LTE Band 25 EVS-NB: 9.6 kbps 1,0 RB QPSK

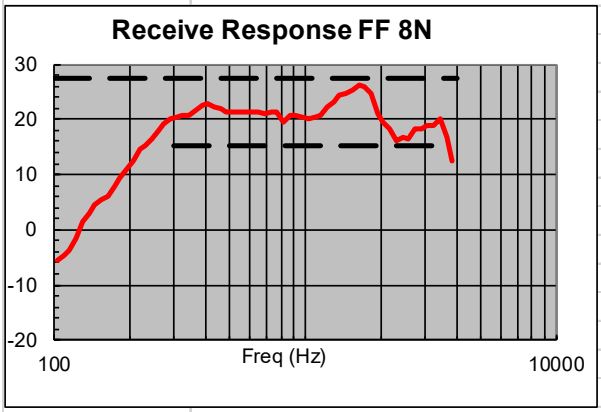
Conversational Gain & Frequency Response Report

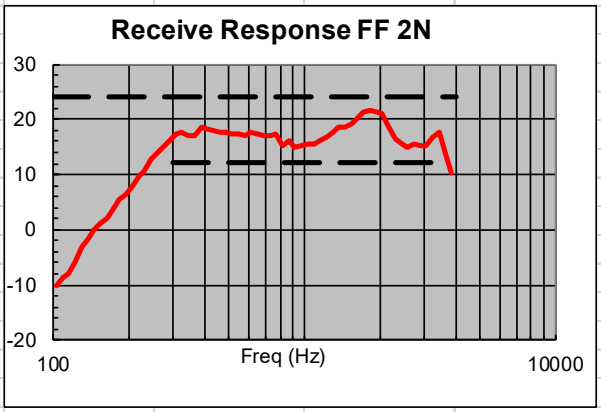
TIA-5050 Receive Volume Control Measurements

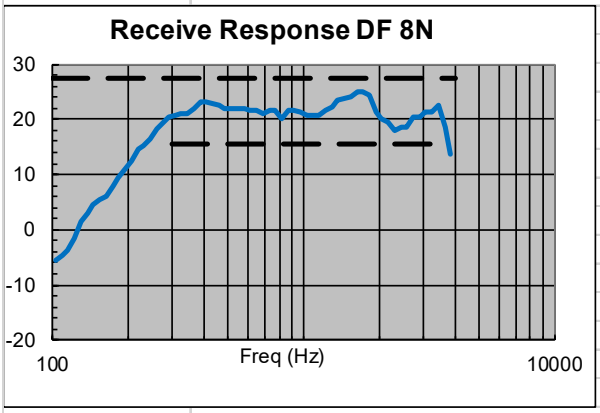
Device Under Test:	LTE B25 EVS-NB
Bandwidth	Narrowband
Test Date:	9/17/2024

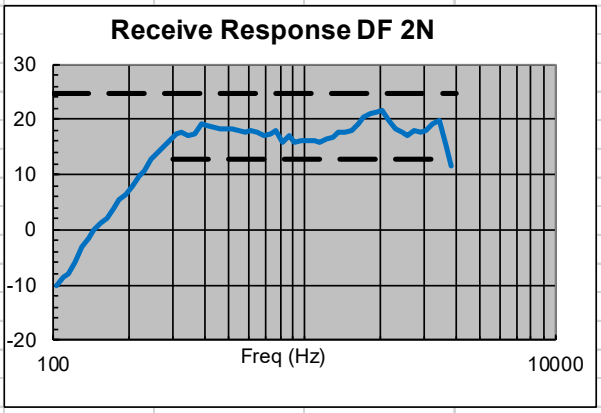
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.98 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.47 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.63 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.08 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.25 dB	info only		
	Recv conversational gain 8N	22.25 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.07 dB	info only		
	Recv conversational gain 2N	18.07 dB	6.00	PASS	

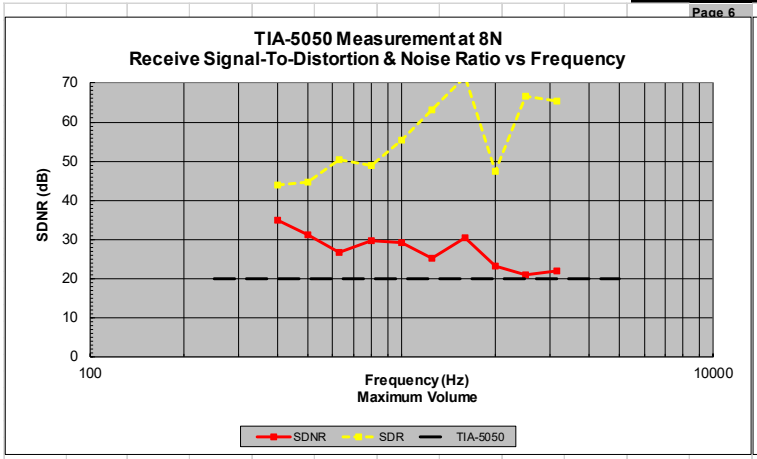
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.9 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	3.38 dB	Absolute Limits	PASS	

LTE Band 25 EVS-NB: 9.6 kbps 1,0 RB QPSK

Distortion Report

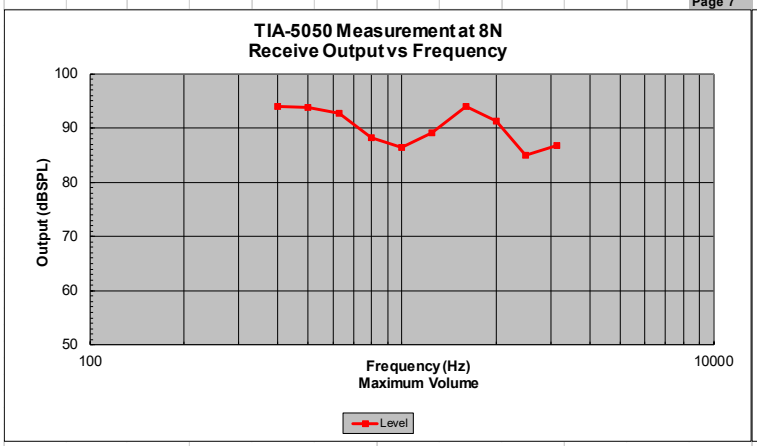
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.9 dB	Absolute Limits	PASS	9/17/2024 21:58	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6kbps

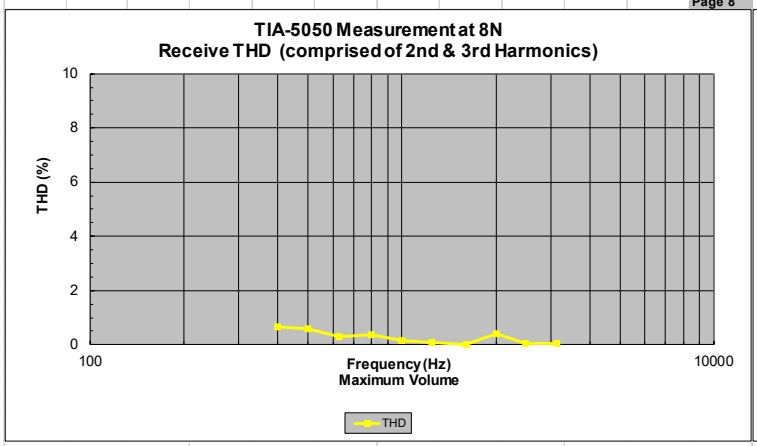
Page 7



Test Date	
9/17/2024 21:58	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6kbps

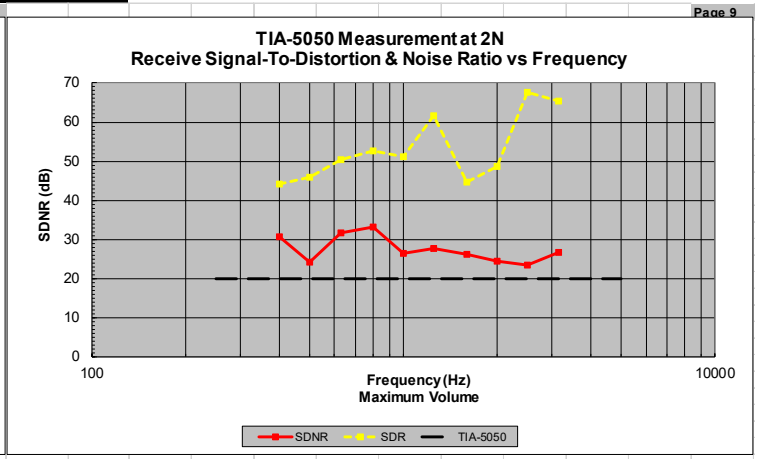
Page 8



Test Date	
9/17/2024 21:58	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6kbps

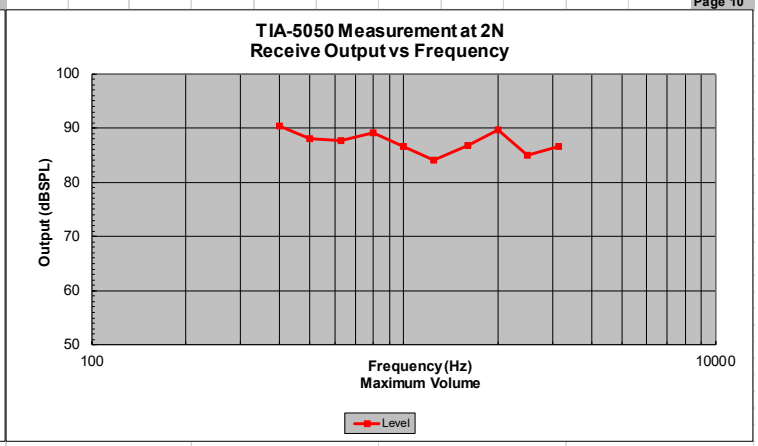
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	3.38 dB	Absolute Limits	PASS	9/17/2024 21:58	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6kbps

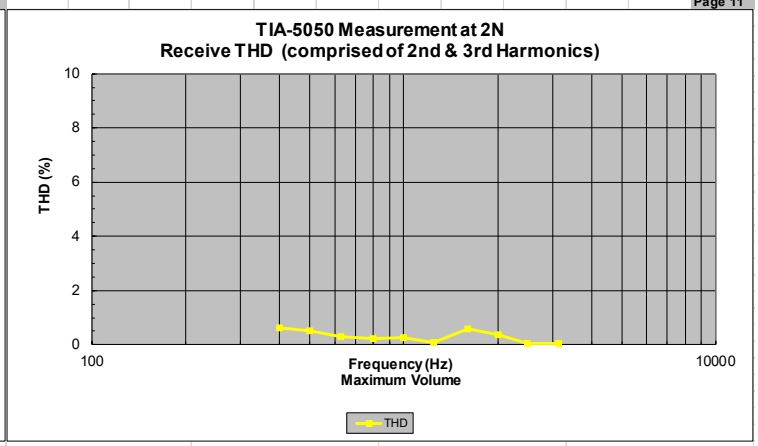
Page 10



Test Date	
9/17/2024 21:58	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6kbps

Page 11



Test Date	
9/17/2024 21:58	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6kbps

LTE Band 25 EVS-WB: 24.4 kbps 1,0 RB QPSK

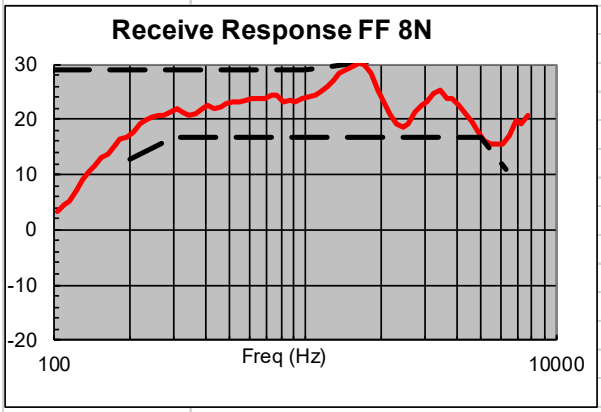
Conversational Gain & Frequency Response Report

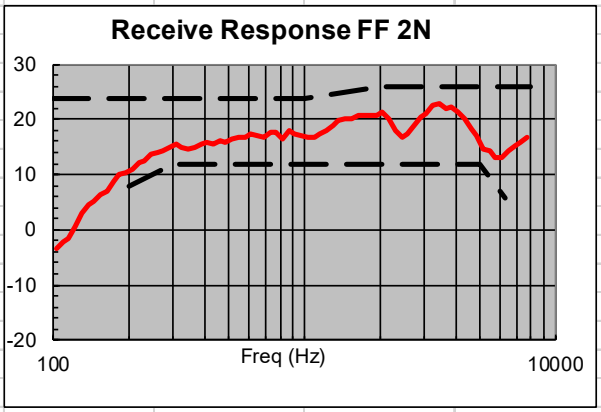
TIA-5050 Receive Volume Control Measurements

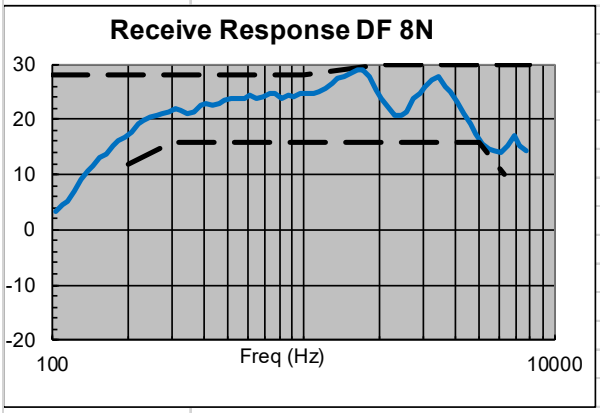
Device Under Test:	LTE B25 EVS-WB
Bandwidth	Wideband
Test Date:	9/17/2024

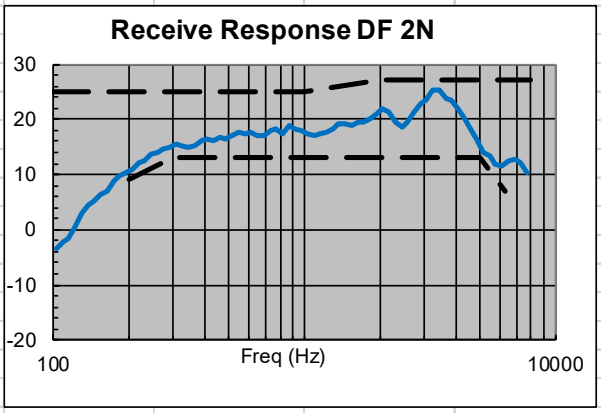
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.16 dB	Floating Limits	PASS	
	Recv resp DF 8N	0.4 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.83 dB	Floating Limits	PASS	
	Recv resp DF 2N	1.7 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	94.47 dB	info only		
	Recv conversational gain 8N	24.47 dB	18.00	PASS	
	Recv output level dBSPL 2N	87.78 dB	info only		
	Recv conversational gain 2N	17.78 dB	6.00	PASS	

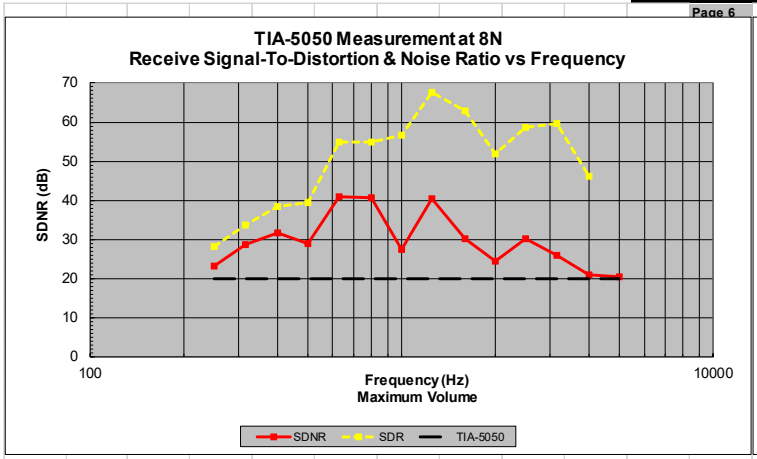
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.4 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.19 dB	Absolute Limits	PASS	

LTE Band 25 EVS-WB: 24.4 kbps 1,0 RB QPSK

Distortion Report

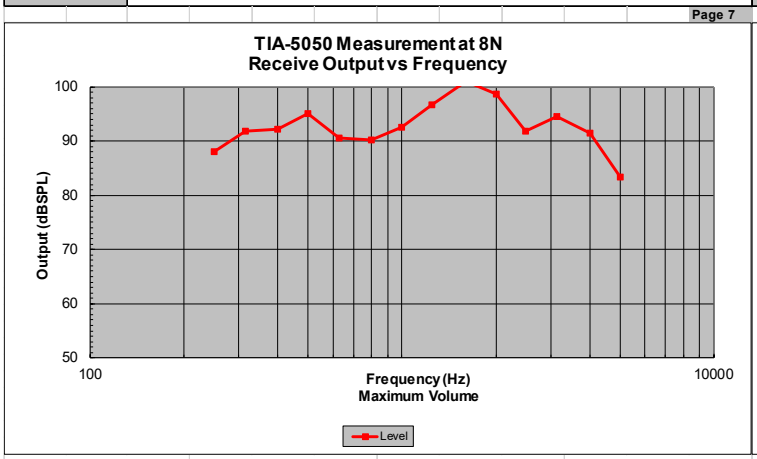
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.4 dB	Absolute Limits	PASS	9/17/2024 22:42	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 24.4 kbps

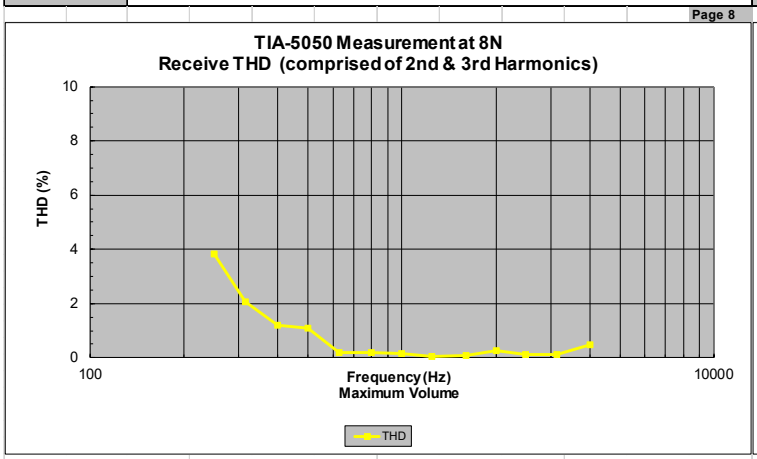
Page 7



Test Date	
9/17/2024 22:42	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

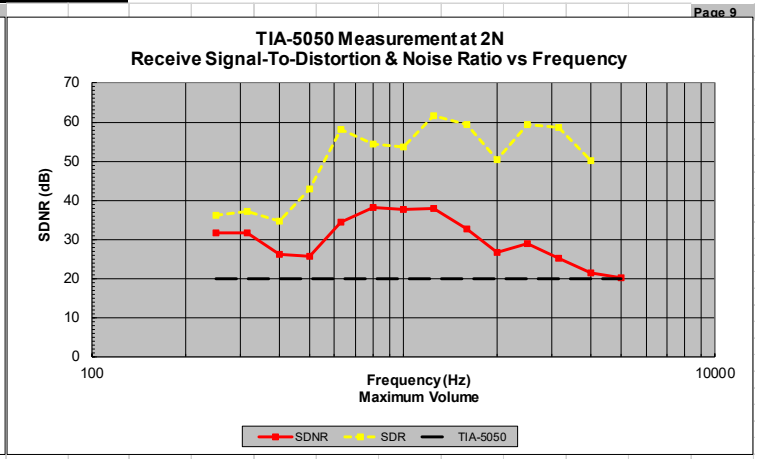
Page 8



Test Date	
9/17/2024 22:42	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

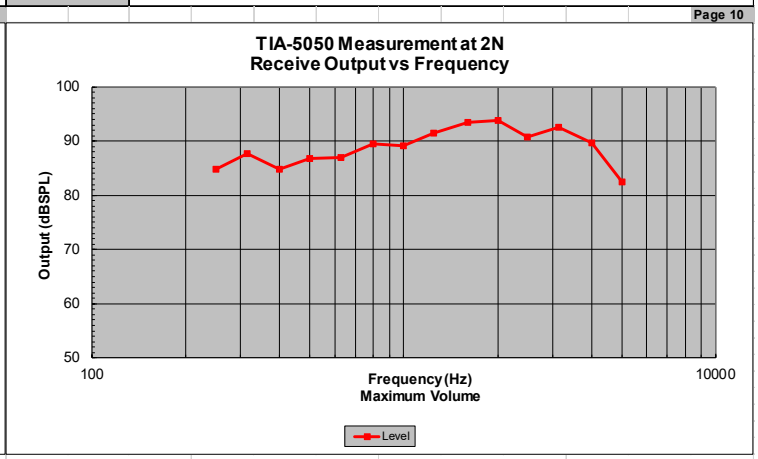
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.19 dB	Absolute Limits	PASS	9/17/2024 22:42	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 24.4 kbps

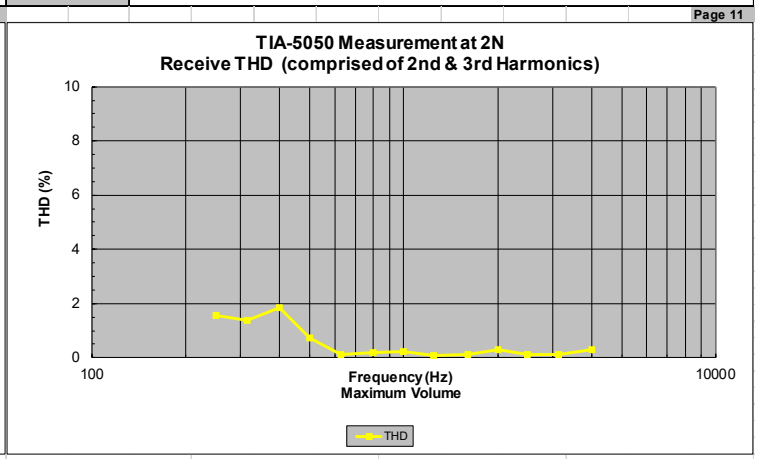
Page 10



Test Date	
9/17/2024 22:42	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

Page 11



Test Date	
9/17/2024 22:42	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB QPSK

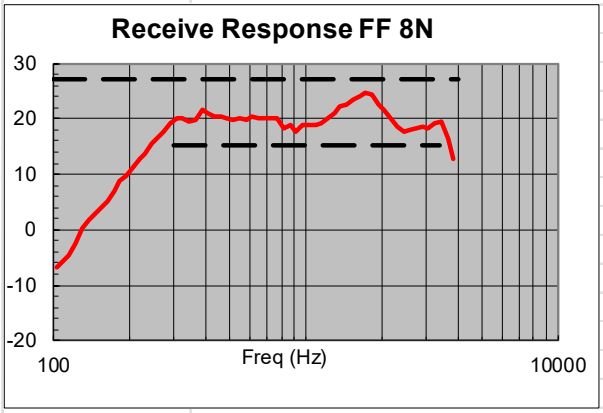
Conversational Gain & Frequency Response Report

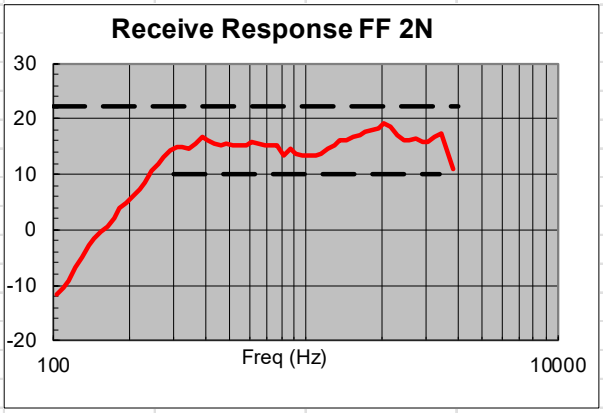
TIA-5050 Receive Volume Control Measurements

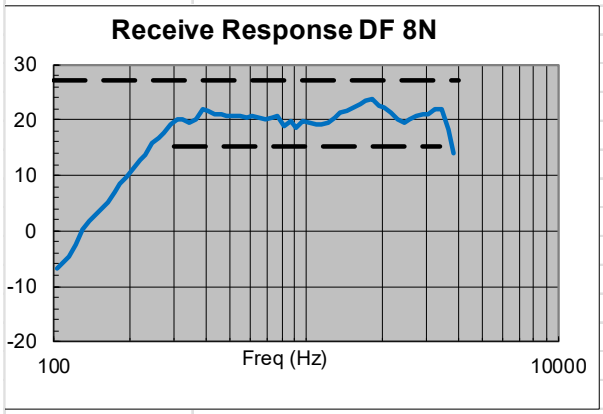
Device Under Test:	LTE B25 EVS-NB
Bandwidth	Narrowband
Test Date:	9/17/2024

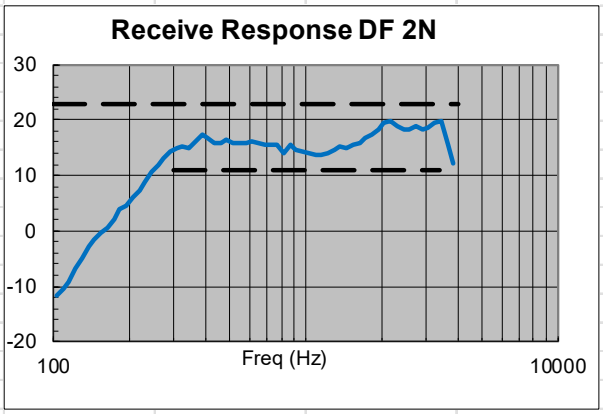
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	2.47 dB	Floating Limits	PASS	
	Recv resp DF 8N	3.43 dB	Floating Limits	PASS	
	Recv resp FF 2N	3.14 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.91 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.89 dB	info only		
	Recv conversational gain 8N	20.89 dB	18.00	PASS	
	Recv output level dBSPL 2N	85.97 dB	info only		
	Recv conversational gain 2N	15.97 dB	6.00	PASS	

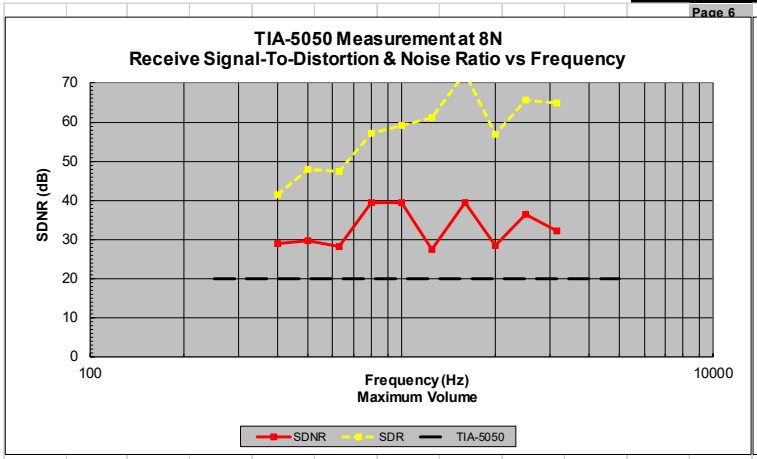
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	7.5 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	4.89 dB	Absolute Limits	PASS	

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB QPSK

Distortion Report

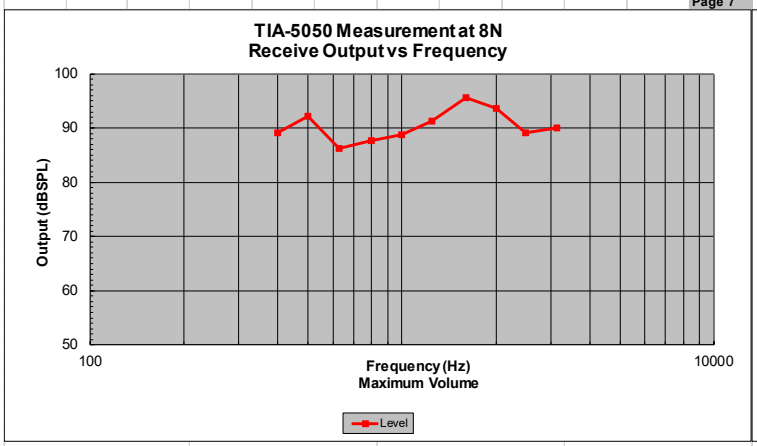
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	7.5 dB	Absolute Limits	PASS	9/17/2024 22:59	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

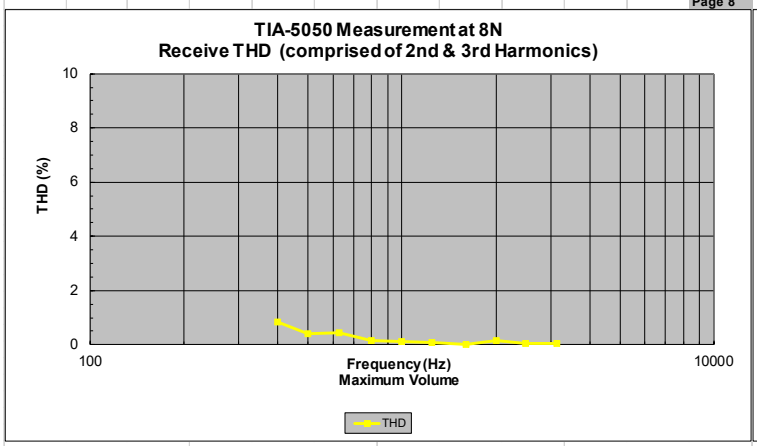
Page 7



Test Date	
9/17/2024 22:59	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

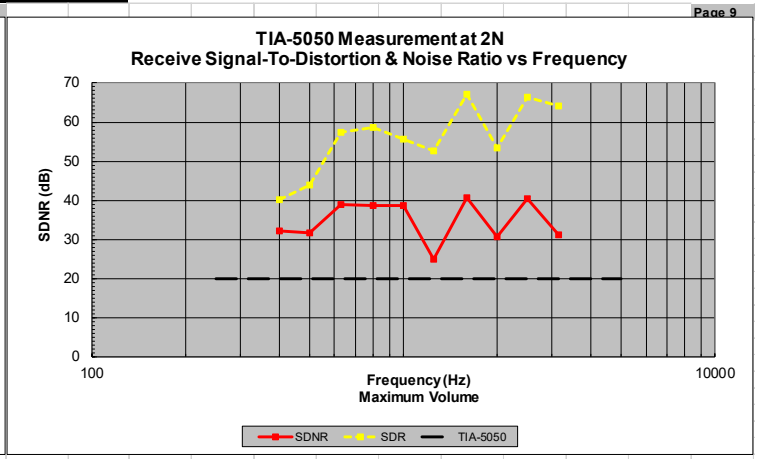
Page 8



Test Date	
9/17/2024 22:59	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

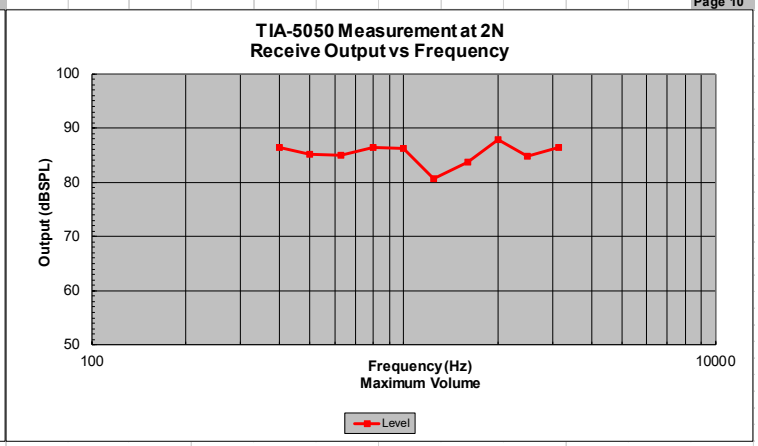
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	4.89 dB	Absolute Limits	PASS	9/17/2024 22:59	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

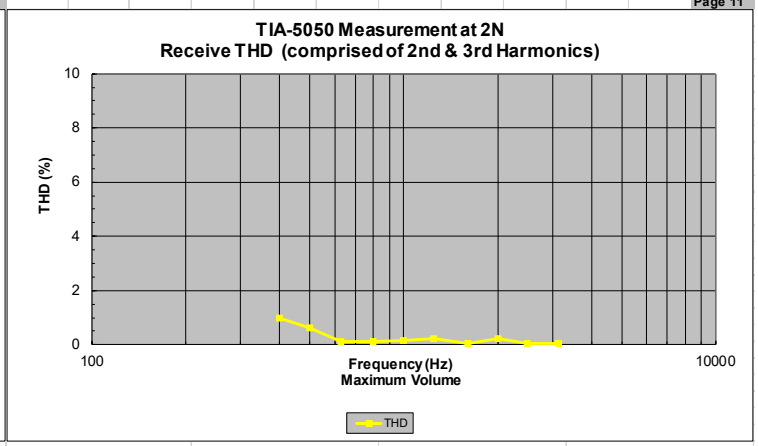
Page 10



Test Date	
9/17/2024 22:59	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/17/2024 22:59	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB 16QAM

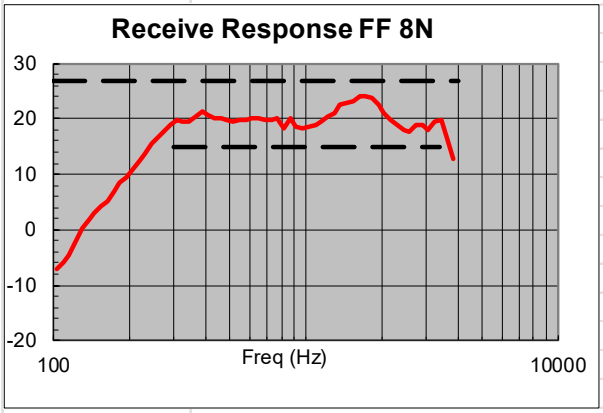
Conversational Gain & Frequency Response Report

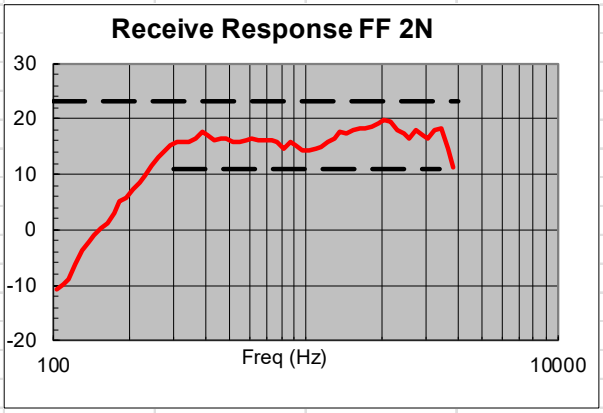
TIA-5050 Receive Volume Control Measurements

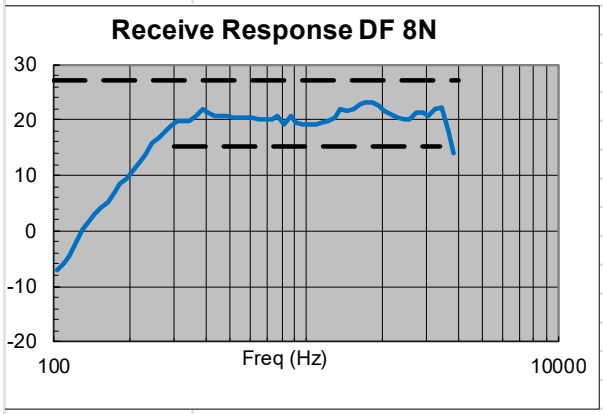
Device Under Test:	LTE B25 EVS-NB
Bandwidth	Narrowband
Test Date:	9/17/2024

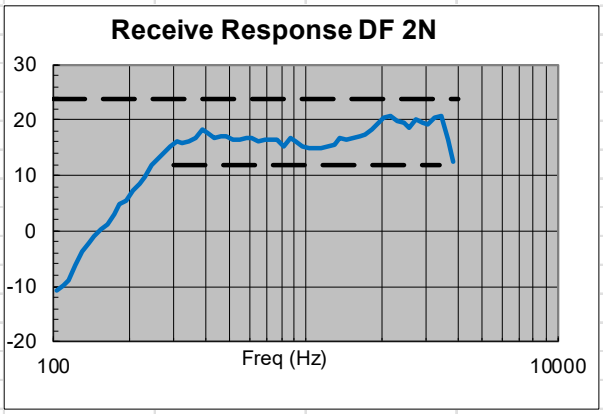
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	2.76 dB	Floating Limits	PASS	
	Recv resp DF 8N	3.89 dB	Floating Limits	PASS	
	Recv resp FF 2N	3.2 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.04 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.74 dB	info only		
	Recv conversational gain 8N	20.74 dB	18.00	PASS	
	Recv output level dBSPL 2N	86.86 dB	info only		
	Recv conversational gain 2N	16.86 dB	6.00	PASS	

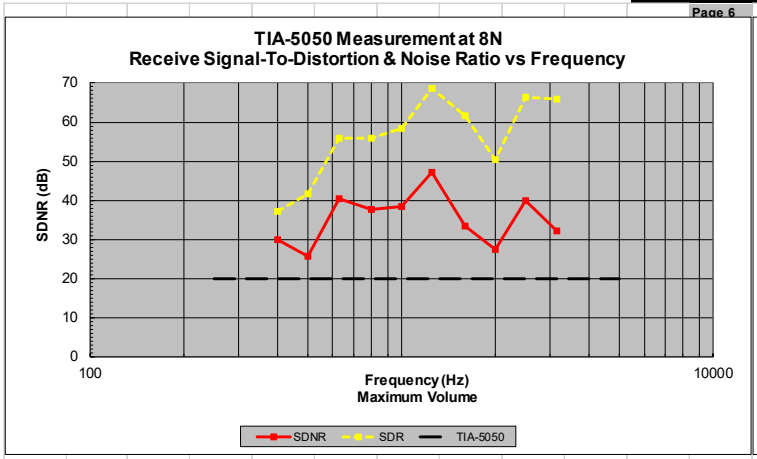
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	5.8 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.51 dB	Absolute Limits	PASS	

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB 16QAM

Distortion Report

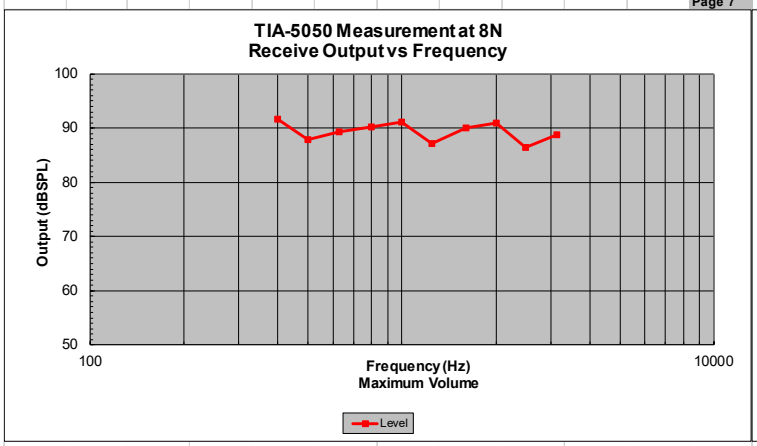
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	5.8 dB	Absolute Limits	PASS	9/17/2024 23:12	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

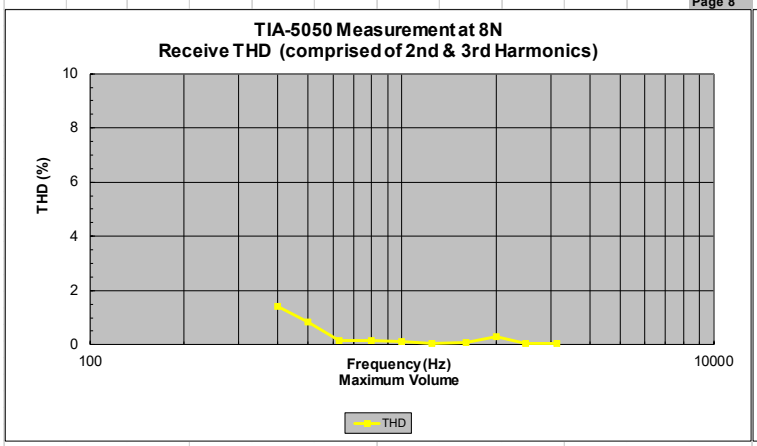
Page 7



Test Date	
9/17/2024 23:12	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

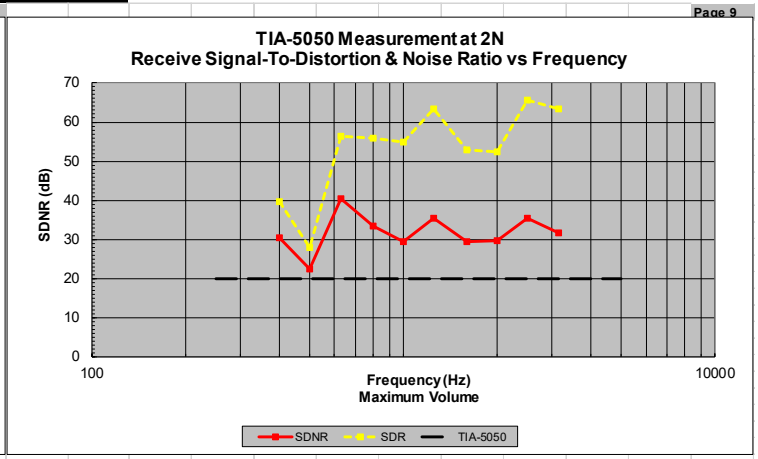
Page 8



Test Date	
9/17/2024 23:12	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

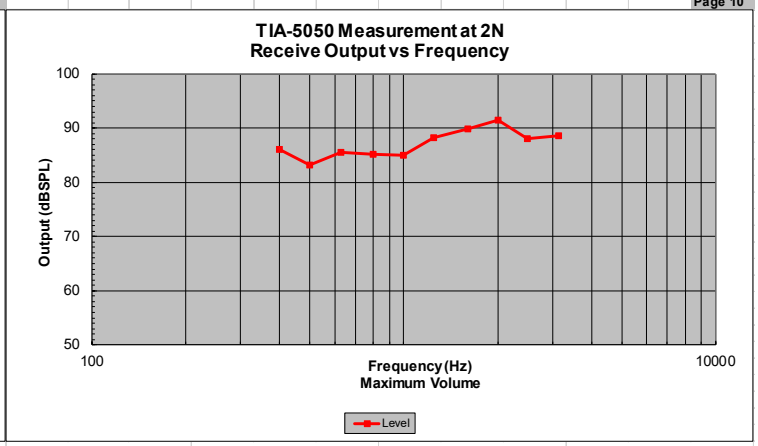
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	2.51 dB	Absolute Limits	PASS	9/17/2024 23:12	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

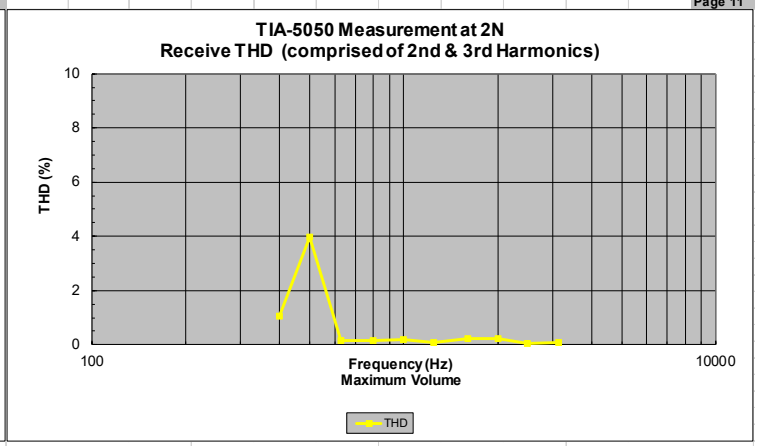
Page 10



Test Date	
9/17/2024 23:12	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/17/2024 23:12	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB 64QAM

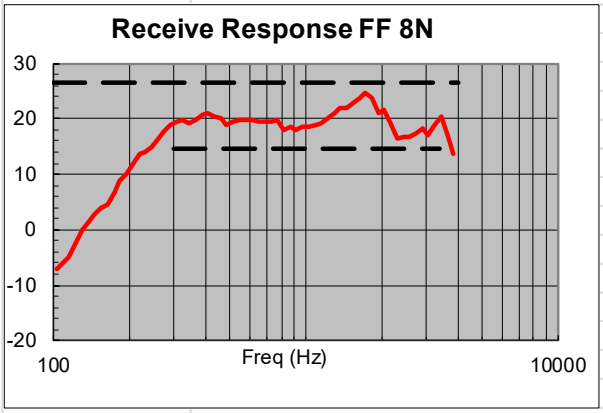
Conversational Gain & Frequency Response Report

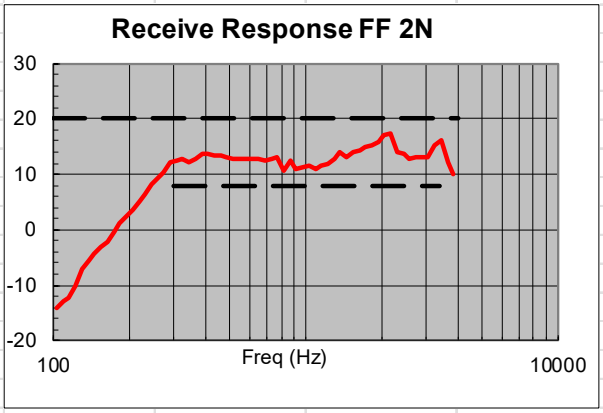
TIA-5050 Receive Volume Control Measurements

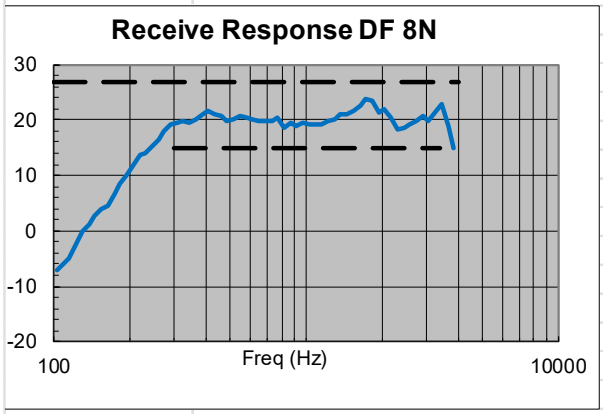
Device Under Test:	LTE B25 EVS-NB
Bandwidth	Narrowband
Test Date:	9/17/2024

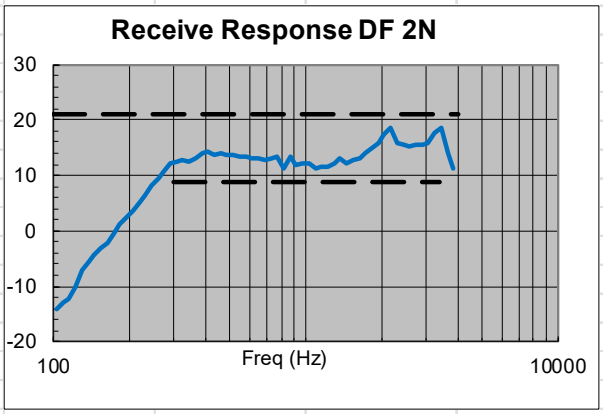
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	1.94 dB	Floating Limits	PASS	
	Recv resp DF 8N	3.3 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.58 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.33 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.58 dB	info only		
	Recv conversational gain 8N	20.58 dB	18.00	PASS	
	Recv output level dBSPL 2N	83.52 dB	info only		
	Recv conversational gain 2N	13.52 dB	6.00	PASS	

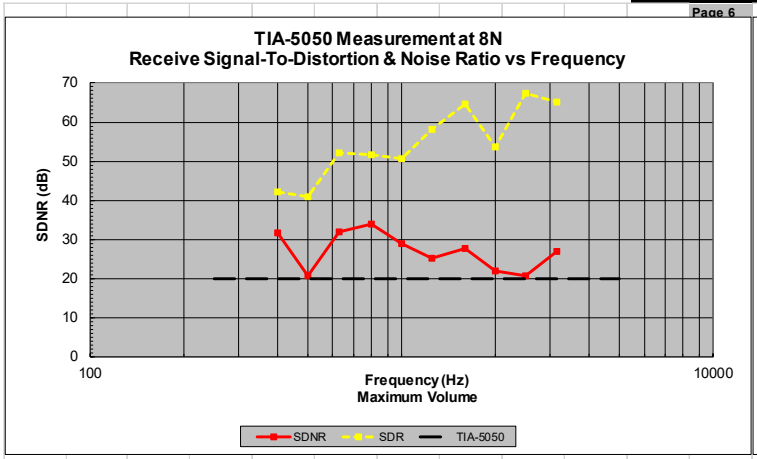
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.7 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	6.94 dB	Absolute Limits	PASS	

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB 64QAM

Distortion Report

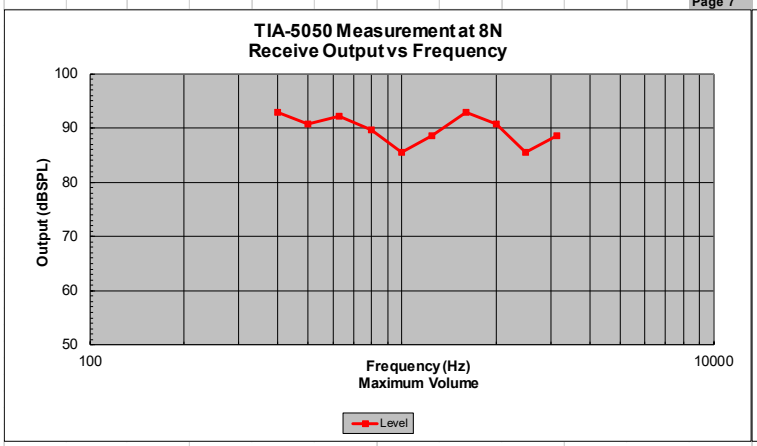
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.7 dB	Absolute Limits	PASS	9/17/2024 23:43	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

