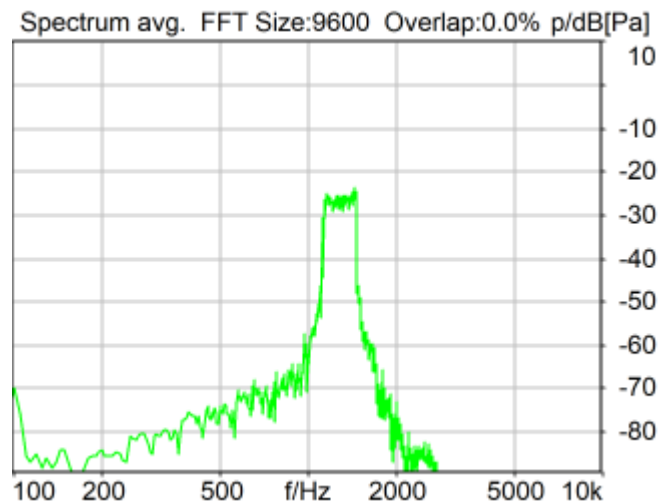
Distortion (Noise) RCV (packed): 41.47 dB (0.84%) Ok

Ok

3/8/2024 5:43 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1250 Hz NB

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



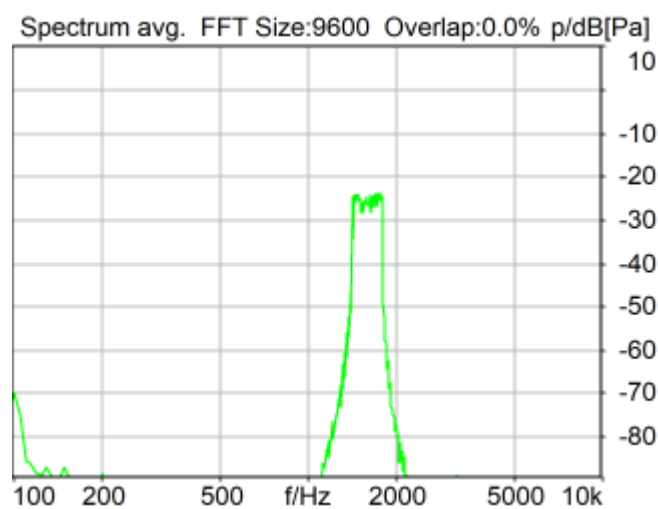
Distortion (Noise) RCV (packed): 24.97 dB (5.64%) Ok

Ok

3/8/2024 5:43 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1600 Hz NB

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



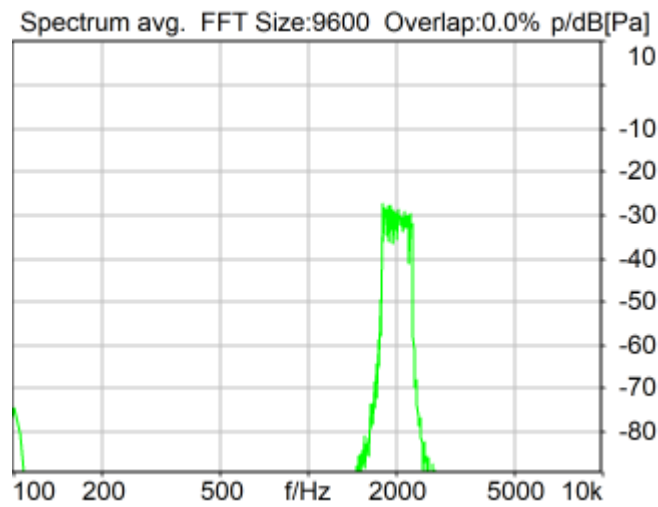
Distortion (Noise) RCV (packed): 38.61 dB (1.17%) Ok

Ok

3/8/2024 5:43 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2000 Hz NB

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



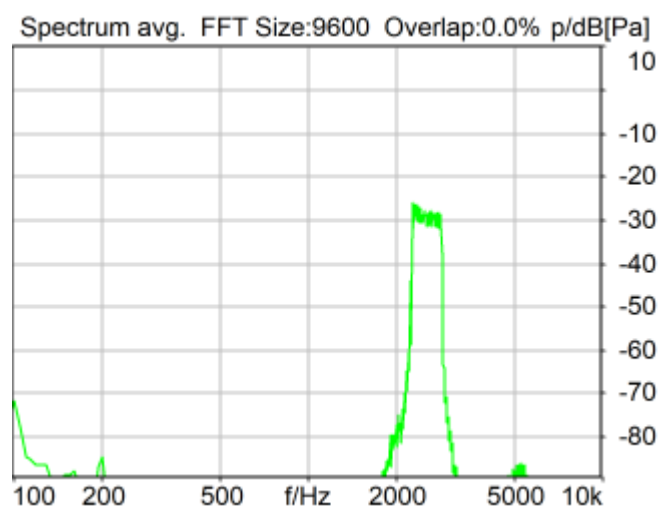
Distortion (Noise) RCV (packed): 39.29 dB (1.08%) Ok

Ok

3/8/2024 5:44 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2500 Hz NB

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



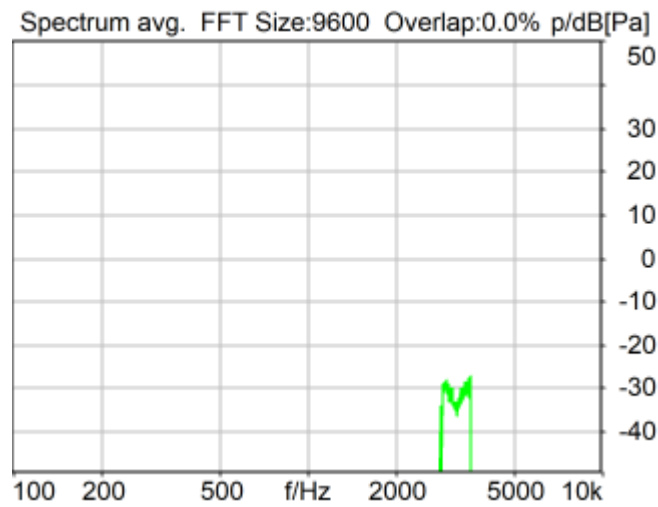
Distortion (Noise) RCV (packed): 40.46 dB (0.95%) Ok

