Measurement Protocol(1#)

Measurement Object	BL-SH25C1365-LTE B2

Status Overview

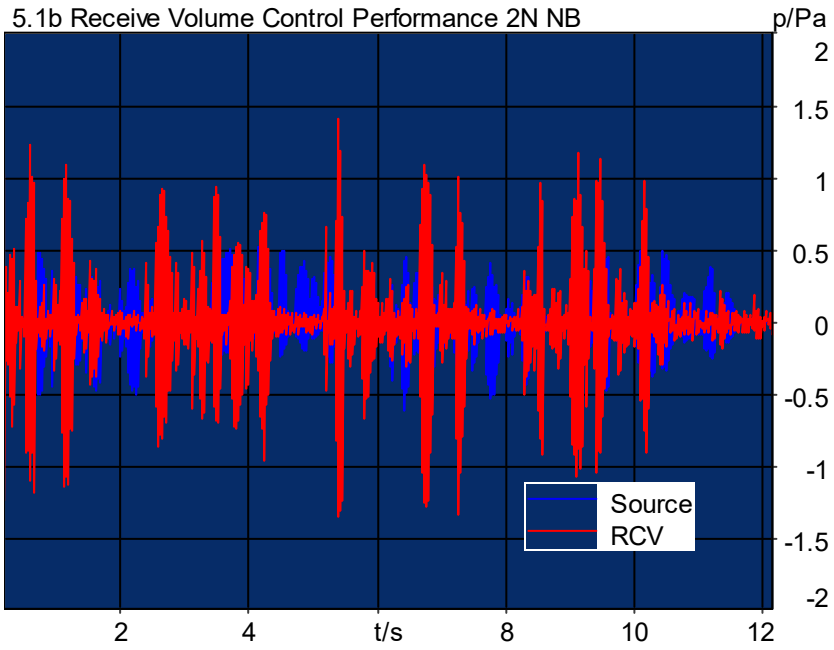
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	77.48	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.99	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	23.51	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.19	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.09	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.29	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.69	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.07	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.90	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.35	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.81	BL-SH25C1365-LTE B2
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1547.5 Hz	2.52	BL-SH25C1365-LTE B2

5.1b Receive Volume Control Performance 2N NB 3
5.2 RCV Distortion and Noise - 400 Hz NB 5
5.2 RCV Distortion and Noise - 500 Hz NB 7
5.2 RCV Distortion and Noise - 630 Hz NB 9
5.2 RCV Distortion and Noise - 800 Hz NB 11
5.2 RCV Distortion and Noise - 1000 Hz NB 13
5.2 RCV Distortion and Noise - 1250 Hz NB 15
5.2 RCV Distortion and Noise - 1600 Hz NB 17
5.2 RCV Distortion and Noise - 2000 Hz NB 19
5.2 RCV Distortion and Noise - 2500 Hz NB 21
5.2 RCV Distortion and Noise - 3150 Hz NB 23
5.3 Frequency Response 2N FF HANB 25

5.1b Receive Volume Control Performance 2N NB

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EVS-NB-13.2



Channel	Speech level	Activity	
RCV	77.48 dB[SPL]	74.46%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1140.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

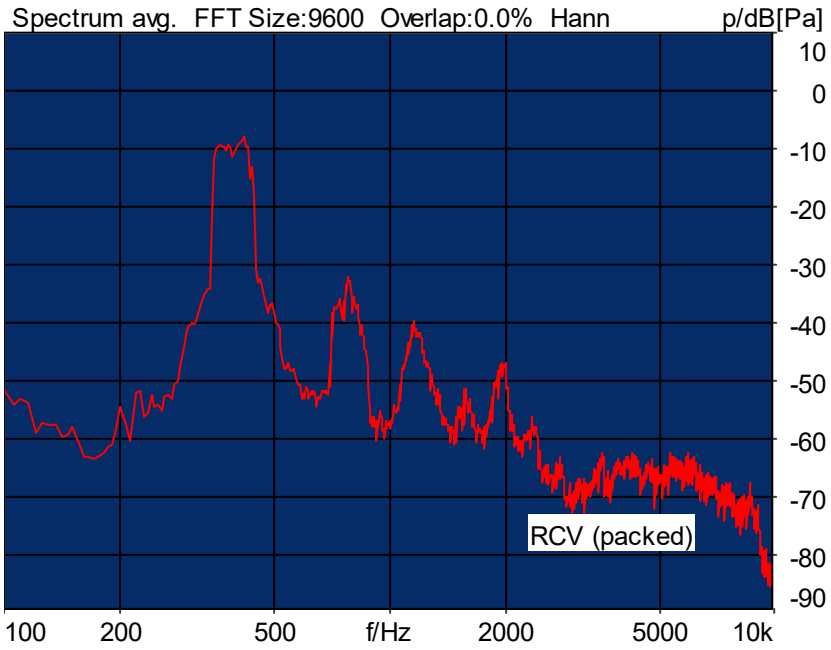
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.99 dB (7.09%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

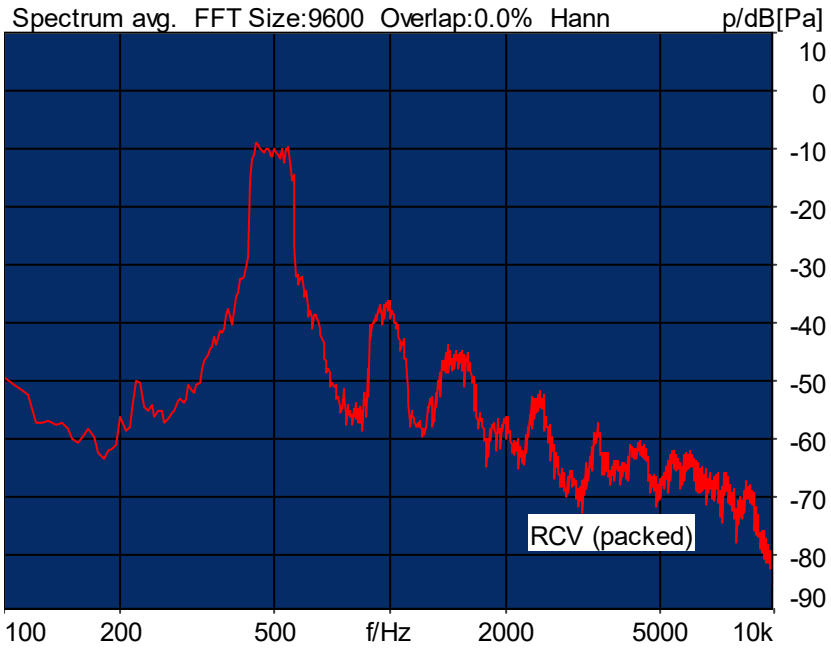
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 23.51 dB (6.67%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

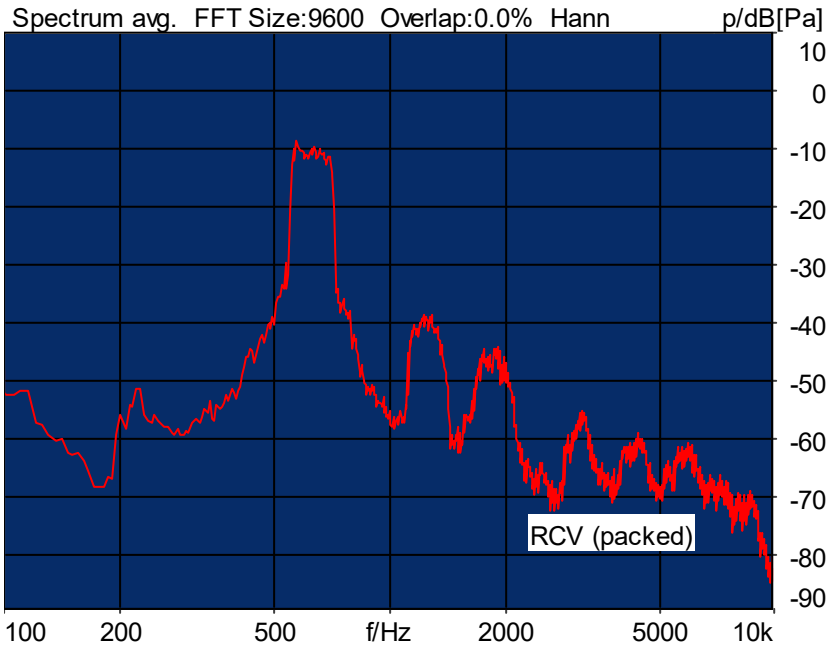
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 24.19 dB (6.17%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

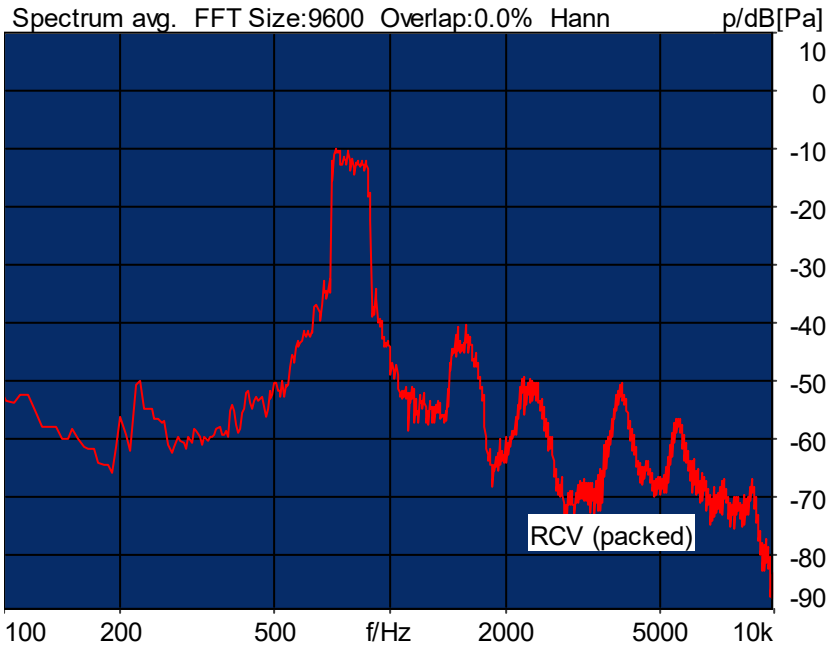
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.09 dB (5.57%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

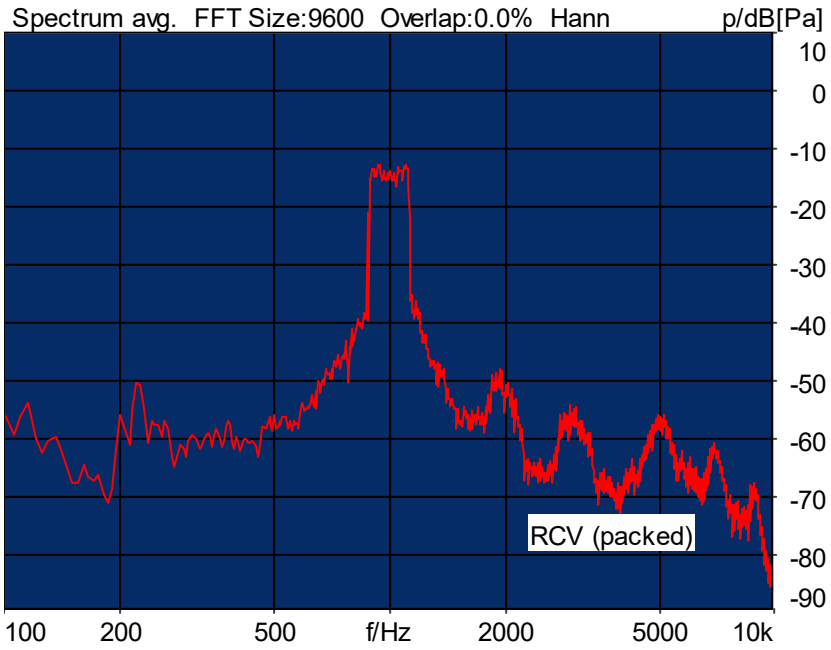
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.29 dB (5.44%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

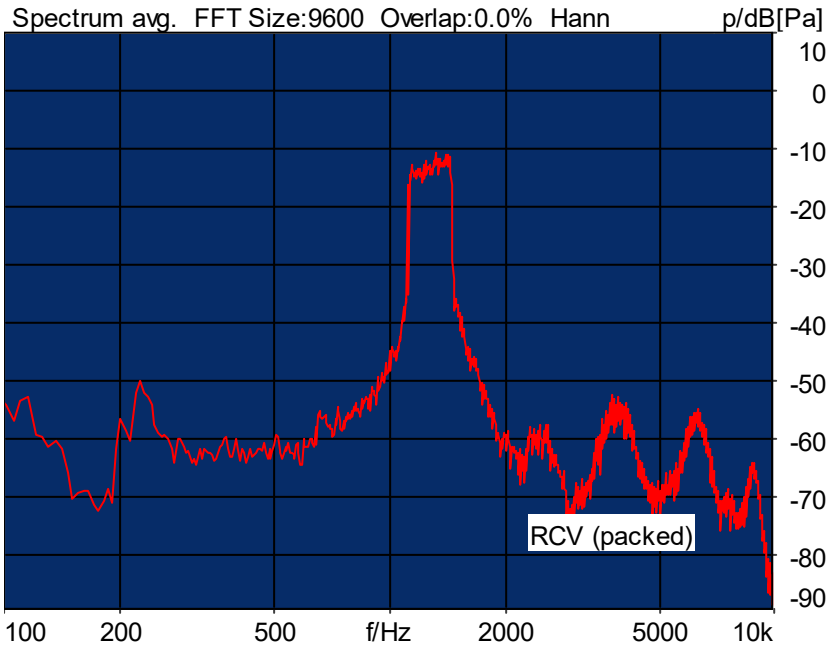
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.69 dB (5.19%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

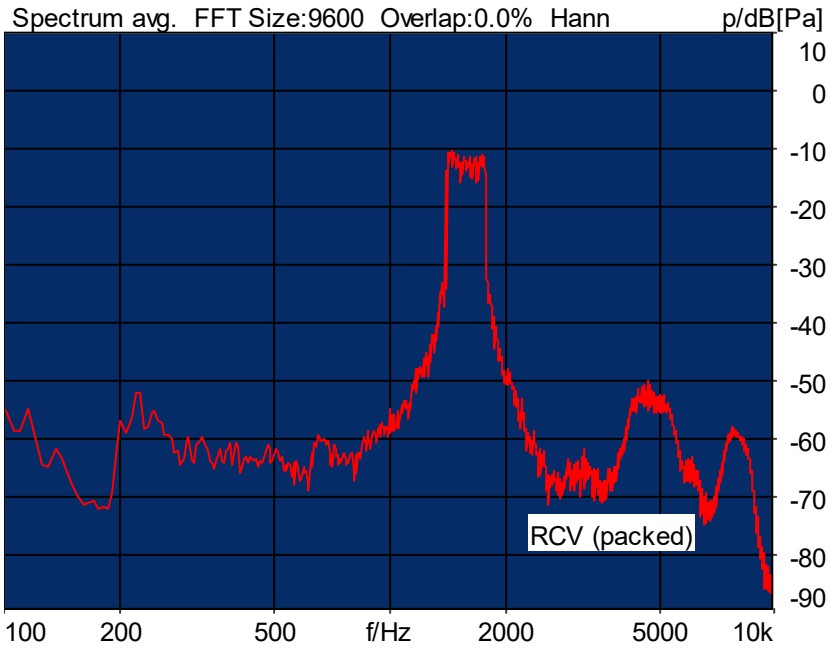
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.07 dB (4.43%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

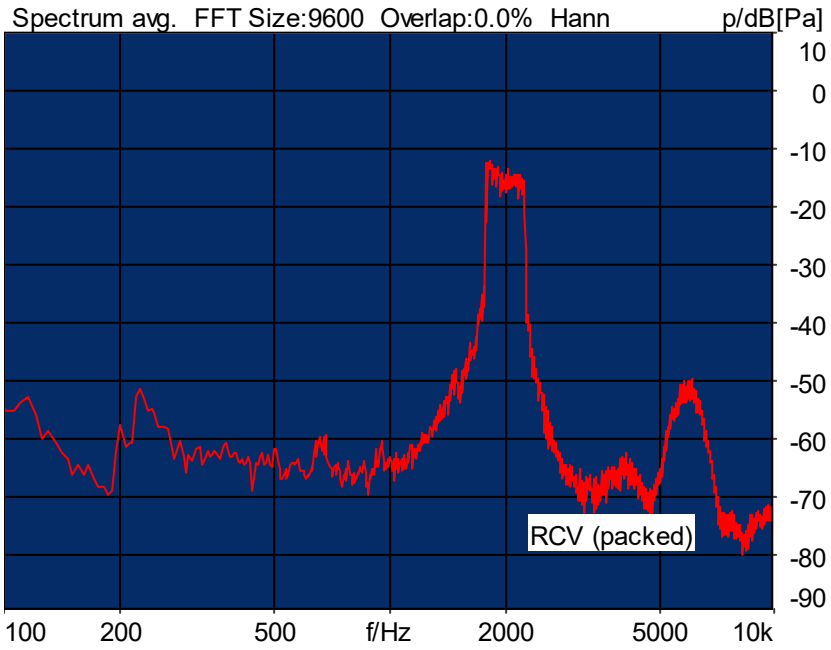
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

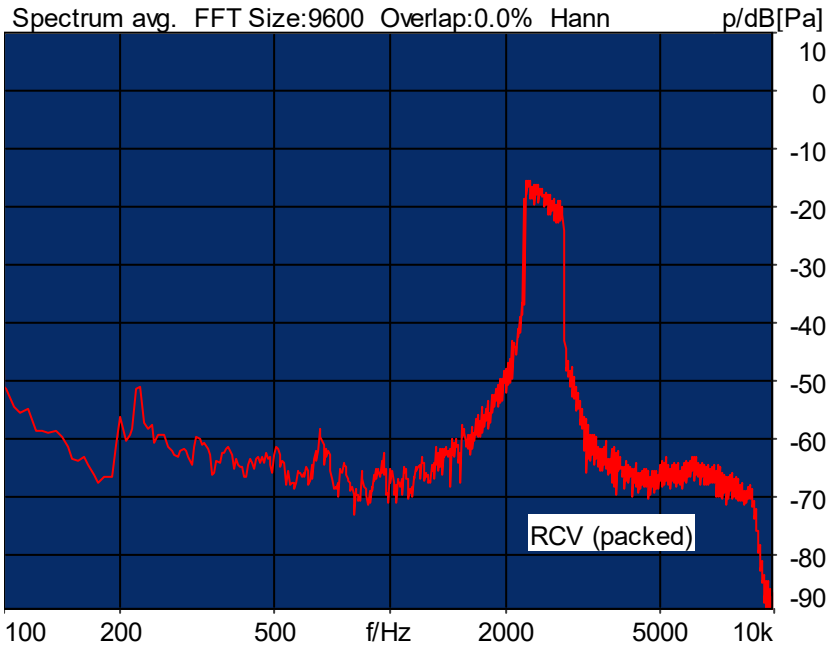
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.35 dB (4.81%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

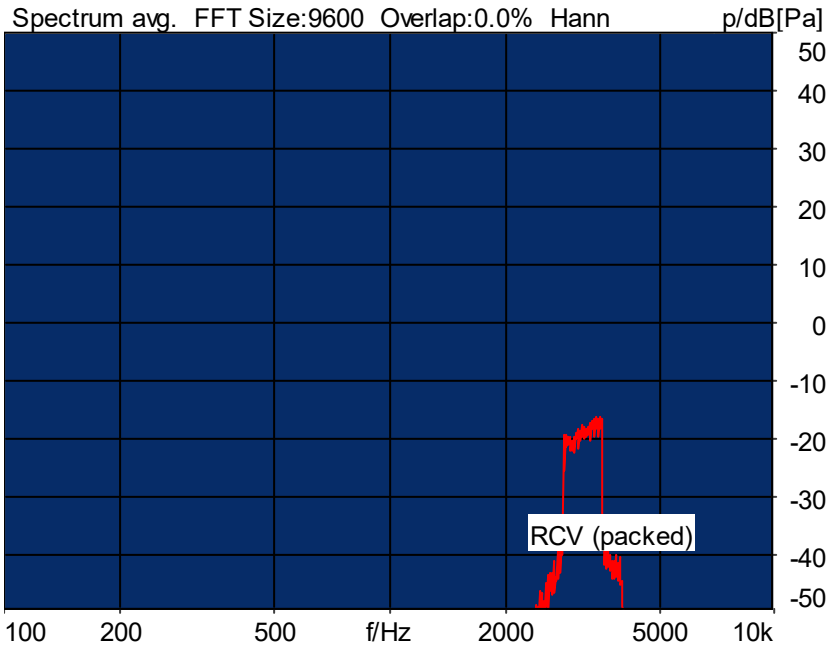
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

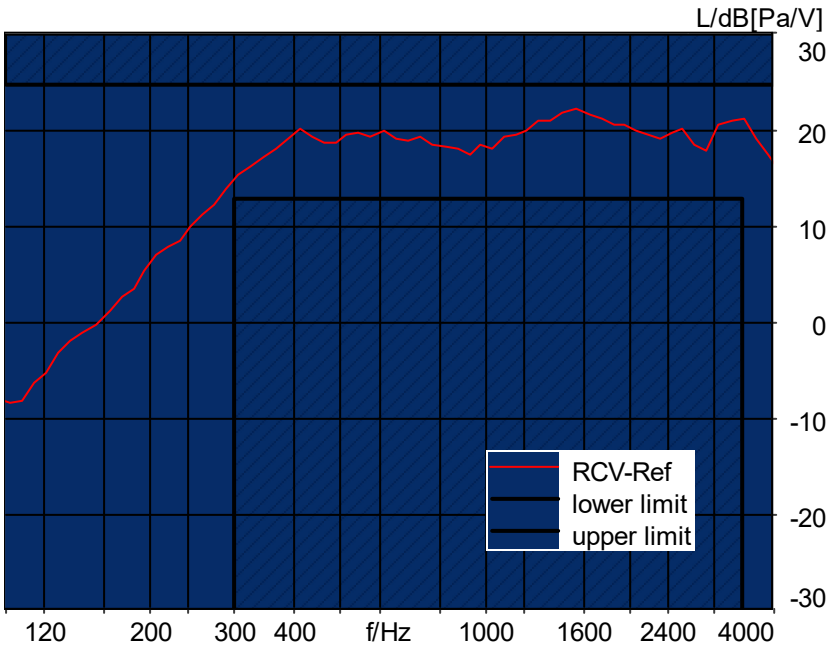
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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Absolute minimal distance

2.52 dB at 1547.5 Hz Ok

Ok

2025/12/19 14:52 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	107.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(2#)

Measurement Object	BL-SH25C1365-LTE B2

Status Overview

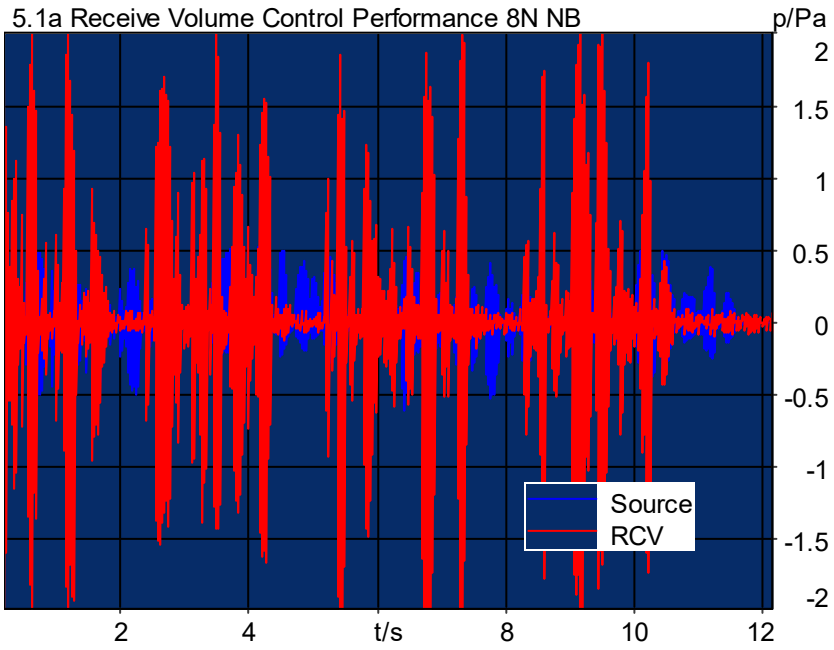
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	83.05	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.38	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.24	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.67	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.29	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.34	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.40	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.69	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.54	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.15	BL-SH25C1365-LTE B2
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.90	BL-SH25C1365-LTE B2
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 576.7 Hz	1.41	BL-SH25C1365-LTE B2

5.1a Receive Volume Control Performance 8N NB 30
5.2 RCV Distortion and Noise - 400 Hz NB 32
5.2 RCV Distortion and Noise - 500 Hz NB 34
5.2 RCV Distortion and Noise - 630 Hz NB 36
5.2 RCV Distortion and Noise - 800 Hz NB 38
5.2 RCV Distortion and Noise - 1000 Hz NB 40
5.2 RCV Distortion and Noise - 1250 Hz NB 42
5.2 RCV Distortion and Noise - 1600 Hz NB 44
5.2 RCV Distortion and Noise - 2000 Hz NB 46
5.2 RCV Distortion and Noise - 2500 Hz NB 48
5.2 RCV Distortion and Noise - 3150 Hz NB 50
5.3 Frequency Response 8N FF HANB 52

5.1a Receive Volume Control Performance 8N NB

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Channel	Speech level	Activity	
RCV	83.05 dB[SPL]	75.01%	Ok

Ok

2026/1/8 20:02 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1140.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

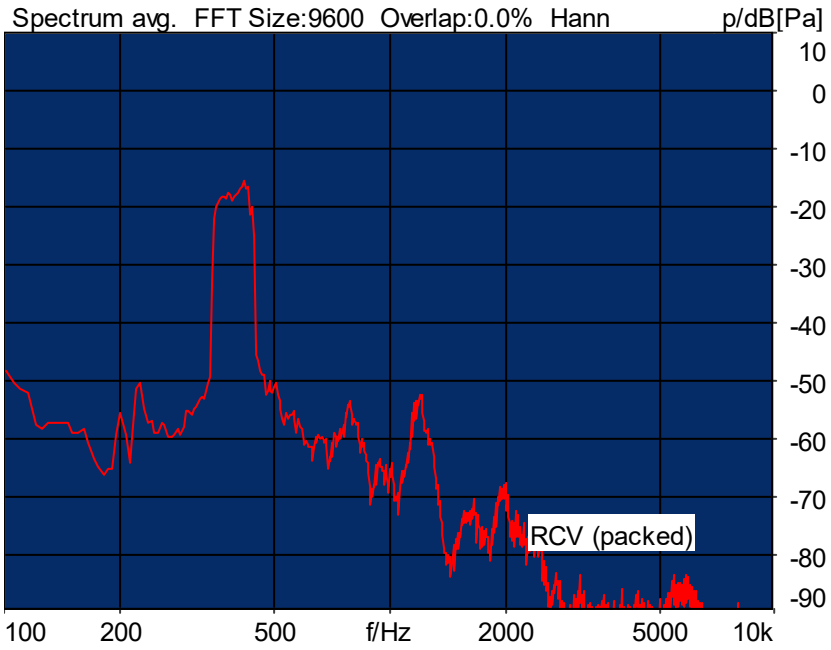
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 31.38 dB (2.70%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

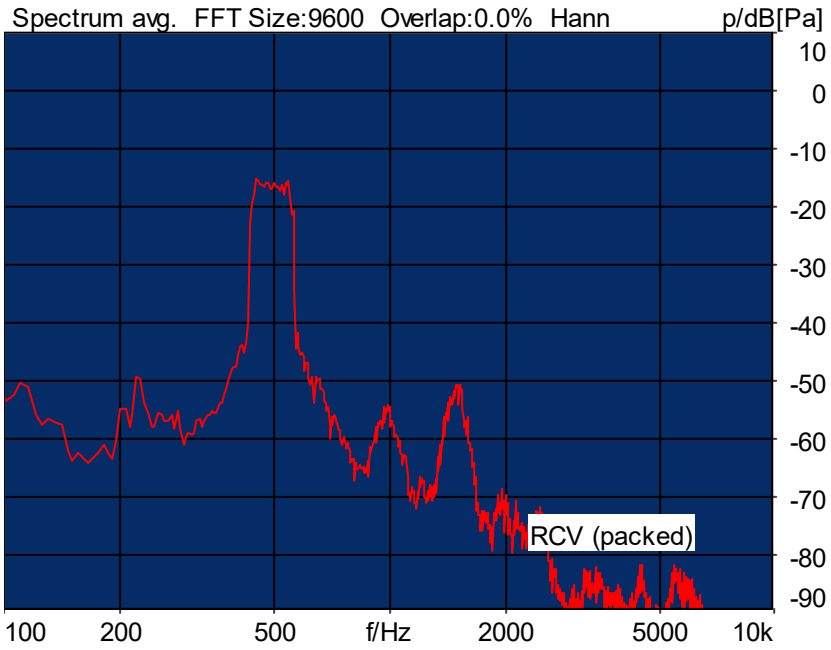
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

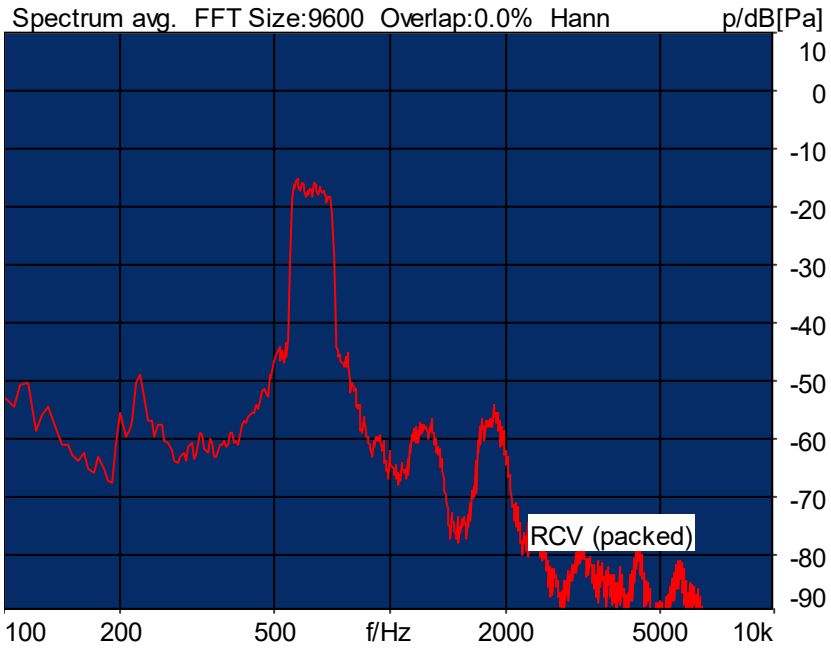
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.67 dB (2.93%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

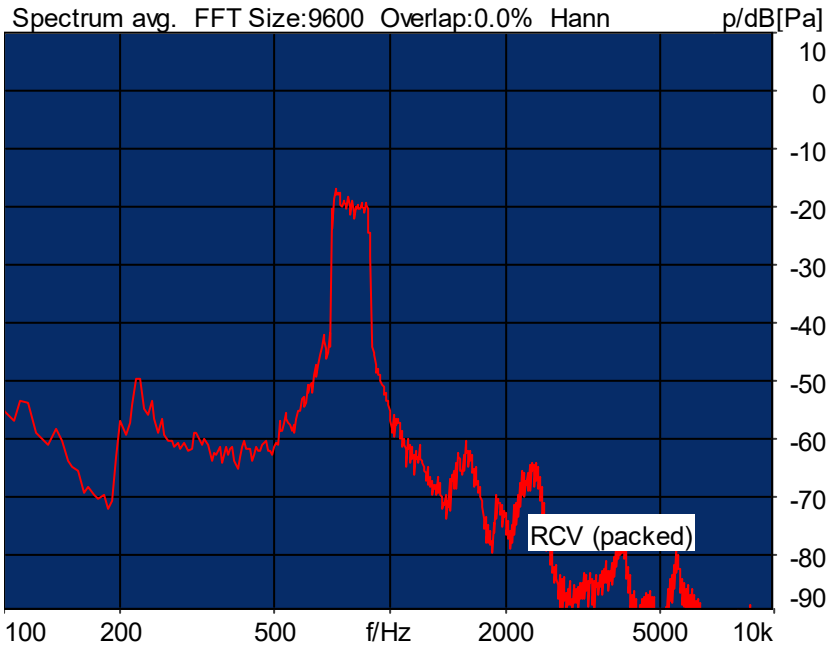
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.29 dB (3.06%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

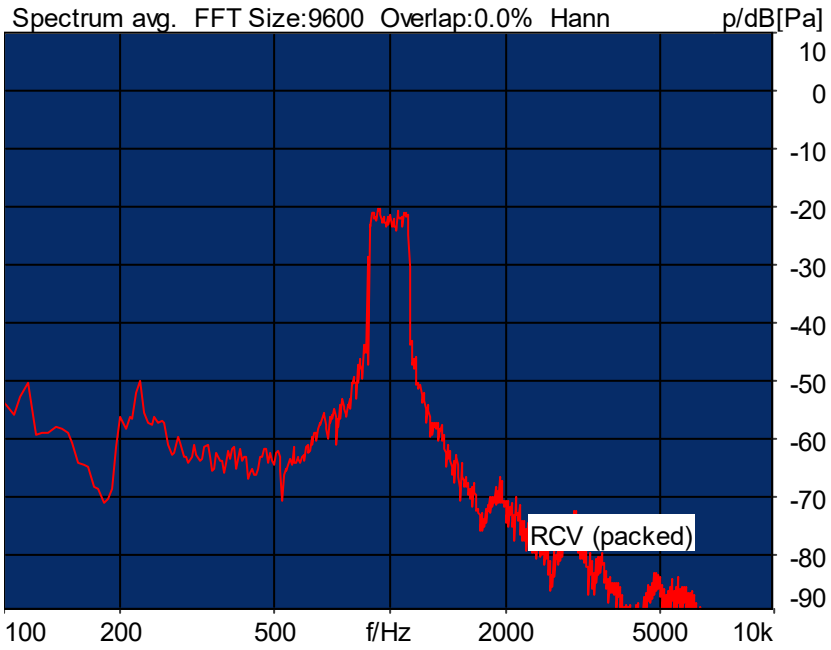
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.34 dB (3.83%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

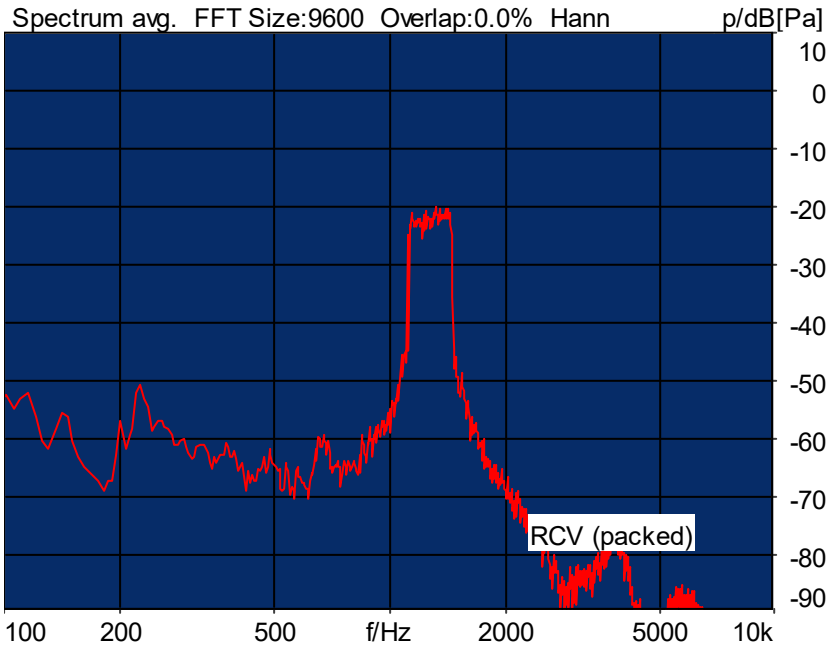
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.40 dB (4.79%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

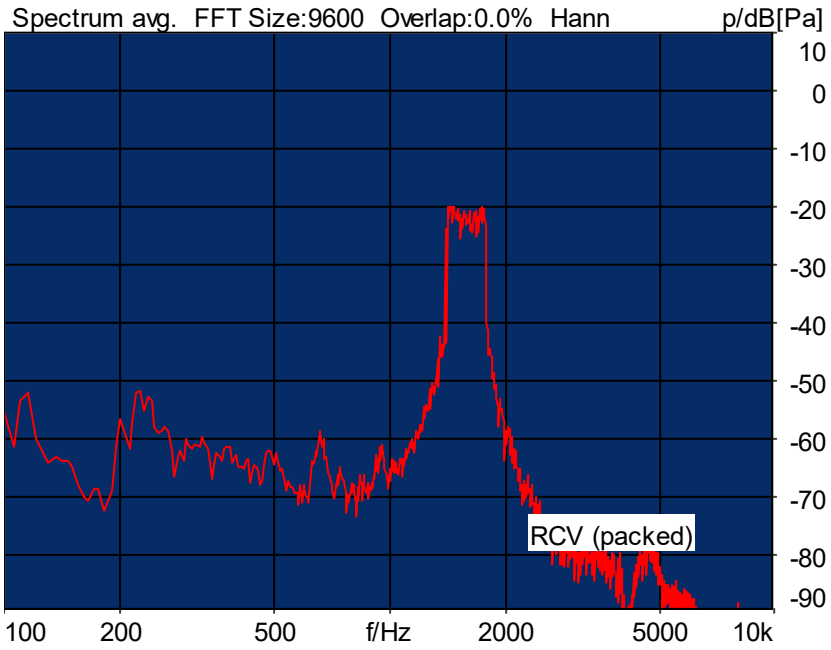
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.69 dB (4.12%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

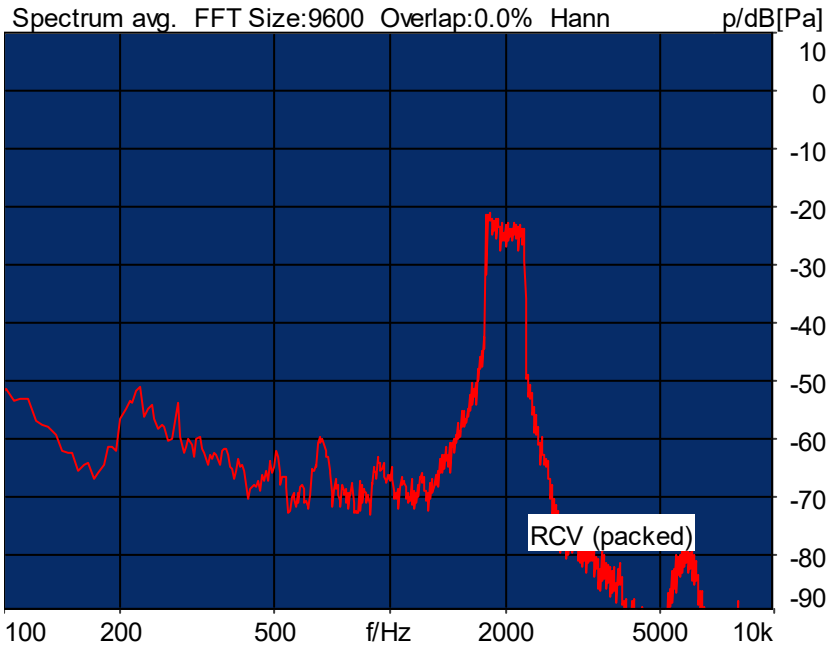
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.54 dB (4.20%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

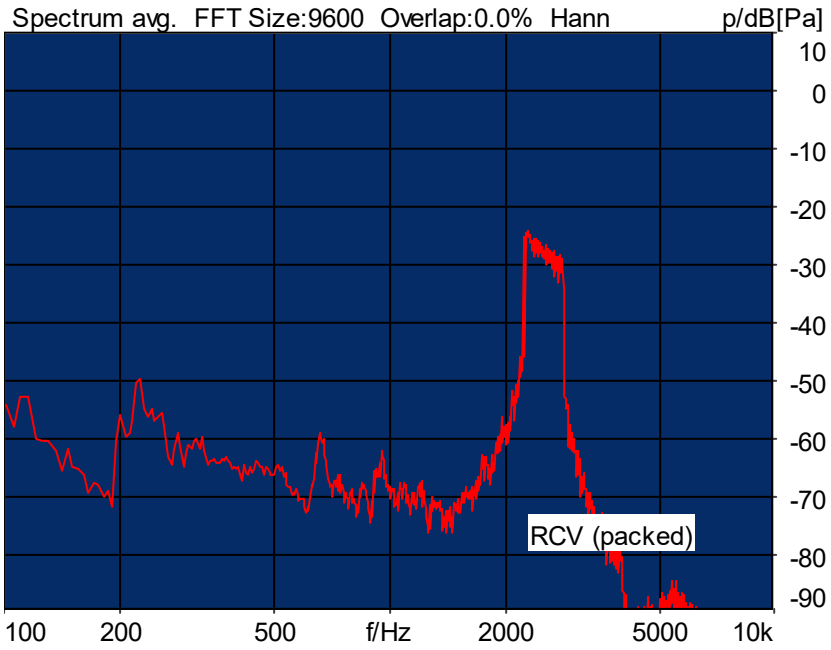
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.15 dB (4.93%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

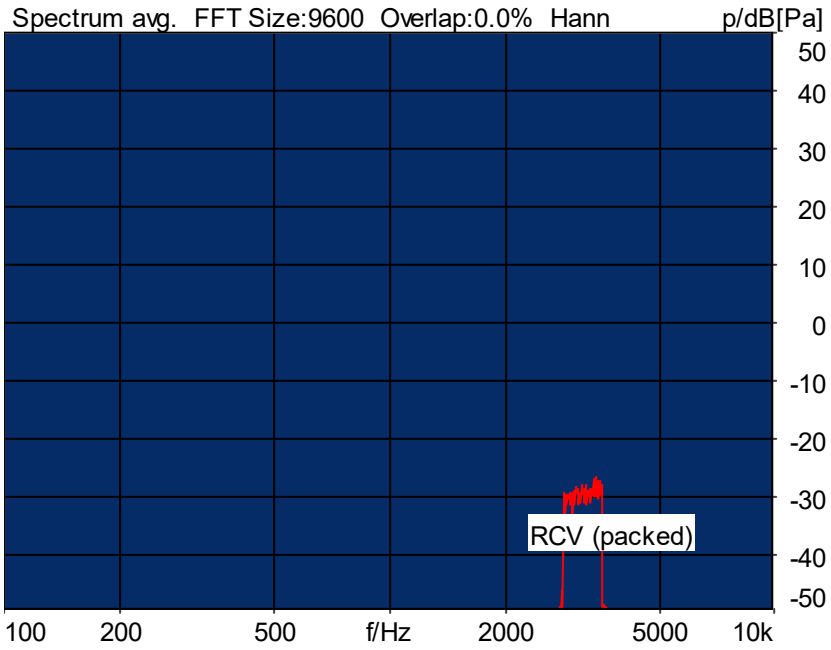
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 21.90 dB (8.04%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

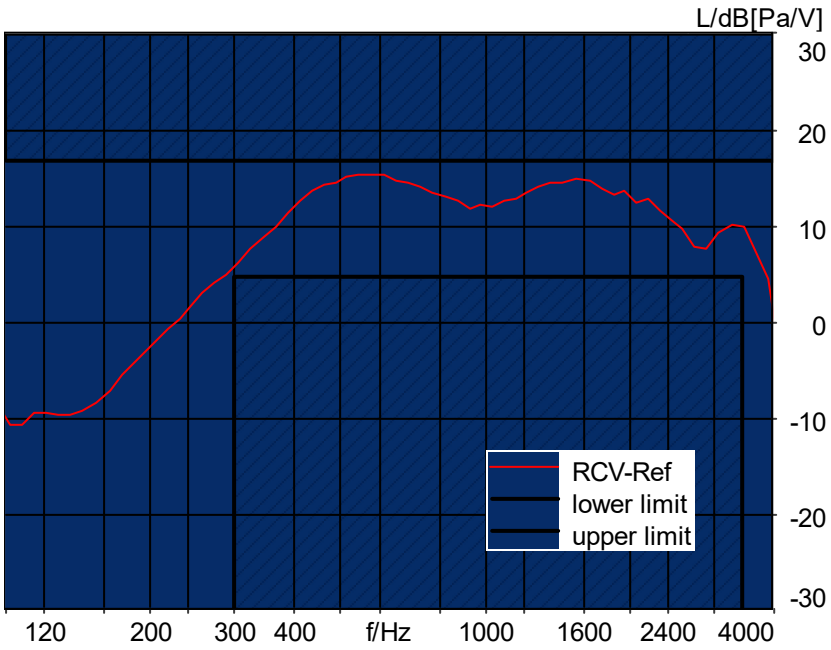
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF HANB

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

EVS-NB-13.2



Absolute minimal distance

1.41 dB at 576.7 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	102.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(3#)

Measurement Object	BL-SH25C1365-B4

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	79.95	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.80	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.51	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.07	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.71	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.65	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.71	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.36	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.89	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.30	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.42	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.08	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.72	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.62	BL-SH25C1365-B4

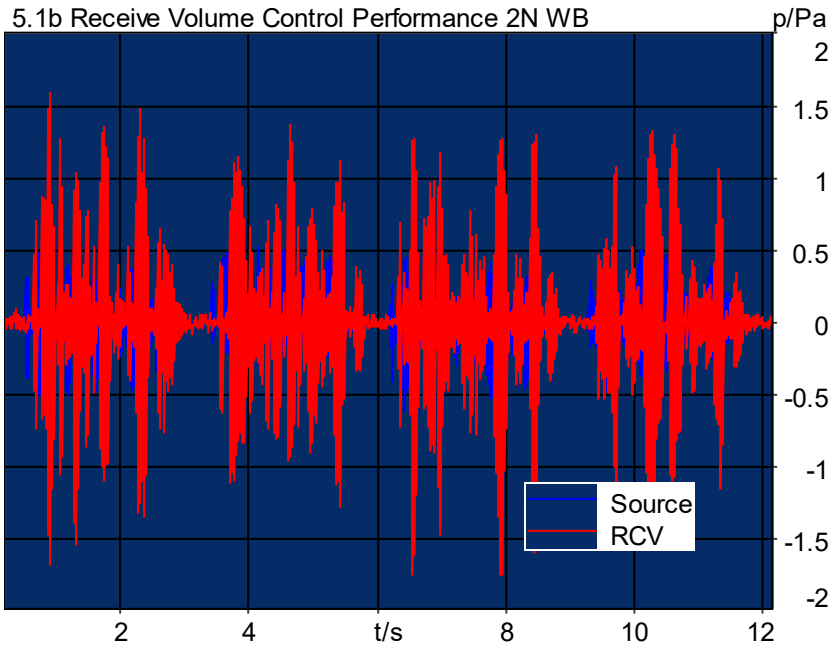
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.66	BL-SH25C1365-B4
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 436.9 Hz	2.19	BL-SH25C1365-B4

5.1b Receive Volume Control Performance 2N WB 58
5.2 RCV Distortion and Noise - 250 Hz WB 60
5.2 RCV Distortion and Noise - 315 Hz WB 62
5.2 RCV Distortion and Noise - 400 Hz WB 64
5.2 RCV Distortion and Noise - 500 Hz WB 66
5.2 RCV Distortion and Noise - 630 Hz WB 68
5.2 RCV Distortion and Noise - 800 Hz WB 70
5.2 RCV Distortion and Noise - 1000 Hz WB 72
5.2 RCV Distortion and Noise - 1250 Hz WB 74
5.2 RCV Distortion and Noise - 1600 Hz WB 76
5.2 RCV Distortion and Noise - 2000 Hz WB 78
5.2 RCV Distortion and Noise - 2500 Hz WB 80
5.2 RCV Distortion and Noise - 3150 Hz WB 82
5.2 RCV Distortion and Noise - 4000 Hz WB 84
5.2 RCV Distortion and Noise - 5000 Hz WB 86
5.3 Frequency Response 2N FF 88

5.1b Receive Volume Control Performance 2N WB

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EVS-WB-13.2



Channel	Speech level	Activity	
RCV	79.95 dB[SPL]	84.24%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

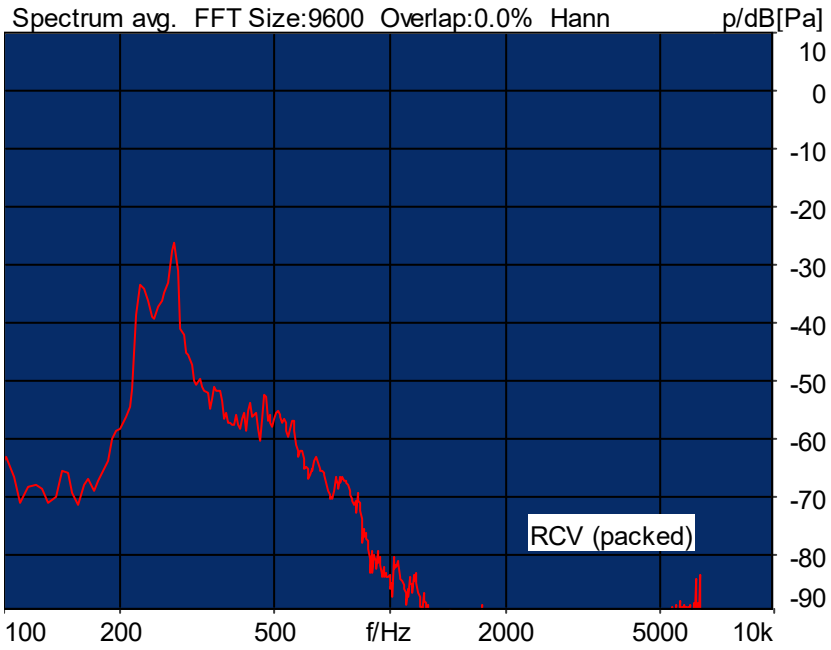
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 20.80 dB (9.12%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_250Hz

Hardware Config Settings

Used Setting	TIA5050

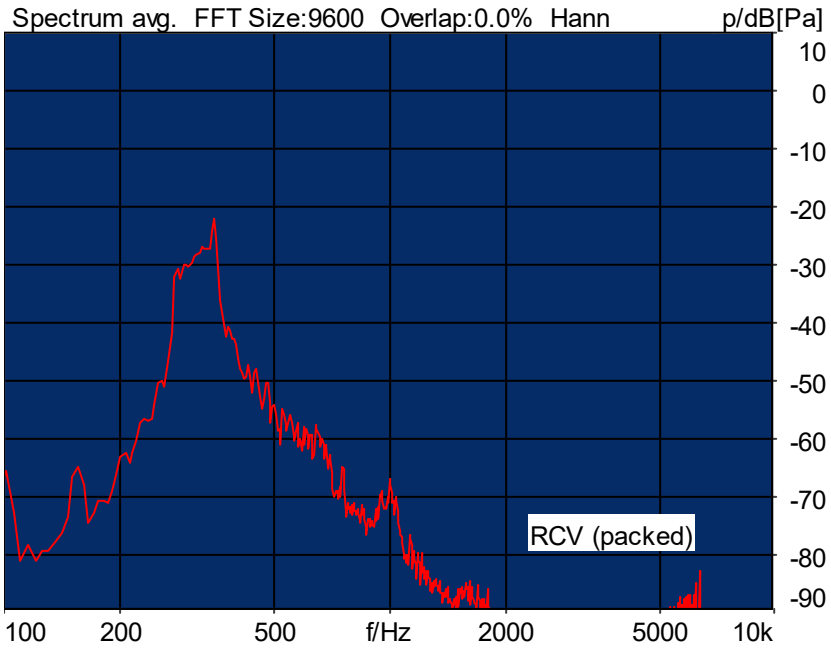
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 23.51 dB (6.68%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_315Hz

Hardware Config Settings

Used Setting	TIA5050

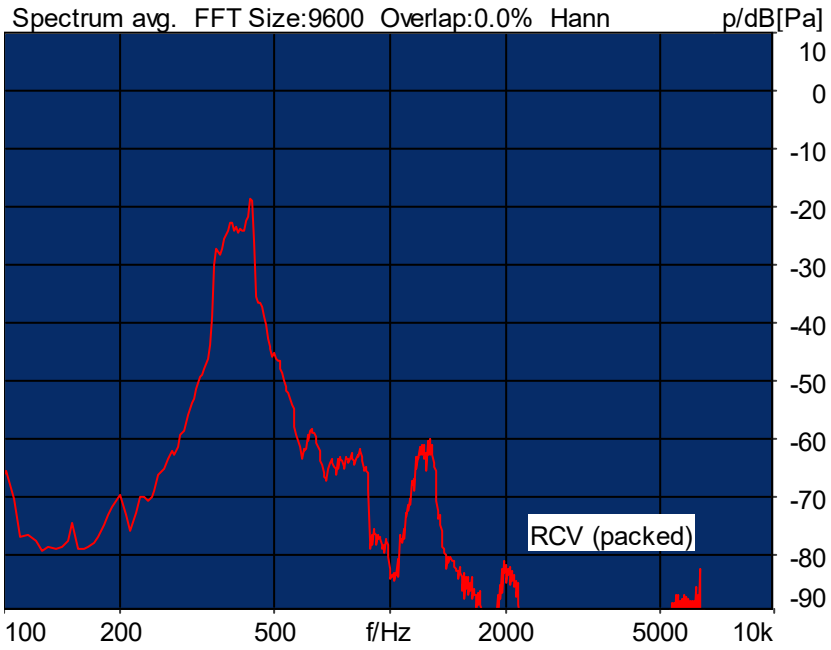
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 27.07 dB (4.43%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