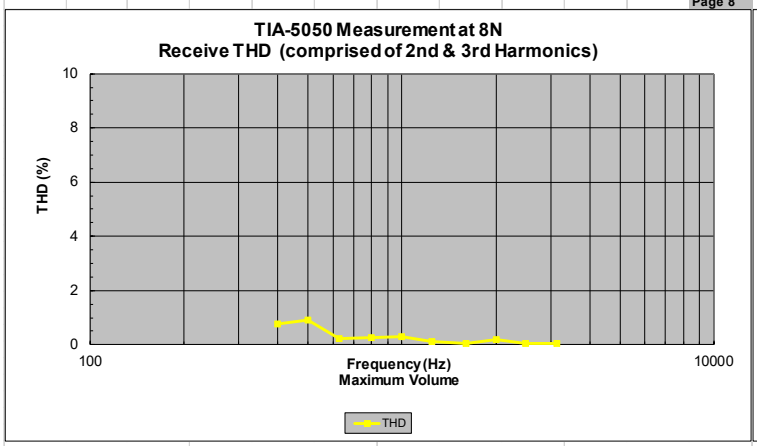
Page 7



Test Date	
9/17/2024 23:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

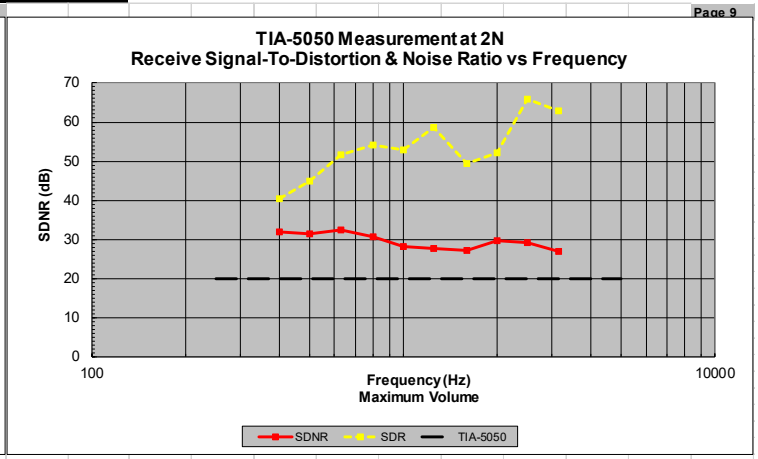
Page 8



Test Date	
9/17/2024 23:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

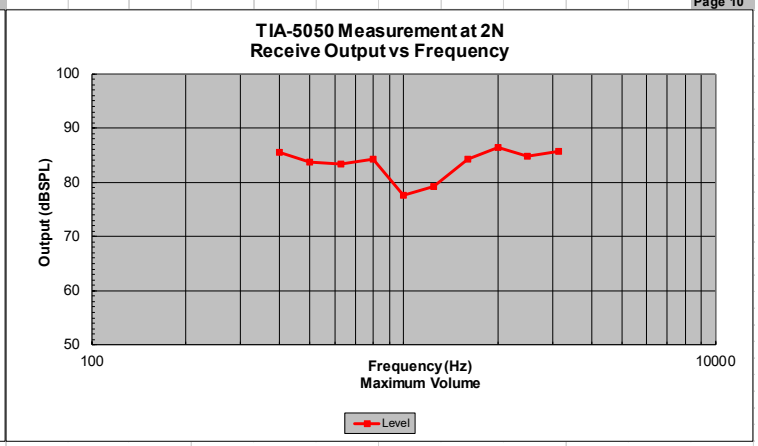
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	6.94 dB	Absolute Limits	PASS	9/17/2024 23:43	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

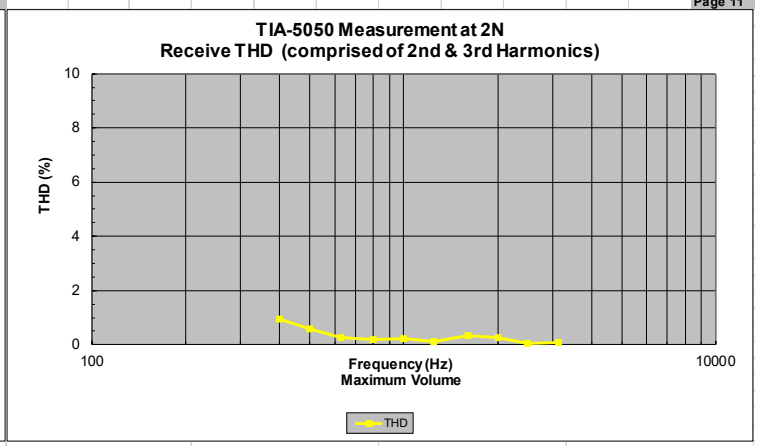
Page 10



Test Date	
9/17/2024 23:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/17/2024 23:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB 256QAM

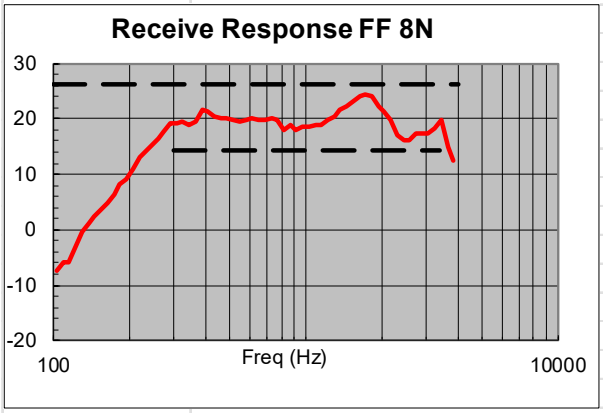
Conversational Gain & Frequency Response Report

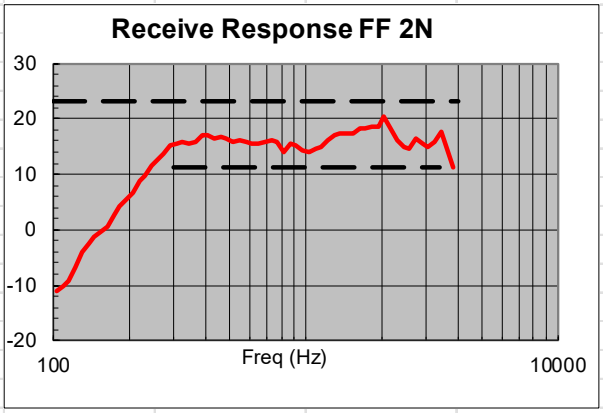
TIA-5050 Receive Volume Control Measurements

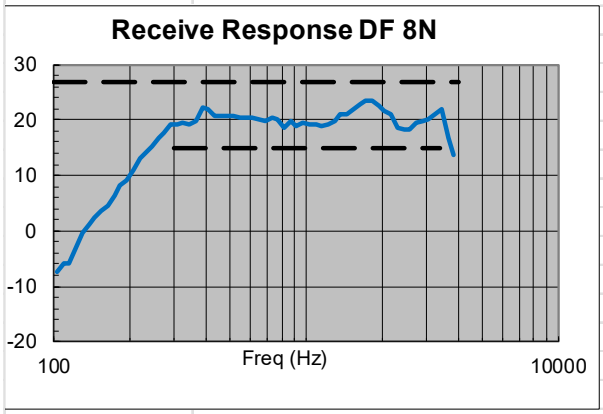
Device Under Test:	LTE B25 EVS-NB
Bandwidth	Narrowband
Test Date:	9/17/2024

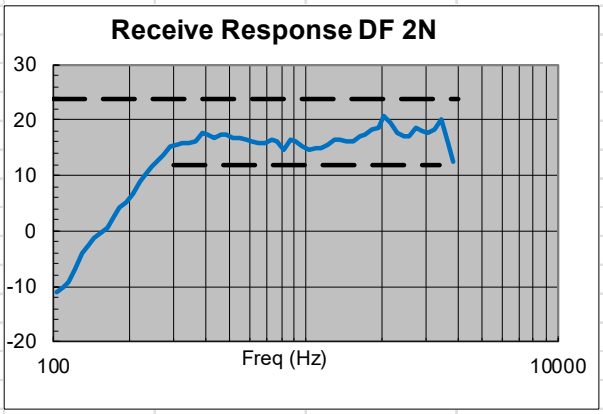
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	1.87 dB	Floating Limits	PASS	
	Recv resp DF 8N	3.34 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.78 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.86 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.69 dB	info only		
	Recv conversational gain 8N	20.69 dB	18.00	PASS	
	Recv output level dBSPL 2N	86.69 dB	info only		
	Recv conversational gain 2N	16.69 dB	6.00	PASS	

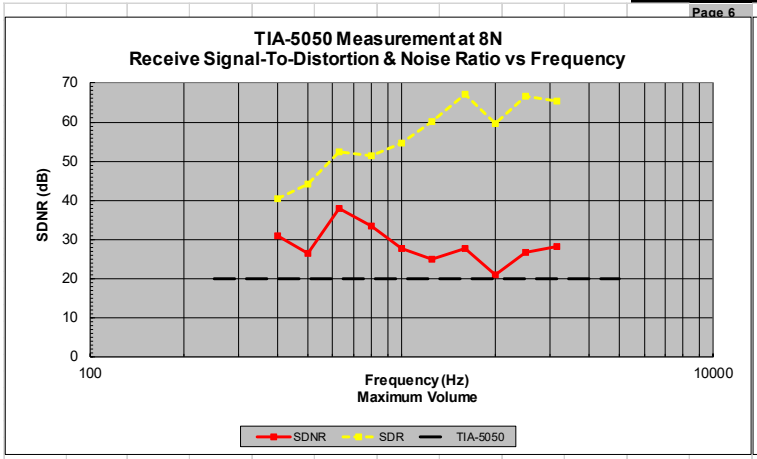
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.1 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	6.8 dB	Absolute Limits	PASS	

LTE Band 25 EVS-NB: 9.6 kbps 100,0 RB 256QAM

Distortion Report

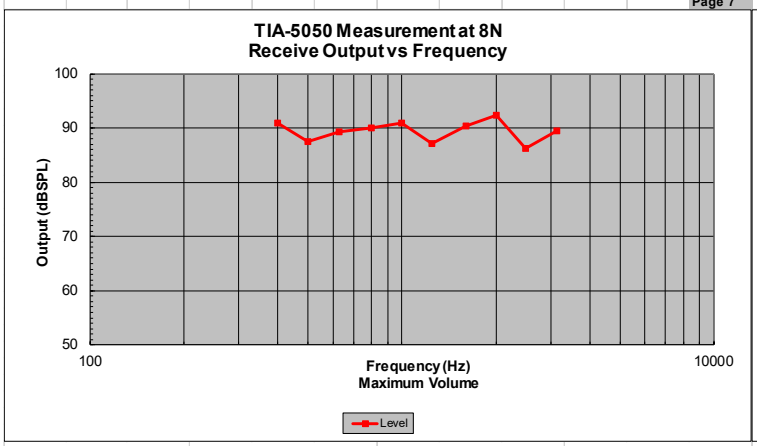
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1.1 dB	Absolute Limits	PASS	9/17/2024 23:57	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

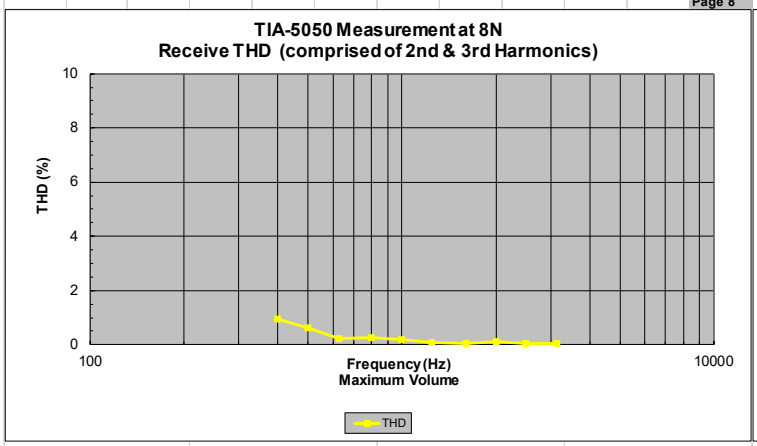
Page 7



Test Date	
9/17/2024 23:57	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

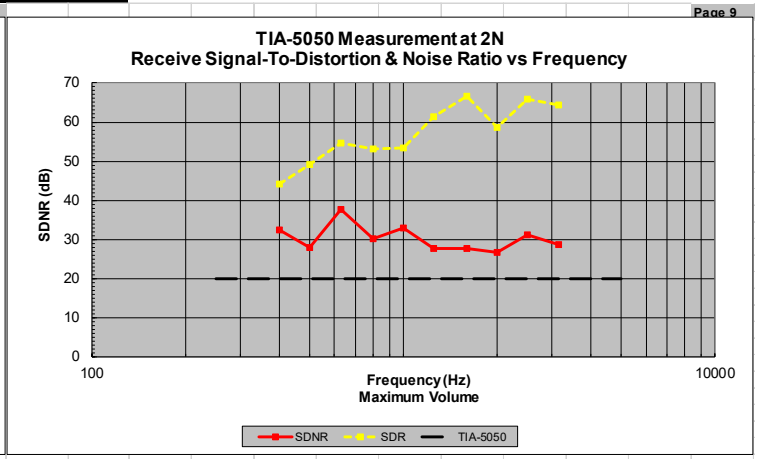
Page 8



Test Date	
9/17/2024 23:57	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

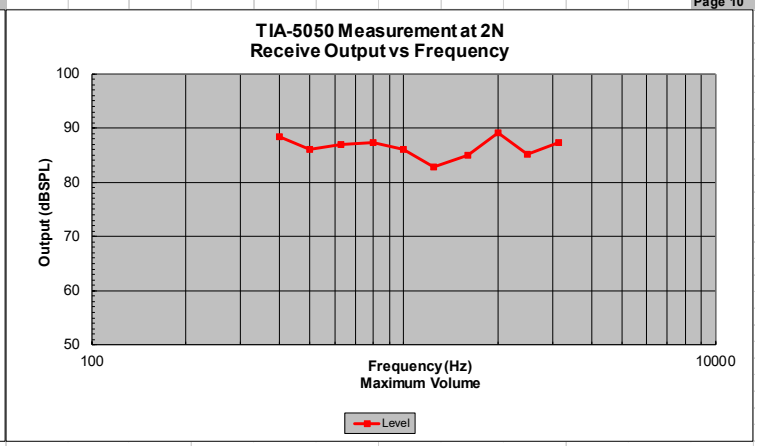
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	6.8 dB	Absolute Limits	PASS	9/17/2024 23:57	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

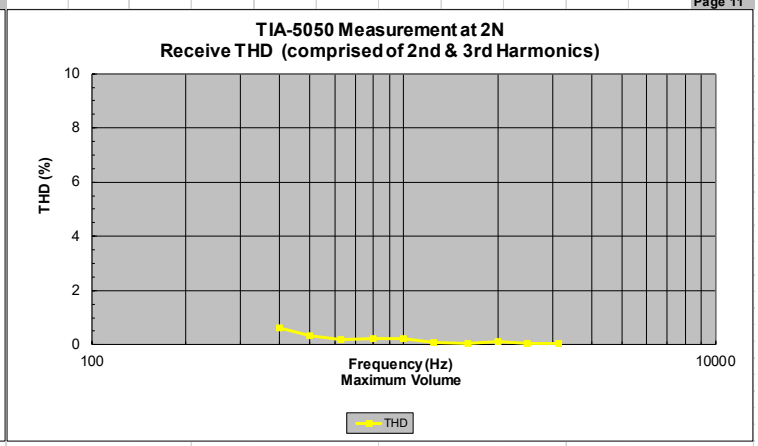
Page 10



Test Date	
9/17/2024 23:57	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/17/2024 23:57	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

LTE Band 25 EVS-NB: 9.6 kbps 6,0 RB 1.4 MHz 64QAM

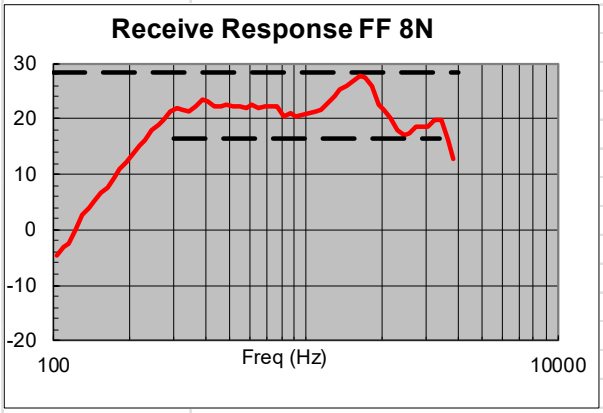
Conversational Gain & Frequency Response Report

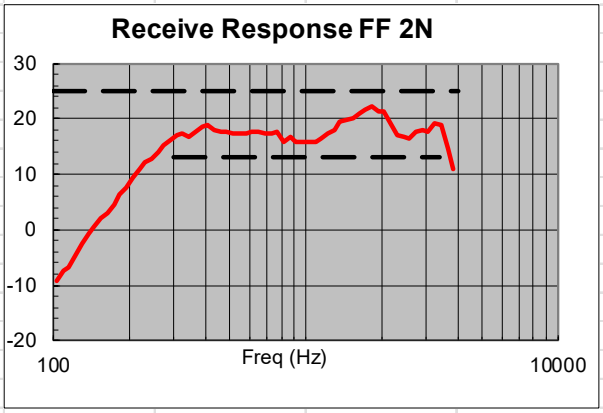
TIA-5050 Receive Volume Control Measurements

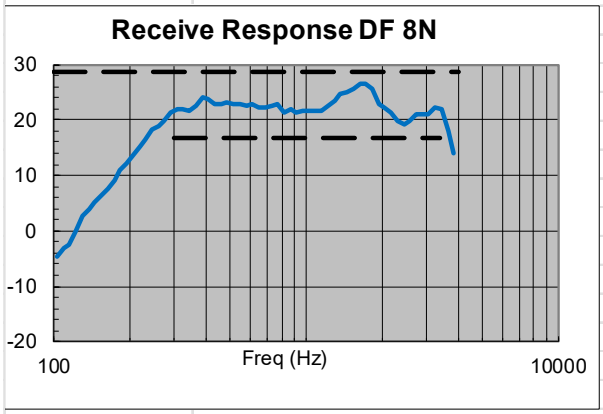
Device Under Test:	LTE B25 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

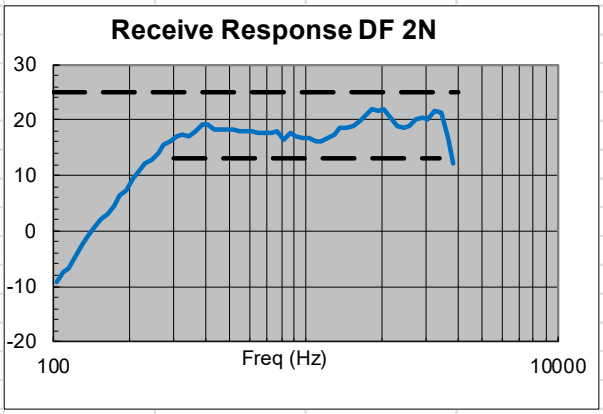
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.73 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.32 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.7 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.14 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.09 dB	info only		
	Recv conversational gain 8N	23.09 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.32 dB	info only		
	Recv conversational gain 2N	18.32 dB	6.00	PASS	

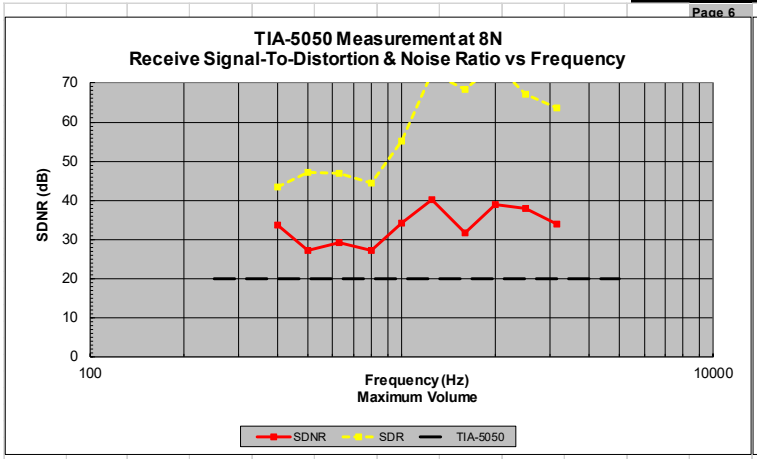
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	7.1 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	5.66 dB	Absolute Limits	PASS	

LTE Band 25 EVS-NB: 9.6 kbps 6,0 RB 1.4 MHz 64QAM

Distortion Report

Page 6



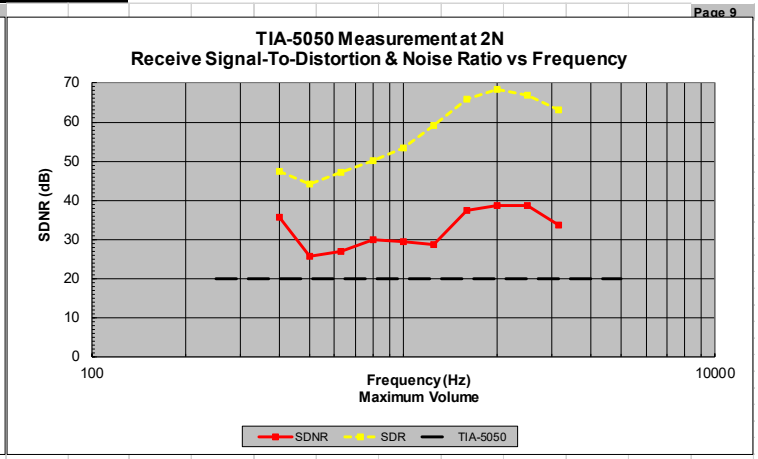
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	7.1 dB	Absolute Limits	PASS	9/18/2024 11:22

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



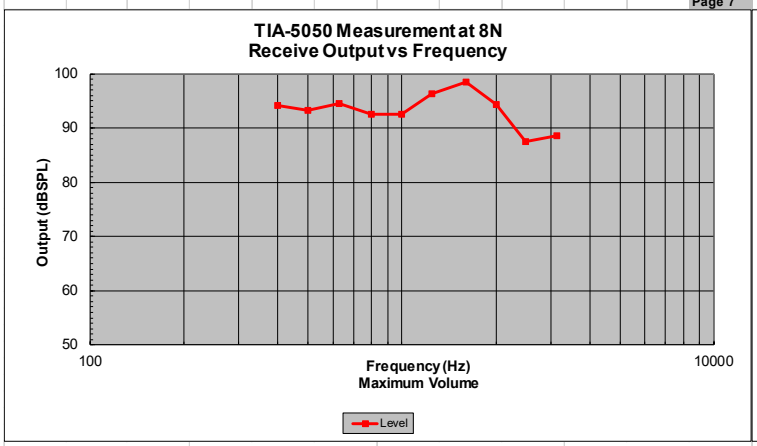
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	5.66 dB	Absolute Limits	PASS	9/18/2024 11:22

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

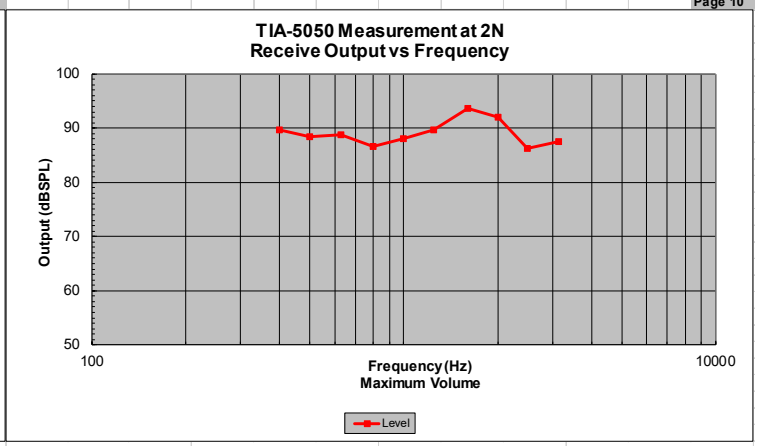


Test Date
9/18/2024 11:22

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

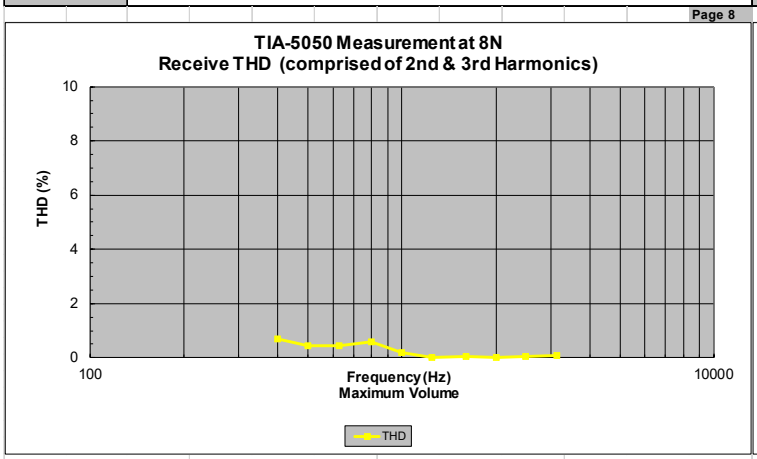


Test Date
9/18/2024 11:22

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

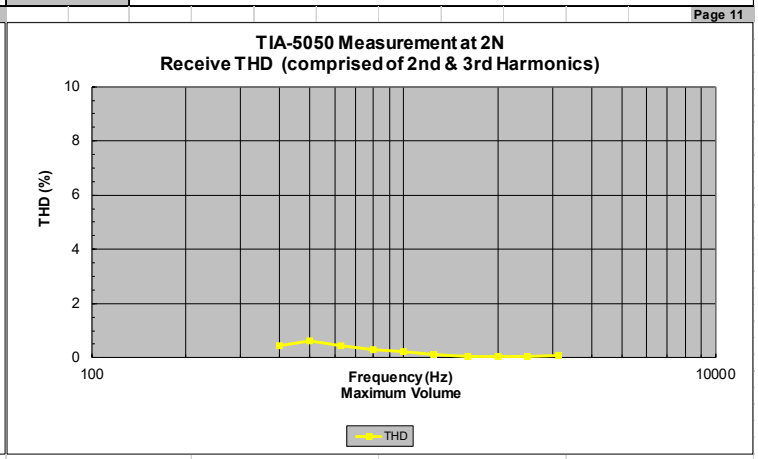


Test Date
9/18/2024 11:22

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/18/2024 11:22

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 7 EVS-NB: 9.6 kbps 100,0 RB 64QAM

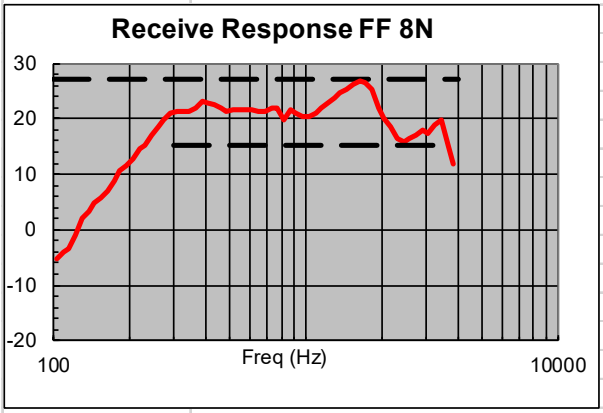
Conversational Gain & Frequency Response Report

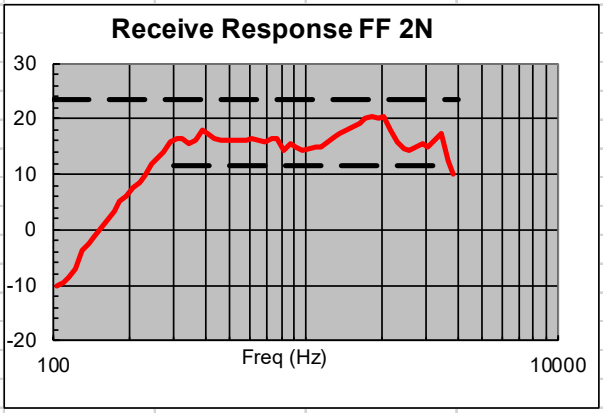
TIA-5050 Receive Volume Control Measurements

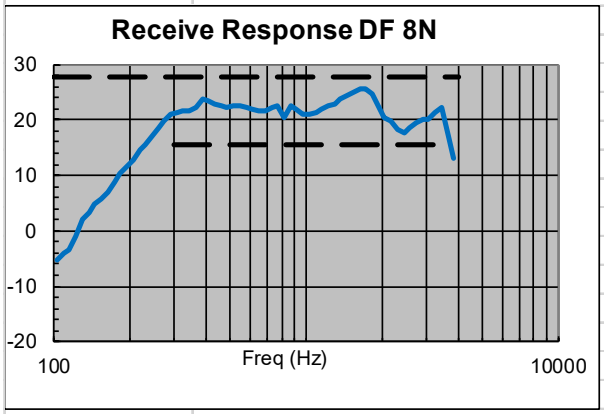
Device Under Test:	LTE B7 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

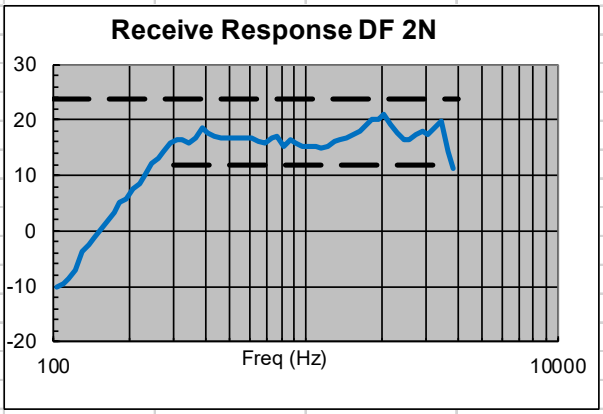
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.44 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.04 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.88 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.02 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.64 dB	info only		
	Recv conversational gain 8N	22.64 dB	18.00	PASS	
	Recv output level dBSPL 2N	86.98 dB	info only		
	Recv conversational gain 2N	16.98 dB	6.00	PASS	

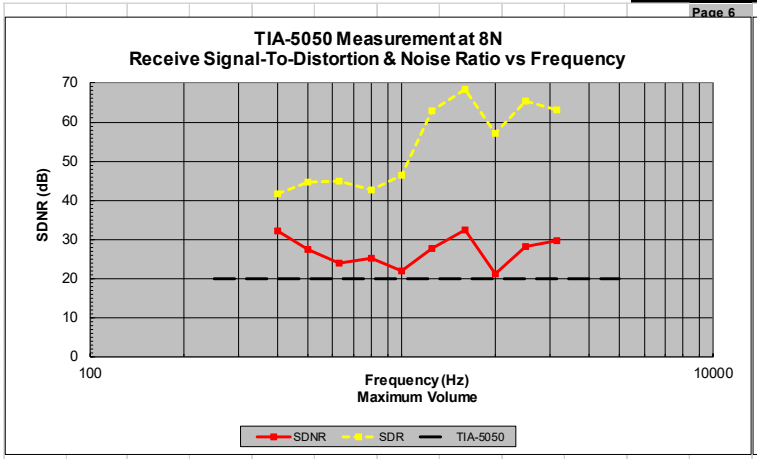
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.3 dB	Absolute Limits	PASS	

LTE Band 7 EVS-NB: 9.6 kbps 100,0 RB 64QAM

Distortion Report

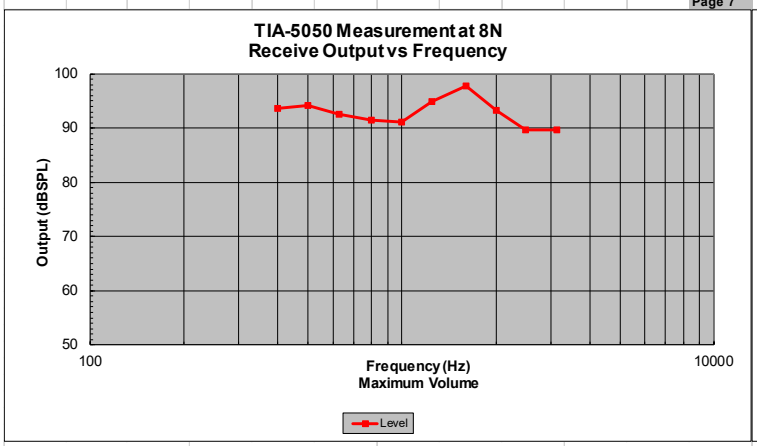
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1.2 dB	Absolute Limits	PASS	9/18/2024 11:53	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

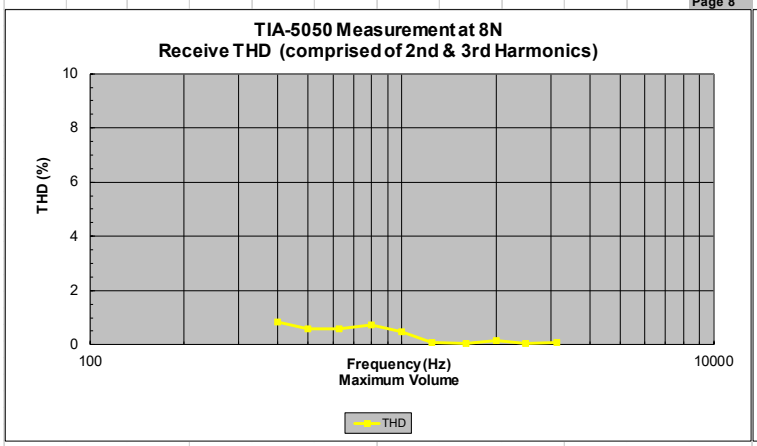
Page 7



Test Date	
9/18/2024 11:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

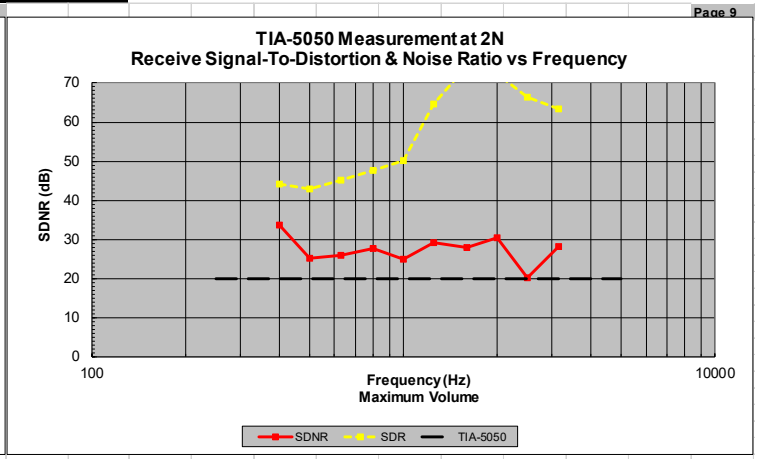
Page 8



Test Date	
9/18/2024 11:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

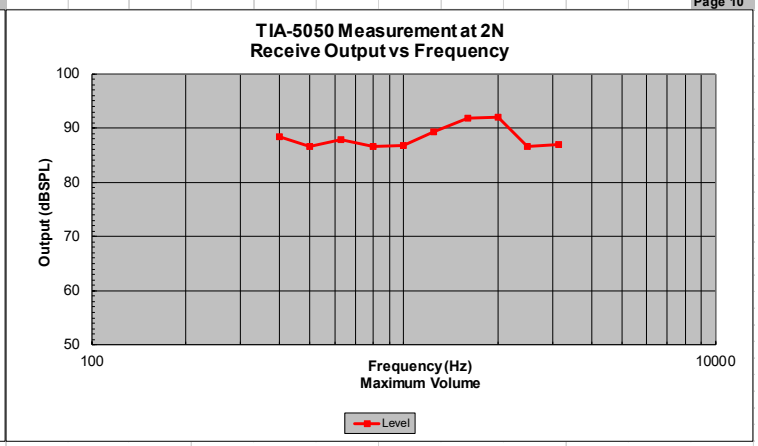
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.3 dB	Absolute Limits	PASS	9/18/2024 11:53	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

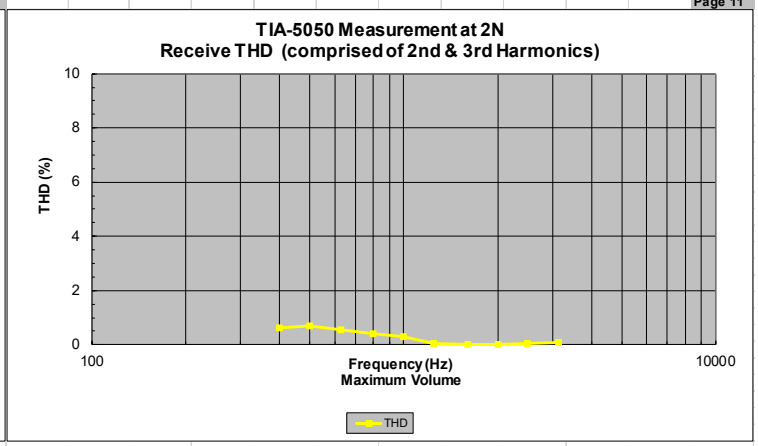
Page 10



Test Date	
9/18/2024 11:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 11:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 12 EVS-NB: 9.6 kbps 50,0 RB 64QAM

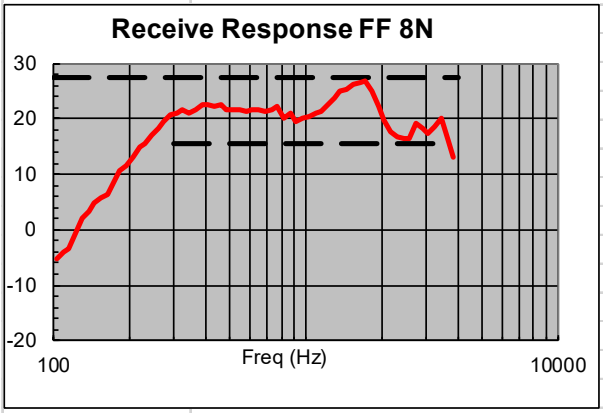
Conversational Gain & Frequency Response Report

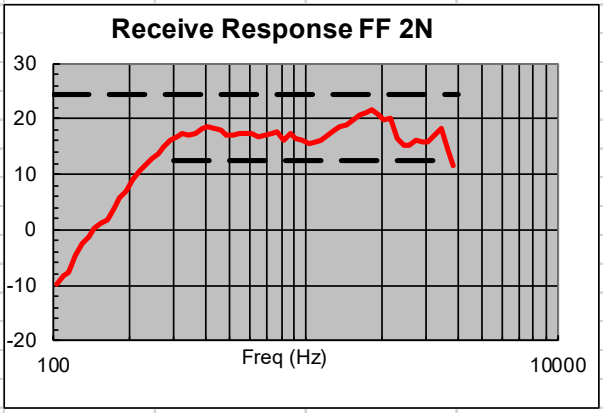
TIA-5050 Receive Volume Control Measurements

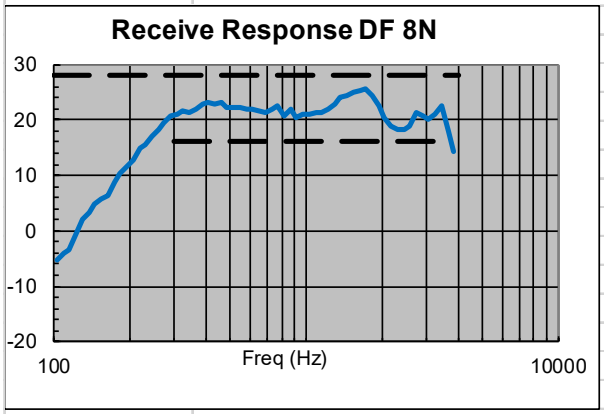
Device Under Test:	LTE B12 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

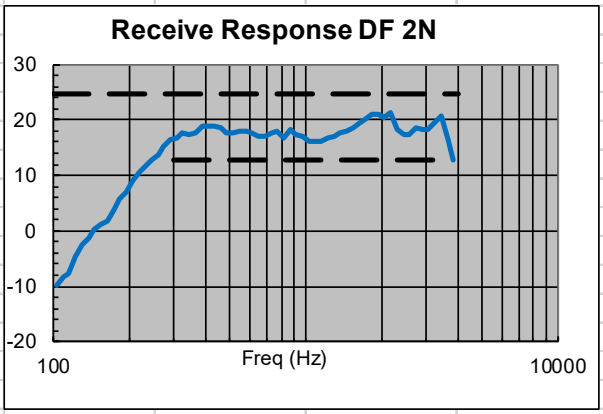
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.87 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.34 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.75 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.38 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.52 dB	info only		
	Recv conversational gain 8N	22.52 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.12 dB	info only		
	Recv conversational gain 2N	18.12 dB	6.00	PASS	

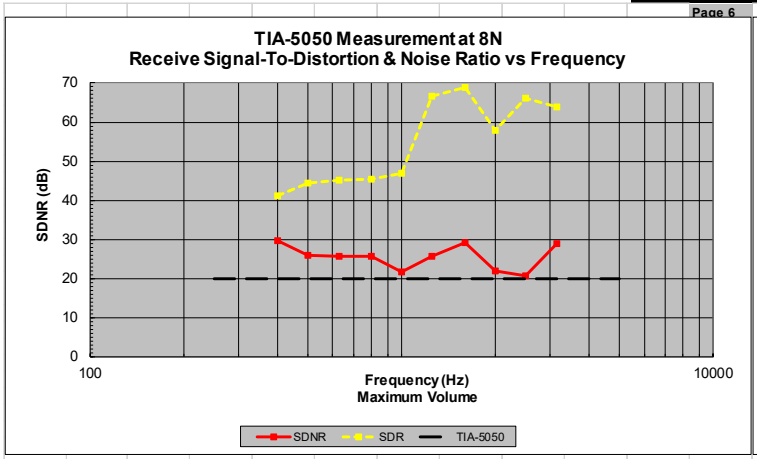
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.8 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.9 dB	Absolute Limits	PASS	

LTE Band 12 EVS-NB: 9.6 kbps 50,0 RB 64QAM

Distortion Report

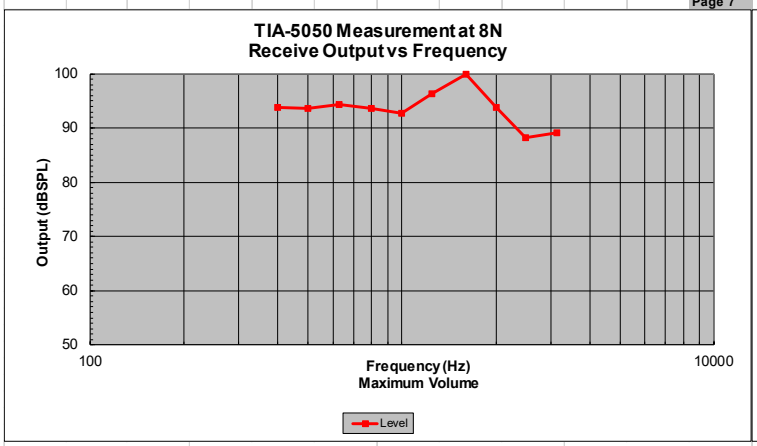
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.8 dB	Absolute Limits	PASS	9/18/2024 12:05	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

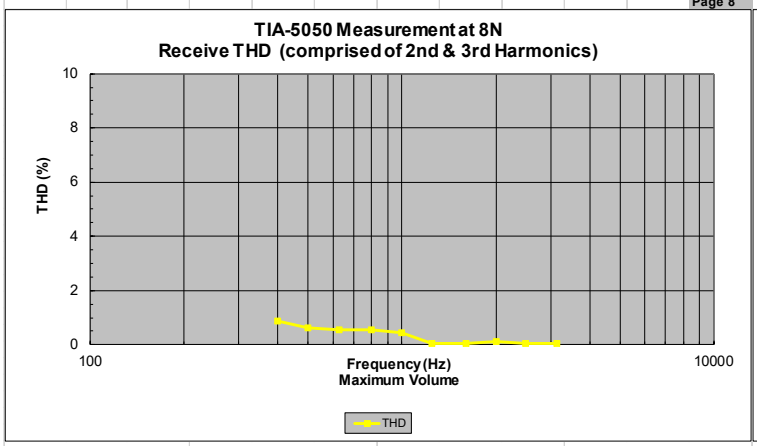
Page 7



Test Date	
9/18/2024 12:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

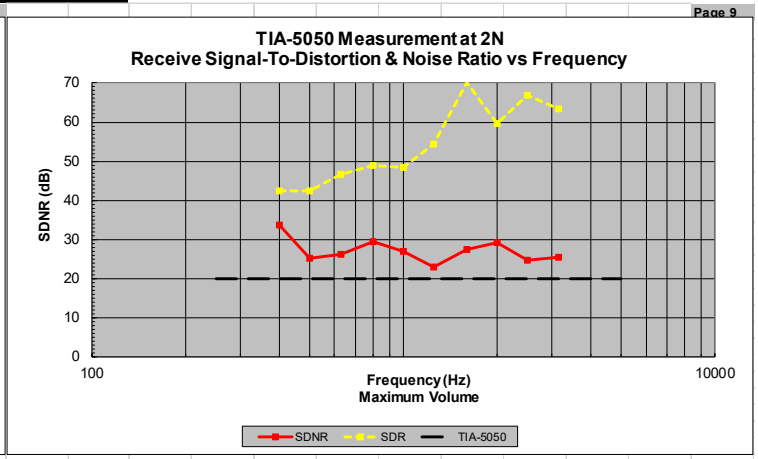
Page 8



Test Date	
9/18/2024 12:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

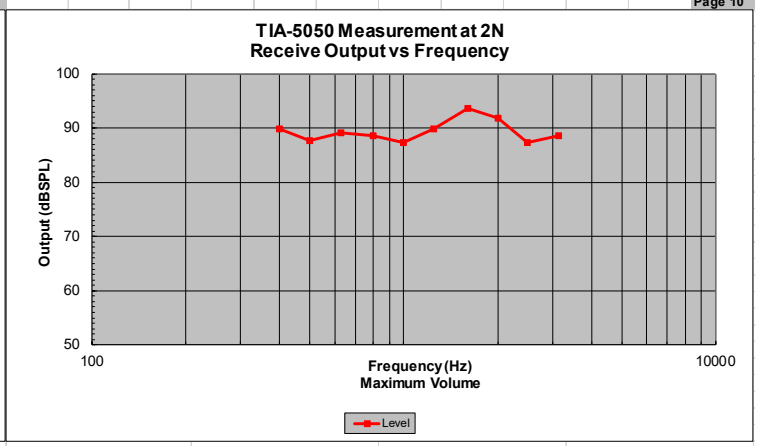
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	2.9 dB	Absolute Limits	PASS	9/18/2024 12:05	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

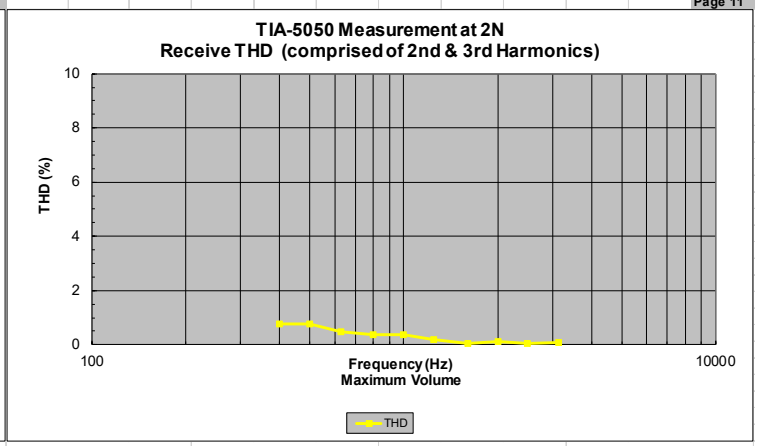
Page 10



Test Date	
9/18/2024 12:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 12:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 13 EVS-NB: 9.6 kbps 50,0 RB 64QAM

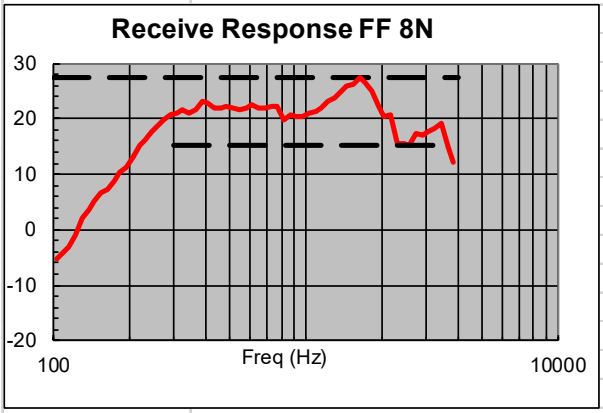
Conversational Gain & Frequency Response Report

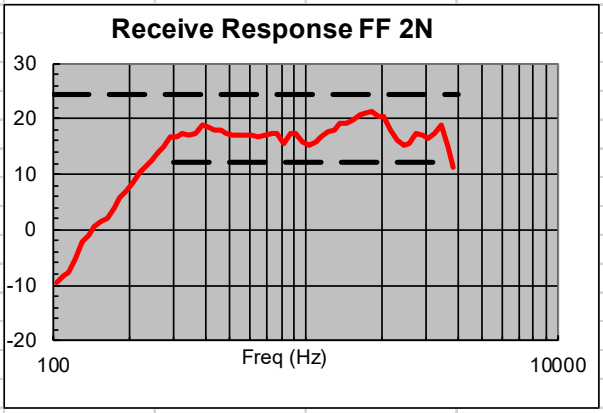
TIA-5050 Receive Volume Control Measurements

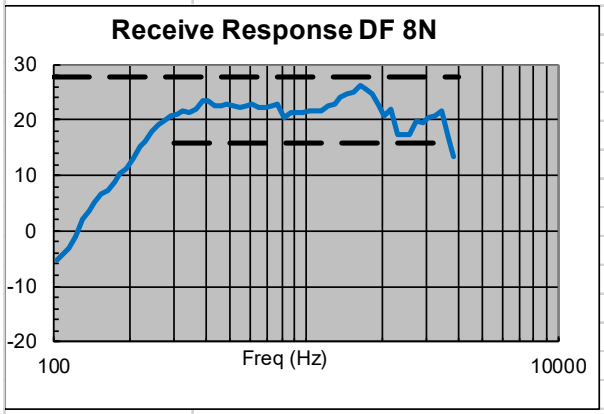
Device Under Test:	LTE B13 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

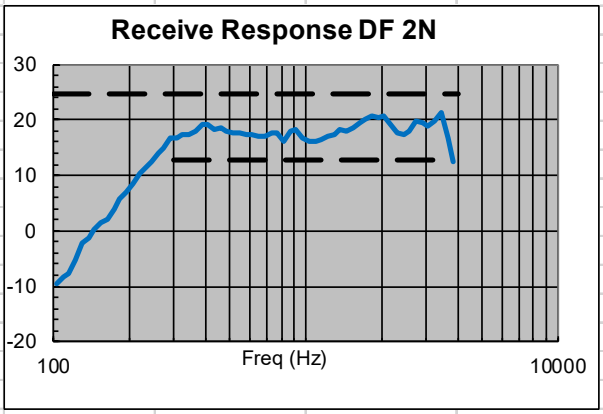
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.08 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.59 dB	Floating Limits	PASS	
	Recv resp FF 2N	3.02 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.37 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.77 dB	info only		
	Recv conversational gain 8N	22.77 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.08 dB	info only		
	Recv conversational gain 2N	18.08 dB	6.00	PASS	

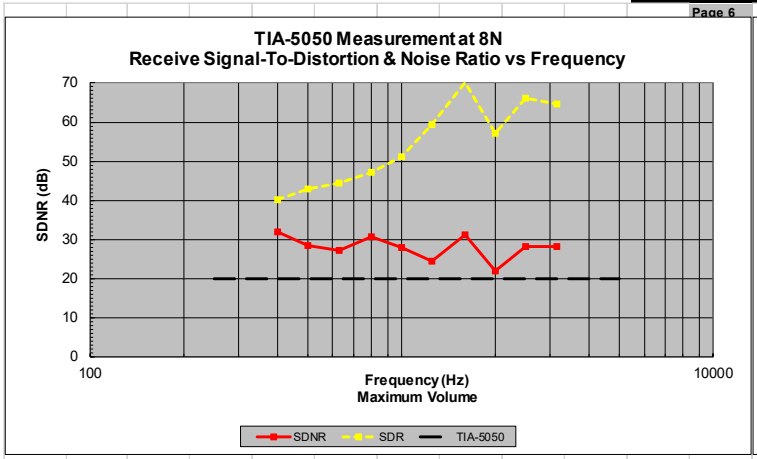
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	3.14 dB	Absolute Limits	PASS	