Ok

3/8/2024 5:44 AM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 39.93 dB (1.01%) Ok

Ok

3/8/2024 5:45 AM ACQUA 5.1.200

Report - Receive Distortion and Noise (Conversational Gain)

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

Region	Frequency	SDNR
1	400Hz	30.51 dB
2	500Hz	36.31 dB
3	630Hz	30.30 dB
4	800Hz	40.75 dB
5	1000Hz	41.47 dB
6	1250Hz	24.97 dB
7	1600Hz	38.61 dB
8	2000Hz	39.29 dB
9	2500Hz	40.46 dB
10	3150Hz	39.93 dB

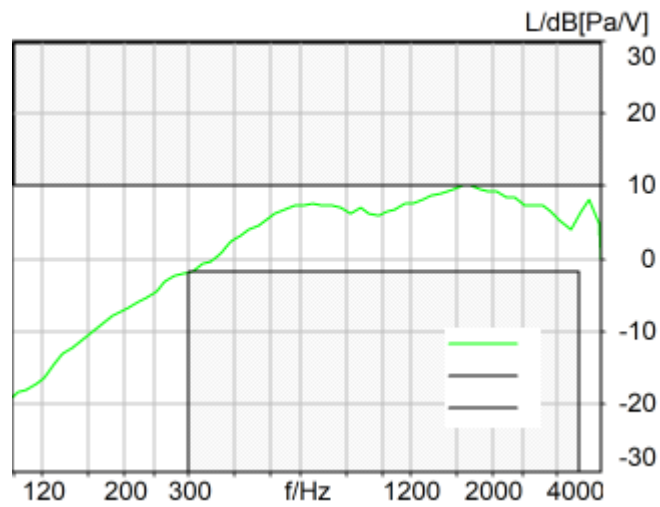
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 24.97dB at 1250Hz.

3/8/2024 5:45 AM ACQUA

5.3 Frequency Response 2N FF HANB

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



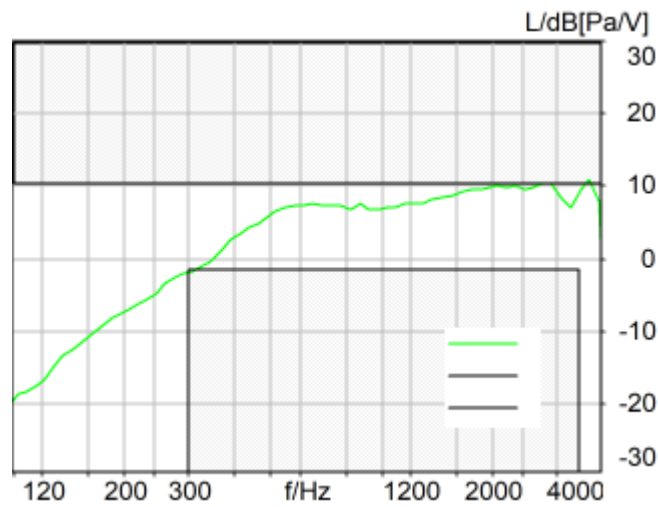
Absolute minimal distance
0.03 dB at 1747.8 Hz Ok

Ok

3/8/2024 5:45 AM ACQUA 5.1.200

5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance
-0.38 dB at 305.9 Hz Not Ok

Not Ok

3/8/2024 5:45 AM ACQUA 5.1.200

Measurement Protocol

Measurement Object	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24.4kbps_Ch158600_2N
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Project	420703
Report Generation Date	3/13/2024 4:50 PM
Responsible Person	AC01-KS

Status Overview

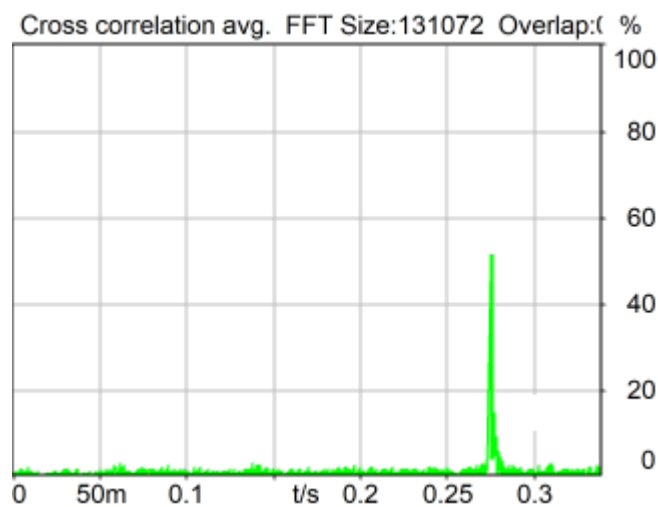
SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	275.5	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	80.60	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.69	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.25	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	37.11	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	36.47	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	37.38	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.87	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.46	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.62	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	40.76	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	39.97	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N
Report - Receive Distortion and Noise (Conversational)	Ok	Minimum SDNR [dB], (occured at 1250Hz)	31.87	FR1 n14_10M_QPSK_1RB_1Offset_EVS NB 24. 4kbps_Ch158600_2N

Gain)				EVS NB 24. 4kbps_Ch158600_2N
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 305.9 Hz	1.49	FR1 n14_10M_QPSK_1RB_1Offset_ EVS NB 24. 4kbps_Ch158600_2N
5.3 Frequency Response 2N DF HANB	Ok	Min. dist. to tolerance scheme [dB], 3657.5 Hz	0.17	FR1 n14_10M_QPSK_1RB_1Offset_ EVS NB 24. 4kbps_Ch158600_2N