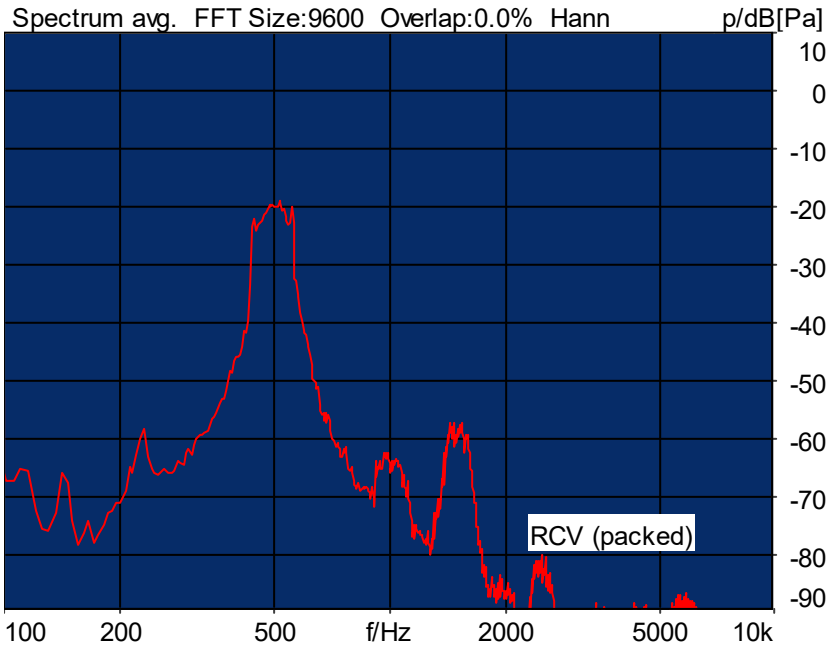
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 27.71 dB (4.12%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

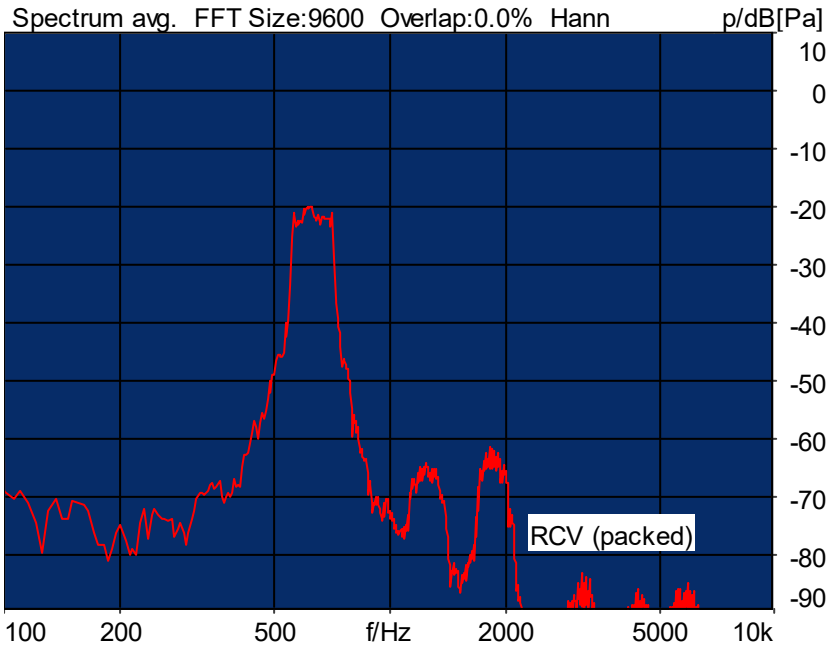
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 29.65 dB (3.29%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

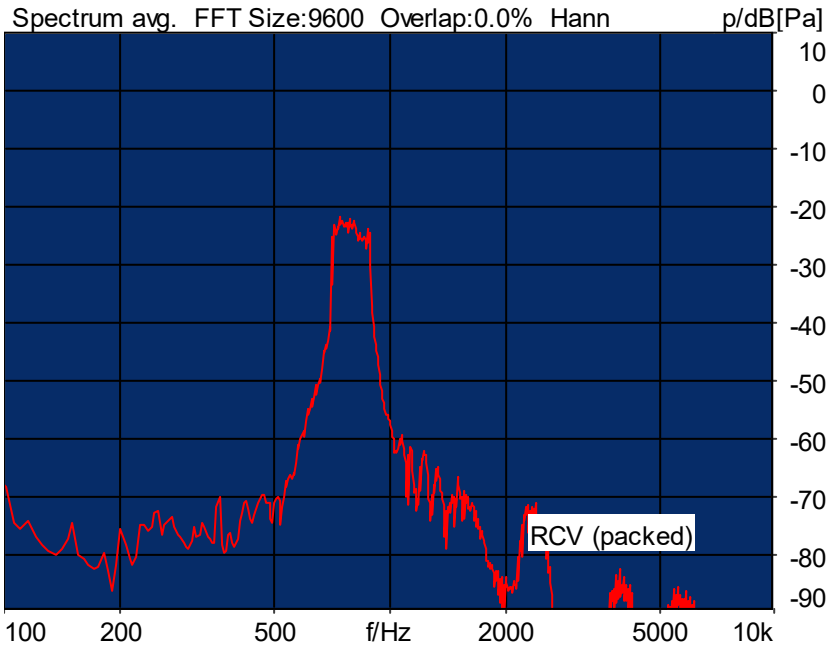
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 28.71 dB (3.67%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

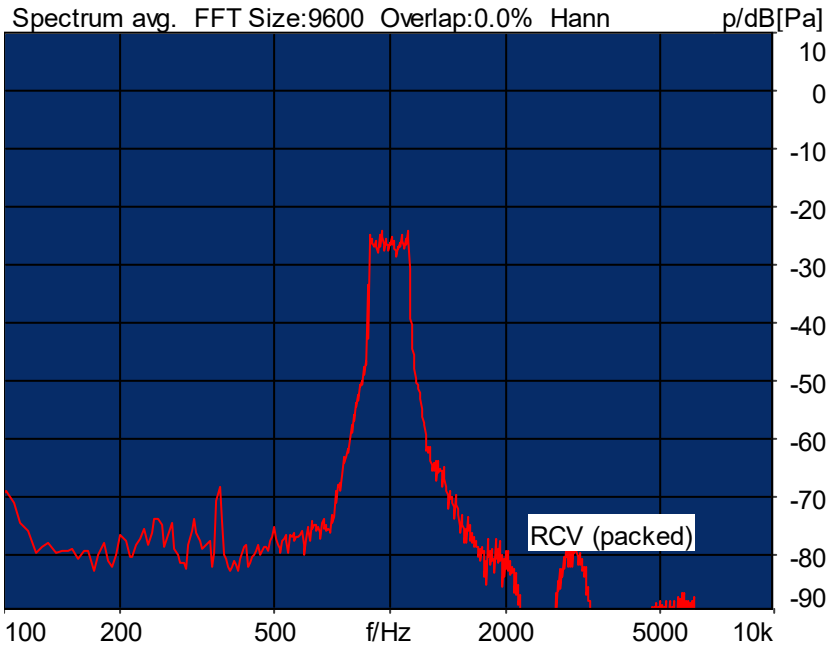
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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

EVS-WB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

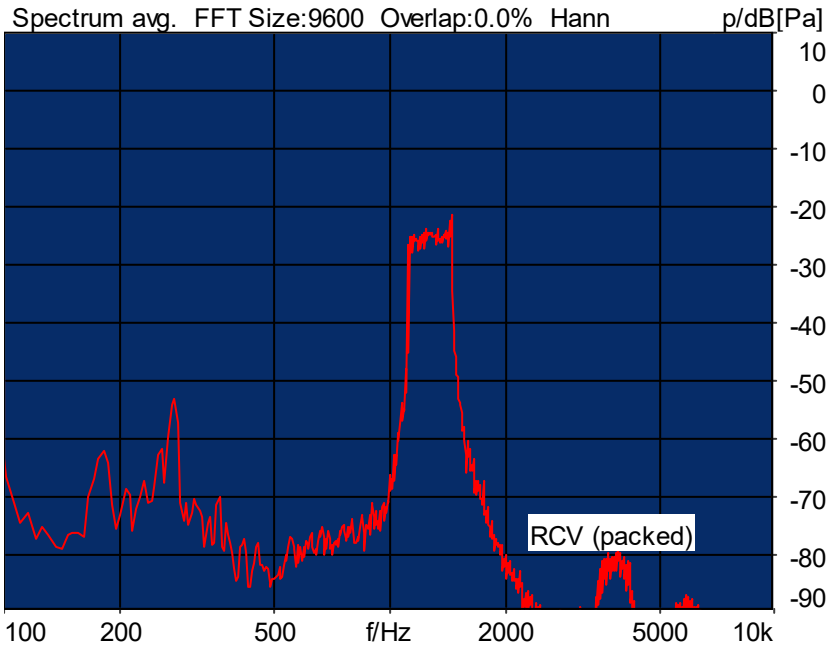
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 23.89 dB (6.39%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

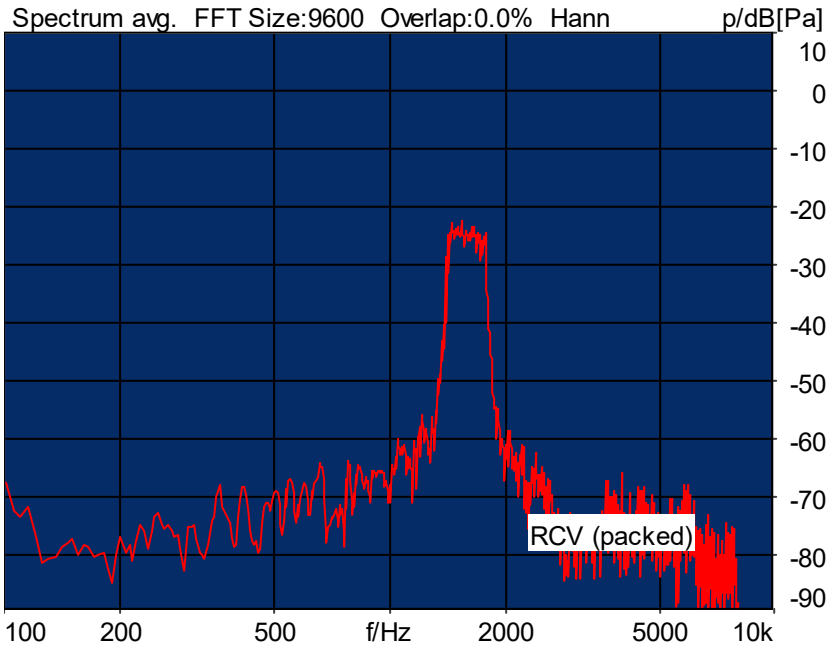
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 26.30 dB (4.84%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

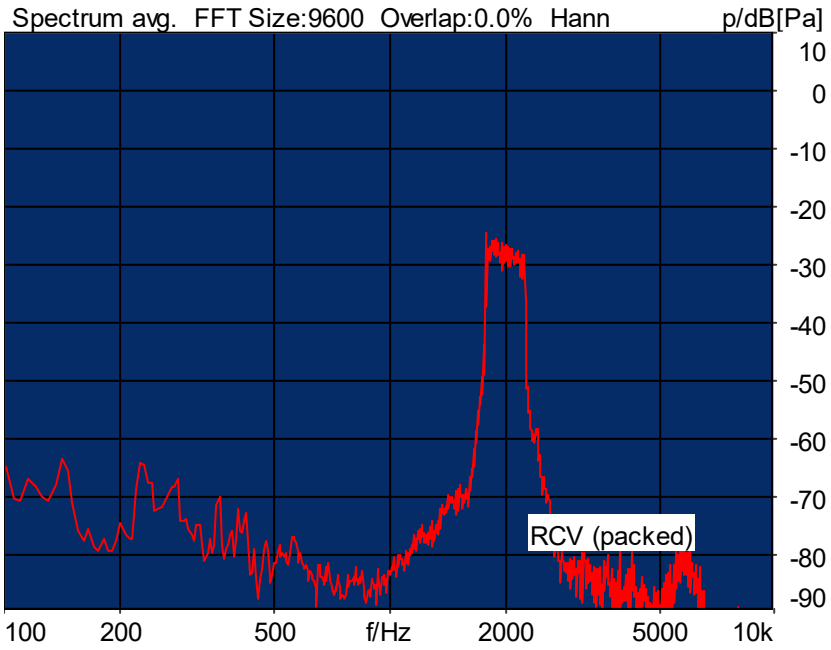
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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

EVS-WB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

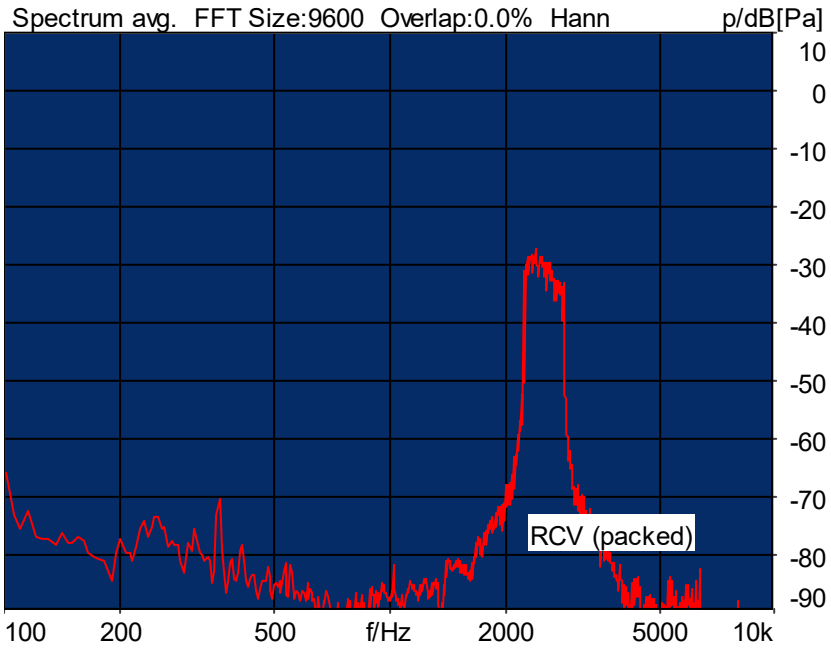
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 31.08 dB (2.79%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

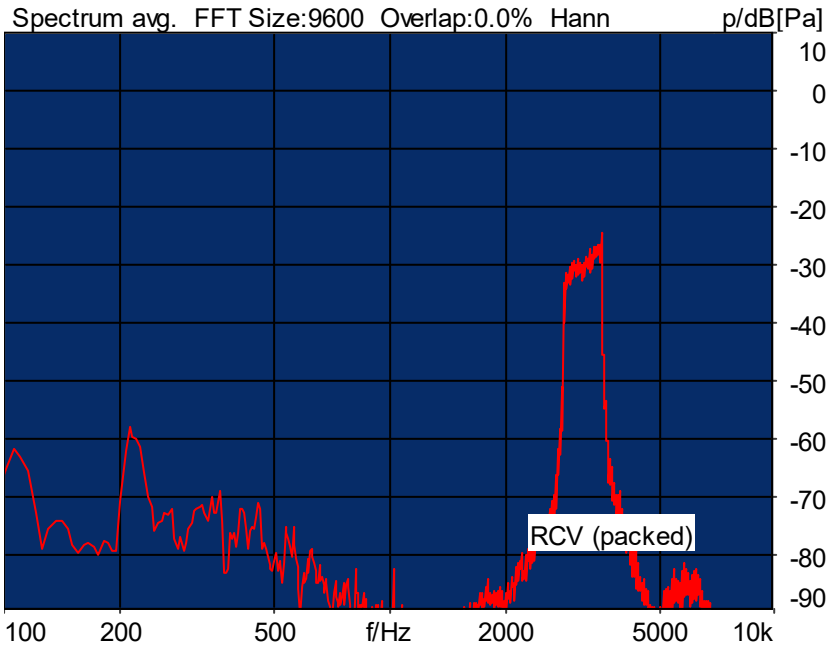
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.72 dB (2.91%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

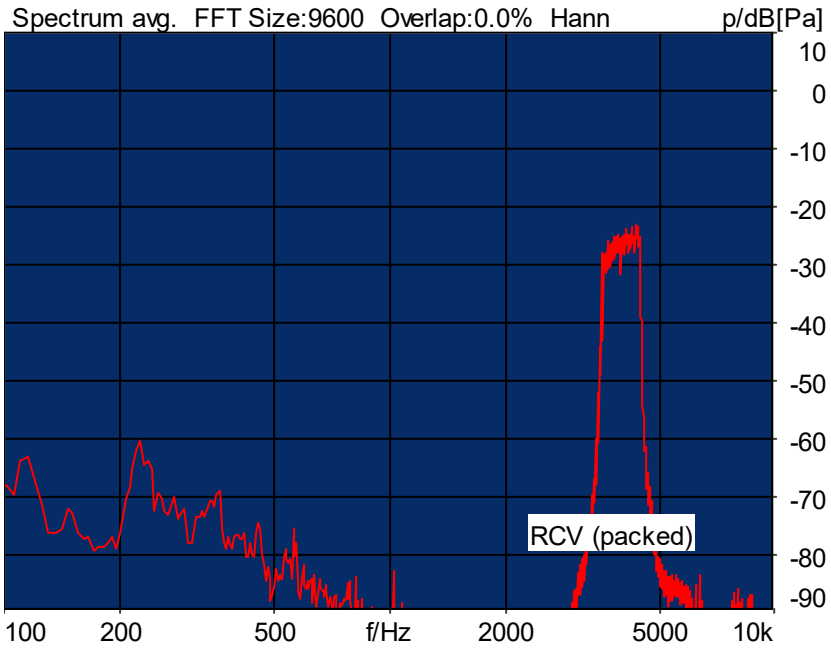
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.62 dB (2.94%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_4000Hz

Hardware Config Settings

Used Setting	TIA5050

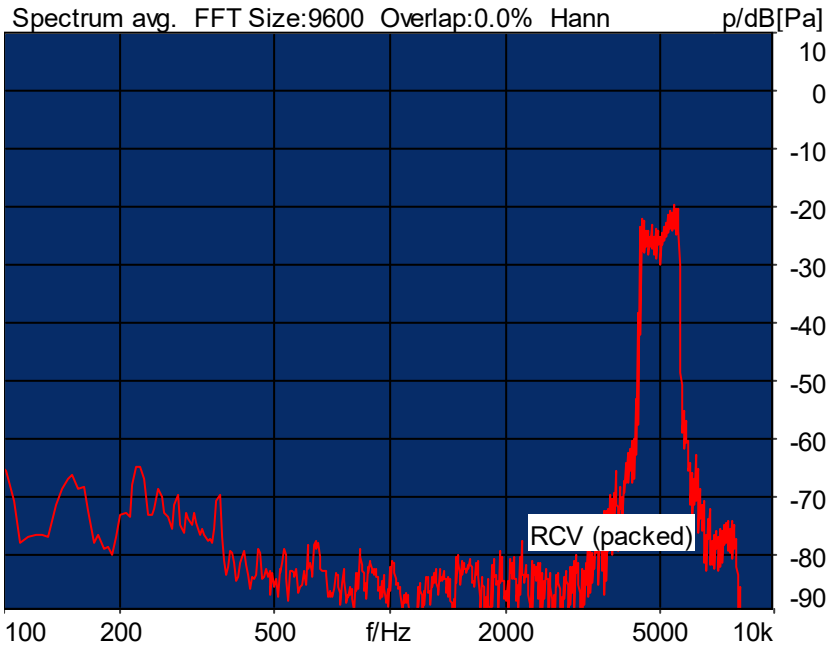
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.66 dB (2.93%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_5000Hz

Hardware Config Settings

Used Setting	TIA5050

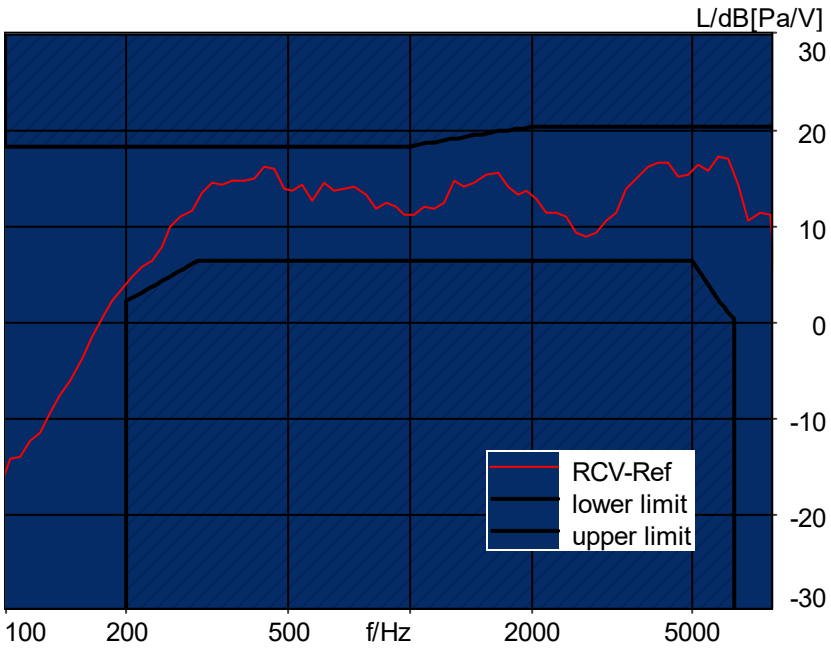
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF

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

EVS-WB-13.2



Absolute minimal distance

2.19 dB at 436.9 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(4#)

Measurement Object	BL-SH25C1365-B4

Status Overview

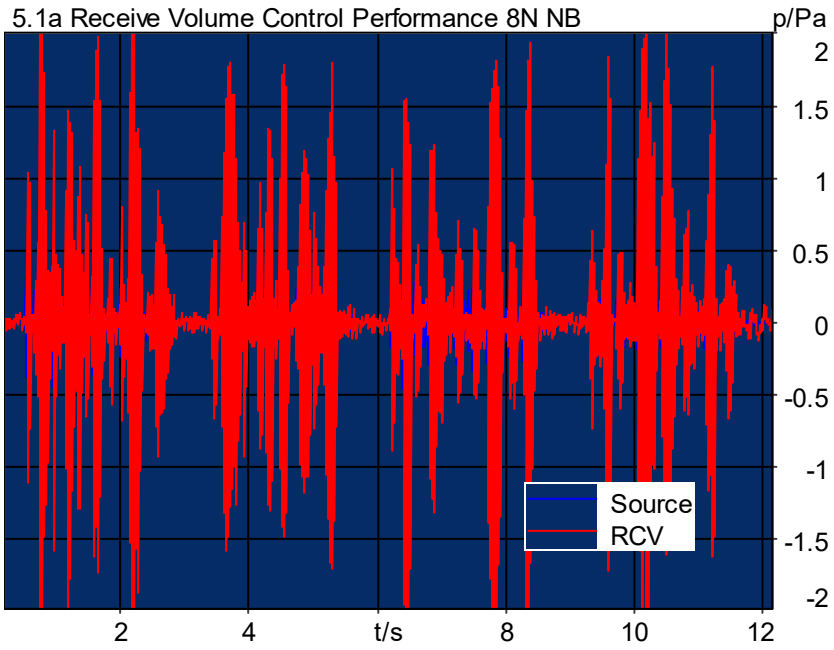
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	83.41	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.26	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.79	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.50	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.62	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.72	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.39	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.91	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.49	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.98	BL-SH25C1365-B4
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.12	BL-SH25C1365-B4
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 305.9 Hz	1.59	BL-SH25C1365-B4

5.1a Receive Volume Control Performance 8N NB 92
5.2 RCV Distortion and Noise - 400 Hz NB 94
5.2 RCV Distortion and Noise - 500 Hz NB 96
5.2 RCV Distortion and Noise - 630 Hz NB 98
5.2 RCV Distortion and Noise - 800 Hz NB 100
5.2 RCV Distortion and Noise - 1000 Hz NB 102
5.2 RCV Distortion and Noise - 1250 Hz NB 104
5.2 RCV Distortion and Noise - 1600 Hz NB 106
5.2 RCV Distortion and Noise - 2000 Hz NB 195
5.2 RCV Distortion and Noise - 2500 Hz NB 110
5.2 RCV Distortion and Noise - 3150 Hz NB 112
5.3 Frequency Response 8N FF HANB 114

5.1a Receive Volume Control Performance 8N NB

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EVS-NB-13.2



Channel	Speech level	Activity	
RCV	83.41 dB[SPL]	80.86%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

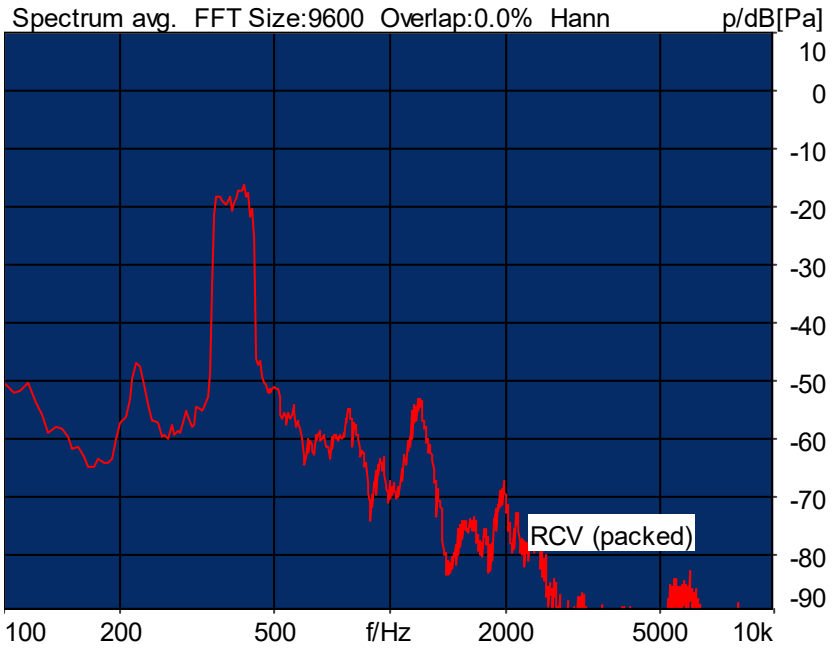
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 31.26 dB (2.74%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

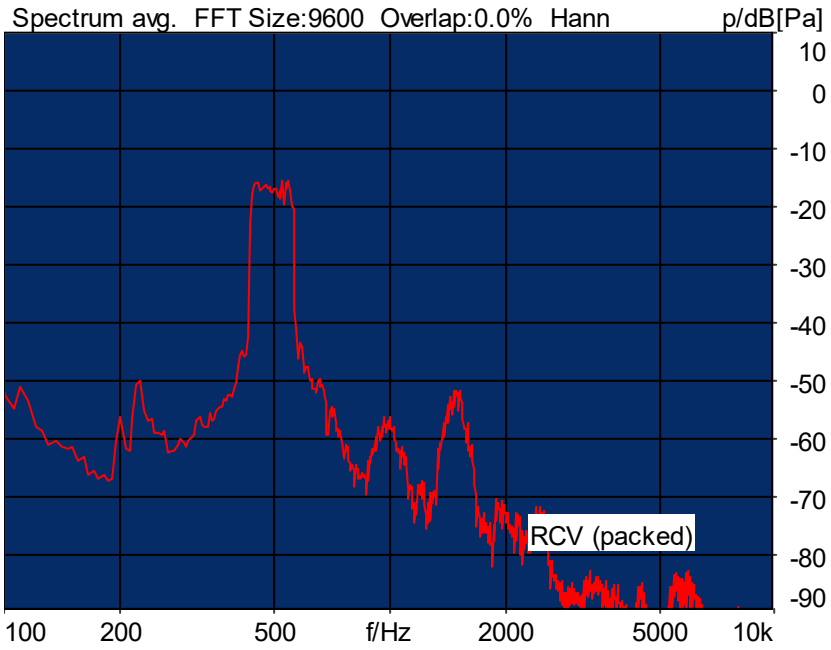
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.79 dB (2.89%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

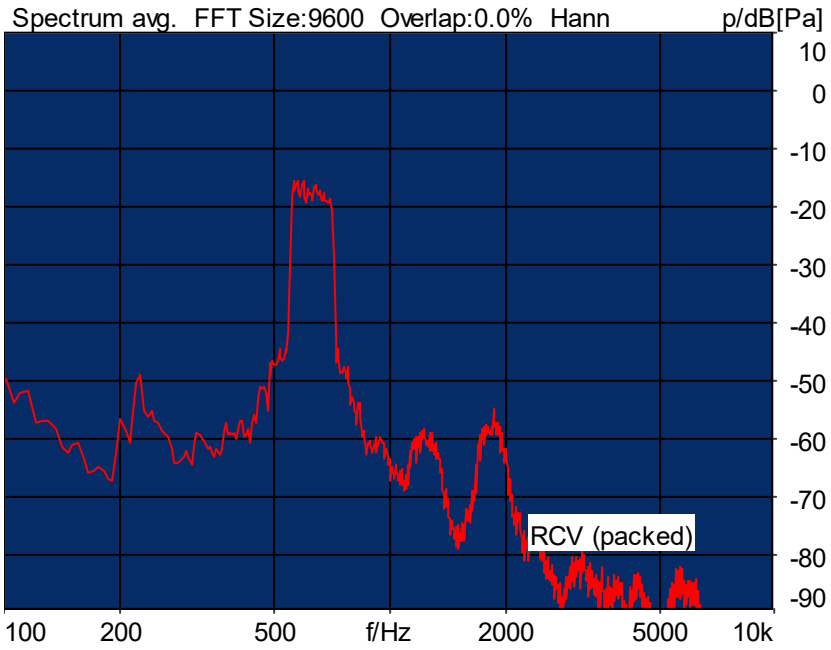
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 31.50 dB (2.66%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

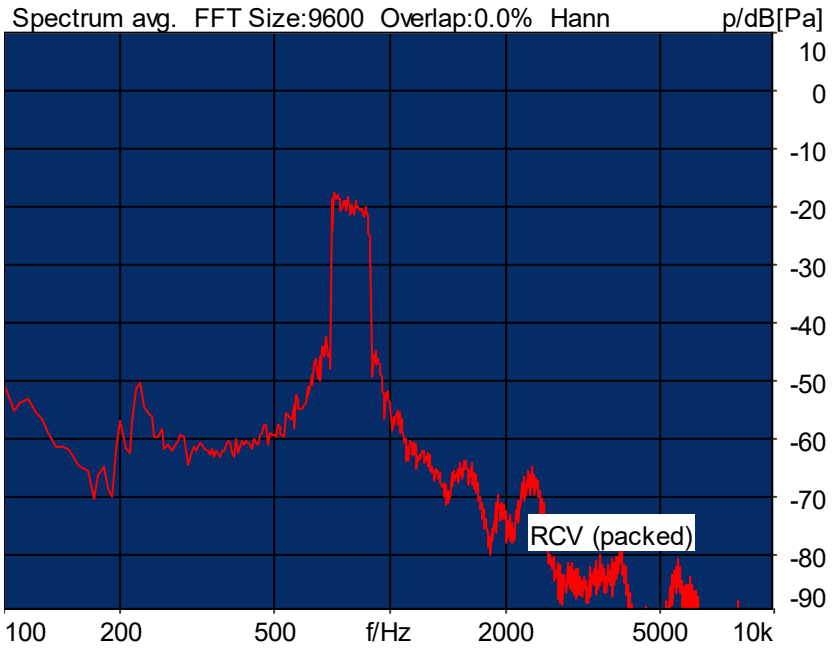
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 29.62 dB (3.30%) Ok

Ok

2025/12/19 16:48 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

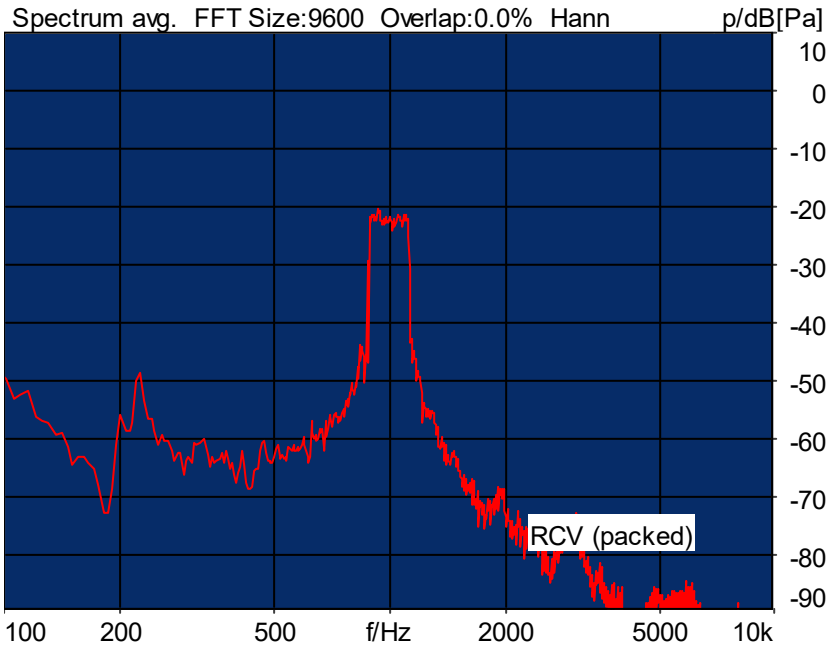
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.72 dB (4.11%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

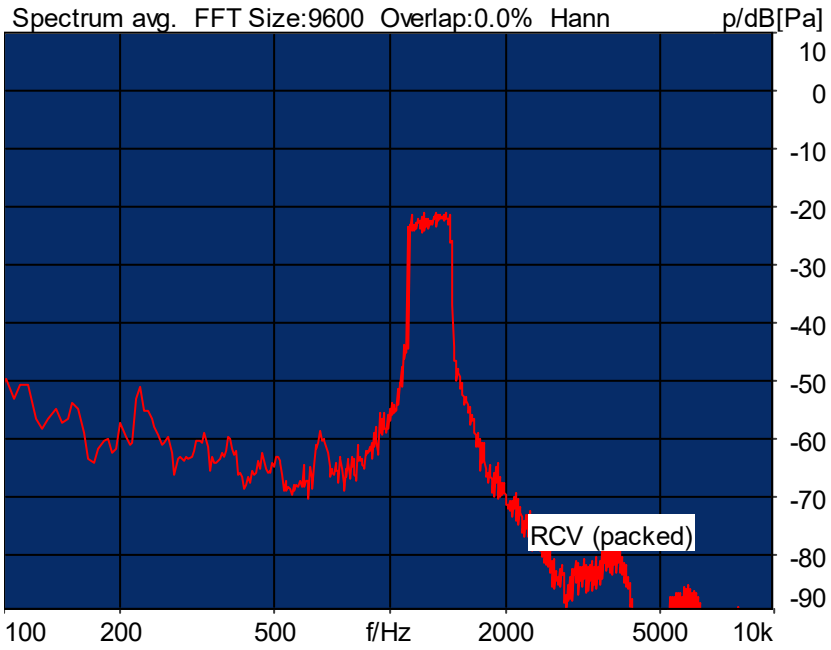
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.39 dB (4.79%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

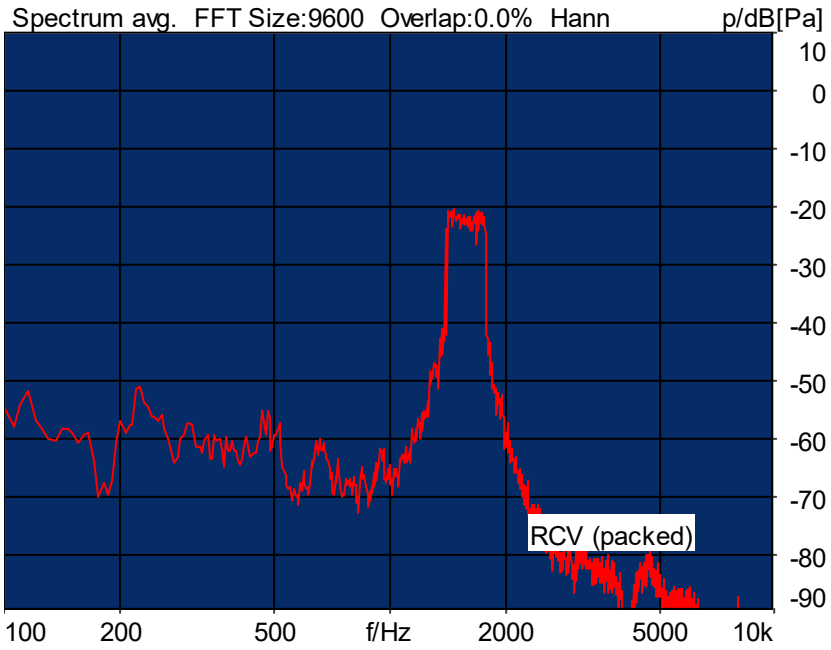
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.91 dB (4.51%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

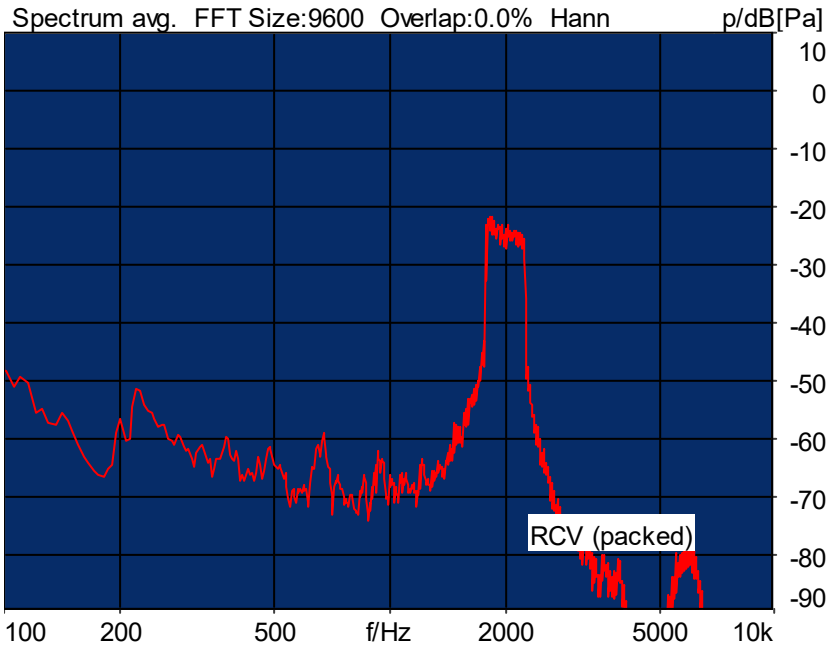
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.49 dB (4.22%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

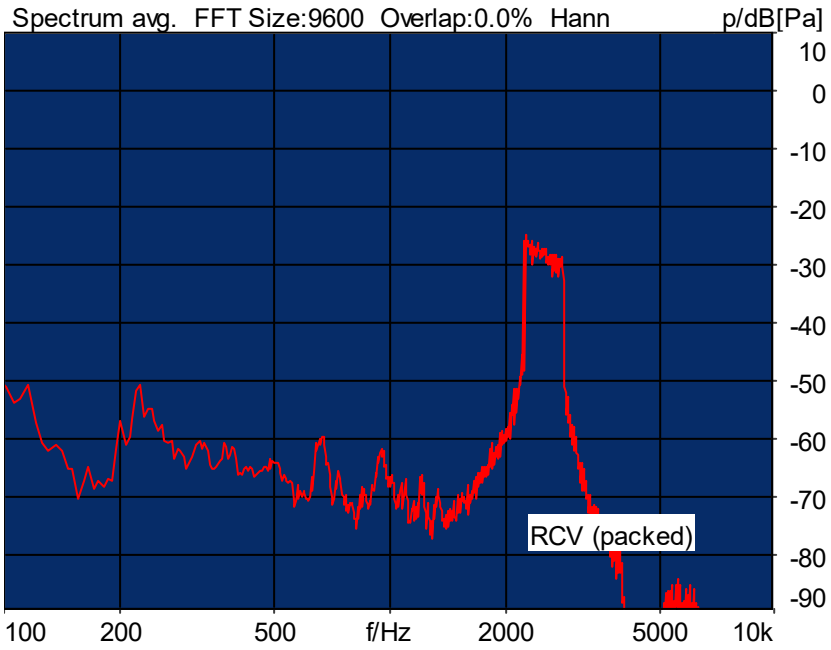
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.98 dB (5.02%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

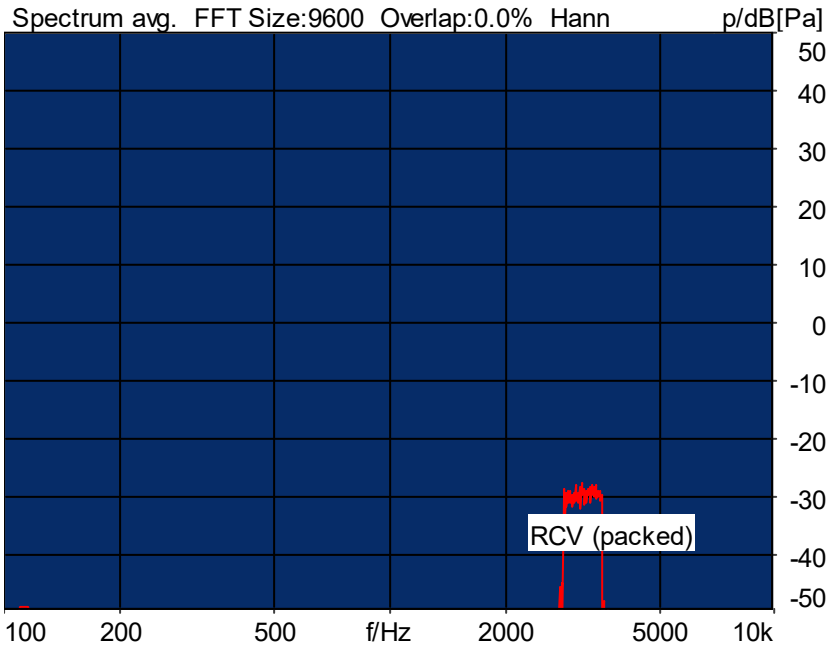
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.12 dB (7.83%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

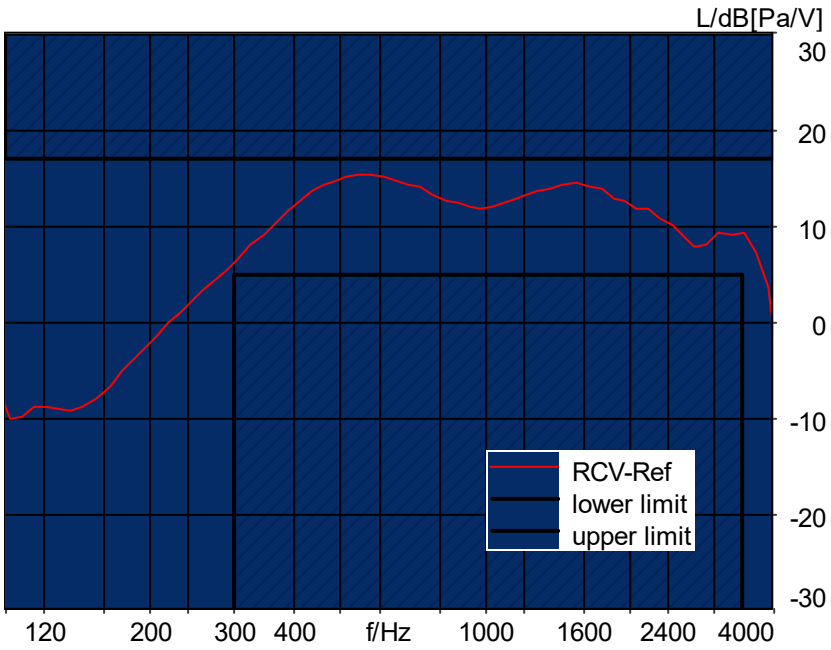
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF HANB

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

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Absolute minimal distance

1.59 dB at 305.9 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(5#)

Measurement Object	BL-SH25C1365-B5

Status Overview

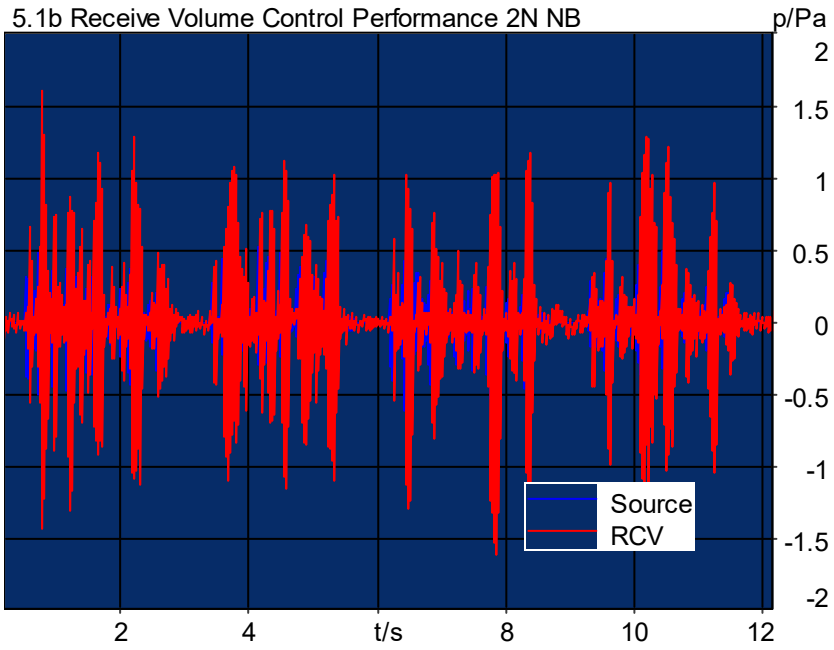
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.76	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.67	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.36	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.69	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.25	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.25	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.39	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.93	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.77	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.79	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.96	BL-SH25C1365-B5
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 576.7 Hz	1.77	BL-SH25C1365-B5

5.1b Receive Volume Control Performance 2N NB 119
5.2 RCV Distortion and Noise - 400 Hz NB 121
5.2 RCV Distortion and Noise - 500 Hz NB 123
5.2 RCV Distortion and Noise - 630 Hz NB 125
5.2 RCV Distortion and Noise - 800 Hz NB 127
5.2 RCV Distortion and Noise - 1000 Hz NB 129
5.2 RCV Distortion and Noise - 1250 Hz NB 131
5.2 RCV Distortion and Noise - 1600 Hz NB 133
5.2 RCV Distortion and Noise - 2000 Hz NB 135
5.2 RCV Distortion and Noise - 2500 Hz NB 137
5.2 RCV Distortion and Noise - 3150 Hz NB 139
5.3 Frequency Response 2N FF HANB 141

5.1b Receive Volume Control Performance 2N NB

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EVS-NB-13.2



Channel	Speech level	Activity	
RCV	78.76 dB[SPL]	80.41%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

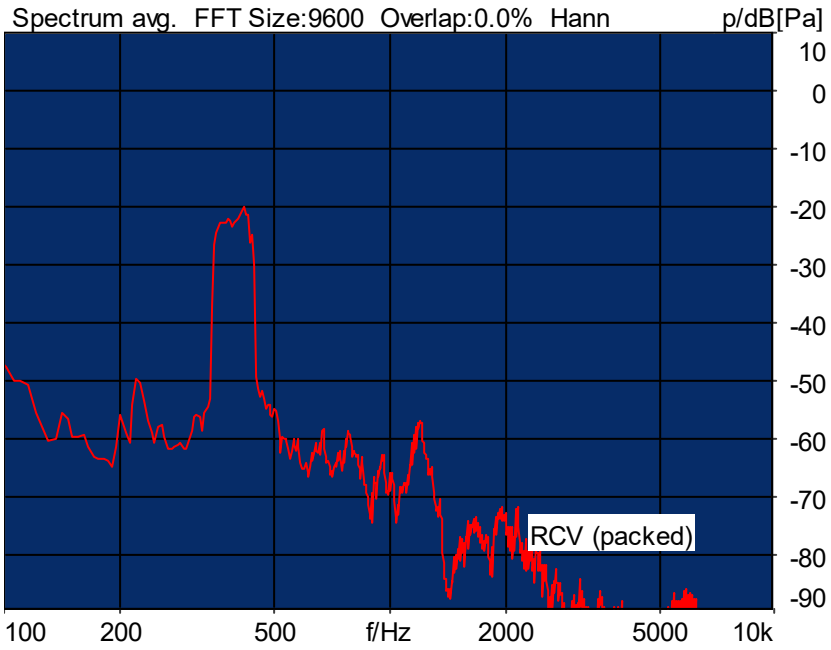
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.67 dB (2.93%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

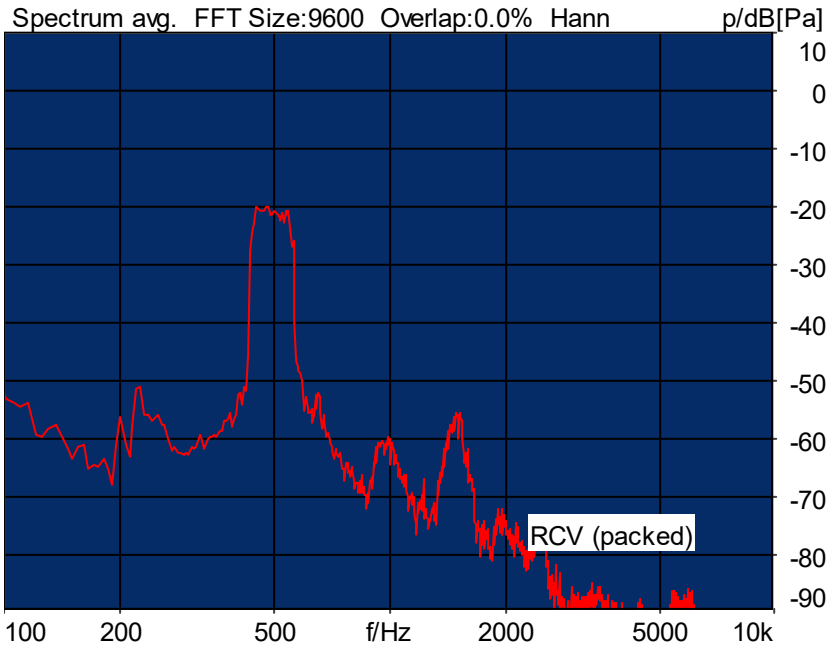
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.36 dB (3.03%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

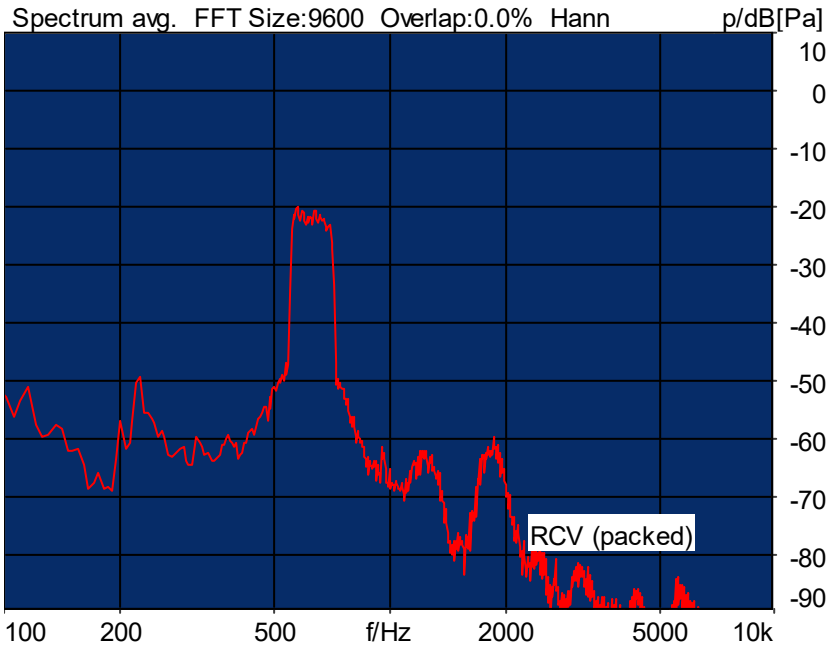
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.69 dB (2.92%) Ok

Ok

2025/12/19 17:38 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

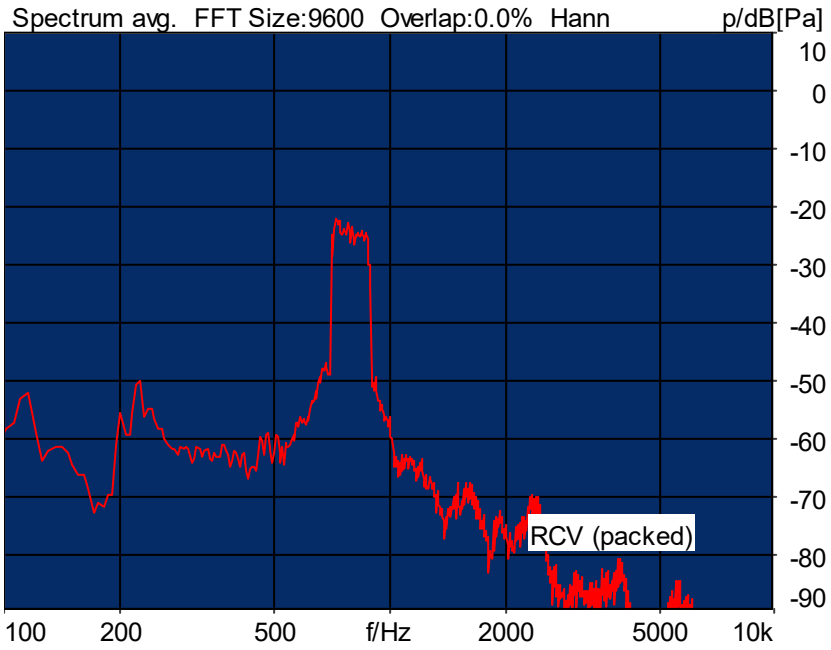
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 29.25 dB (3.45%) Ok