LTE Band 13 EVS-NB: 9.6 kbps 50,0 RB 64QAM

Distortion Report

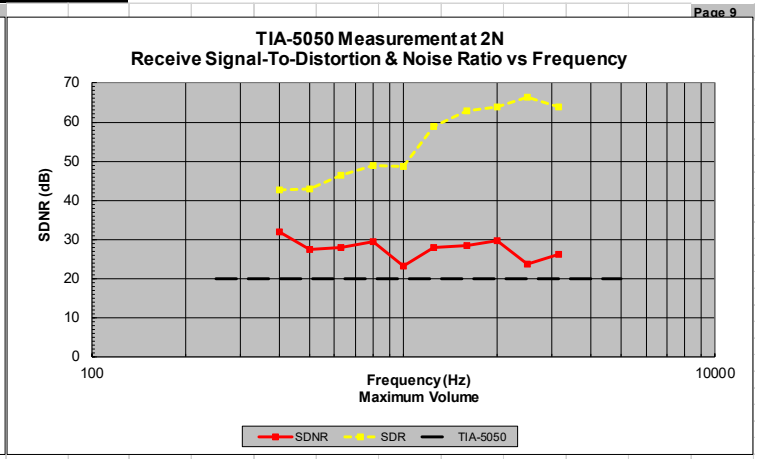
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	2 dB	Absolute Limits	PASS	9/18/2024 12:53	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

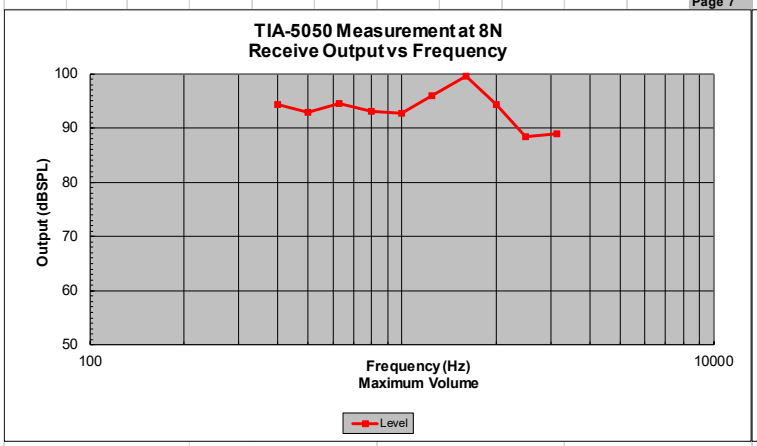
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	3.14 dB	Absolute Limits	PASS	9/18/2024 12:53	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

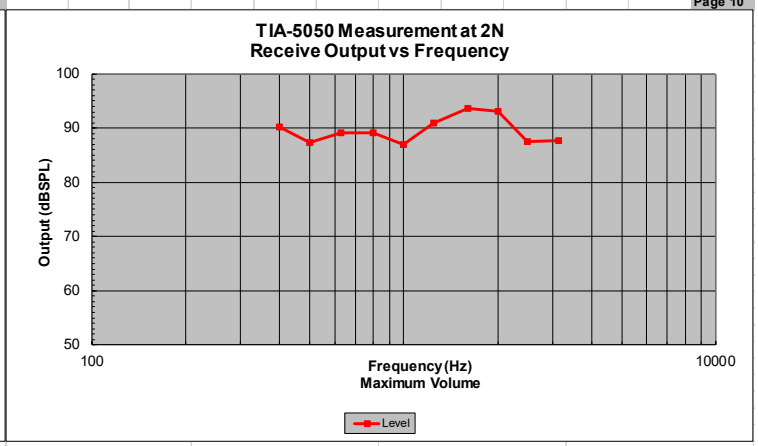
Page 7



Test Date	
9/18/2024 12:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

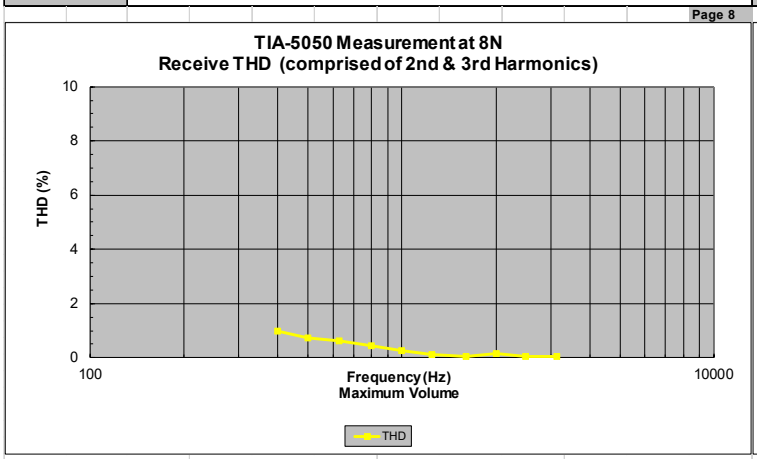
Page 10



Test Date	
9/18/2024 12:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

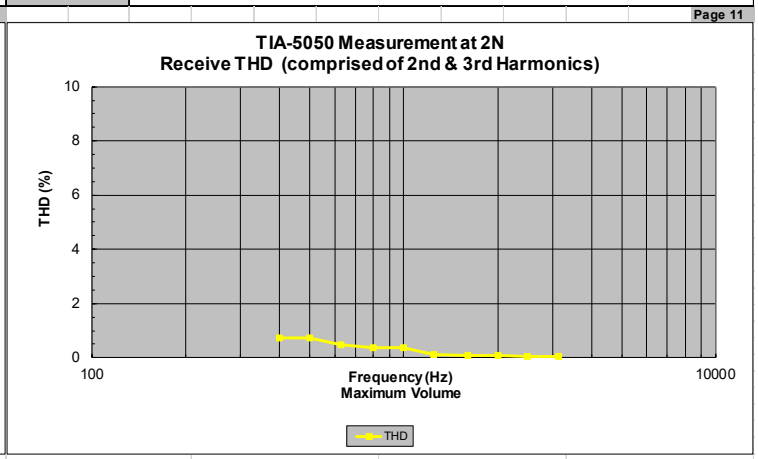
Page 8



Test Date	
9/18/2024 12:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 12:53	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 14 EVS-NB: 9.6 kbps 50,0 RB 64QAM

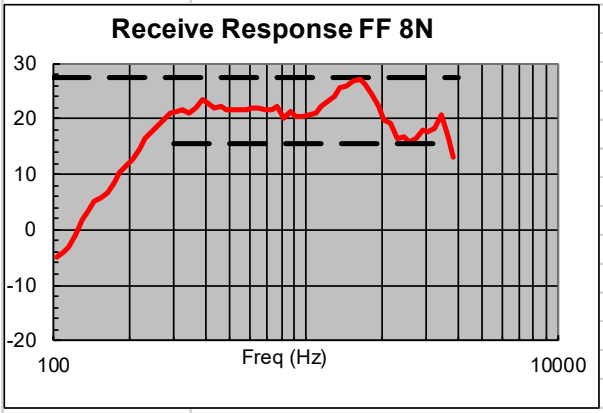
Conversational Gain & Frequency Response Report

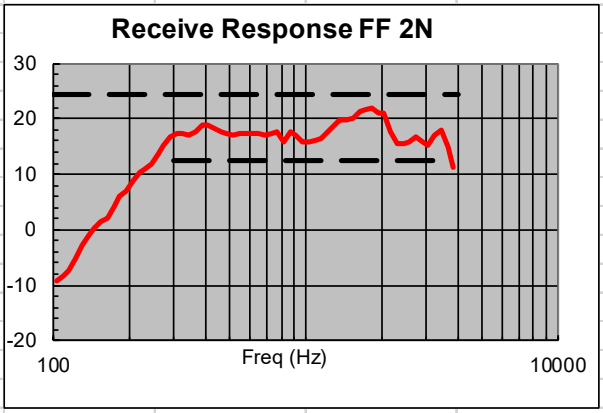
TIA-5050 Receive Volume Control Measurements

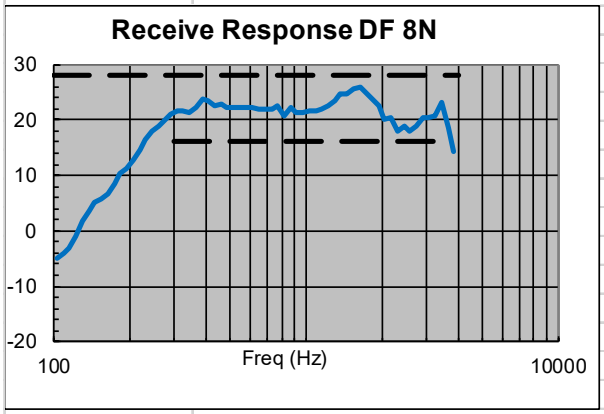
Device Under Test:	LTE B14 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

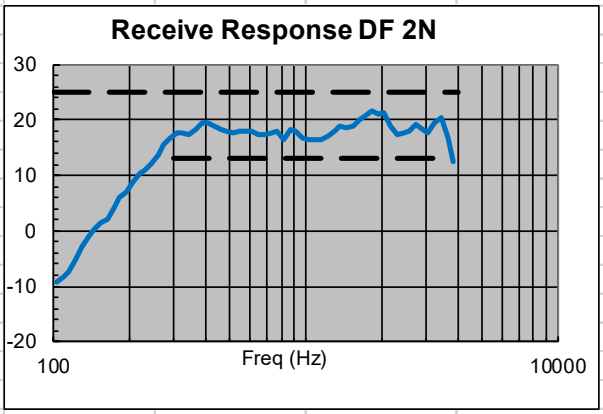
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.29 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.04 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.56 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.41 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.73 dB	info only		
	Recv conversational gain 8N	22.73 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.31 dB	info only		
	Recv conversational gain 2N	18.31 dB	6.00	PASS	

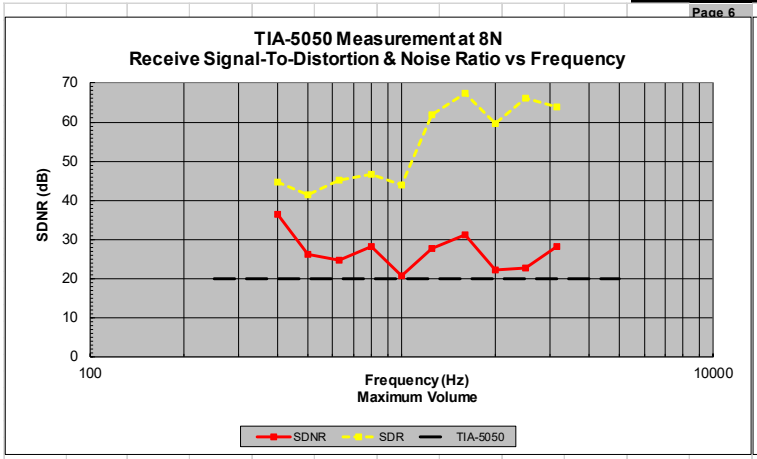
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.6 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.7 dB	Absolute Limits	PASS	

LTE Band 14 EVS-NB: 9.6 kbps 50,0 RB 64QAM

Distortion Report

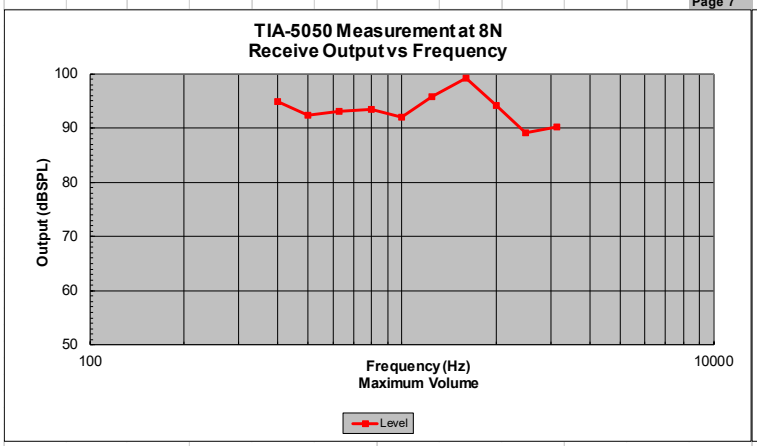
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.6 dB	Absolute Limits	PASS	9/18/2024 13:07	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

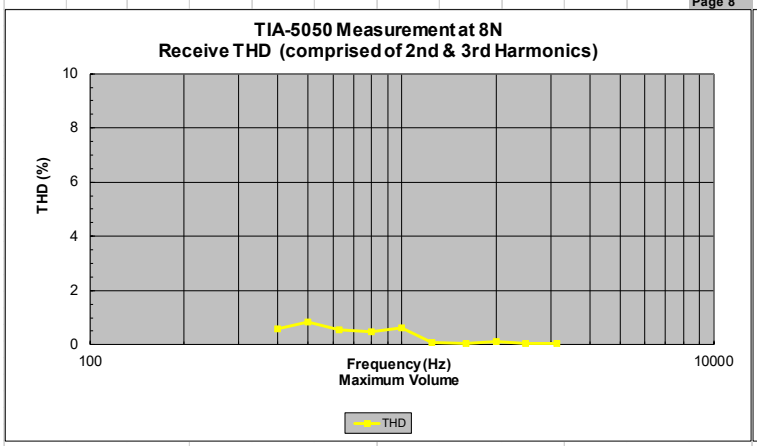
Page 7



Test Date	
9/18/2024 13:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

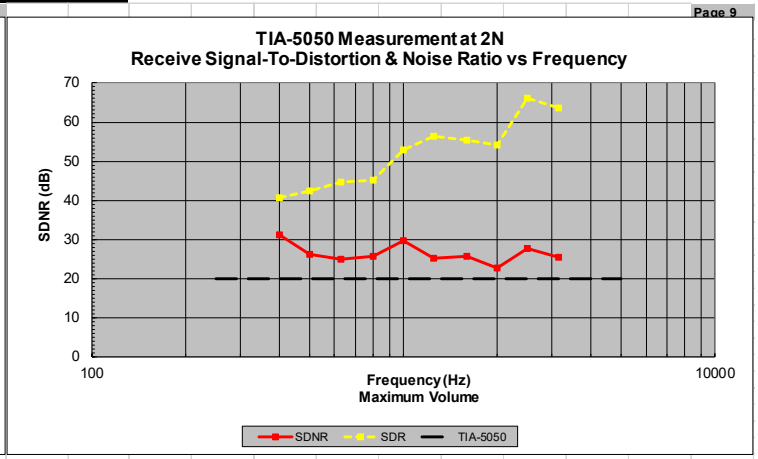
Page 8



Test Date	
9/18/2024 13:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

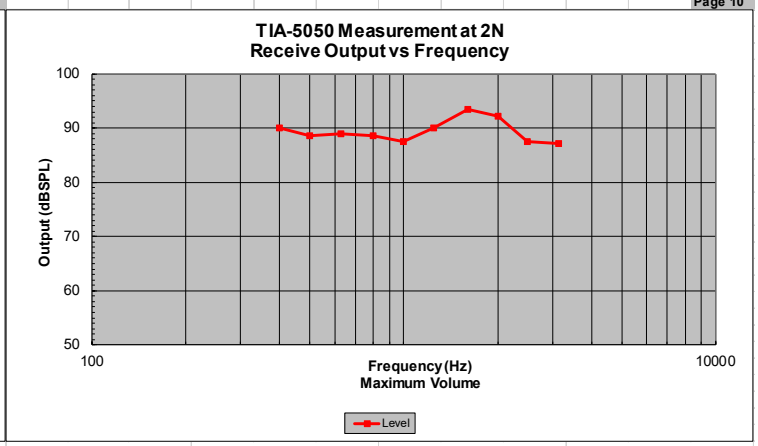
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	2.7 dB	Absolute Limits	PASS	9/18/2024 13:07	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

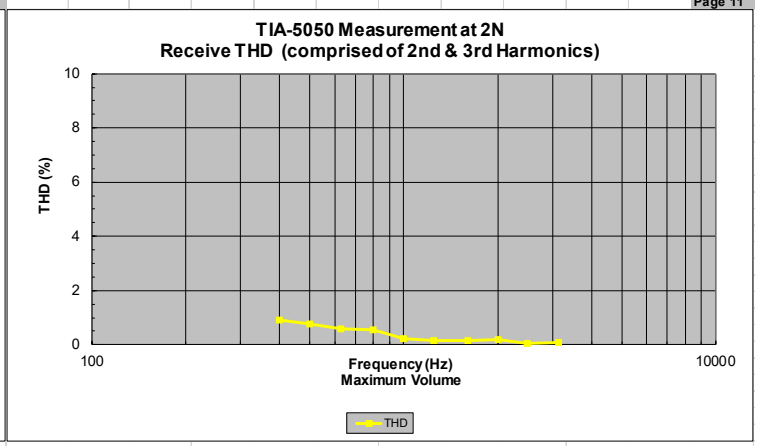
Page 10



Test Date	
9/18/2024 13:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 13:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 26 EVS-NB: 9.6 kbps 75,0 RB 64QAM

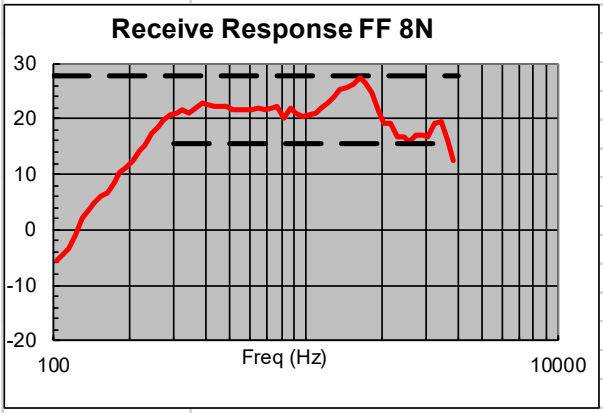
Conversational Gain & Frequency Response Report

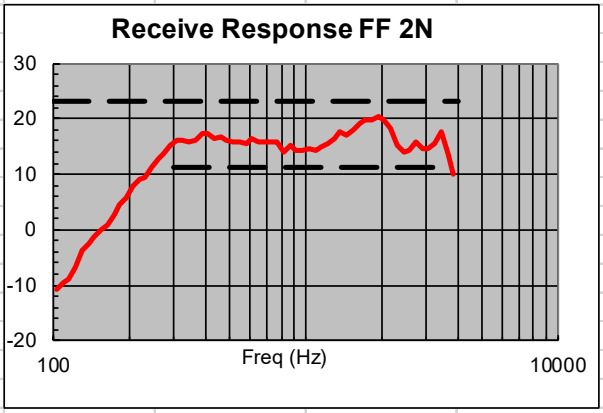
TIA-5050 Receive Volume Control Measurements

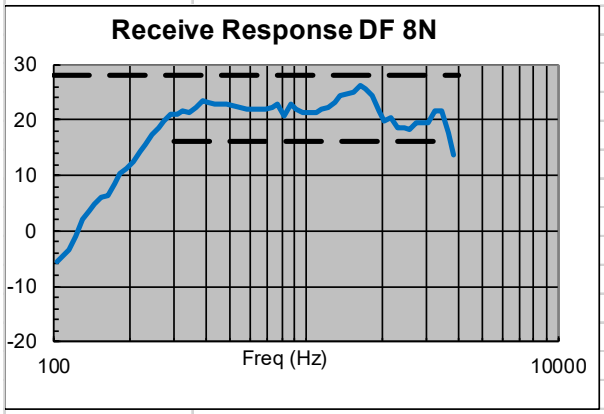
Device Under Test:	LTE B26 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

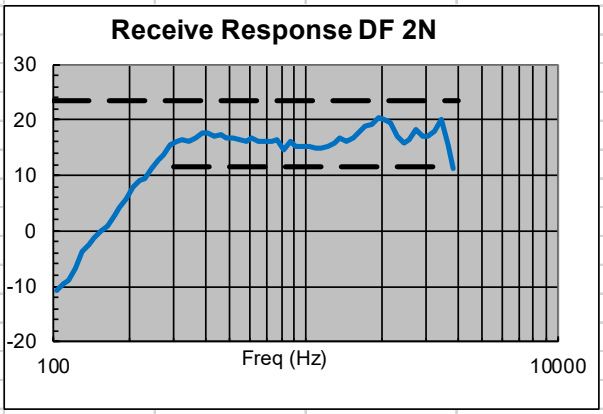
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.3 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.05 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.79 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.07 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.69 dB	info only		
	Recv conversational gain 8N	22.69 dB	18.00	PASS	
	Recv output level dBSPL 2N	86.81 dB	info only		
	Recv conversational gain 2N	16.81 dB	6.00	PASS	

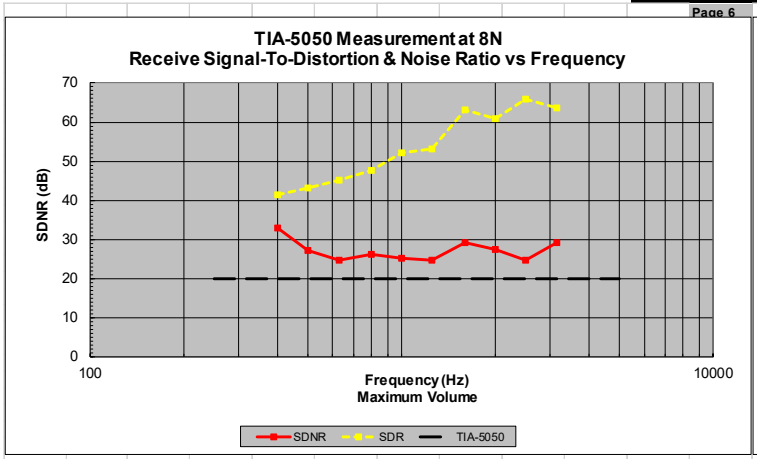
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	4.7 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.63 dB	Absolute Limits	PASS	

LTE Band 26 EVS-NB: 9.6 kbps 75,0 RB 64QAM

Distortion Report

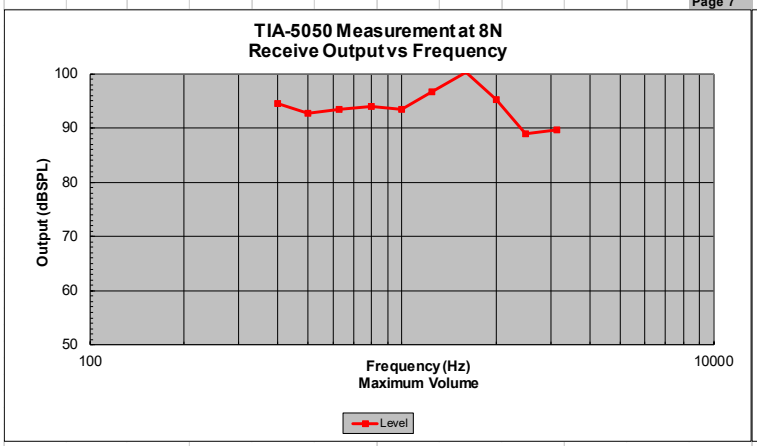
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	4.7 dB	Absolute Limits	PASS	9/18/2024 13:41	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

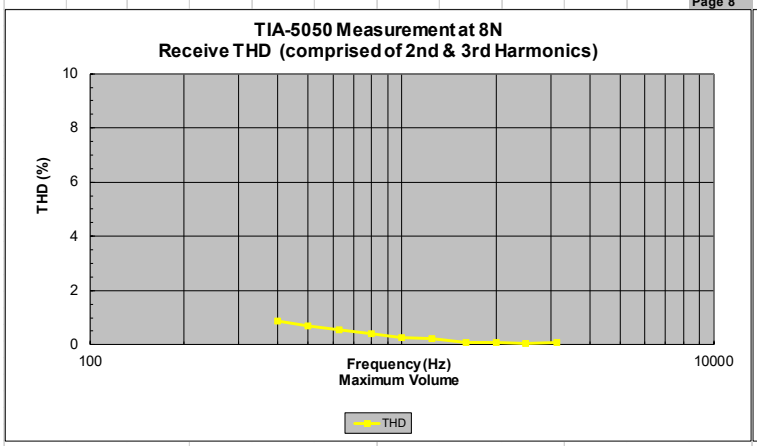
Page 7



Test Date	
9/18/2024 13:41	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

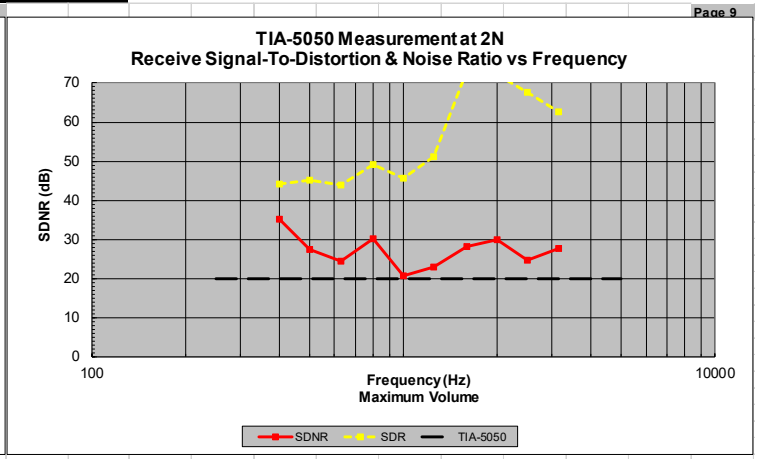
Page 8



Test Date	
9/18/2024 13:41	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

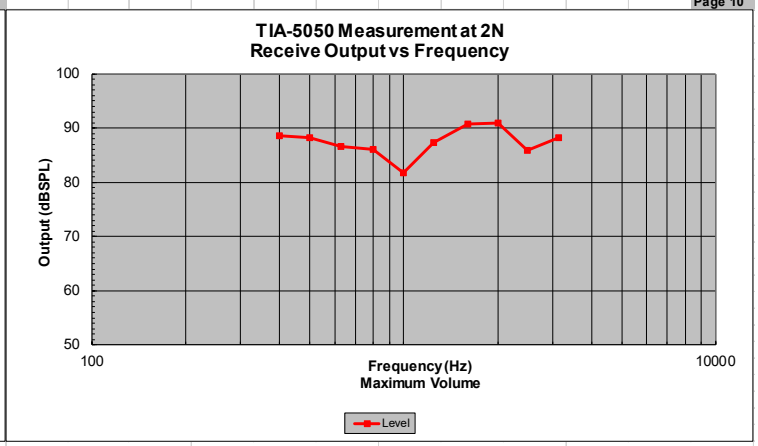
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.63 dB	Absolute Limits	PASS	9/18/2024 13:41	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

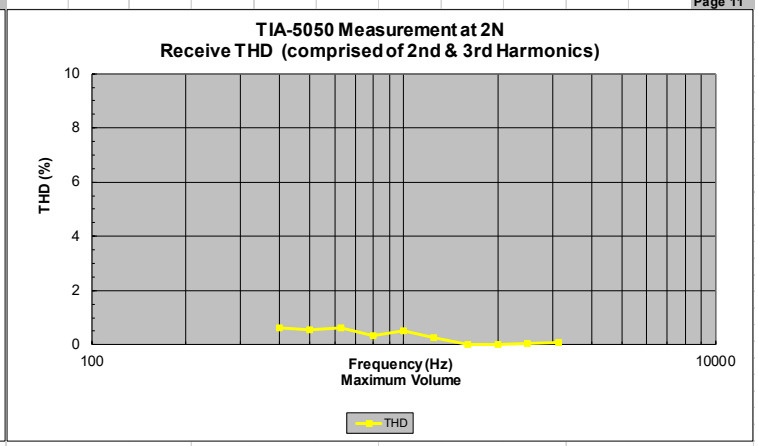
Page 10



Test Date	
9/18/2024 13:41	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 13:41	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 30 EVS-NB: 9.6 kbps 50,0 RB 64QAM

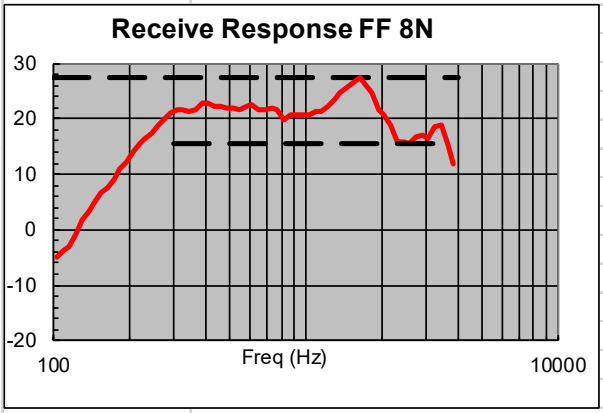
Conversational Gain & Frequency Response Report

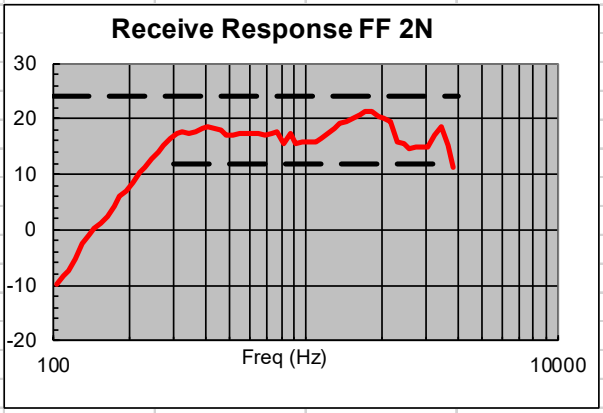
TIA-5050 Receive Volume Control Measurements

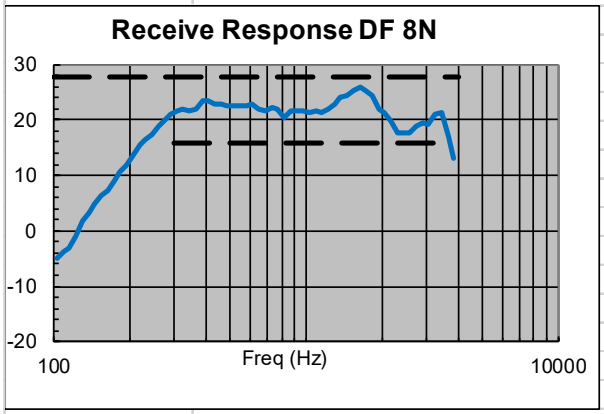
Device Under Test:	LTE B30 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

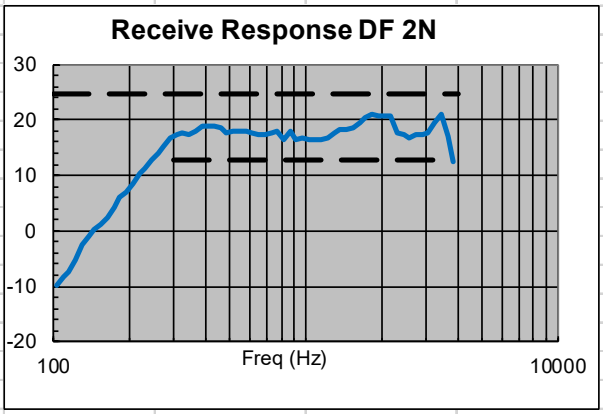
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.12 dB	Floating Limits	PASS	
	Recv resp DF 8N	1.74 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.52 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.65 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.79 dB	info only		
	Recv conversational gain 8N	22.79 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.2 dB	info only		
	Recv conversational gain 2N	18.2 dB	6.00	PASS	

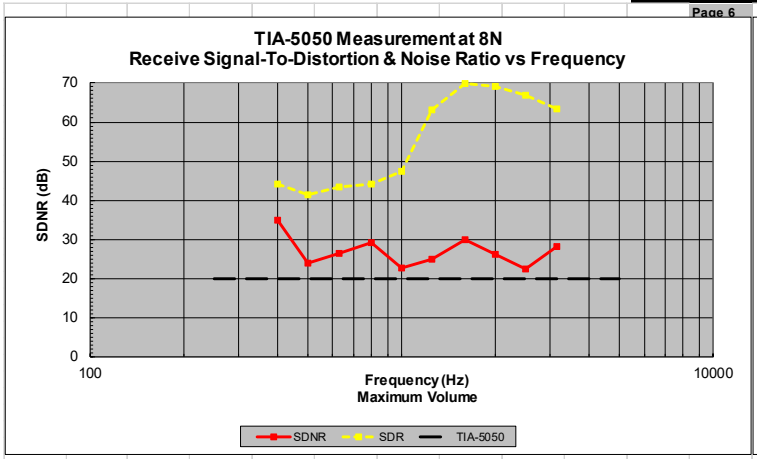
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	2.5 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.52 dB	Absolute Limits	PASS	

LTE Band 30 EVS-NB: 9.6 kbps 50,0 RB 64QAM

Distortion Report

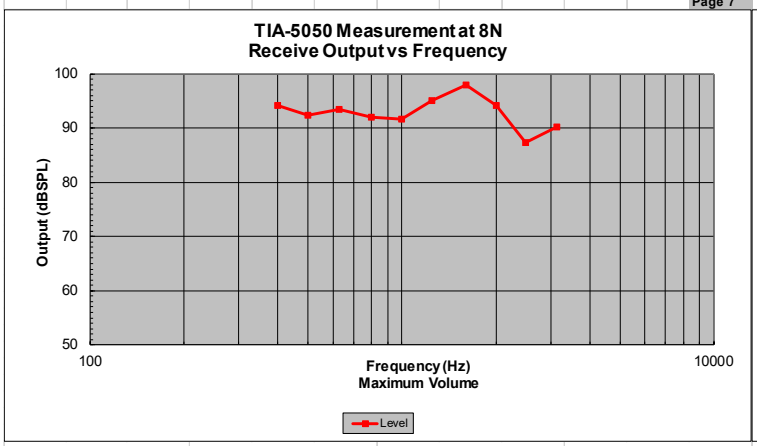
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	2.5 dB	Absolute Limits	PASS	9/18/2024 13:51	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

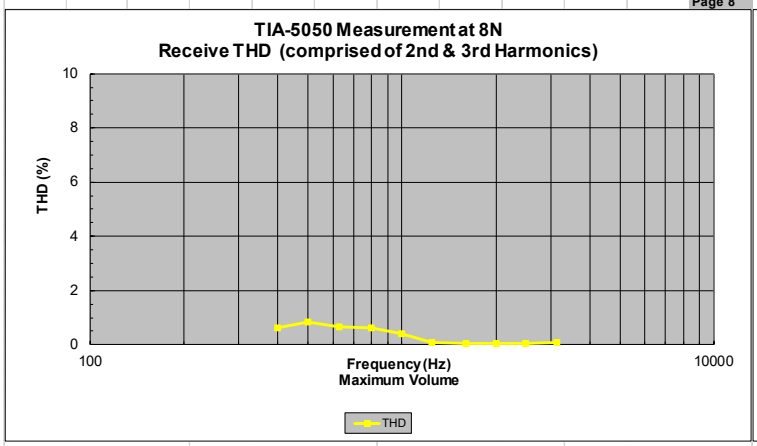
Page 7



Test Date	
9/18/2024 13:51	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

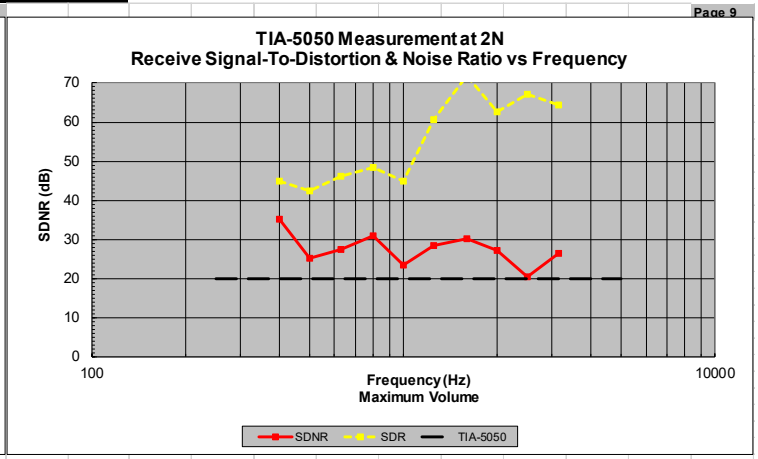
Page 8



Test Date	
9/18/2024 13:51	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

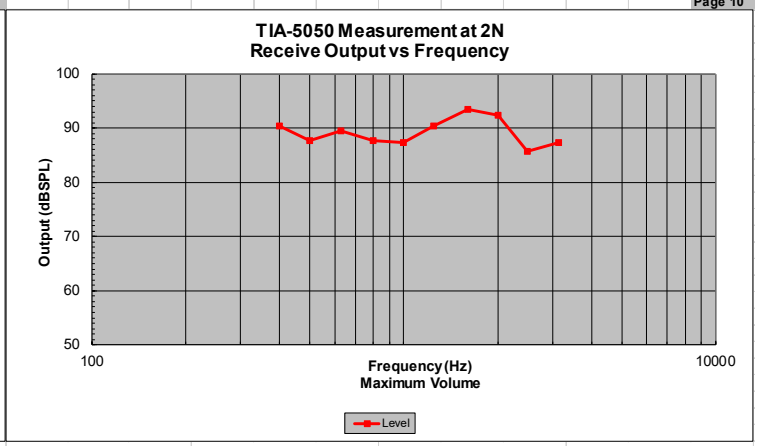
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.52 dB	Absolute Limits	PASS	9/18/2024 13:51	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

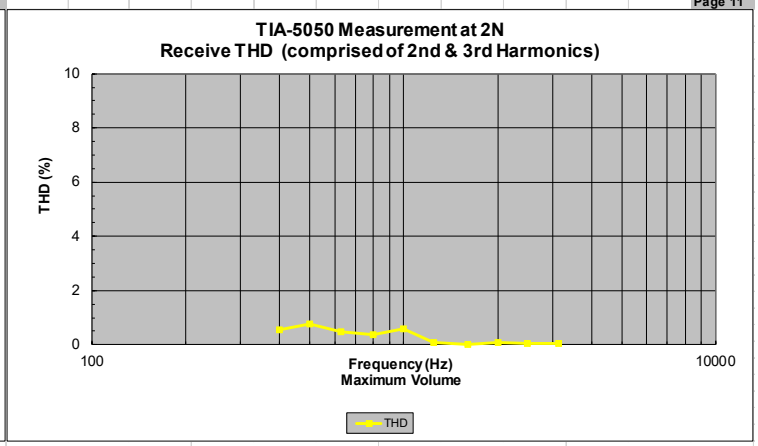
Page 10



Test Date	
9/18/2024 13:51	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 13:51	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 41 PC3 EVS-NB: 9.6 kbps 100,0 RB 64QAM

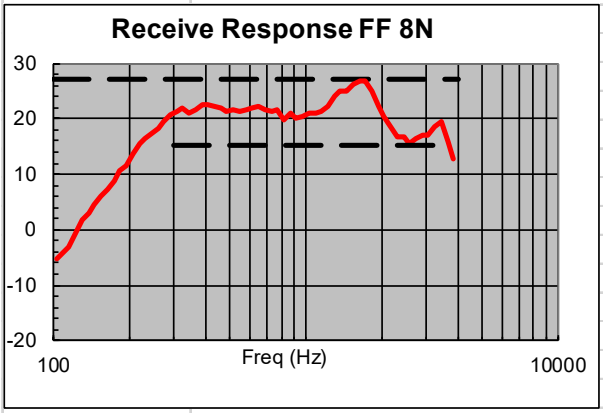
Conversational Gain & Frequency Response Report

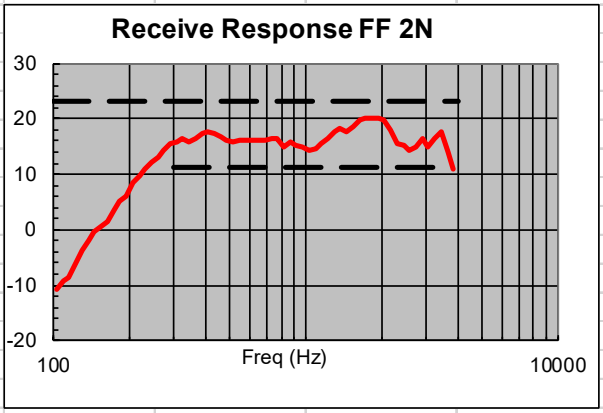
TIA-5050 Receive Volume Control Measurements

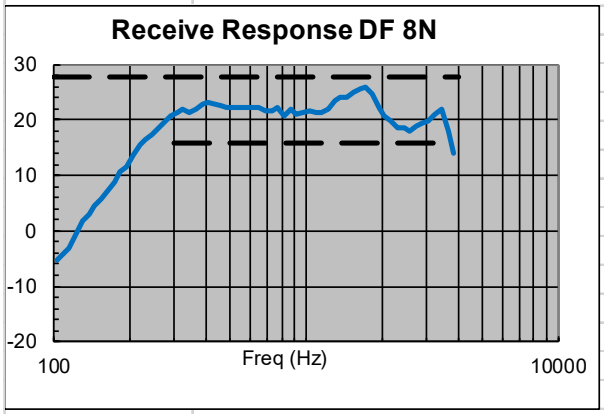
Device Under Test:	LTE B41 PC3 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

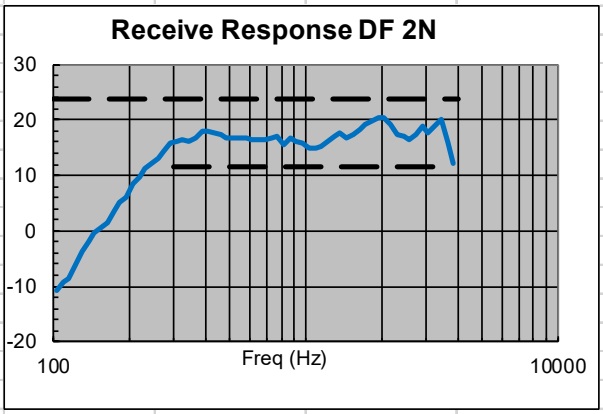
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.35 dB	Floating Limits	PASS	
	Recv resp DF 8N	1.97 dB	Floating Limits	PASS	
	Recv resp FF 2N	3.01 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.32 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.59 dB	info only		
	Recv conversational gain 8N	22.59 dB	18.00	PASS	
	Recv output level dBSPL 2N	87.14 dB	info only		
	Recv conversational gain 2N	17.14 dB	6.00	PASS	

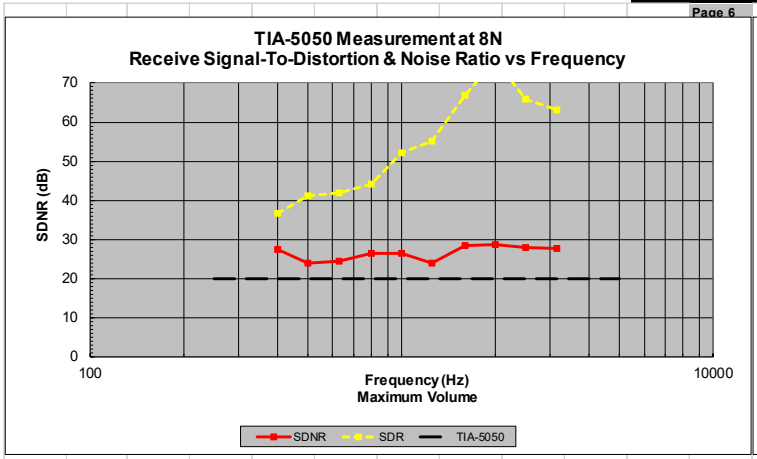
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	3.9 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	1.77 dB	Absolute Limits	PASS	

LTE Band 41 PC3 EVS-NB: 9.6 kbps 100,0 RB 64 QAM

Distortion Report

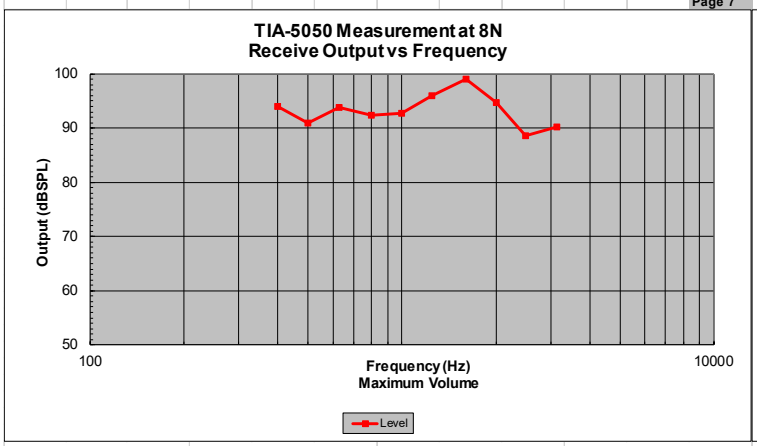
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	3.9 dB	Absolute Limits	PASS	9/18/2024 14:29	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

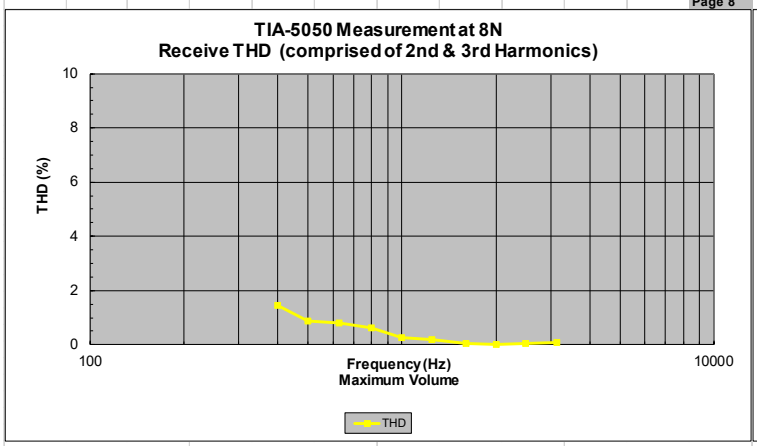
Page 7



Test Date	
9/18/2024 14:29	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

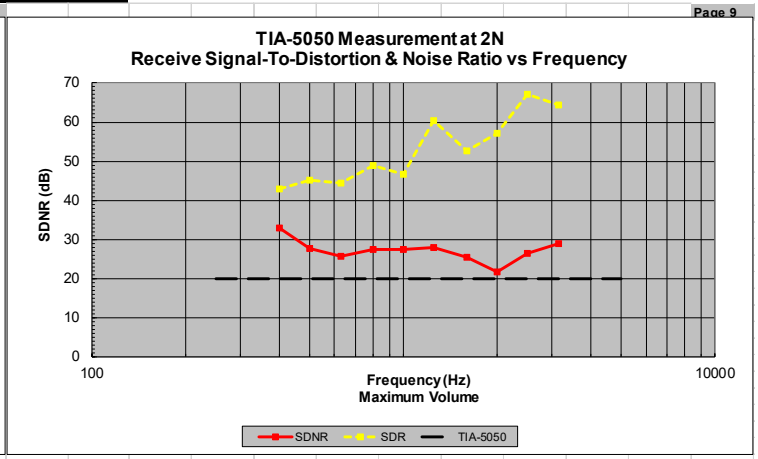
Page 8



Test Date	
9/18/2024 14:29	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

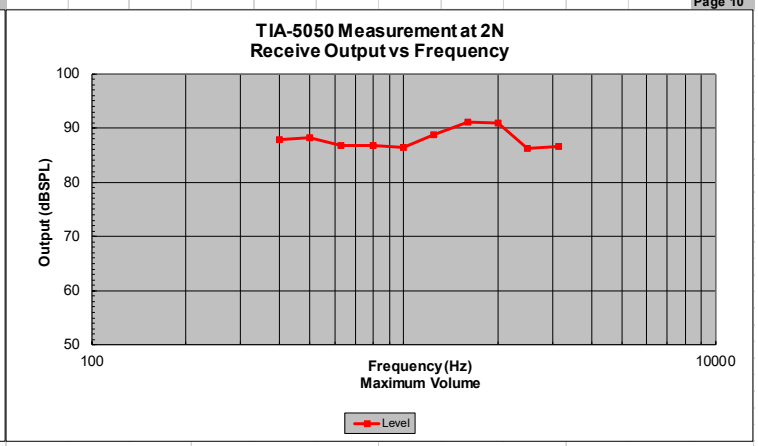
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	1.77 dB	Absolute Limits	PASS	9/18/2024 14:29	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

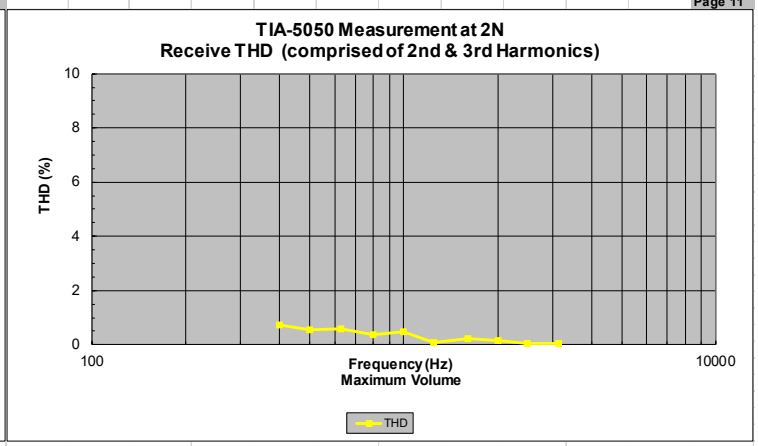
Page 10



Test Date	
9/18/2024 14:29	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 14:29	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 41 PC2 EVS-NB: 9.6 kbps 100,0 RB 64QAM

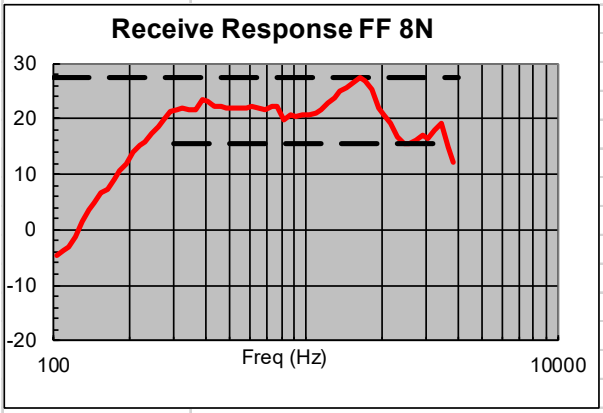
Conversational Gain & Frequency Response Report

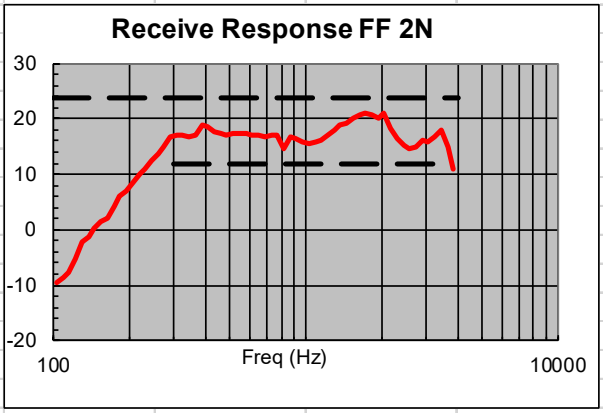
TIA-5050 Receive Volume Control Measurements