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

Overall Receive Delay NB

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

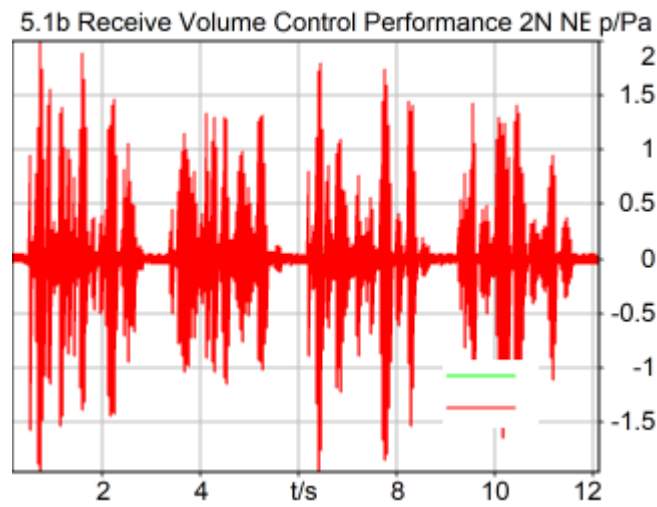


Delay (Cross): 275.5 ms

3/13/2024 4:44 PM ACQUA 5.1.200

5.1b Receive Volume Control Performance 2N NB

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



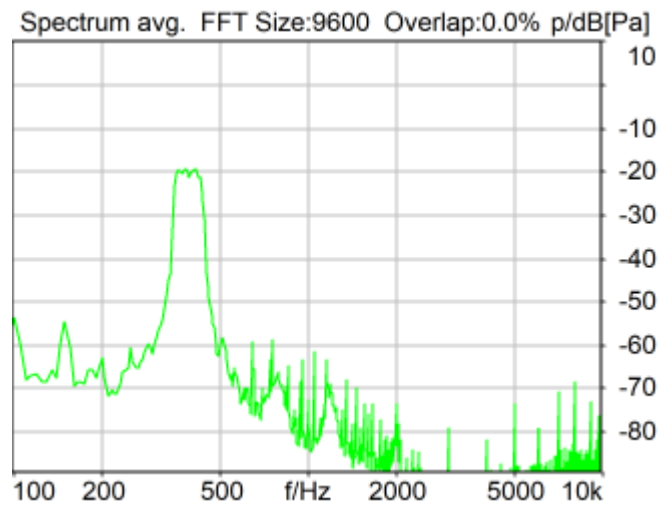
Speech Level RCV: 80.60 dB[SPL], Act.: 78.76% Ok

Ok

3/13/2024 4:44 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 400 Hz NB

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



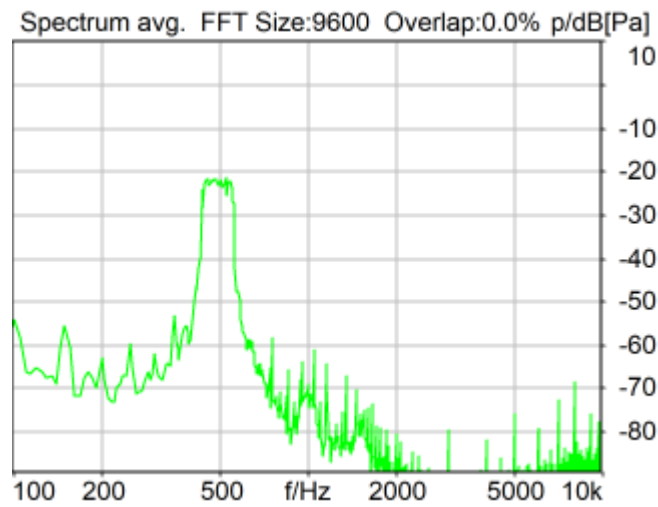
Distortion (Noise) RCV (packed): 36.69 dB (1.46%) Ok

Ok

3/13/2024 4:44 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 500 Hz NB

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



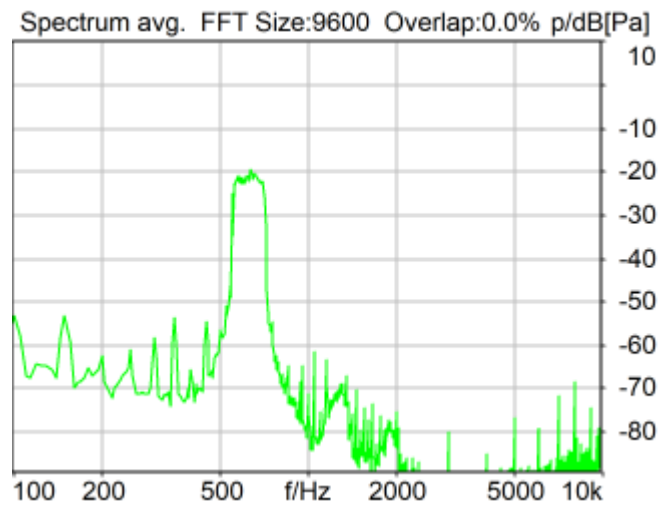
Distortion (Noise) RCV (packed): 35.25 dB (1.73%) Ok

Ok

3/13/2024 4:45 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 630 Hz NB

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



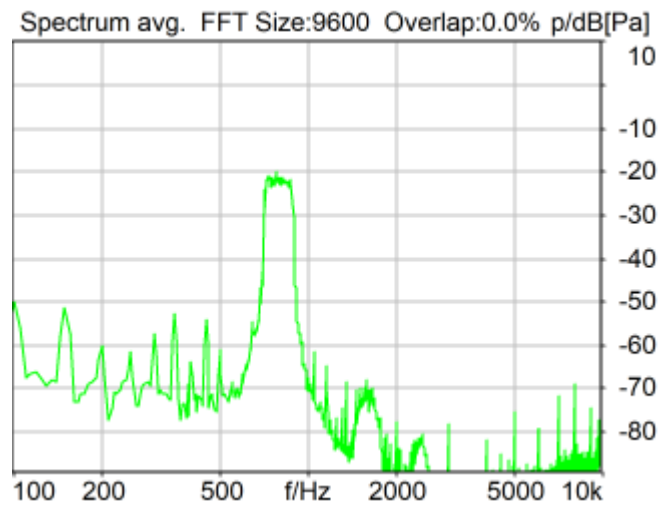
Distortion (Noise) RCV (packed): 37.11 dB (1.39%) Ok