Ok

2025/12/19 17:39 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

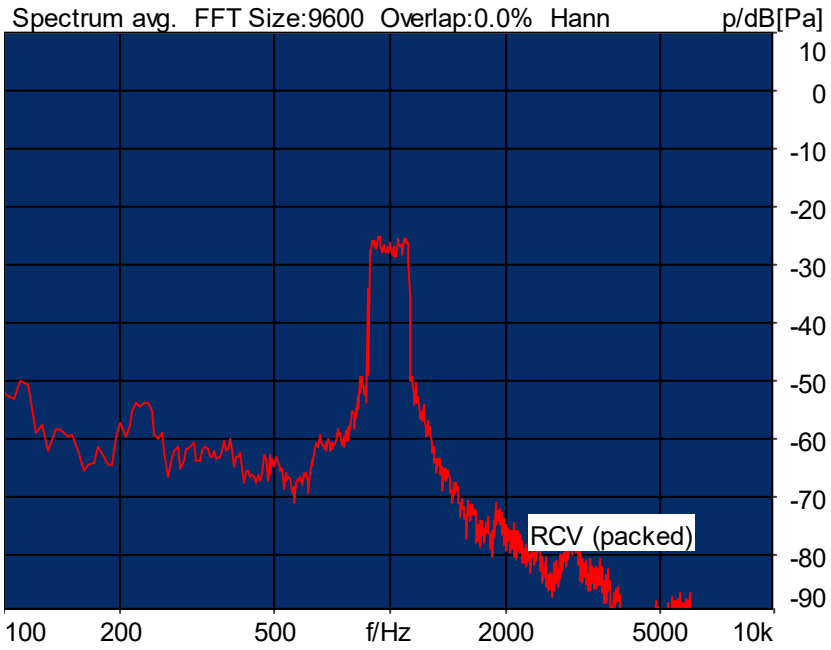
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.25 dB (4.34%) Ok

Ok

2025/12/19 17:39 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

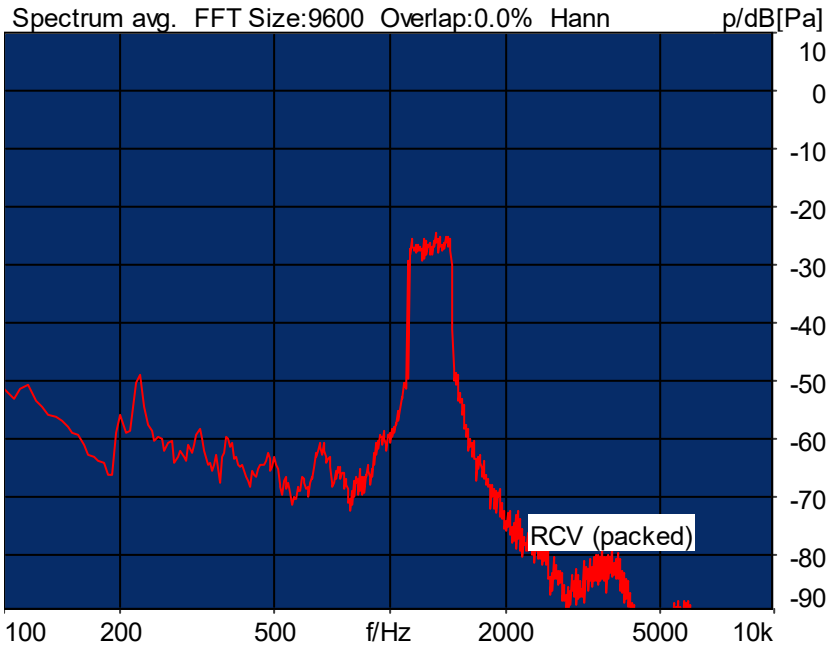
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.39 dB (5.38%) Ok

Ok

2025/12/19 17:39 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

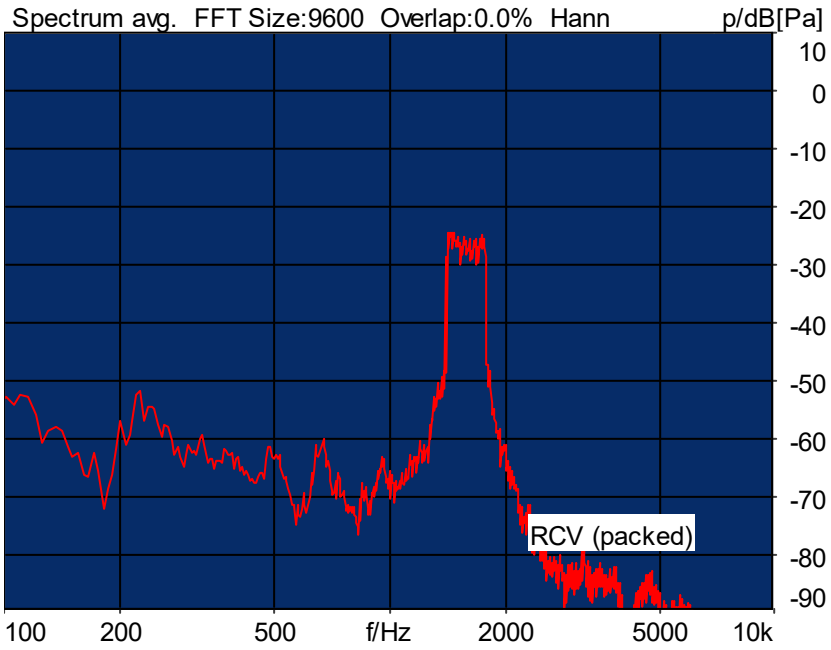
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

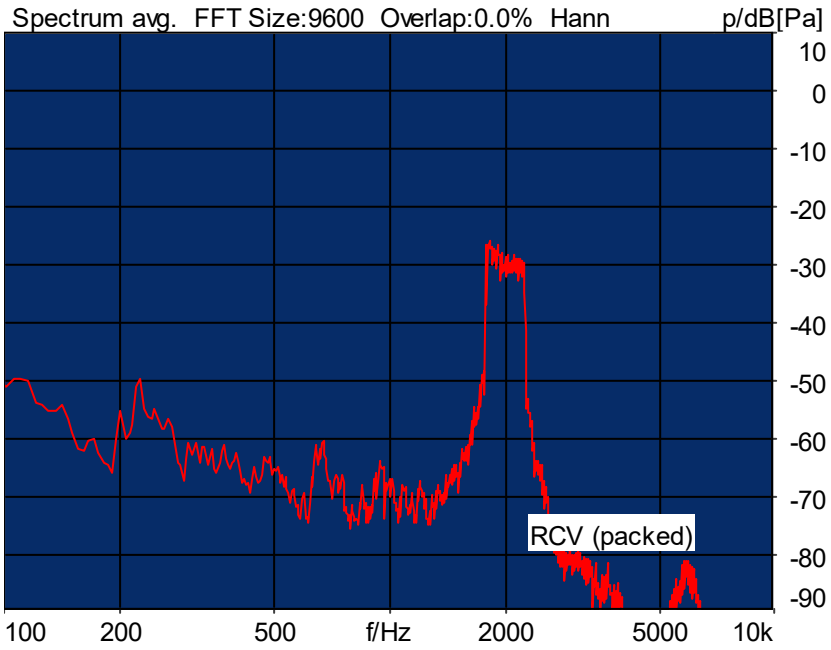
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.77 dB (4.59%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

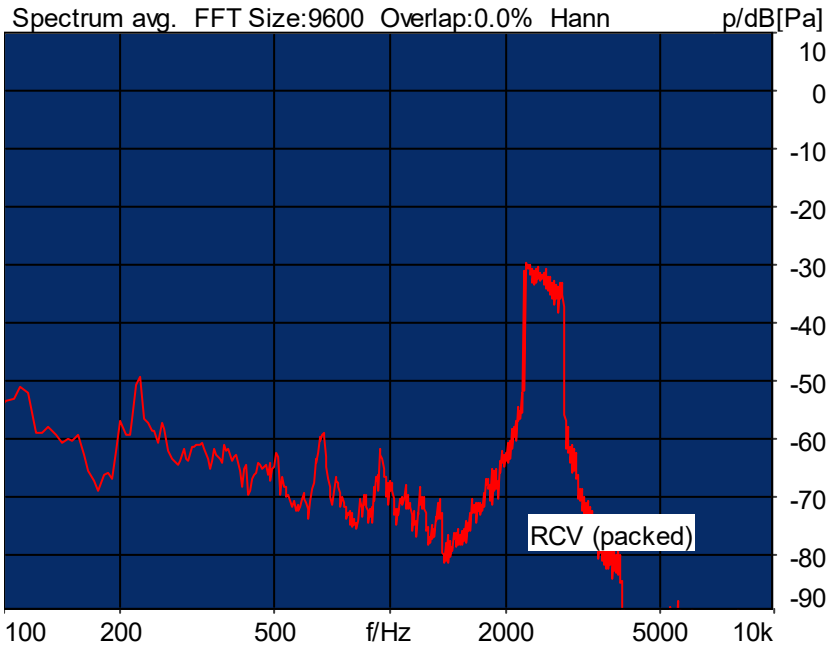
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.79 dB (5.14%) Ok

Ok

2025/12/19 17:41 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

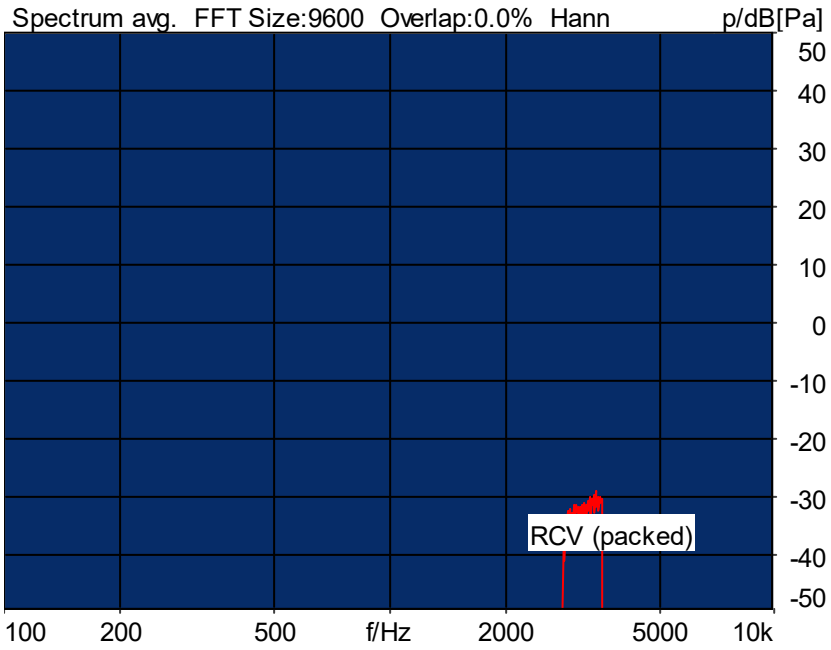
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.96 dB (7.11%) Ok

Ok

2025/12/19 17:41 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

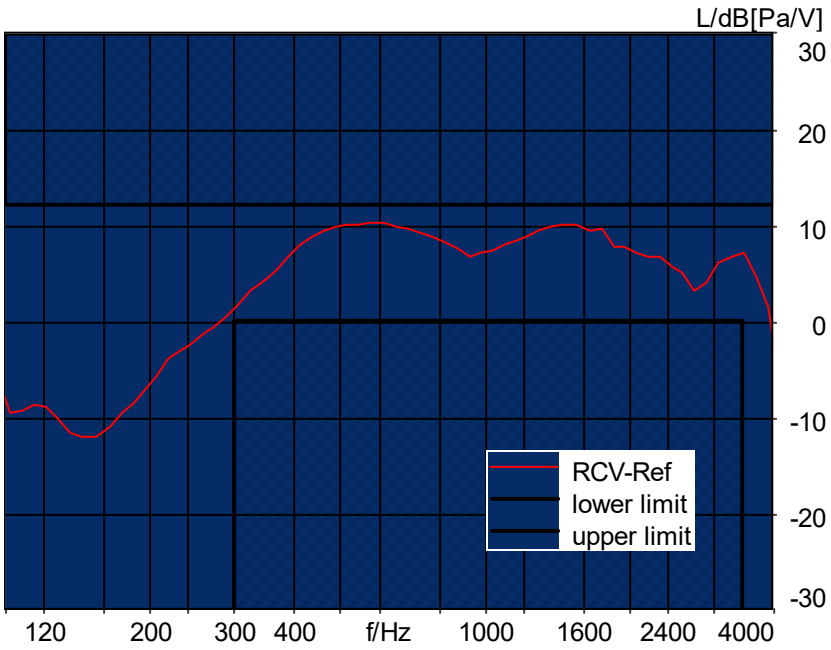
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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

EVS-NB-13.2



Absolute minimal distance

1.77 dB at 576.7 Hz Ok

Ok

2025/12/19 17:41 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(6#)

Measurement Object	BL-SH25C1365-B5

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	83.17	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.92	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.75	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.22	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.81	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.32	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.71	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.88	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.23	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.47	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.66	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.14	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.10	BL-SH25C1365-B5
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.77	BL-SH25C1365-B5

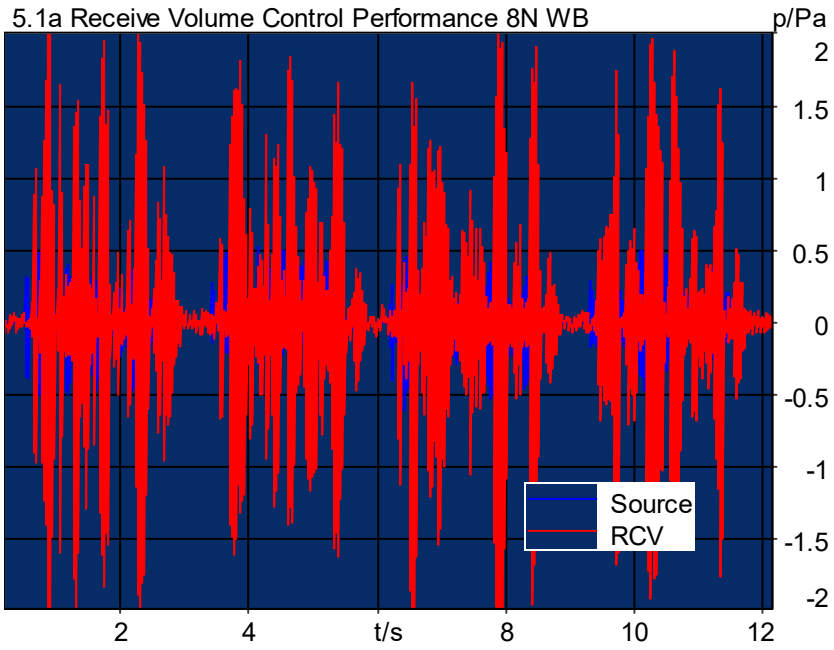
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.39	BL-SH25C1365-B5
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 544.4 Hz	1.73	BL-SH25C1365-B5

5.1a Receive Volume Control Performance 8N WB 147
5.2 RCV Distortion and Noise - 250 Hz WB 149
5.2 RCV Distortion and Noise - 315 Hz WB 151
5.2 RCV Distortion and Noise - 400 Hz WB 153
5.2 RCV Distortion and Noise - 500 Hz WB 155
5.2 RCV Distortion and Noise - 630 Hz WB 157
5.2 RCV Distortion and Noise - 800 Hz WB 159
5.2 RCV Distortion and Noise - 1000 Hz WB 161
5.2 RCV Distortion and Noise - 1250 Hz WB 163
5.2 RCV Distortion and Noise - 1600 Hz WB 165
5.2 RCV Distortion and Noise - 2000 Hz WB 167
5.2 RCV Distortion and Noise - 2500 Hz WB 169
5.2 RCV Distortion and Noise - 3150 Hz WB 171
5.2 RCV Distortion and Noise - 4000 Hz WB 173
5.2 RCV Distortion and Noise - 5000 Hz WB 175
5.3 Frequency Response 8N FF 177

5.1a Receive Volume Control Performance 8N WB

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EVS-WB-13.2



Channel	Speech level	Activity	
RCV	83.17 dB[SPL]	84.38%	Ok

Ok

2026/1/8 20:55 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

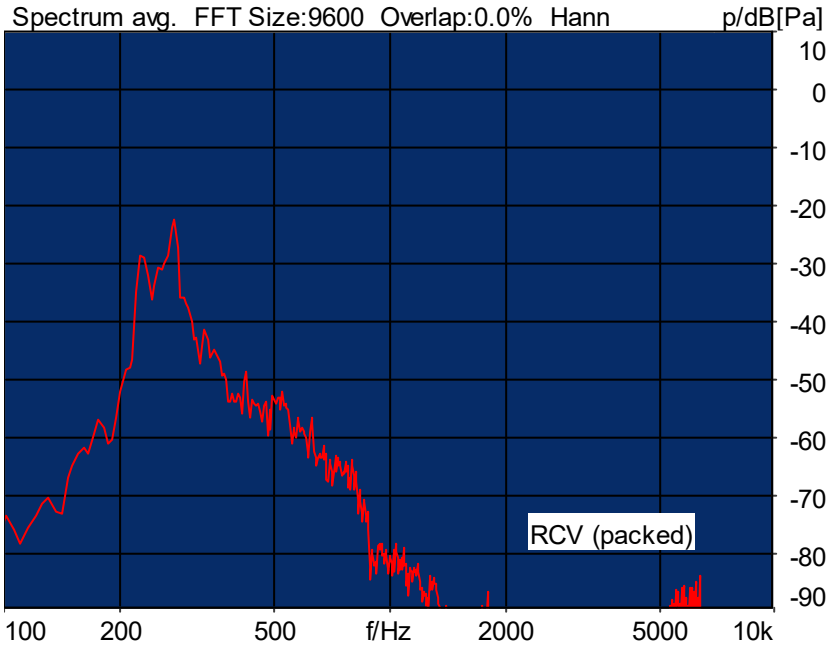
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 20.92 dB (9.00%) Ok

Ok

2026/1/12 20:58 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_250Hz

Hardware Config Settings

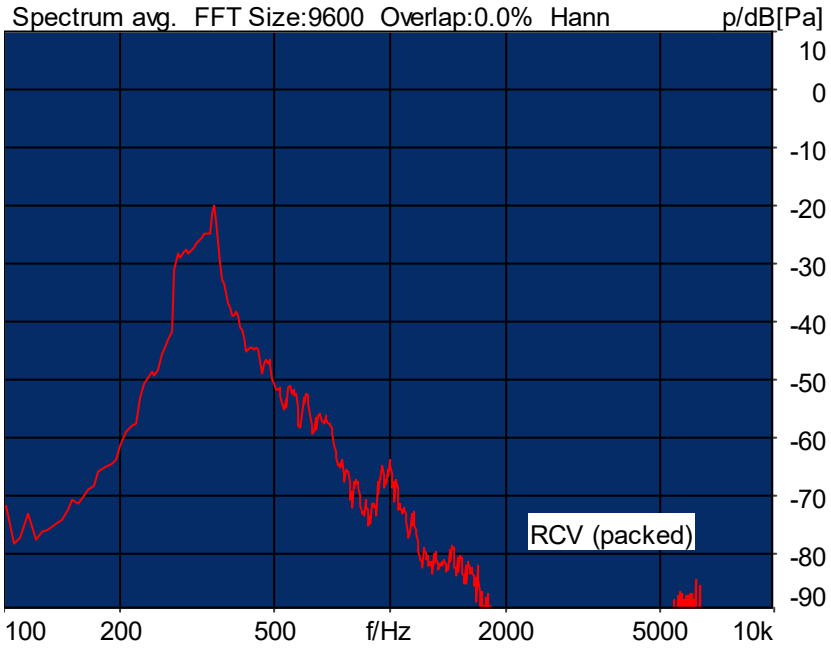
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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



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

Ok

2026/1/12 20:58 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_315Hz

Hardware Config Settings

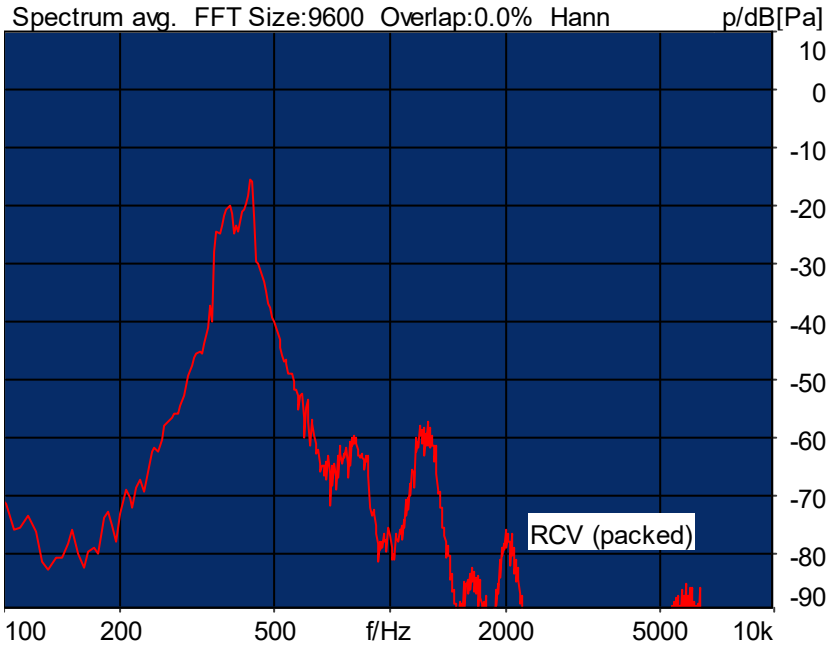
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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



Distortion (Noise) RCV (packed): 25.22 dB (5.48%) Ok

Ok

2026/1/12 20:58 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_400Hz

Hardware Config Settings

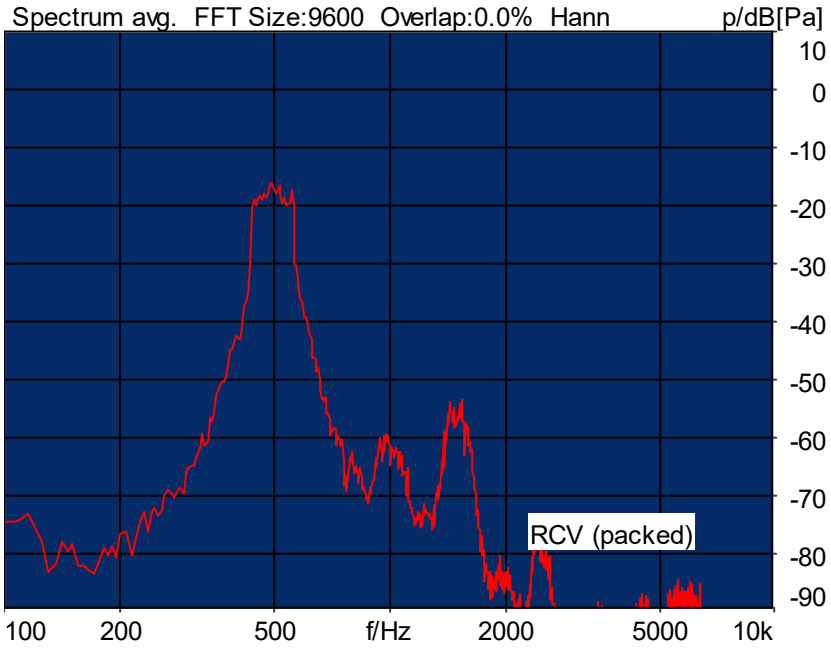
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 27.81 dB (4.07%) Ok

Ok

2026/1/12 20:59 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_500Hz

Hardware Config Settings

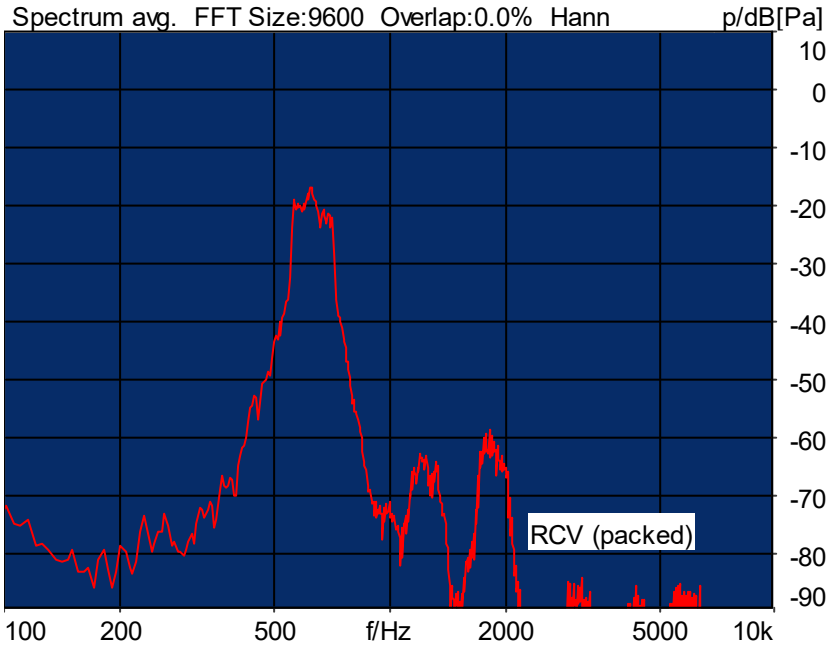
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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



Distortion (Noise) RCV (packed): 28.32 dB (3.84%) Ok

Ok

2026/1/12 20:59 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_630Hz

Hardware Config Settings

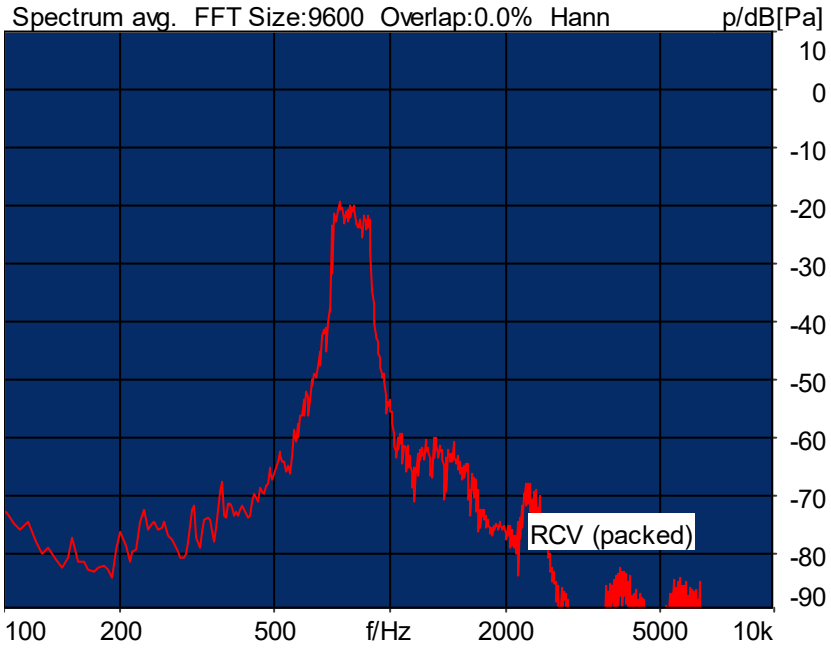
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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



Distortion (Noise) RCV (packed): 27.71 dB (4.11%) Ok

Ok

2026/1/12 21:00 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_800Hz

Hardware Config Settings

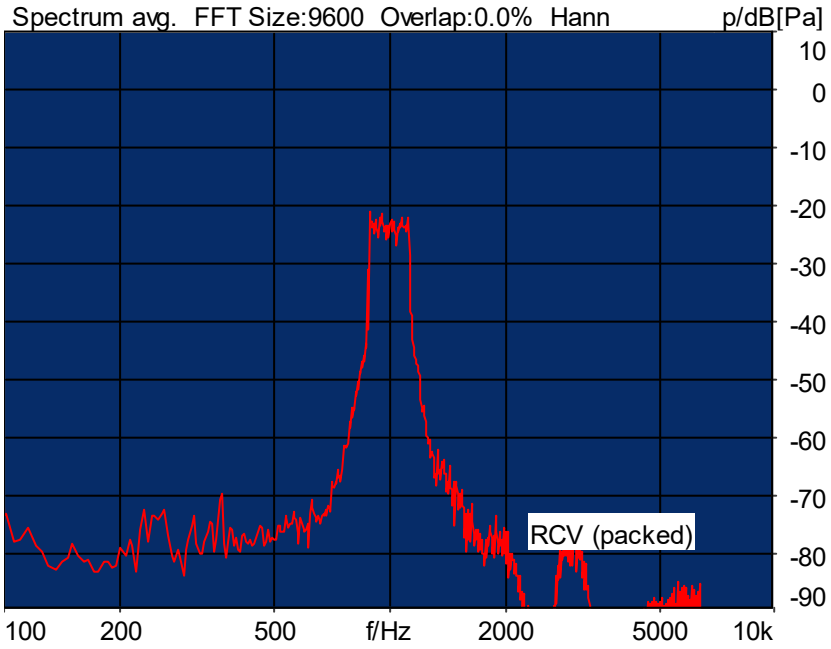
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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



Distortion (Noise) RCV (packed): 28.88 dB (3.60%) Ok

Ok

2026/1/12 21:00 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1000Hz

Hardware Config Settings

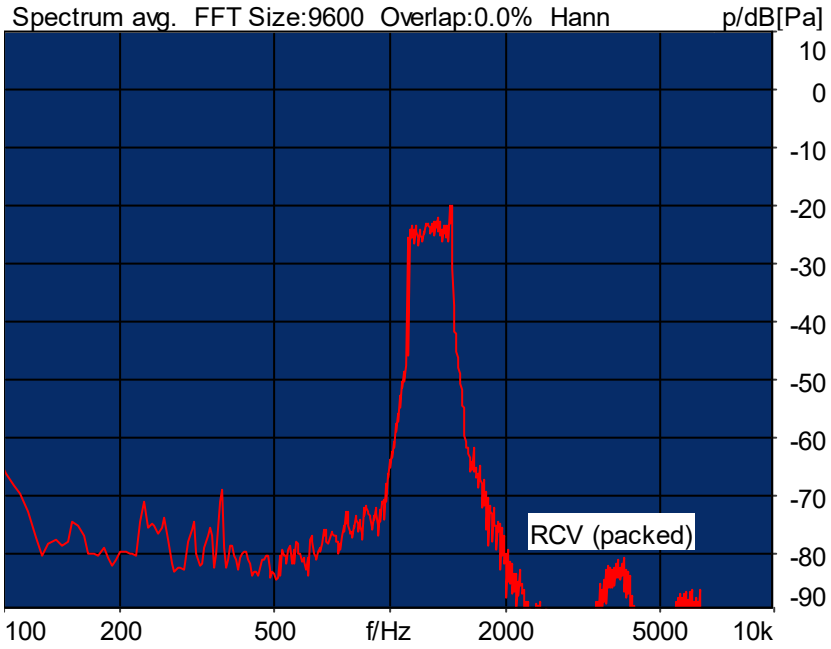
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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



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

Ok

2026/1/12 21:00 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1250Hz

Hardware Config Settings

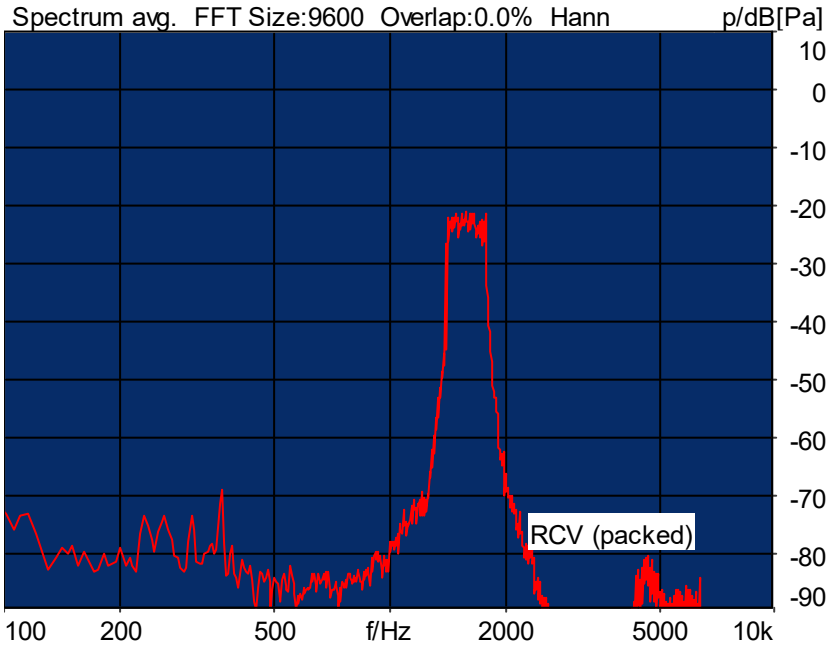
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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



Distortion (Noise) RCV (packed): 30.47 dB (3.00%) Ok

Ok

2026/1/12 21:01 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1600Hz

Hardware Config Settings

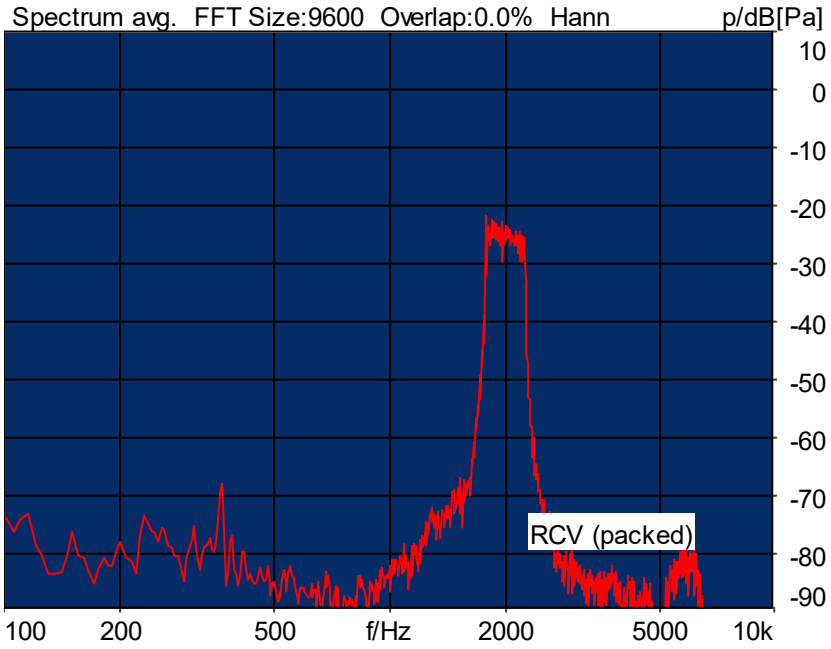
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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



Distortion (Noise) RCV (packed): 30.66 dB (2.93%) Ok

Ok

2026/1/12 21:01 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2000Hz

Hardware Config Settings

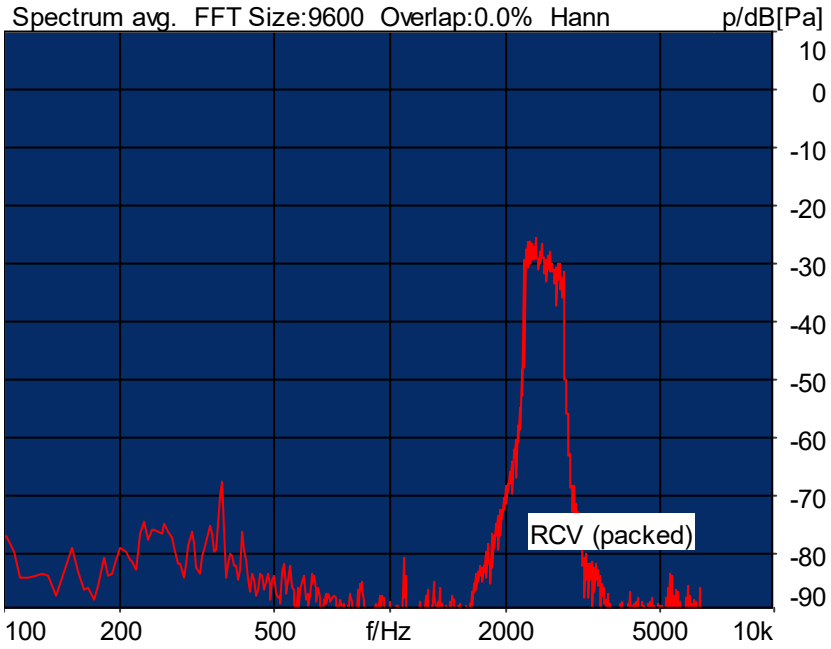
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 31.14 dB (2.77%) Ok

Ok

2026/1/12 21:02 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2500Hz

Hardware Config Settings

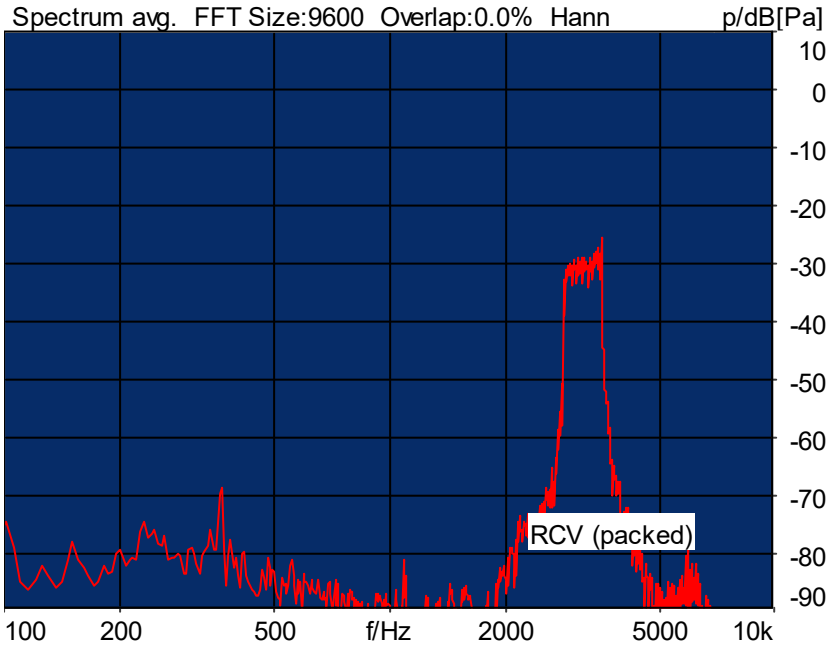
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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



Distortion (Noise) RCV (packed): 28.10 dB (3.94%) Ok

Ok

2026/1/12 21:02 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_3150Hz

Hardware Config Settings

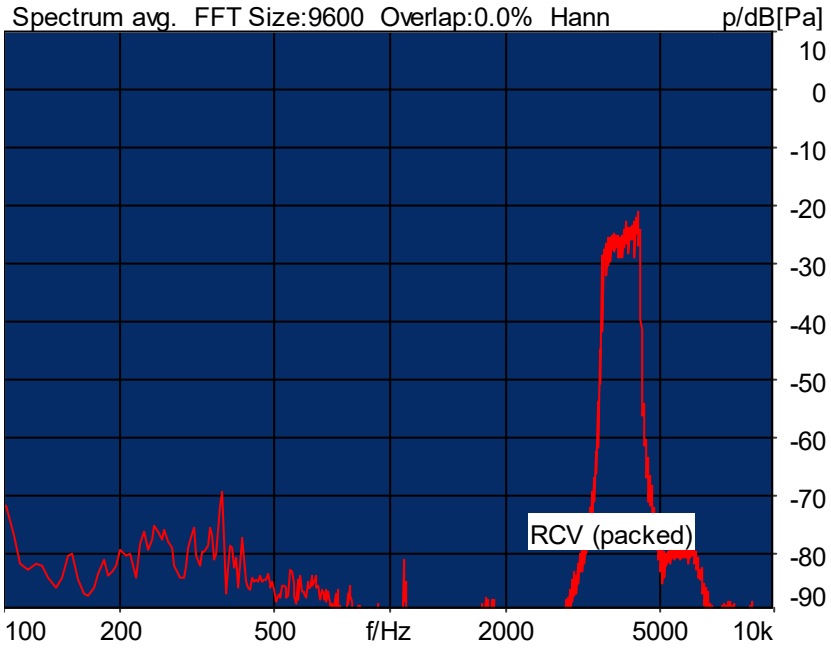
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 31.77 dB (2.58%) Ok

Ok

2026/1/12 21:02 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_4000Hz

Hardware Config Settings

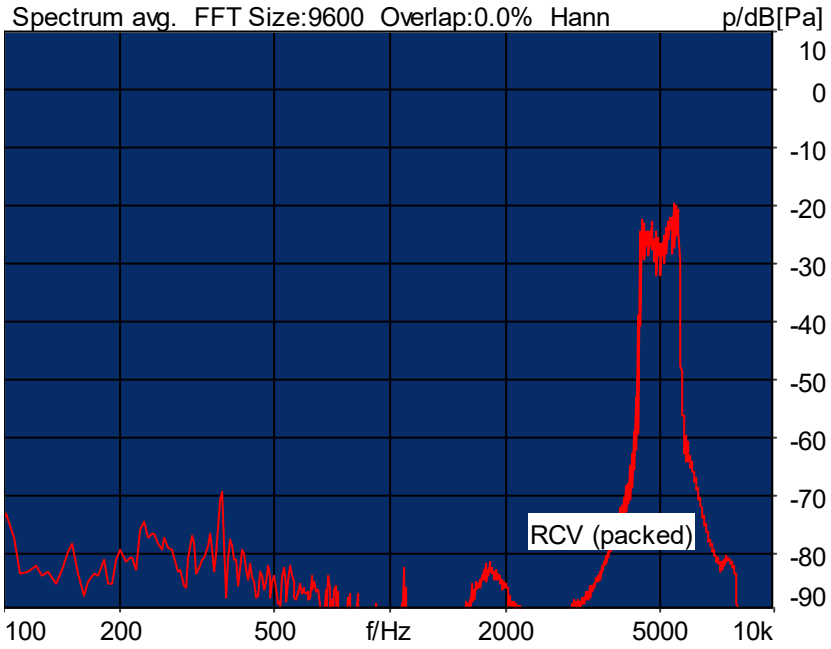
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 29.39 dB (3.39%) Ok

Ok

2026/1/12 21:03 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_5000Hz

Hardware Config Settings

Used Setting	TIA5050

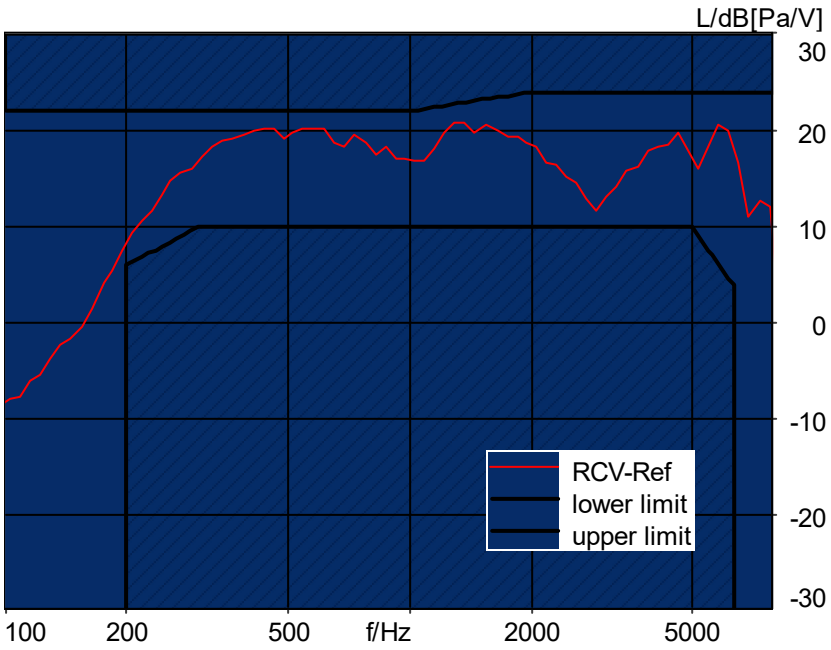
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF

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

EVS-WB-13.2



Absolute minimal distance

1.73 dB at 544.4 Hz Ok

Ok

2026/1/15 17:51 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1190.6000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(7#)

Measurement Object	BL-SH25C1365-B12

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	78.87	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.06	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.83	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.49	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.34	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.49	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.20	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.81	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.24	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.41	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.02	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.50	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	24.90	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.54	BL-SH25C1365-B12

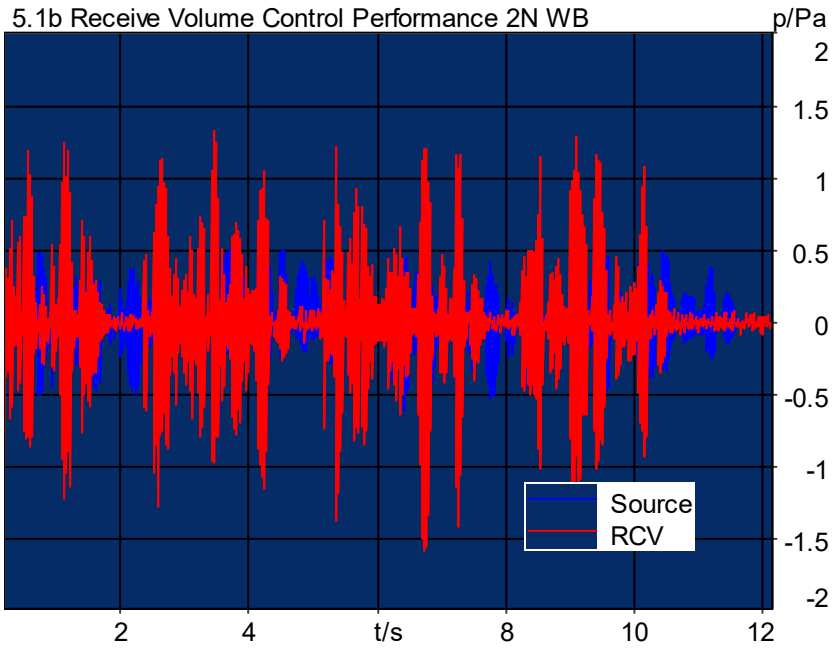
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	24.34	BL-SH25C1365-B12
5.3 Frequency Response 2N FF	Ok	Min. dist. to tolerance scheme [dB], 5767.3 Hz	1.84	BL-SH25C1365-B12

5.1b Receive Volume Control Performance 2N WB 183
5.2 RCV Distortion and Noise - 250 Hz WB 185
5.2 RCV Distortion and Noise - 315 Hz WB 187
5.2 RCV Distortion and Noise - 400 Hz WB 189
5.2 RCV Distortion and Noise - 500 Hz WB 191
5.2 RCV Distortion and Noise - 630 Hz WB 193
5.2 RCV Distortion and Noise - 800 Hz WB 195
5.2 RCV Distortion and Noise - 1000 Hz WB 197
5.2 RCV Distortion and Noise - 1250 Hz WB 199
5.2 RCV Distortion and Noise - 1600 Hz WB 201
5.2 RCV Distortion and Noise - 2000 Hz WB 203
5.2 RCV Distortion and Noise - 2500 Hz WB 205
5.2 RCV Distortion and Noise - 3150 Hz WB 207
5.2 RCV Distortion and Noise - 4000 Hz WB 209
5.2 RCV Distortion and Noise - 5000 Hz WB 211
5.3 Frequency Response 2N FF ..... 错误！未定义书签。

5.1b Receive Volume Control Performance 2N WB

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

EVS-WB-13.2



Channel	Speech level	Activity	
RCV	78.87 dB[SPL]	78.17%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

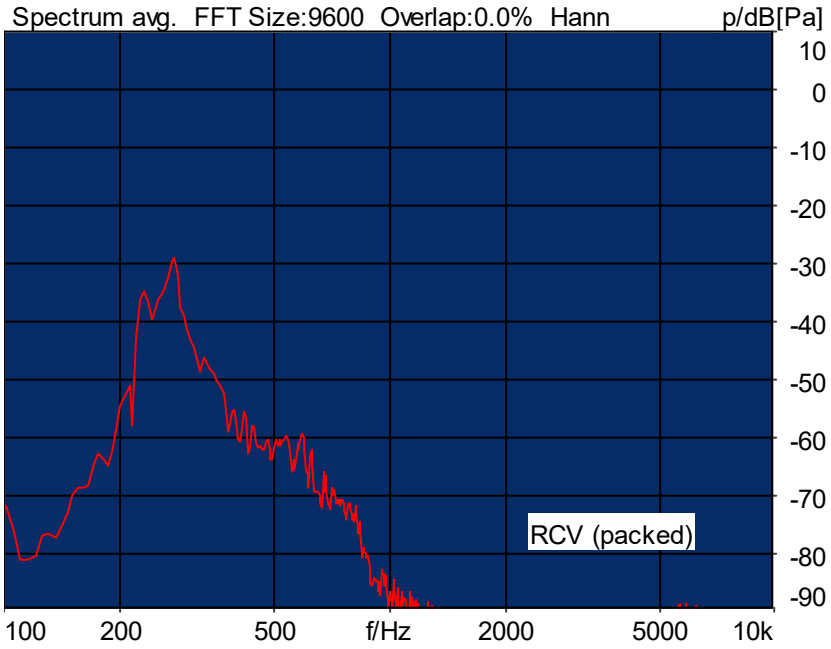
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 20.06 dB (9.93%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_250Hz

Hardware Config Settings

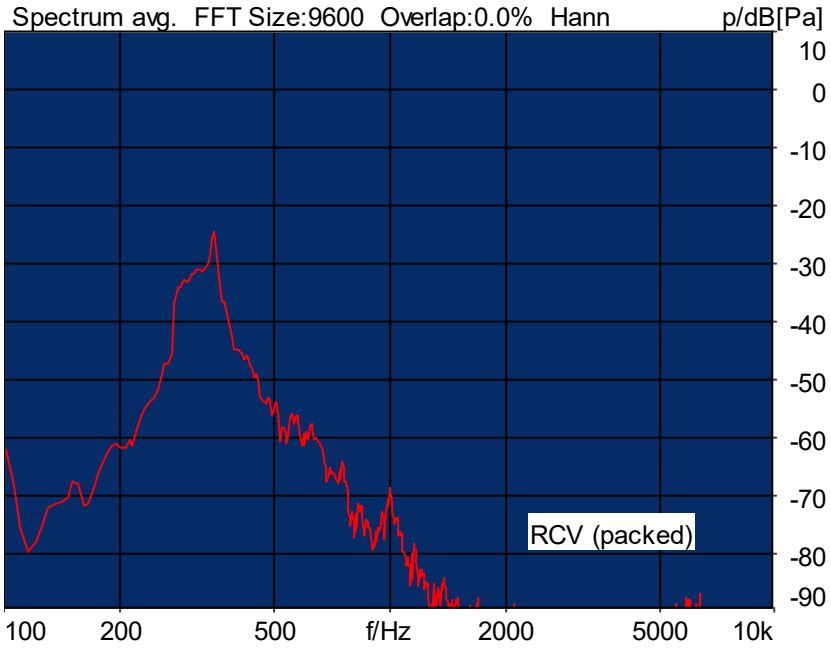
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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



Distortion (Noise) RCV (packed): 20.83 dB (9.09%) Ok

Ok

2026/1/12 21:17 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_315Hz

Hardware Config Settings

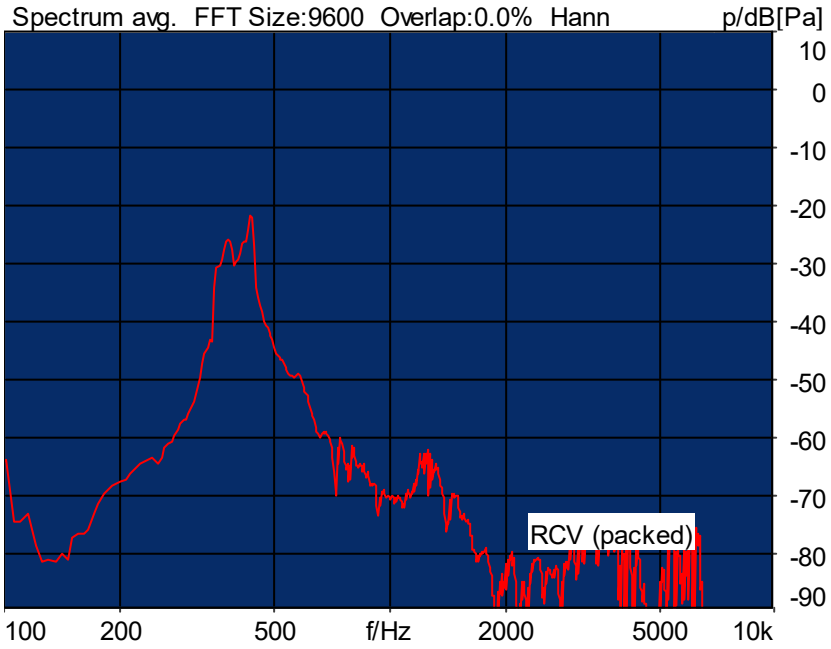
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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



Distortion (Noise) RCV (packed): 21.49 dB (8.42%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_400Hz