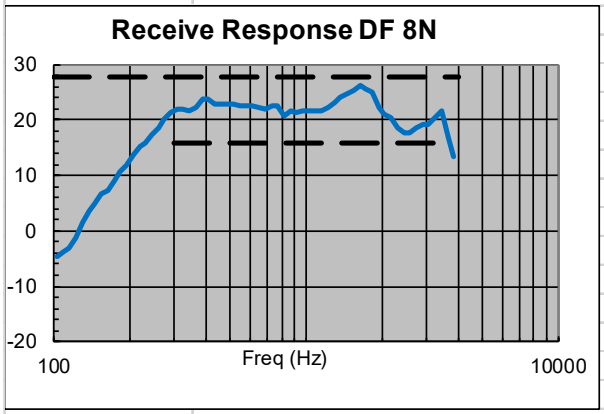
Device Under Test:	LTE B41 PC2 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

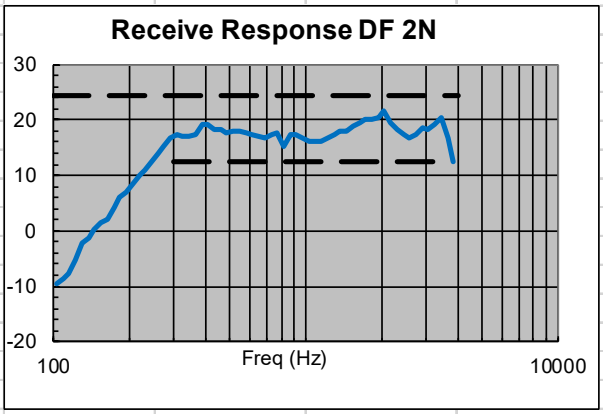
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.11 dB	Floating Limits	PASS	
	Recv resp DF 8N	1.76 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.76 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.91 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.9 dB	info only		
	Recv conversational gain 8N	22.9 dB	18.00	PASS	
	Recv output level dBSPL 2N	87.99 dB	info only		
	Recv conversational gain 2N	17.99 dB	6.00	PASS	

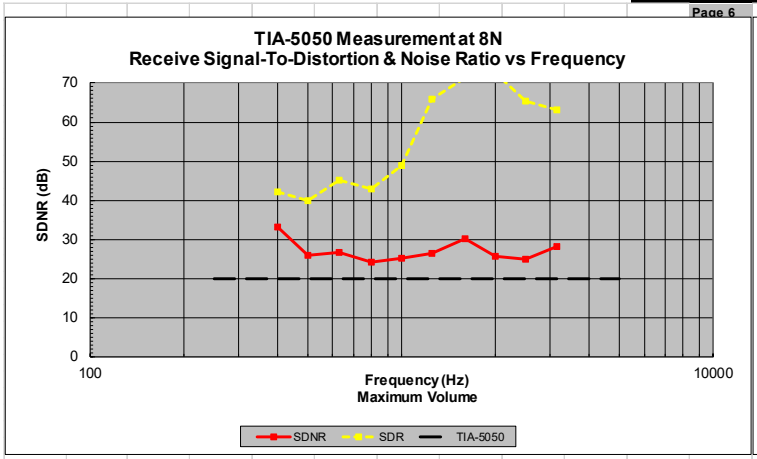
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	4.2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.56 dB	Absolute Limits	PASS	

LTE Band 41 PC2 EVS-NB: 9.6 kbps 100,0 RB 64QAM

Distortion Report

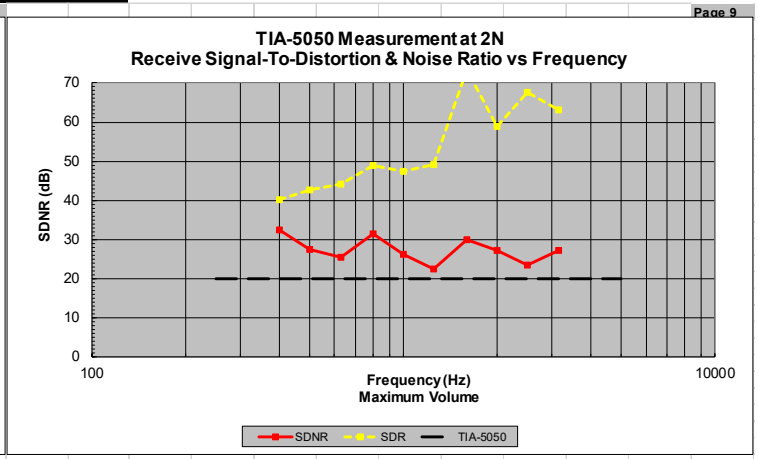
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	4.2 dB	Absolute Limits	PASS	9/18/2024 15:45	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

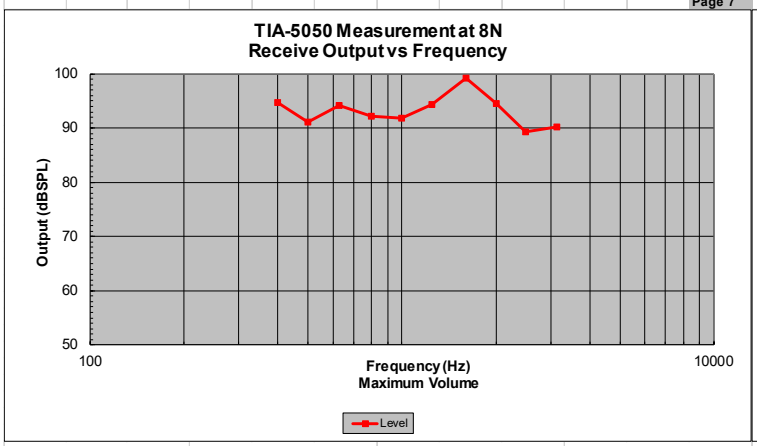
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	2.56 dB	Absolute Limits	PASS	9/18/2024 15:45	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

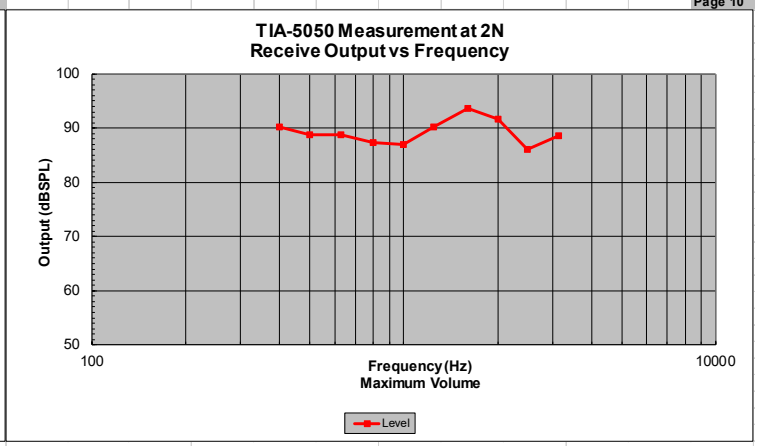
Page 7



Test Date	
9/18/2024 15:45	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

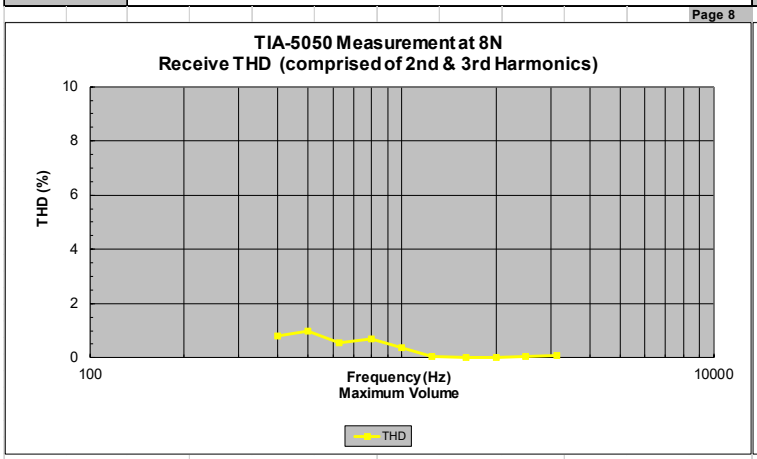
Page 10



Test Date	
9/18/2024 15:45	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

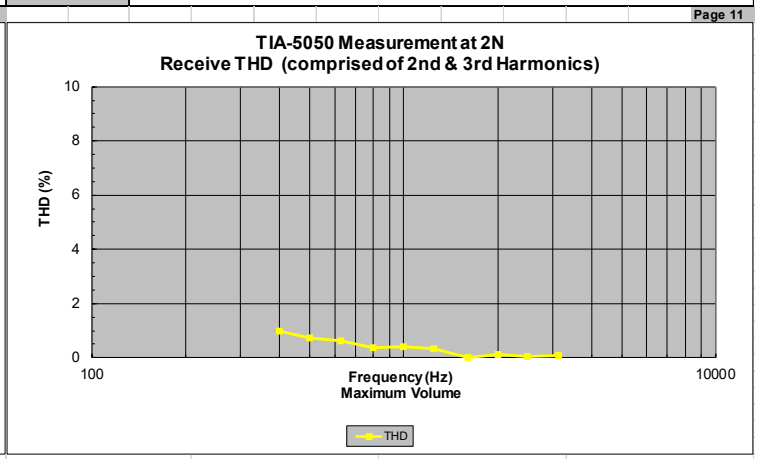
Page 8



Test Date	
9/18/2024 15:45	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 15:45	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 48 PC3 EVS-NB: 9.6 kbps 100,0 RB QPSK

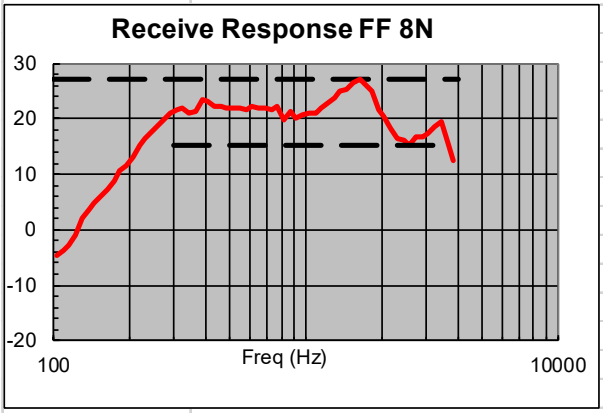
Conversational Gain & Frequency Response Report

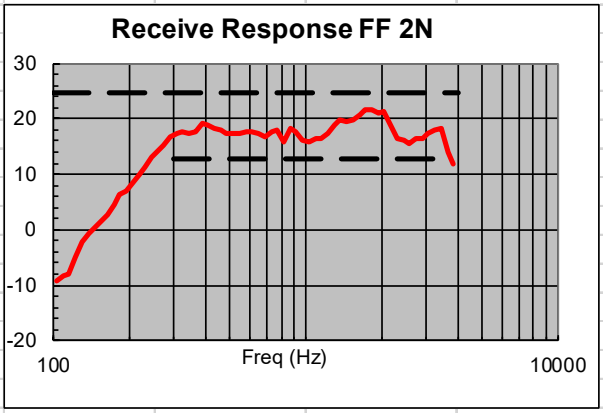
TIA-5050 Receive Volume Control Measurements

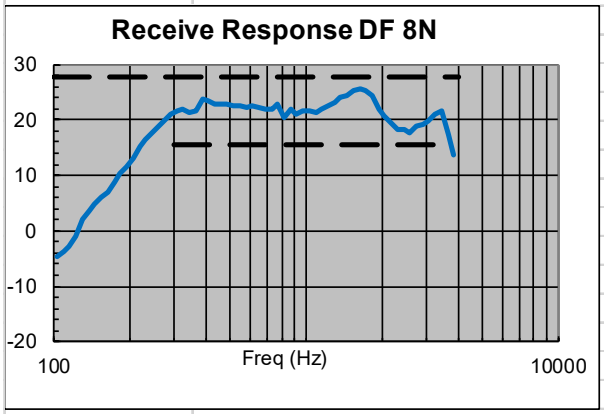
Device Under Test:	LTE B48 PC3 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

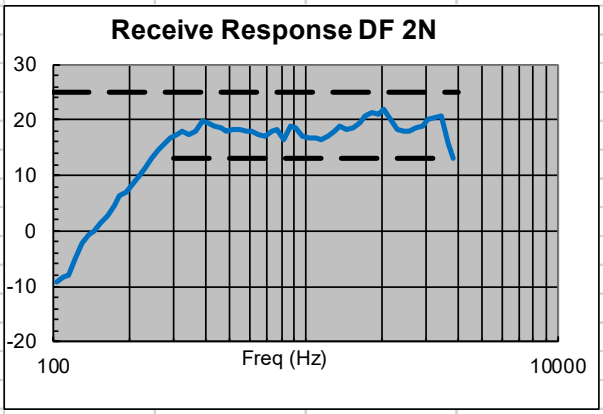
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.14 dB	Floating Limits	PASS	
	Recv resp DF 8N	1.89 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.95 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.3 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.79 dB	info only		
	Recv conversational gain 8N	22.79 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.4 dB	info only		
	Recv conversational gain 2N	18.4 dB	6.00	PASS	

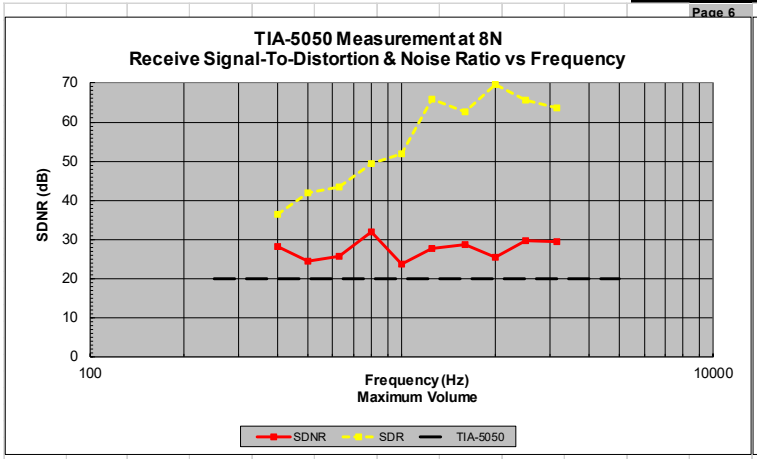
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	3.7 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	4.99 dB	Absolute Limits	PASS	

LTE Band 48 PC3 EVS-NB: 9.6 kbps 100,0 RB QPSK

Distortion Report

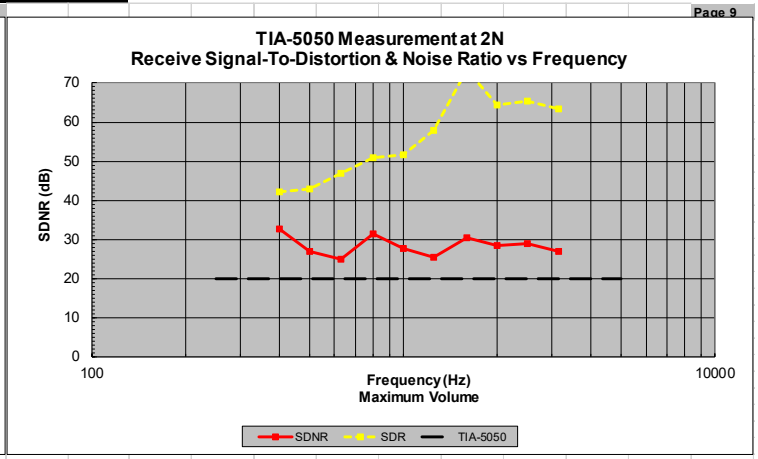
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	3.7 dB	Absolute Limits	PASS	9/18/2024 15:05	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

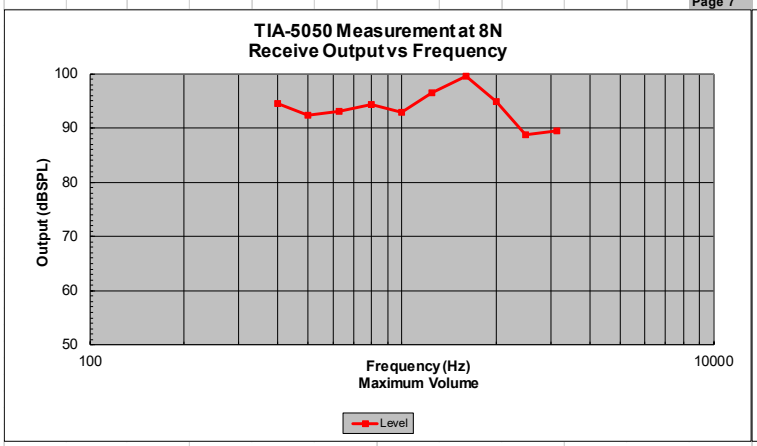
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	4.99 dB	Absolute Limits	PASS	9/18/2024 15:05	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

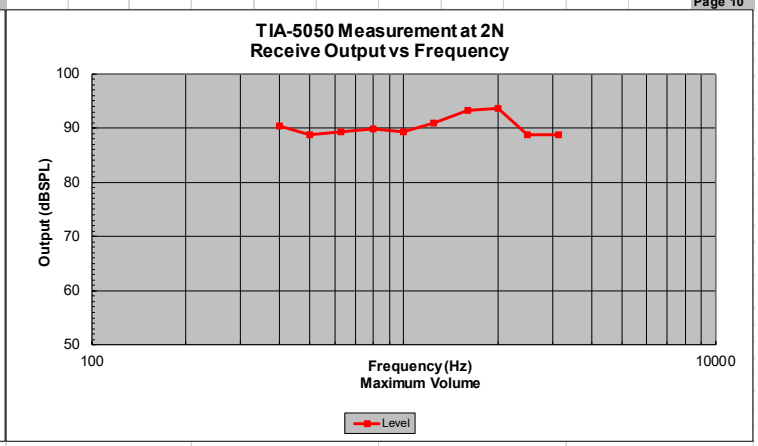
Page 7



Test Date	
9/18/2024 15:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

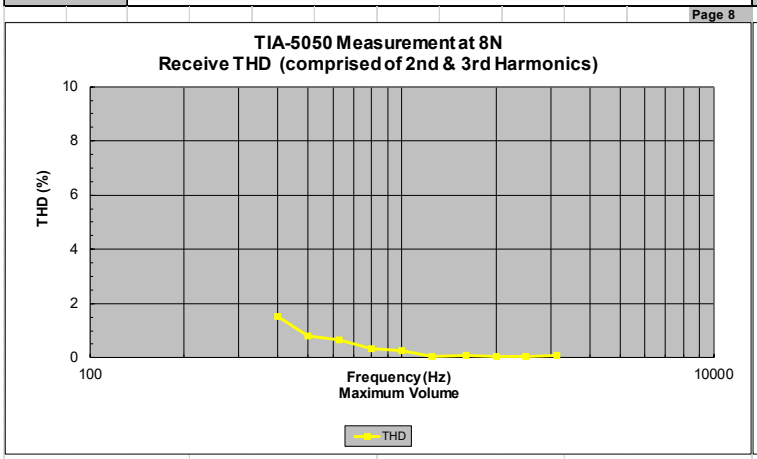
Page 10



Test Date	
9/18/2024 15:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

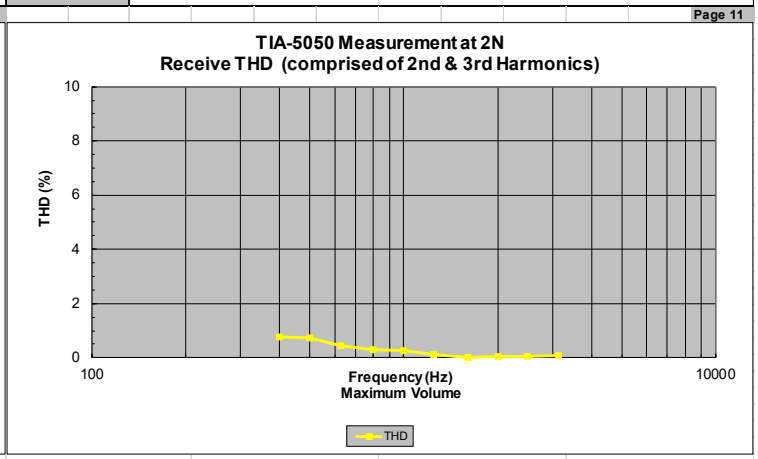
Page 8



Test Date	
9/18/2024 15:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 15:05	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 53 PC3 EVS-NB: 9.6 kbps 50,0 RB 64QAM

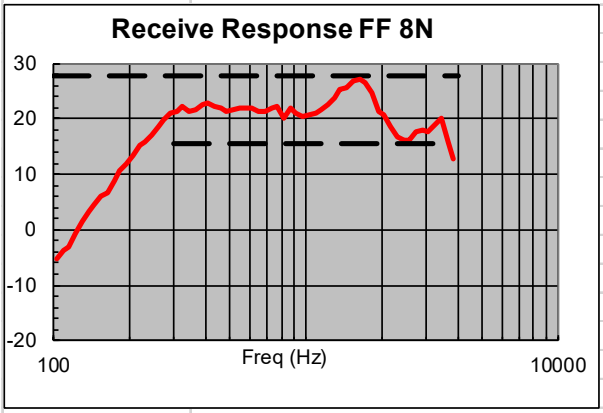
Conversational Gain & Frequency Response Report

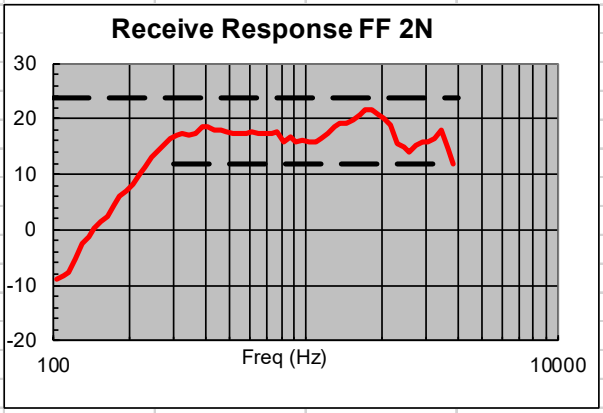
TIA-5050 Receive Volume Control Measurements

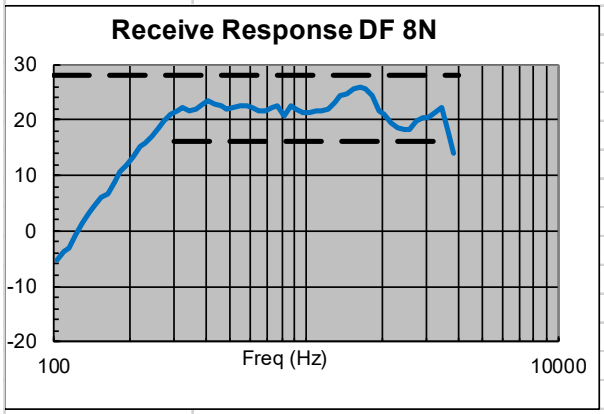
Device Under Test:	LTE B53 PC3 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

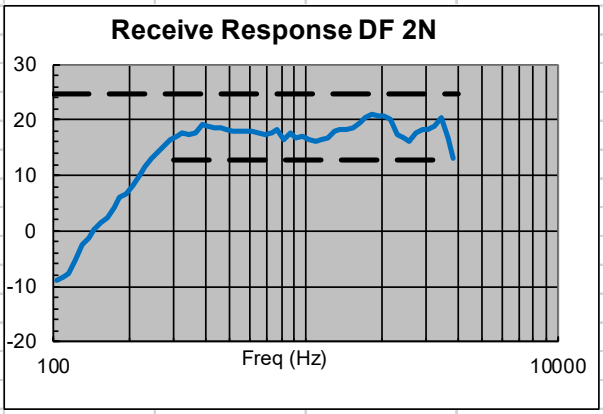
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.47 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.15 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.13 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.48 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.68 dB	info only		
	Recv conversational gain 8N	22.68 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.22 dB	info only		
	Recv conversational gain 2N	18.22 dB	6.00	PASS	

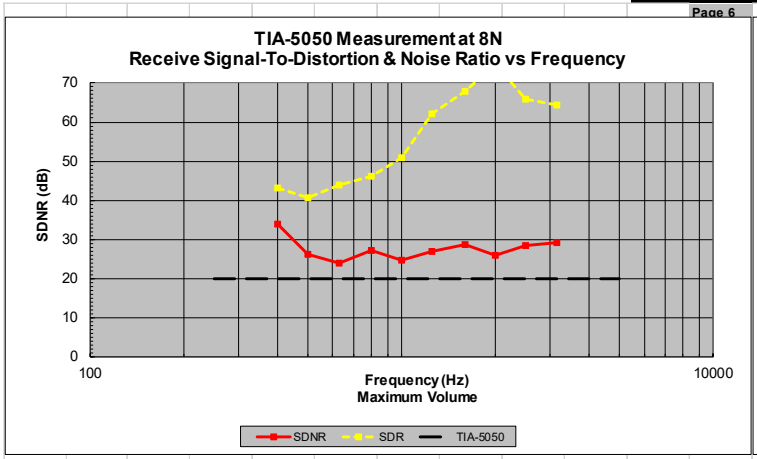
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	4.1 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.35 dB	Absolute Limits	PASS	

LTE Band 53 PC3 EVS-NB: 9.6 kbps 50,0 RB 64QAM

Distortion Report

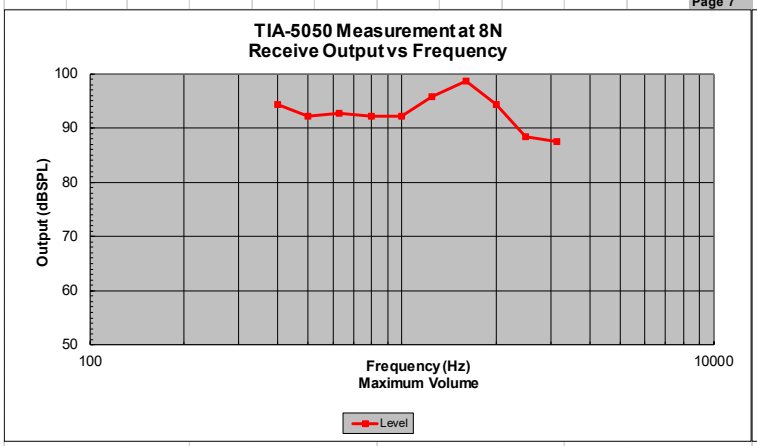
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	4.1 dB	Absolute Limits	PASS	9/18/2024 15:17	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

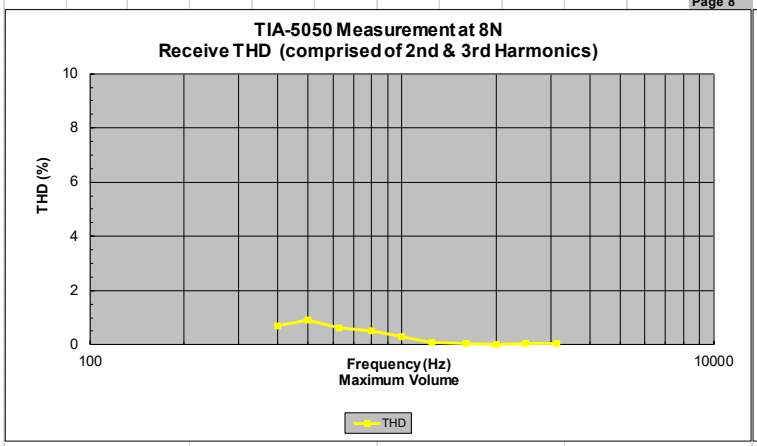
Page 7



Test Date	
9/18/2024 15:17	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

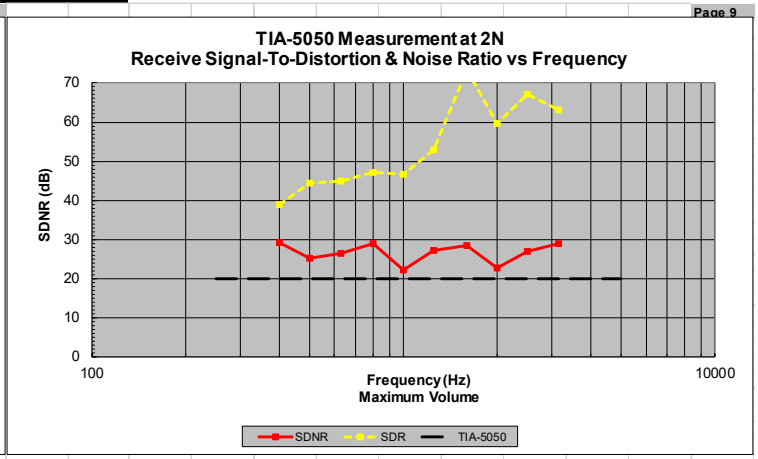
Page 8



Test Date	
9/18/2024 15:17	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

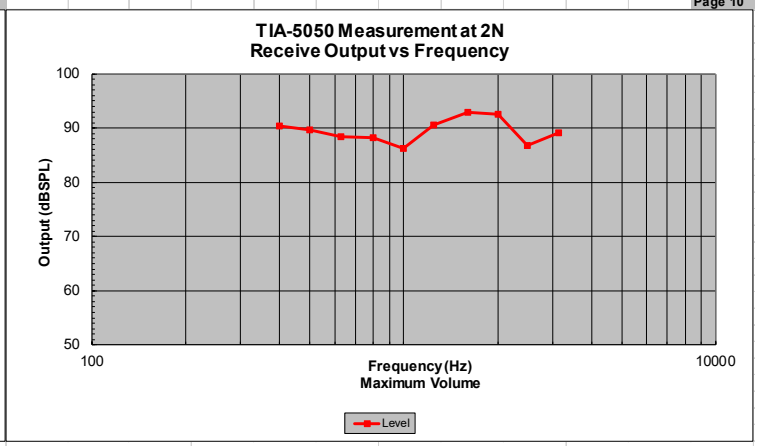
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	2.35 dB	Absolute Limits	PASS	9/18/2024 15:17	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

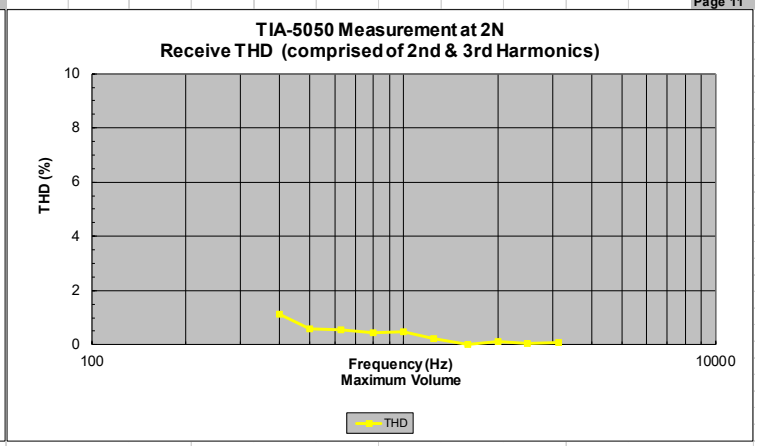
Page 10



Test Date	
9/18/2024 15:17	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 15:17	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 66 EVS-NB: 9.6 kbps 100,0 RB 64QAM

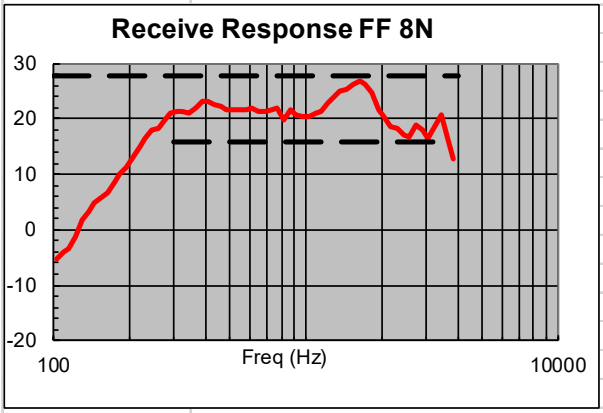
Conversational Gain & Frequency Response Report

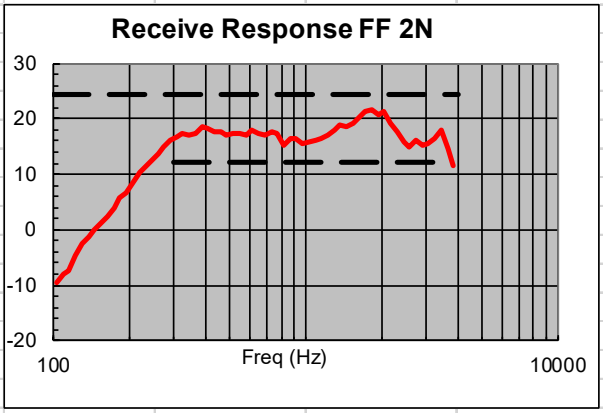
TIA-5050 Receive Volume Control Measurements

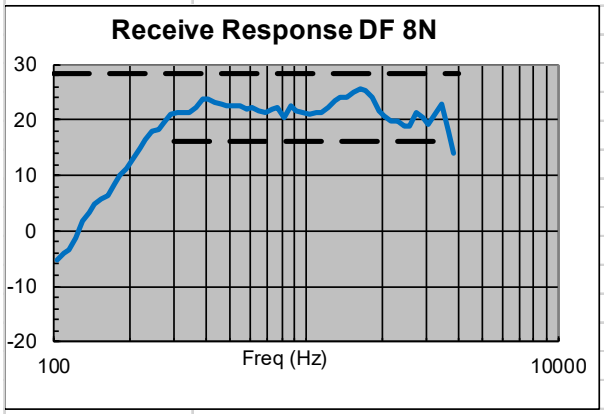
Device Under Test:	LTE B66 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

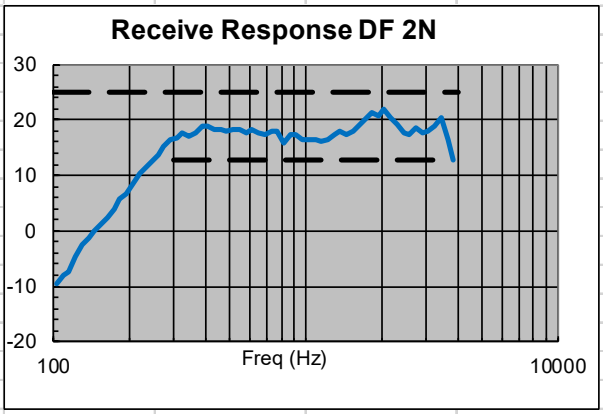
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.86 dB	Floating Limits	PASS	
	Recv resp DF 8N	2.65 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.66 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.03 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.68 dB	info only		
	Recv conversational gain 8N	22.68 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.11 dB	info only		
	Recv conversational gain 2N	18.11 dB	6.00	PASS	

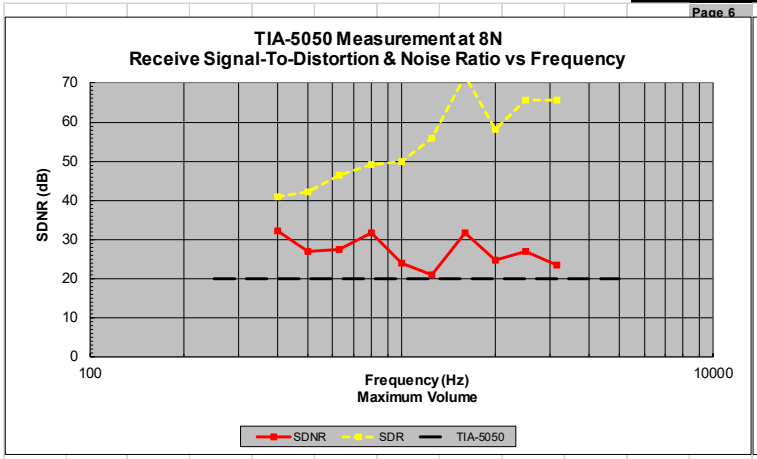
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.29 dB	Absolute Limits	PASS	

LTE Band 66 EVS-NB: 9.6 kbps 100,0 RB 64QAM

Distortion Report

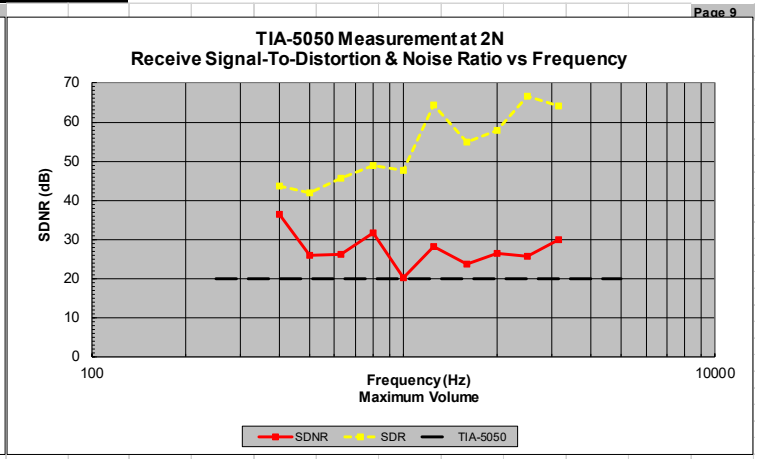
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1 dB	Absolute Limits	PASS	9/18/2024 14:00	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

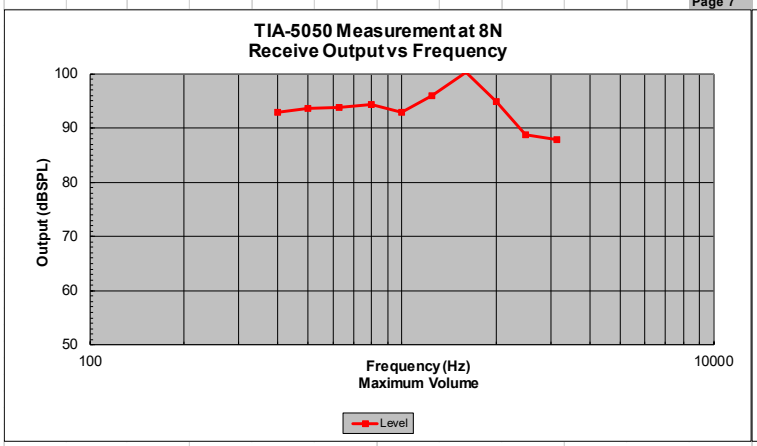
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.29 dB	Absolute Limits	PASS	9/18/2024 14:00	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

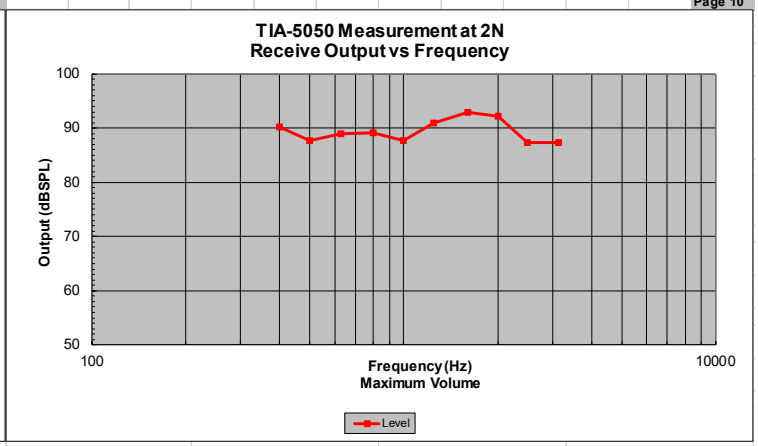
Page 7



Test Date	
9/18/2024 14:00	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

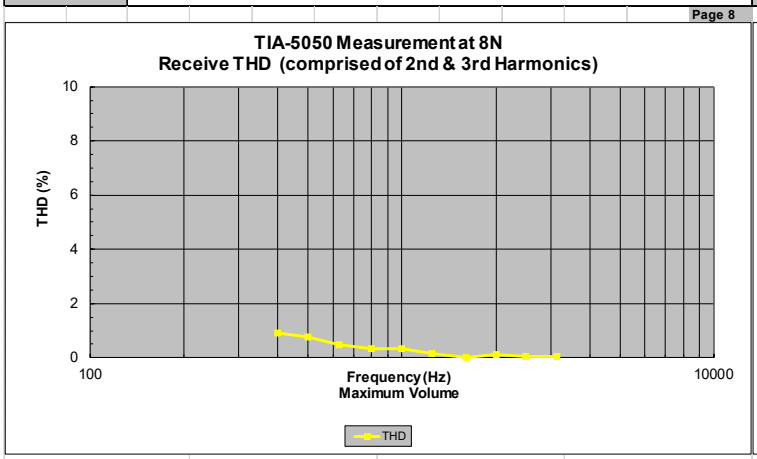
Page 10



Test Date	
9/18/2024 14:00	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

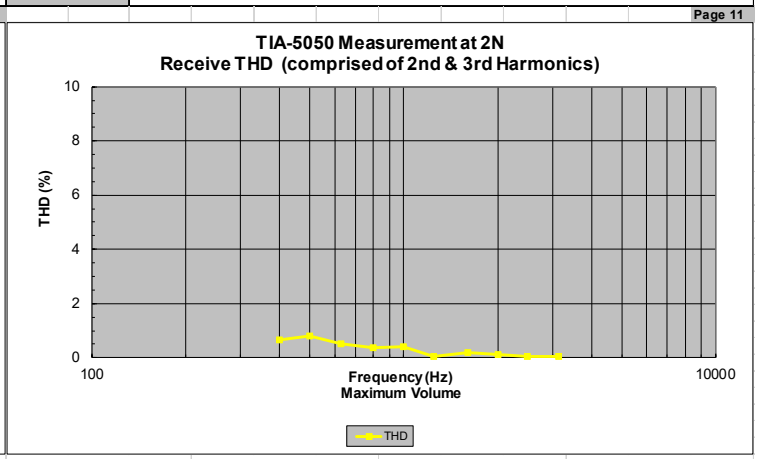
Page 8



Test Date	
9/18/2024 14:00	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 14:00	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

LTE Band 71 EVS-NB: 9.6 kbps 100,0 RB 64QAM

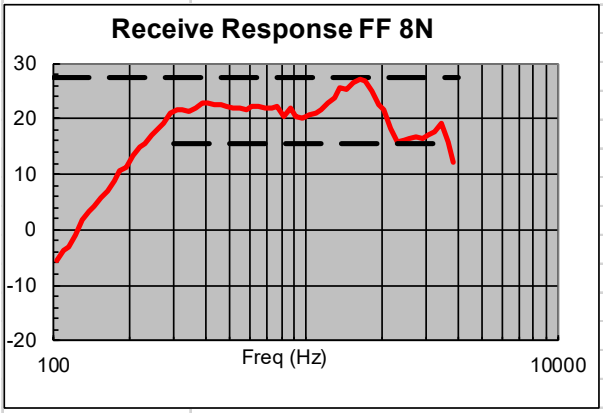
Conversational Gain & Frequency Response Report

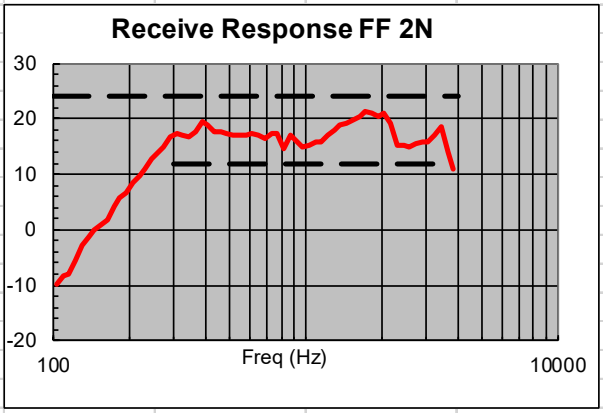
TIA-5050 Receive Volume Control Measurements

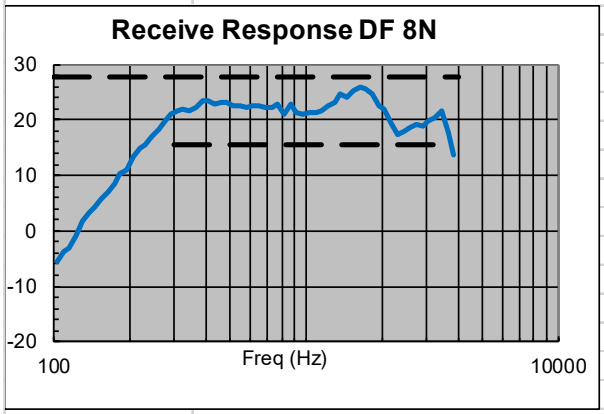
Device Under Test:	LTE B71 EVS-NB
Bandwidth	Narrowband
Test Date:	9/18/2024

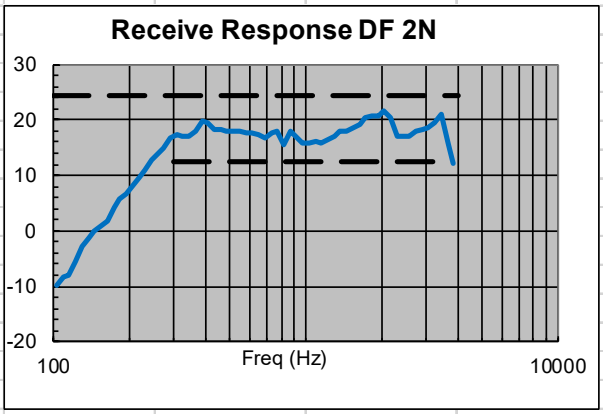
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	0.32 dB	Floating Limits	PASS	
	Recv resp DF 8N	1.81 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.73 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.86 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	92.85 dB	info only		
	Recv conversational gain 8N	22.85 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.07 dB	info only		
	Recv conversational gain 2N	18.07 dB	6.00	PASS	

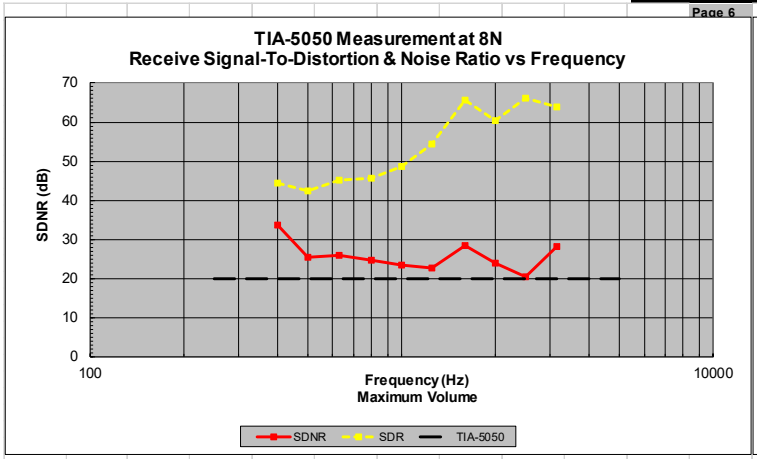
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.4 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	4.37 dB	Absolute Limits	PASS	

LTE Band 71 EVS-NB: 9.6 kbps 100,0 RB 64QAM

Distortion Report

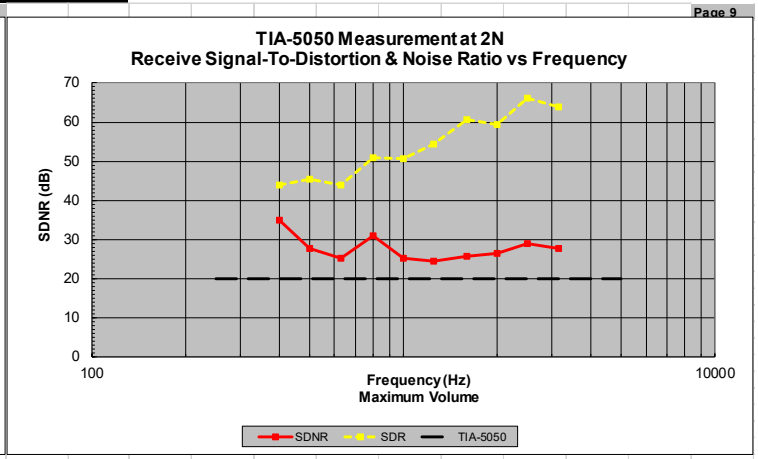
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.4 dB	Absolute Limits	PASS	9/18/2024 14:10	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

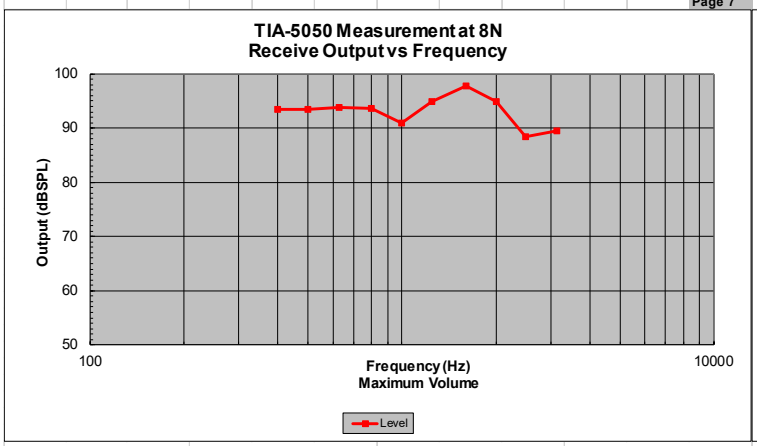
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	4.37 dB	Absolute Limits	PASS	9/18/2024 14:10	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 9.6 kbps

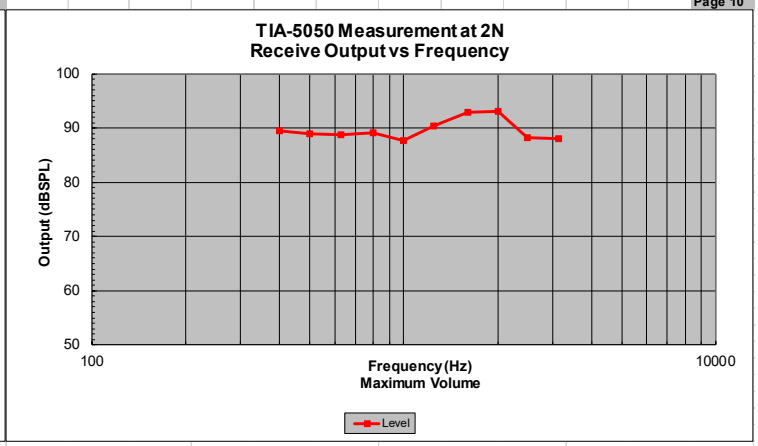
Page 7



Test Date	
9/18/2024 14:10	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

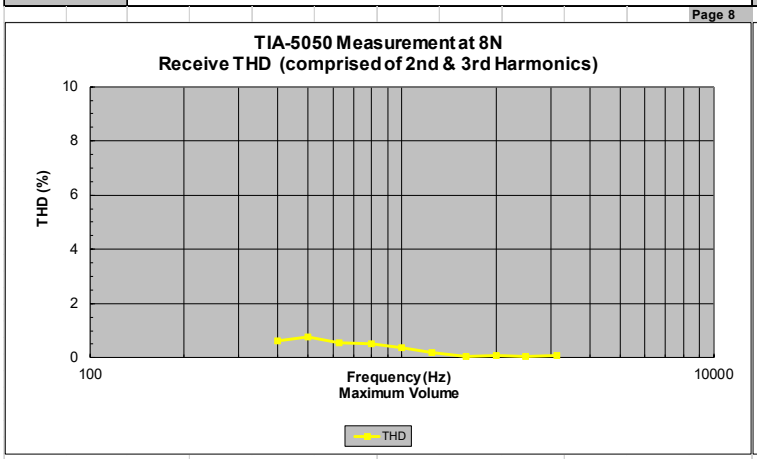
Page 10



Test Date	
9/18/2024 14:10	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

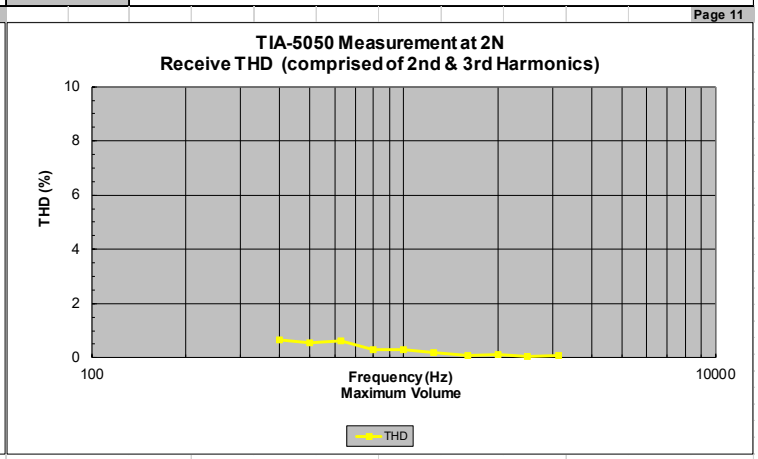
Page 8



Test Date	
9/18/2024 14:10	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/18/2024 14:10	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