Ok

3/13/2024 4:45 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 800 Hz NB

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



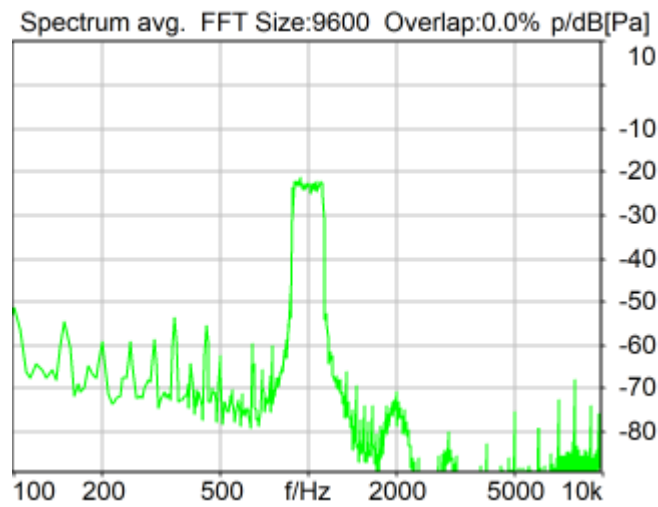
Distortion (Noise) RCV (packed): 36.47 dB (1.50%) Ok

Ok

3/13/2024 4:46 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1000 Hz NB

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



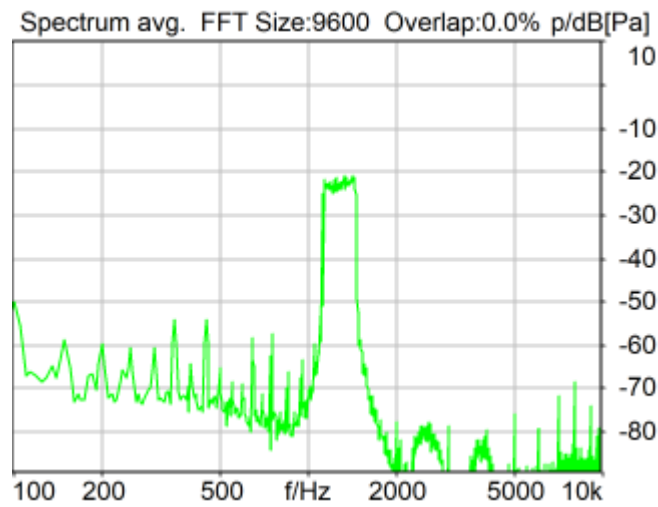
Distortion (Noise) RCV (packed): 37.38 dB (1.35%) Ok

Ok

3/13/2024 4:46 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1250 Hz NB

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



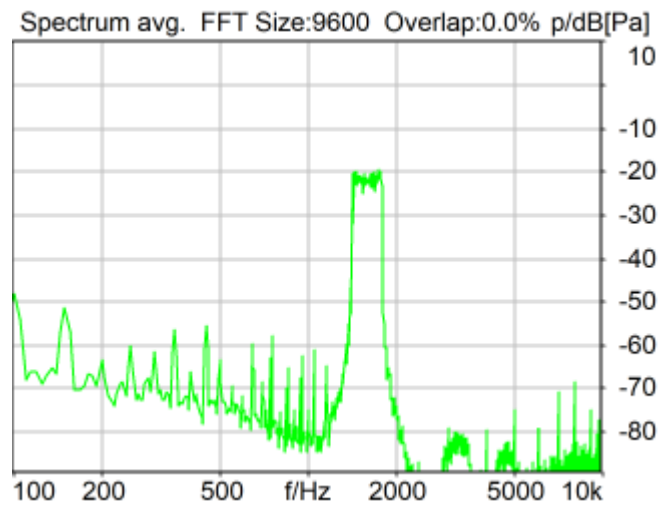
Distortion (Noise) RCV (packed): 31.87 dB (2.55%) Ok

Ok

3/13/2024 4:47 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 1600 Hz NB

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



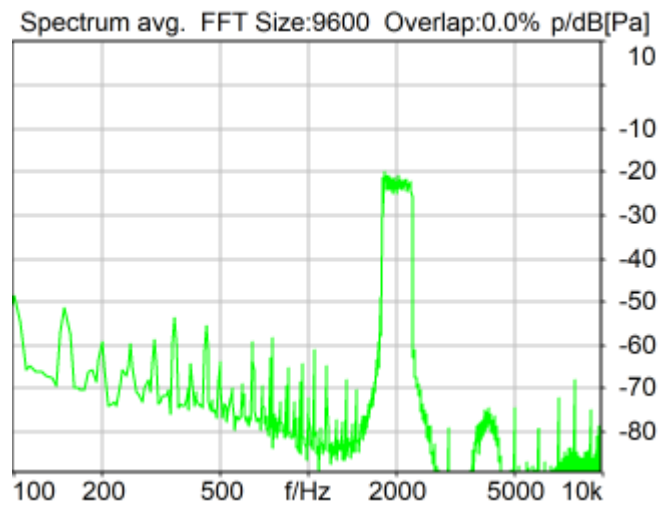
Distortion (Noise) RCV (packed): 40.46 dB (0.95%) Ok

Ok

3/13/2024 4:47 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2000 Hz NB

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



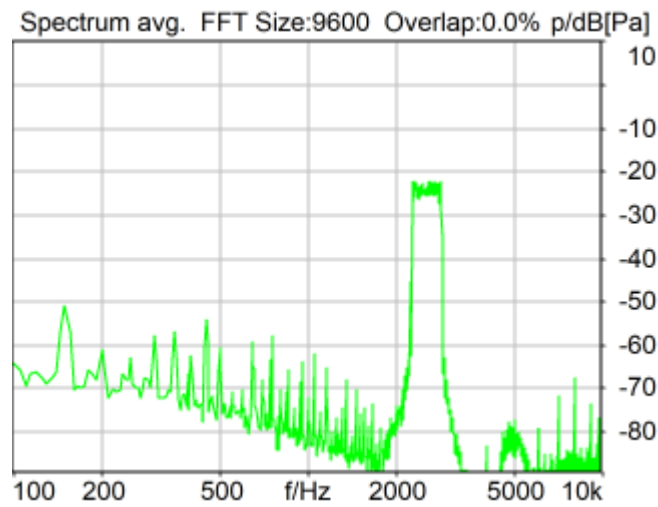
Distortion (Noise) RCV (packed): 40.62 dB (0.93%) Ok