Hardware Config Settings

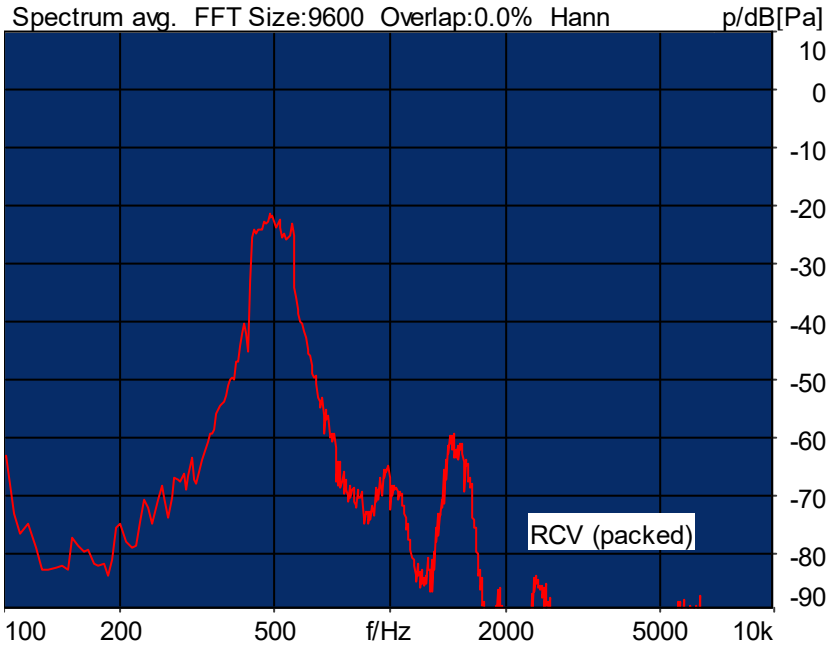
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 26.34 dB (4.82%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_500Hz

Hardware Config Settings

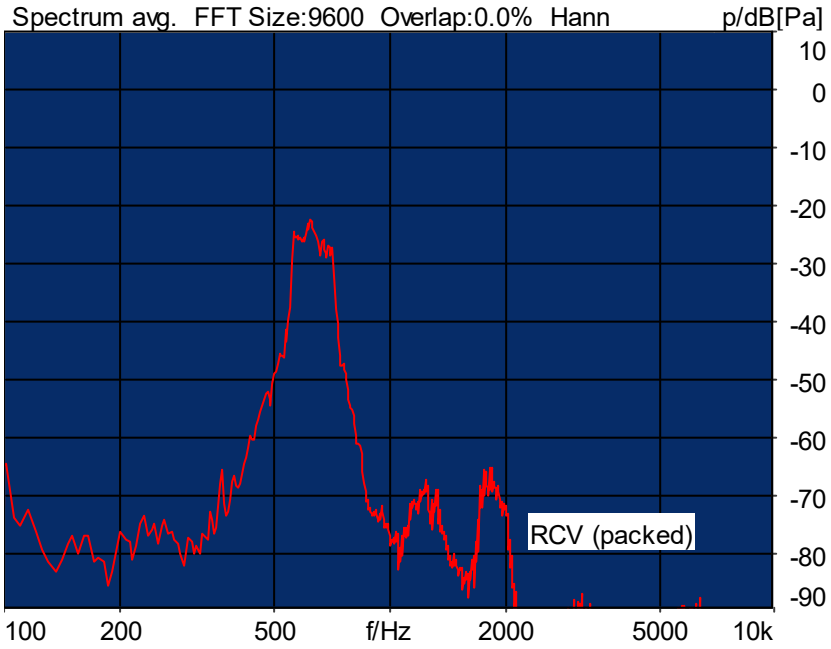
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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



Distortion (Noise) RCV (packed): 27.49 dB (4.22%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_630Hz

Hardware Config Settings

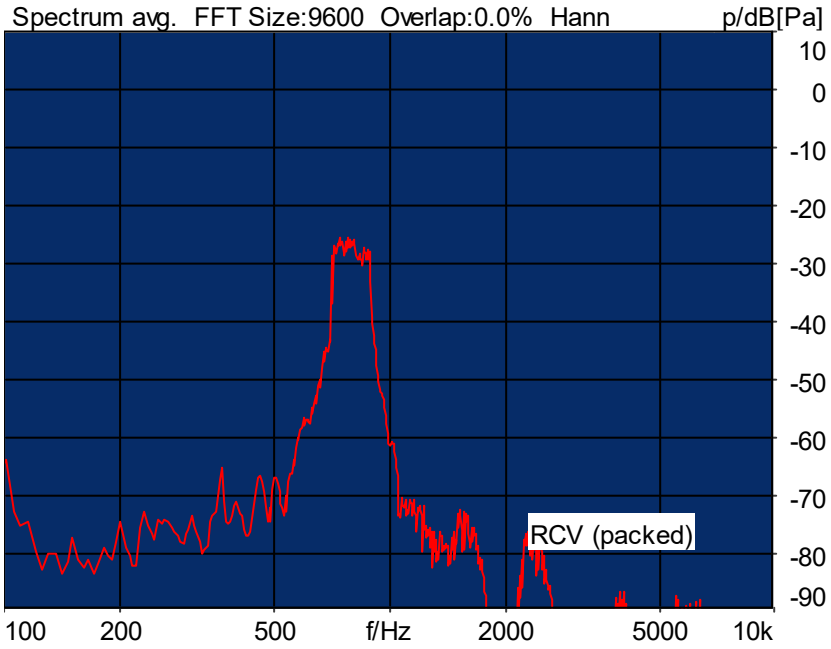
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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



Distortion (Noise) RCV (packed): 27.20 dB (4.37%) Ok

Ok

2026/1/12 21:18 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_800Hz

Hardware Config Settings

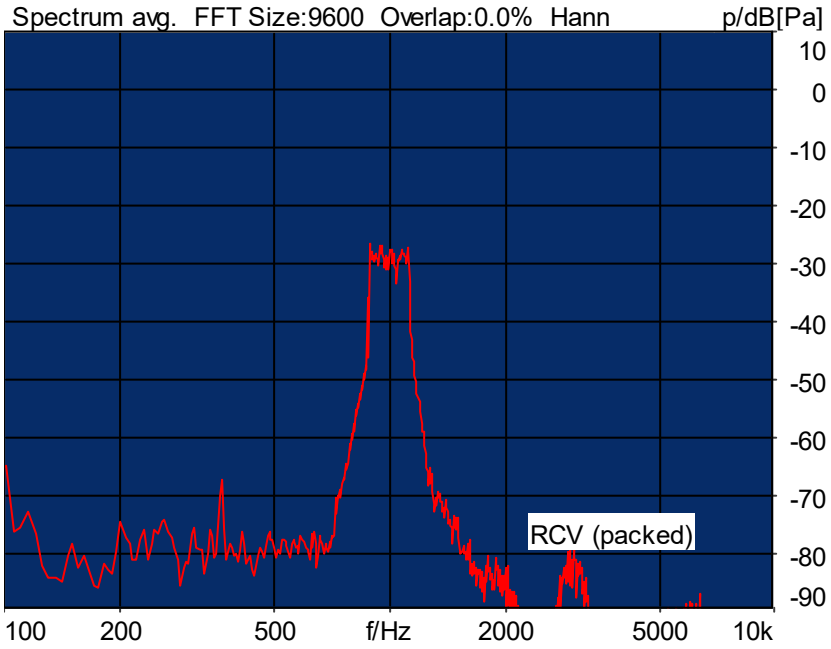
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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



Distortion (Noise) RCV (packed): 27.81 dB (4.07%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1000Hz

Hardware Config Settings

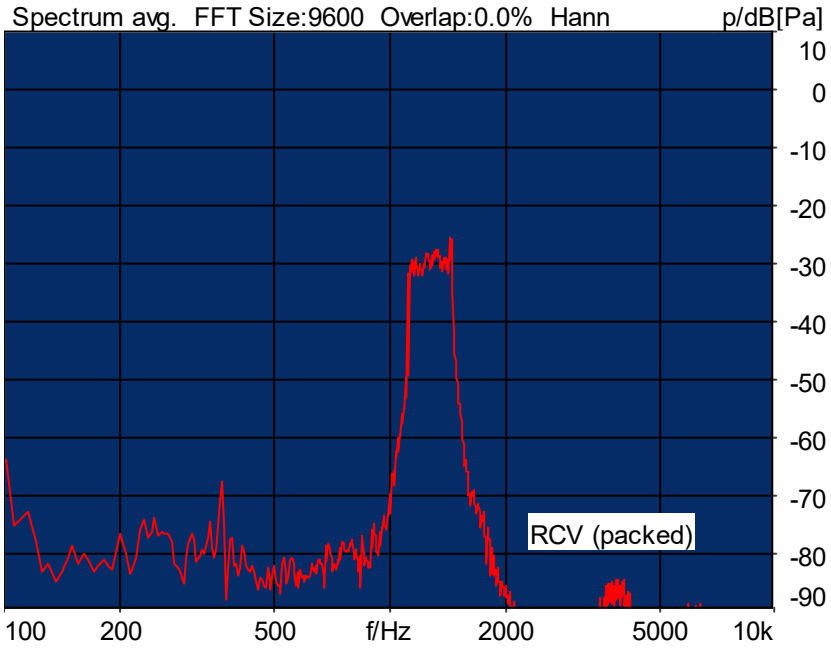
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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



Distortion (Noise) RCV (packed): 20.24 dB (9.73%) Ok

Ok

2026/1/12 21:19 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1250Hz

Hardware Config Settings

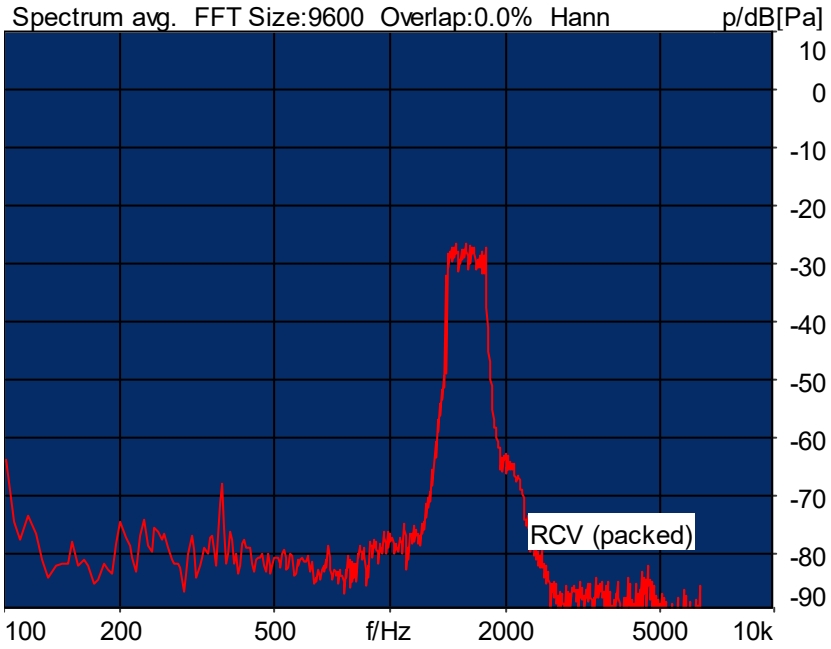
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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



Distortion (Noise) RCV (packed): 28.41 dB (3.80%) Ok

Ok

2026/1/12 21:19 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1600Hz

Hardware Config Settings

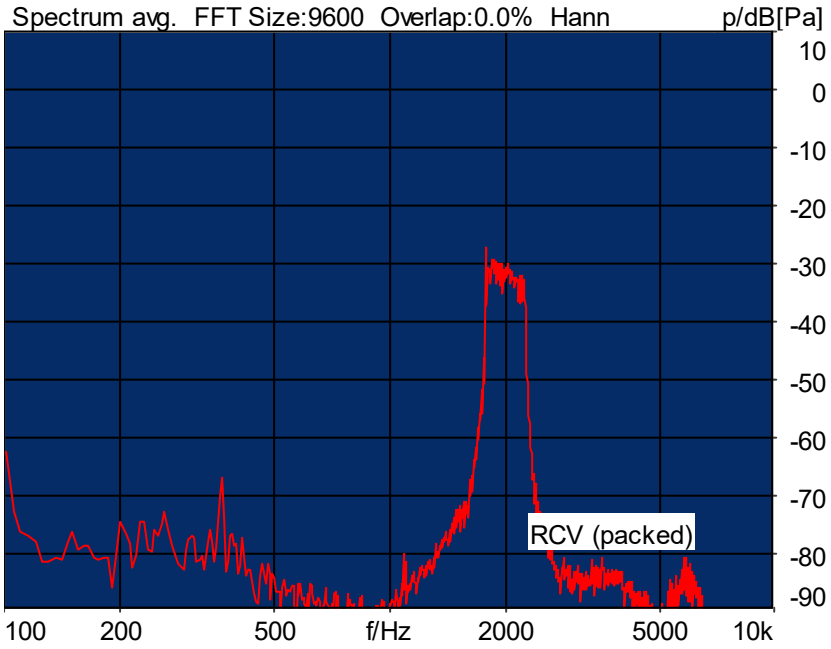
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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



Distortion (Noise) RCV (packed): 29.02 dB (3.54%) Ok

Ok

2026/1/12 21:20 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2000Hz

Hardware Config Settings

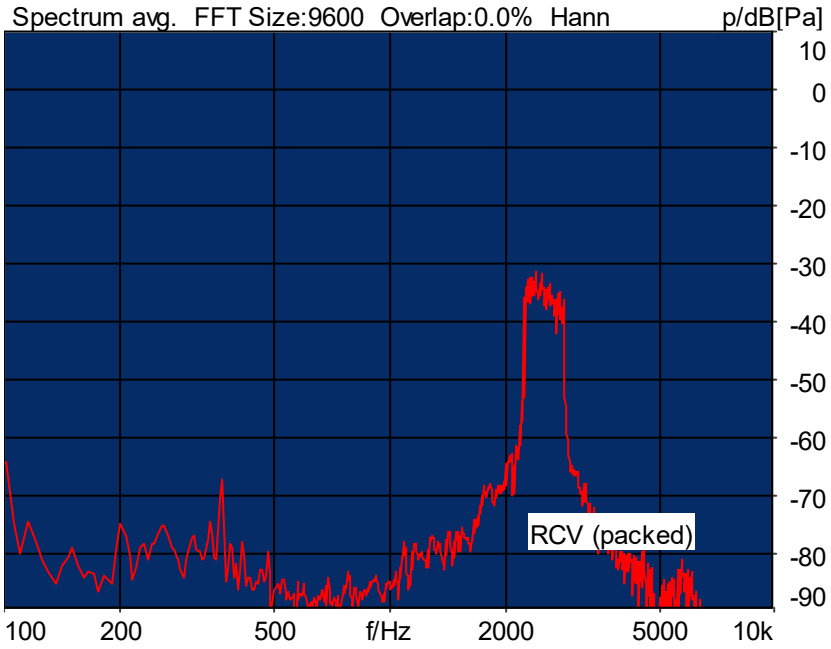
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 26.50 dB (4.73%) Ok

Ok

2026/1/12 21:20 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2500Hz

Hardware Config Settings

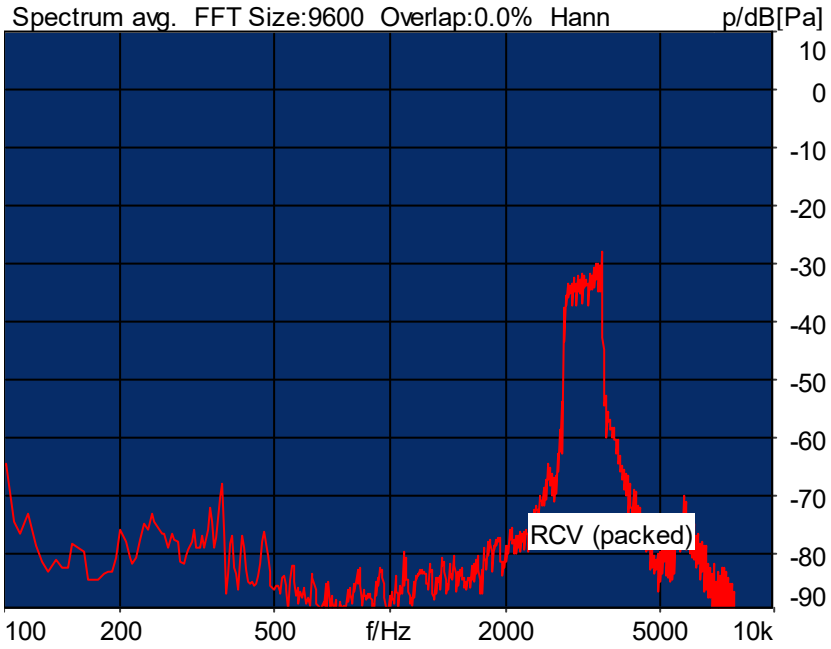
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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



Distortion (Noise) RCV (packed): 24.90 dB (5.69%) Ok

Ok

2026/1/12 21:21 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_3150Hz

Hardware Config Settings

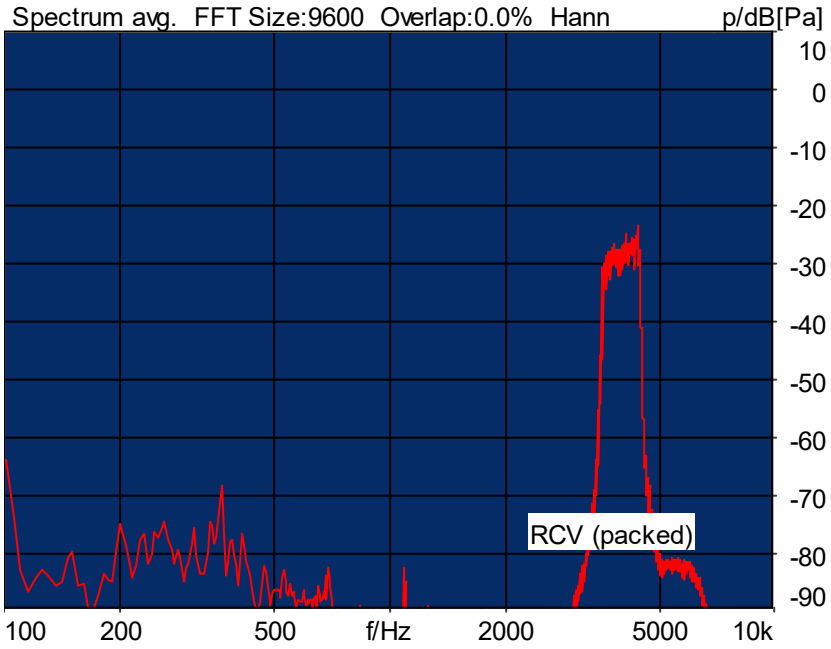
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 32.54 dB (2.36%) Ok

Ok

2026/1/12 21:21 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_4000Hz

Hardware Config Settings

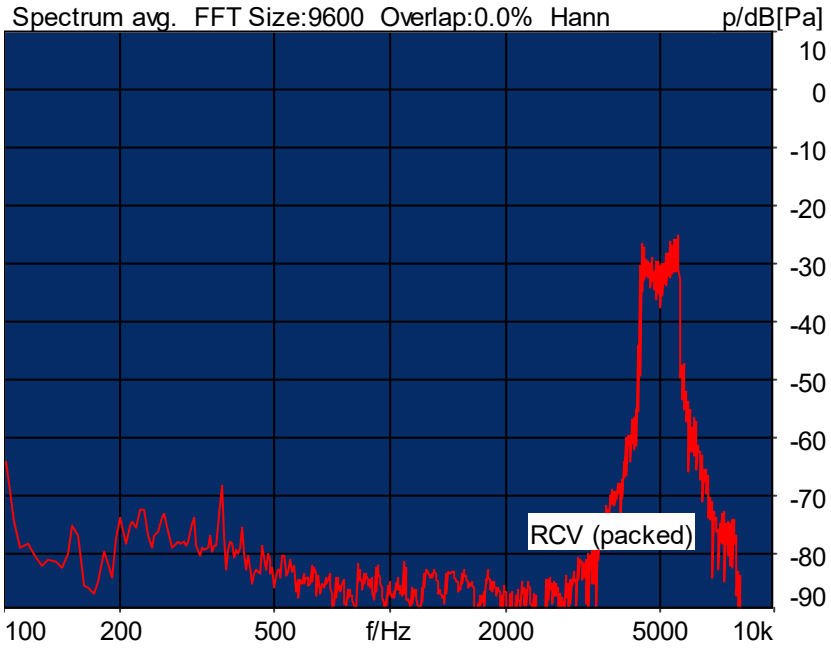
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 24.34 dB (6.07%) Ok

Ok

2026/1/12 21:22 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_5000Hz

Hardware Config Settings

Used Setting	TIA5050

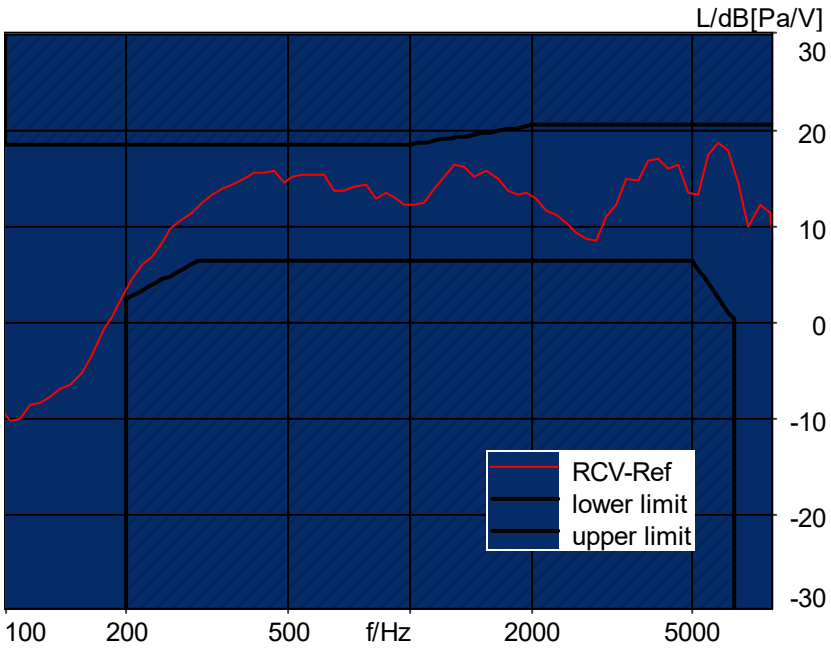
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF

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

EVS-WB--13.2



Absolute minimal distance

1.84 dB at 5767.3 Hz Ok

Ok

2026/1/15 17:53 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(8#)

Measurement Object	BL-SH25C1365-B12

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	83.10	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.06	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.51	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.24	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.17	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.34	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.52	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.97	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.14	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.28	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.22	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.02	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.88	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.99	BL-SH25C1365-B12
5.2 RCV Distortion and Noise - 5000	Ok	Distortion (Noise) [dB], 0.0 dB	27.47	BL-SH25C136

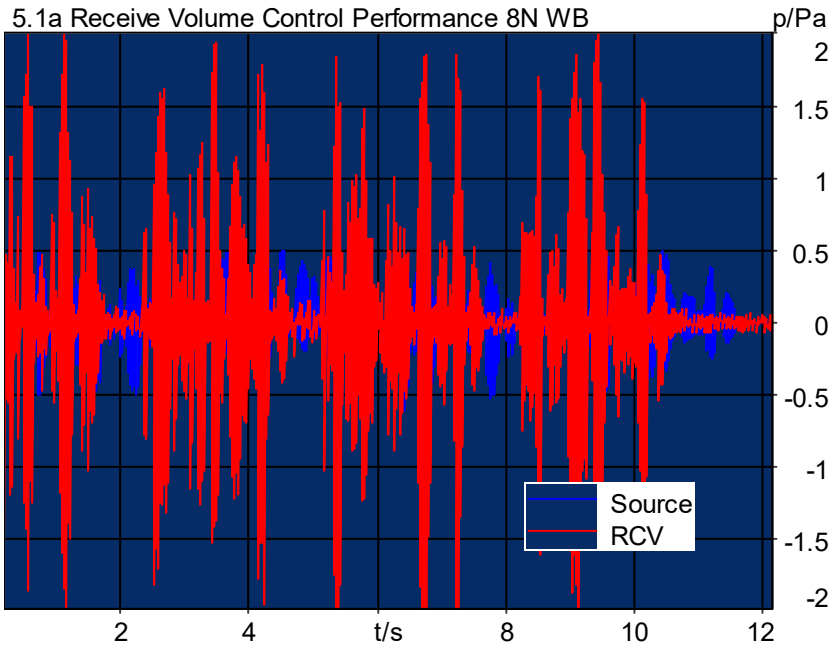
Hz WB				5-B12
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 462.0 Hz	1.41	BL-SH25C1365-B12

5.1a Receive Volume Control Performance 8N WB 219
5.2 RCV Distortion and Noise - 250 Hz WB 221
5.2 RCV Distortion and Noise - 315 Hz WB 223
5.2 RCV Distortion and Noise - 400 Hz WB 225
5.2 RCV Distortion and Noise - 500 Hz WB 227
5.2 RCV Distortion and Noise - 630 Hz WB 229
5.2 RCV Distortion and Noise - 800 Hz WB 231
5.2 RCV Distortion and Noise - 1000 Hz WB 233
5.2 RCV Distortion and Noise - 1250 Hz WB 235
5.2 RCV Distortion and Noise - 1600 Hz WB 237
5.2 RCV Distortion and Noise - 2000 Hz WB 239
5.2 RCV Distortion and Noise - 2500 Hz WB 241
5.2 RCV Distortion and Noise - 3150 Hz WB 243
5.2 RCV Distortion and Noise - 4000 Hz WB 245
5.2 RCV Distortion and Noise - 5000 Hz WB 247
5.3 Frequency Response 8N FF 249

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-13.2



Channel	Speech level	Activity	
RCV	83.10 dB[SPL]	78.10%	Ok

Ok

2026/1/8 21:21 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

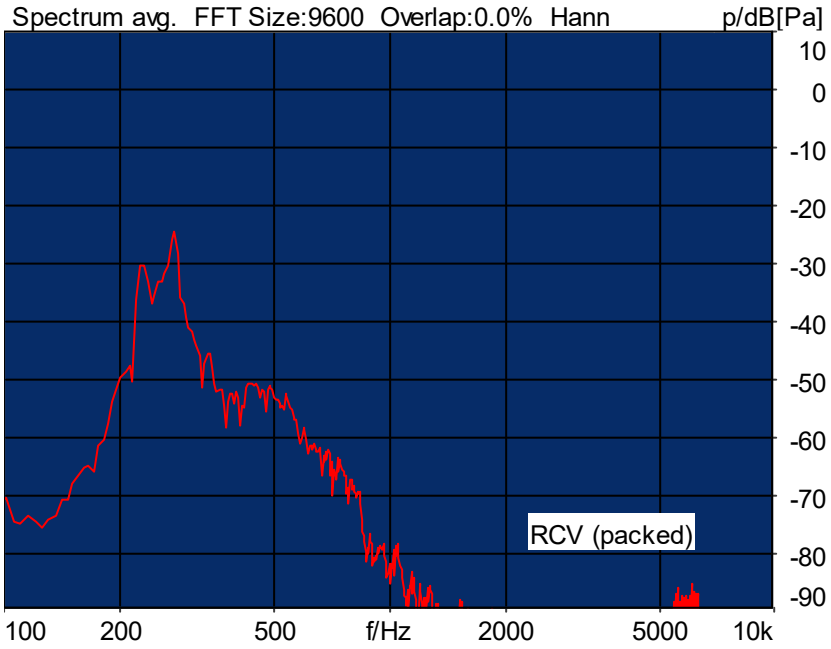
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 20.06 dB (9.93%) Ok

Ok

2026/1/13 23:11 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_250Hz

Hardware Config Settings

Used Setting	TIA5050

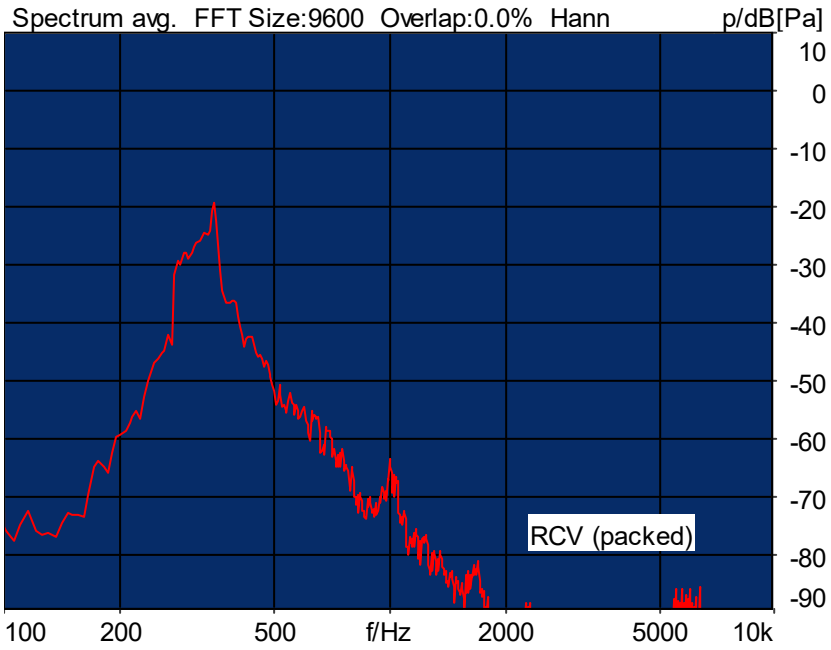
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 20.51 dB (9.43%) Ok

Ok

2026/1/12 21:08 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_315Hz

Hardware Config Settings

Used Setting	TIA5050

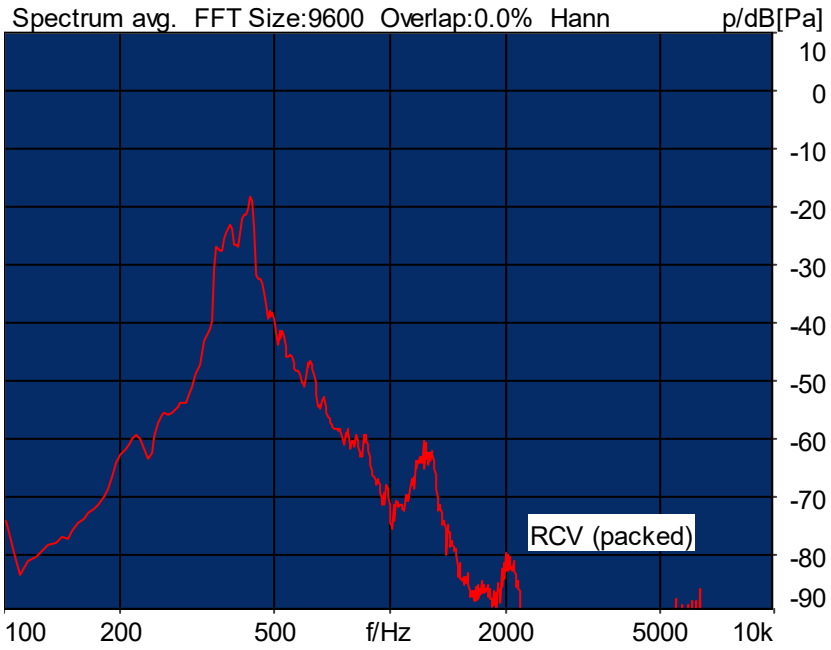
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 21.24 dB (8.67%) Ok

Ok

2026/1/12 21:08 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

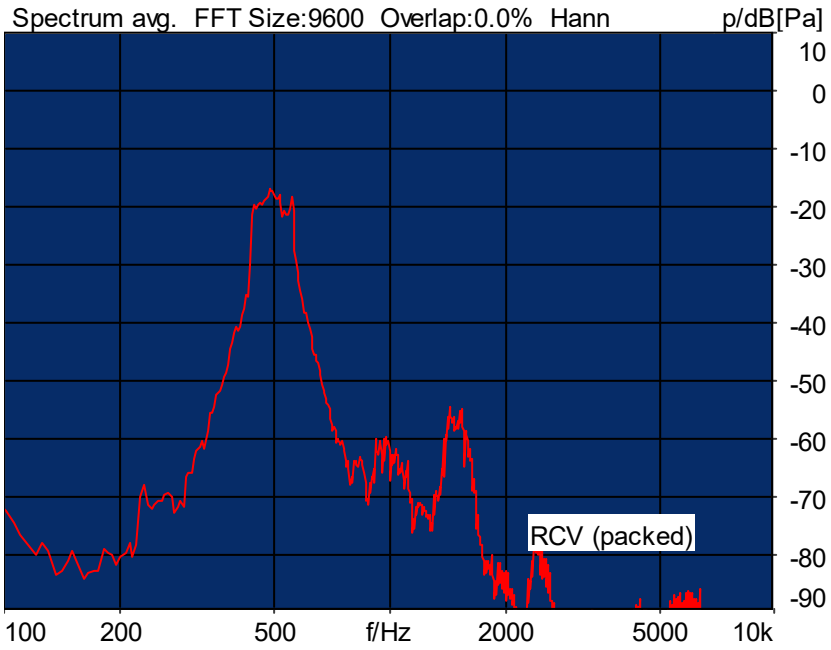
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 26.17 dB (4.91%) Ok

Ok

2026/1/12 21:09 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

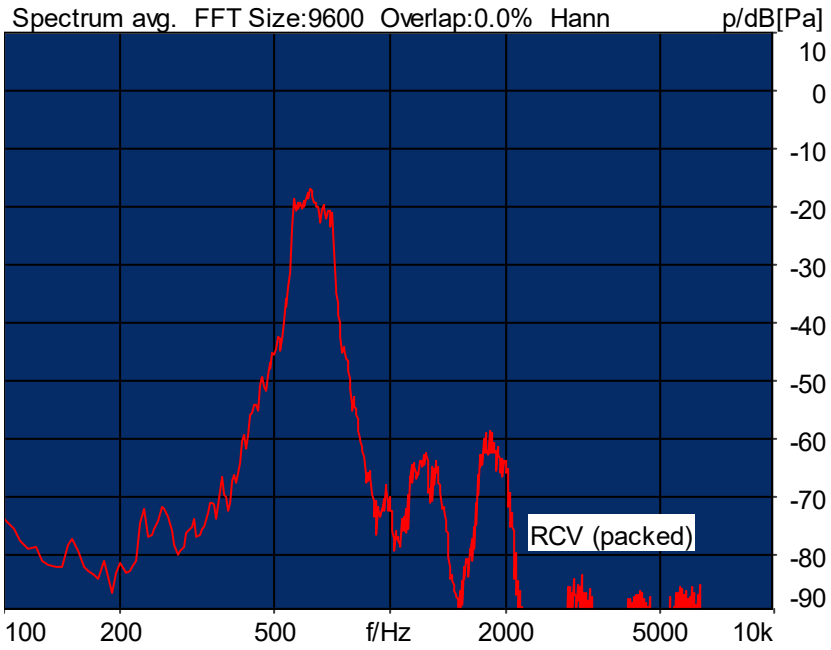
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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

EVS-WB-13.2



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

Ok

2026/1/12 21:09 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

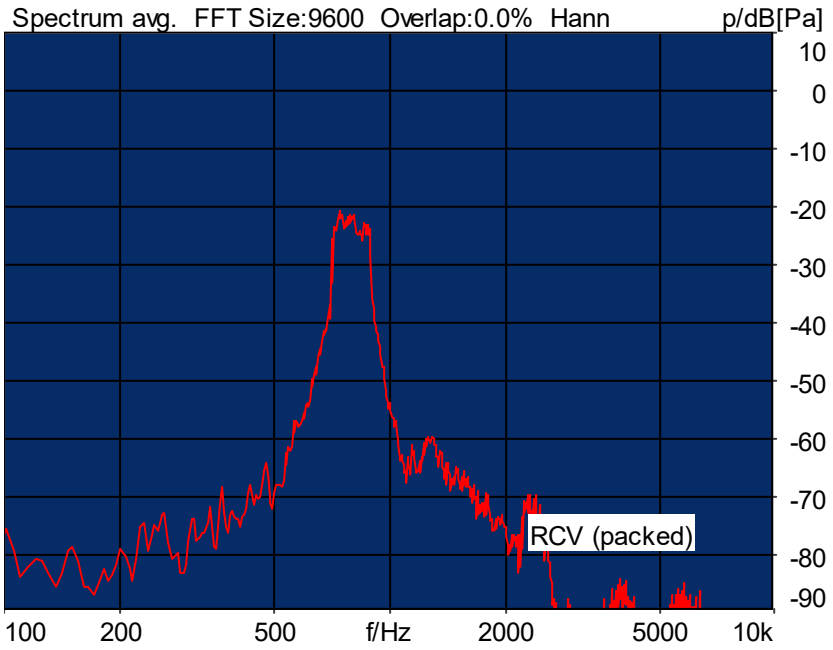
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 25.52 dB (5.30%) Ok

Ok

2026/1/12 21:10 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

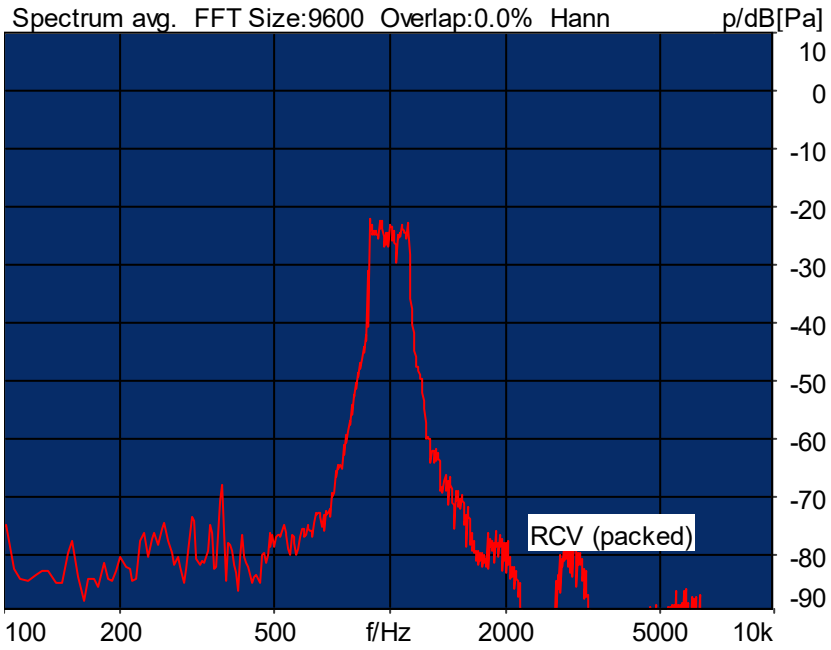
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 26.97 dB (4.48%) Ok

Ok

2026/1/12 21:10 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

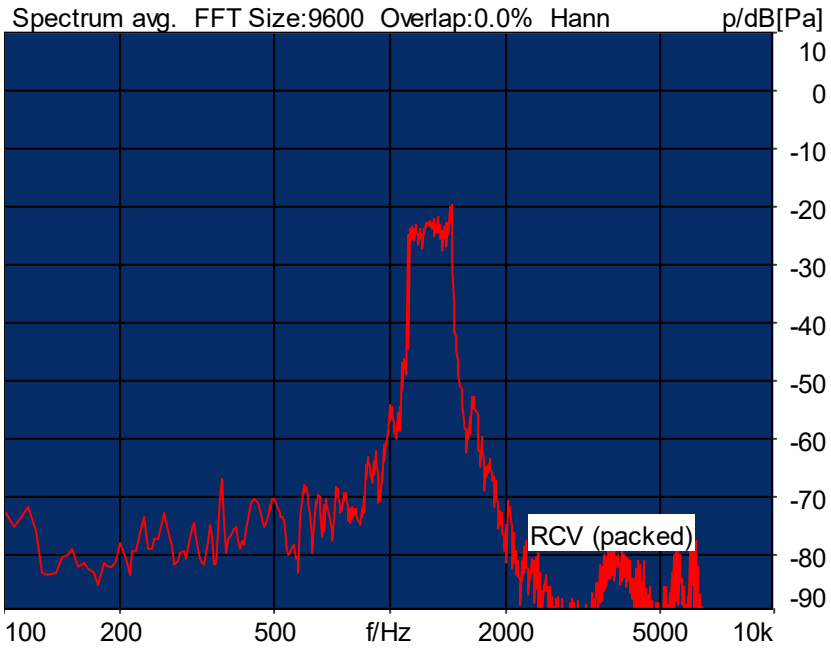
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 21.14 dB (8.77%) Ok

Ok

2026/1/12 21:10 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

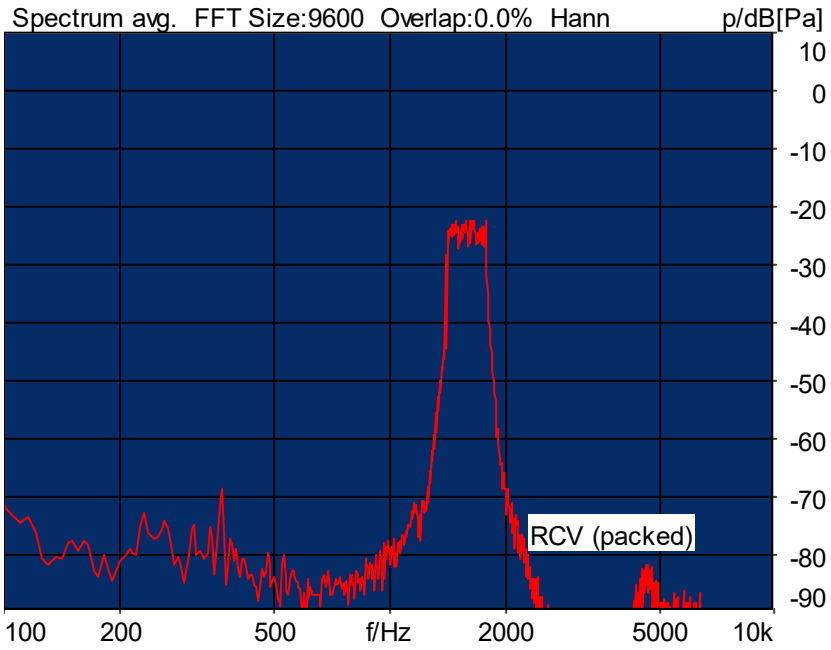
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 28.28 dB (3.86%) Ok

Ok

2026/1/12 21:11 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

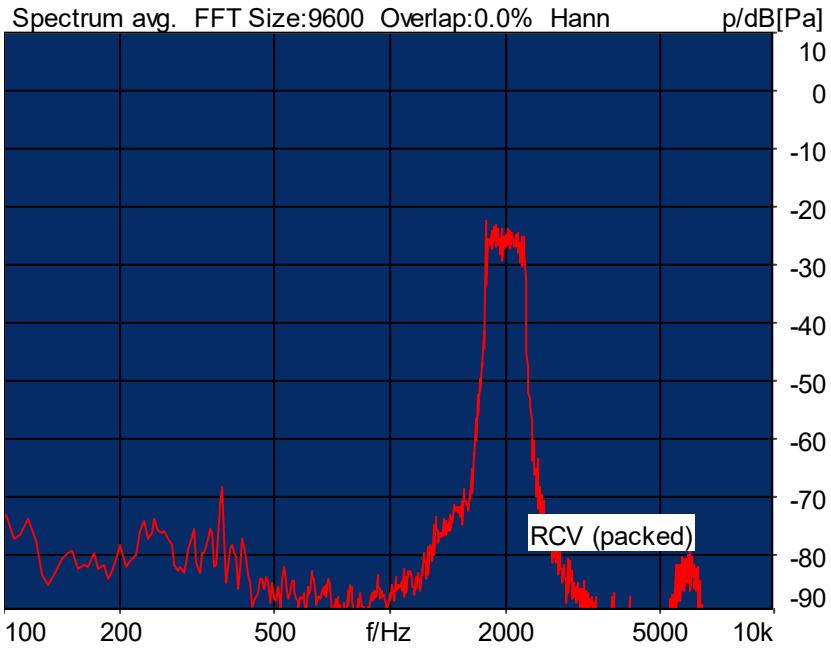
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.22 dB (3.08%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

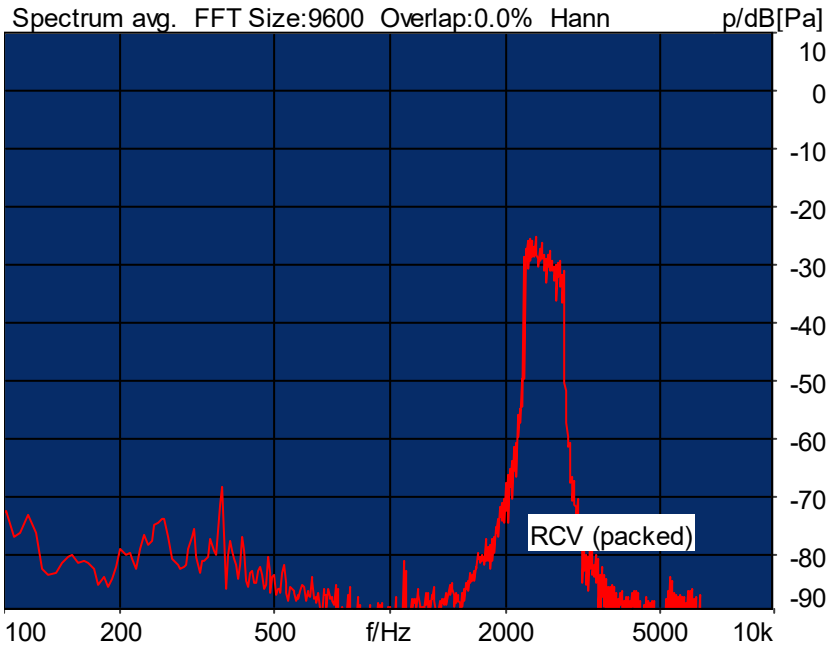
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 32.02 dB (2.51%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

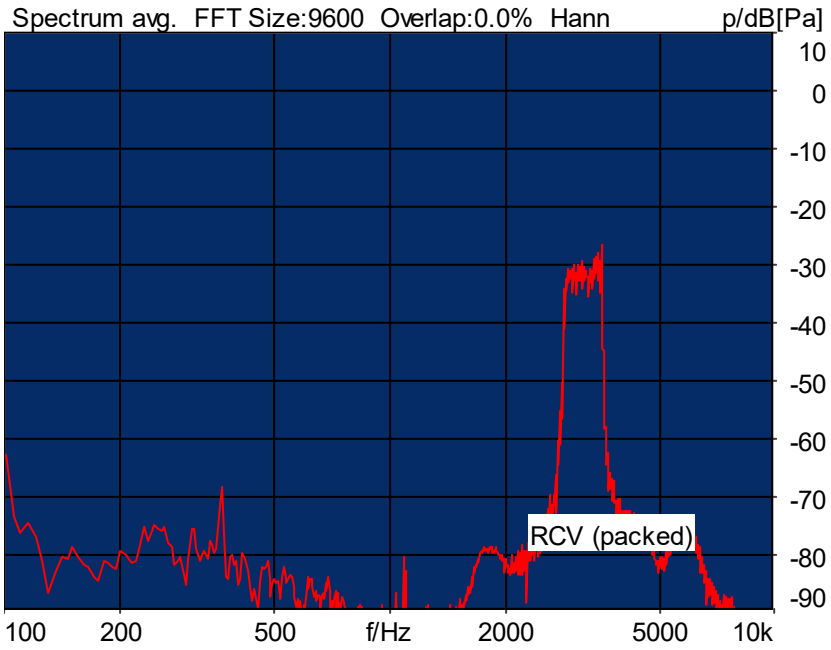
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 29.88 dB (3.21%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

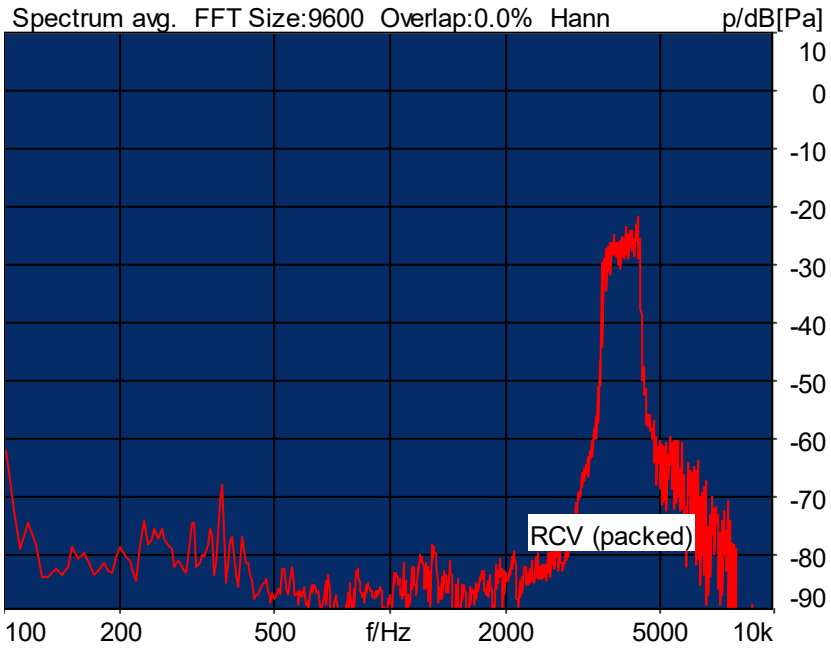
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 26.99 dB (4.47%) Ok

Ok

2026/1/12 21:13 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_4000Hz

Hardware Config Settings

Used Setting	TIA5050

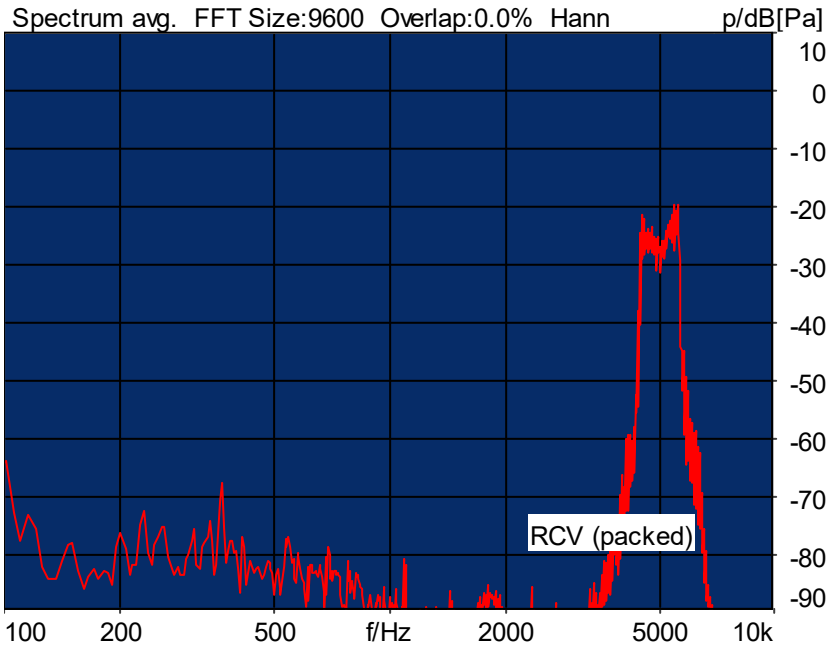
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 27.47 dB (4.23%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_5000Hz

Hardware Config Settings

Used Setting	TIA5050

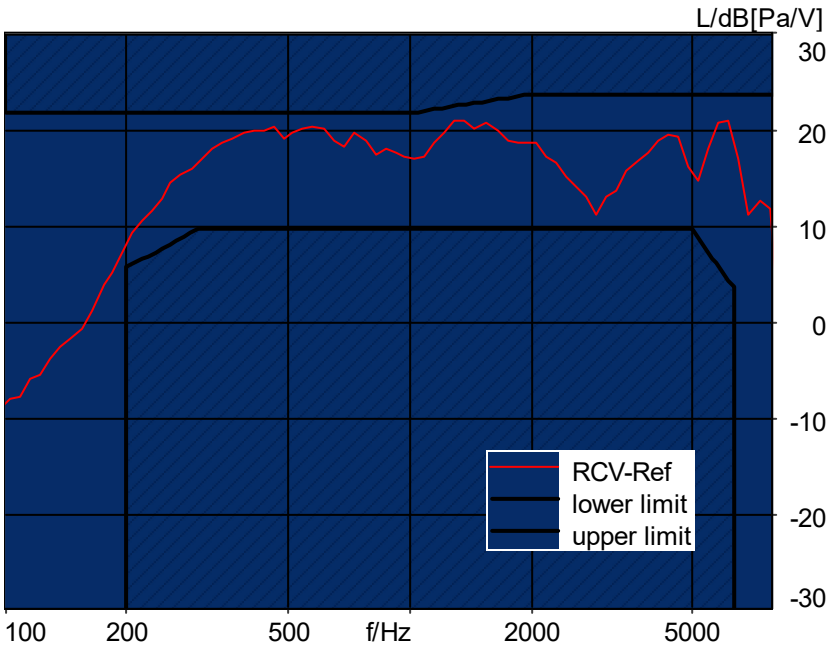
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF

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

EVS-WB--13.2



Absolute minimal distance

1.41 dB at 462.0 Hz Ok

Ok

2026/1/15 17:52 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(9#)