NR n25 EVS-NB: 9.6 kbps

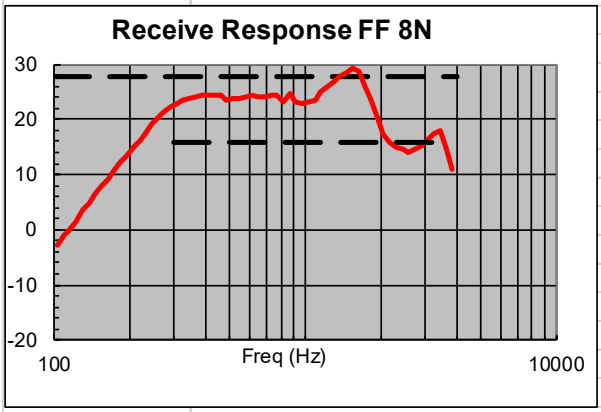
Conversational Gain & Frequency Response Report

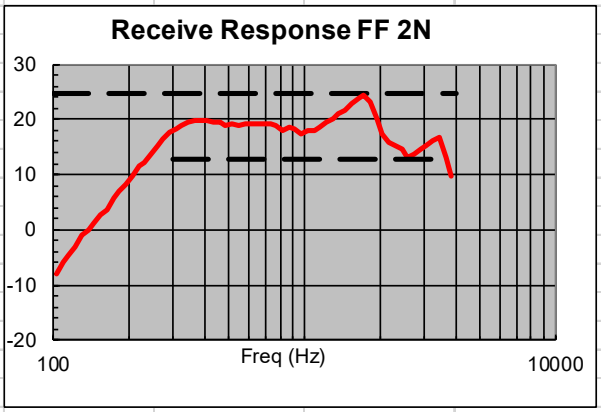
TIA-5050 Receive Volume Control Measurements

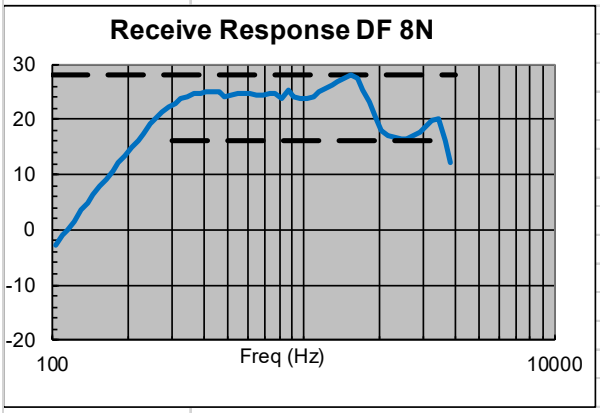
Device Under Test:	NR n25 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

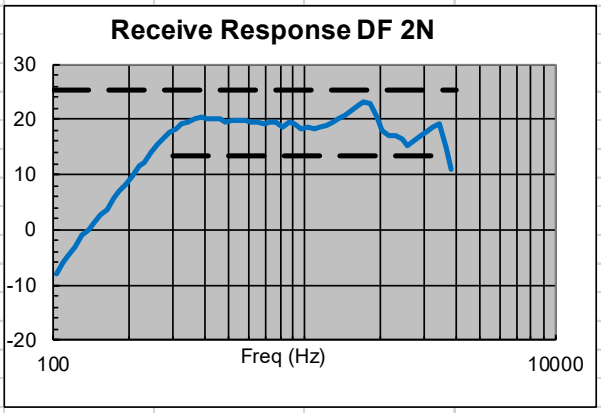
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-1.59 dB	Floating Limits	FAIL	
	Recv resp DF 8N	0.15 dB	Floating Limits	PASS	
	Recv resp FF 2N	0.36 dB	Floating Limits	PASS	
	Recv resp DF 2N	1.98 dB	Floating Limits	PASS	









Output

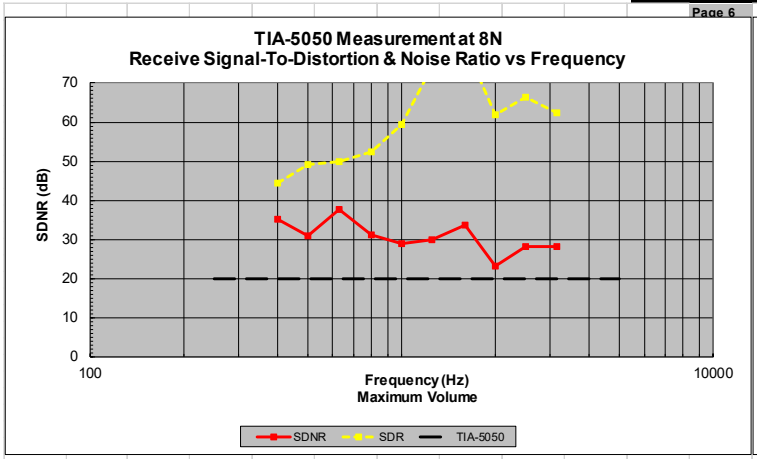
TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	94.8 dB	info only		
	Recv conversational gain 8N	24.8 dB	18.00	PASS	
	Recv output level dBSPL 2N	89.91 dB	info only		
	Recv conversational gain 2N	19.91 dB	6.00	PASS	

Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	3.3 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	3.94 dB	Absolute Limits	PASS	

NR n25 EVS-NB: 9.6 kbps
Distortion Report

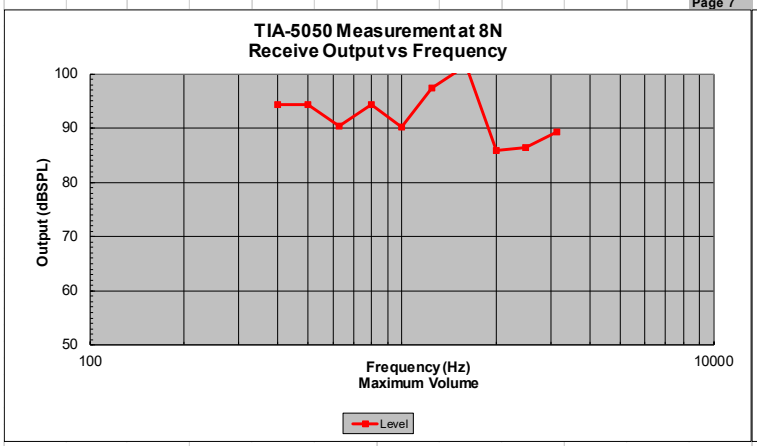
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	3.3 dB	Absolute Limits	PASS	10/8/2024 18:33	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

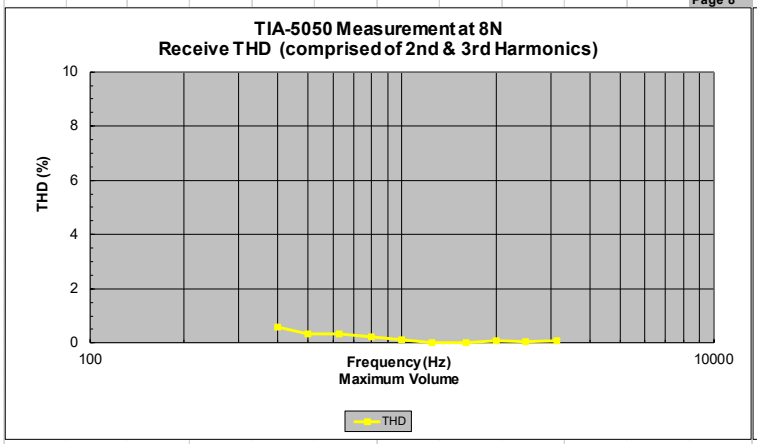
Page 7



Test Date	
10/8/2024 18:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

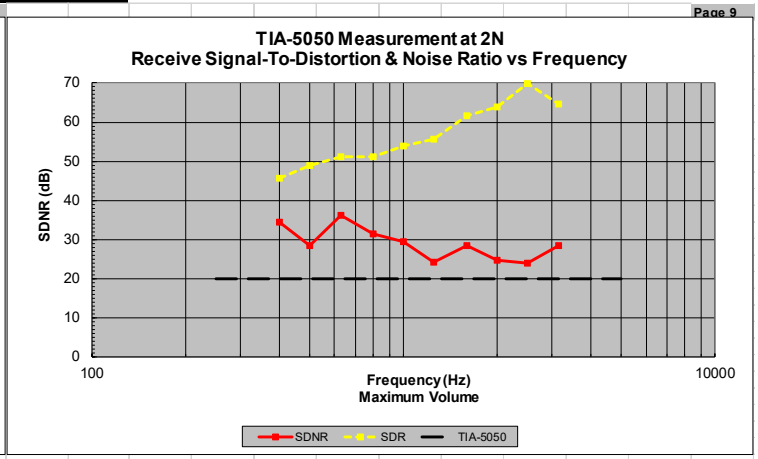
Page 8



Test Date	
10/8/2024 18:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

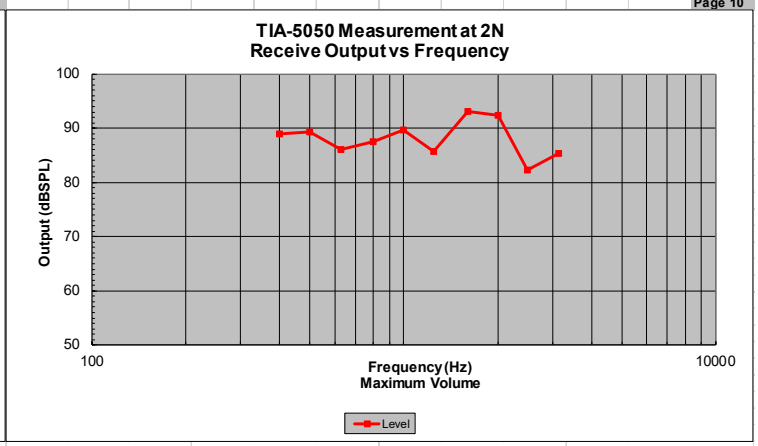
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	3.94 dB	Absolute Limits	PASS	10/8/2024 18:33	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

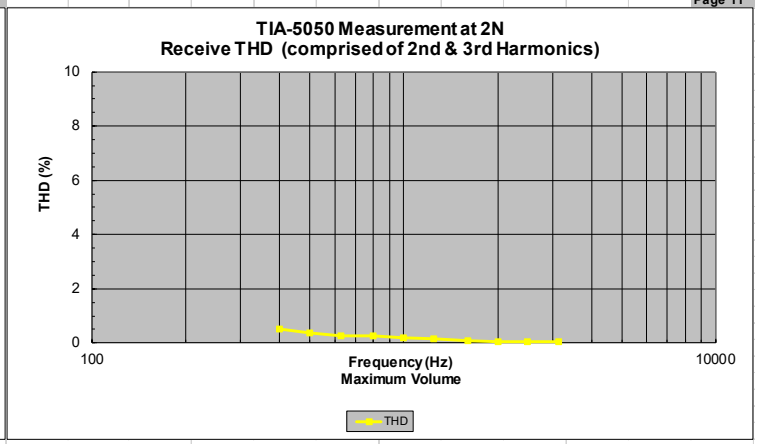
Page 10



Test Date	
10/8/2024 18:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 18:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

NR n25 EVS-WB: 24.4 kbps

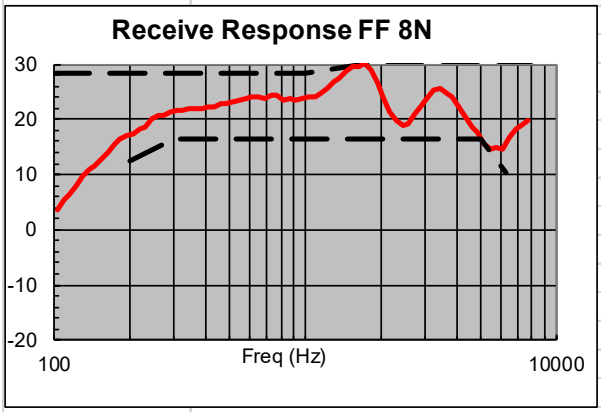
Conversational Gain & Frequency Response Report

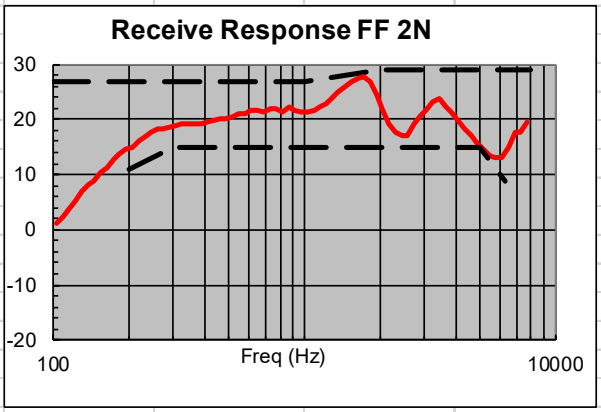
TIA-5050 Receive Volume Control Measurements

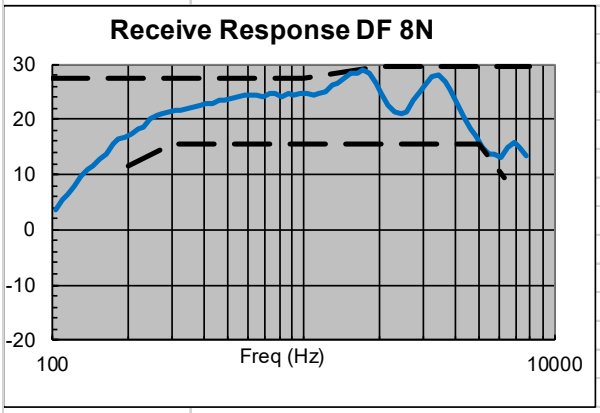
Device Under Test:	NR n25 EVS-WB
Bandwidth	Wideband
Test Date:	10/8/2024

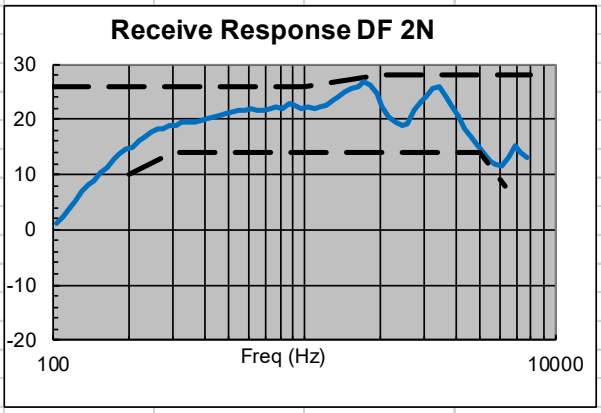
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.09 dB	Floating Limits	FAIL	
	Recv resp DF 8N	0.1 dB	Floating Limits	PASS	
	Recv resp FF 2N	0.55 dB	Floating Limits	PASS	
	Recv resp DF 2N	0.7 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	94.55 dB	info only		
	Recv conversational gain 8N	24.55 dB	18.00	PASS	
	Recv output level dBSPL 2N	92.06 dB	info only		
	Recv conversational gain 2N	22.06 dB	6.00	PASS	

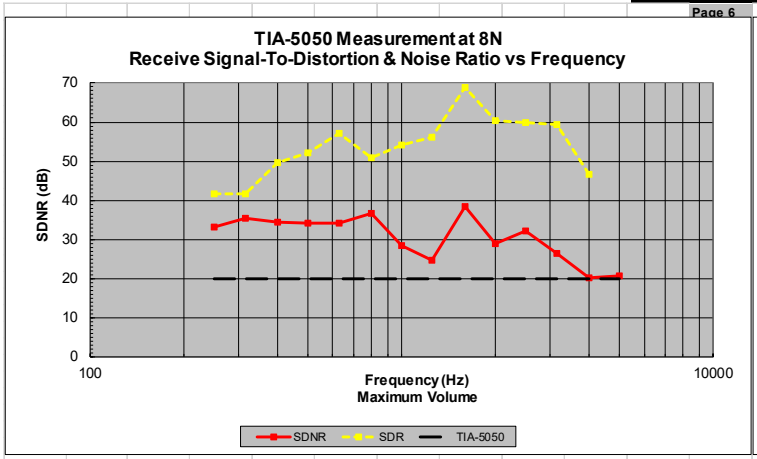
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.3 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.26 dB	Absolute Limits	PASS	

NR n25 EVS-WB: 24.4 kbps

Distortion Report

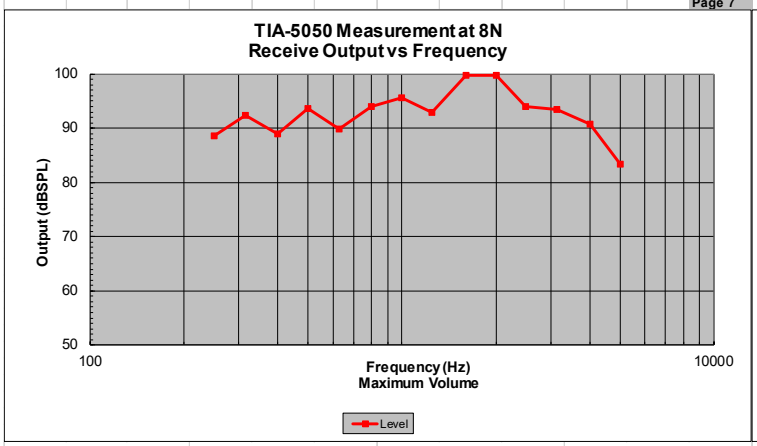
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.3 dB	Absolute Limits	PASS	10/8/2024 21:38	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 24.4 kbps

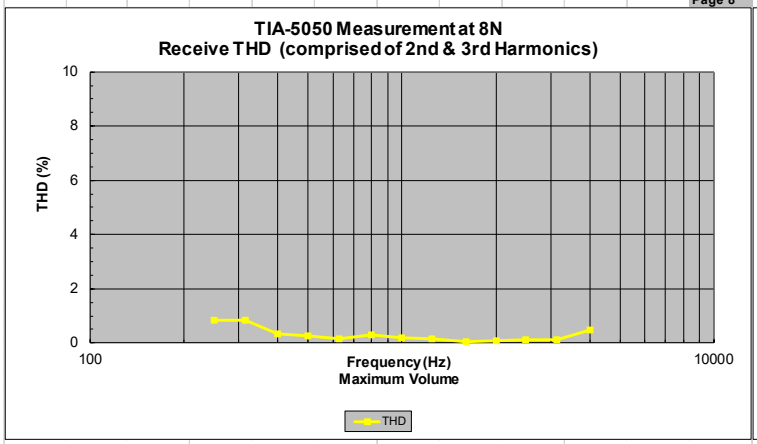
Page 7



Test Date	
10/8/2024 21:38	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

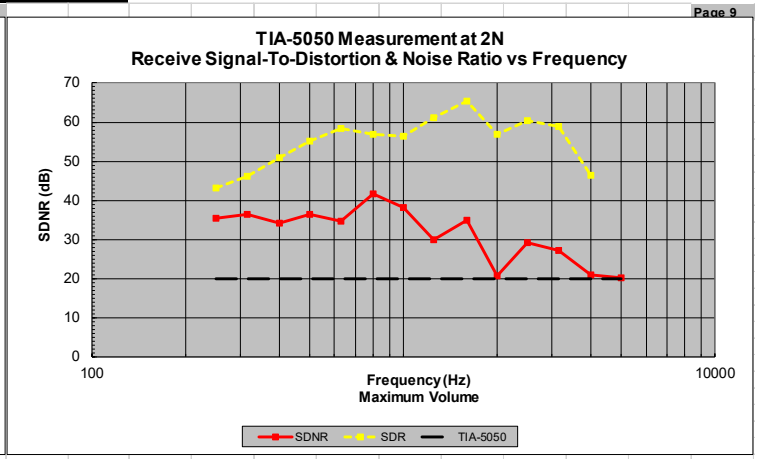
Page 8



Test Date	
10/8/2024 21:38	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

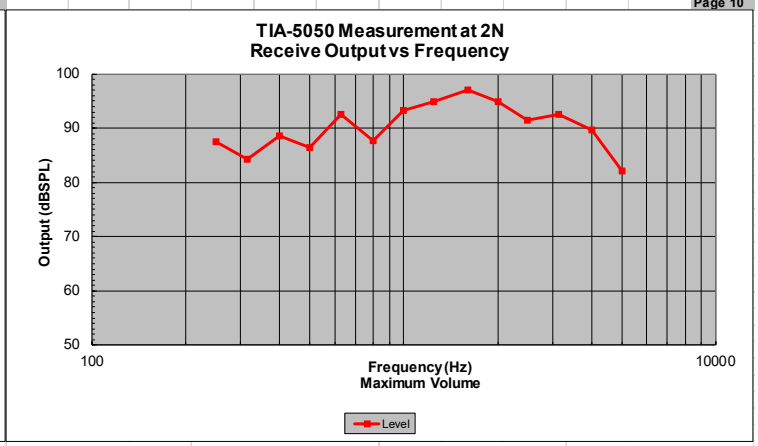
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.26 dB	Absolute Limits	PASS	10/8/2024 21:38	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 24.4 kbps

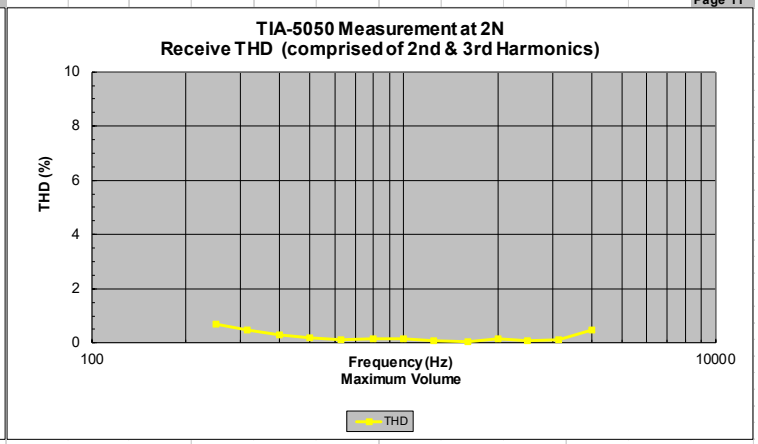
Page 10



Test Date	
10/8/2024 21:38	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

Page 11



Test Date	
10/8/2024 21:38	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 24.4 kbps

NR n7 EVS-NB: 9.6 kbps

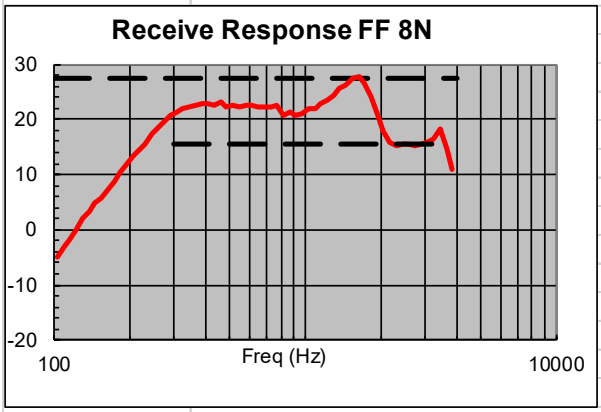
Conversational Gain & Frequency Response Report

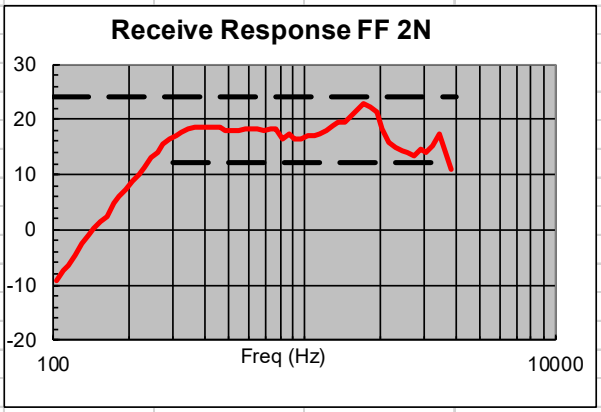
TIA-5050 Receive Volume Control Measurements

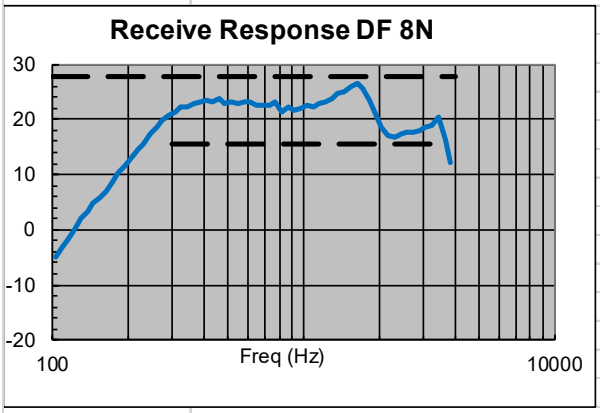
Device Under Test:	NR n7 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

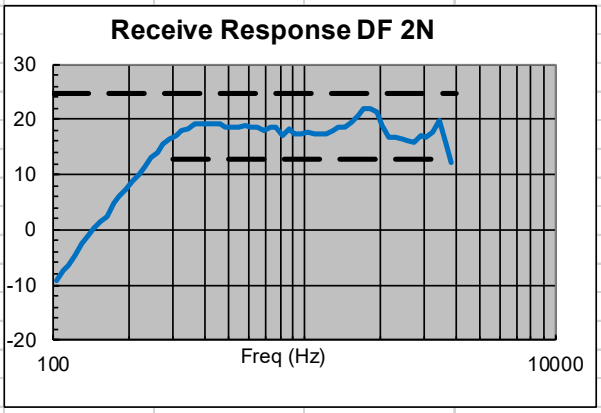
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.28 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.21 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.3 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.91 dB	Floating Limits	PASS	









Output

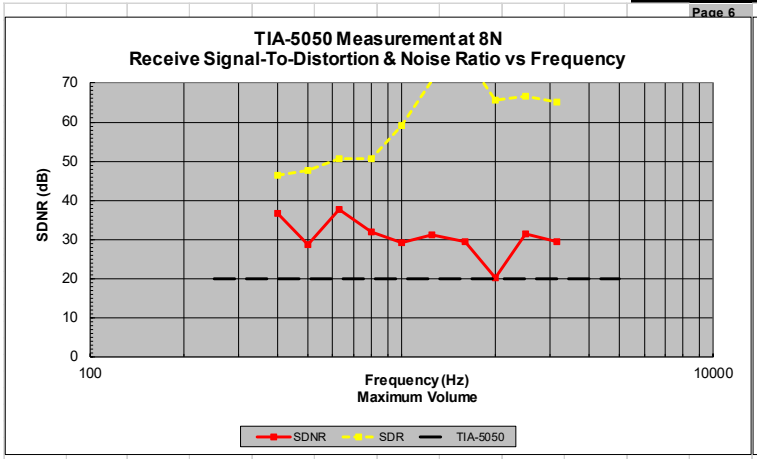
TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.18 dB	info only		
	Recv conversational gain 8N	23.18 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.8 dB	info only		
	Recv conversational gain 2N	18.8 dB	6.00	PASS	

Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.3 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	4.88 dB	Absolute Limits	PASS	

NR n7 EVS-NB: 9.6 kbps
Distortion Report

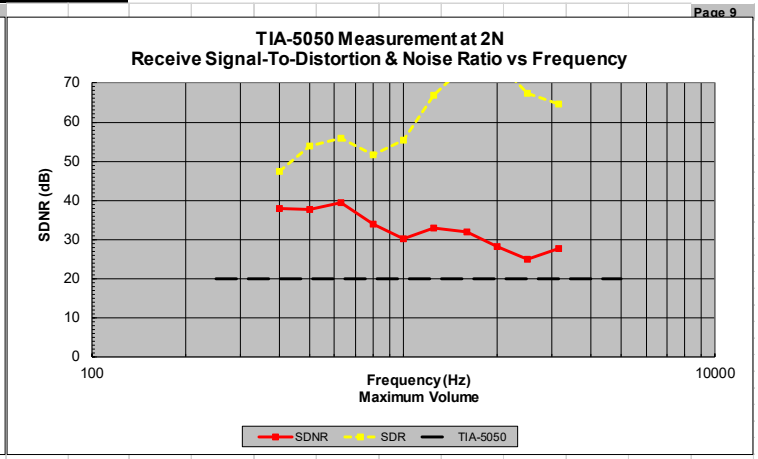
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.3 dB	Absolute Limits	PASS	10/8/2024 21:54	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

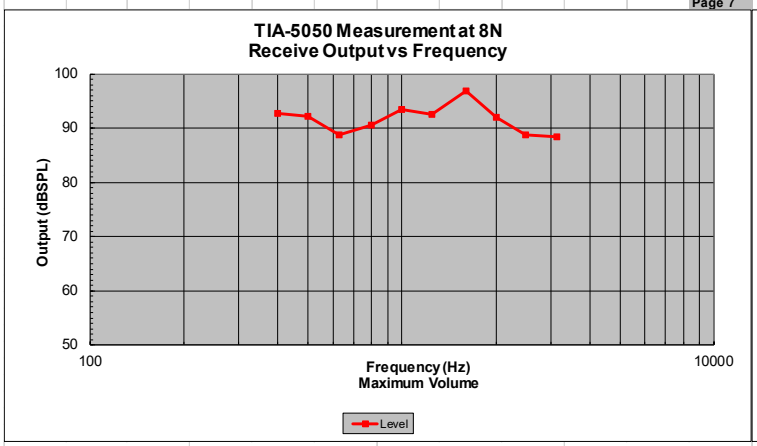
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	4.88 dB	Absolute Limits	PASS	10/8/2024 21:54	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

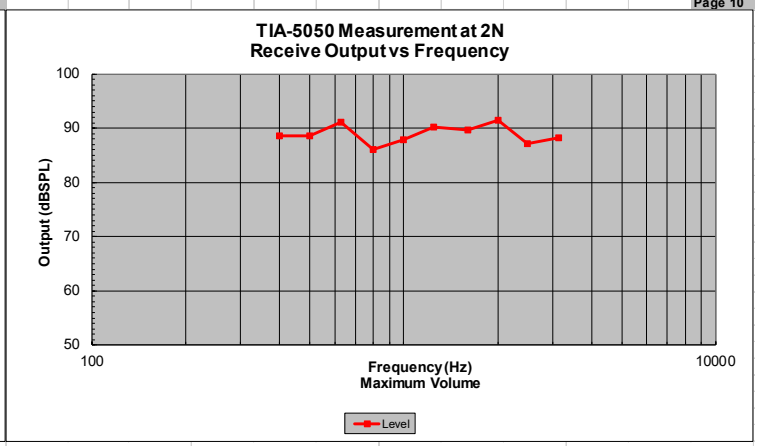
Page 7



Test Date	
10/8/2024 21:54	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

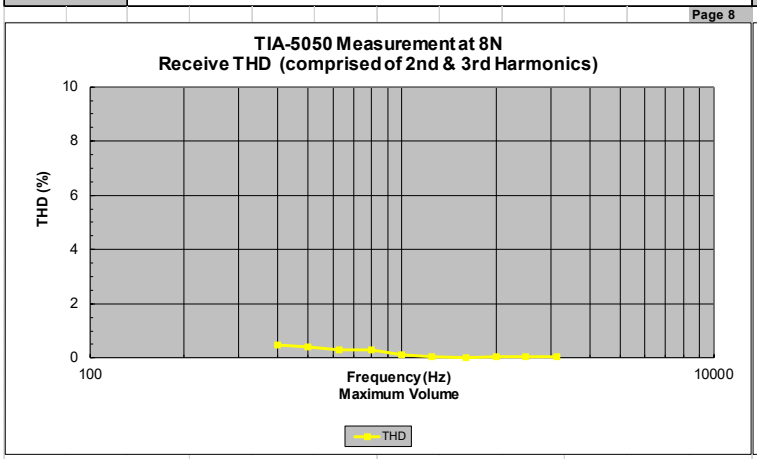
Page 10



Test Date	
10/8/2024 21:54	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

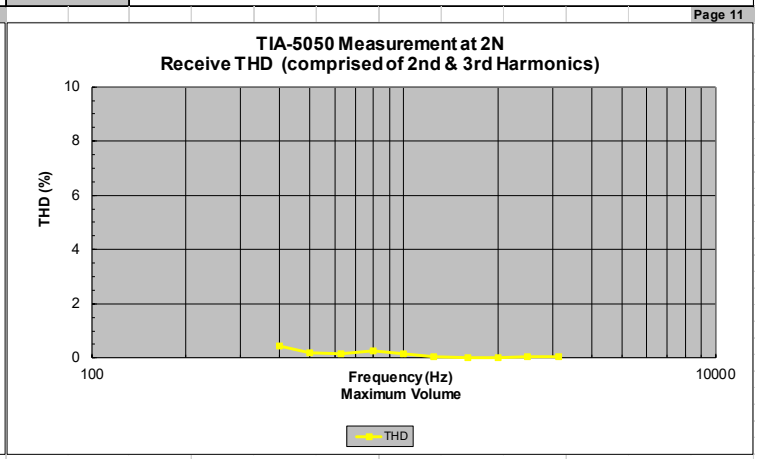
Page 8



Test Date	
10/8/2024 21:54	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 21:54	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

NR n12 EVS-NB: 9.6 kbps

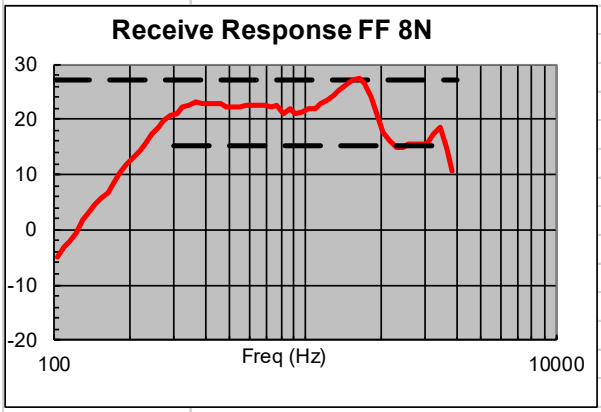
Conversational Gain & Frequency Response Report

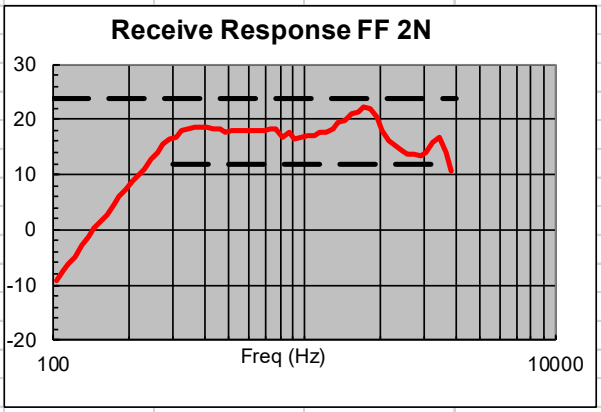
TIA-5050 Receive Volume Control Measurements

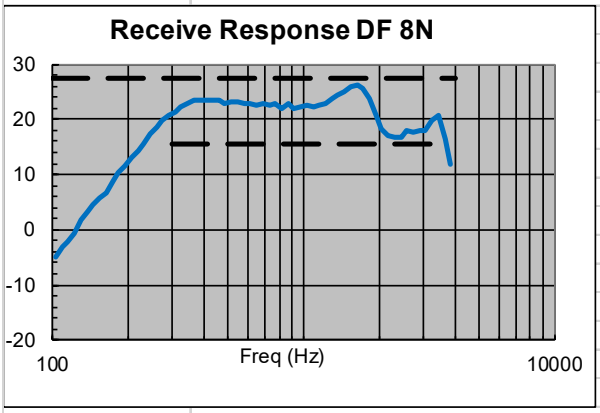
Device Under Test:	NR n12 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

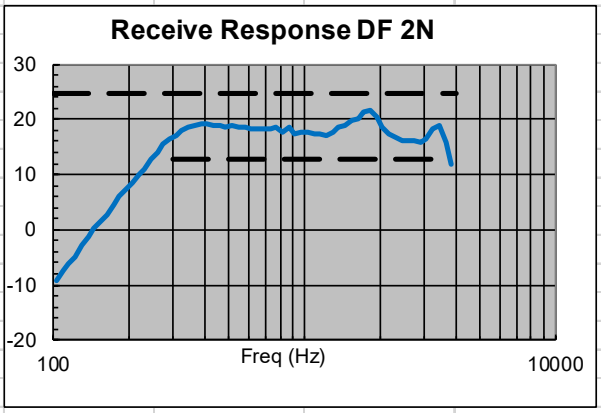
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.34 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.2 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.53 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.19 dB	Floating Limits	PASS	









Output

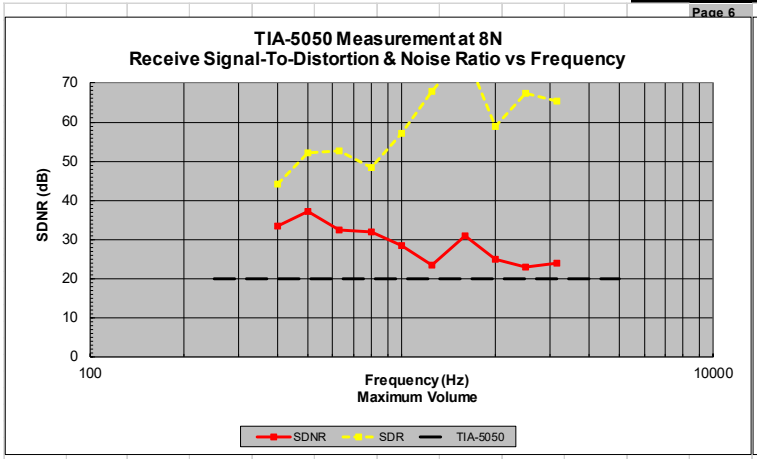
TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.22 dB	info only		
	Recv conversational gain 8N	23.22 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.72 dB	info only		
	Recv conversational gain 2N	18.72 dB	6.00	PASS	

Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	3 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.08 dB	Absolute Limits	PASS	

NR n12 EVS-NB: 9.6 kbps
Distortion Report

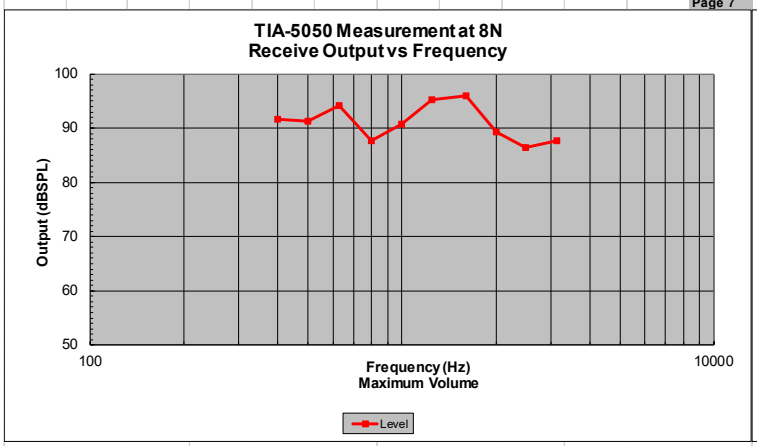
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	3 dB	Absolute Limits	PASS	10/8/2024 22:09	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

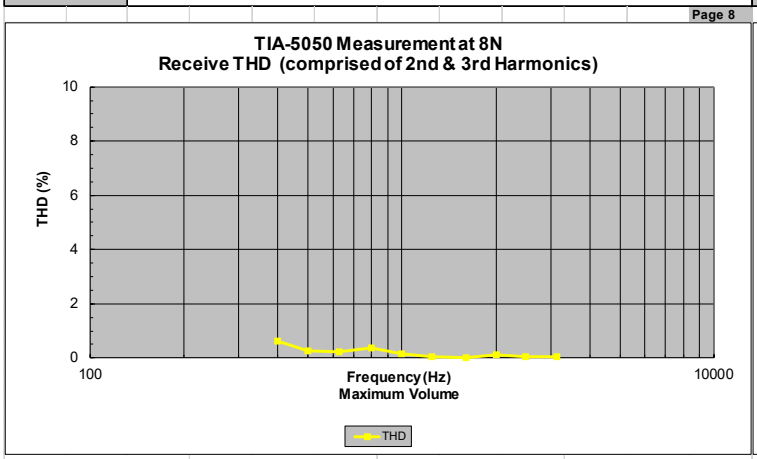
Page 7



Test Date	
10/8/2024 22:09	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

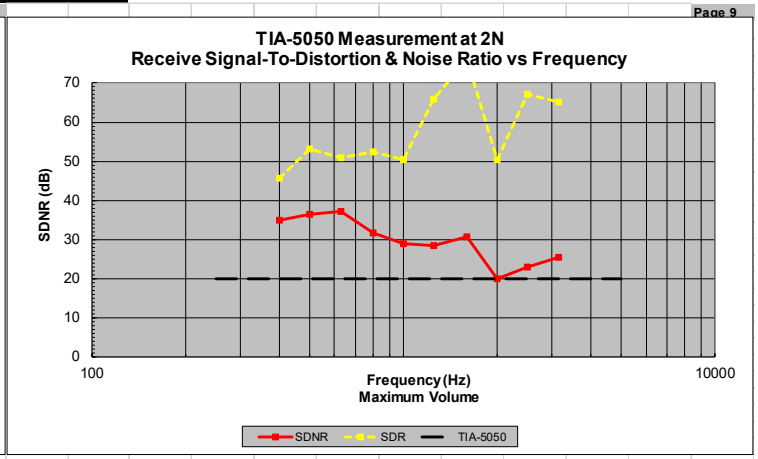
Page 8



Test Date	
10/8/2024 22:09	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

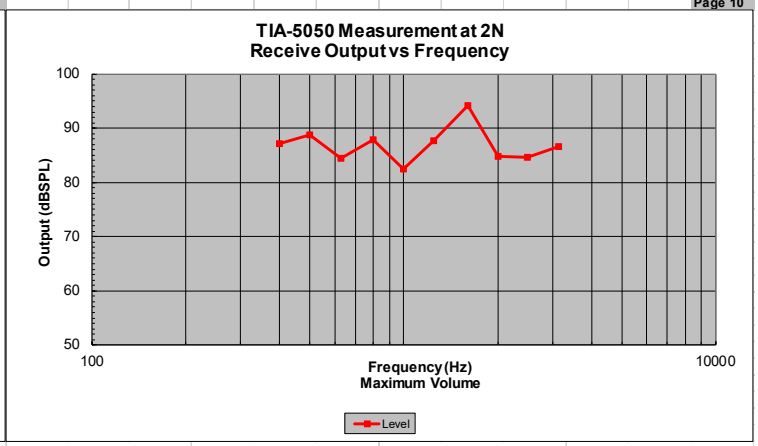
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.08 dB	Absolute Limits	PASS	10/8/2024 22:09	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

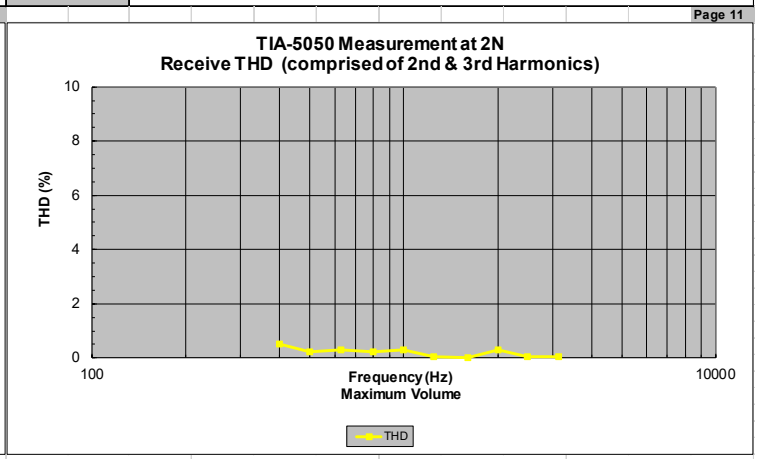
Page 10



Test Date	
10/8/2024 22:09	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 22:09	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

NR n30 EVS-NB: 9.6 kbps

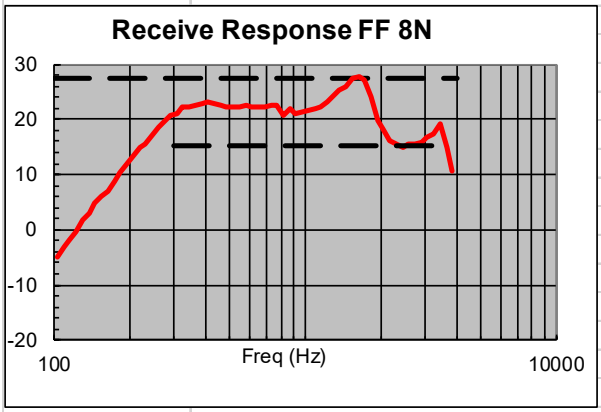
Conversational Gain & Frequency Response Report

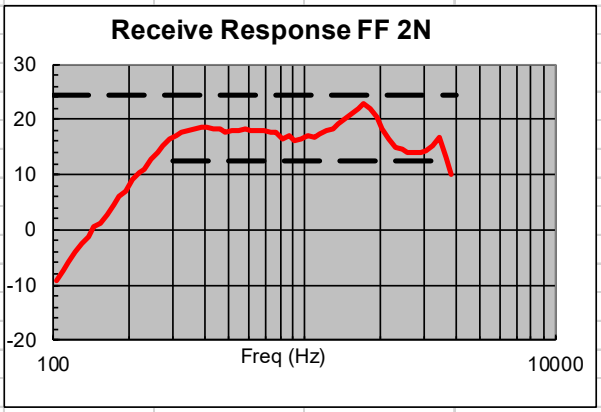
TIA-5050 Receive Volume Control Measurements

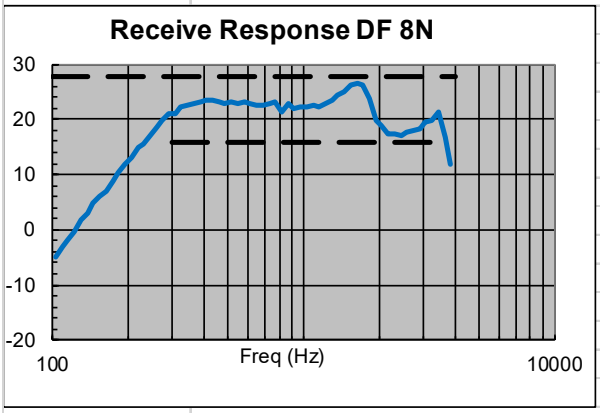
Device Under Test:	NR n30 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

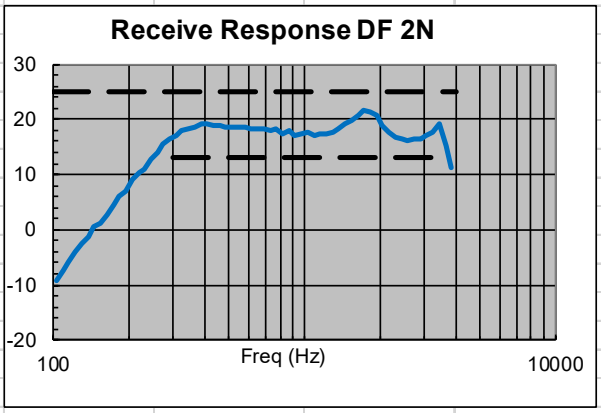
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.31 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.29 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.59 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.21 dB	Floating Limits	PASS	









Output

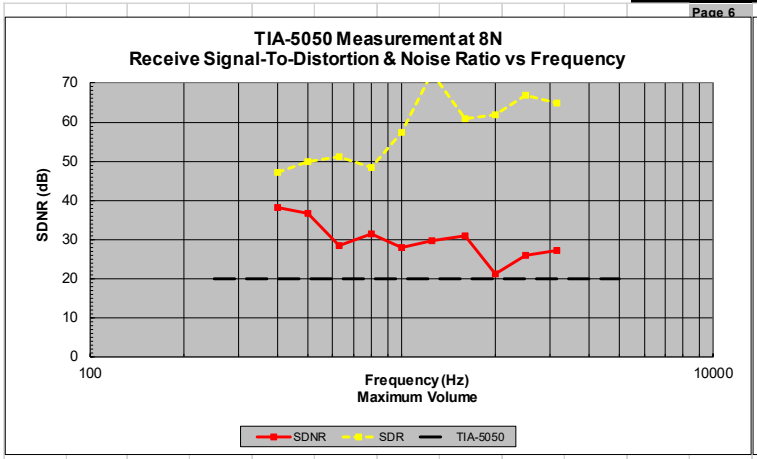
TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.18 dB	info only		
	Recv conversational gain 8N	23.18 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.7 dB	info only		
	Recv conversational gain 2N	18.7 dB	6.00	PASS	

Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	6.24 dB	Absolute Limits	PASS	

NR n30 EVS-NB: 9.6 kbps
Distortion Report

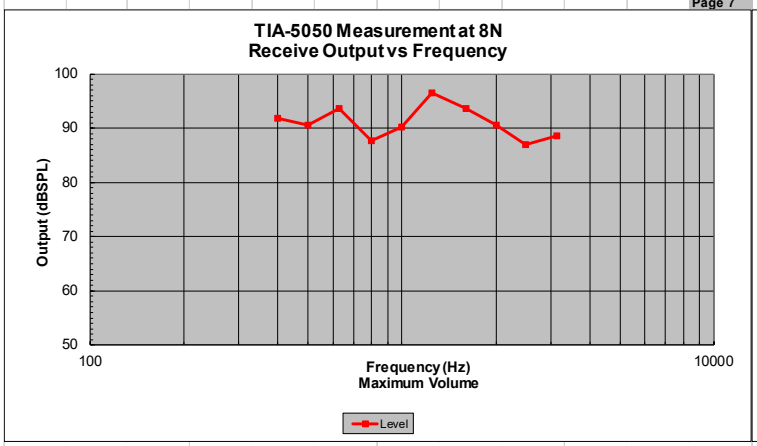
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1.2 dB	Absolute Limits	PASS	10/8/2024 22:23	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