Ok

3/13/2024 4:48 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 2500 Hz NB

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



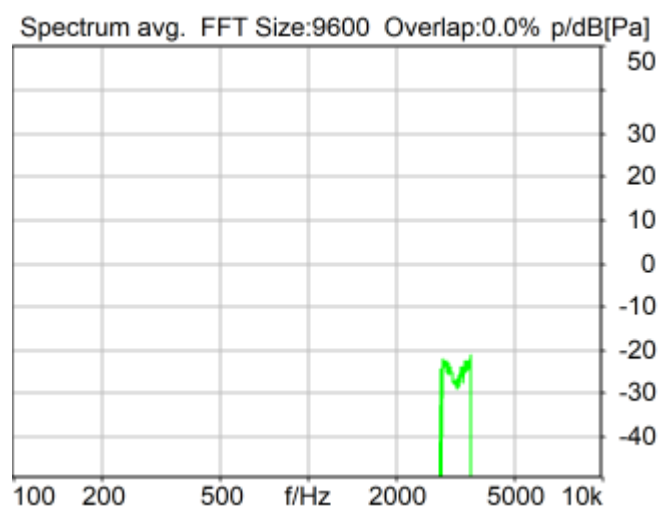
Distortion (Noise) RCV (packed): 40.76 dB (0.92%) Ok

Ok

3/13/2024 4:48 PM ACQUA 5.1.200

5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 39.97 dB (1.00%) Ok

Ok

3/13/2024 4:49 PM ACQUA 5.1.200

Report - Receive Distortion and Noise (Conversational Gain)

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

Region	Frequency	SDNR
1	400Hz	36.69 dB
2	500Hz	35.25 dB
3	630Hz	37.11 dB
4	800Hz	36.47 dB
5	1000Hz	37.38 dB
6	1250Hz	31.87 dB
7	1600Hz	40.46 dB
8	2000Hz	40.62 dB
9	2500Hz	40.76 dB
10	3150Hz	39.97 dB

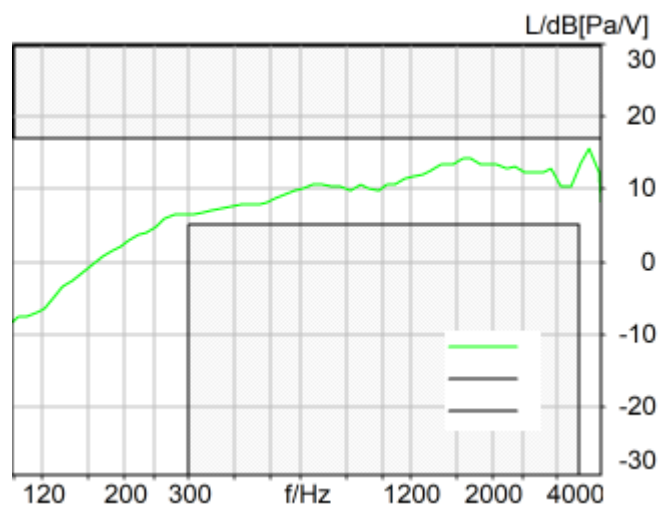
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 31.87dB at 1250Hz.

3/13/2024 4:49 PM ACQUA

5.3 Frequency Response 2N FF HANB

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



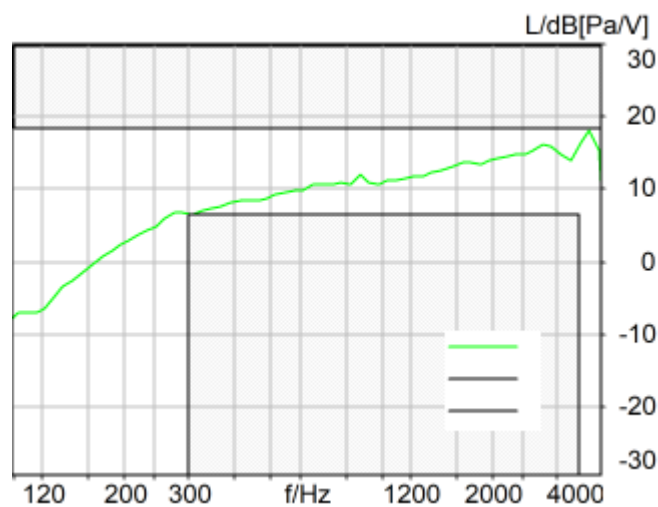
Absolute minimal distance
1.49 dB at 305.9 Hz Ok

Ok

3/13/2024 4:49 PM ACQUA 5.1.200

5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance
0.17 dB at 3657.5 Hz Ok

Ok

3/13/2024 4:49 PM ACQUA 5.1.200

Measurement Protocol

Measurement Object	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24.4kbps_Ch6_2N
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Project	420703
Report Generation Date	3/8/2024 10:25 PM
Responsible Person	AC01-KS

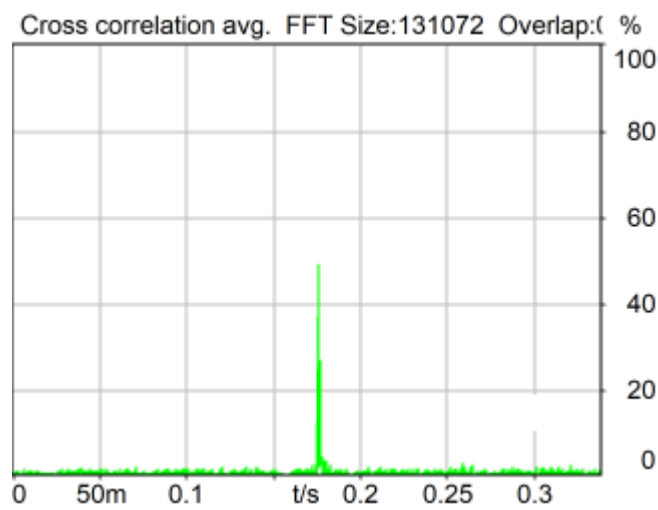
Status Overview

SMD	Status	Single Value Description	Single Value	Object
Overall Receive Delay NB	Done	Delay (Cross) [ms]	176.6	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	76.12	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	23.71	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.36	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.09	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	34.46	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	34.85	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.85	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.48	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.09	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.71	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.61	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
Report - Receive Distortion and Noise (Conversational Gain)	Ok	Minimum SDNR [dB], (occured at 400Hz)	23.71	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1747.8 Hz	0.82	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N
5.3 Frequency Response 2N DF HANB	Ok	Min. dist. to tolerance scheme [dB], 1747.8 Hz	1.30	WLAN2.4GHz_802.11b 1Mbps_EVS NB 24. 4kbps_Ch6_2N