Measurement Object	BL-SH25C1365-B13

Status Overview

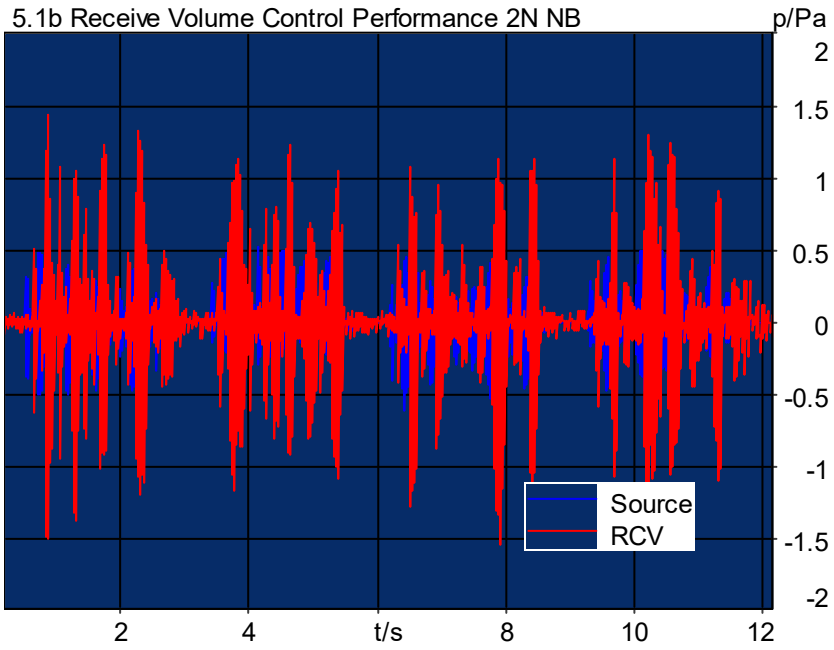
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	79.08	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.20	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.87	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.37	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.53	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.21	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	23.18	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.51	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.36	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.01	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.60	BL-SH25C1365-B13
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 462.0 Hz	1.97	BL-SH25C1365-B13

5.1b Receive Volume Control Performance 2N NB 254
5.2 RCV Distortion and Noise - 400 Hz NB 256
5.2 RCV Distortion and Noise - 500 Hz NB 258
5.2 RCV Distortion and Noise - 630 Hz NB 260
5.2 RCV Distortion and Noise - 800 Hz NB 262
5.2 RCV Distortion and Noise - 1000 Hz NB 264
5.2 RCV Distortion and Noise - 1250 Hz NB 266
5.2 RCV Distortion and Noise - 1600 Hz NB 268
5.2 RCV Distortion and Noise - 2000 Hz NB 270
5.2 RCV Distortion and Noise - 2500 Hz NB 272
5.2 RCV Distortion and Noise - 3150 Hz NB 274
5.3 Frequency Response 2N FF HANB 276

5.1b Receive Volume Control Performance 2N NB

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EVS-NB-13.2



Channel	Speech level	Activity	
RCV	79.08 dB[SPL]	80.55%	Ok

Ok

2026/1/8 21:44 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

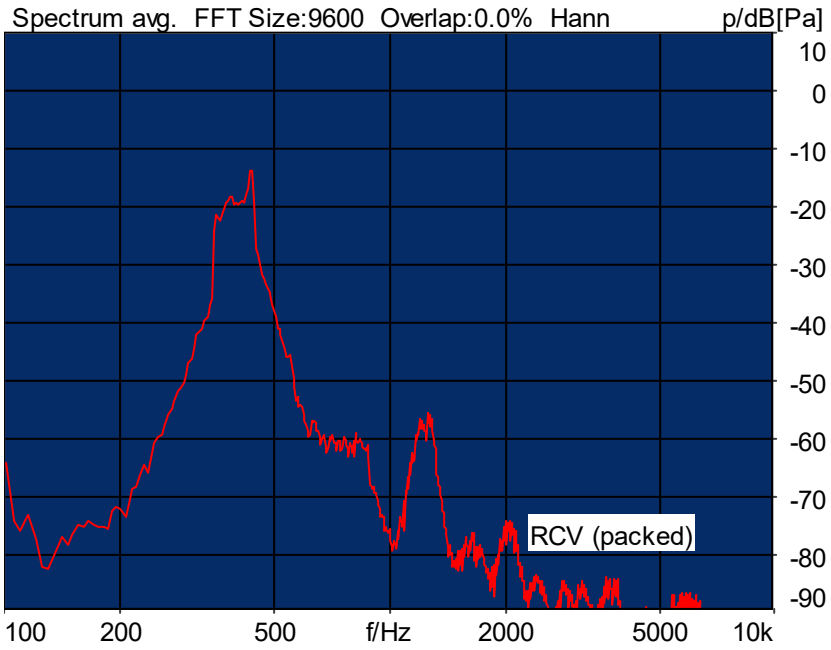
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.20 dB (5.50%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

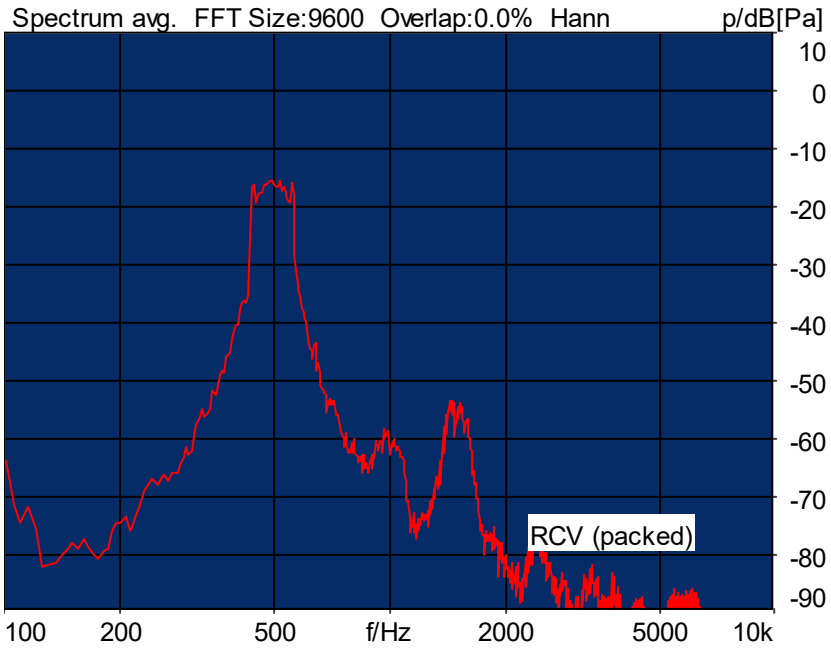
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.87 dB (3.60%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

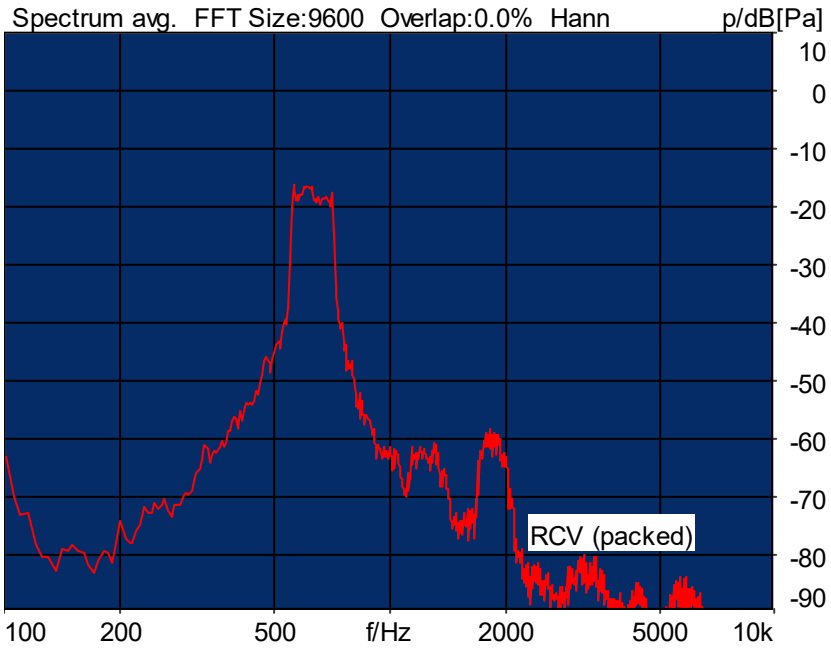
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

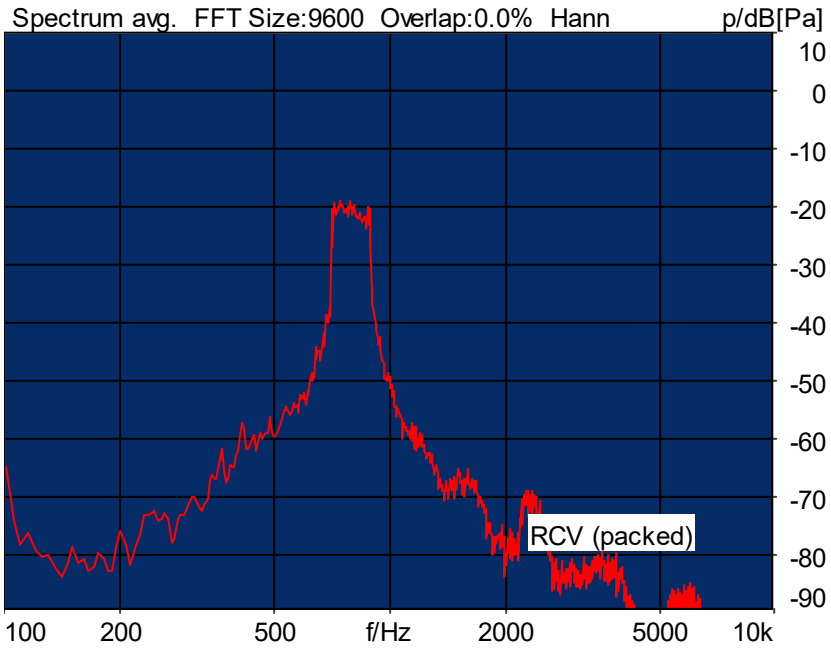
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.53 dB (4.72%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

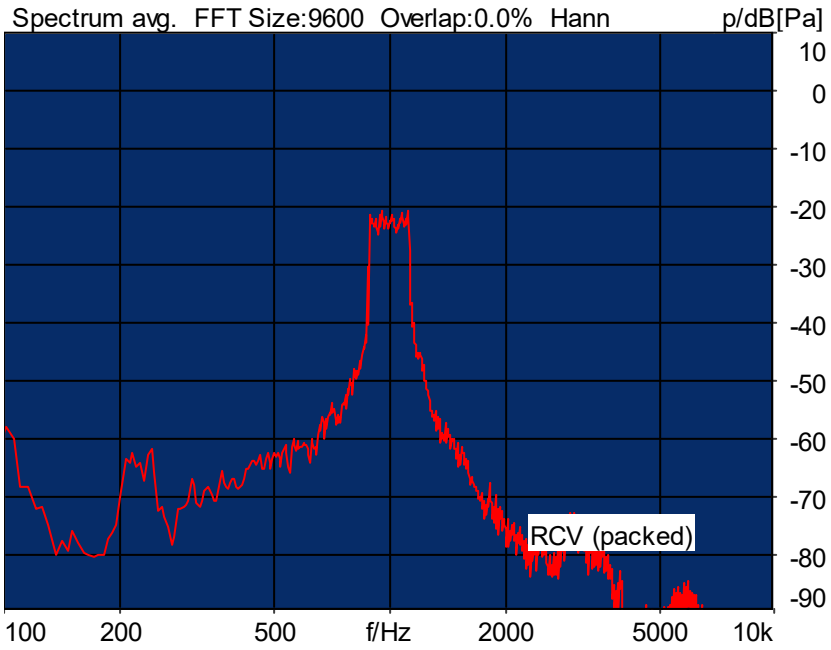
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.21 dB (5.49%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

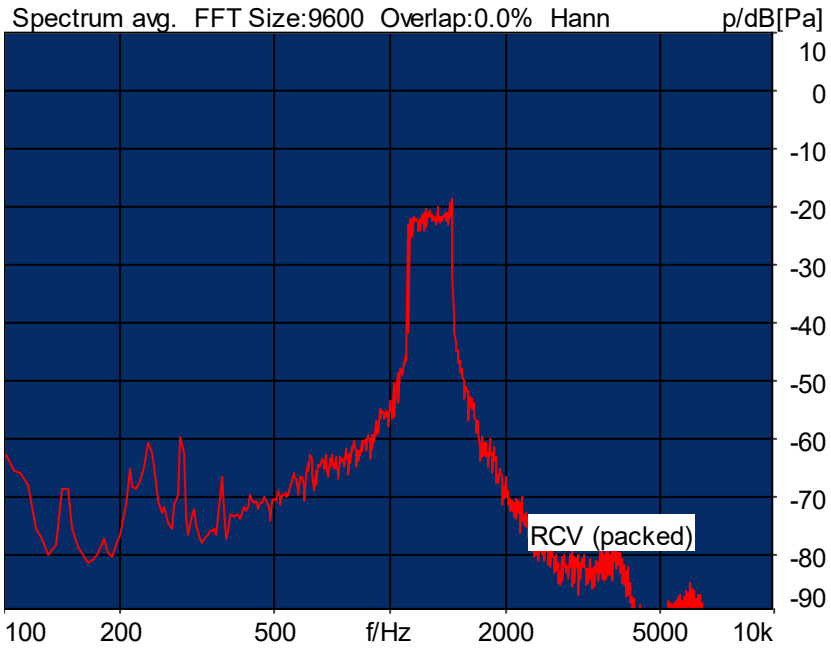
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 23.18 dB (6.93%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

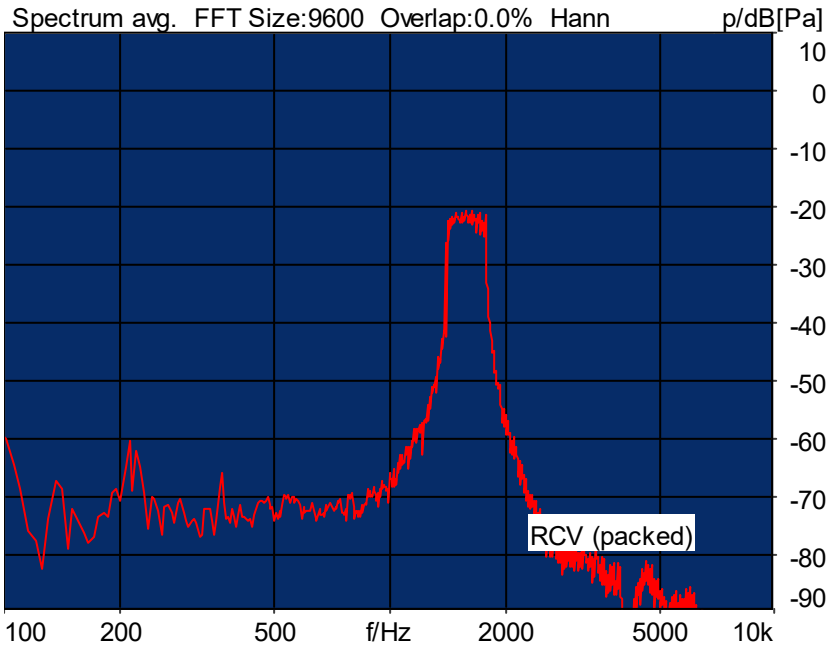
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.51 dB (5.30%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

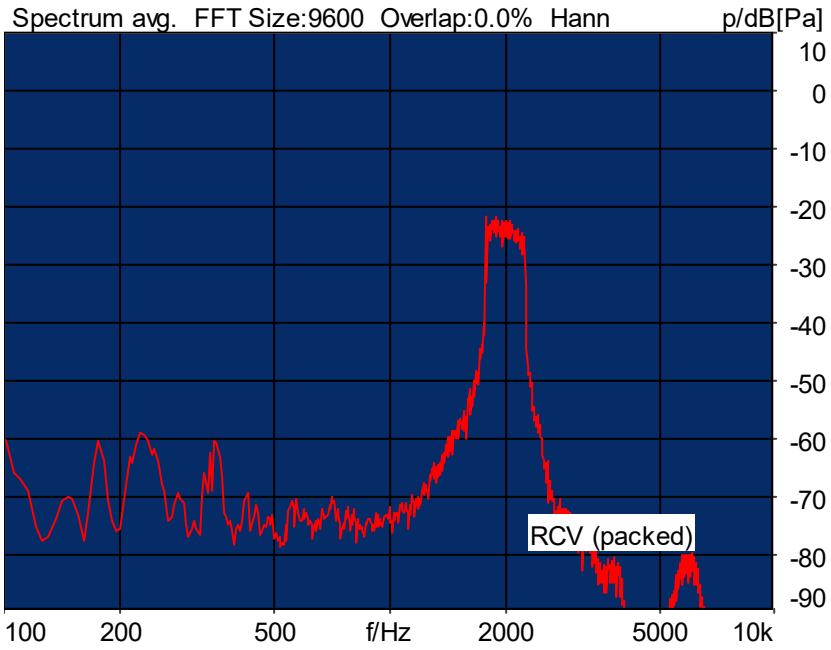
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.36 dB (4.81%) Ok

Ok

2026/1/12 21:46 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

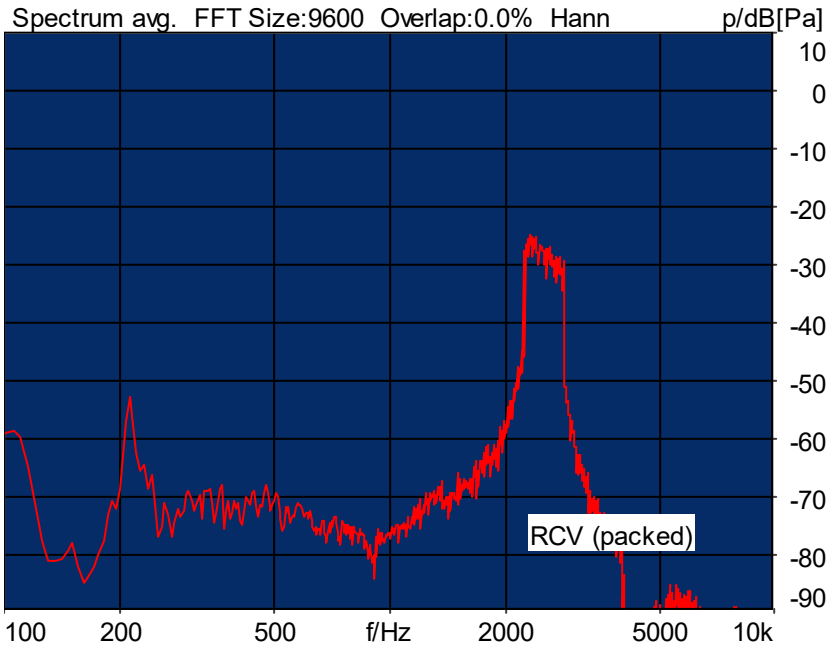
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.01 dB (5.62%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

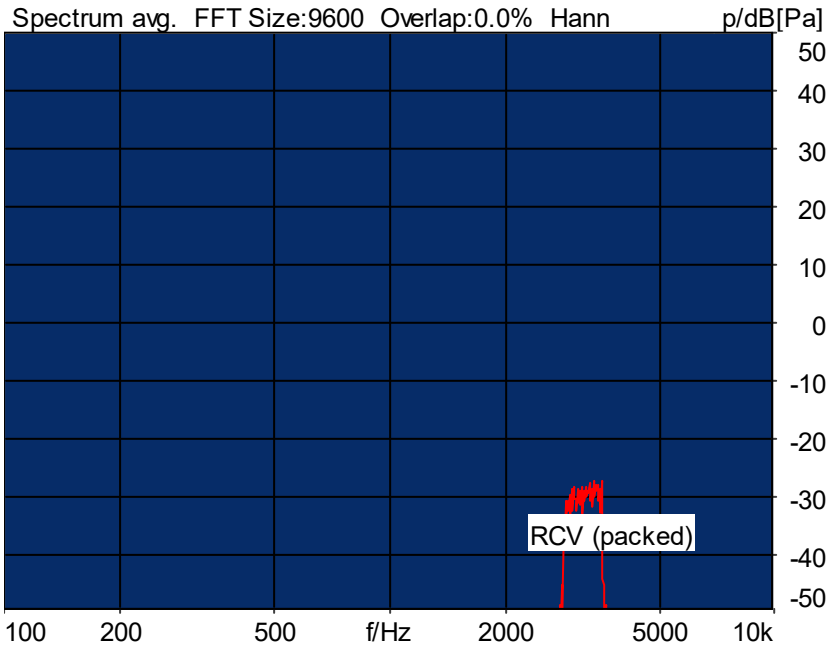
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 21.60 dB (8.32%) Ok

Ok

2026/1/12 21:47 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

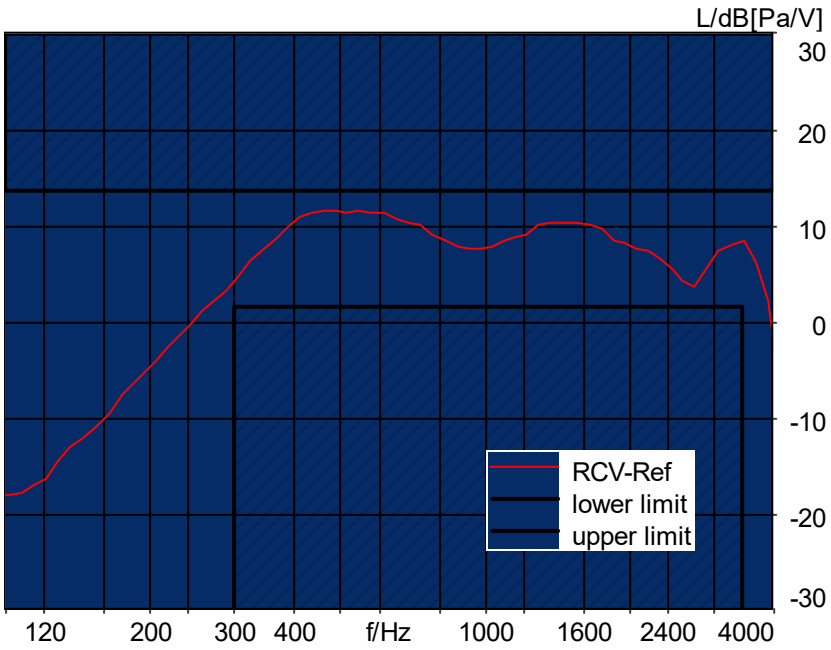
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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

EVS-NB-13.2



Absolute minimal distance

1.97 dB at 462.0 Hz Ok

Ok

2026/1/12 21:54 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line

Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(10#)

Measurement Object	BL-SH25C1365-B13

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	83.29	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	20.38	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	21.67	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	25.65	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.72	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.59	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.04	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.08	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.67	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.46	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.68	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.94	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.21	BL-SH25C1365-B13
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.06	BL-SH25C1365-B13

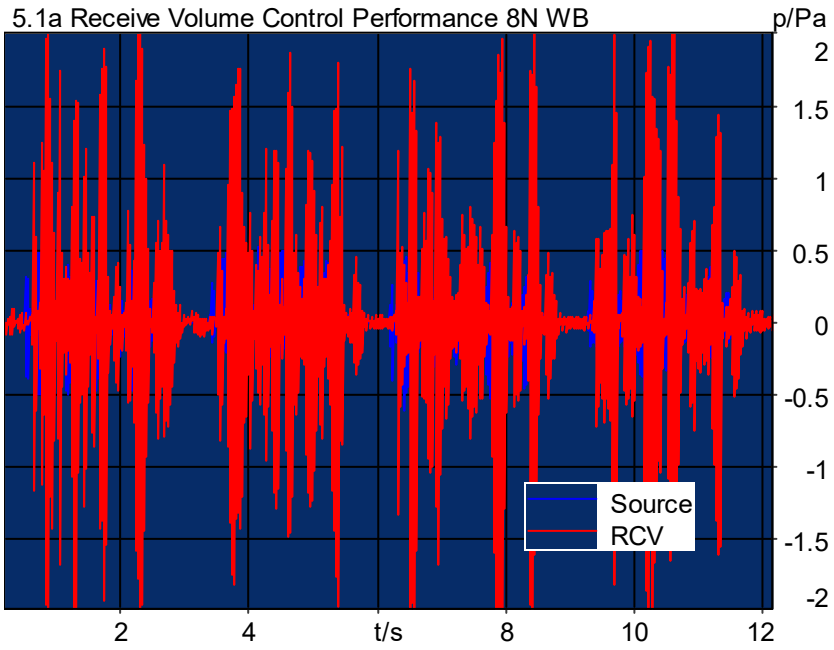
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	29.24	BL-SH25C1365-B13
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 544.4 Hz	2.21	BL-SH25C1365-B13

5.1a Receive Volume Control Performance 8N WB 282
5.2 RCV Distortion and Noise - 250 Hz WB 284
5.2 RCV Distortion and Noise - 315 Hz WB 286
5.2 RCV Distortion and Noise - 400 Hz WB 288
5.2 RCV Distortion and Noise - 500 Hz WB 290
5.2 RCV Distortion and Noise - 630 Hz WB 292
5.2 RCV Distortion and Noise - 800 Hz WB 294
5.2 RCV Distortion and Noise - 1000 Hz WB 296
5.2 RCV Distortion and Noise - 1250 Hz WB 298
5.2 RCV Distortion and Noise - 1600 Hz WB 300
5.2 RCV Distortion and Noise - 2000 Hz WB 302
5.2 RCV Distortion and Noise - 2500 Hz WB 304
5.2 RCV Distortion and Noise - 3150 Hz WB 306
5.2 RCV Distortion and Noise - 4000 Hz WB 308
5.2 RCV Distortion and Noise - 5000 Hz WB 310
5.3 Frequency Response 8N FF 312

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB--13.2



Channel	Speech level	Activity	
RCV	83.29 dB[SPL]	84.27%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

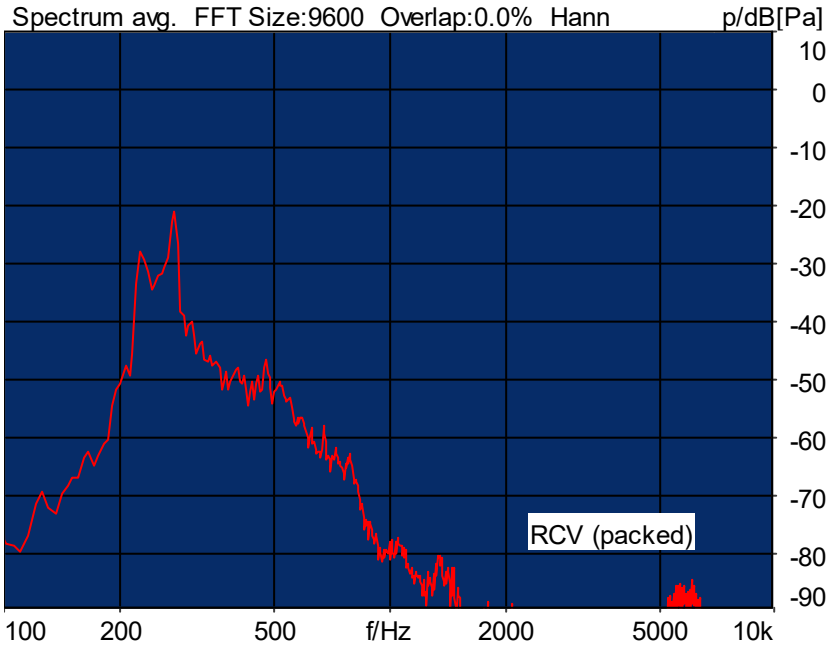
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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



Distortion (Noise) RCV (packed): 20.38 dB (9.58%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_250Hz

Hardware Config Settings

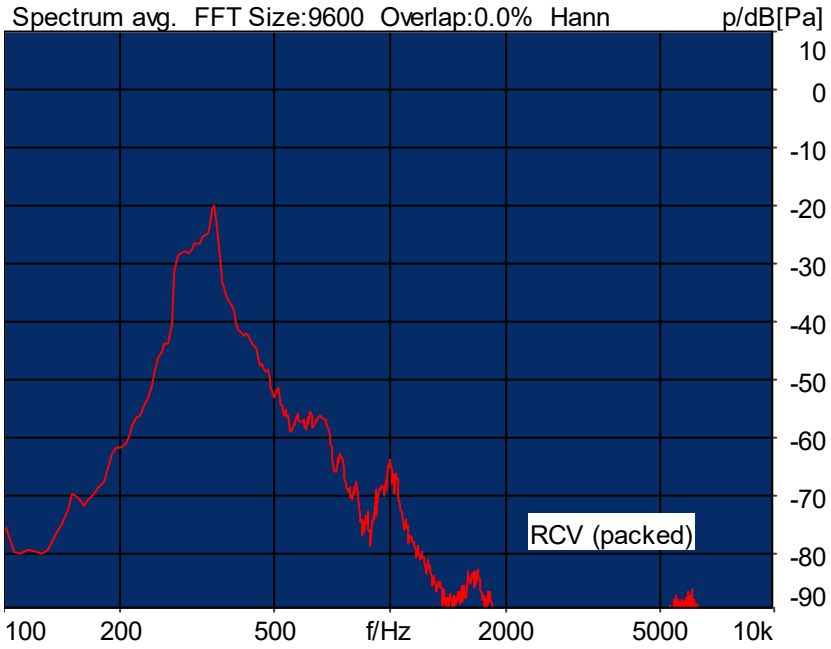
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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



Distortion (Noise) RCV (packed): 21.67 dB (8.25%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_315Hz

Hardware Config Settings

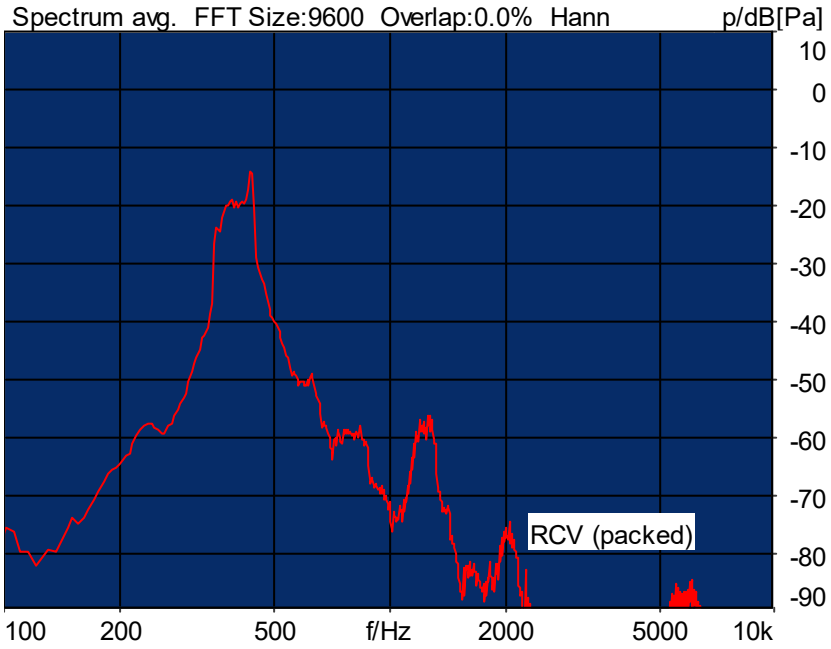
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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



Distortion (Noise) RCV (packed): 25.65 dB (5.22%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_400Hz

Hardware Config Settings

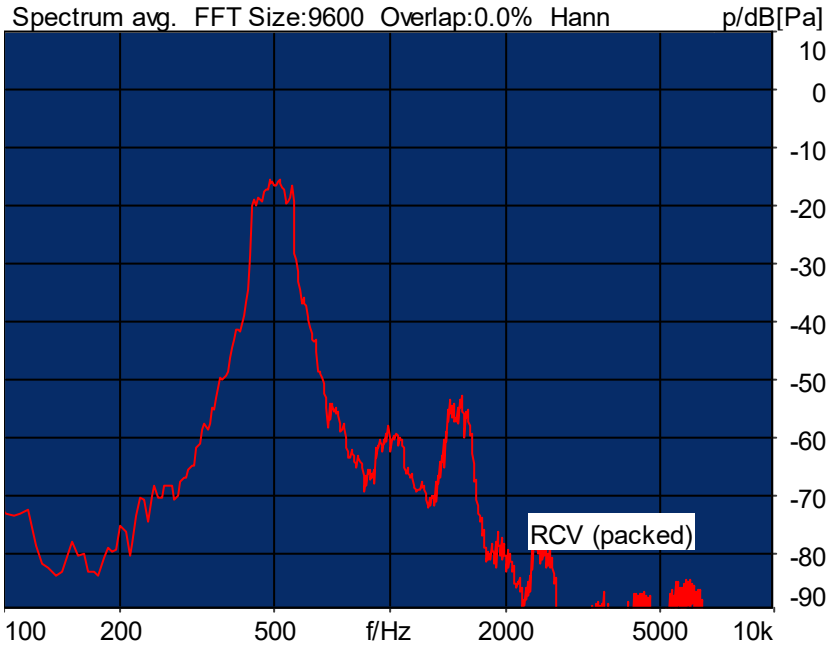
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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



Distortion (Noise) RCV (packed): 26.72 dB (4.61%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_500Hz

Hardware Config Settings

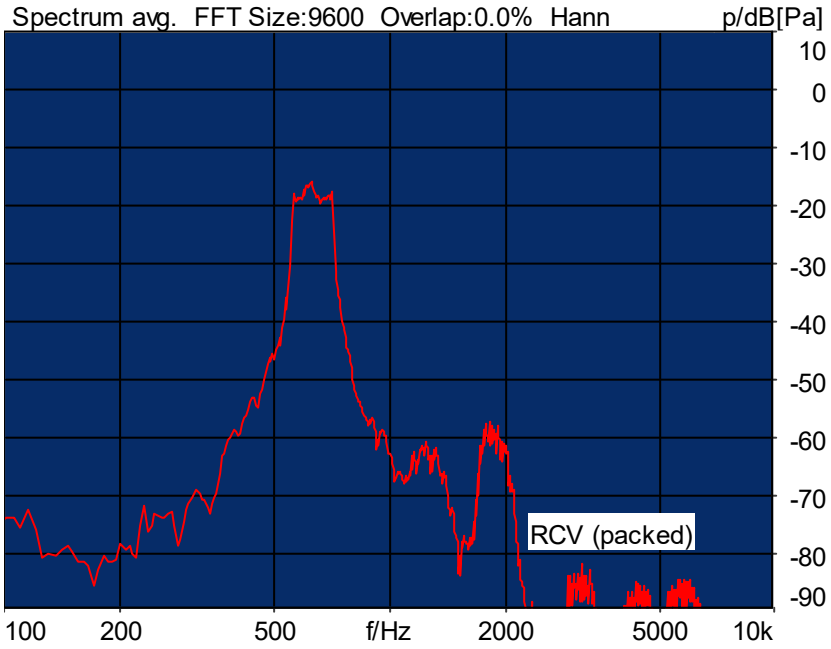
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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



Distortion (Noise) RCV (packed): 28.59 dB (3.72%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_630Hz

Hardware Config Settings

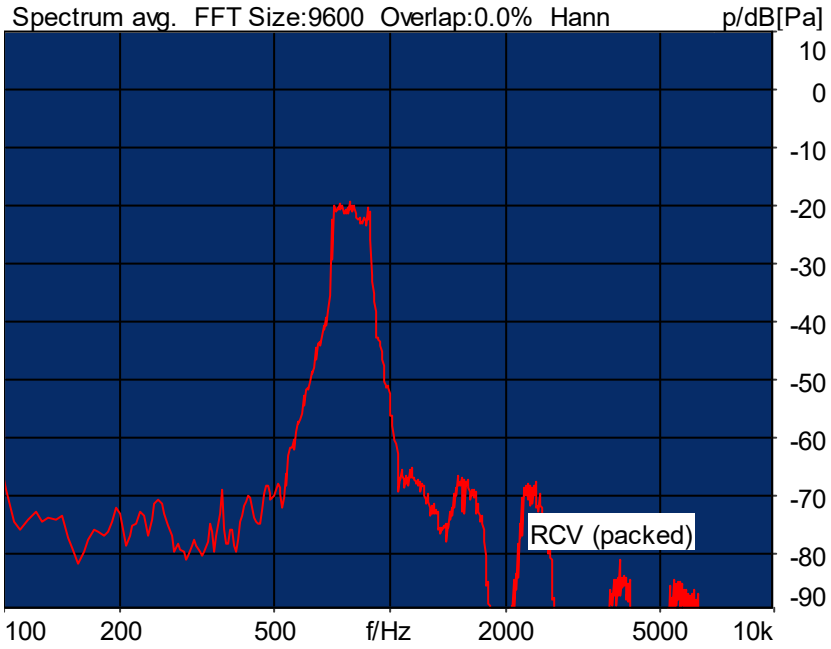
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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



Distortion (Noise) RCV (packed): 27.04 dB (4.45%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_800Hz

Hardware Config Settings

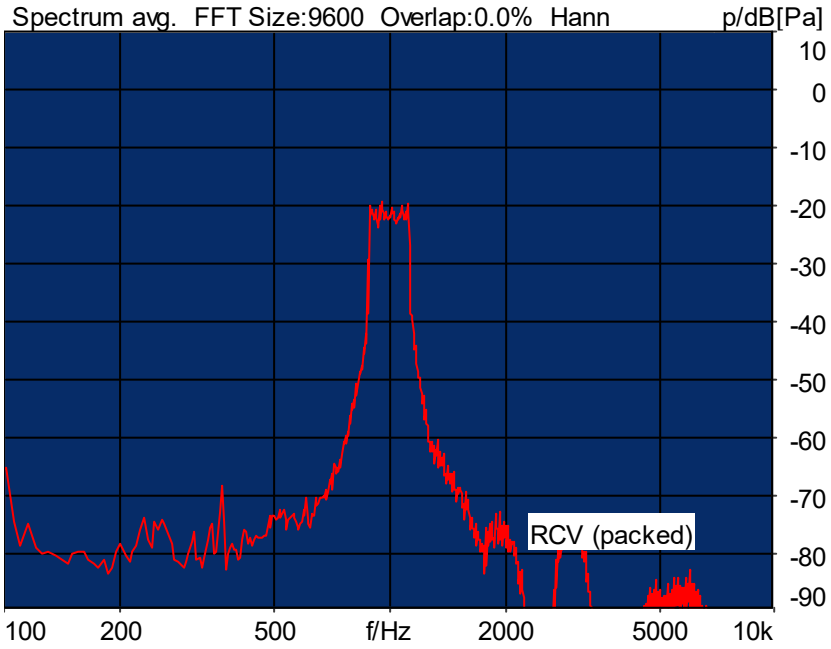
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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



Distortion (Noise) RCV (packed): 30.08 dB (3.13%) Ok

Ok

2026/1/12 22:18 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_1000Hz

Hardware Config Settings

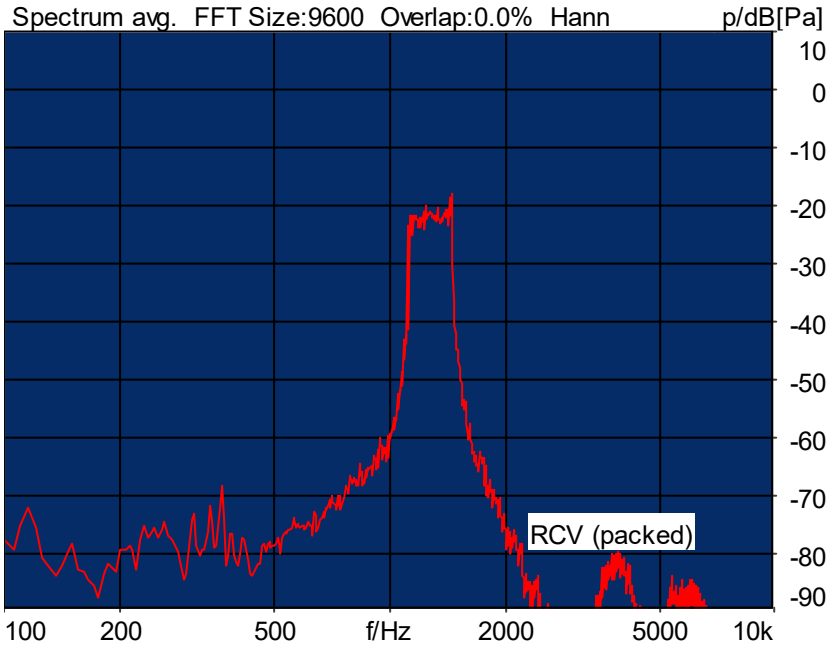
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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



Distortion (Noise) RCV (packed): 22.67 dB (7.36%) Ok

Ok

2026/1/12 21:37 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_1250Hz

Hardware Config Settings

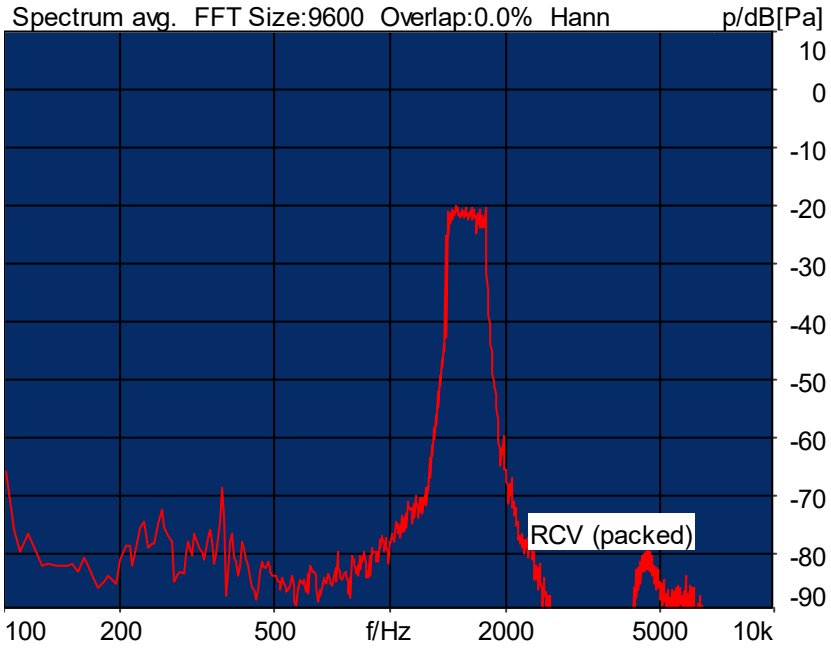
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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



Distortion (Noise) RCV (packed): 30.46 dB (3.00%) Ok

Ok

2026/1/12 22:19 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_1600Hz

Hardware Config Settings

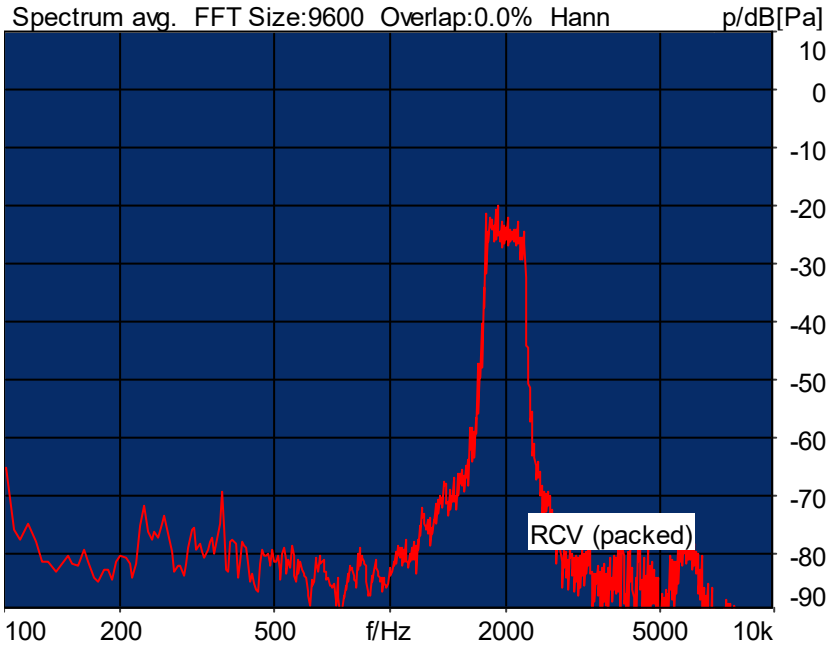
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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



Distortion (Noise) RCV (packed): 29.68 dB (3.28%) Ok

Ok

2026/1/12 22:19 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_2000Hz

Hardware Config Settings

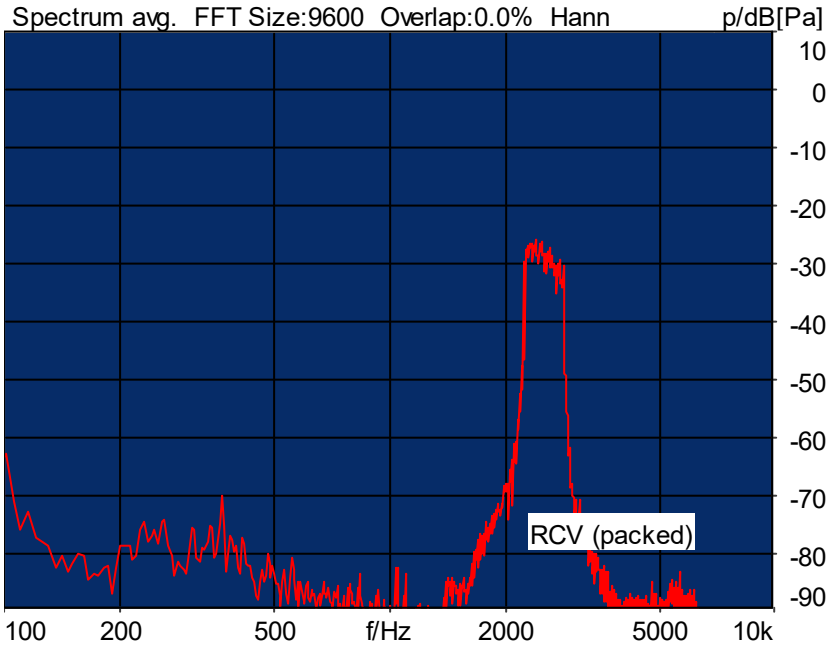
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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



Distortion (Noise) RCV (packed): 30.94 dB (2.84%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_2500Hz

Hardware Config Settings

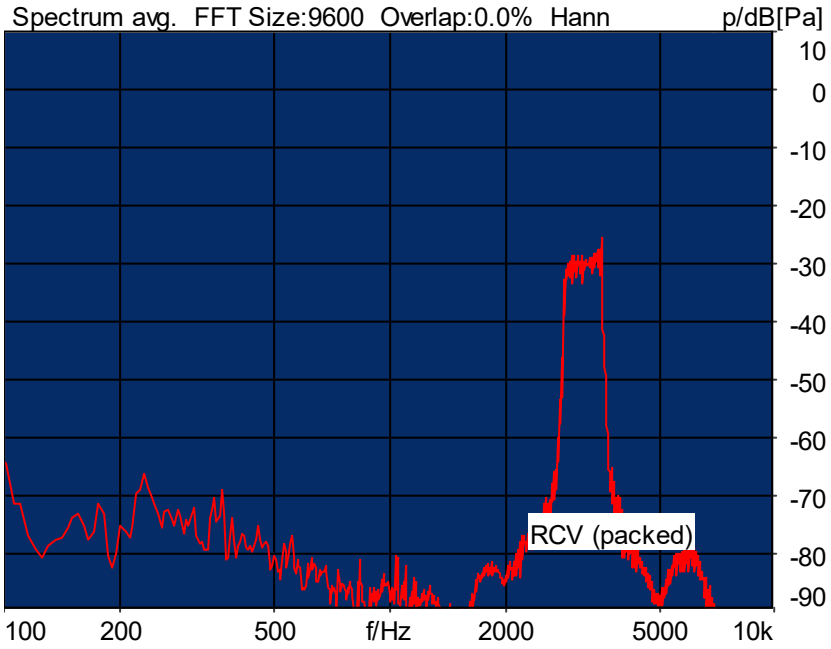
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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



Distortion (Noise) RCV (packed): 27.21 dB (4.36%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_3150Hz

Hardware Config Settings

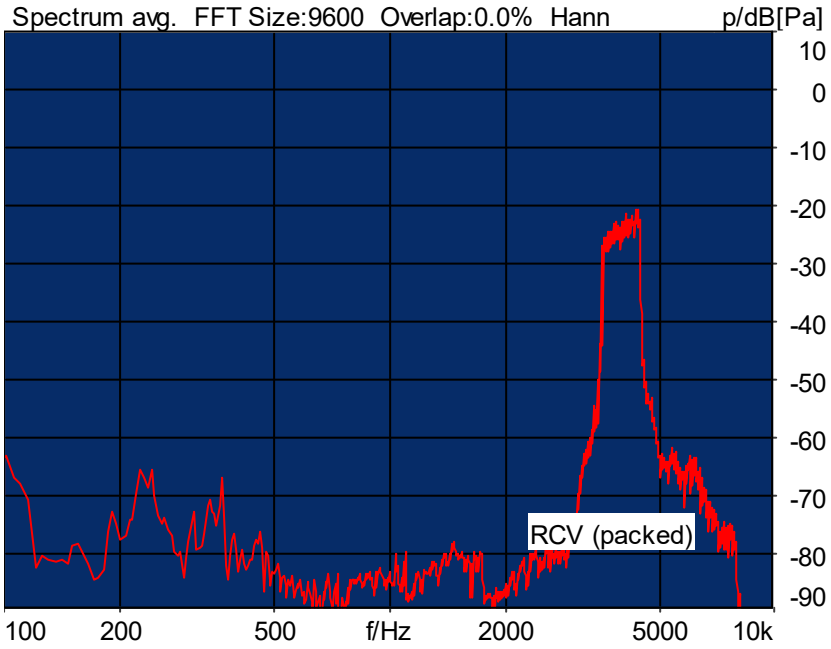
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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



Distortion (Noise) RCV (packed): 28.06 dB (3.95%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_4000Hz

Hardware Config Settings

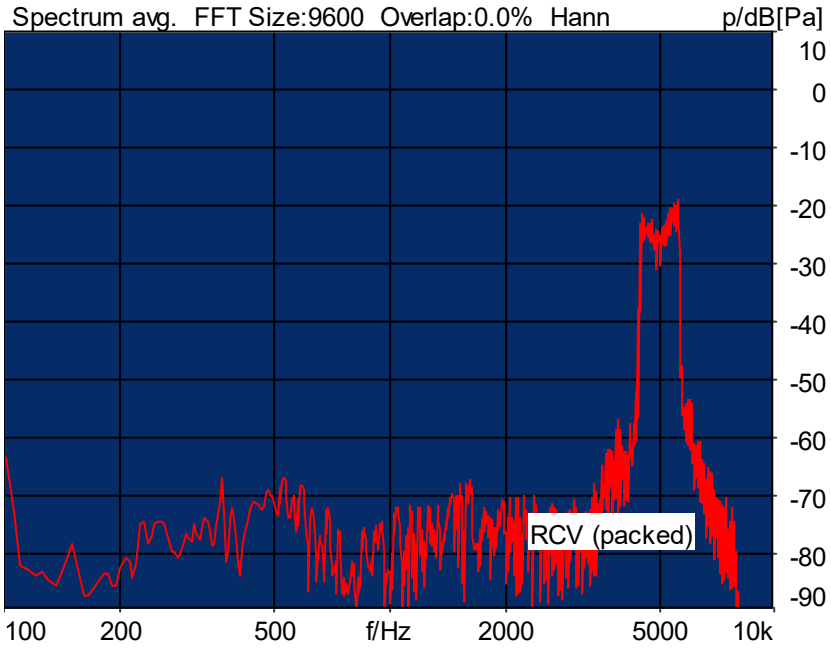
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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



Distortion (Noise) RCV (packed): 29.24 dB (3.45%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVWB10_5000Hz

Hardware Config Settings

Used Setting	TIA5050

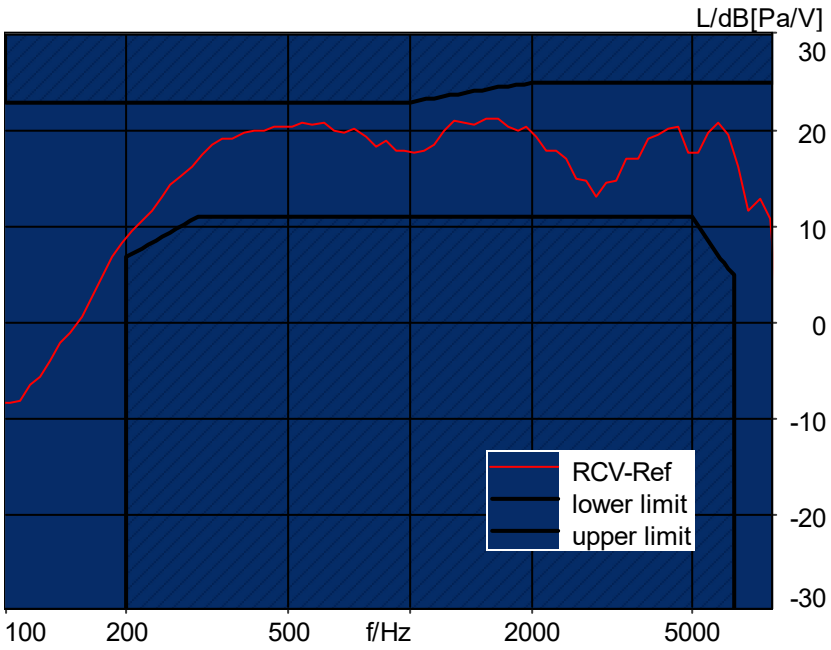
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF

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

EVS-WB-13.2



Absolute minimal distance

2.21 dB at 544.4 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(11#)