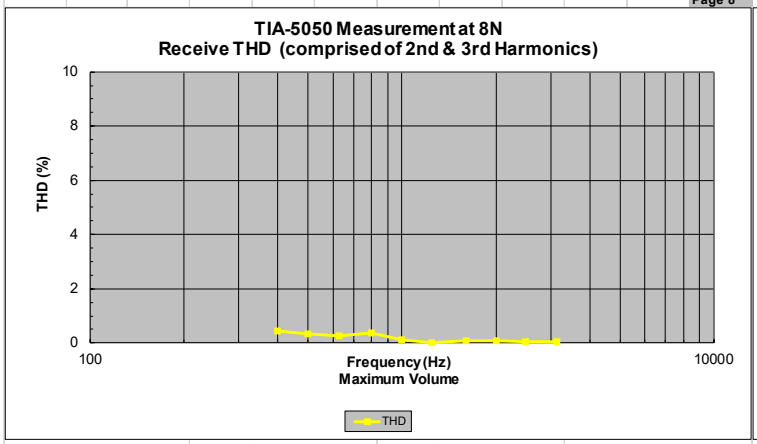
Page 7



Test Date	
10/8/2024 22:23	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

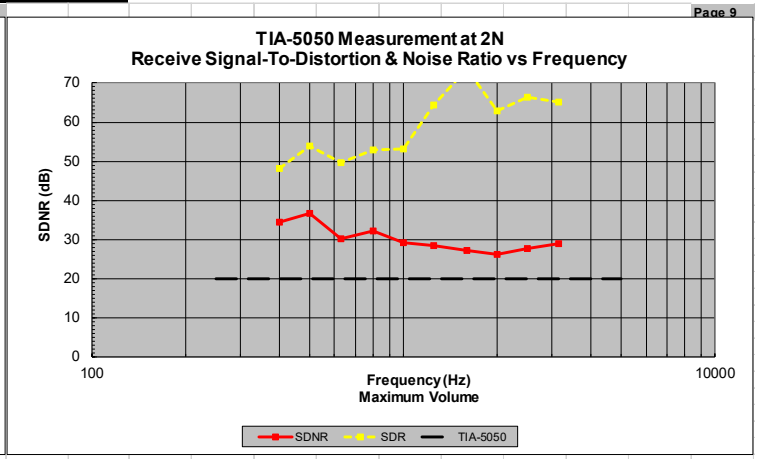
Page 8



Test Date	
10/8/2024 22:23	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

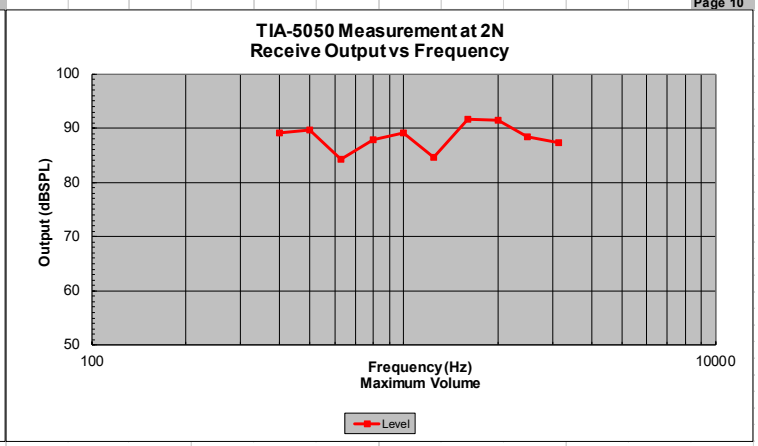
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	6.24 dB	Absolute Limits	PASS	10/8/2024 22:23	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

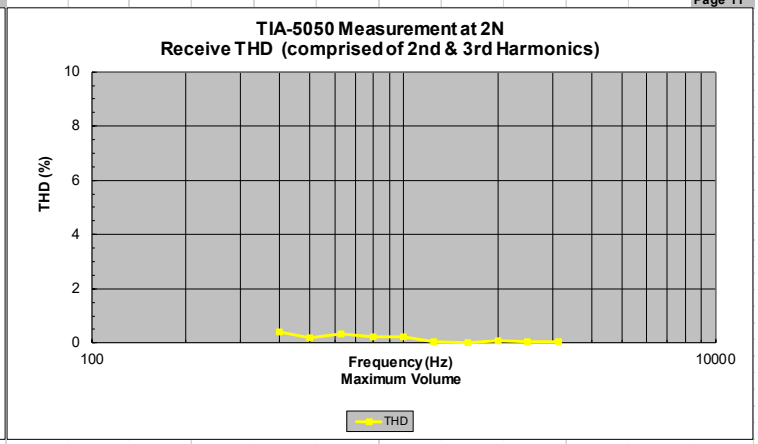
Page 10



Test Date	
10/8/2024 22:23	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 22:23	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

NR n41 PC3 EVS-NB: 9.6 kbps

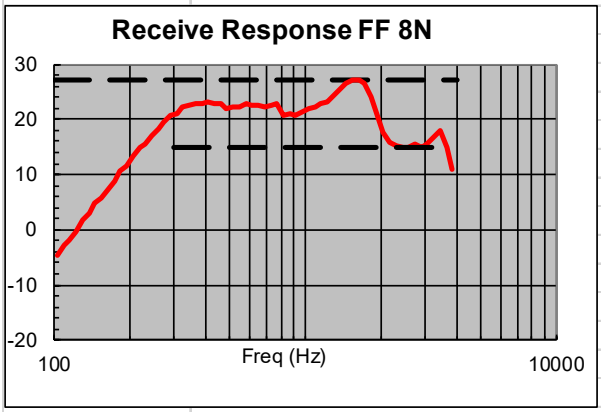
Conversational Gain & Frequency Response Report

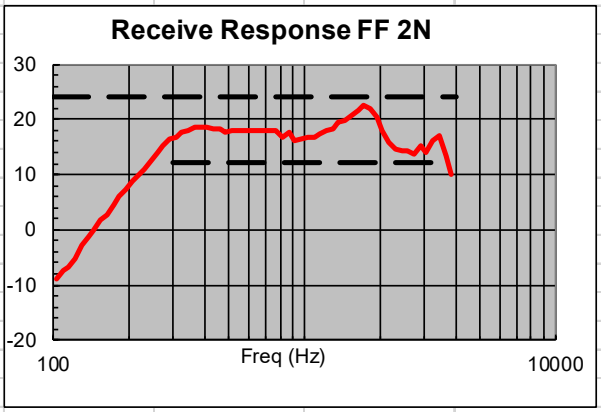
TIA-5050 Receive Volume Control Measurements

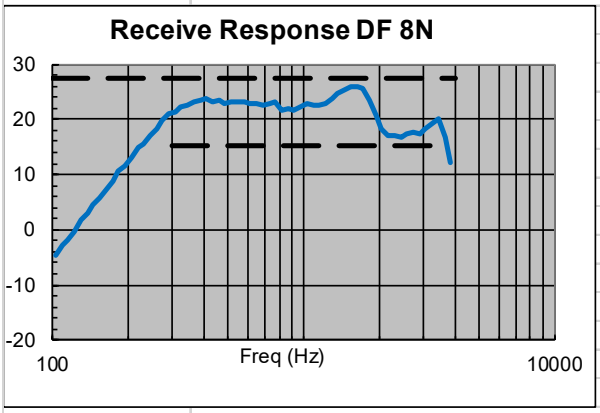
Device Under Test:	NR n41 PC3 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

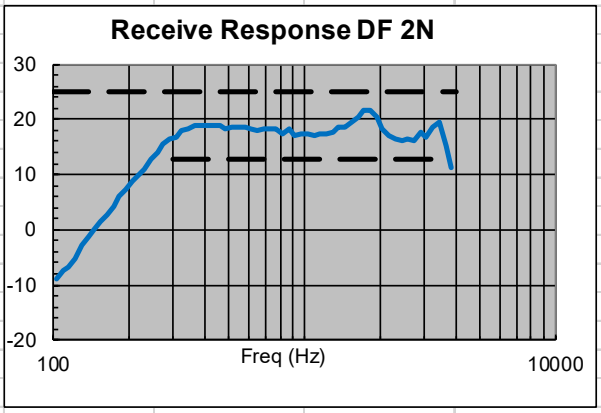
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.18 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.42 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.54 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.2 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.22 dB	info only		
	Recv conversational gain 8N	23.22 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.63 dB	info only		
	Recv conversational gain 2N	18.63 dB	6.00	PASS	

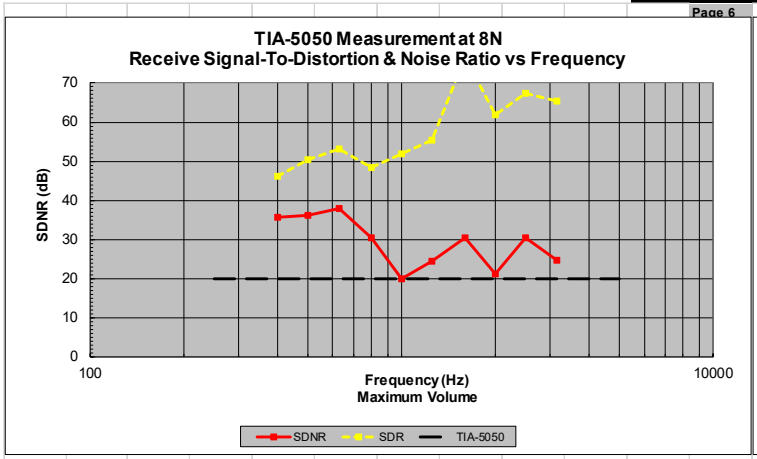
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.33 dB	Absolute Limits	PASS	

NR n41 PC3 EVS-NB: 9.6 kbps

Distortion Report

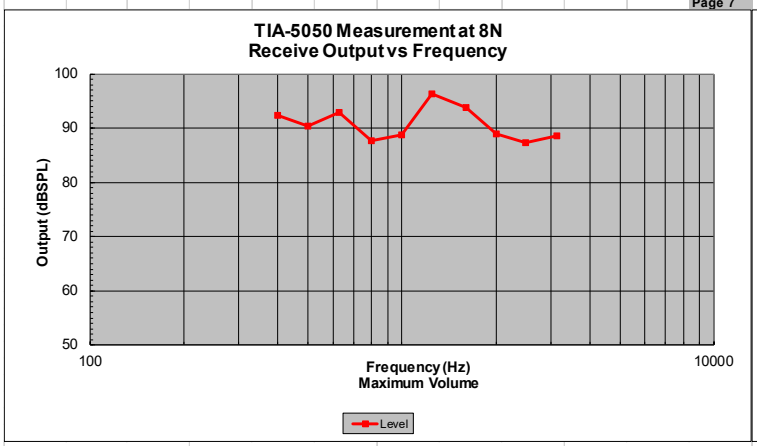
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0 dB	Absolute Limits	PASS	10/8/2024 22:33	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

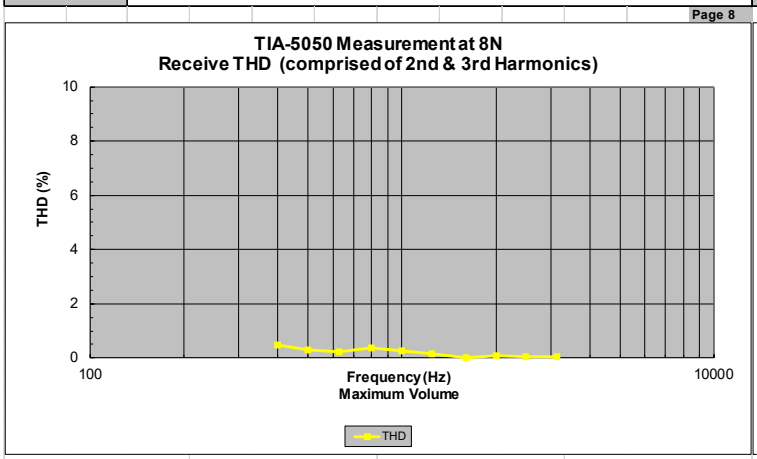
Page 7



Test Date	
10/8/2024 22:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

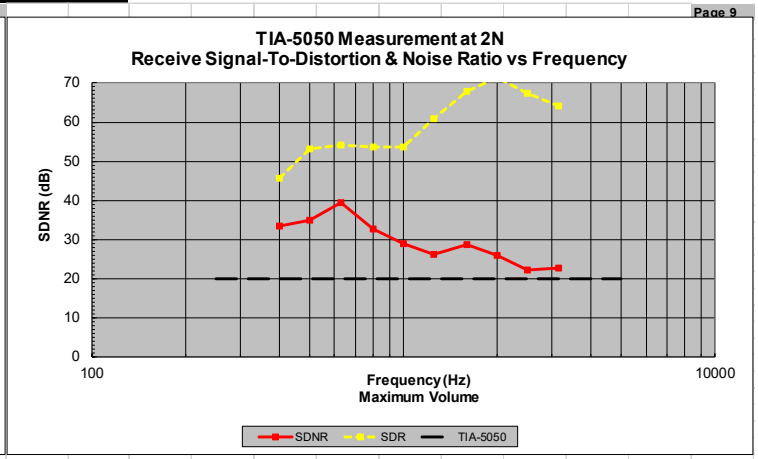
Page 8



Test Date	
10/8/2024 22:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

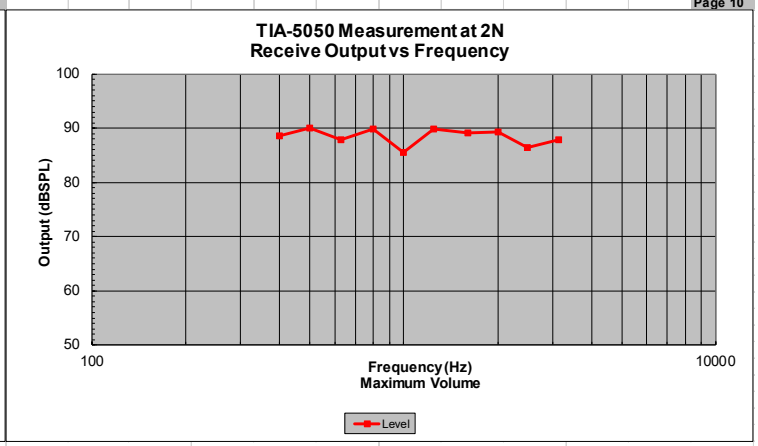
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	2.33 dB	Absolute Limits	PASS	10/8/2024 22:33	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

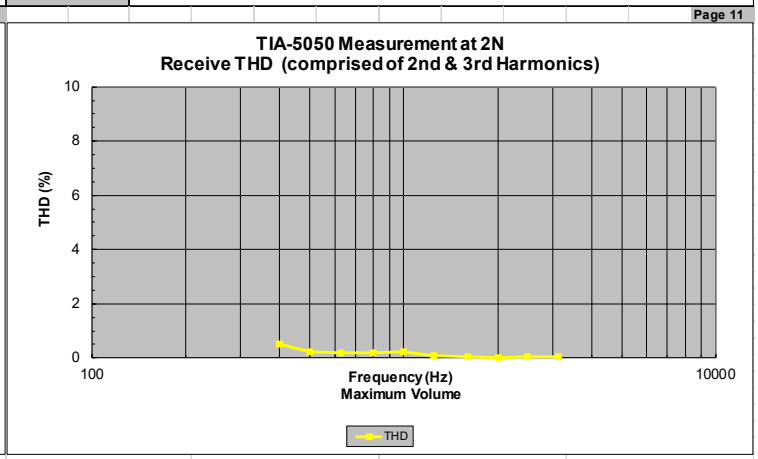
Page 10



Test Date	
10/8/2024 22:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 22:33	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

NR n41 PC2 EVS-NB: 9.6 kbps

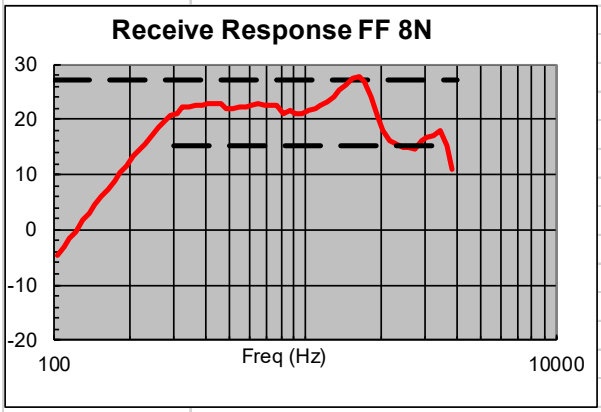
Conversational Gain & Frequency Response Report

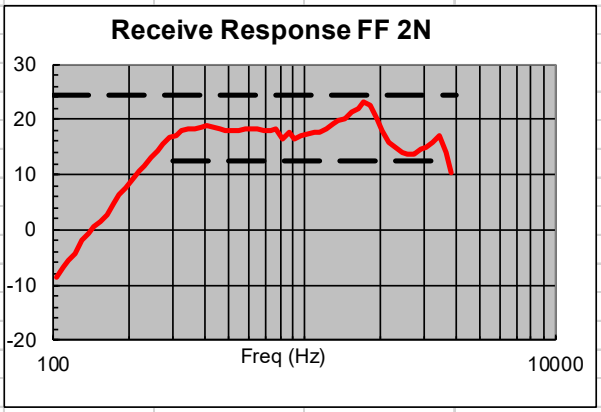
TIA-5050 Receive Volume Control Measurements

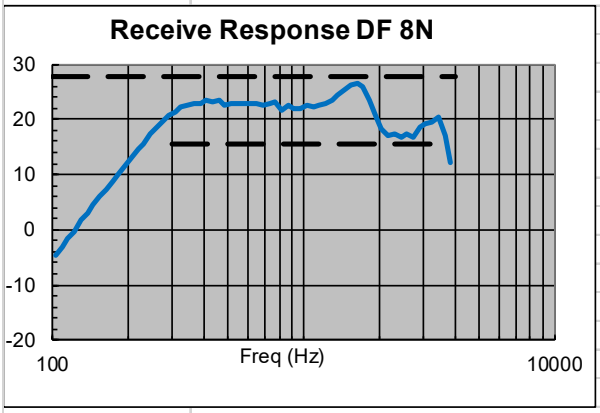
Device Under Test:	NR n41 PC2 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

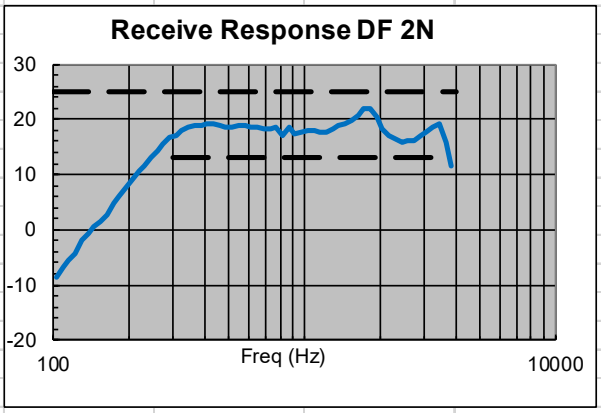
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.63 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.12 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.37 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.95 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.14 dB	info only		
	Recv conversational gain 8N	23.14 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.86 dB	info only		
	Recv conversational gain 2N	18.86 dB	6.00	PASS	

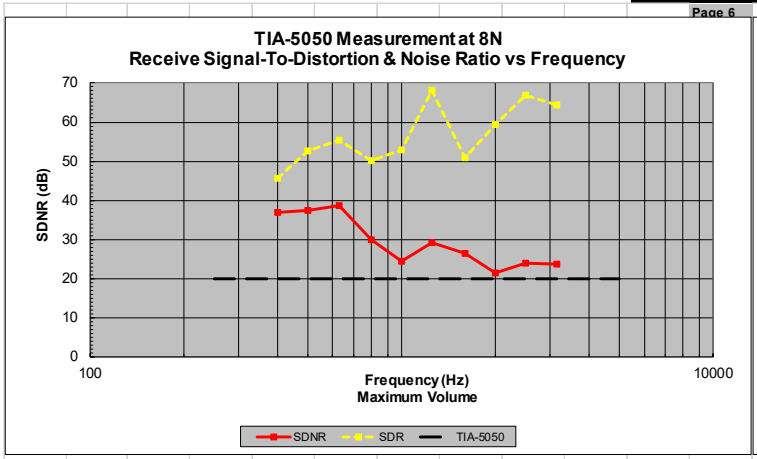
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.4 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	4.39 dB	Absolute Limits	PASS	

NR n41 PC2 EVS-NB: 9.6 kbps

Distortion Report

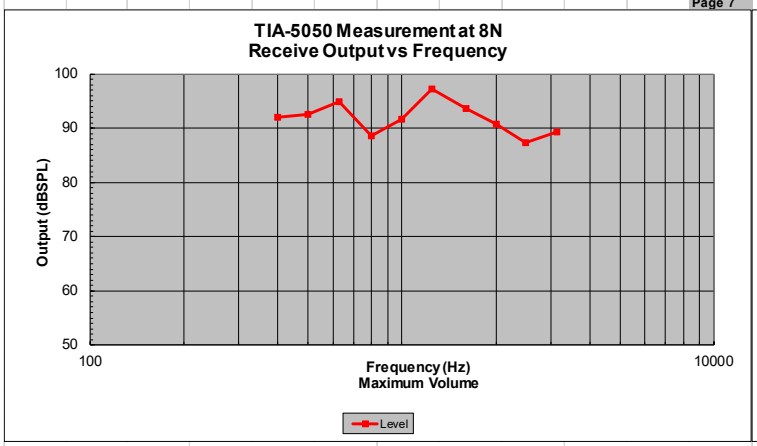
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1.4 dB	Absolute Limits	PASS	10/8/2024 23:06	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

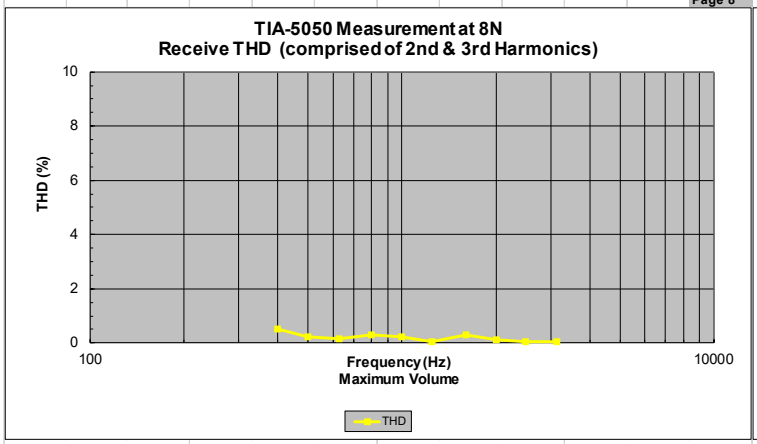
Page 7



Test Date	
10/8/2024 23:06	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

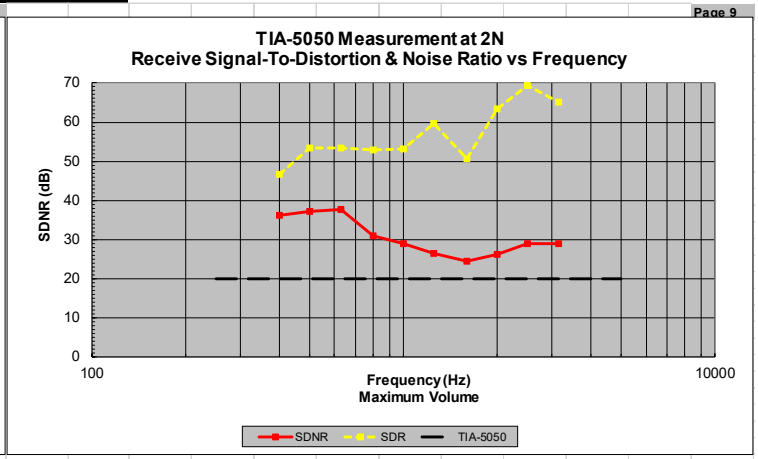
Page 8



Test Date	
10/8/2024 23:06	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

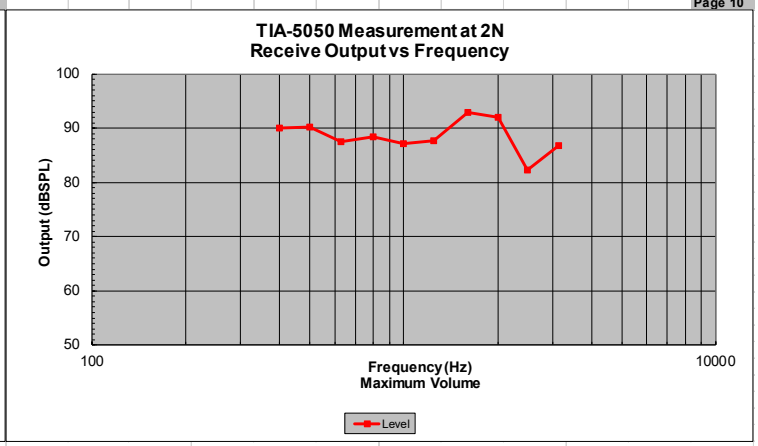
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	4.39 dB	Absolute Limits	PASS	10/8/2024 23:06	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

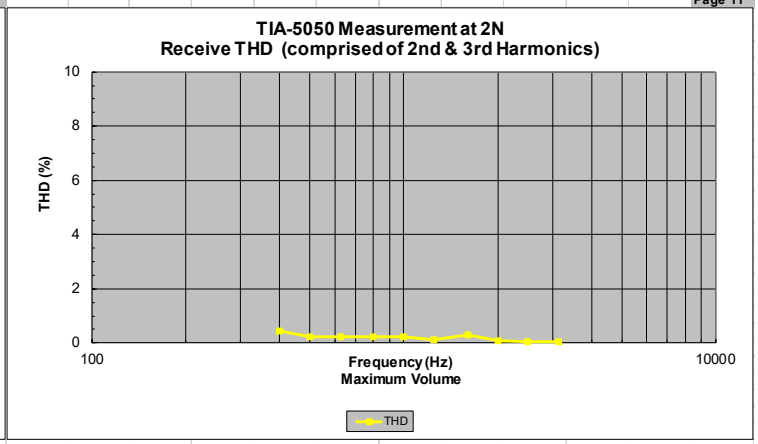
Page 10



Test Date	
10/8/2024 23:06	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 23:06	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

NR n77 Block C PC3 EVS-NB: 9.6 kbps

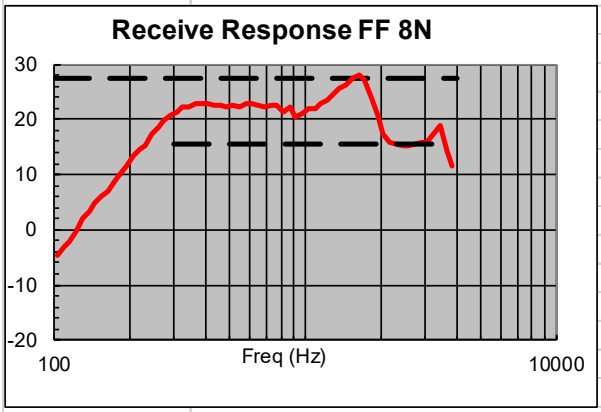
Conversational Gain & Frequency Response Report

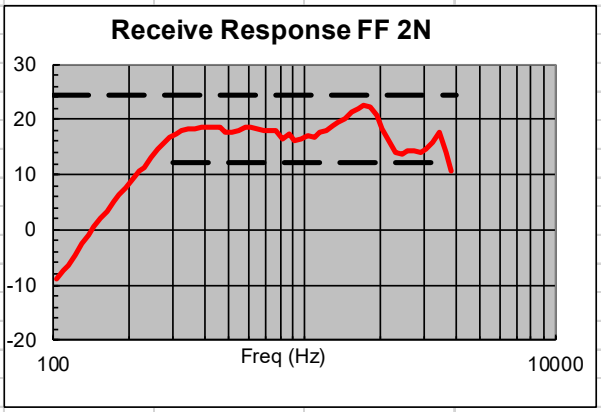
TIA-5050 Receive Volume Control Measurements

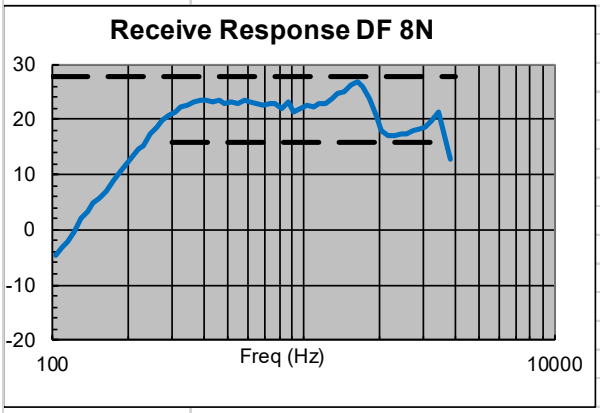
Device Under Test:	NR n77 PC3 EVS-NB
Bandwidth	Narrowband
Test Date:	10/8/2024

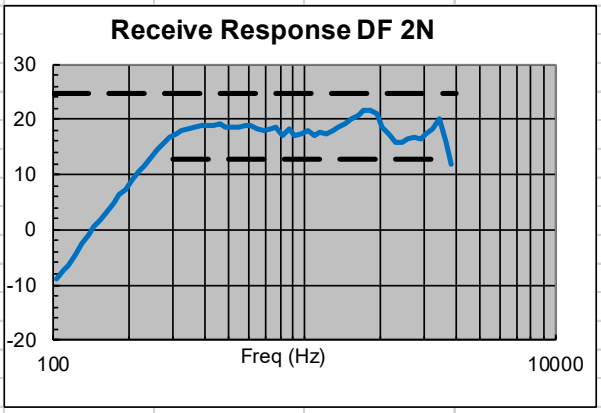
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.44 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.12 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.6 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.08 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.28 dB	info only		
	Recv conversational gain 8N	23.28 dB	18.00	PASS	
	Recv output level dBSPL 2N	88.8 dB	info only		
	Recv conversational gain 2N	18.8 dB	6.00	PASS	

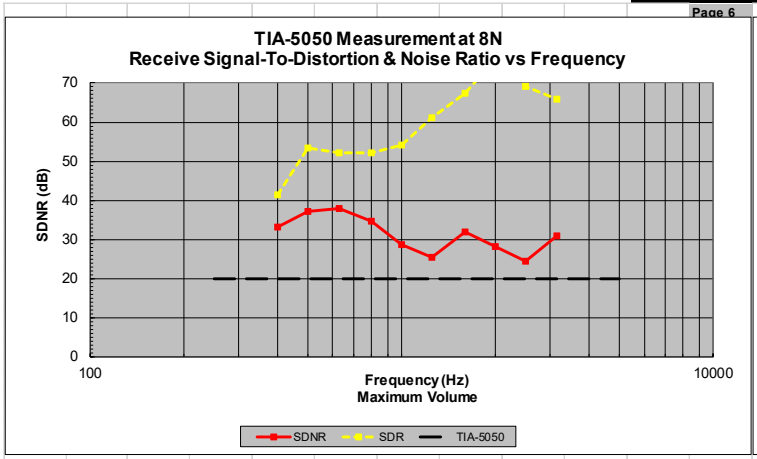
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	4.4 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	5.63 dB	Absolute Limits	PASS	

NR n77 Block C PC3 EVS-NB: 9.6 kbps

Distortion Report

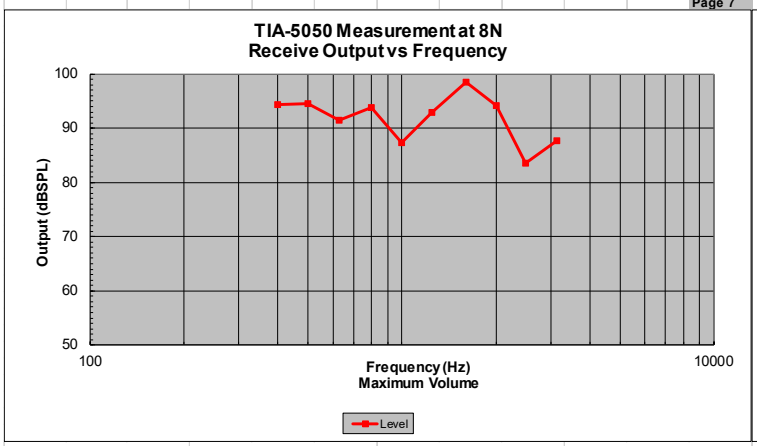
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	4.4 dB	Absolute Limits	PASS	10/8/2024 22:49	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

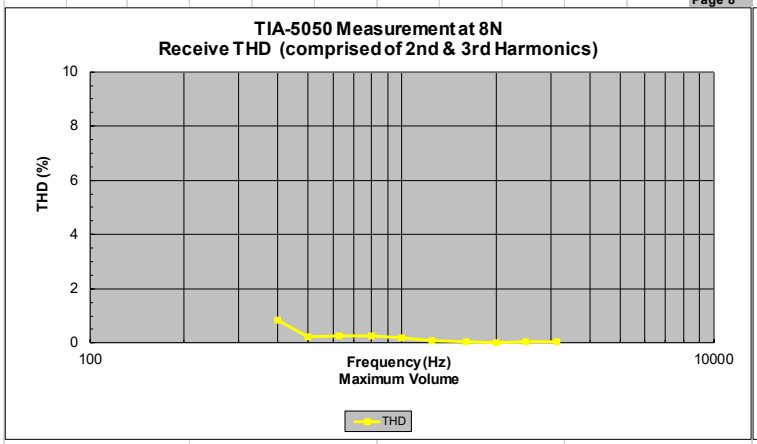
Page 7



Test Date	
10/8/2024 22:49	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

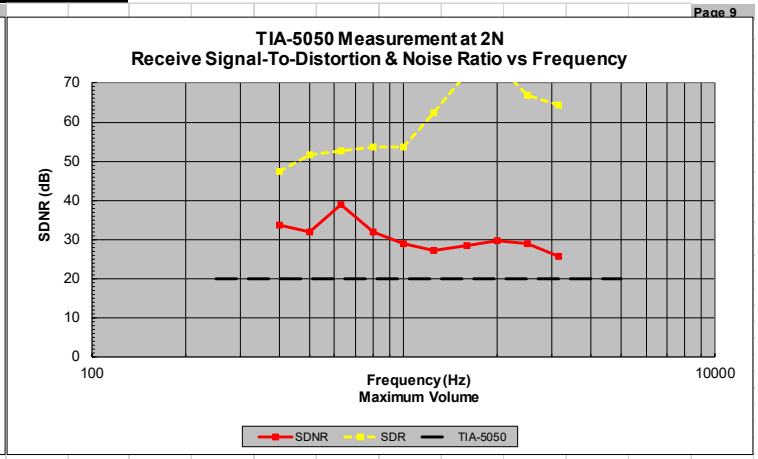
Page 8



Test Date	
10/8/2024 22:49	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

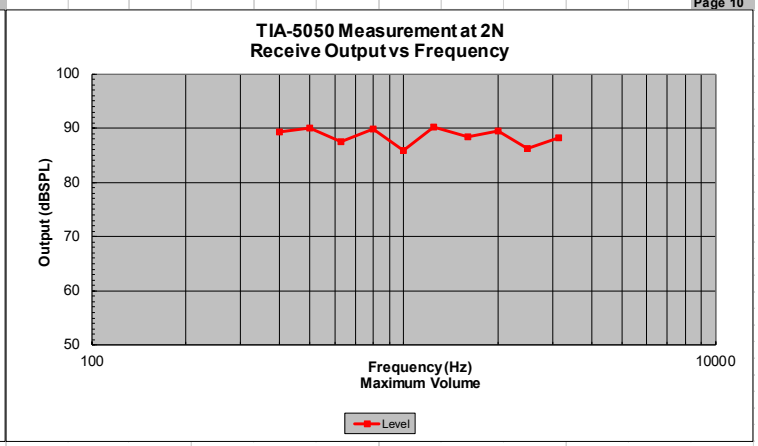
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	5.63 dB	Absolute Limits	PASS	10/8/2024 22:49	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

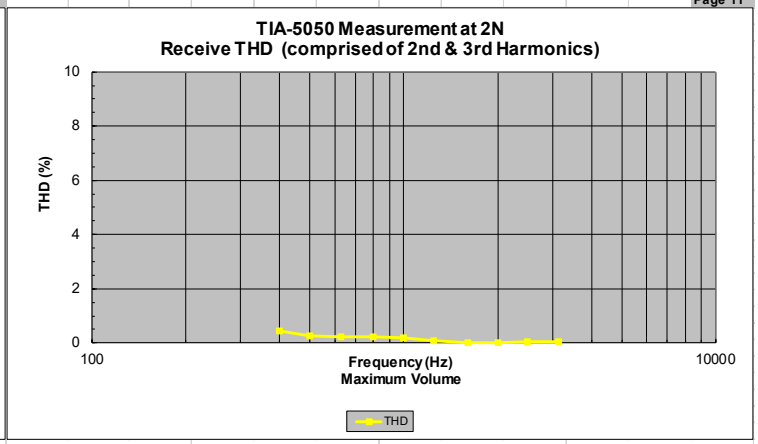
Page 10



Test Date	
10/8/2024 22:49	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
10/8/2024 22:49	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps CCK 5.5 Mbps

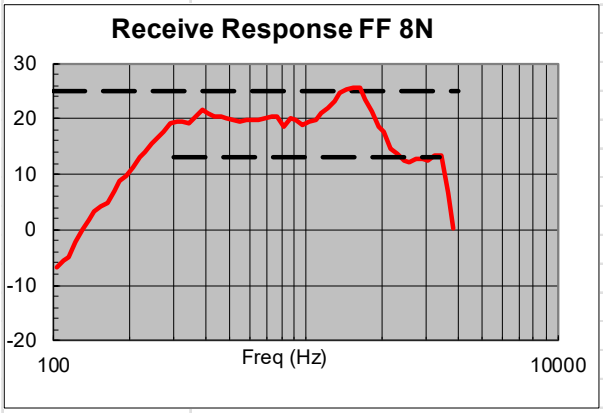
Conversational Gain & Frequency Response Report

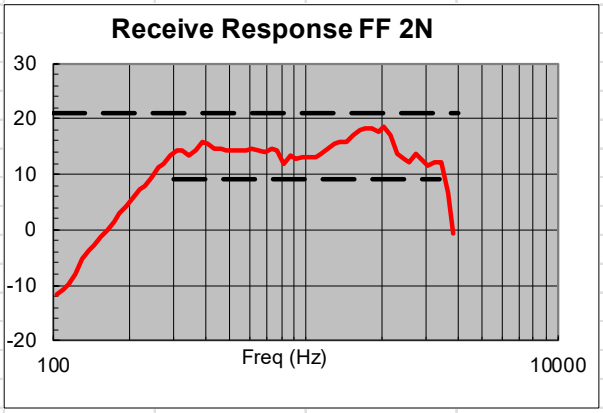
TIA-5050 Receive Volume Control Measurements

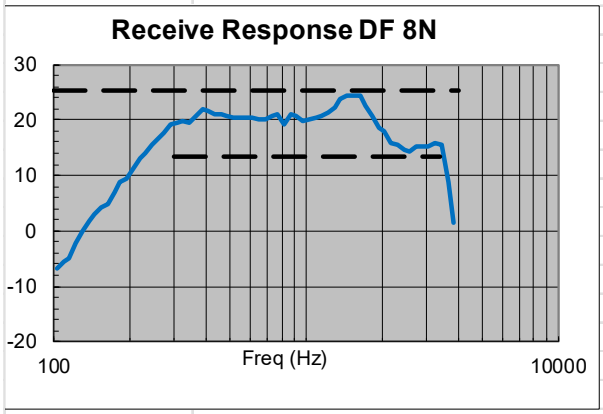
Device Under Test:	802.11b EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

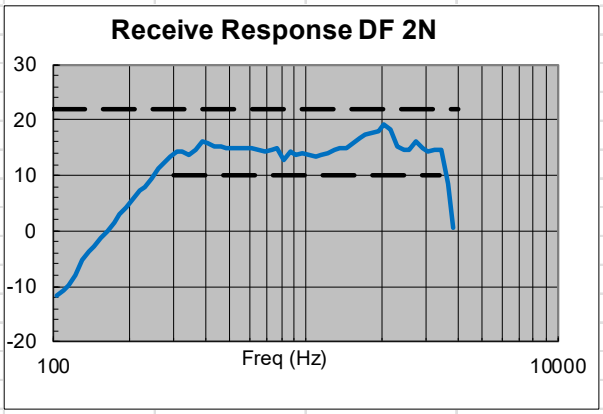
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.74 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.49 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.76 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	91.01 dB	info only		
	Recv conversational gain 8N	21.01 dB	18.00	PASS	
	Recv output level dBSPL 2N	85.11 dB	info only		
	Recv conversational gain 2N	15.11 dB	6.00	PASS	

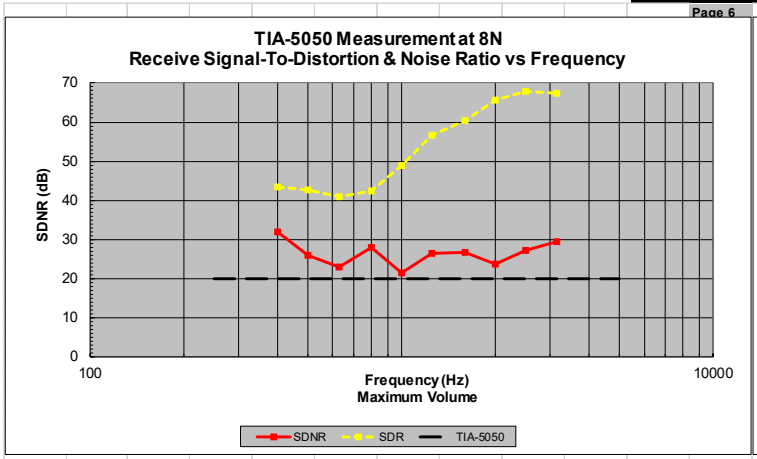
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.6 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	2.24 dB	Absolute Limits	PASS	

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps CCK 5.5 Mbps

Distortion Report

Page 6



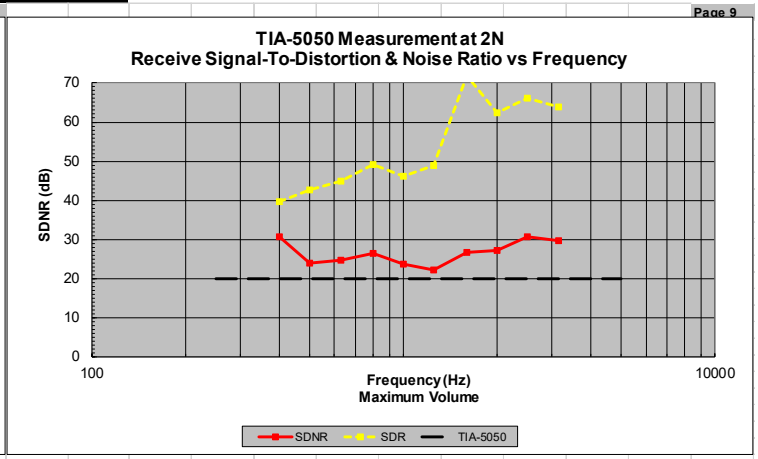
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	1.6 dB	Absolute Limits	PASS	9/23/2024 15:13

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



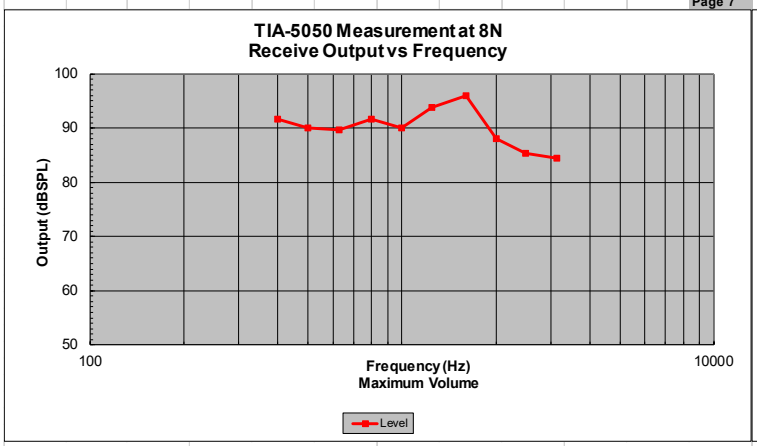
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	2.24 dB	Absolute Limits	PASS	9/23/2024 15:13

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

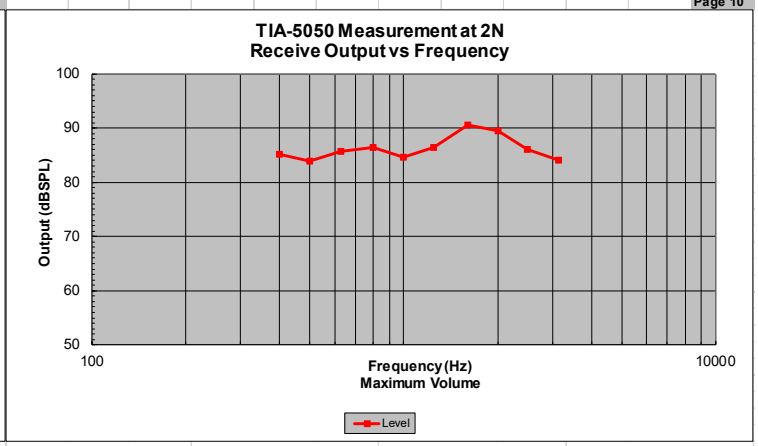


Test Date
9/23/2024 15:13

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

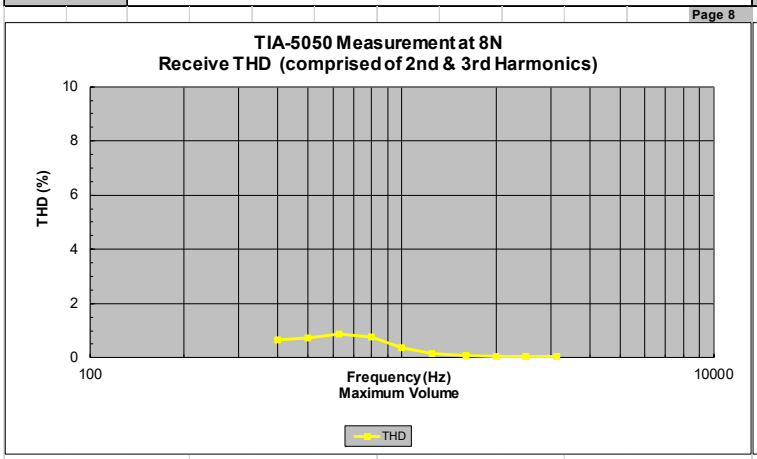


Test Date
9/23/2024 15:13

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

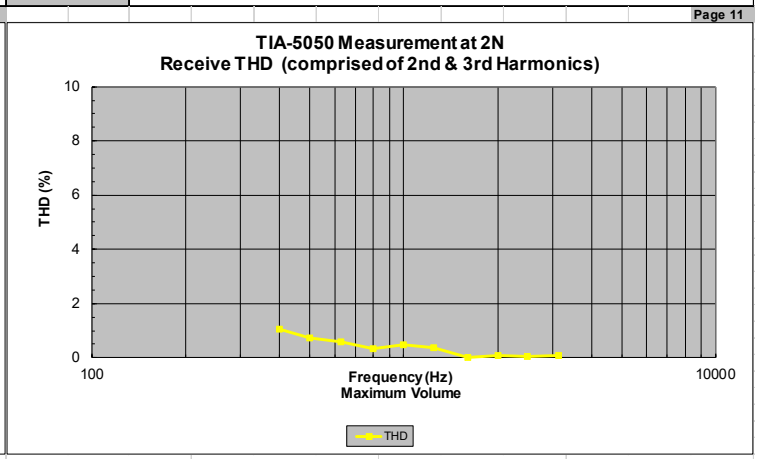


Test Date
9/23/2024 15:13

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/23/2024 15:13

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Wi-Fi 2.4 GHz EVS-WB: 24.4 kbps CCK 11 Mbps

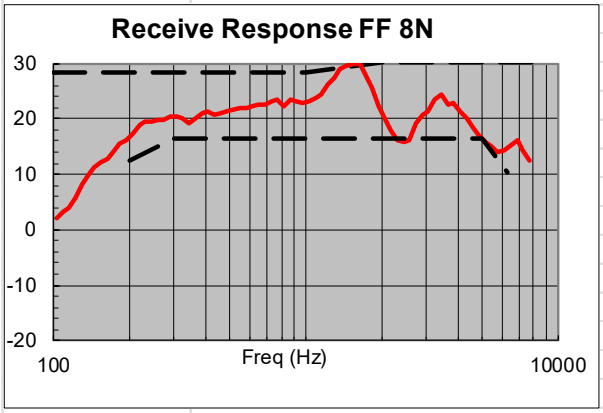
Conversational Gain & Frequency Response Report

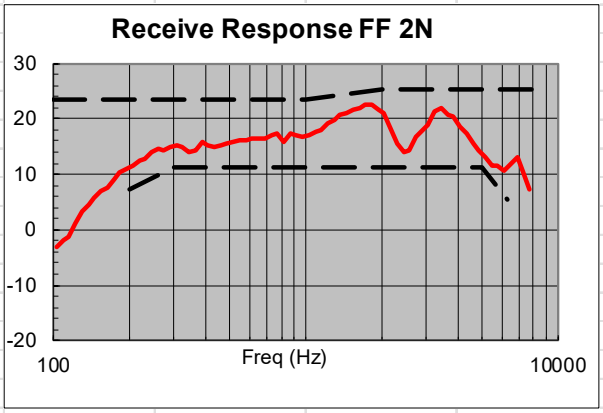
TIA-5050 Receive Volume Control Measurements

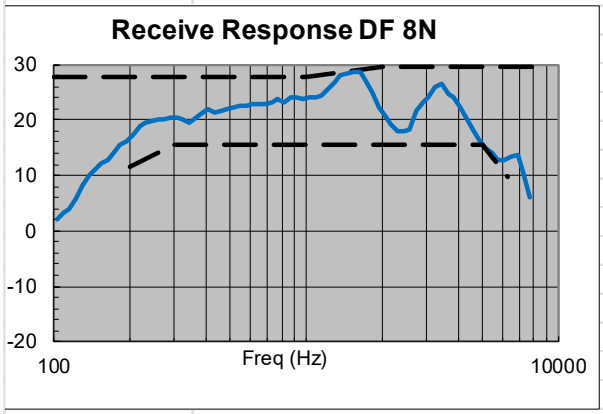
Device Under Test:	802.11b EVS-WB
Bandwidth	Wideband
Test Date:	9/23/2024

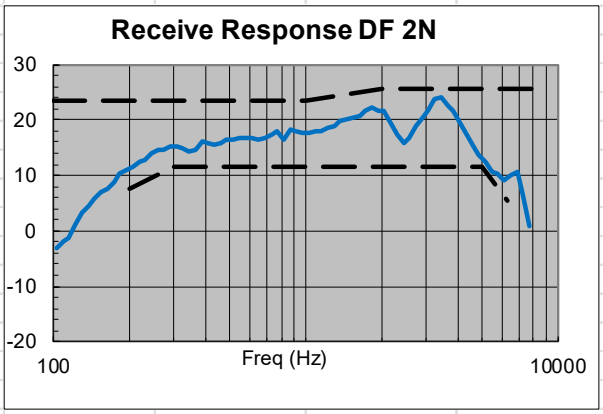
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.36 dB	Floating Limits	FAIL	
	Recv resp DF 8N	0.2 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.41 dB	Floating Limits	PASS	
	Recv resp DF 2N	1.3 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	93.54 dB	info only		
	Recv conversational gain 8N	23.54 dB	18.00	PASS	
	Recv output level dBSPL 2N	87.58 dB	info only		
	Recv conversational gain 2N	17.58 dB	6.00	PASS	