Overall Receive Delay NB	5
5.1b Receive Volume Control Performance 2N NB	6
5.2 RCV Distortion and Noise - 400 Hz NB	7
5.2 RCV Distortion and Noise - 500 Hz NB	8
5.2 RCV Distortion and Noise - 630 Hz NB	9
5.2 RCV Distortion and Noise - 800 Hz NB	10
5.2 RCV Distortion and Noise - 1000 Hz NB	11
5.2 RCV Distortion and Noise - 1250 Hz NB	12
5.2 RCV Distortion and Noise - 1600 Hz NB	13
5.2 RCV Distortion and Noise - 2000 Hz NB	14
5.2 RCV Distortion and Noise - 2500 Hz NB	15
5.2 RCV Distortion and Noise - 3150 Hz NB	16
Report - Receive Distortion and Noise (Conversational Gain)	17
5.3 Frequency Response 2N FF HANB	18
5.3 Frequency Response 2N DF HANB	19

Overall Receive Delay NB

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

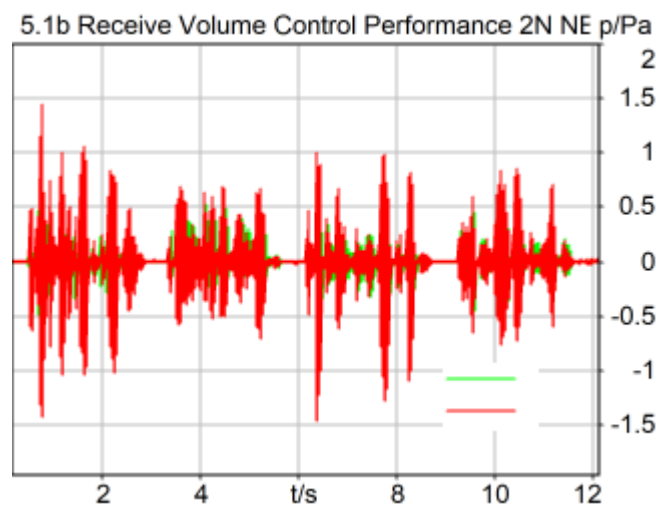


Delay (Cross): 176.6 ms

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5.1b Receive Volume Control Performance 2N NB

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



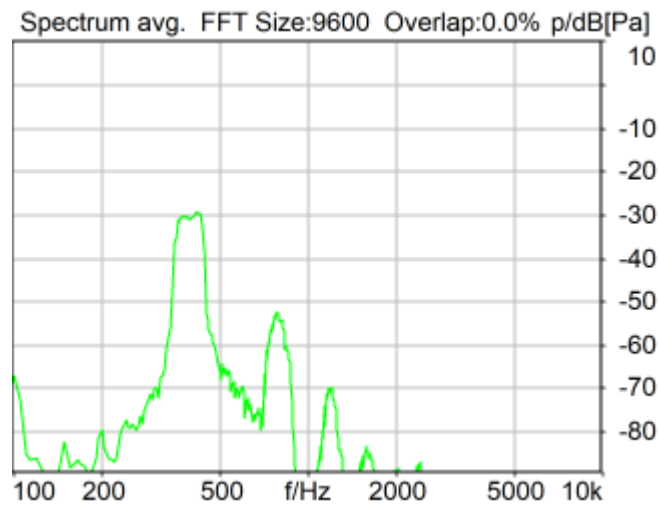
Speech Level RCV: 76.12 dB[SPL], Act.: 73.28% Ok

Ok

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5.2 RCV Distortion and Noise - 400 Hz NB

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



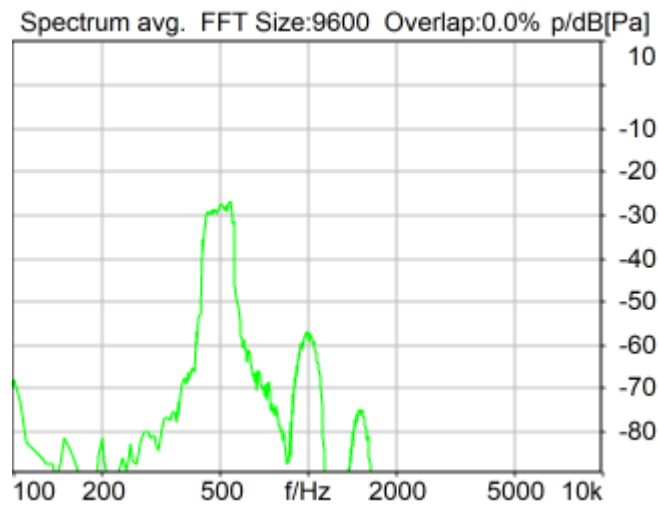
Distortion (Noise) RCV (packed): 23.71 dB (6.53%) Ok

Ok

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5.2 RCV Distortion and Noise - 500 Hz NB

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



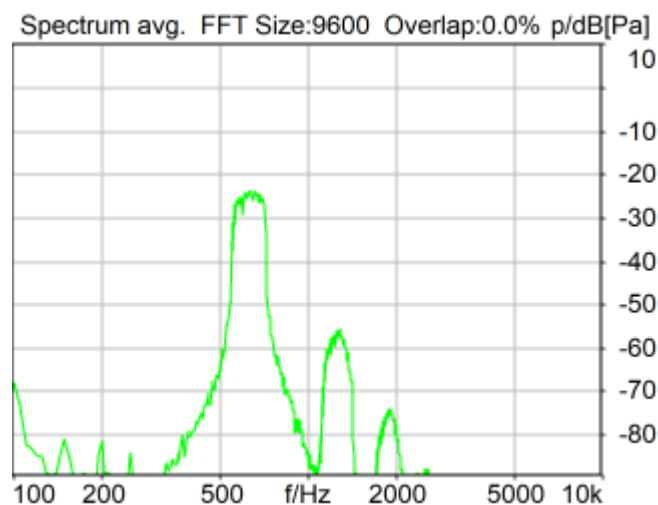
Distortion (Noise) RCV (packed): 28.36 dB (3.82%) Ok