Measurement Object	BL-SH25C1365-B66

Status Overview

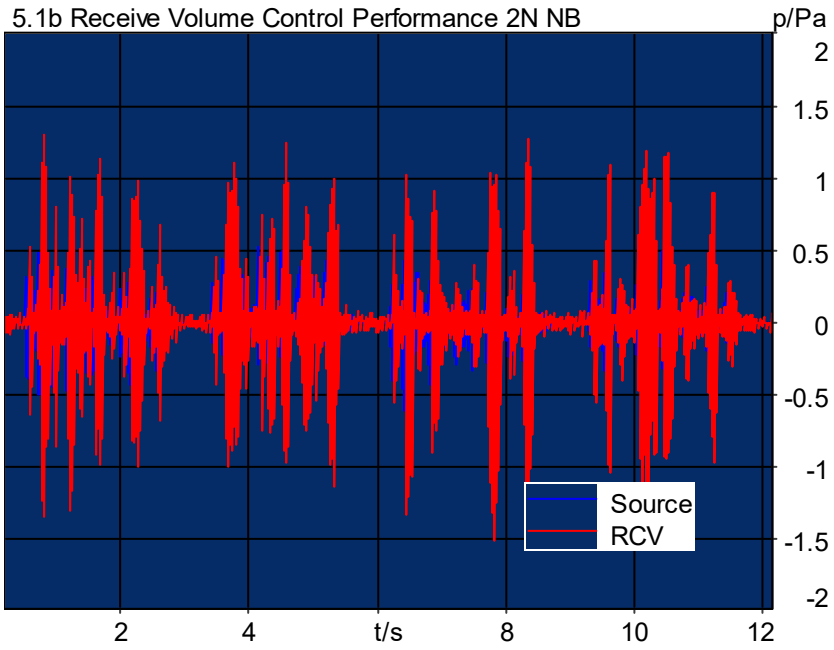
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.66	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.76	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.19	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.20	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.43	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.34	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.06	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.02	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.31	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.35	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.46	BL-SH25C1365-B66
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 611.7 Hz	1.78	BL-SH25C1365-B66

5.1b Receive Volume Control Performance 2N NB 316
5.2 RCV Distortion and Noise - 400 Hz NB 318
5.2 RCV Distortion and Noise - 500 Hz NB 320
5.2 RCV Distortion and Noise - 630 Hz NB 322
5.2 RCV Distortion and Noise - 800 Hz NB 324
5.2 RCV Distortion and Noise - 1000 Hz NB 326
5.2 RCV Distortion and Noise - 1250 Hz NB 328
5.2 RCV Distortion and Noise - 1600 Hz NB 330
5.2 RCV Distortion and Noise - 2000 Hz NB 332
5.2 RCV Distortion and Noise - 2500 Hz NB 334
5.2 RCV Distortion and Noise - 3150 Hz NB 336
5.3 Frequency Response 2N FF HANB 338

5.1b Receive Volume Control Performance 2N NB

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	78.66 dB[SPL]	79.63%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

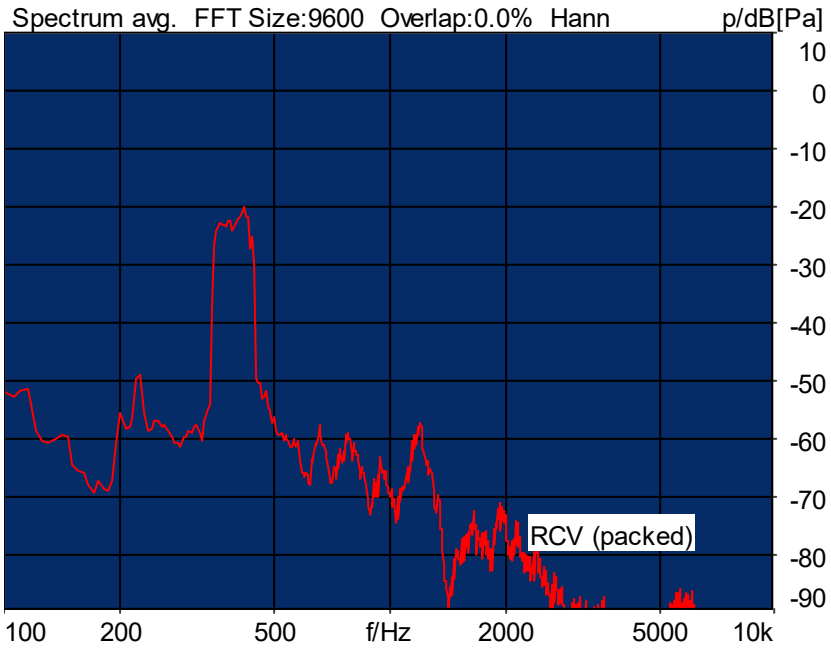
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.76 dB (2.90%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

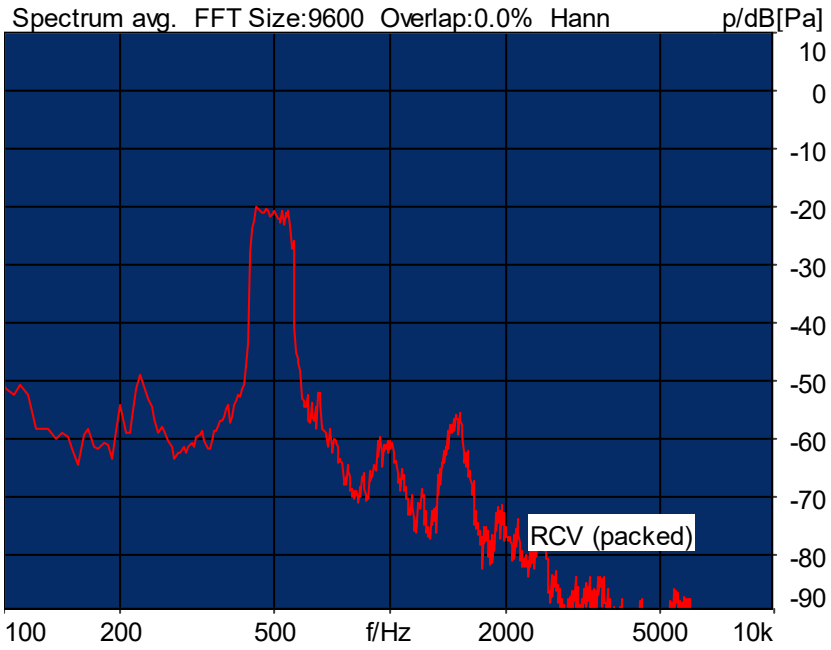
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.19 dB (3.09%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

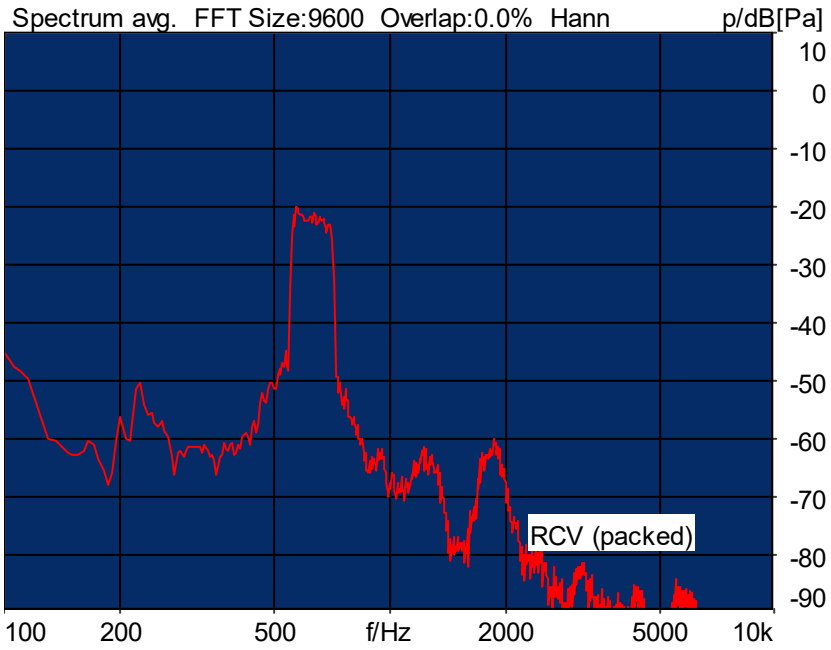
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.20 dB (3.09%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

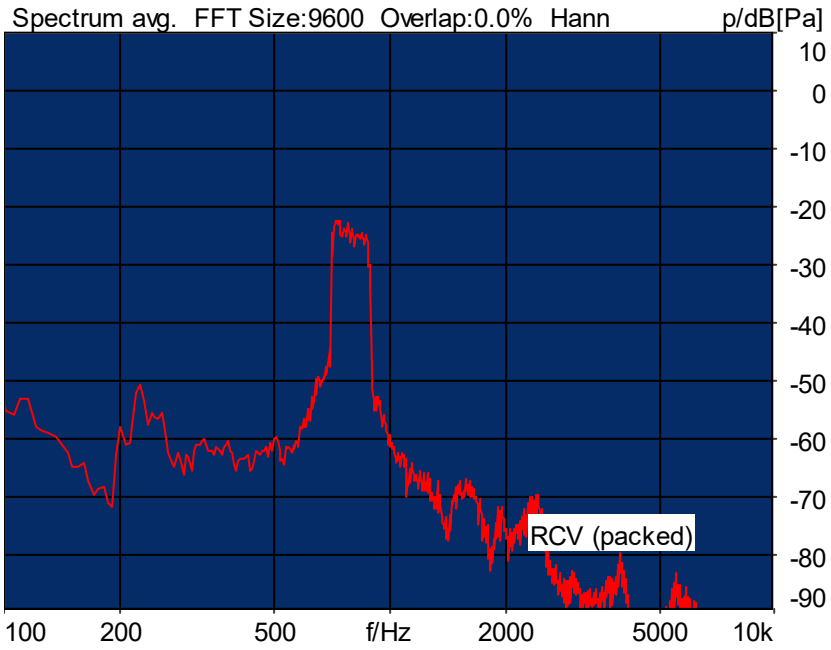
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 29.43 dB (3.38%) Ok

Ok

2025/12/19 17:01 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

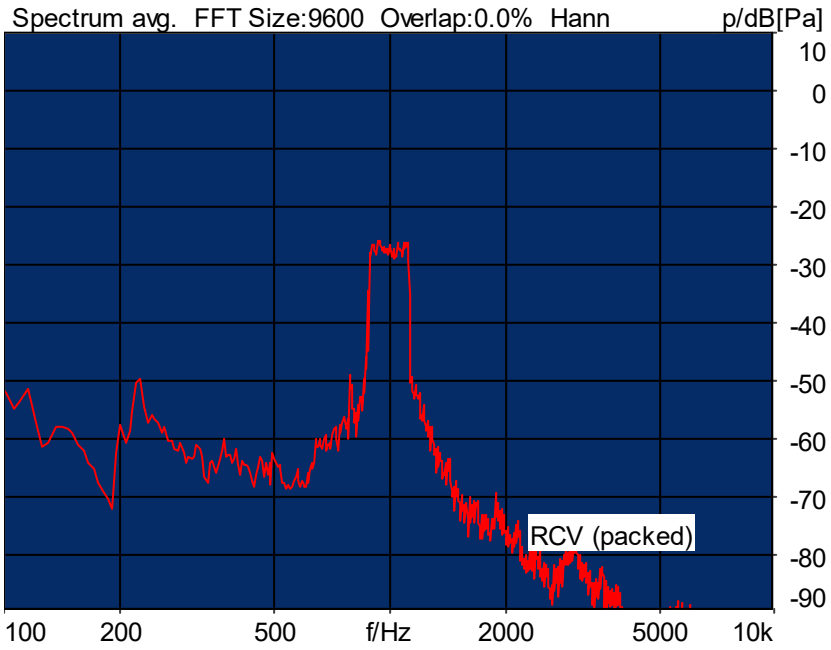
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.34 dB (4.82%) Ok

Ok

2025/12/19 17:02 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

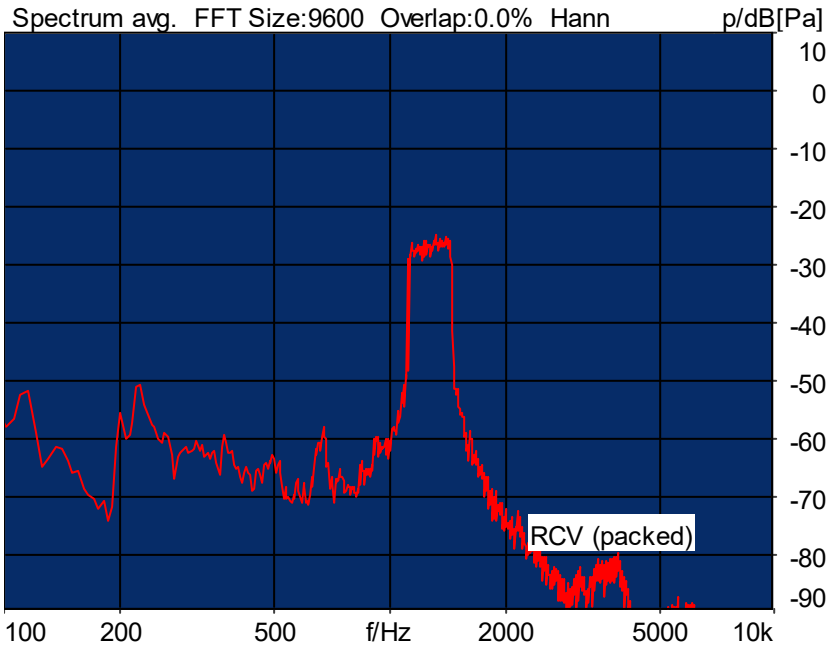
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.06 dB (4.98%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

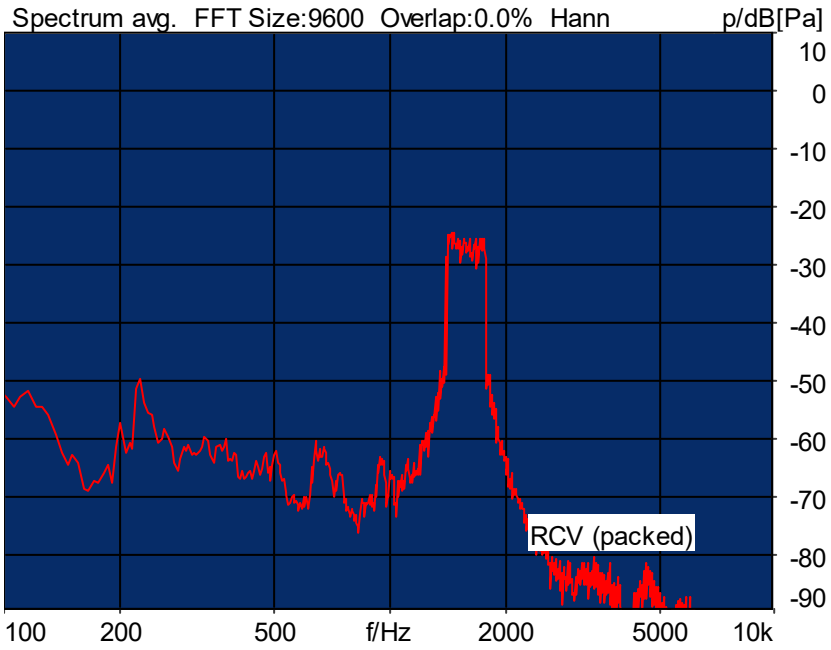
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.02 dB (3.97%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

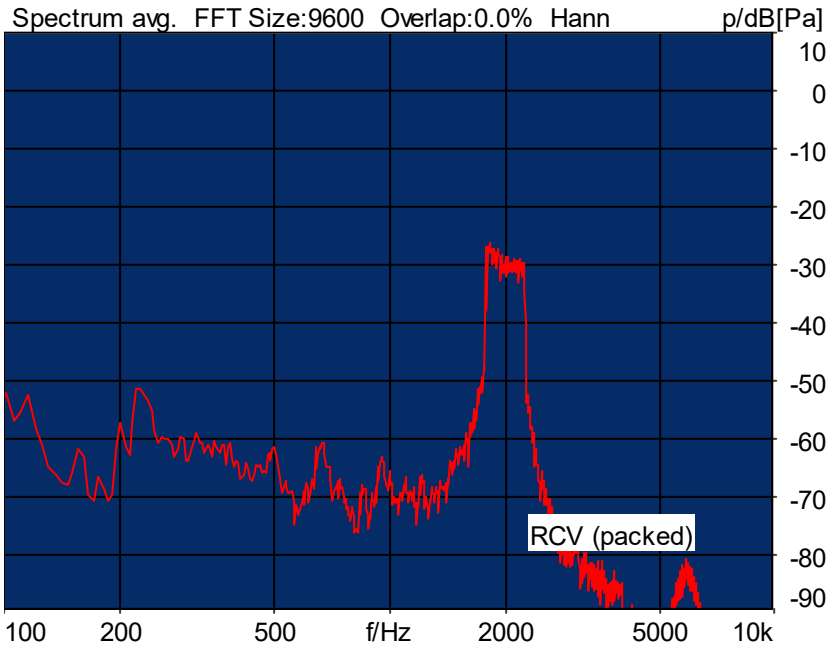
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.31 dB (4.84%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

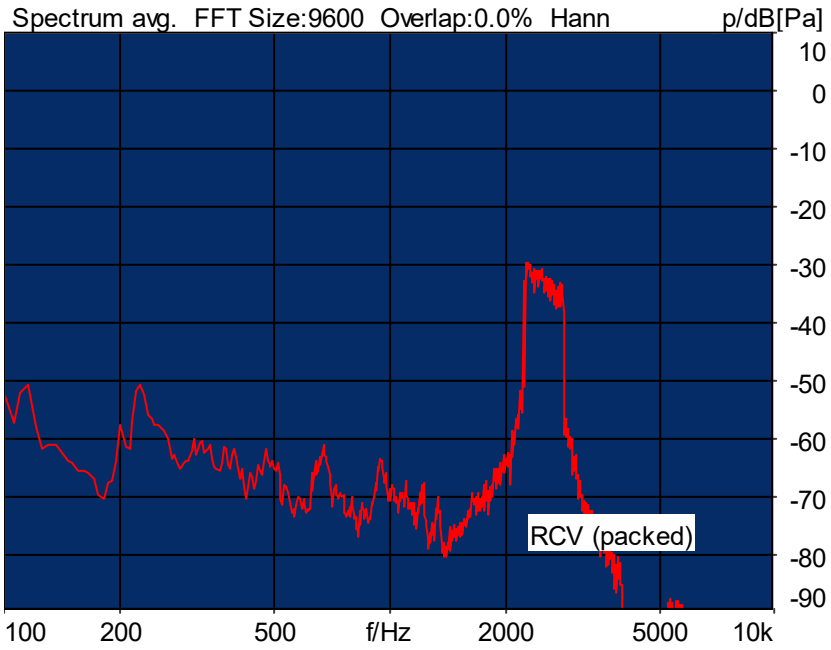
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.35 dB (5.40%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

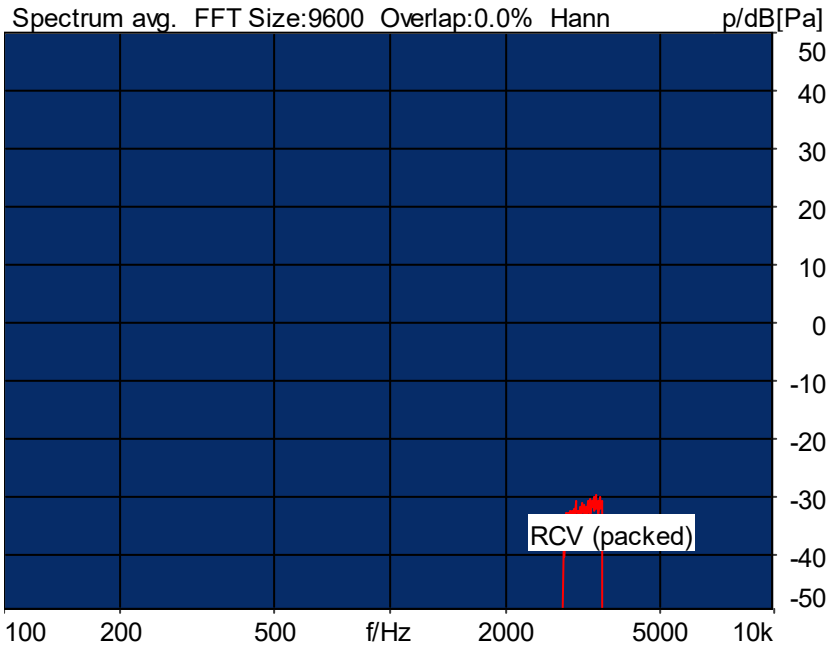
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.46 dB (7.53%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

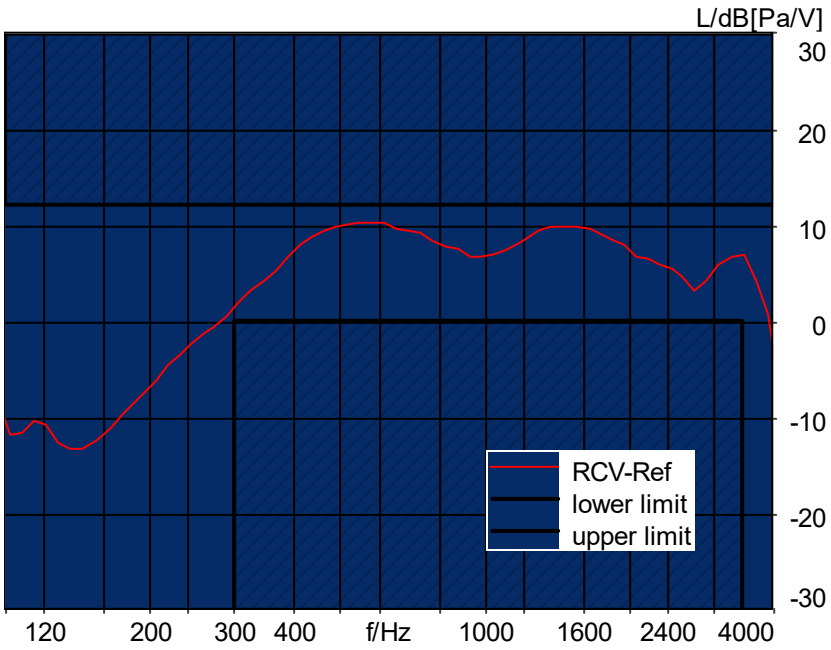
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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Absolute minimal distance

1.78 dB at 611.7 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(12#)

Measurement Object	BL-SH25C1365-B66

Status Overview

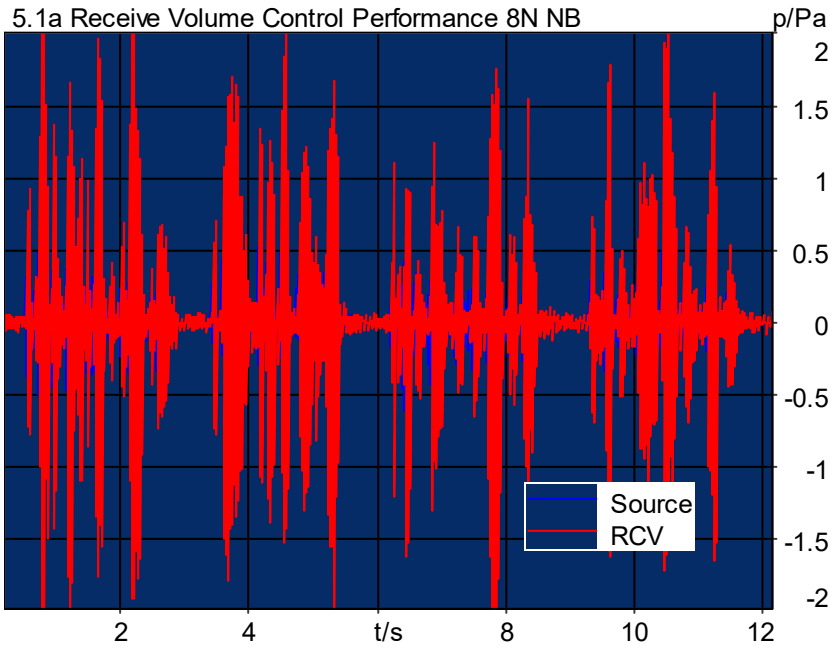
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	82.66	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.27	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.68	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.70	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.06	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.28	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.96	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.23	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.88	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.49	BL-SH25C1365-B66
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.51	BL-SH25C1365-B66
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 305.9 Hz	1.68	BL-SH25C1365-B66

5.1a Receive Volume Control Performance 8N NB 343
5.2 RCV Distortion and Noise - 400 Hz NB 345
5.2 RCV Distortion and Noise - 500 Hz NB 347
5.2 RCV Distortion and Noise - 630 Hz NB 349
5.2 RCV Distortion and Noise - 800 Hz NB 351
5.2 RCV Distortion and Noise - 1000 Hz NB 353
5.2 RCV Distortion and Noise - 1250 Hz NB 355
5.2 RCV Distortion and Noise - 1600 Hz NB 357
5.2 RCV Distortion and Noise - 2000 Hz NB 359
5.2 RCV Distortion and Noise - 2500 Hz NB 361
5.2 RCV Distortion and Noise - 3150 Hz NB 363
5.3 Frequency Response 8N FF HANB 365

5.1a Receive Volume Control Performance 8N NB

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Channel	Speech level	Activity	
RCV	82.66 dB[SPL]	80.55%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

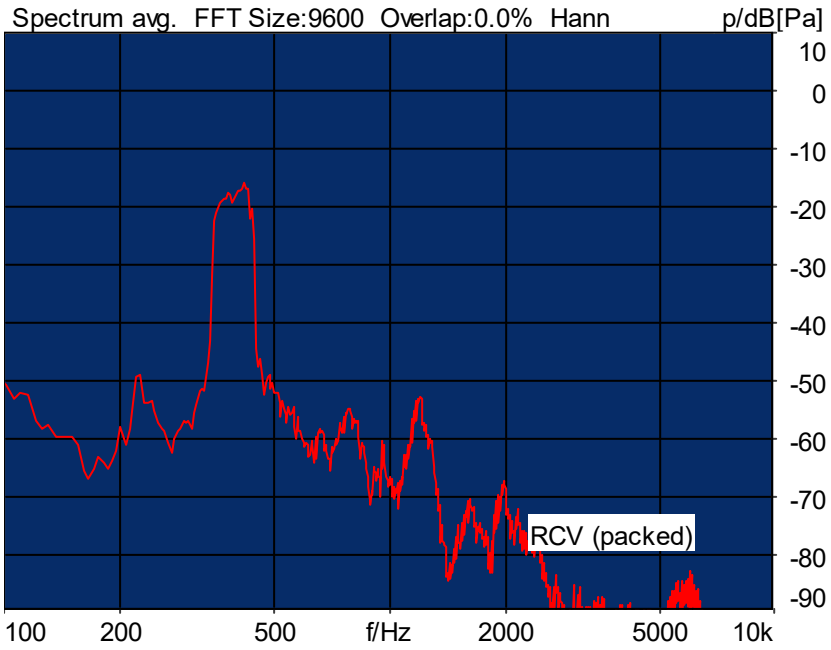
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

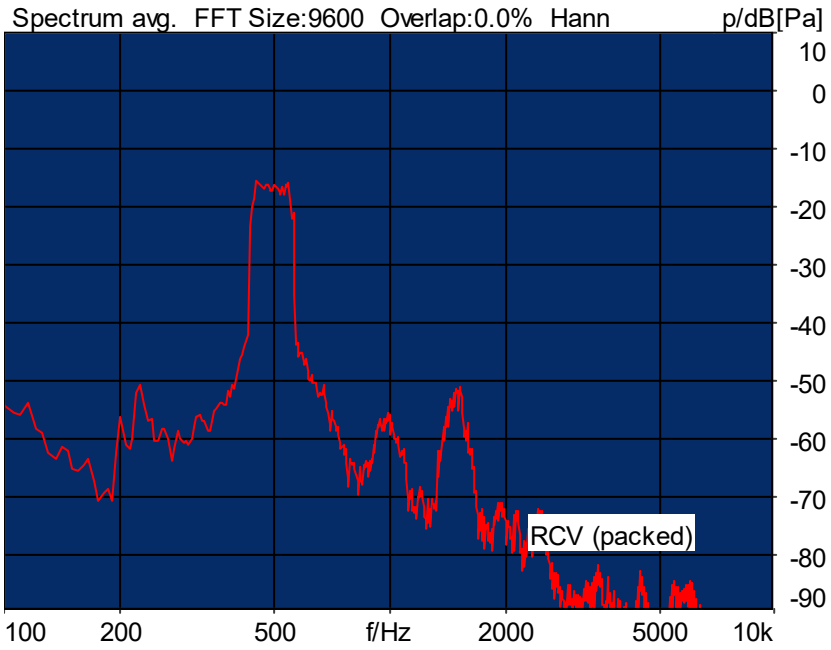
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.68 dB (2.92%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

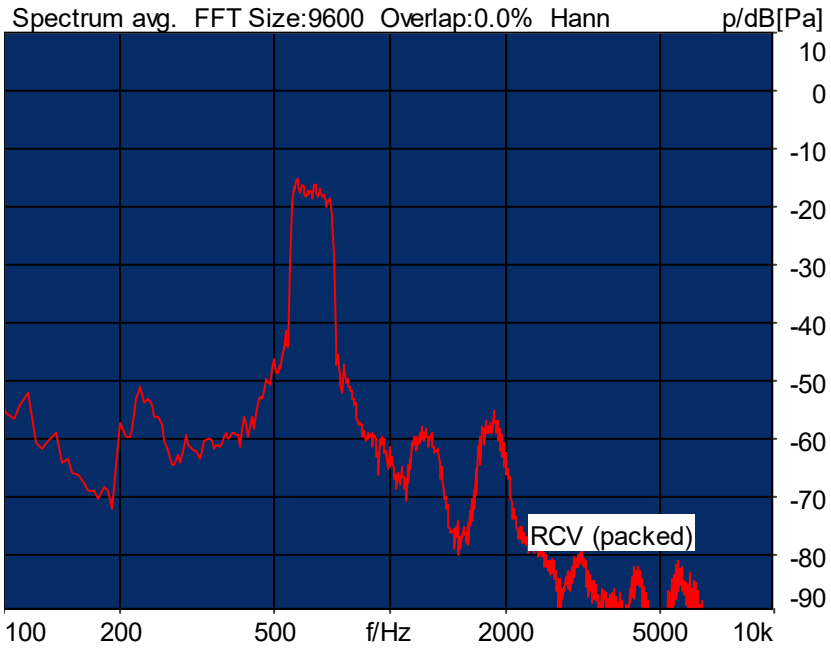
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 31.70 dB (2.60%) Ok

Ok

2025/12/19 17:14 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

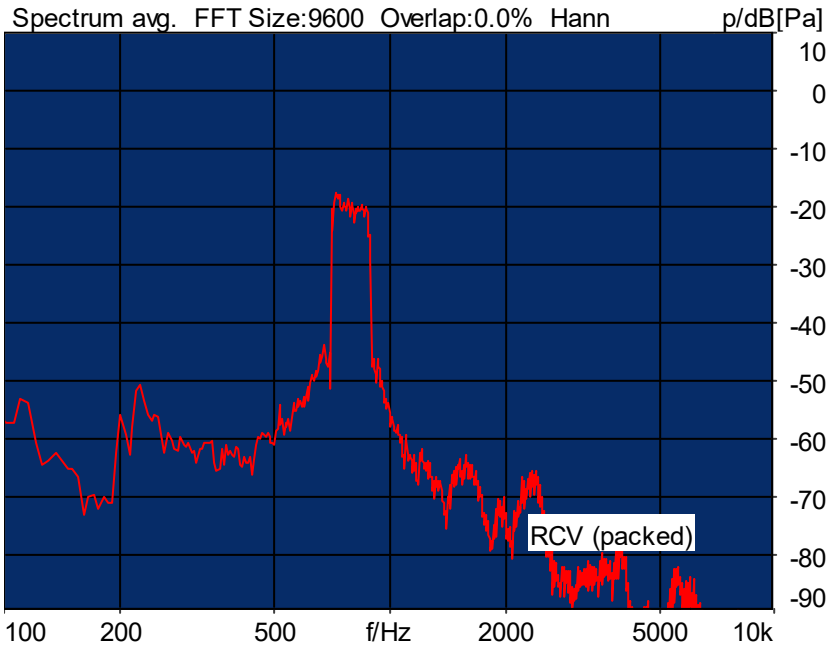
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



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

Ok

2025/12/19 17:15 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

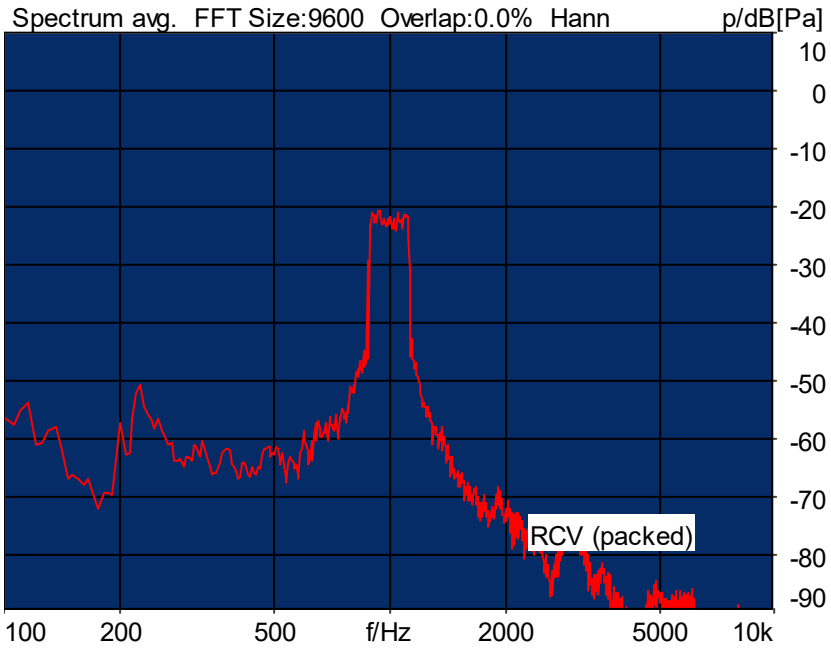
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.28 dB (3.86%) Ok

Ok

2025/12/19 17:15 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

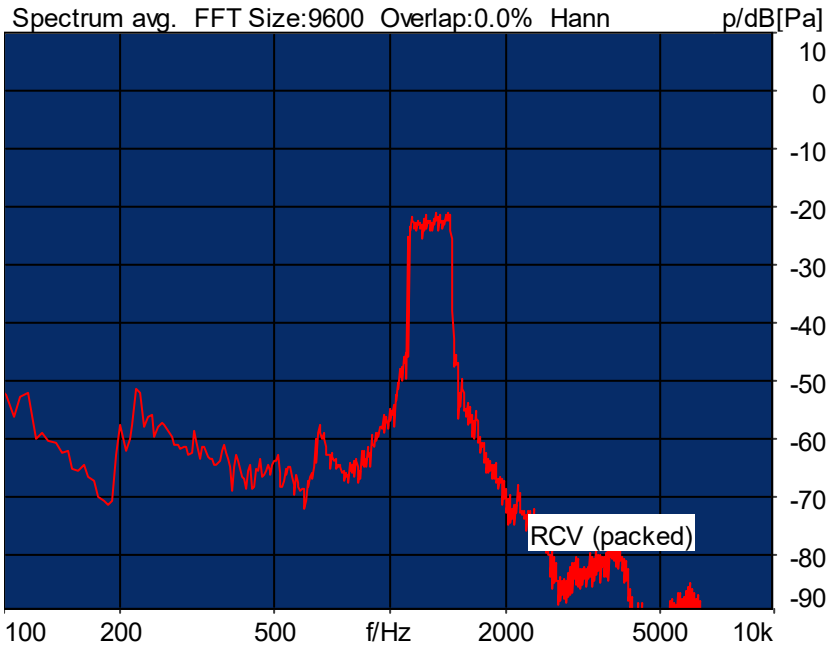
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.96 dB (5.03%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

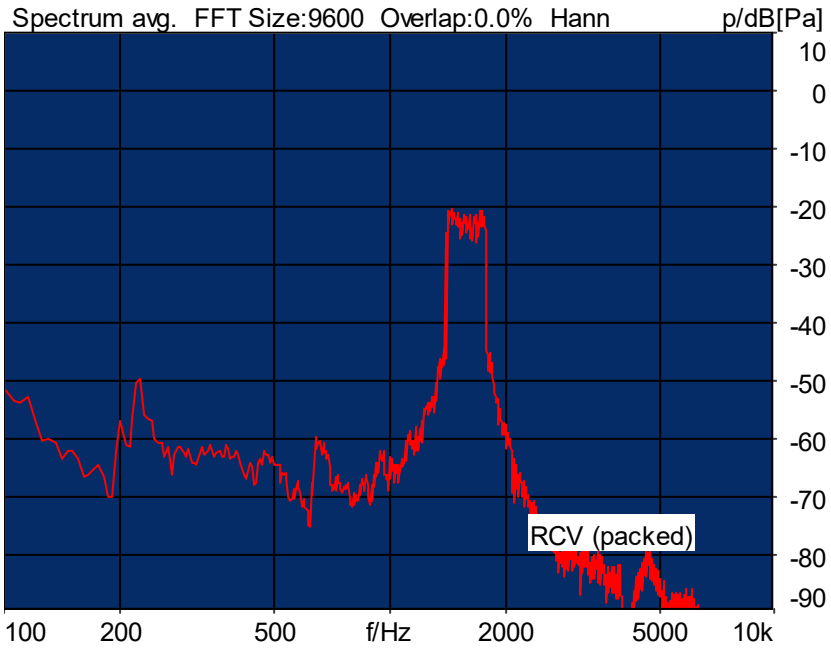
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.23 dB (3.88%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

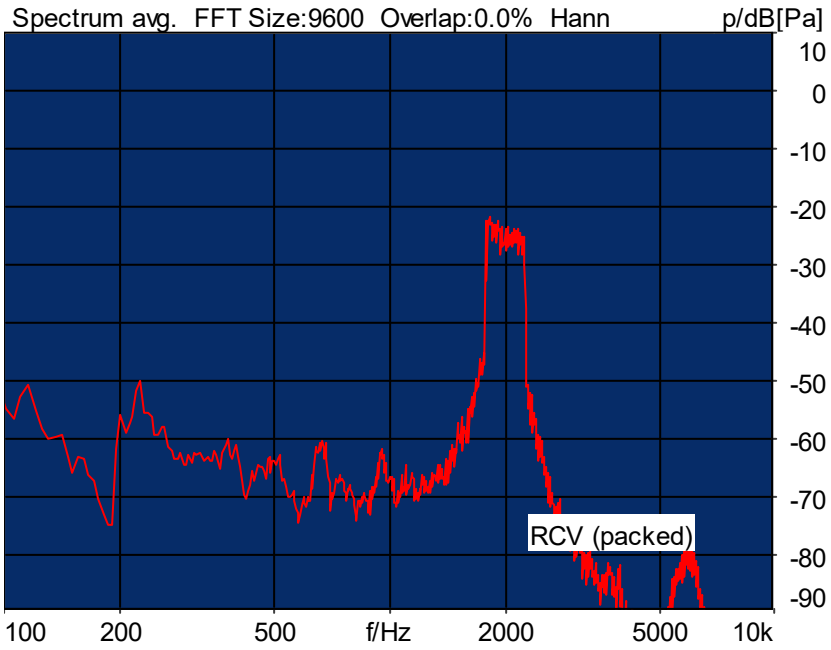
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.88 dB (4.04%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

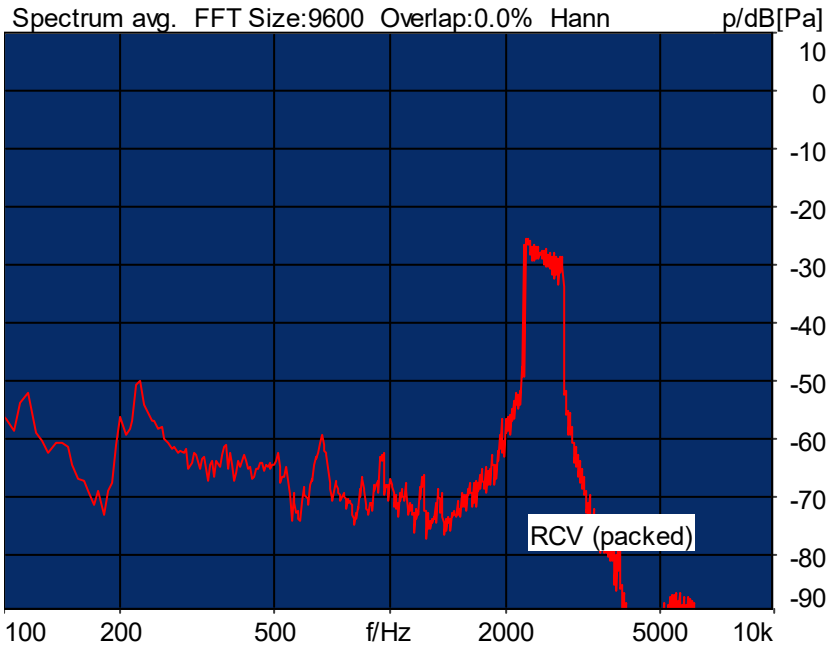
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.49 dB (4.74%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

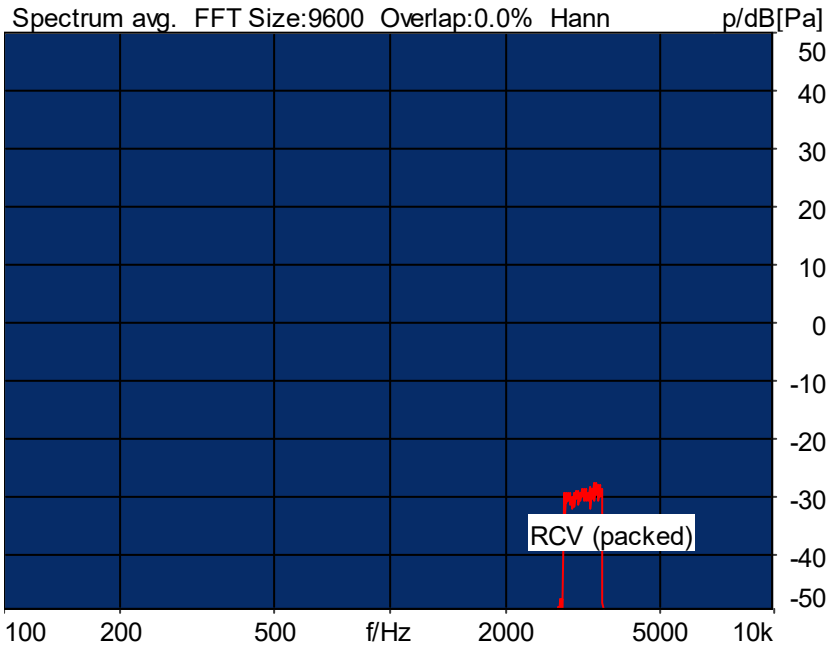
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.51 dB (7.49%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

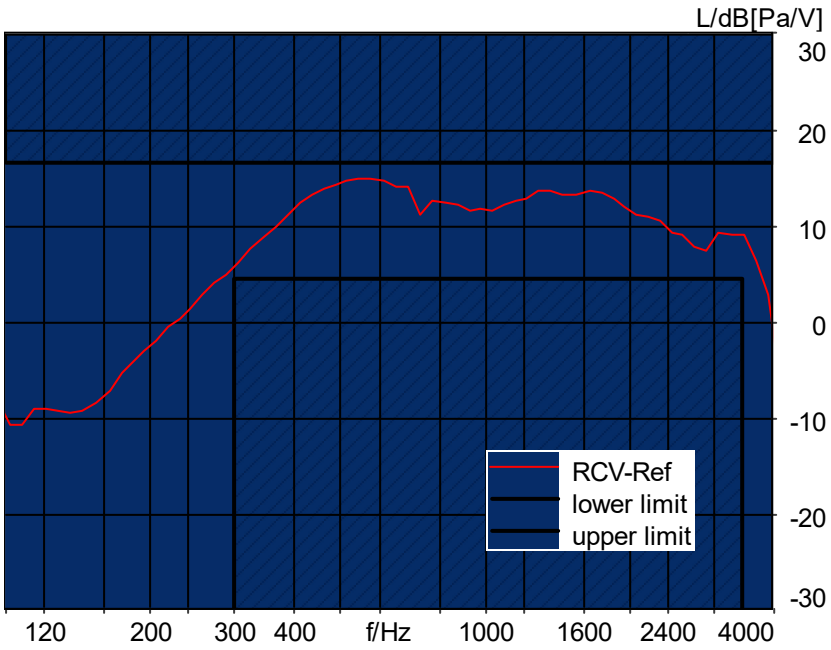
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF HANB

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Absolute minimal distance

1.68 dB at 305.9 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(13#)

Measurement Object	BL-SH25C1365-B71

Status Overview

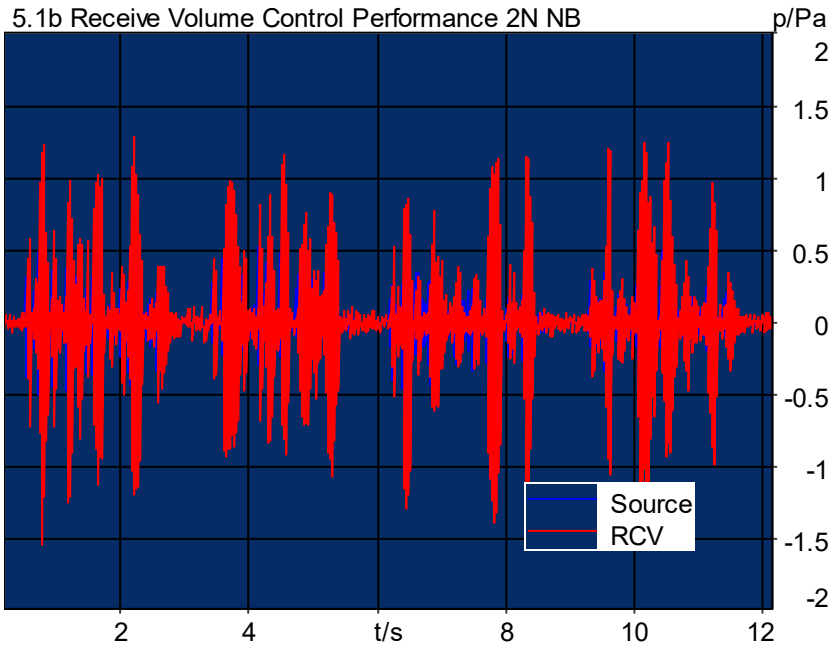
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.64	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.31	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.73	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.49	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.21	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.59	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.86	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.48	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.54	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.97	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.69	BL-SH25C1365-B71
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 514.4 Hz	2.00	BL-SH25C1365-B71

5.1b Receive Volume Control Performance 2N NB 370
5.2 RCV Distortion and Noise - 400 Hz NB 372
5.2 RCV Distortion and Noise - 500 Hz NB 374
5.2 RCV Distortion and Noise - 630 Hz NB 376
5.2 RCV Distortion and Noise - 800 Hz NB 378
5.2 RCV Distortion and Noise - 1000 Hz NB 380
5.2 RCV Distortion and Noise - 1250 Hz NB 382
5.2 RCV Distortion and Noise - 1600 Hz NB 384
5.2 RCV Distortion and Noise - 2000 Hz NB 386
5.2 RCV Distortion and Noise - 2500 Hz NB 388
5.2 RCV Distortion and Noise - 3150 Hz NB 390
5.3 Frequency Response 2N FF HANB 392

5.1b Receive Volume Control Performance 2N NB

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Channel	Speech level	Activity	
RCV	78.64 dB[SPL]	80.31%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

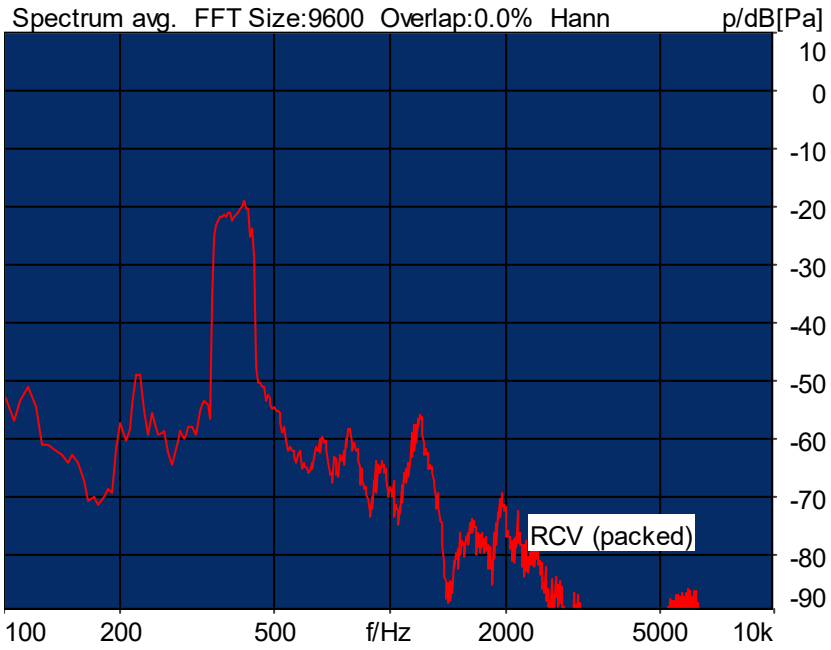
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

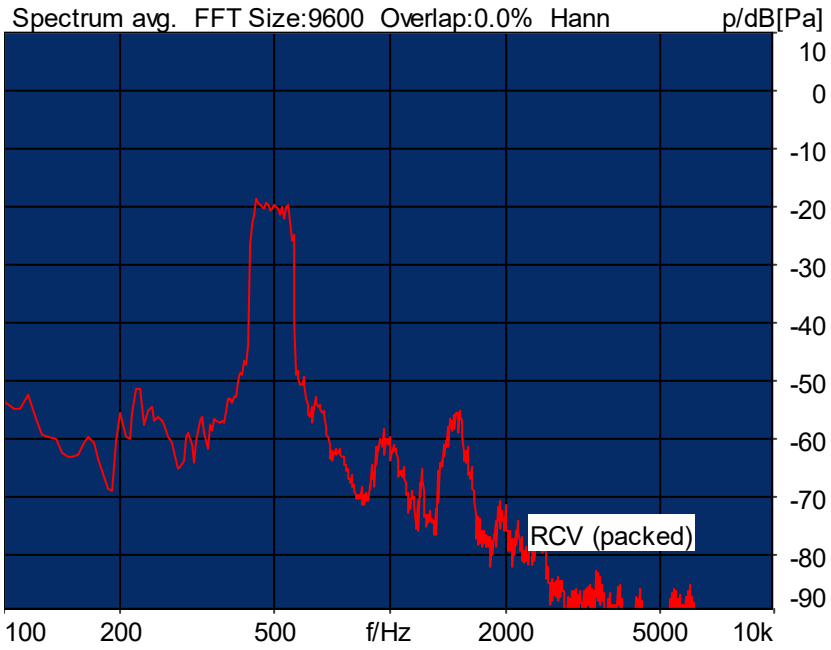
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

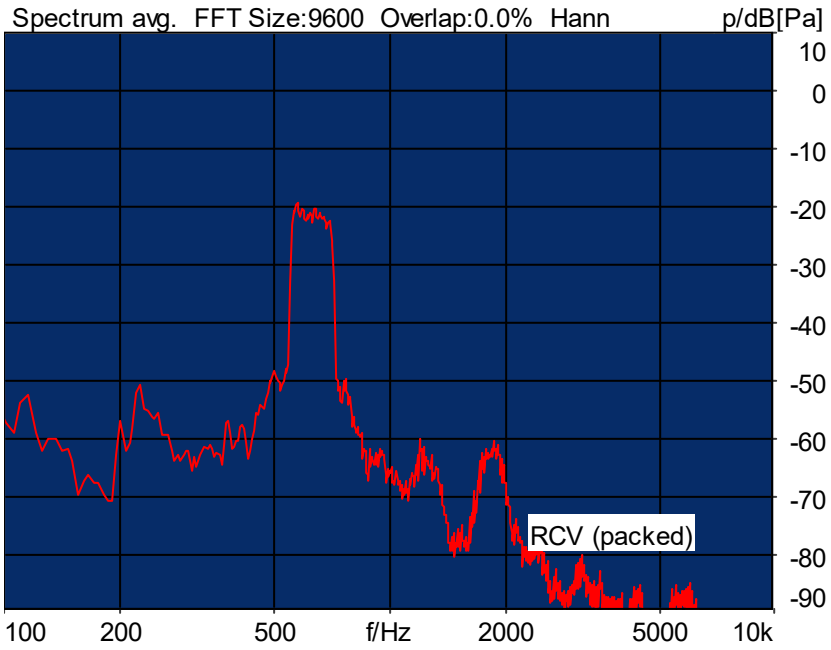
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.49 dB (2.99%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

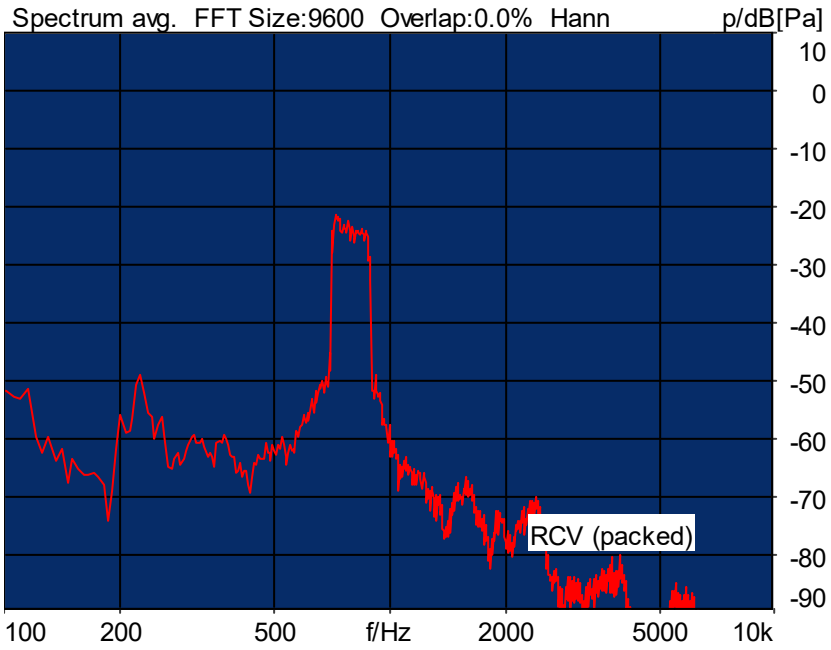
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.21 dB (3.09%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