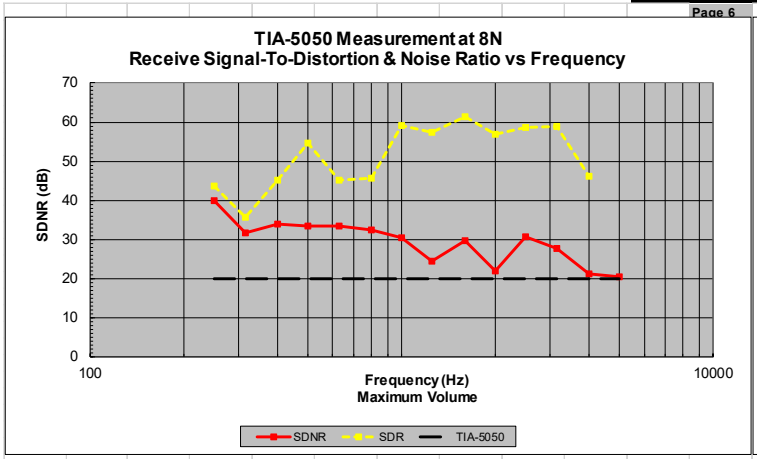
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.5 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.6 dB	Absolute Limits	PASS	

Wi-Fi 2.4 GHz EVS-WB: 24.4 kbps CCK 11 Mbps

Distortion Report

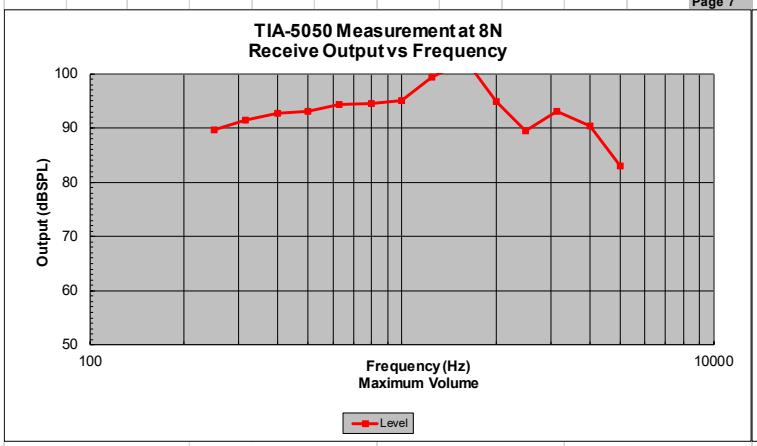
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	0.5 dB	Absolute Limits	PASS	9/23/2024 15:43	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 24.4 kbps

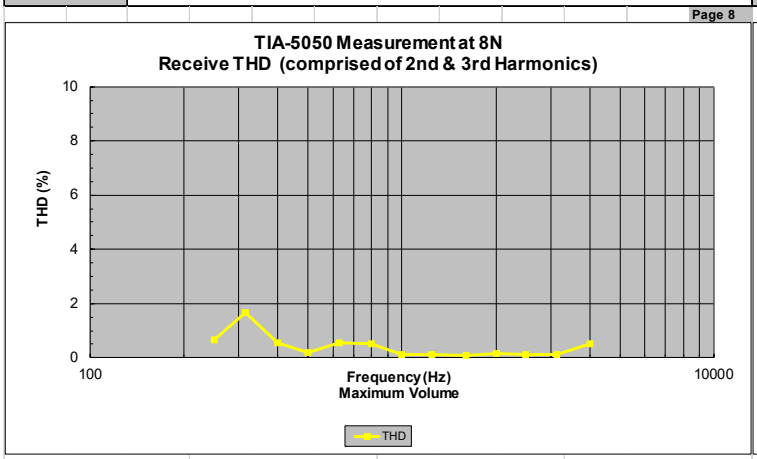
Page 7



Test Date	
9/23/2024 15:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 24.4 kbps

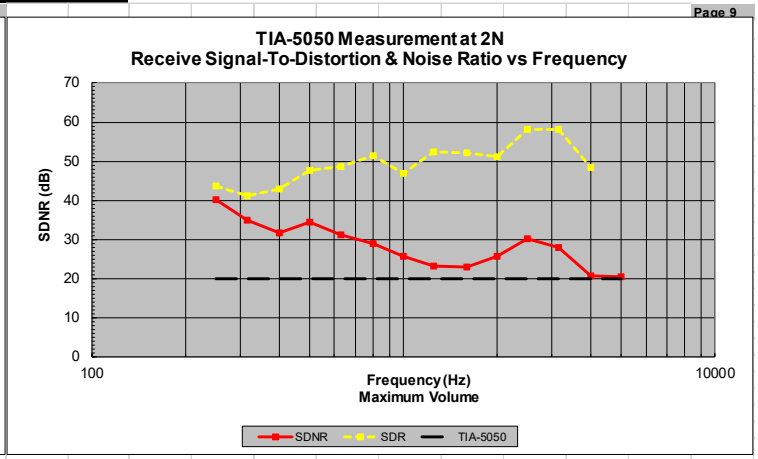
Page 8



Test Date	
9/23/2024 15:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 24.4 kbps

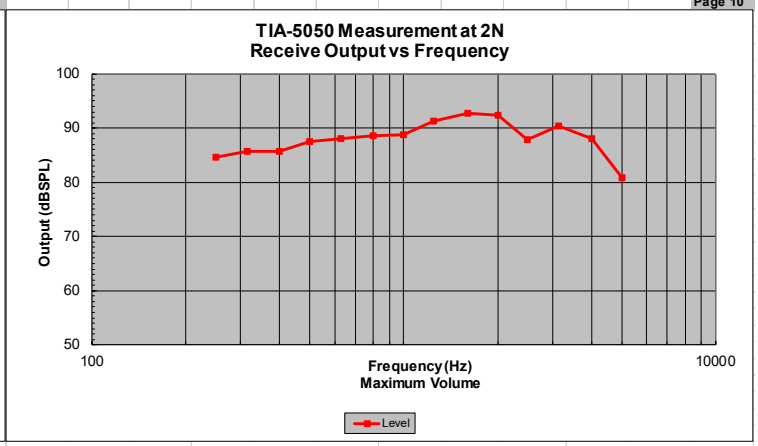
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	0.6 dB	Absolute Limits	PASS	9/23/2024 15:43	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-99 dBPa

Comments: 24.4 kbps

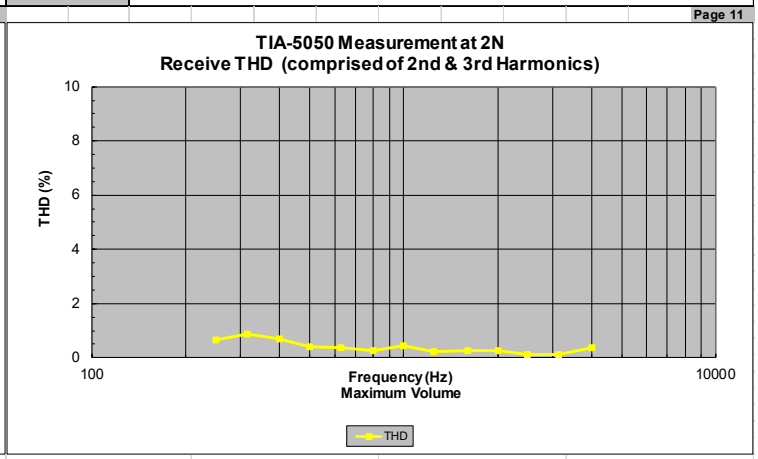
Page 10



Test Date	
9/23/2024 15:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 24.4 kbps

Page 11



Test Date	
9/23/2024 15:43	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 24.4 kbps

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps QPSK 12 Mbps

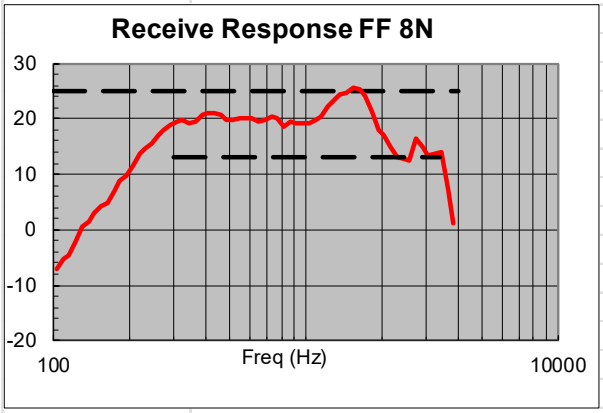
Conversational Gain & Frequency Response Report

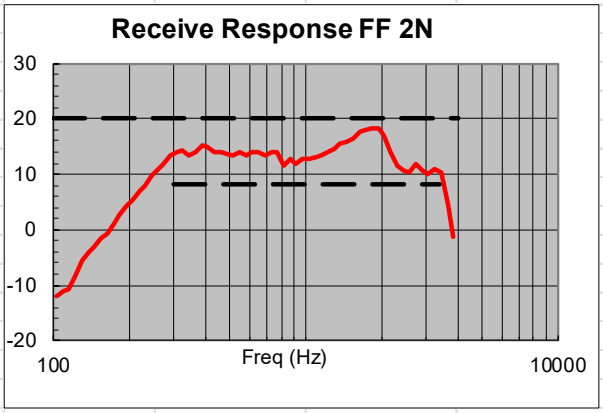
TIA-5050 Receive Volume Control Measurements

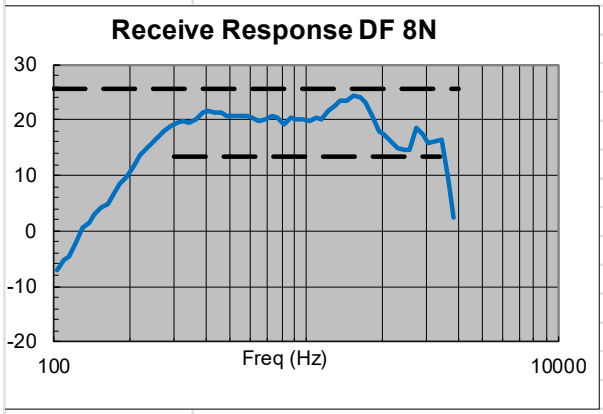
Device Under Test:	802.11g EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

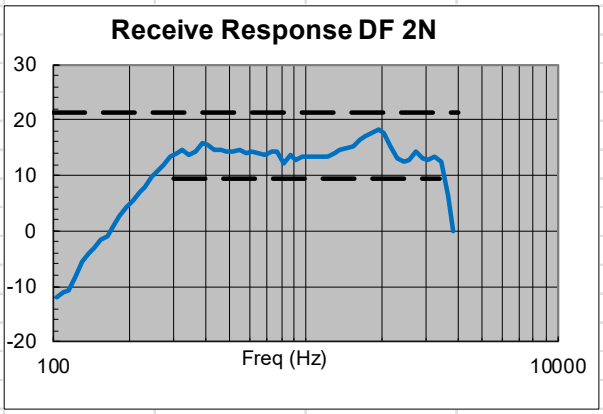
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.59 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.16 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.97 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.95 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	91.03 dB	info only		
	Recv conversational gain 8N	21.03 dB	18.00	PASS	
	Recv output level dBSPL 2N	84.66 dB	info only		
	Recv conversational gain 2N	14.66 dB	6.00	PASS	

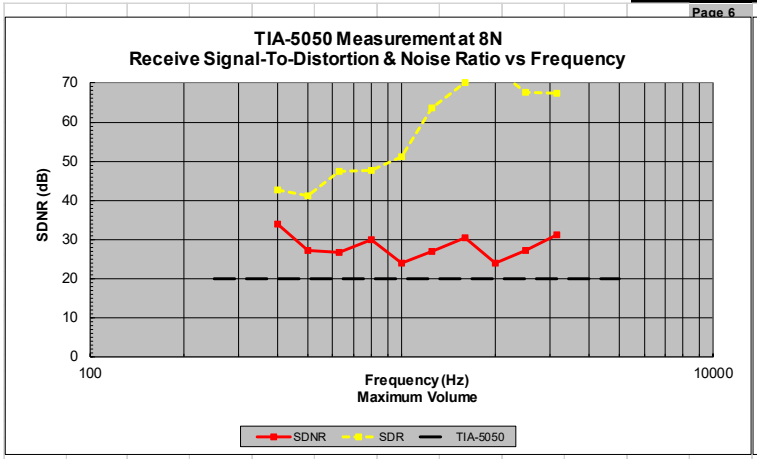
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	4 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	3.09 dB	Absolute Limits	PASS	

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps QPSK 12 Mbps

Distortion Report

Page 6



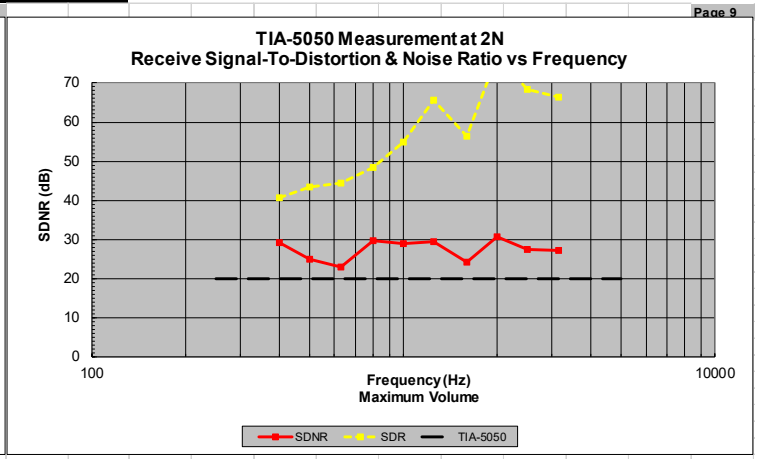
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	4 dB	Absolute Limits	PASS	9/23/2024 15:58

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



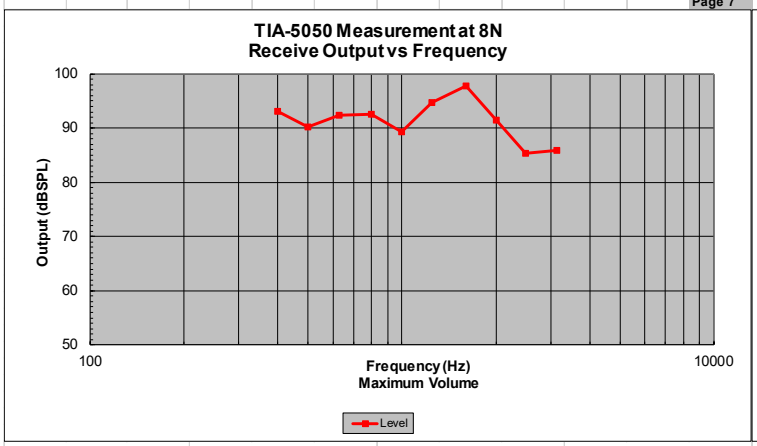
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	3.09 dB	Absolute Limits	PASS	9/23/2024 15:58

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

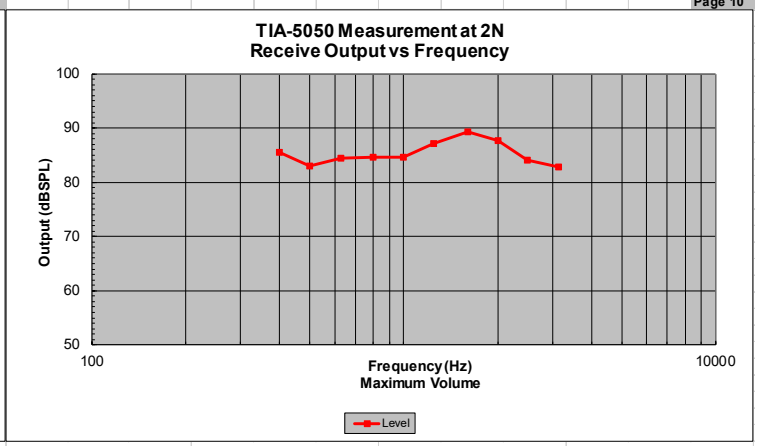


Test Date
9/23/2024 15:58

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

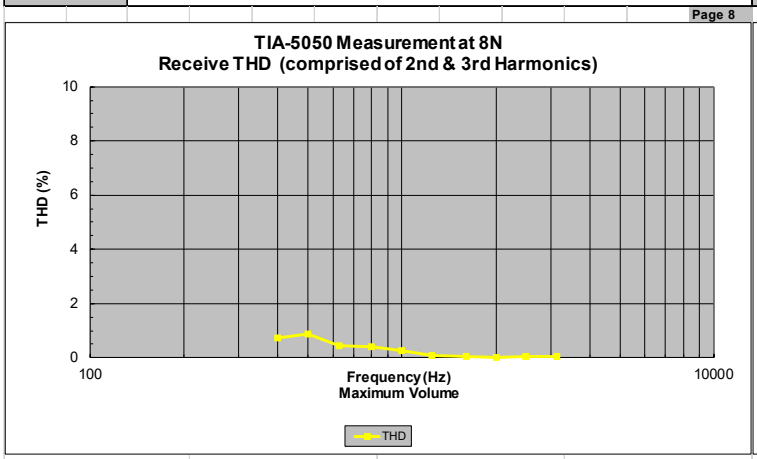


Test Date
9/23/2024 15:58

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

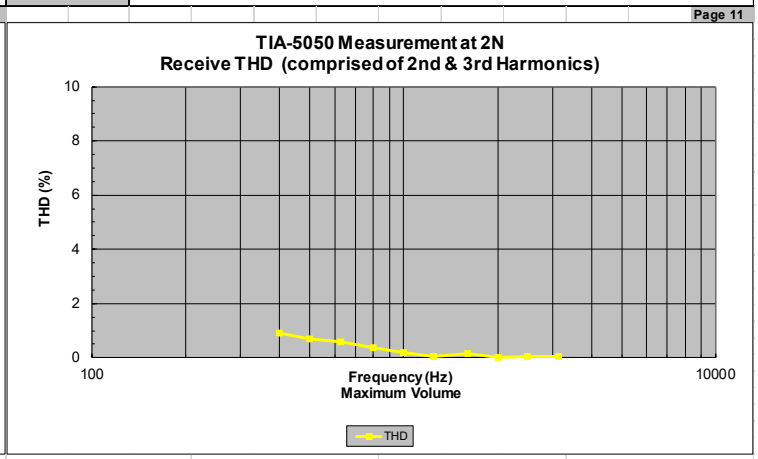


Test Date
9/23/2024 15:58

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/23/2024 15:58

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps MCS3 26 Mbps

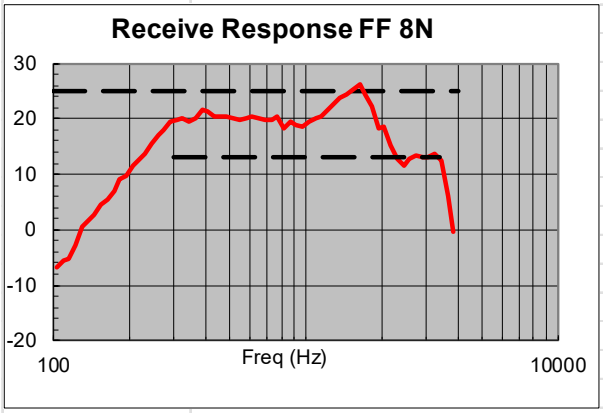
Conversational Gain & Frequency Response Report

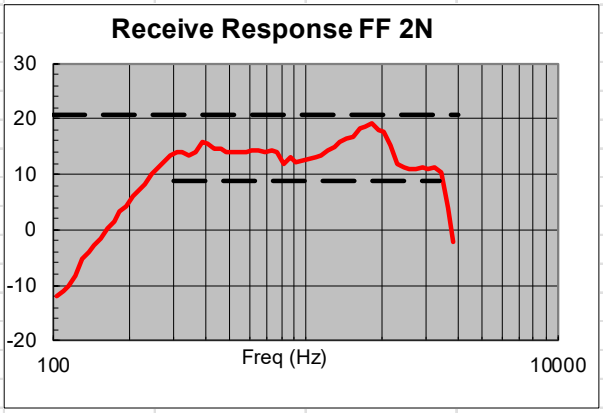
TIA-5050 Receive Volume Control Measurements

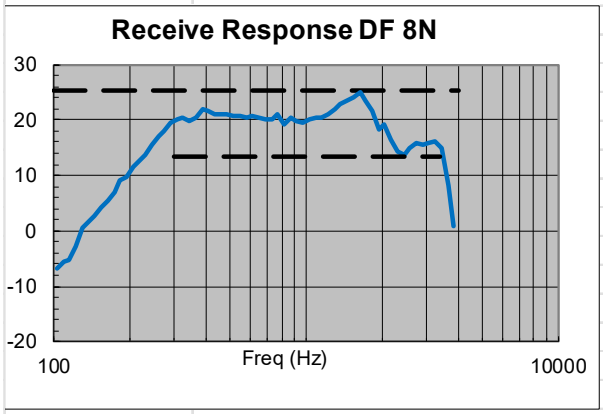
Device Under Test:	802.11n EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

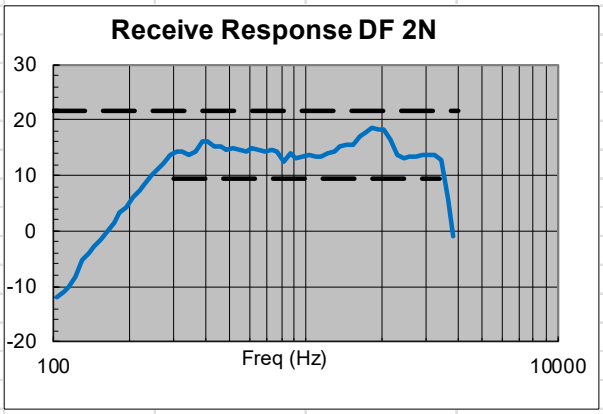
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-1.32 dB	Floating Limits	FAIL	
	Recv resp DF 8N	0.29 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.76 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.92 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	91.08 dB	info only		
	Recv conversational gain 8N	21.08 dB	18.00	PASS	
	Recv output level dBSPL 2N	85.01 dB	info only		
	Recv conversational gain 2N	15.01 dB	6.00	PASS	

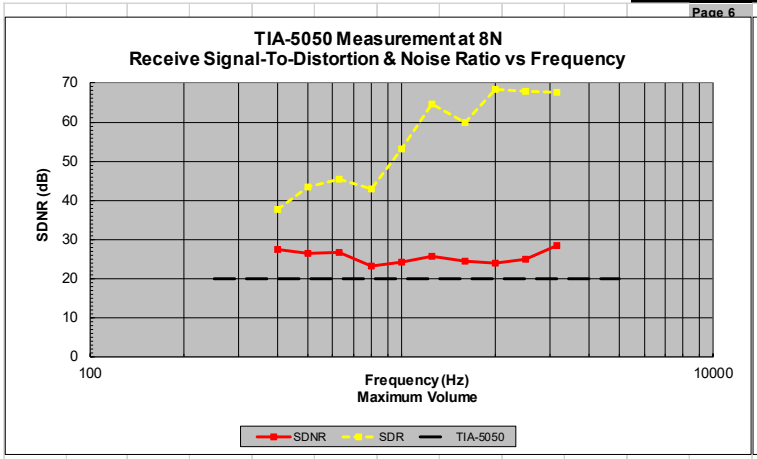
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	3.2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	1.72 dB	Absolute Limits	PASS	

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps MCS3 26 Mbps

Distortion Report

Page 6



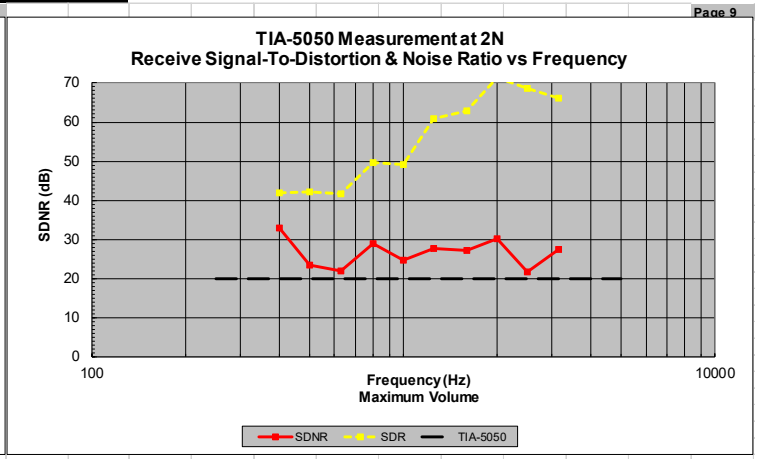
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	3.2 dB	Absolute Limits	PASS	9/23/2024 16:17

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



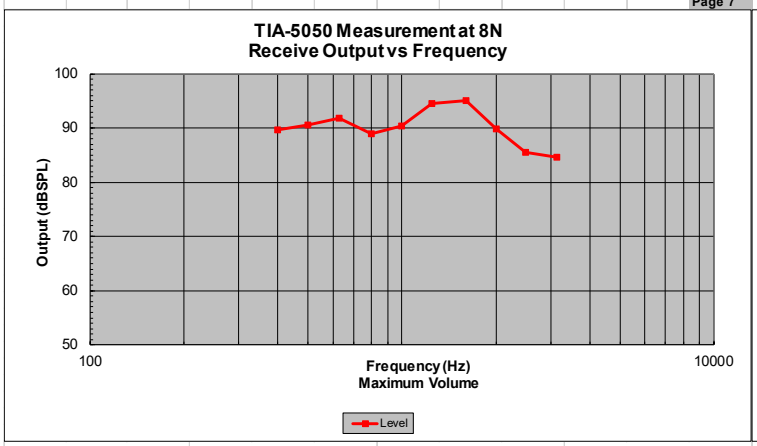
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	1.72 dB	Absolute Limits	PASS	9/23/2024 16:17

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

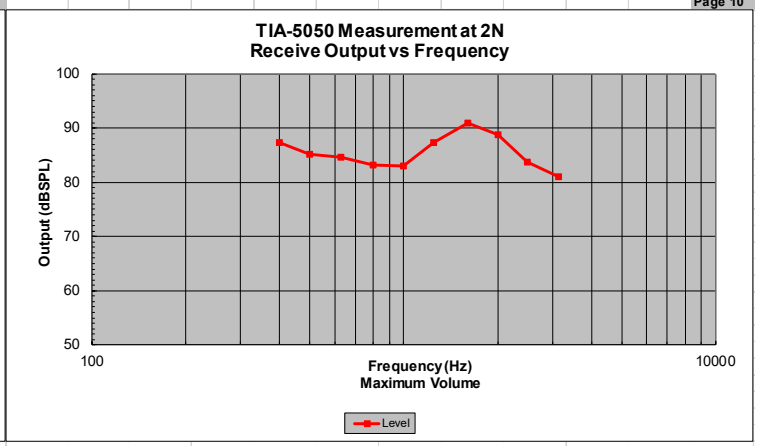


Test Date
9/23/2024 16:17

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

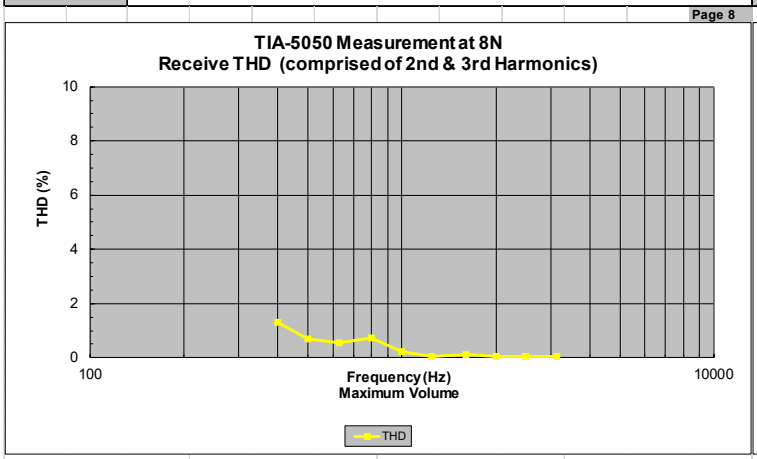


Test Date
9/23/2024 16:17

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

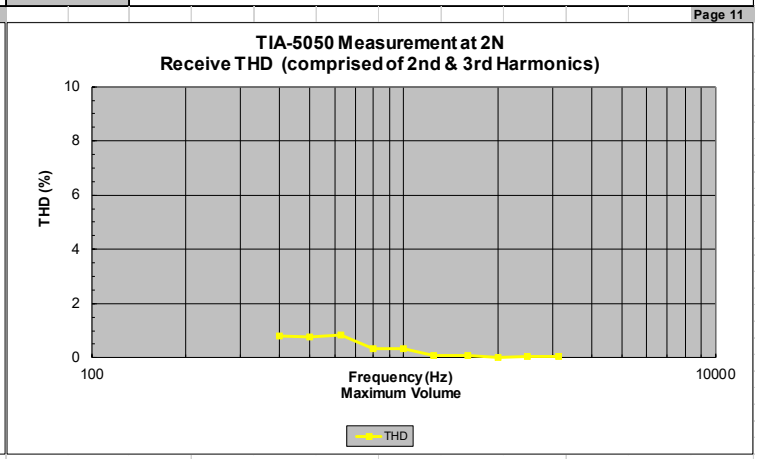


Test Date
9/23/2024 16:17

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/23/2024 16:17

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps MCS3 26 Mbps

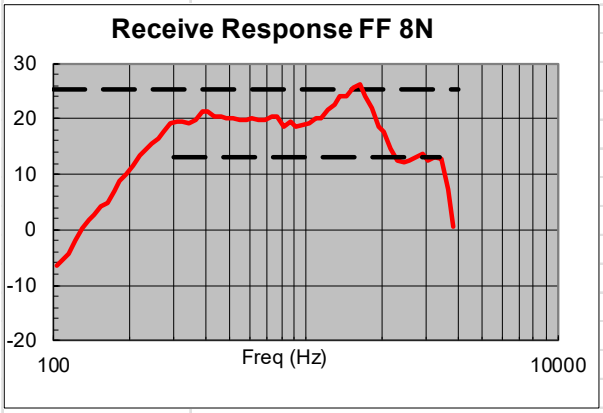
Conversational Gain & Frequency Response Report

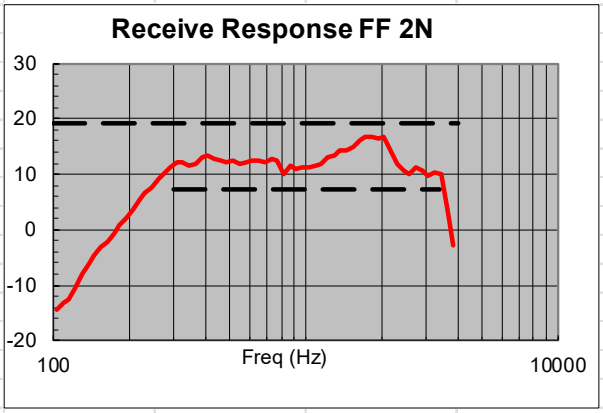
TIA-5050 Receive Volume Control Measurements

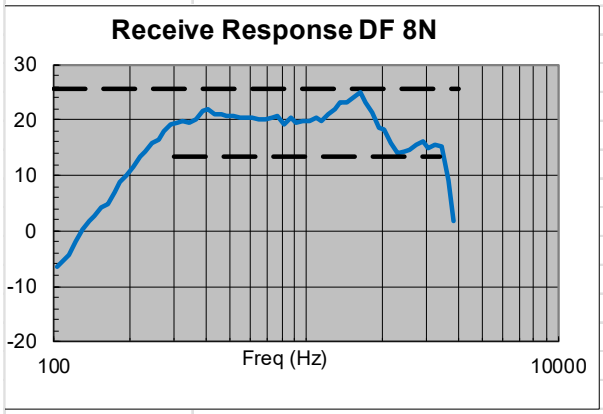
Device Under Test:	802.11ac EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

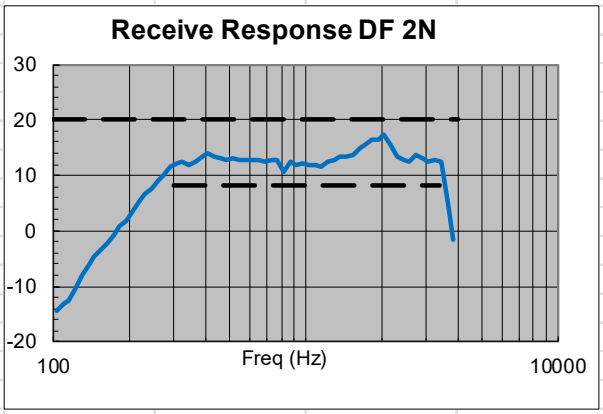
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.94 dB	Floating Limits	FAIL	
	Recv resp DF 8N	0.59 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.46 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.67 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.97 dB	info only		
	Recv conversational gain 8N	20.97 dB	18.00	PASS	
	Recv output level dBSPL 2N	83.13 dB	info only		
	Recv conversational gain 2N	13.13 dB	6.00	PASS	

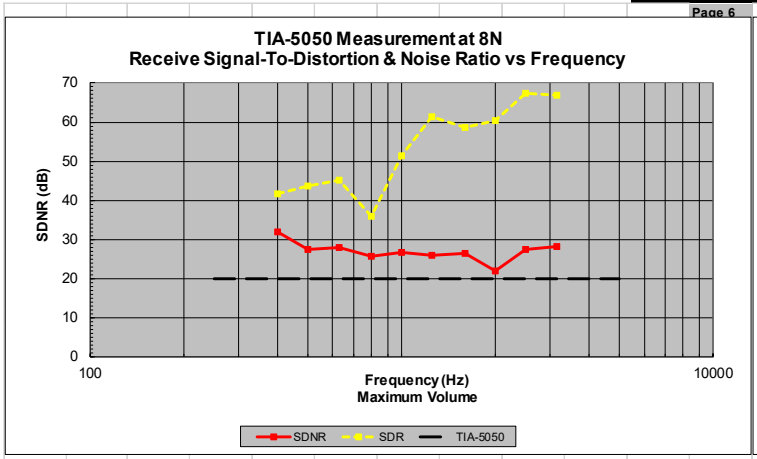
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	3.43 dB	Absolute Limits	PASS	

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps MCS3 26 Mbps

Distortion Report

Page 6



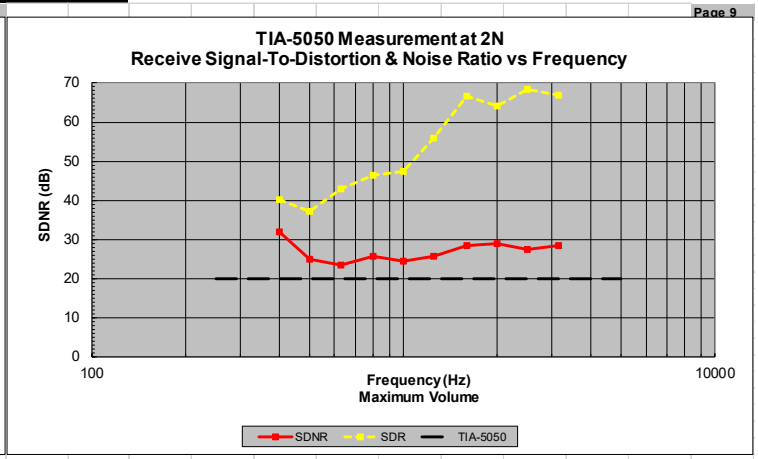
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	2 dB	Absolute Limits	PASS	9/23/2024 16:28

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



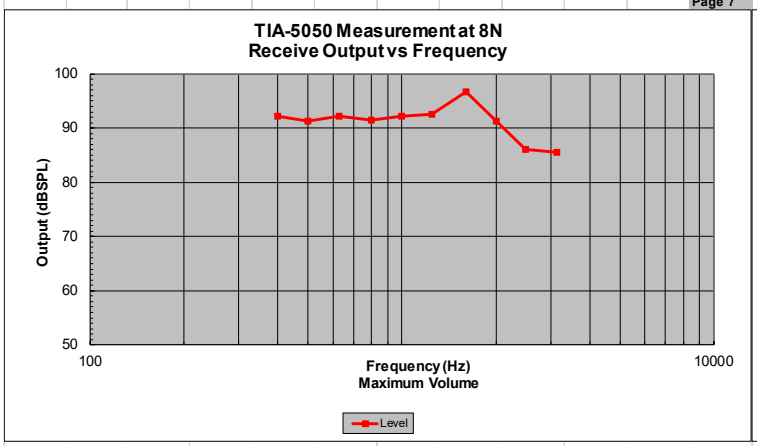
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	3.43 dB	Absolute Limits	PASS	9/23/2024 16:28

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

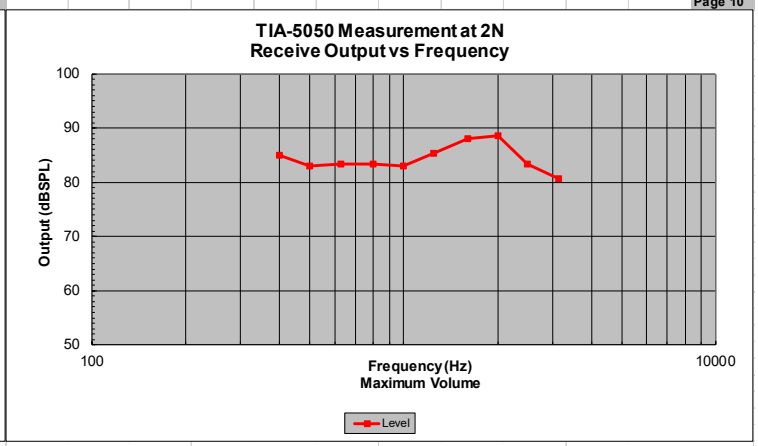


Test Date
9/23/2024 16:28

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

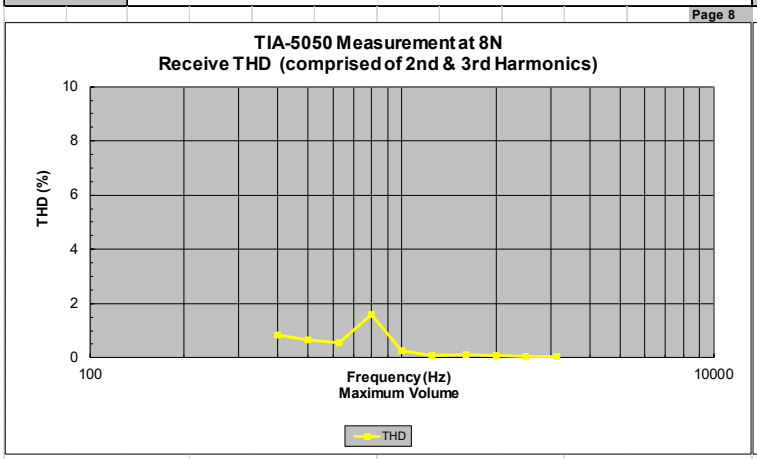


Test Date
9/23/2024 16:28

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

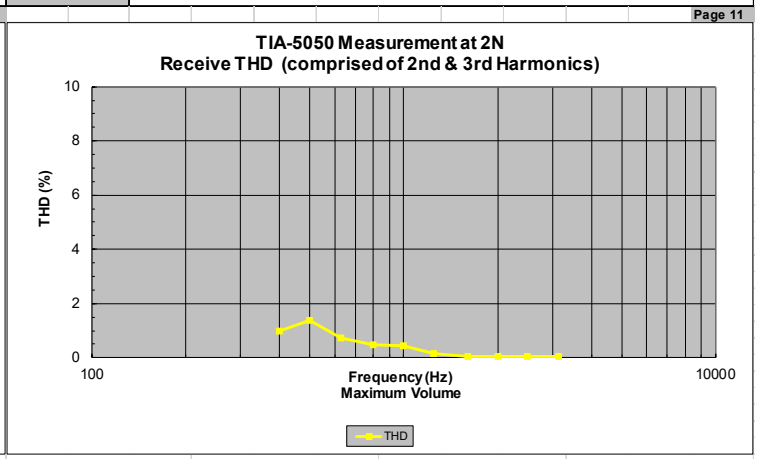


Test Date
9/23/2024 16:28

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/23/2024 16:28

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps MCS5 58.5 Mbps

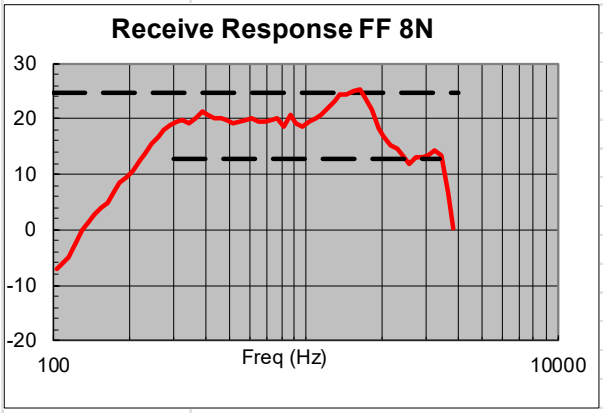
Conversational Gain & Frequency Response Report

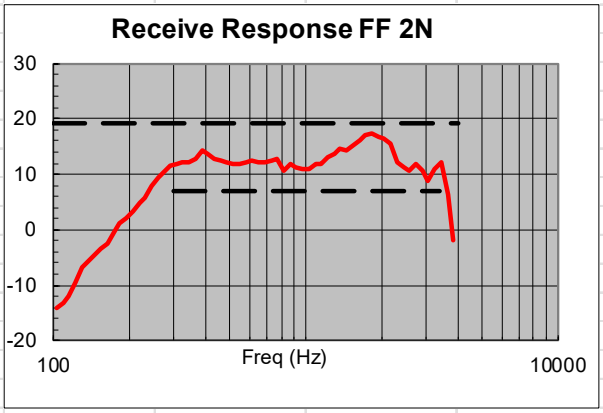
TIA-5050 Receive Volume Control Measurements

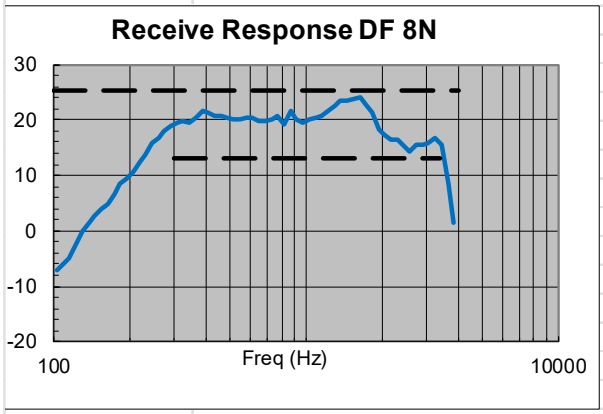
Device Under Test:	802.11ax EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

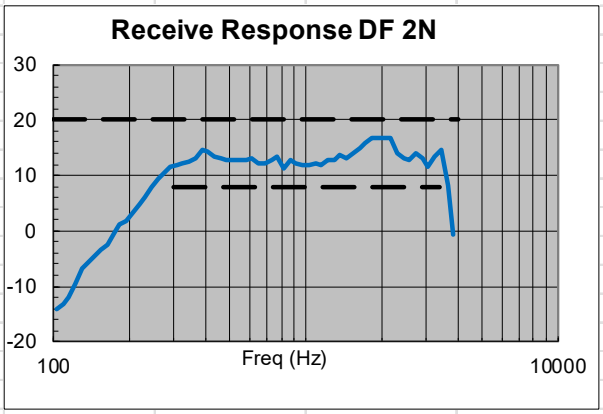
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.74 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.01 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.82 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.19 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.83 dB	info only		
	Recv conversational gain 8N	20.83 dB	18.00	PASS	
	Recv output level dBSPL 2N	83.25 dB	info only		
	Recv conversational gain 2N	13.25 dB	6.00	PASS	

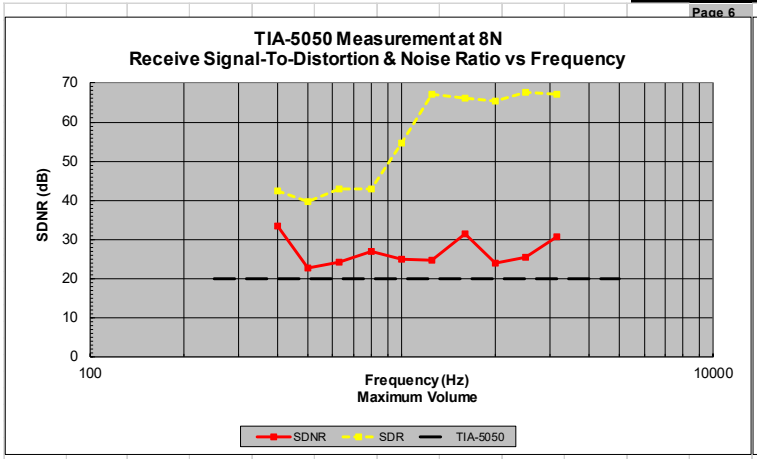
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	2.8 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	0.75 dB	Absolute Limits	PASS	

Wi-Fi 2.4 GHz EVS-NB: 9.6 kbps MCS5 58.5 Mbps

Distortion Report

Page 6



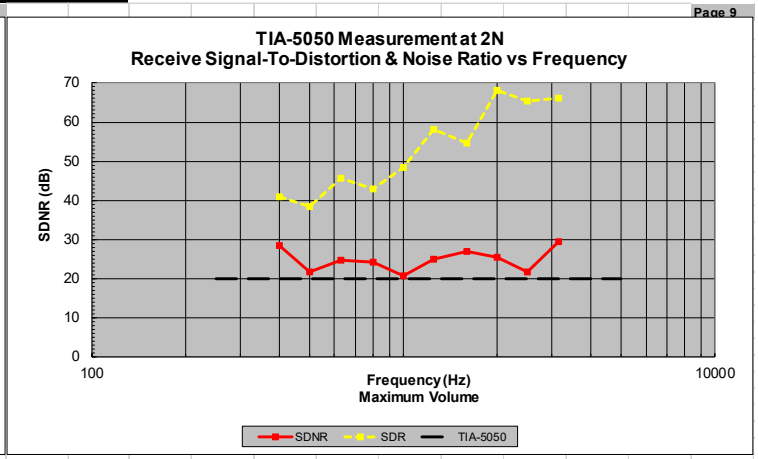
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	2.8 dB	Absolute Limits	PASS	9/23/2024 16:55

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



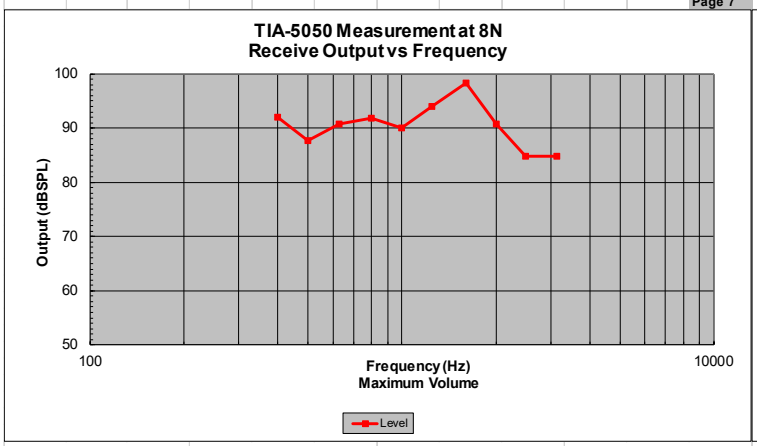
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	0.75 dB	Absolute Limits	PASS	9/23/2024 16:55

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

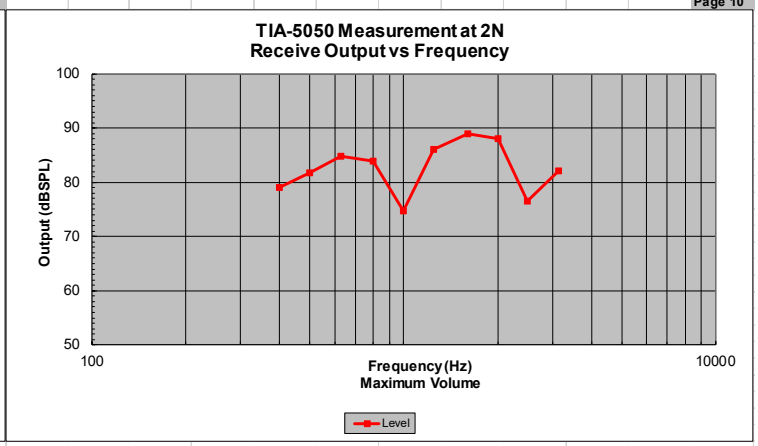


Test Date
9/23/2024 16:55

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

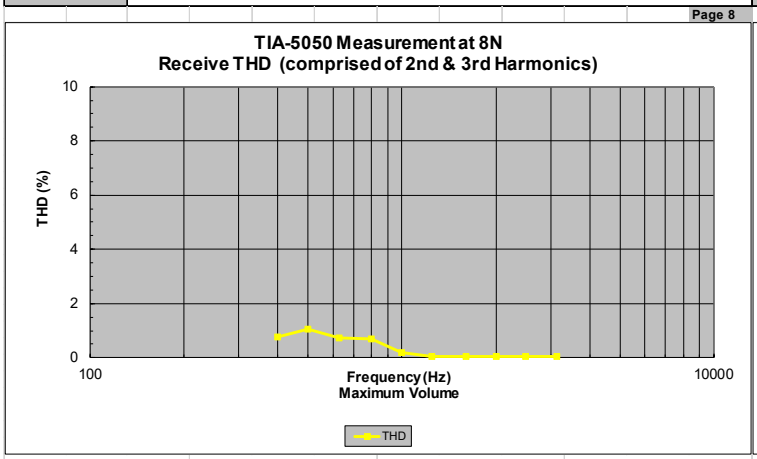


Test Date
9/23/2024 16:55

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

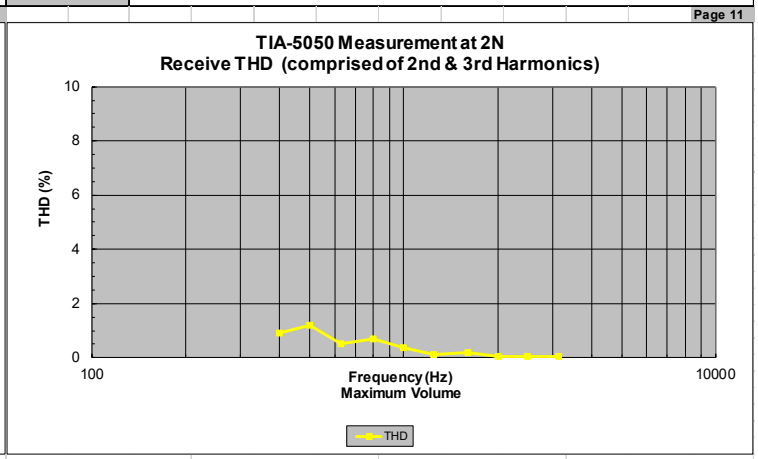


Test Date
9/23/2024 16:55

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/23/2024 16:55

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Wi-Fi 5 GHz EVS-NB: 9.6 kbps QPSK 18 Mbps