Ok

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5.2 RCV Distortion and Noise - 630 Hz NB

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



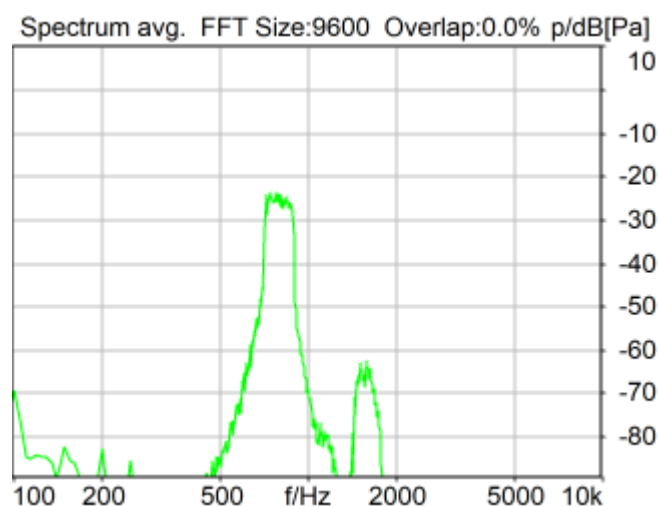
Distortion (Noise) RCV (packed): 30.09 dB (3.13%) Ok

Ok

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5.2 RCV Distortion and Noise - 800 Hz NB

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



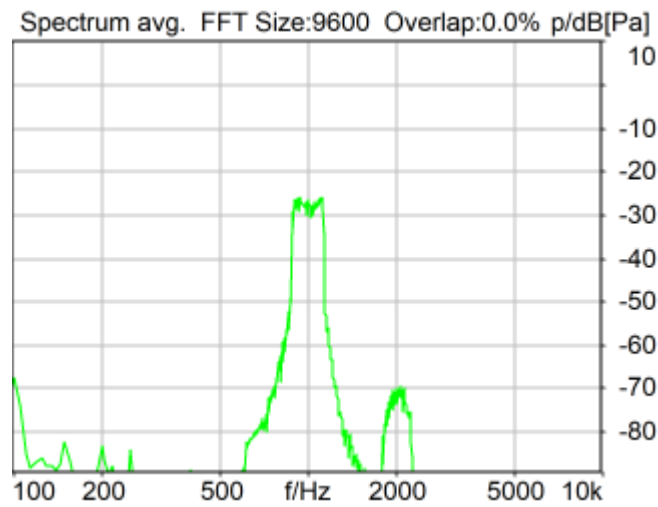
Distortion (Noise) RCV (packed): 34.46 dB (1.89%) Ok

Ok

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5.2 RCV Distortion and Noise - 1000 Hz NB

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



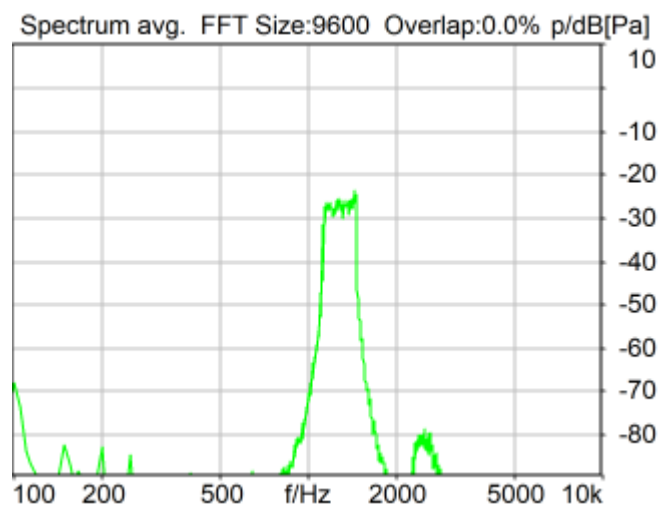
Distortion (Noise) RCV (packed): 34.85 dB (1.81%) Ok

Ok

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5.2 RCV Distortion and Noise - 1250 Hz NB

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



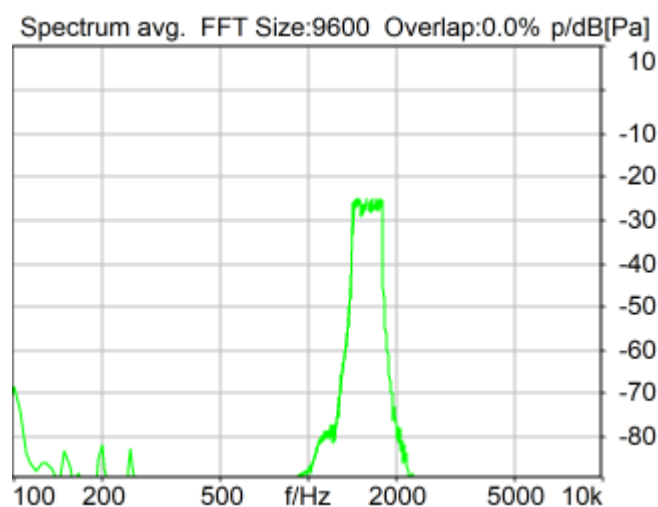
Distortion (Noise) RCV (packed): 25.85 dB (5.10%) Ok

Ok

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5.2 RCV Distortion and Noise - 1600 Hz NB

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



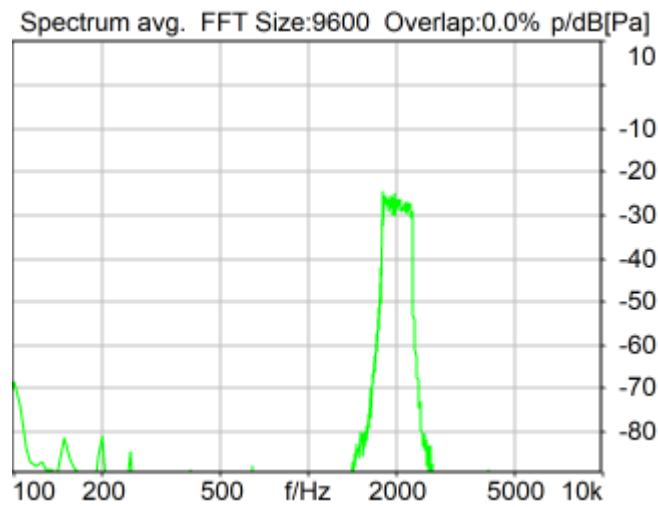
Distortion (Noise) RCV (packed): 35.48 dB (1.68%) Ok