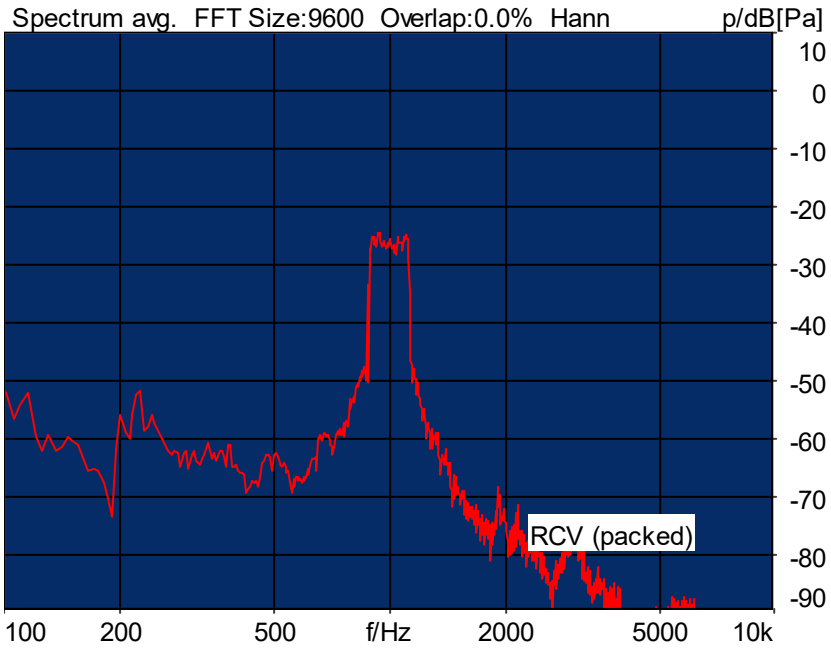
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.59 dB (4.68%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

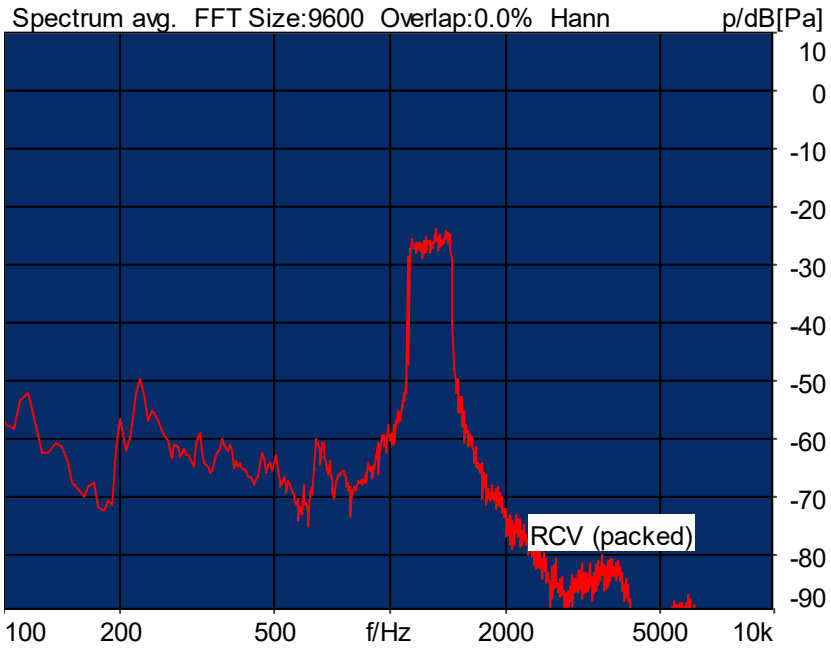
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.86 dB (5.09%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

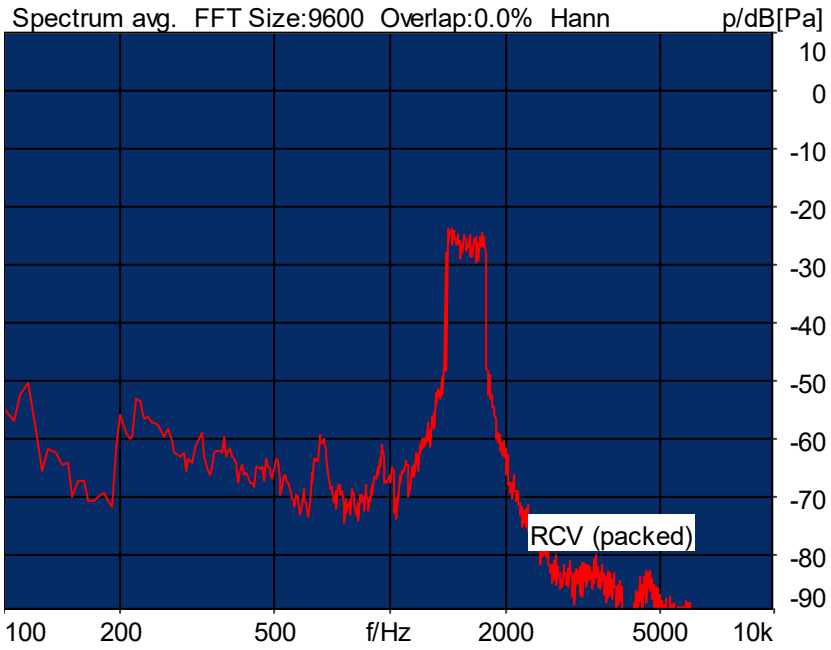
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.48 dB (3.77%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

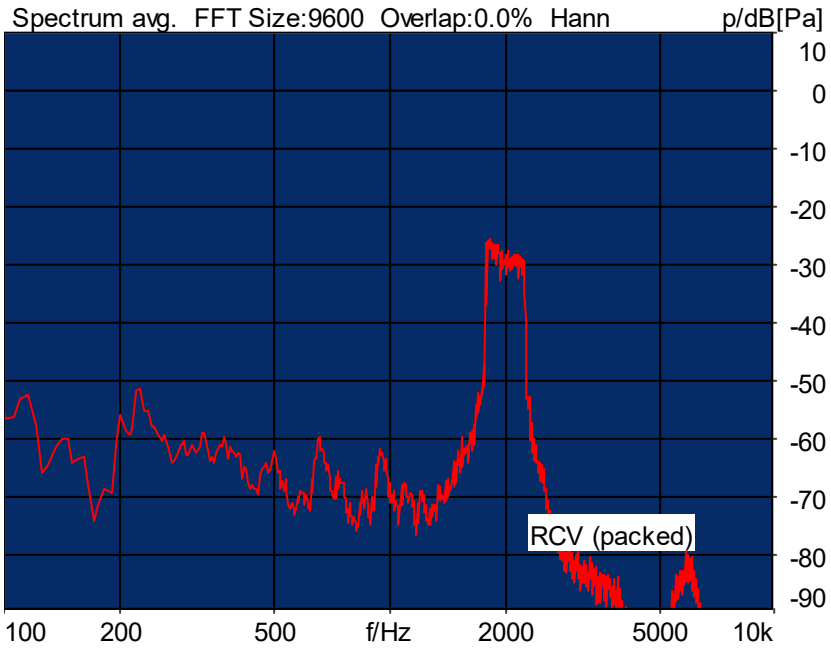
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.54 dB (4.20%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

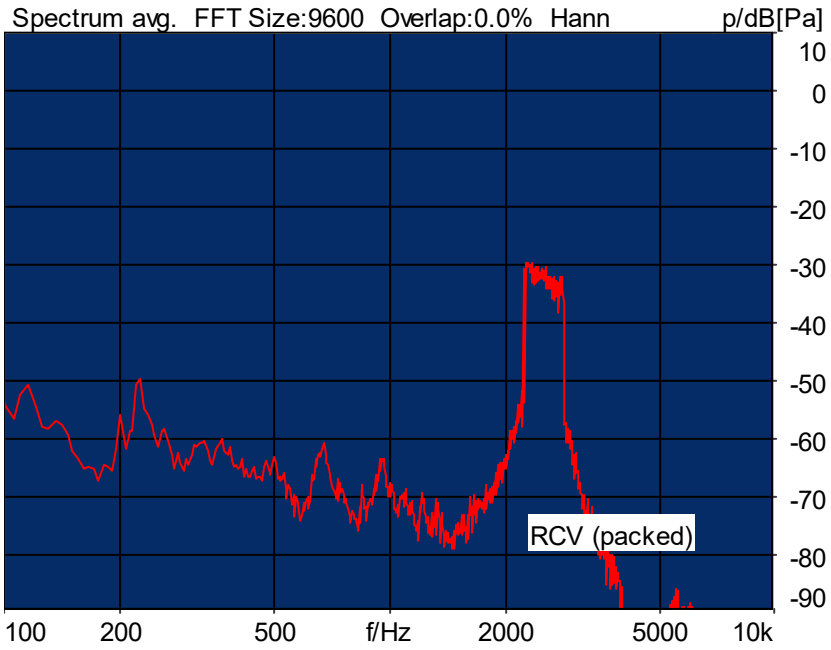
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.97 dB (5.03%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

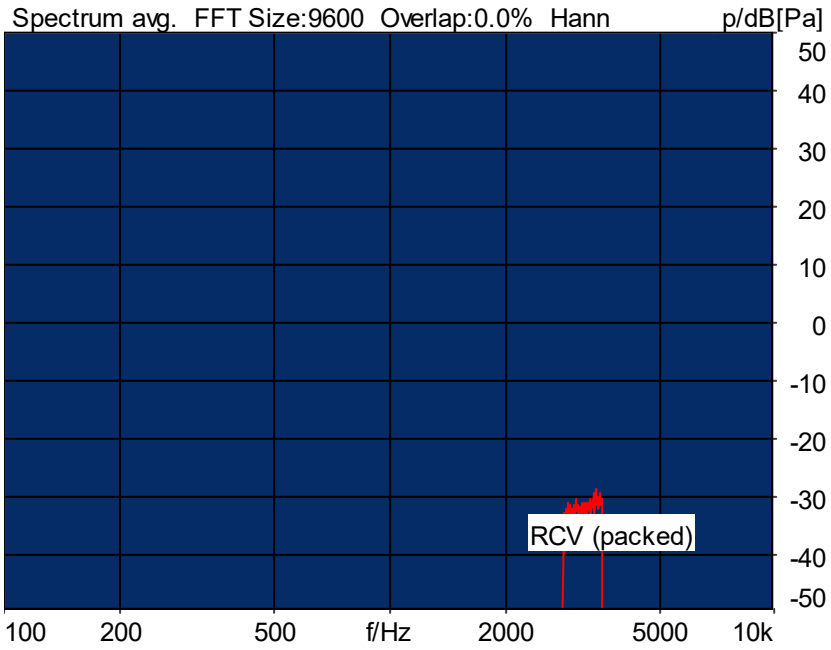
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.69 dB (7.34%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

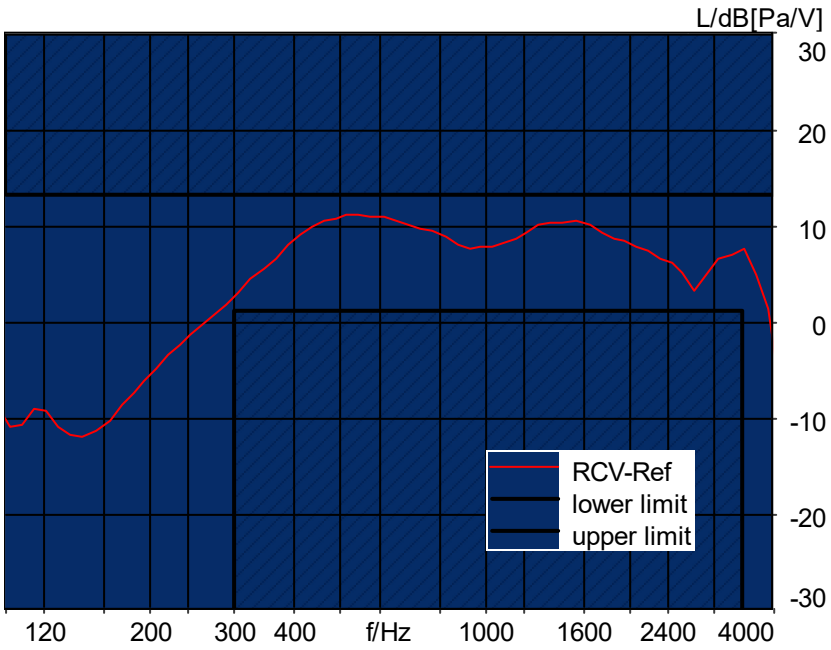
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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Absolute minimal distance

2.00 dB at 514.4 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(14#)

Measurement Object	BL-SH25C1365-B71

Status Overview

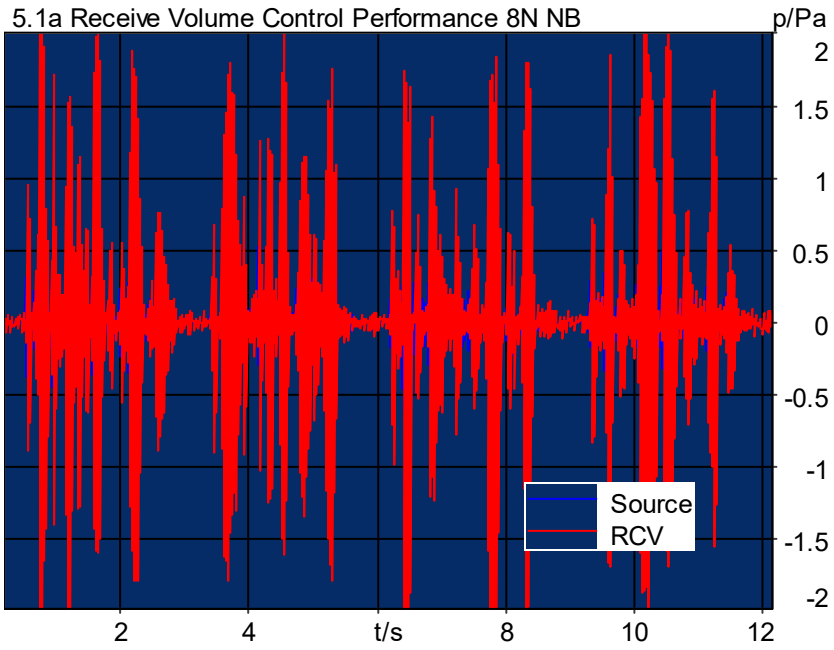
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	83.27	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.54	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	31.06	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.68	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.59	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.47	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.91	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.57	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.03	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.85	BL-SH25C1365-B71
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.30	BL-SH25C1365-B71
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 576.7 Hz	1.84	BL-SH25C1365-B71

5.1a Receive Volume Control Performance 8N NB 397
5.2 RCV Distortion and Noise - 400 Hz NB 399
5.2 RCV Distortion and Noise - 500 Hz NB 401
5.2 RCV Distortion and Noise - 630 Hz NB 403
5.2 RCV Distortion and Noise - 800 Hz NB 405
5.2 RCV Distortion and Noise - 1000 Hz NB 407
5.2 RCV Distortion and Noise - 1250 Hz NB 409
5.2 RCV Distortion and Noise - 1600 Hz NB 411
5.2 RCV Distortion and Noise - 2000 Hz NB 413
5.2 RCV Distortion and Noise - 2500 Hz NB 415
5.2 RCV Distortion and Noise - 3150 Hz NB 417
5.3 Frequency Response 8N FF HANB 419

5.1a Receive Volume Control Performance 8N NB

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Channel	Speech level	Activity	
RCV	83.27 dB[SPL]	80.70%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

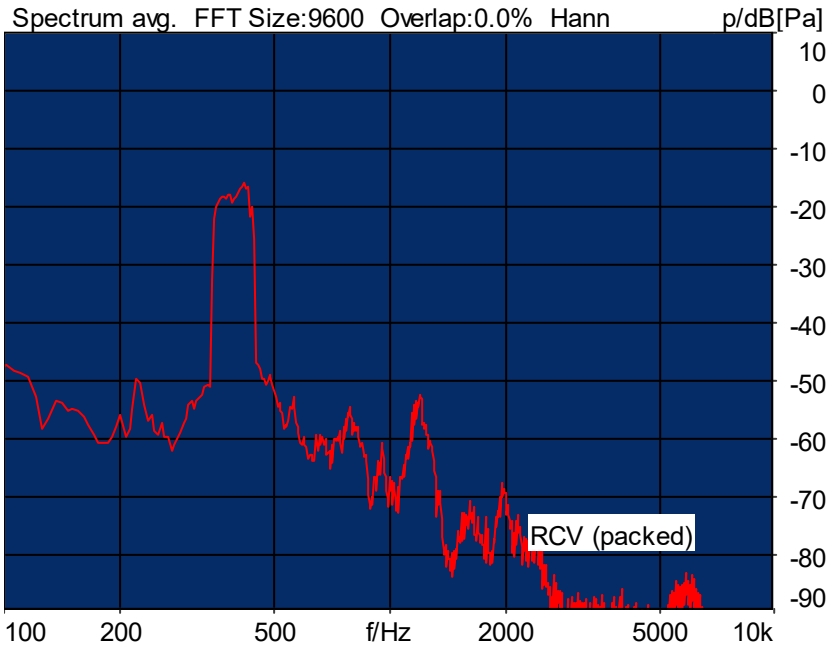
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



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

Ok

2025/12/19 17:22 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

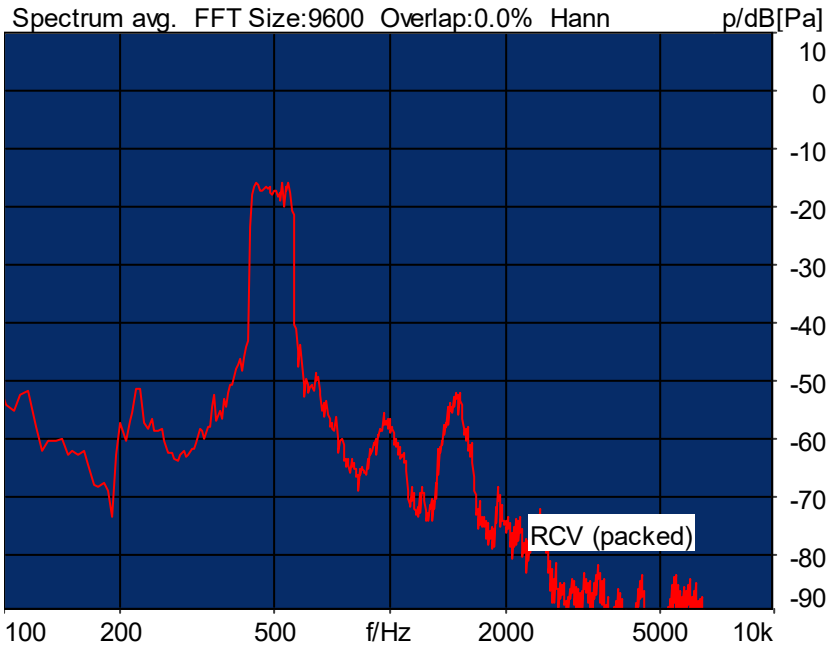
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 31.06 dB (2.80%) Ok

Ok

2025/12/19 17:22 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

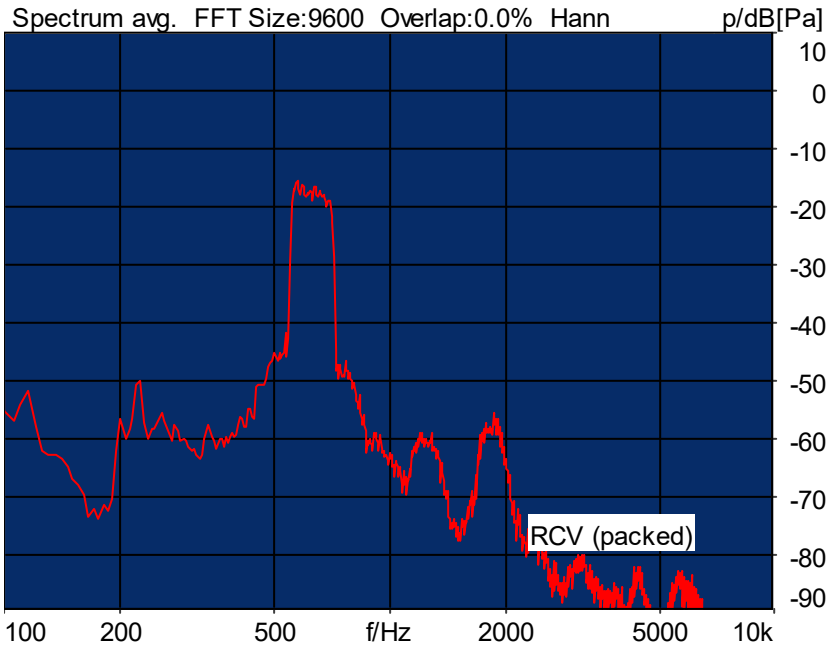
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.68 dB (2.92%) Ok

Ok

2025/12/19 17:23 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

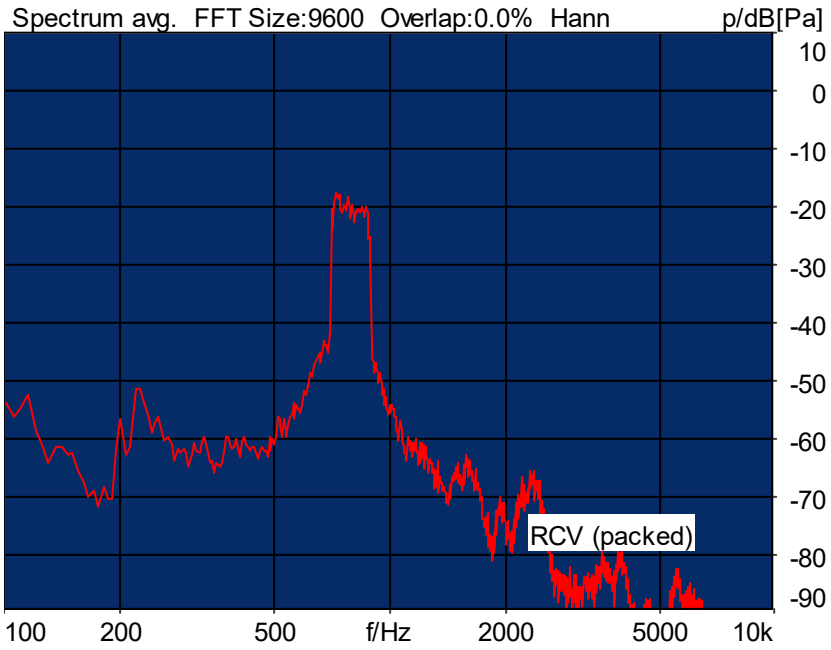
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 29.59 dB (3.31%) Ok

Ok

2025/12/19 17:23 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

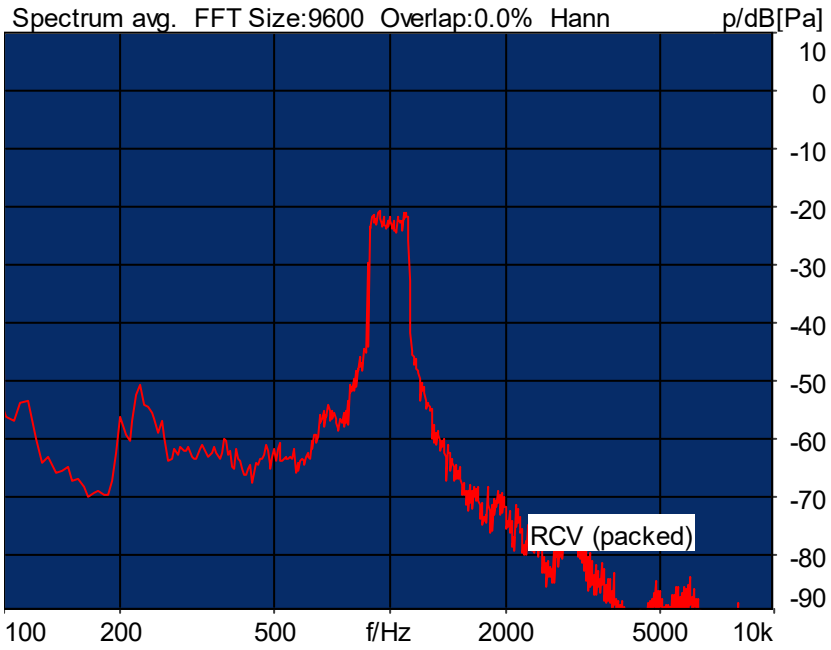
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.47 dB (4.23%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

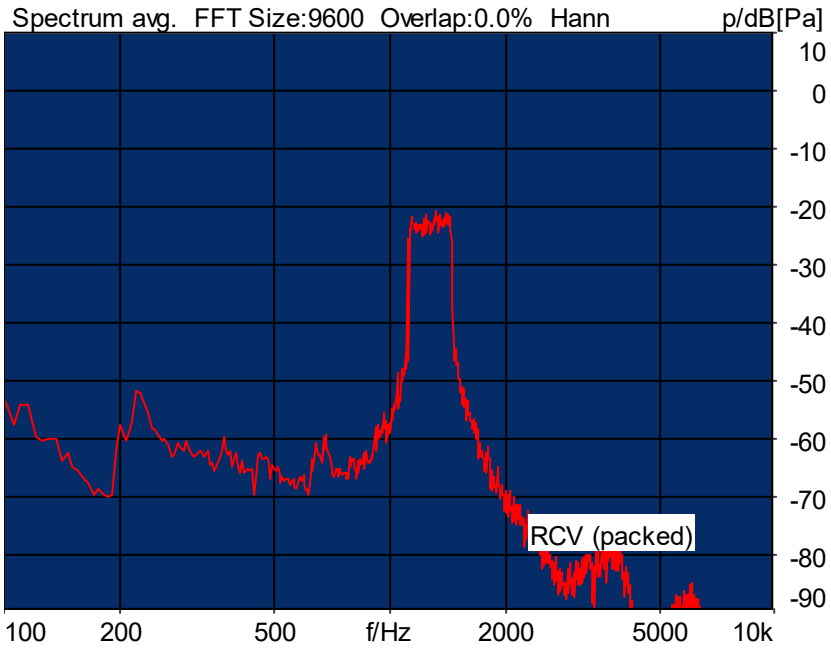
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.91 dB (5.06%) Ok

Ok

2025/12/19 17:24 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

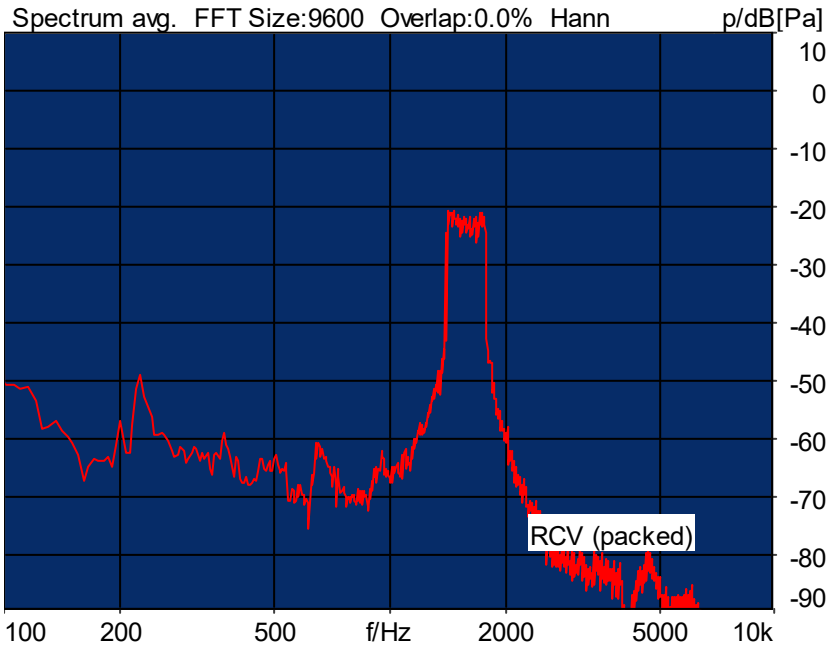
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.57 dB (3.73%) Ok

Ok

2025/12/19 17:24 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

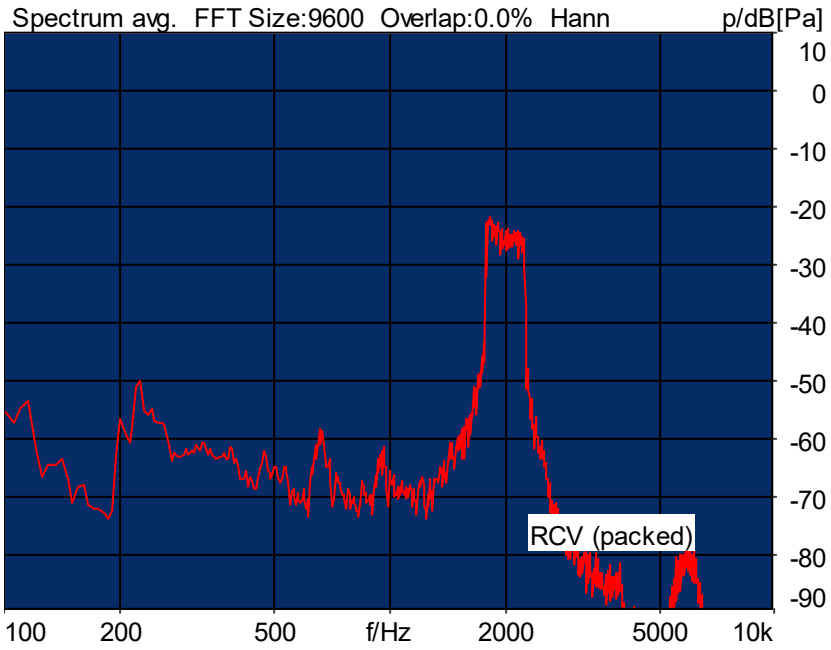
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.03 dB (3.97%) Ok

Ok

2025/12/19 17:25 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

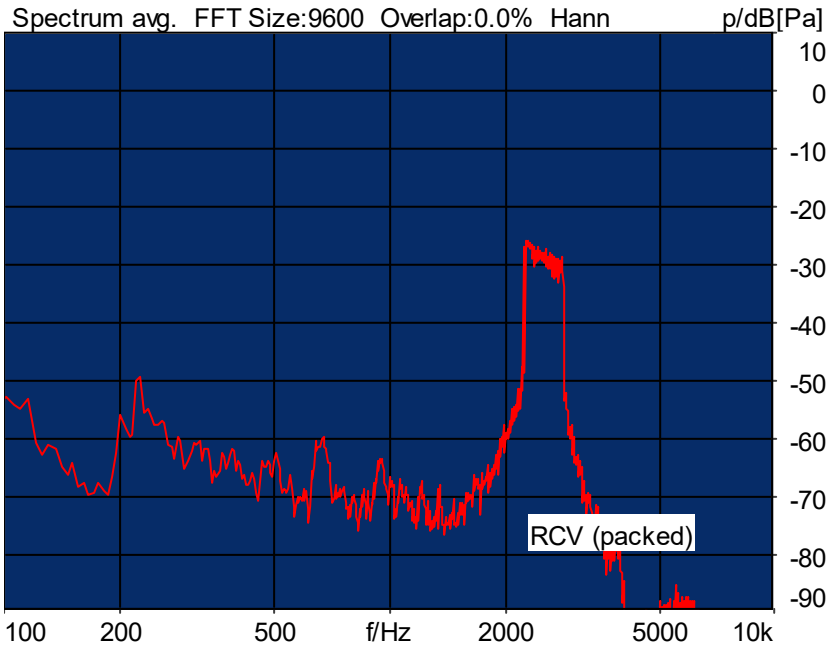
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.85 dB (4.55%) Ok

Ok

2025/12/19 17:25 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

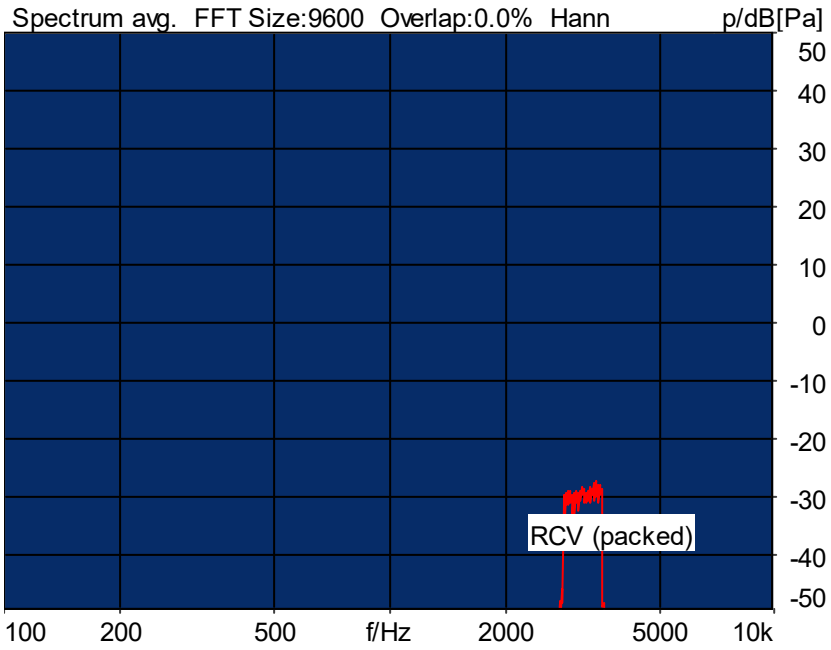
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 22.30 dB (7.67%) Ok

Ok

2025/12/19 17:25 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

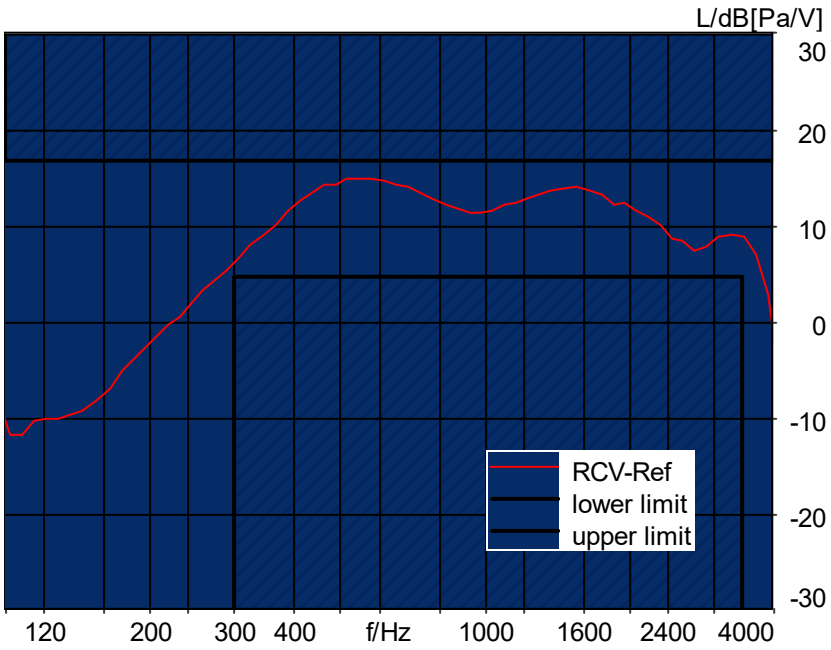
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF HANB

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

EVS-NB-13.2



Absolute minimal distance

1.84 dB at 576.7 Hz Ok

Ok

2025/12/19 17:26 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(15#)

Measurement Object	BL-SH25C1365-B41

Status Overview

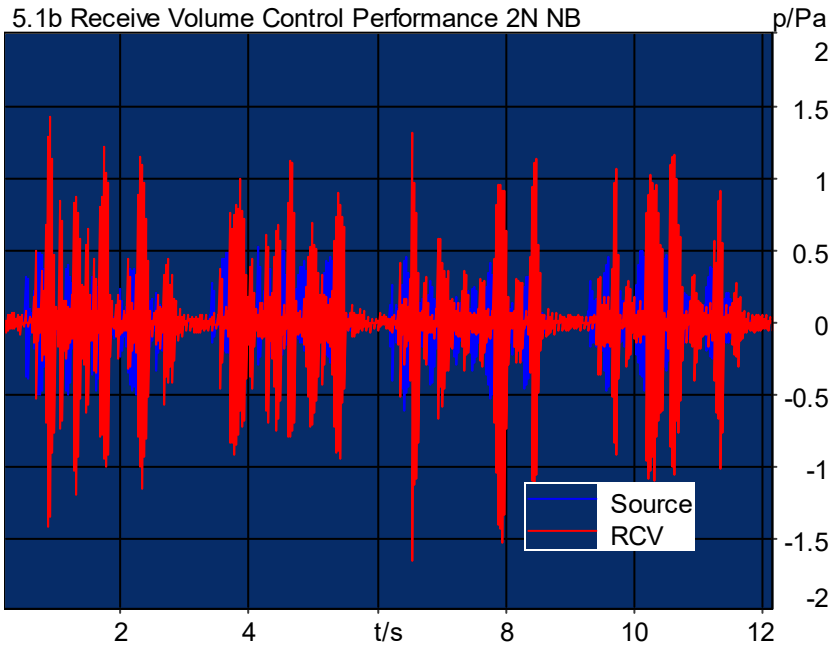
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.17	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	23.74	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.97	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.82	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.79	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.88	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.68	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.12	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.37	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.17	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.78	BL-SH25C1365-B41
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 611.7 Hz	1.75	BL-SH25C1365-B41

5.1b Receive Volume Control Performance 2N NB 424
5.2 RCV Distortion and Noise - 400 Hz NB 426
5.2 RCV Distortion and Noise - 500 Hz NB 428
5.2 RCV Distortion and Noise - 630 Hz NB 430
5.2 RCV Distortion and Noise - 800 Hz NB 432
5.2 RCV Distortion and Noise - 1000 Hz NB 434
5.2 RCV Distortion and Noise - 1250 Hz NB 436
5.2 RCV Distortion and Noise - 1600 Hz NB 438
5.2 RCV Distortion and Noise - 2000 Hz NB 440
5.2 RCV Distortion and Noise - 2500 Hz NB 442
5.2 RCV Distortion and Noise - 3150 Hz NB 444
5.3 Frequency Response 2N FF HANB 446

5.1b Receive Volume Control Performance 2N NB

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	78.17 dB[SPL]	80.28%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

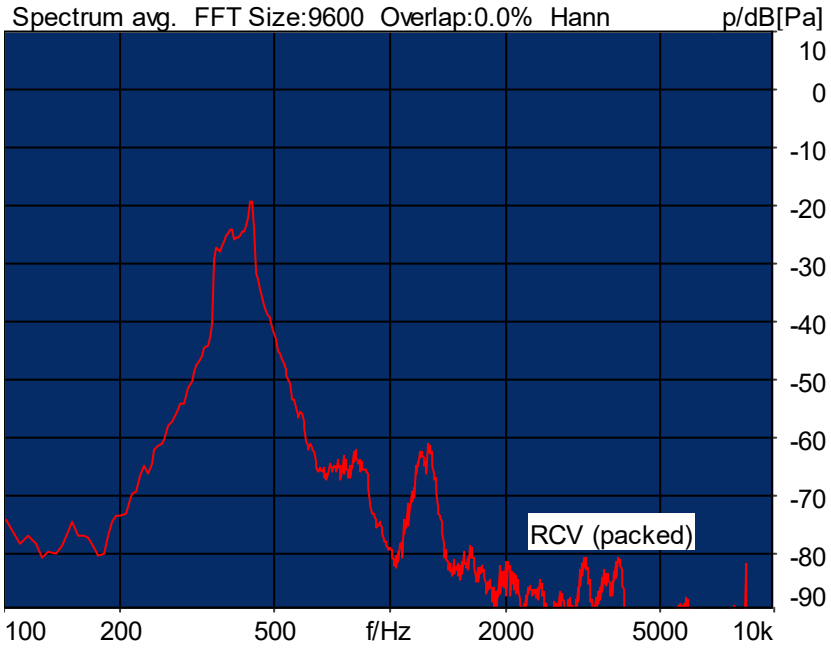
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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



Distortion (Noise) RCV (packed): 23.74 dB (6.50%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_400Hz

Hardware Config Settings

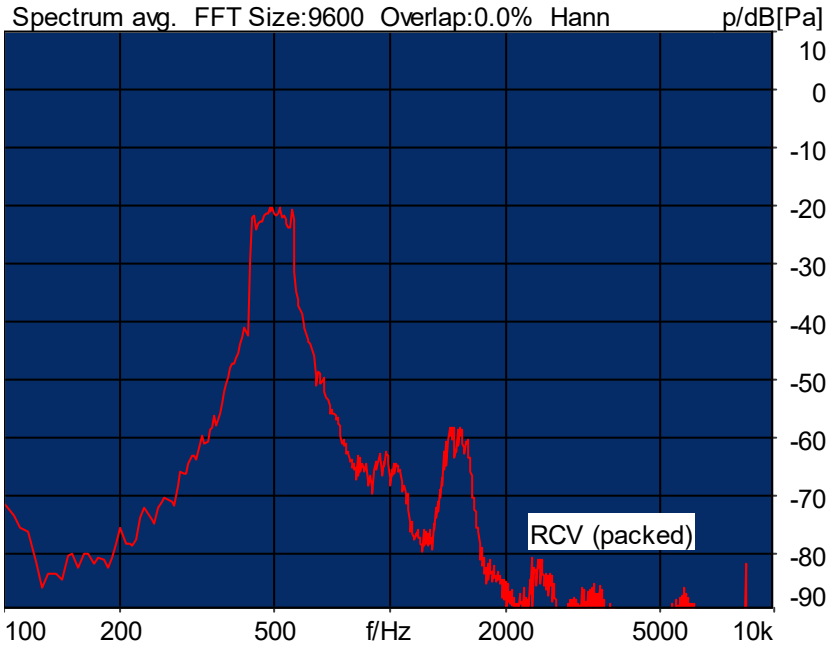
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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



Distortion (Noise) RCV (packed): 25.97 dB (5.03%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_500Hz

Hardware Config Settings

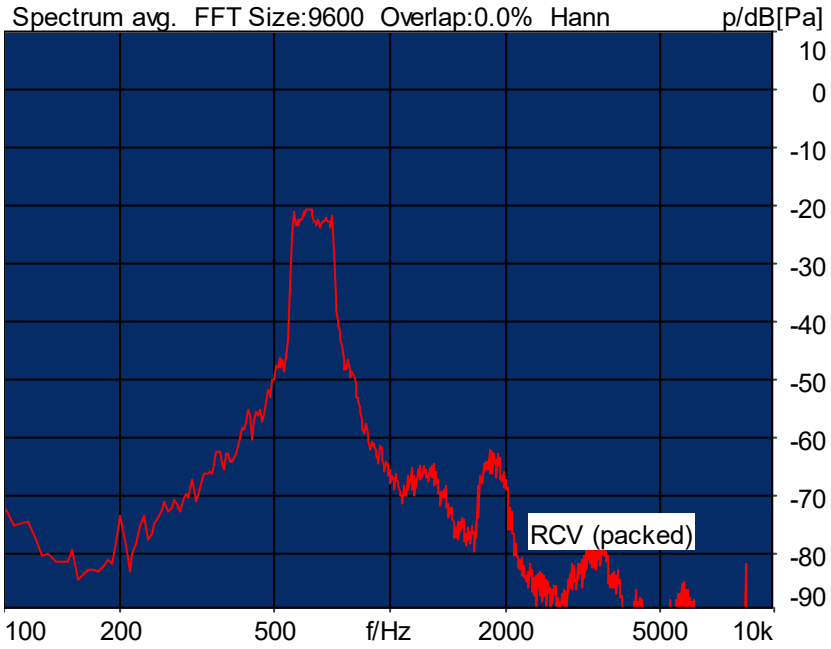
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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



Distortion (Noise) RCV (packed): 27.82 dB (4.06%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_630Hz

Hardware Config Settings

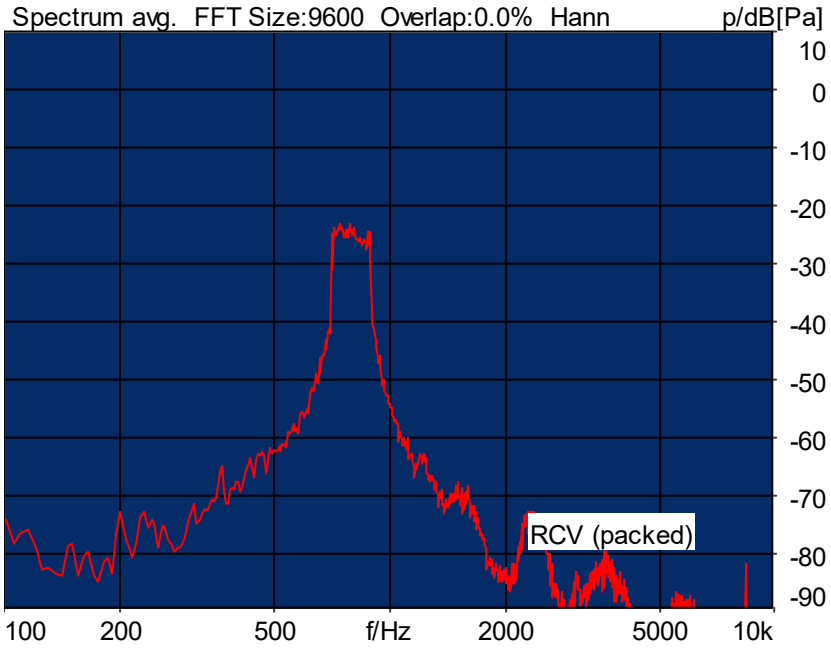
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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



Distortion (Noise) RCV (packed): 25.79 dB (5.14%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_800Hz

Hardware Config Settings

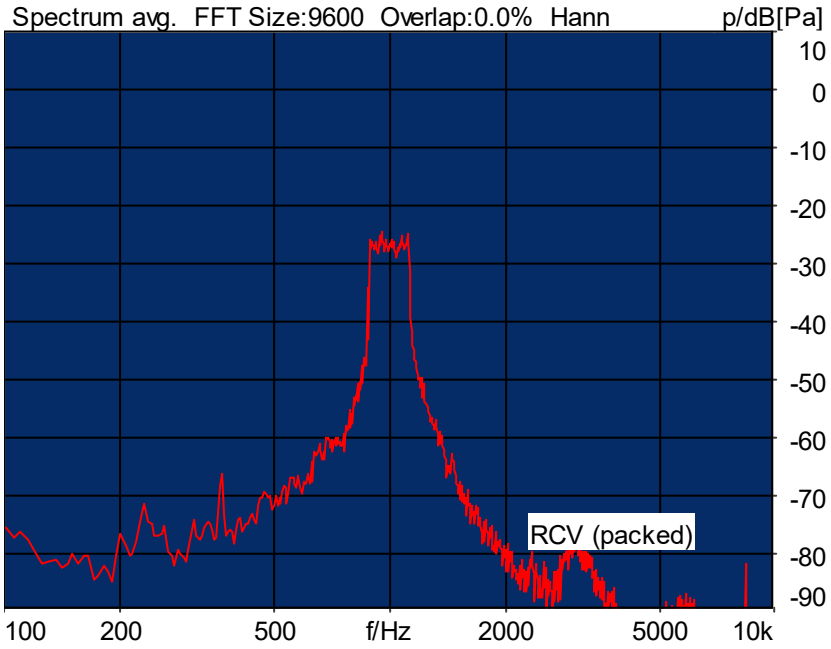
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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



Distortion (Noise) RCV (packed): 24.88 dB (5.70%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1000Hz

Hardware Config Settings

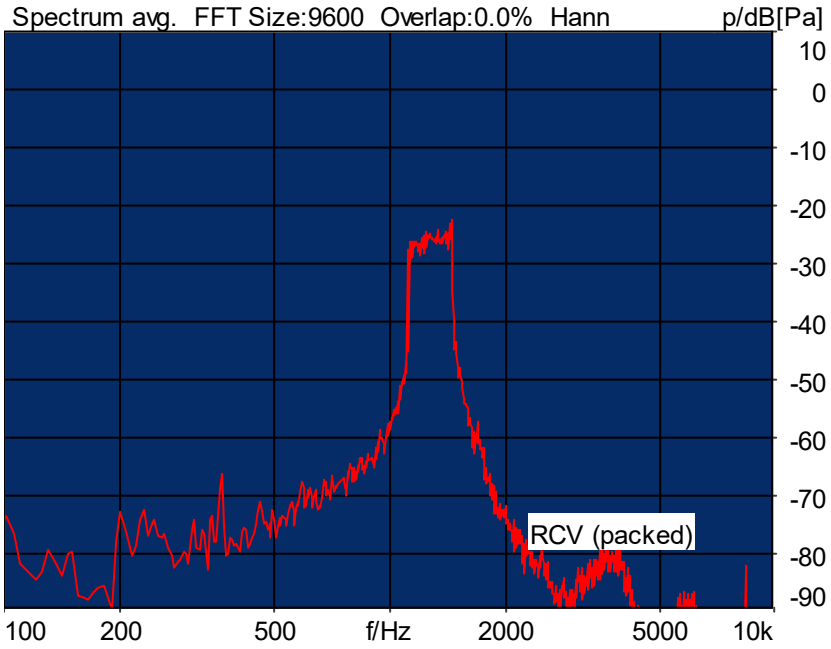
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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



Distortion (Noise) RCV (packed): 21.68 dB (8.25%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1250Hz

Hardware Config Settings

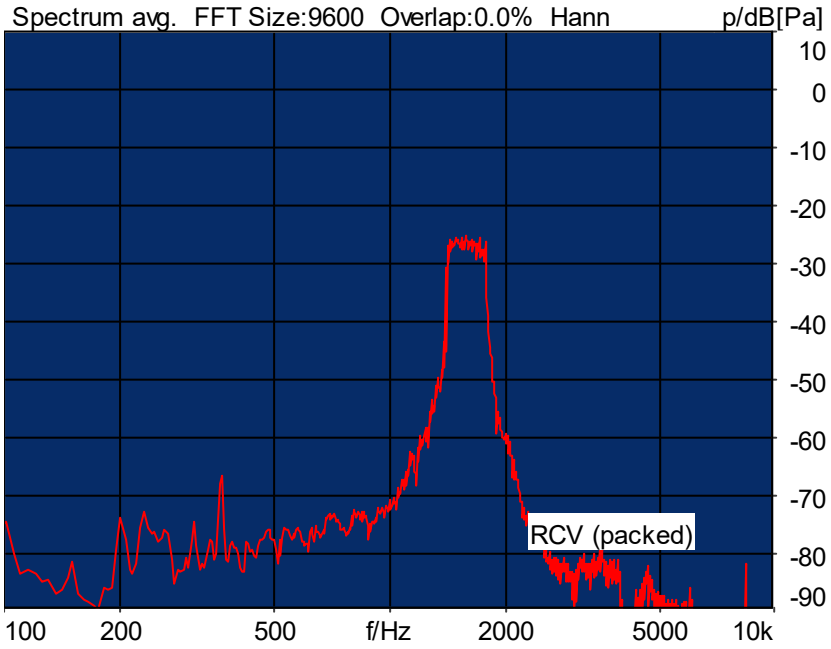
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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



Distortion (Noise) RCV (packed): 25.12 dB (5.55%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1600Hz

Hardware Config Settings

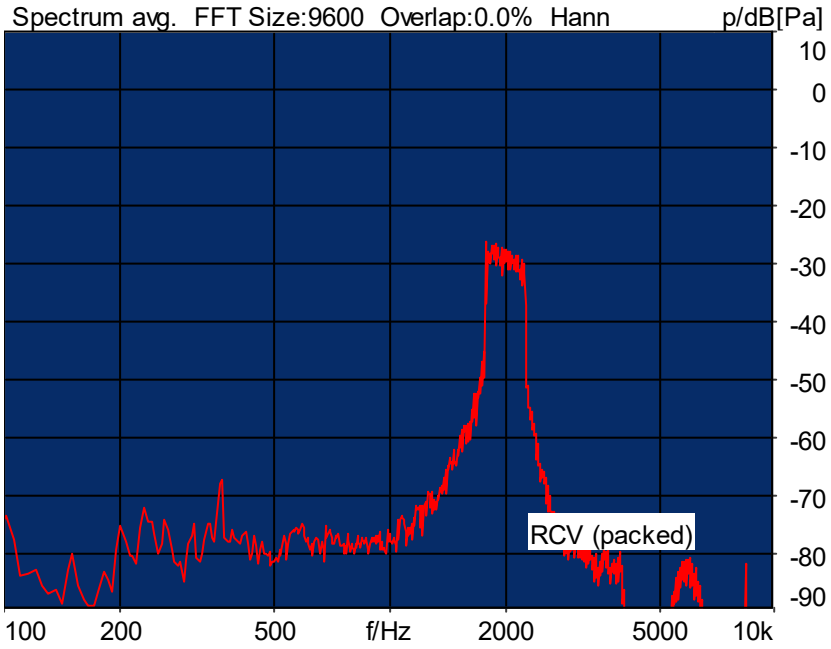
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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



Distortion (Noise) RCV (packed): 25.37 dB (5.39%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_2000Hz