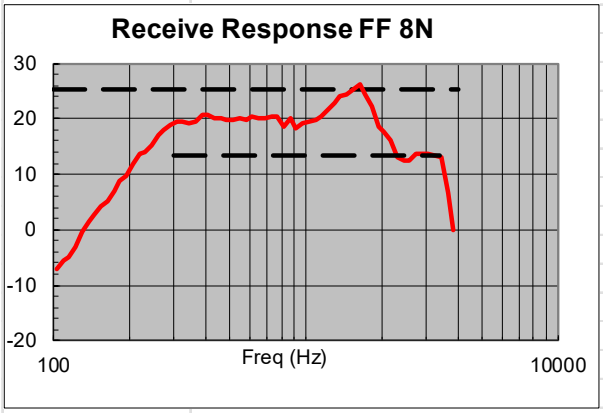
Conversational Gain & Frequency Response Report

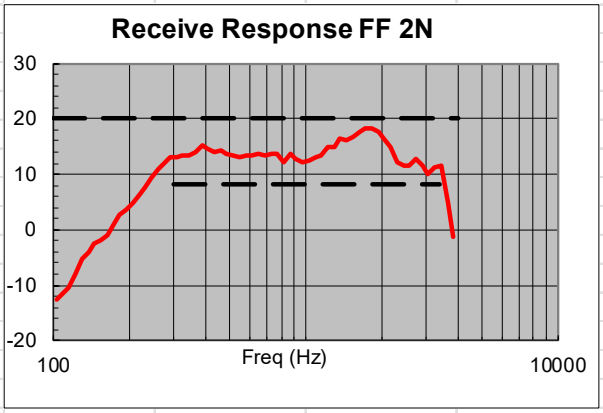
TIA-5050 Receive Volume Control Measurements

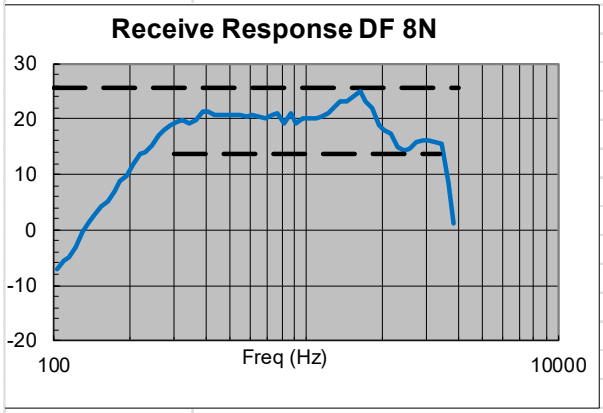
Device Under Test:	802.11a EVS NB
Bandwidth	Narrowband
Test Date:	9/23/2024

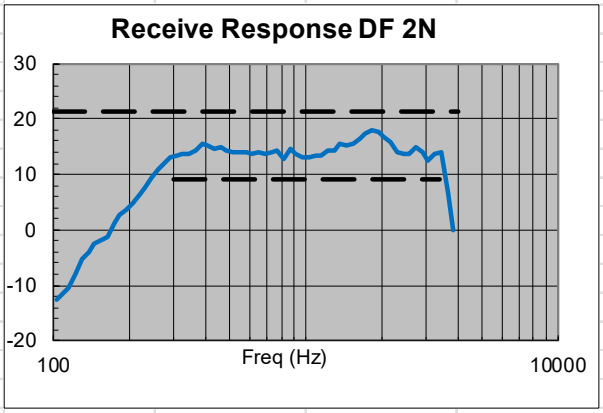
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.88 dB	Floating Limits	FAIL	
	Recv resp DF 8N	0.75 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.76 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.28 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.91 dB	info only		
	Recv conversational gain 8N	20.91 dB	18.00	PASS	
	Recv output level dBSPL 2N	84.55 dB	info only		
	Recv conversational gain 2N	14.55 dB	6.00	PASS	

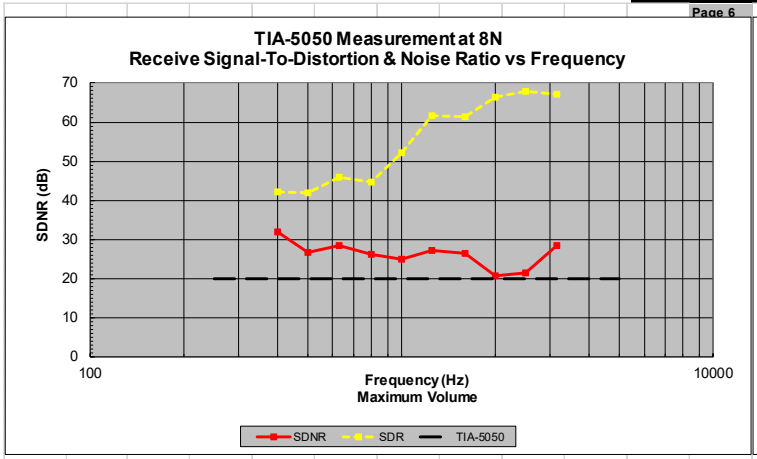
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	0.8 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	4.01 dB	Absolute Limits	PASS	

Wi-Fi 5 GHz EVS-NB: 9.6 kbps QPSK 18 Mbps

Distortion Report

Page 6



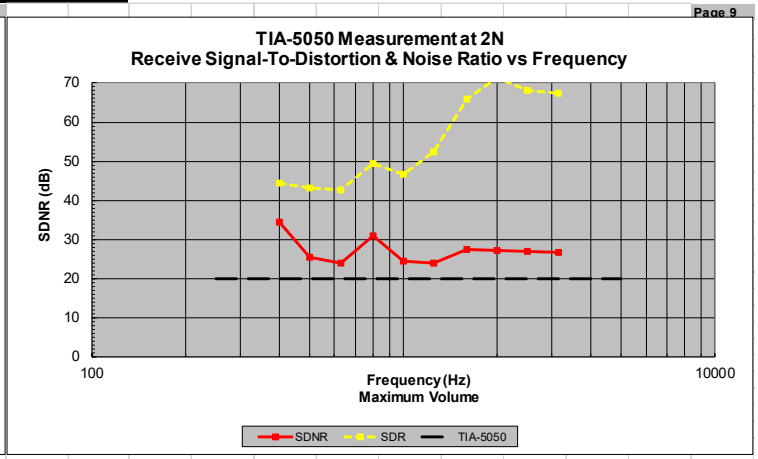
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 8N	0.8 dB	Absolute Limits	PASS	9/23/2024 17:14

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 9



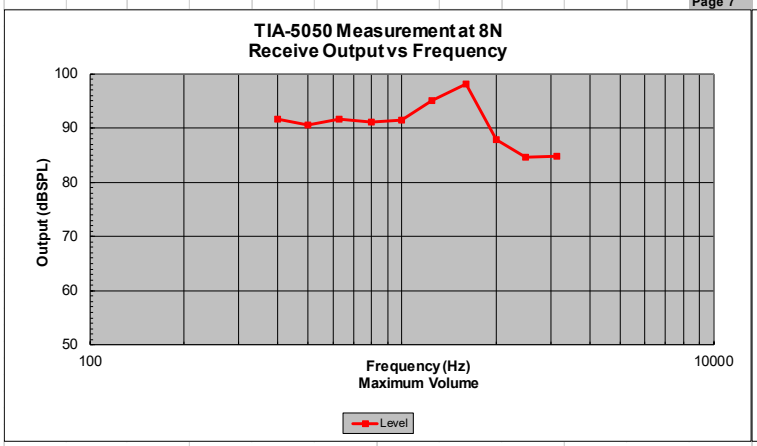
Test	Margin	Limits	Result	Test Date
Recv PN-SDNR 2N	4.01 dB	Absolute Limits	PASS	9/23/2024 17:14

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Note: SDNR includes noise and distortion products.
SDR includes only 2nd and 3rd harmonic distortion.

Comments: 9.6 kbps

Page 7

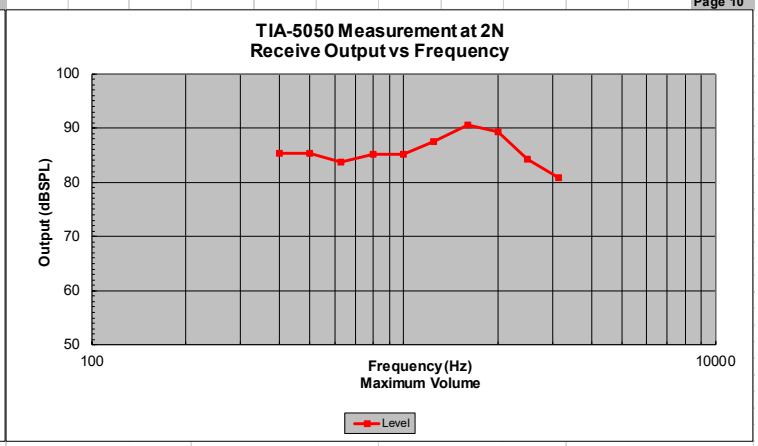


Test Date
9/23/2024 17:14

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 10

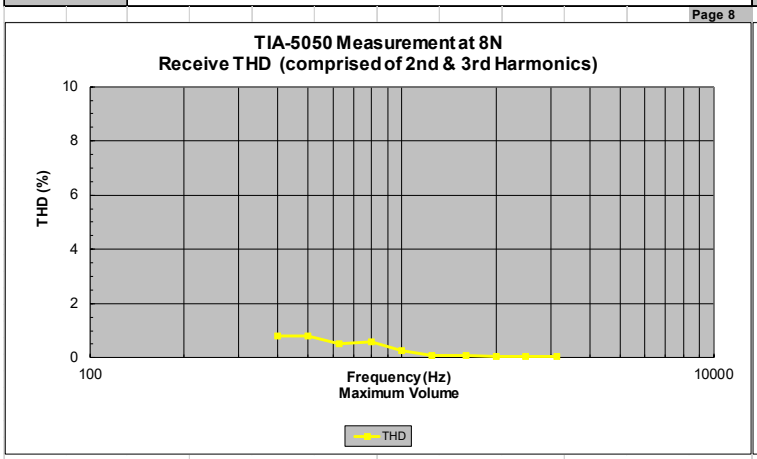


Test Date
9/23/2024 17:14

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 8

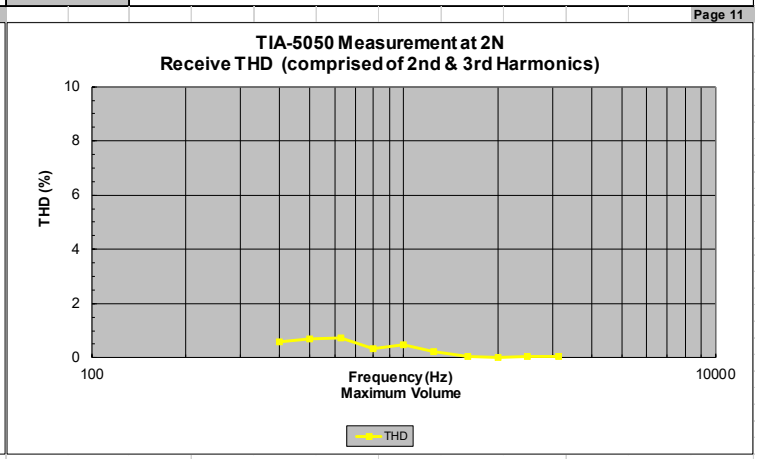


Test Date
9/23/2024 17:14

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Page 11



Test Date
9/23/2024 17:14

Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-99 dBPa

Comments: 9.6 kbps

Wi-Fi 5 GHz EVS-NB: 9.6 kbps MCS3 54 Mbps

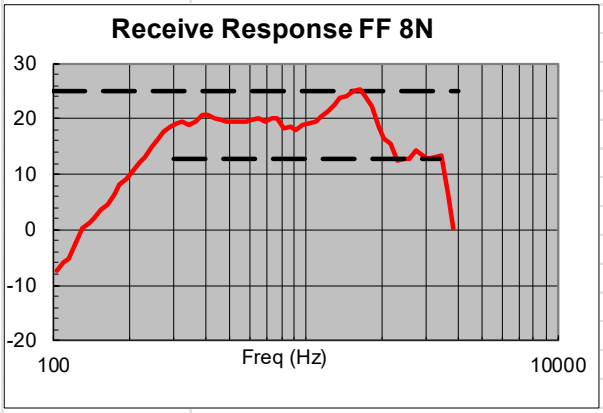
Conversational Gain & Frequency Response Report

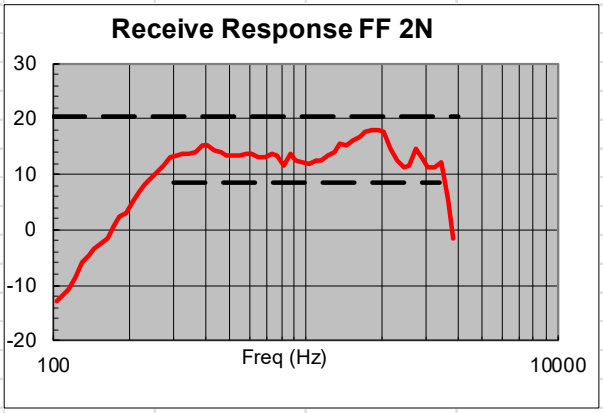
TIA-5050 Receive Volume Control Measurements

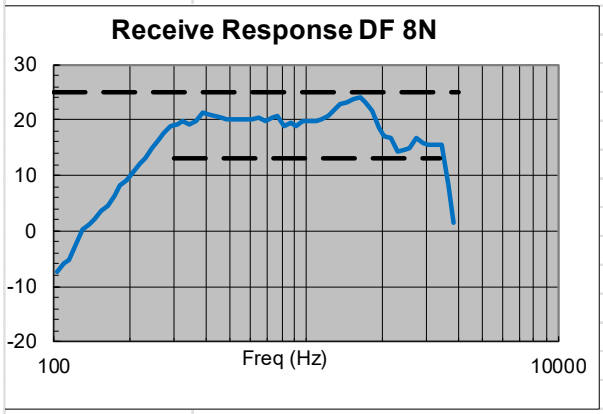
Device Under Test:	802.11n HT40 EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

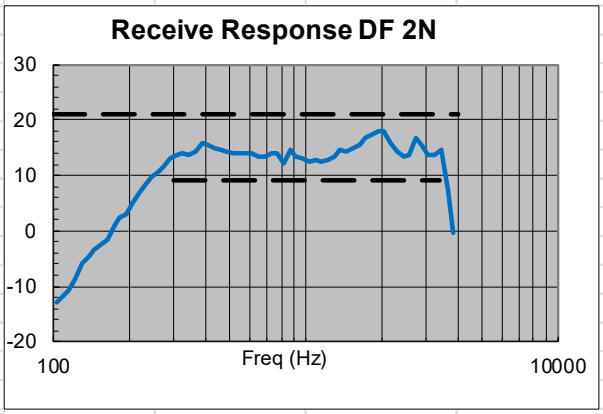
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.28 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.21 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.65 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.06 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.61 dB	info only		
	Recv conversational gain 8N	20.61 dB	18.00	PASS	
	Recv output level dBSPL 2N	84.45 dB	info only		
	Recv conversational gain 2N	14.45 dB	6.00	PASS	

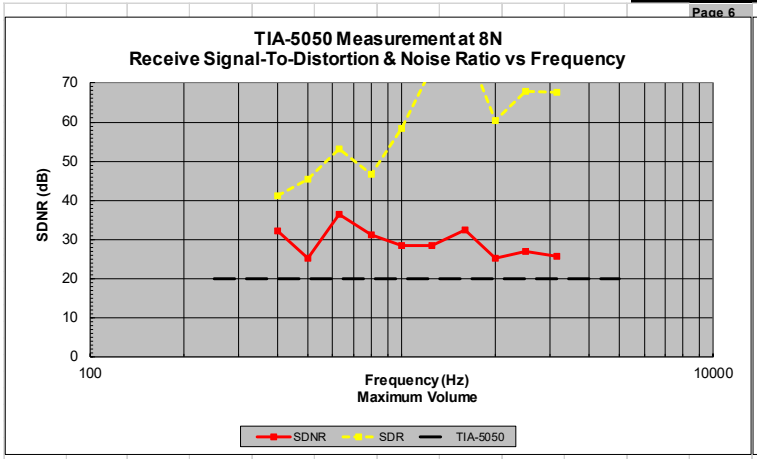
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	5.2 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	1.67 dB	Absolute Limits	PASS	

Wi-Fi 5 GHz EVS-NB: 24.4 kbps MCS3 54 Mbps

Distortion Report

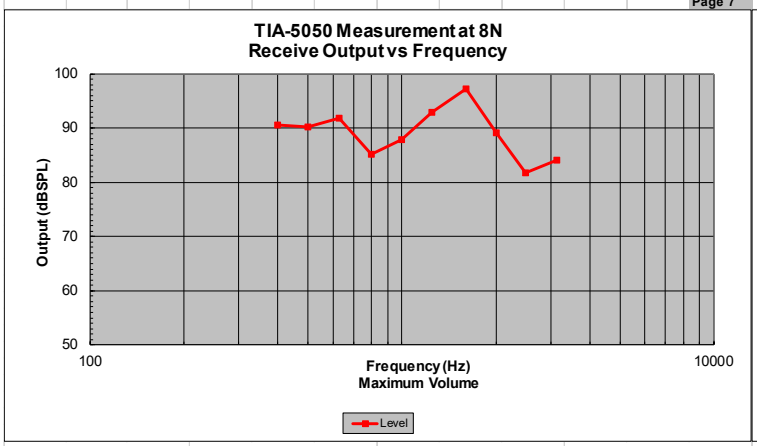
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	5.2 dB	Absolute Limits	PASS	9/23/2024 17:34	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

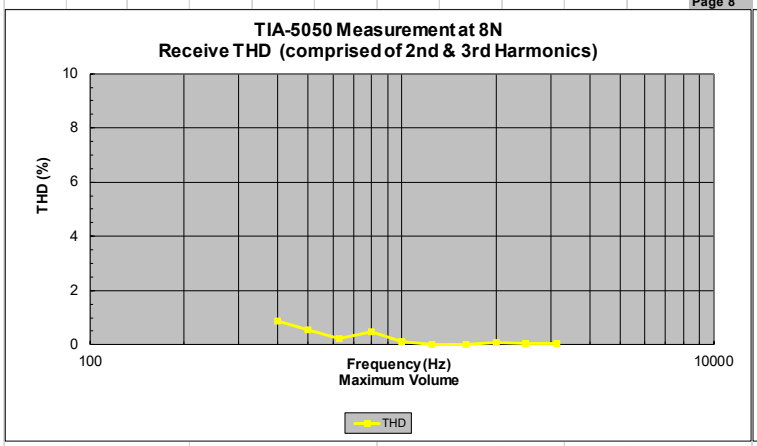
Page 7



Test Date	
9/23/2024 17:34	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

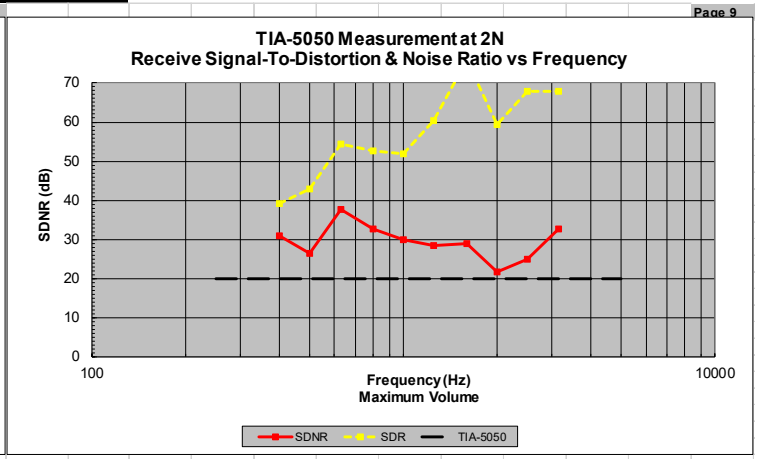
Page 8



Test Date	
9/23/2024 17:34	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

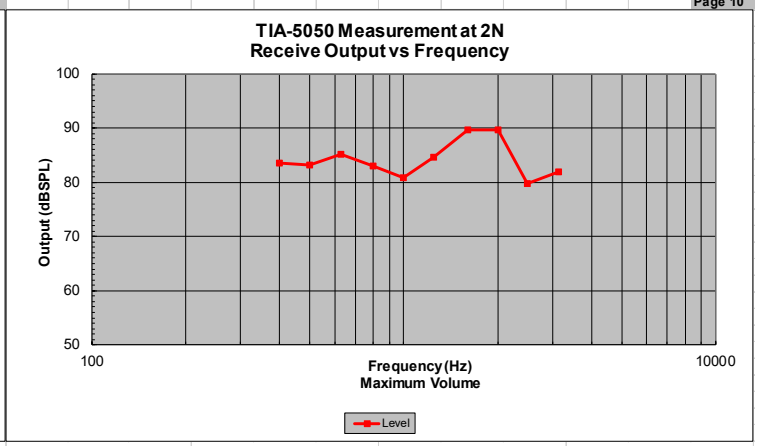
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	1.67 dB	Absolute Limits	PASS	9/23/2024 17:35	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

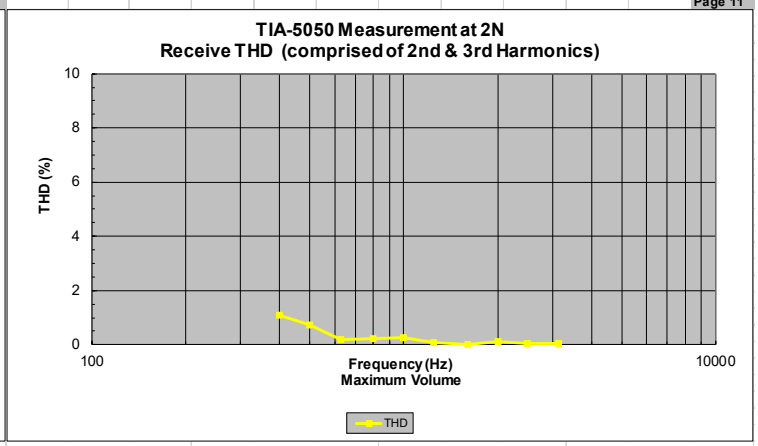
Page 10



Test Date	
9/23/2024 17:35	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/23/2024 17:35	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Wi-Fi 5 GHz EVS-NB: 9.6 kbps MCS5 108 Mbps

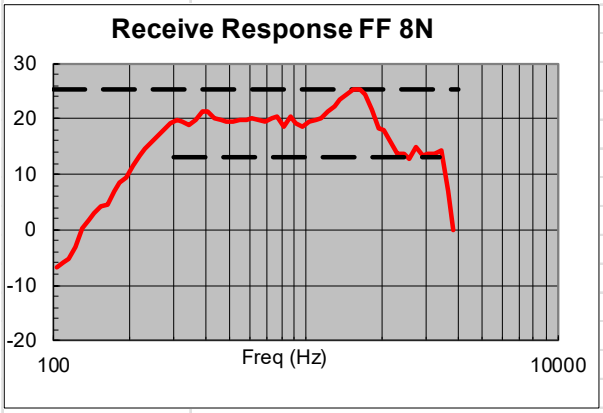
Conversational Gain & Frequency Response Report

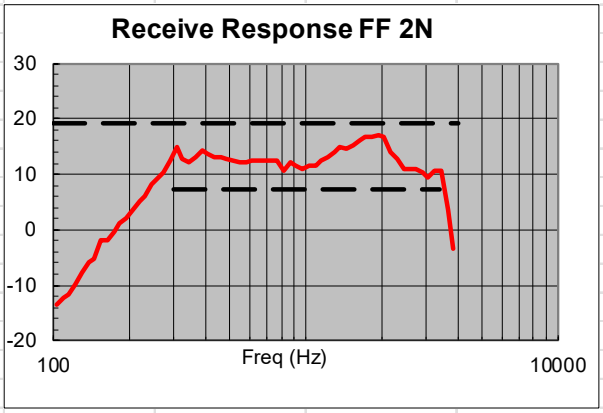
TIA-5050 Receive Volume Control Measurements

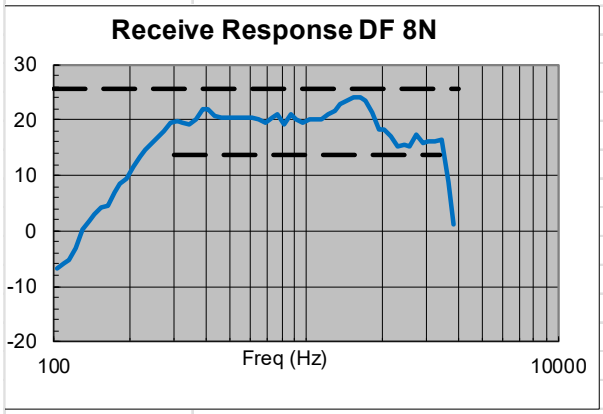
Device Under Test:	802.11ac VHT80 EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

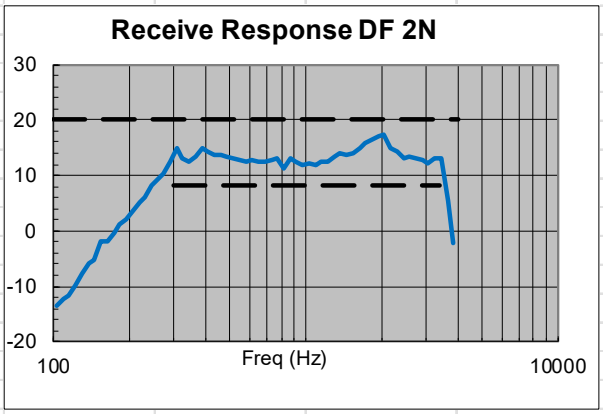
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.29 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.45 dB	Floating Limits	PASS	
	Recv resp FF 2N	2.26 dB	Floating Limits	PASS	
	Recv resp DF 2N	2.96 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.83 dB	info only		
	Recv conversational gain 8N	20.83 dB	18.00	PASS	
	Recv output level dBSPL 2N	83.5 dB	info only		
	Recv conversational gain 2N	13.5 dB	6.00	PASS	

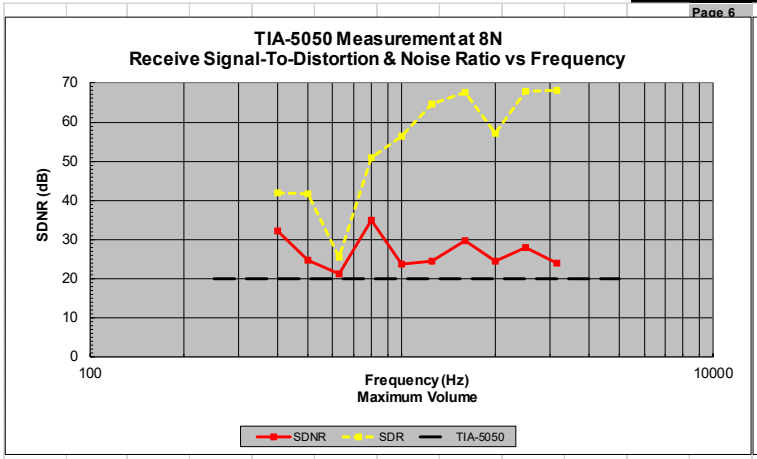
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.3 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	5.45 dB	Absolute Limits	PASS	

Wi-Fi 5 GHz EVS-NB: 9.6 kbps MCS5 108 Mbps

Distortion Report

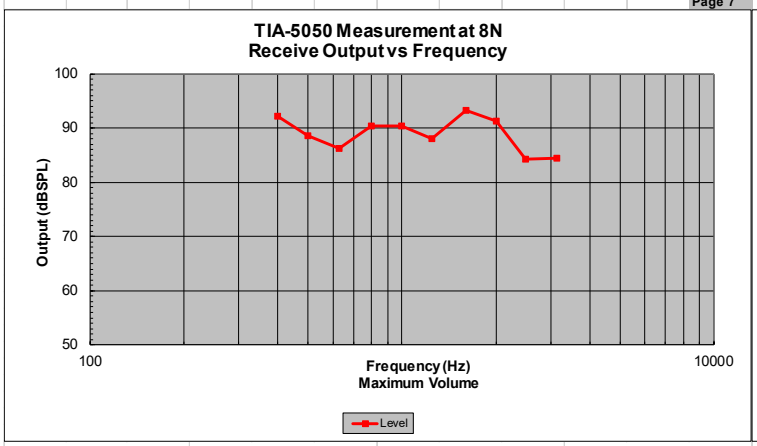
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1.3 dB	Absolute Limits	PASS	9/23/2024 18:07	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

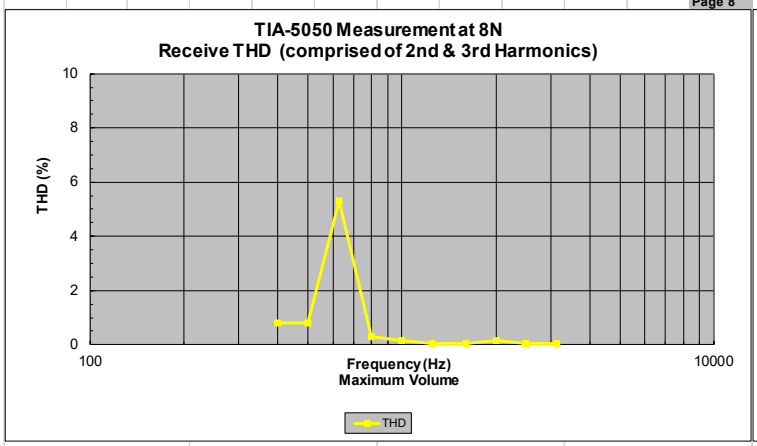
Page 7



Test Date	
9/23/2024 18:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

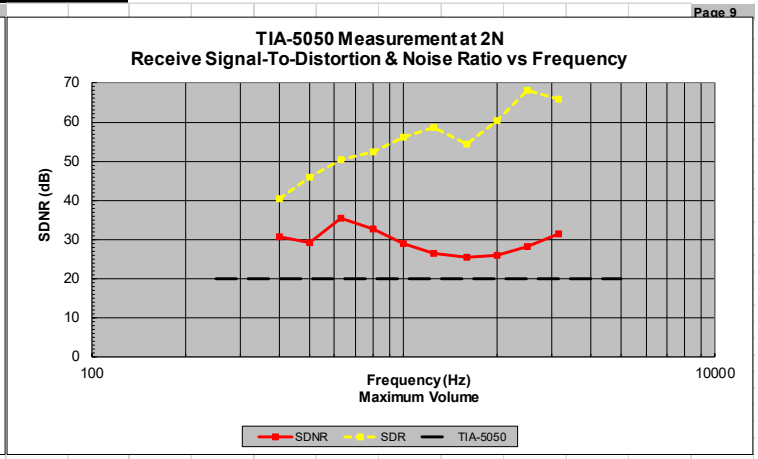
Page 8



Test Date	
9/23/2024 18:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

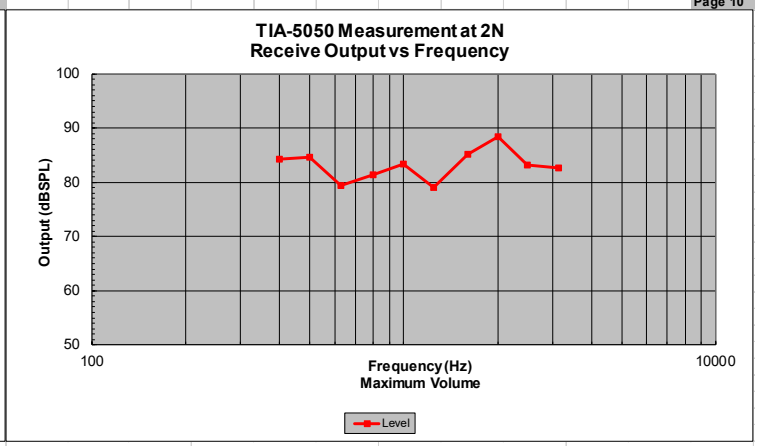
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	5.45 dB	Absolute Limits	PASS	9/23/2024 18:07	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

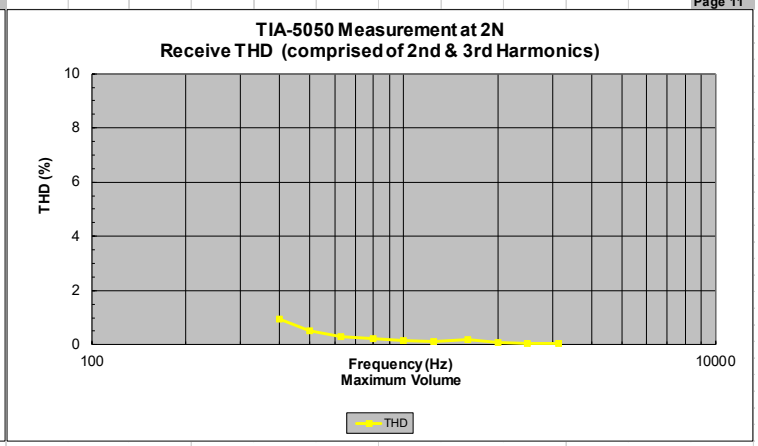
Page 10



Test Date	
9/23/2024 18:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



Test Date	
9/23/2024 18:07	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Wi-Fi 5 GHz EVS-NB: 9.6 kbps MCS6 324.3 Mbps

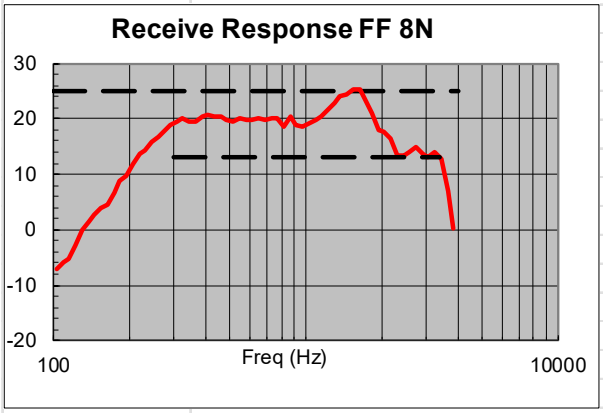
Conversational Gain & Frequency Response Report

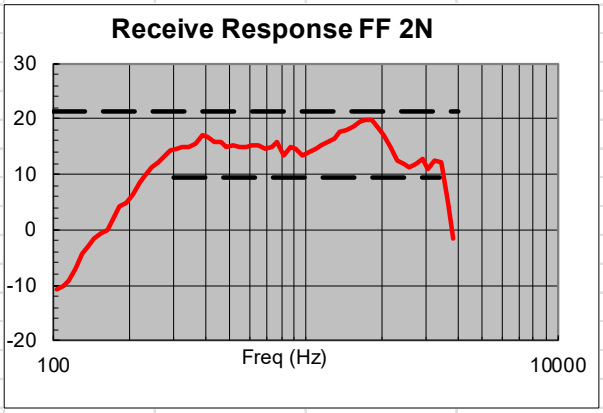
TIA-5050 Receive Volume Control Measurements

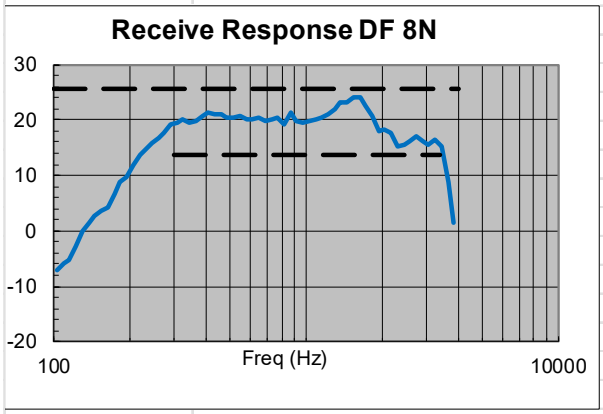
Device Under Test:	802.11ax HE80 EVS-NB
Bandwidth	Narrowband
Test Date:	9/23/2024

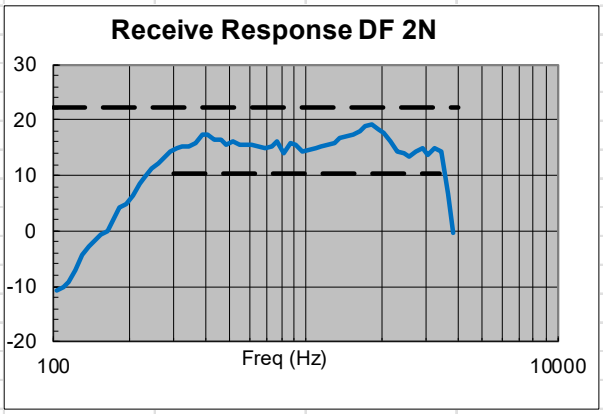
Frequency Response

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.3	Recv resp FF 8N	-0.15 dB	Floating Limits	FAIL	
	Recv resp DF 8N	1.55 dB	Floating Limits	PASS	
	Recv resp FF 2N	1.59 dB	Floating Limits	PASS	
	Recv resp DF 2N	3.13 dB	Floating Limits	PASS	









Output

TIA-5050	Test	Measured	Limits	Result	Reference
Clause 5.1	Recv output level dBSPL 8N	90.85 dB	info only		
	Recv conversational gain 8N	20.85 dB	18.00	PASS	
	Recv output level dBSPL 2N	86.13 dB	info only		
	Recv conversational gain 2N	16.13 dB	6.00	PASS	

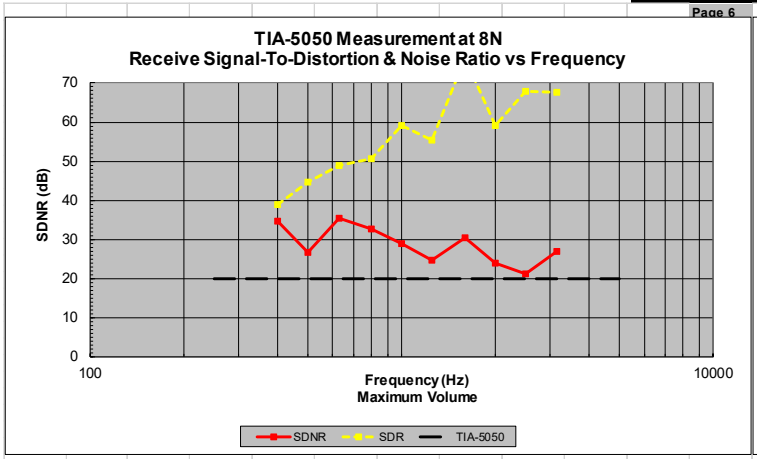
Distortion

TIA-5050	Test	Margin	Limits	Result	Reference
Clause 5.2	Recv PN-SDNR 8N	1.3 dB	Absolute Limits	PASS	
	Recv PN-SDNR 2N	1.27 dB	Absolute Limits	PASS	

Wi-Fi 5 GHz EVS-NB: 9.6 kbps MCS6 324.3 Mbps

Distortion Report

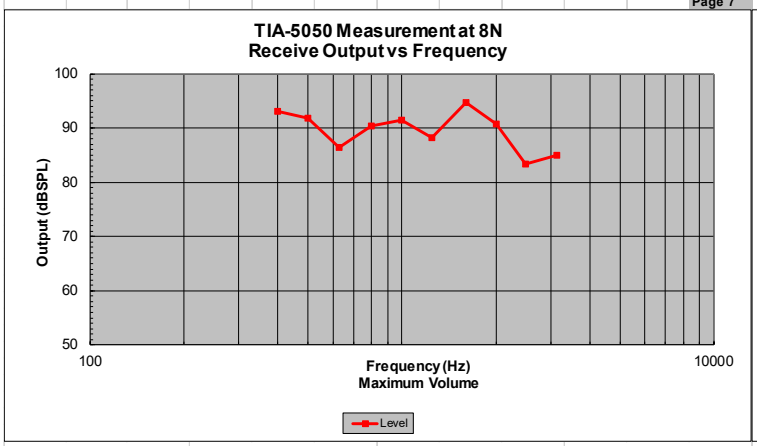
Page 6



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 8N	1.3 dB	Absolute Limits	PASS	9/23/2024 18:40	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

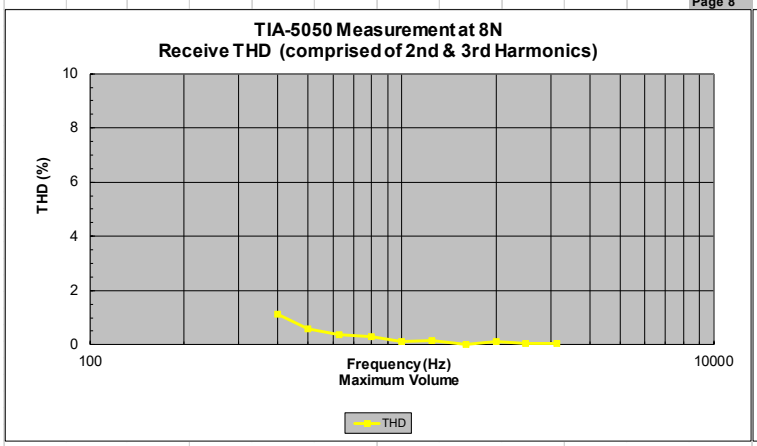
Page 7



Test Date	
9/23/2024 18:40	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

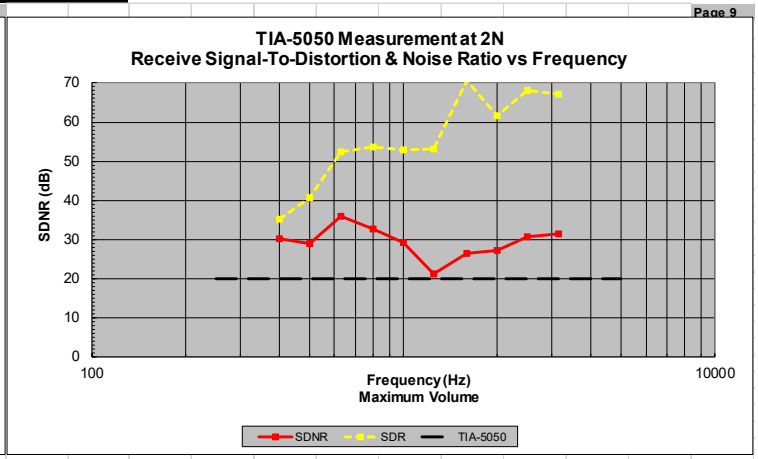
Page 8



Test Date	
9/23/2024 18:40	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

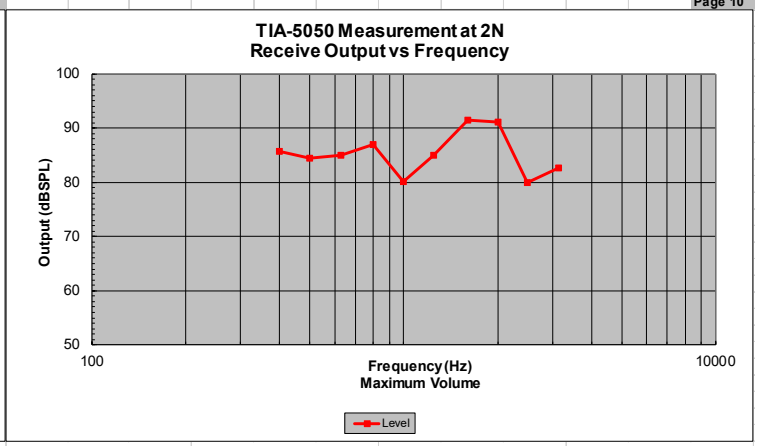
Page 9



Test	Margin	Limits	Result	Test Date	
Recv PN-SDNR 2N	1.27 dB	Absolute Limits	PASS	9/23/2024 18:40	
				Stimulus level	-20 dBPa
Note: SDNR includes noise and distortion products.				Sentence conditioning	-20 dBPa
SDR includes only 2nd and 3rd harmonic distortion.				Short conditioning	-20 dBPa

Comments: 9.6 kbps

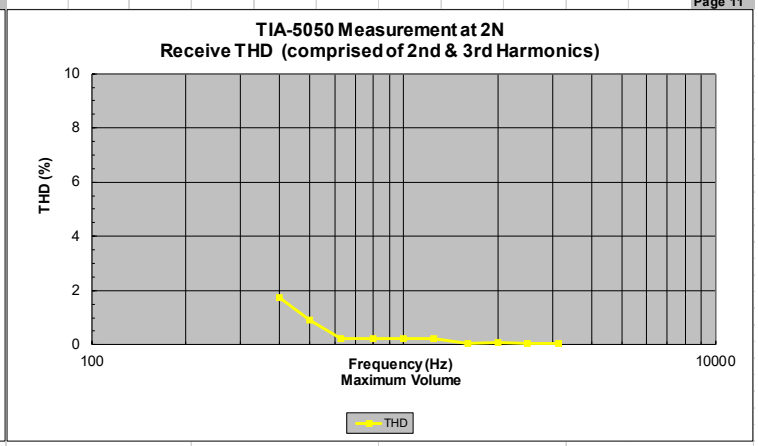
Page 10



Test Date	
9/23/2024 18:40	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

Page 11



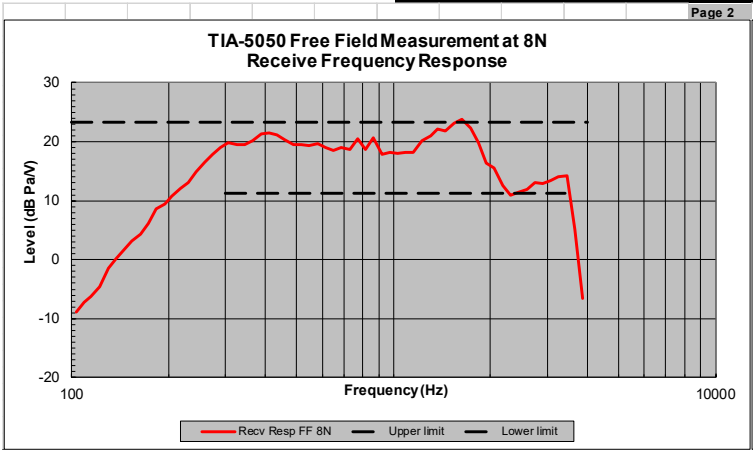
Test Date	
9/23/2024 18:40	
Stimulus level	-20 dBPa
Sentence conditioning	-20 dBPa
Short conditioning	-20 dBPa

Comments: 9.6 kbps

W-CDMA BIV AMR-NB: 4.75 kbps

Conversational Gain & Frequency Response Report

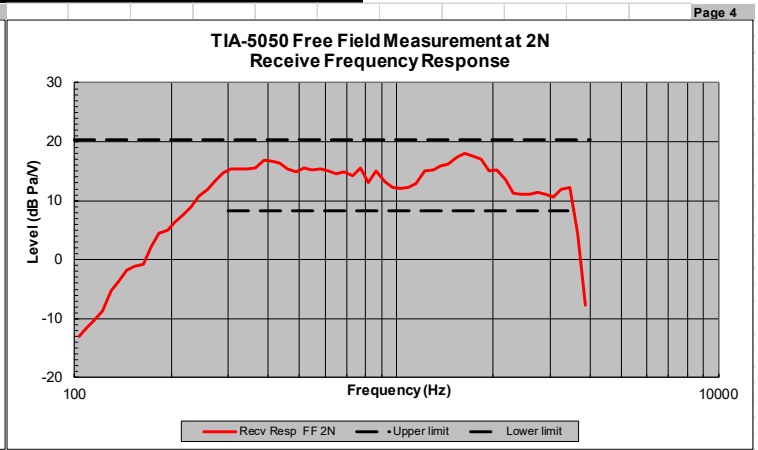
Page 2



Test	Measured	Limits	Result	Stimulus Level
Recv output level dBSPL 8N	90.44 dB	info only		-20.0 dBm0
Recv conversational gain 8N	20.44 dB	18.00	PASS	
Test	**Margin**	**Limits**	**Result**	**Test Date**
Recv resp FF 8N	-0.41 dB	Floating Limits	FAIL	9/17/2024 13:46

Comments: 4.75 kbps

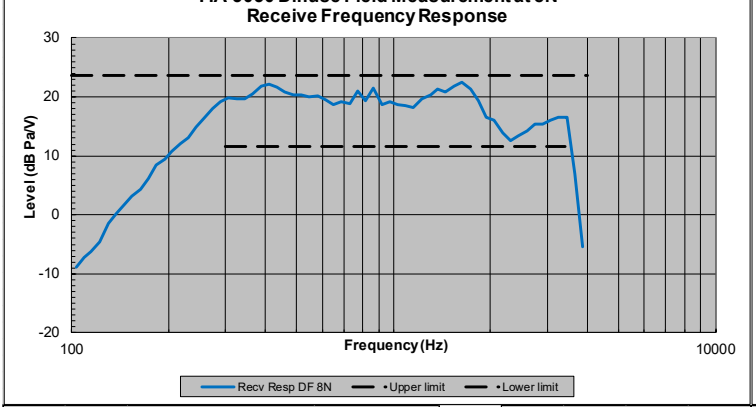
Page 4



Test	Measured	Limits	Result	Stimulus Level
Recv output level dBSPL 2N	85.88 dB	info only		-20.0 dBm0
Recv conversational gain 2N	15.88 dB	6.00	PASS	
Test	**Margin**	**Limits**	**Result**	**Test Date**
Recv resp FF 2N	2.25 dB	Floating Limits	PASS	9/17/2024 13:46

Comments: 4.75 kbps

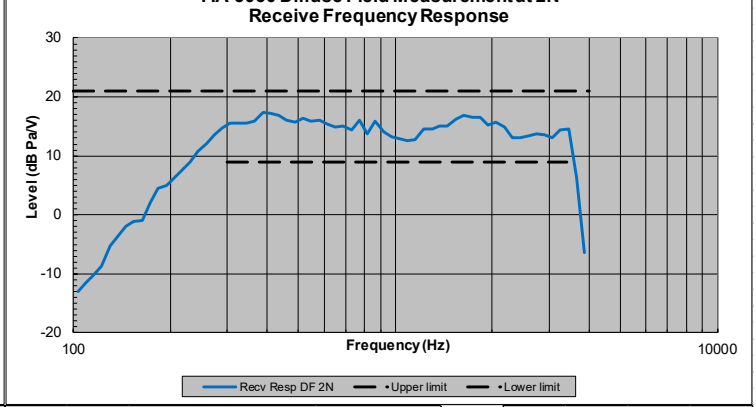
Page 3



Test	Measured	Limits	Result	Stimulus Level
Recv output level dBSPL 8N	90.44 dB	info only		-20.0 dBm0
Recv conversational gain 8N	20.44 dB	18.00	PASS	
Test	**Margin**	**Limits**	**Result**	**Test Date**
Recv resp DF 8N	1.08 dB	Floating Limits	PASS	9/17/2024 13:46

Comments: 4.75 kbps

Page 5



Test	Measured	Limits	Result	Stimulus Level
Recv output level dBSPL 2N	85.88 dB	info only		-20.0 dBm0
Recv conversational gain 2N	15.88 dB	6.00	PASS	
Test	**Margin**	**Limits**	**Result**	**Test Date**
Recv resp DF 2N	3.67 dB	Floating Limits	PASS	9/17/2024 13:46

Comments: 4.75 kbps