Ok

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5.2 RCV Distortion and Noise - 2000 Hz NB

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



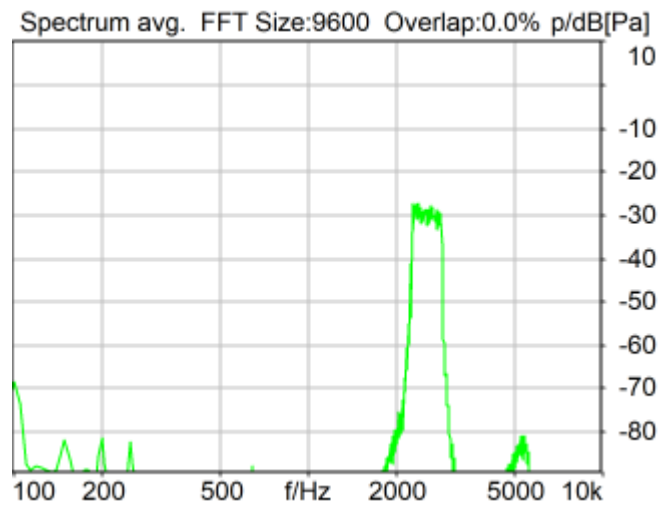
Distortion (Noise) RCV (packed): 35.09 dB (1.76%) Ok

Ok

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5.2 RCV Distortion and Noise - 2500 Hz NB

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



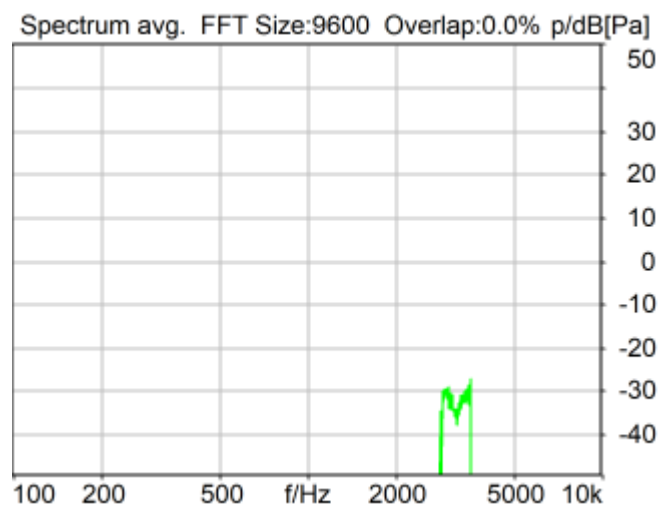
Distortion (Noise) RCV (packed): 35.71 dB (1.64%) Ok

Ok

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5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 35.61 dB (1.66%) Ok

Ok

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Report - Receive Distortion and Noise (Conversational Gain)

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

Region	Frequency	SDNR
1	400Hz	23.71 dB
2	500Hz	28.36 dB
3	630Hz	30.09 dB
4	800Hz	34.46 dB
5	1000Hz	34.85 dB
6	1250Hz	25.85 dB
7	1600Hz	35.48 dB
8	2000Hz	35.09 dB
9	2500Hz	35.71 dB
10	3150Hz	35.61 dB

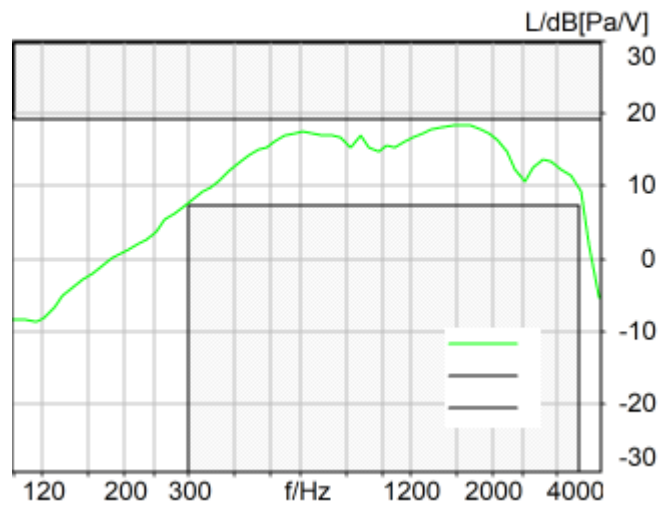
All SDNRs were greater than 20.0 dB, requirement was met.

Smallest SDNR was 23.71dB at 400Hz.

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5.3 Frequency Response 2N FF HANB

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



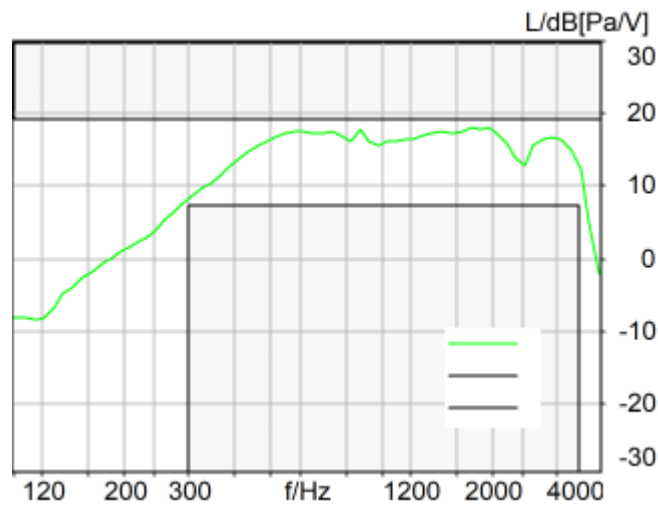
Absolute minimal distance
0.82 dB at 1747.8 Hz Ok

Ok

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5.3 Frequency Response 2N DF HANB

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



Absolute minimal distance
1.30 dB at 1747.8 Hz Ok

Ok

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