Hardware Config Settings

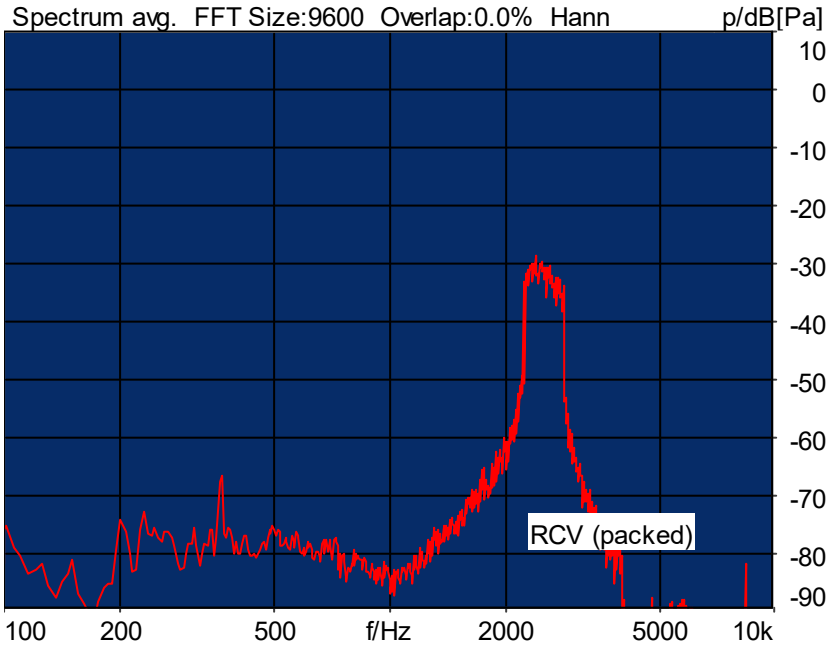
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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



Distortion (Noise) RCV (packed): 25.17 dB (5.52%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_2500Hz

Hardware Config Settings

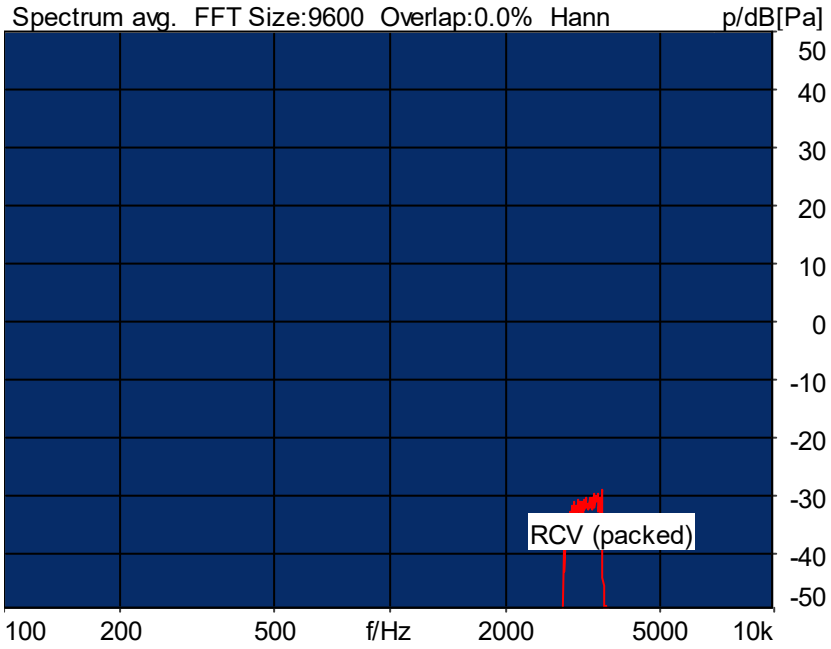
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 21.78 dB (8.14%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_3150Hz

Hardware Config Settings

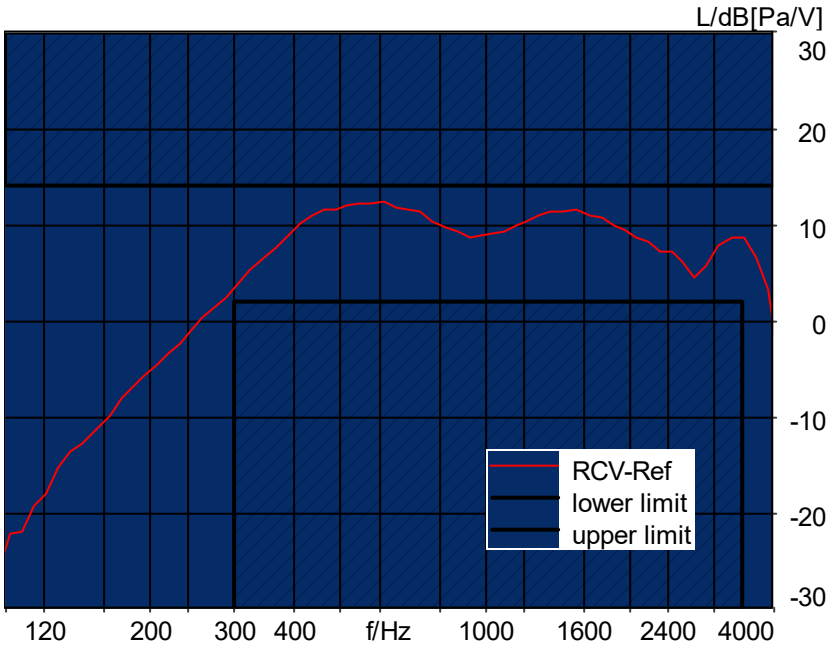
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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



Absolute minimal distance

1.75 dB at 611.7 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(16#)

Measurement Object	BL-SH25C1365-B41

Status Overview

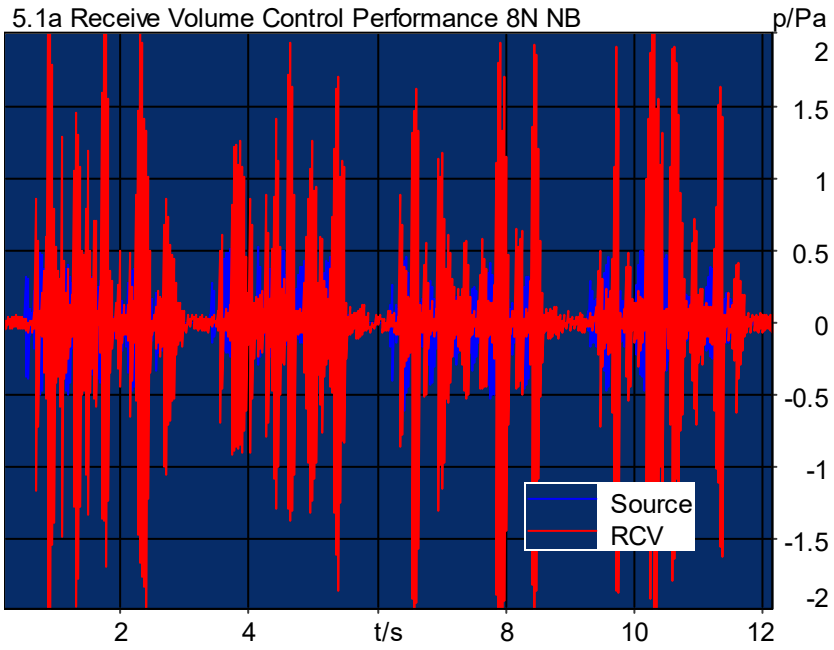
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	83.04	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.00	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.89	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	29.35	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.27	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.63	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	22.07	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.48	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.25	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.79	BL-SH25C1365-B41
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	21.83	BL-SH25C1365-B41
5.3 Frequency Response 8N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 611.7 Hz	1.67	BL-SH25C1365-B41

5.1a Receive Volume Control Performance 8N NB 450
5.2 RCV Distortion and Noise - 400 Hz NB 452
5.2 RCV Distortion and Noise - 500 Hz NB 454
5.2 RCV Distortion and Noise - 630 Hz NB 456
5.2 RCV Distortion and Noise - 800 Hz NB 458
5.2 RCV Distortion and Noise - 1000 Hz NB 460
5.2 RCV Distortion and Noise - 1250 Hz NB 462
5.2 RCV Distortion and Noise - 1600 Hz NB 464
5.2 RCV Distortion and Noise - 2000 Hz NB 466
5.2 RCV Distortion and Noise - 2500 Hz NB 468
5.2 RCV Distortion and Noise - 3150 Hz NB 470
5.3 Frequency Response 8N FF HANB 472

5.1a Receive Volume Control Performance 8N NB

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	83.04 dB[SPL]	80.62%	Ok

Ok

2026/1/8 22:54 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

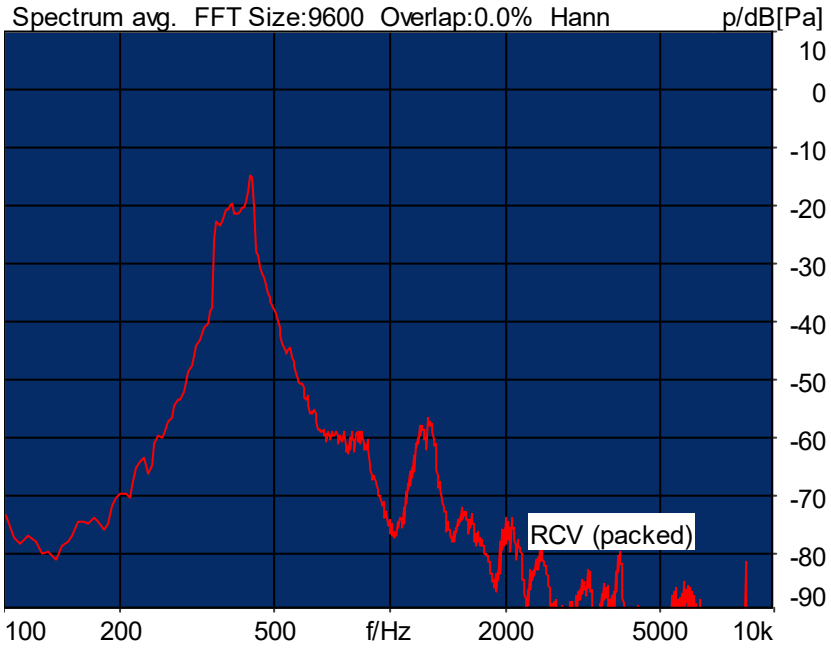
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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



Distortion (Noise) RCV (packed): 24.00 dB (6.31%) Ok

Ok

2026/1/12 23:03 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_400Hz

Hardware Config Settings

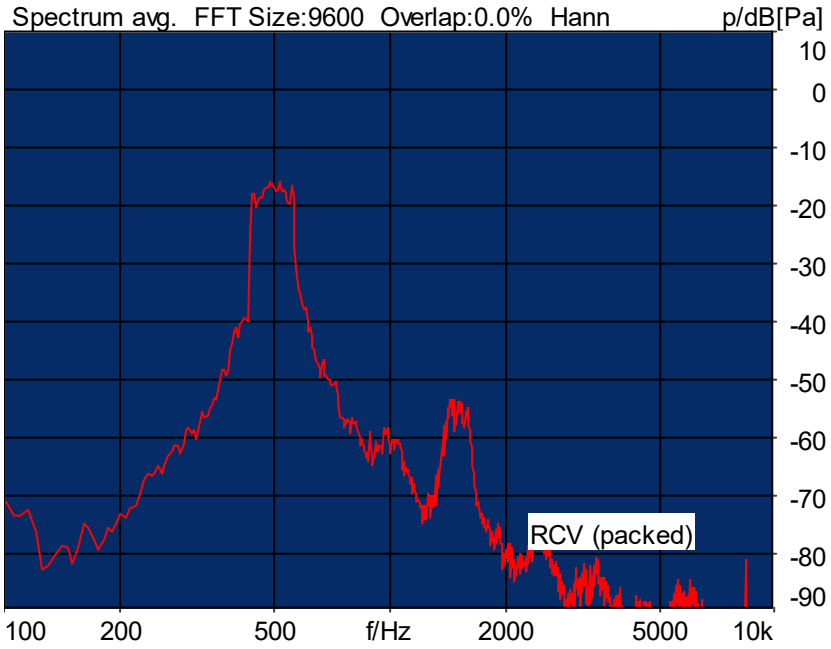
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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



Distortion (Noise) RCV (packed): 26.89 dB (4.53%) Ok

Ok

2026/1/12 23:04 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_500Hz

Hardware Config Settings

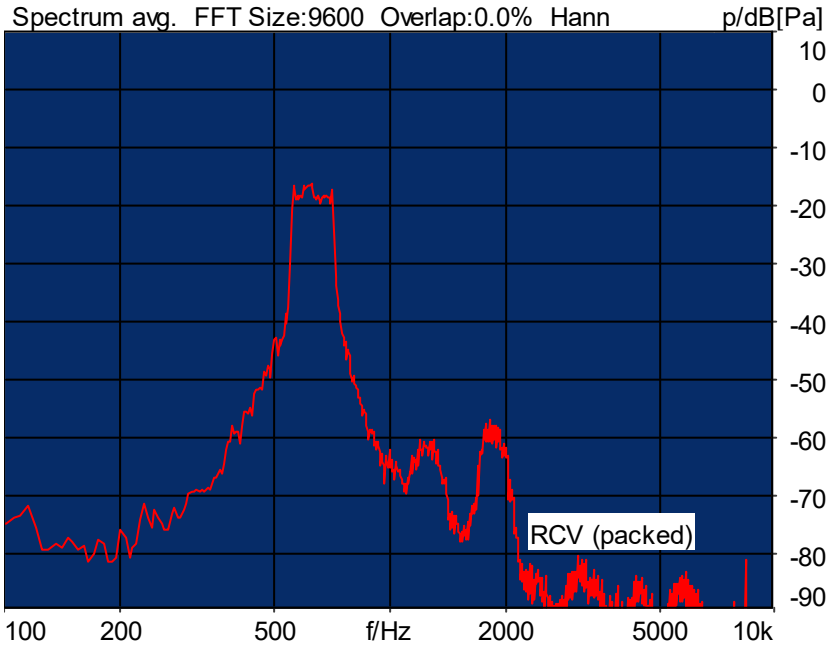
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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



Distortion (Noise) RCV (packed): 29.35 dB (3.41%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_630Hz

Hardware Config Settings

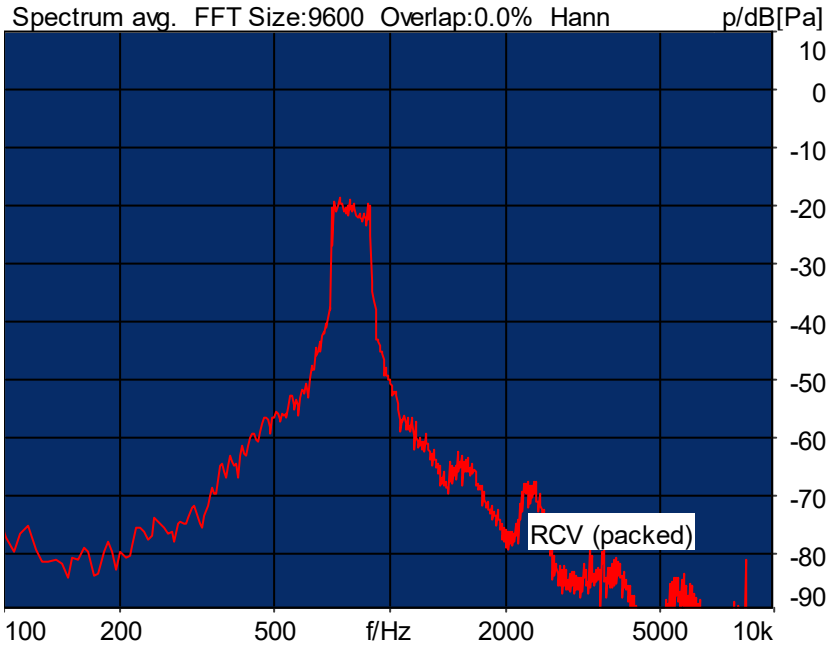
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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



Distortion (Noise) RCV (packed): 26.27 dB (4.86%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_800Hz

Hardware Config Settings

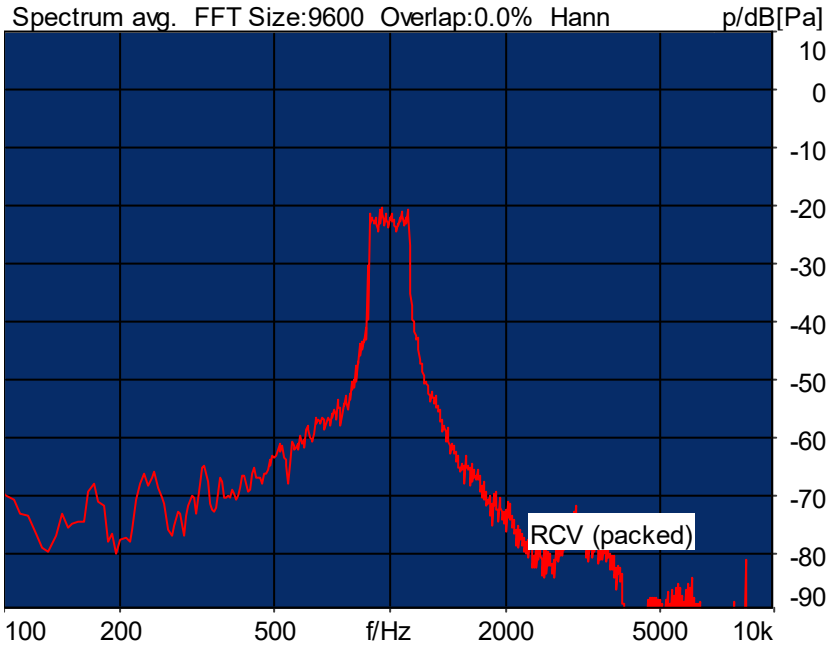
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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



Distortion (Noise) RCV (packed): 24.63 dB (5.87%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1000Hz

Hardware Config Settings

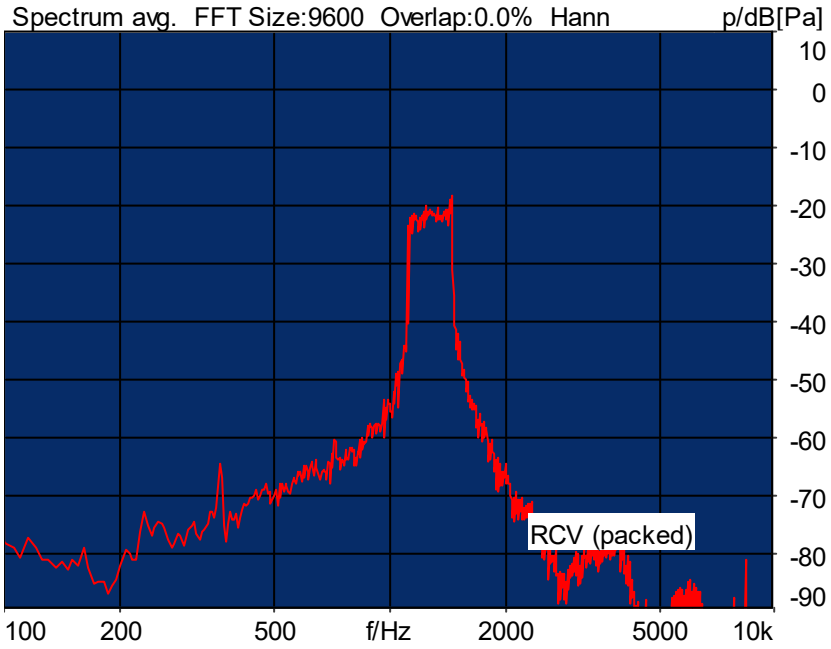
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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



Distortion (Noise) RCV (packed): 22.07 dB (7.88%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1250Hz

Hardware Config Settings

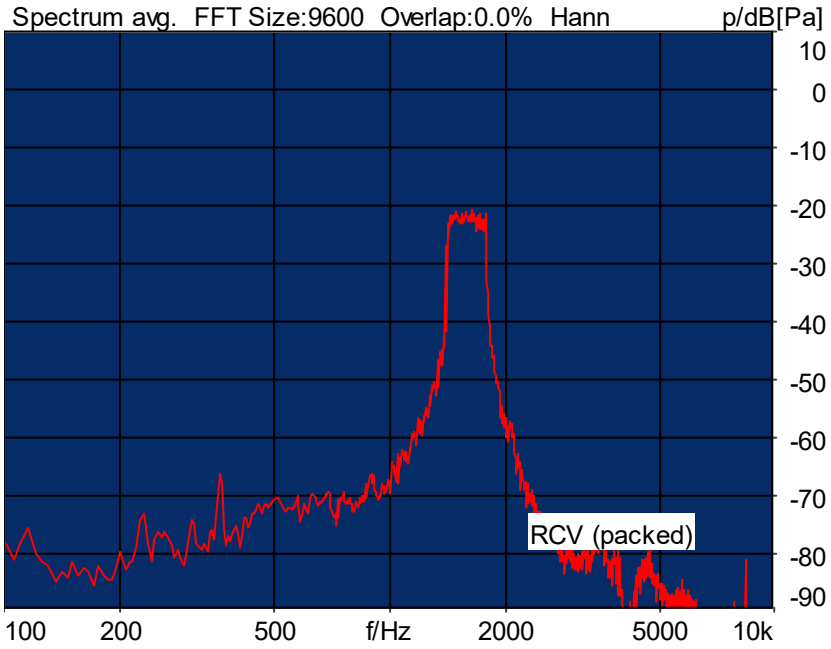
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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



Distortion (Noise) RCV (packed): 26.48 dB (4.74%) Ok

Ok

2026/1/12 23:05 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_1600Hz

Hardware Config Settings

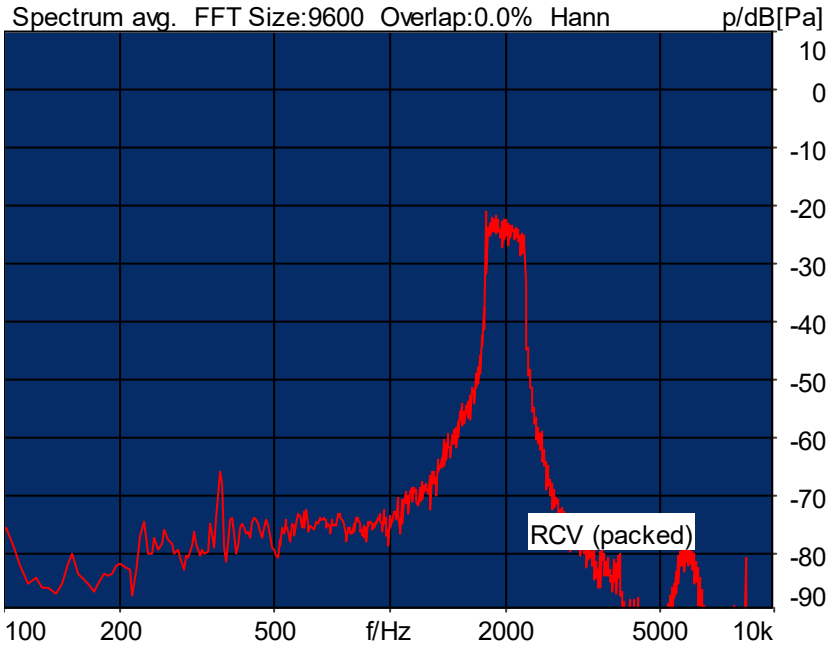
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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



Distortion (Noise) RCV (packed): 26.25 dB (4.87%) Ok

Ok

2026/1/12 23:06 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_2000Hz

Hardware Config Settings

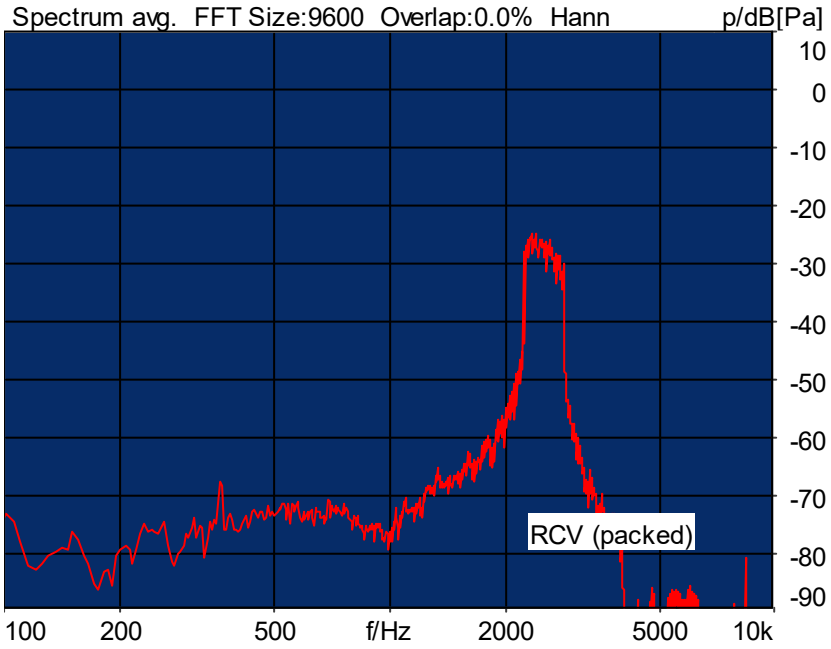
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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



Distortion (Noise) RCV (packed): 24.79 dB (5.76%) Ok

Ok

2026/1/12 23:06 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_2500Hz

Hardware Config Settings

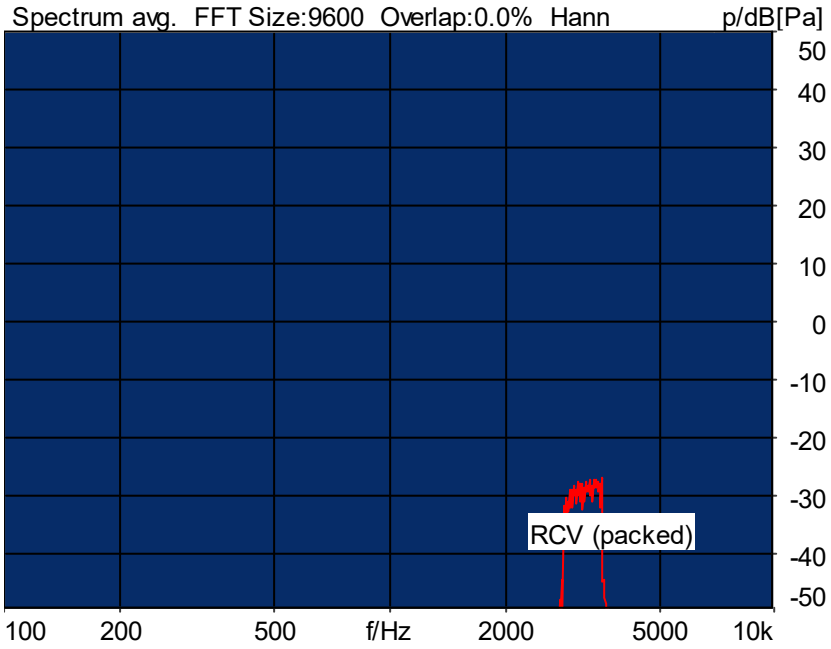
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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



Distortion (Noise) RCV (packed): 21.83 dB (8.10%) Ok

Ok

2026/1/12 23:08 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Store to variable	RCVNB10_3150Hz

Hardware Config Settings

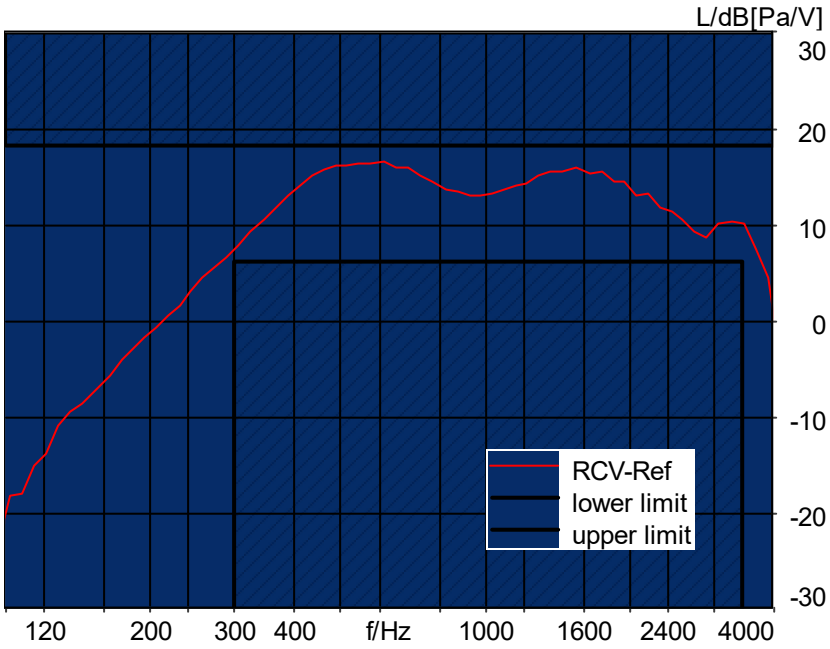
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF HANB

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



Absolute minimal distance

1.67 dB at 611.7 Hz Ok

Ok

2026/1/12 23:08 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(17#)

Measurement Object	BL-SH25C1365-WIFI2.4g

Status Overview

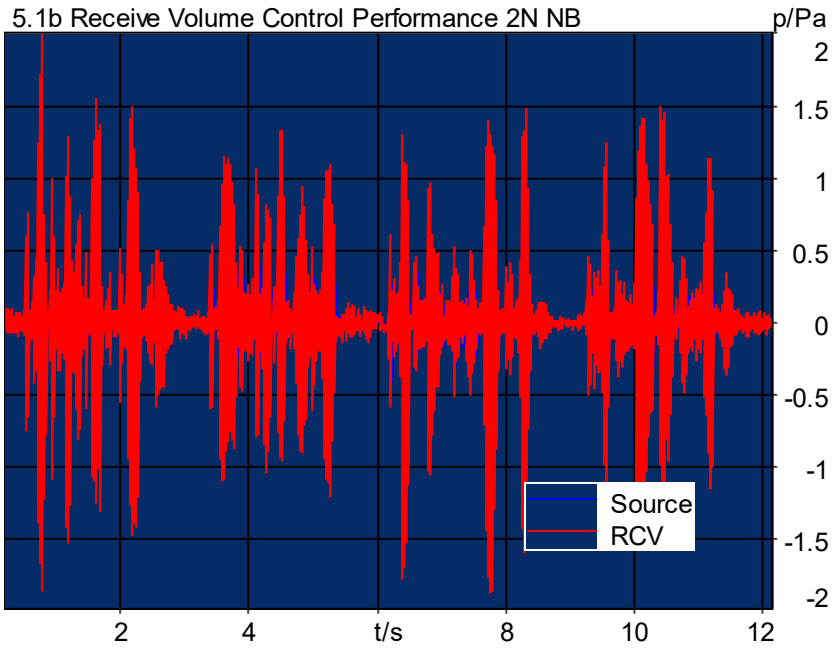
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	80.34	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	23.60	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.05	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.08	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.94	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	34.84	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.35	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.36	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	34.41	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	27.38	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.33	BL-SH25C1365-WIFI2.4g
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 649.1 Hz	0.69	BL-SH25C1365-WIFI2.4g

5.1b Receive Volume Control Performance 2N NB 476
5.2 RCV Distortion and Noise - 400 Hz NB 478
5.2 RCV Distortion and Noise - 500 Hz NB 480
5.2 RCV Distortion and Noise - 630 Hz NB 482
5.2 RCV Distortion and Noise - 800 Hz NB 484
5.2 RCV Distortion and Noise - 1000 Hz NB 486
5.2 RCV Distortion and Noise - 1250 Hz NB 488
5.2 RCV Distortion and Noise - 1600 Hz NB 490
5.2 RCV Distortion and Noise - 2000 Hz NB 492
5.2 RCV Distortion and Noise - 2500 Hz NB 494
5.2 RCV Distortion and Noise - 3150 Hz NB 496
5.3 Frequency Response 2N FF HANB 498

5.1b Receive Volume Control Performance 2N NB

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EVS-NB-13.2



Channel	Speech level	Activity	
RCV	80.34 dB[SPL]	80.58%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

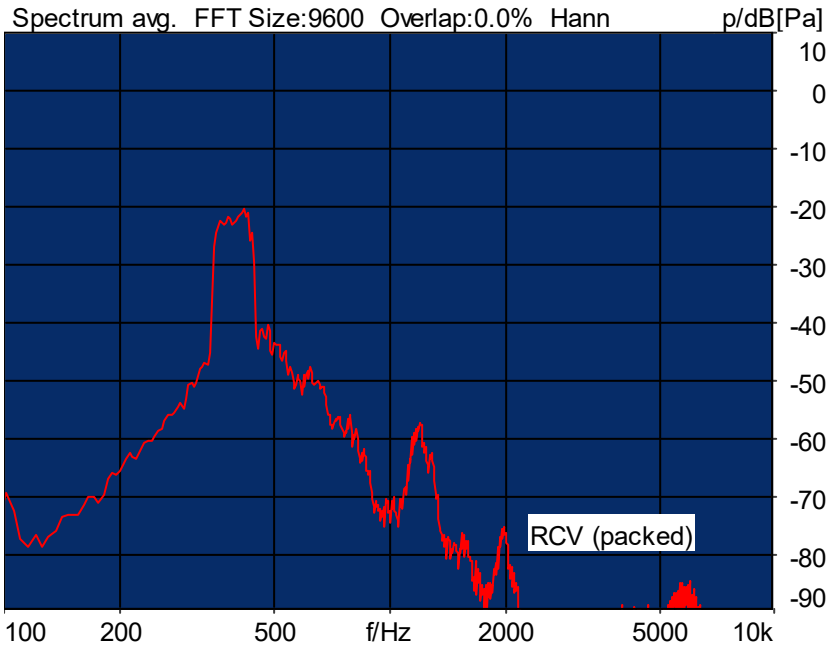
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 23.60 dB (6.61%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

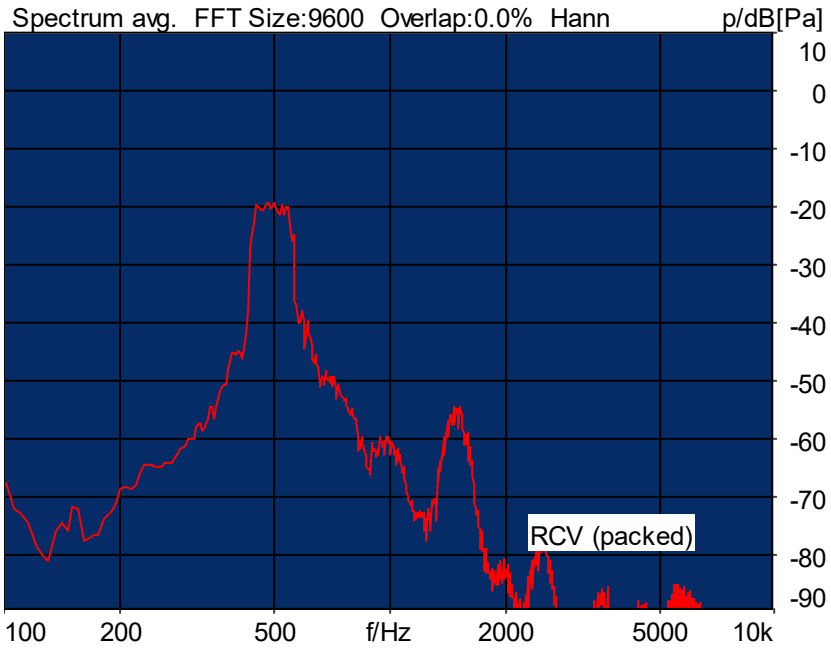
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.05 dB (5.59%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

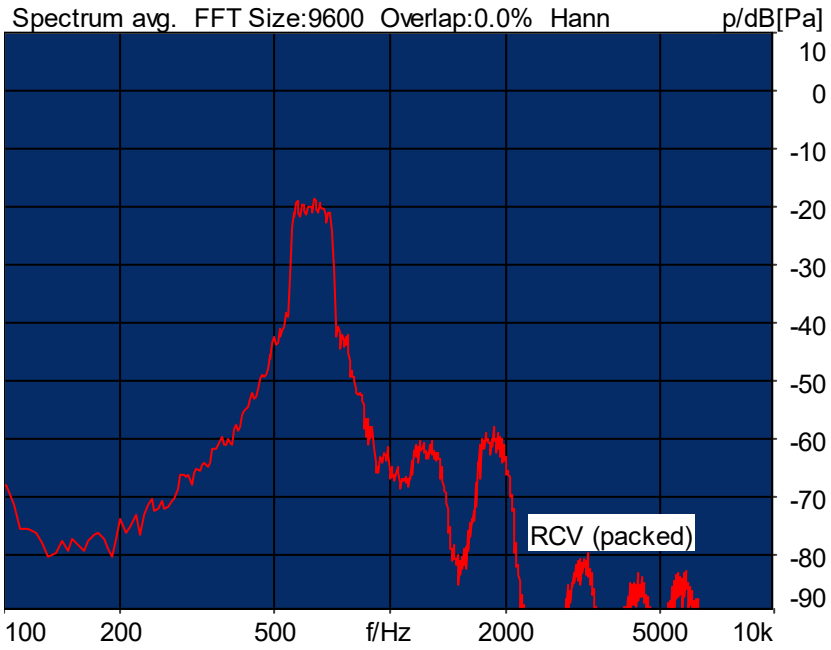
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.08 dB (4.96%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

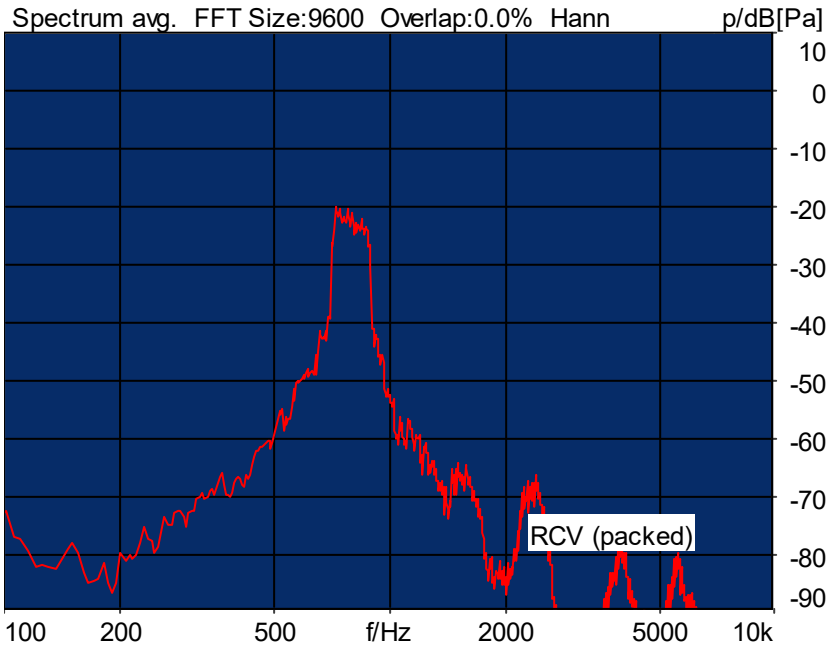
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 24.94 dB (5.66%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

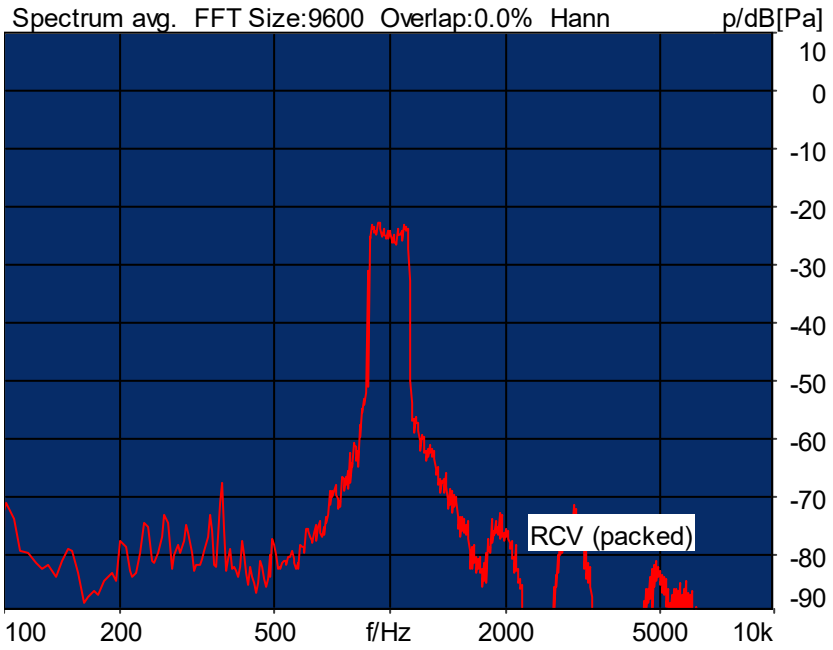
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 34.84 dB (1.81%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

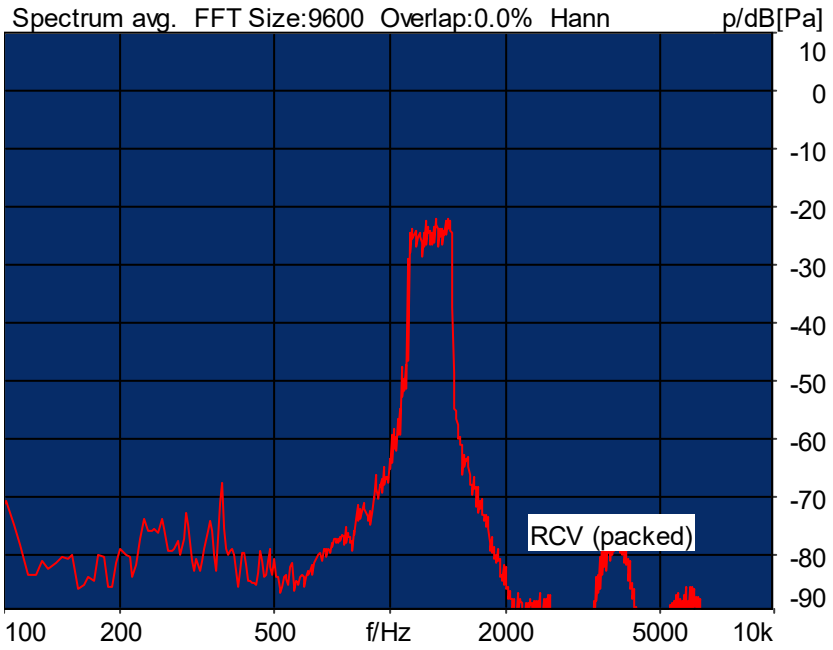
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.35 dB (3.82%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

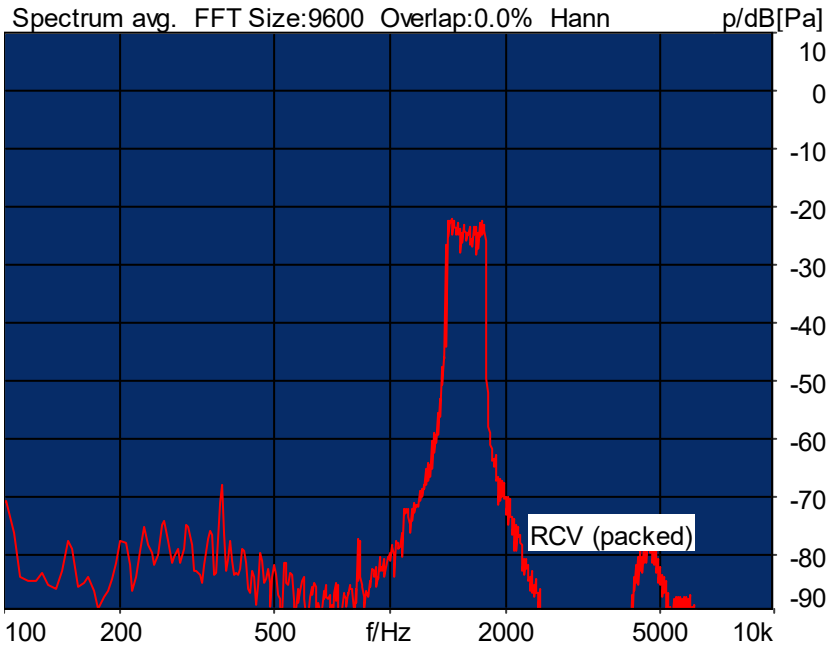
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

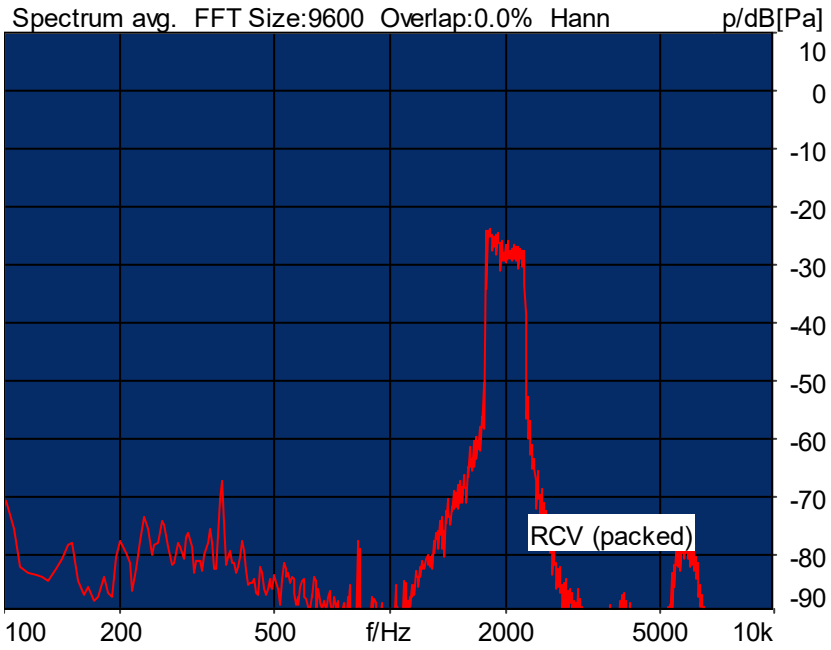
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB

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

EVS-NB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

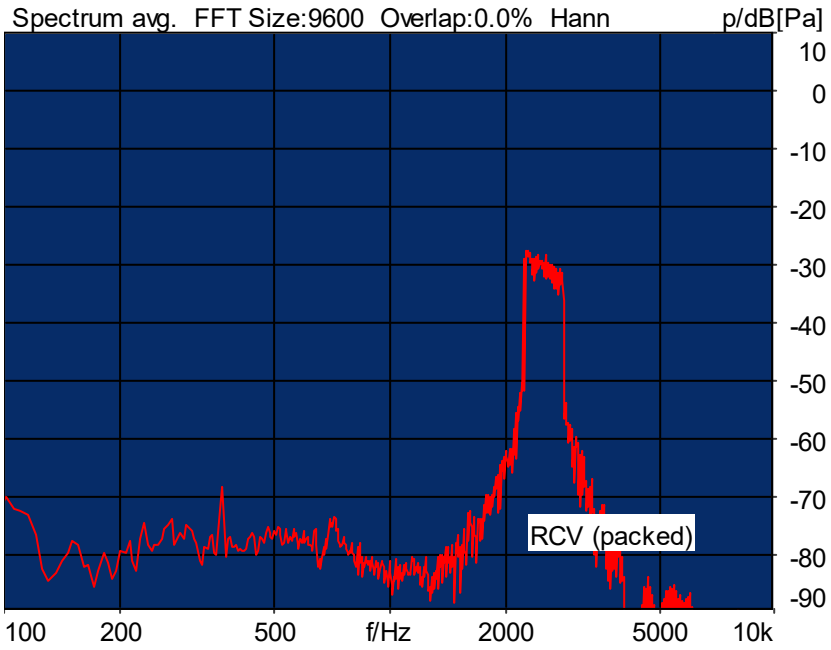
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 27.38 dB (4.28%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

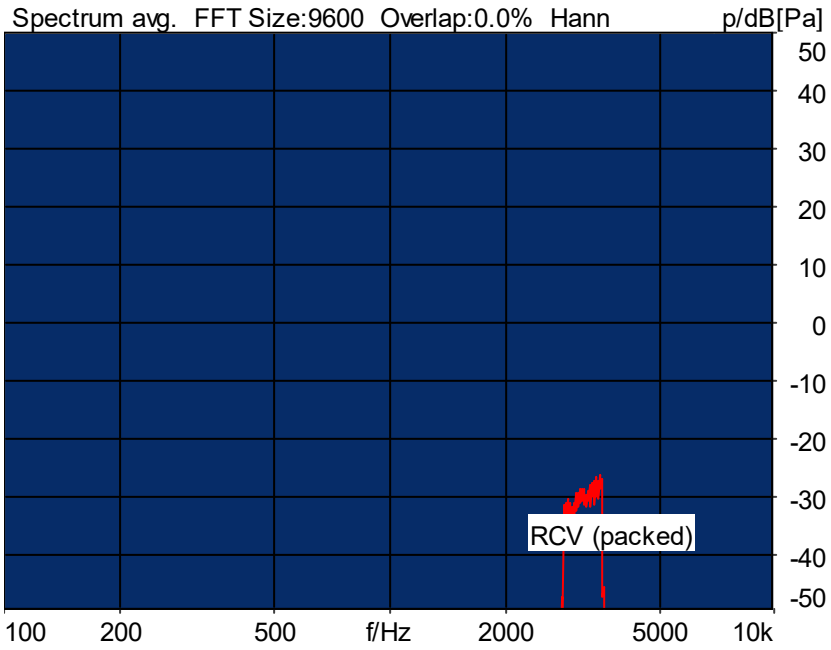
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.33 dB (3.04%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

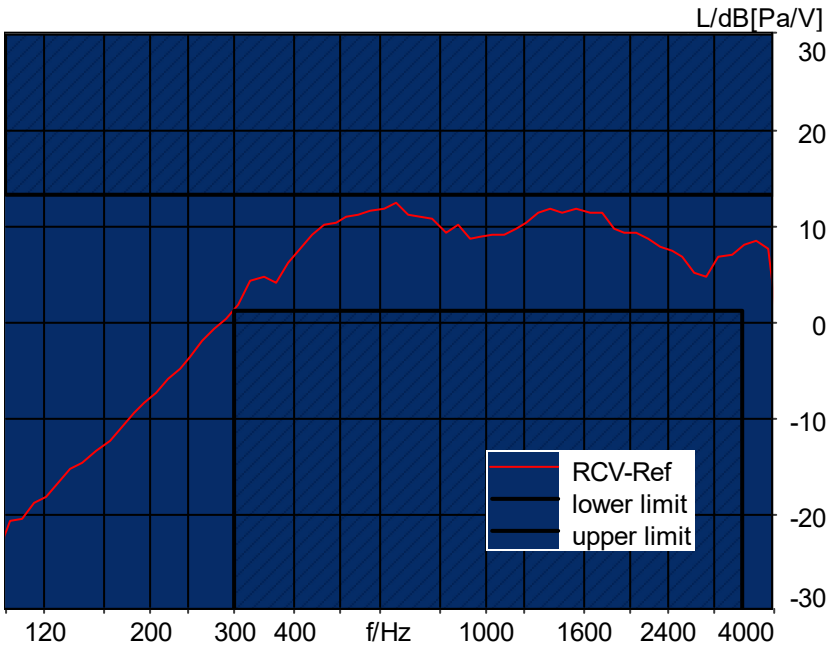
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB

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

EVS-NB-13.2



Absolute minimal distance

0.69 dB at 649.1 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	134.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(18#)

Measurement Object	BL-SH25C1365-WIFI2.4g

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	84.52	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.94	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.87	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.81	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.21	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.63	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.35	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.00	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	26.93	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.12	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	38.06	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.23	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.59	BL-SH25C1365-WIFI2.4g
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.91	BL-SH25C1365-WIFI2.4g

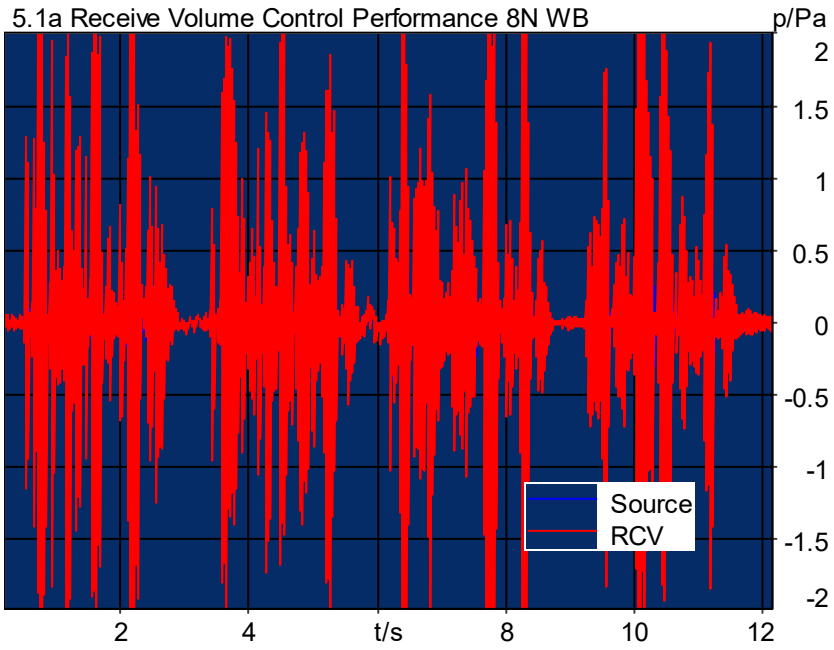
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.76	BL-SH25C1365-WIFI2.4g
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 2883.7 Hz	1.71	BL-SH25C1365-WIFI2.4g

5.1a Receive Volume Control Performance 8N WB 504
5.2 RCV Distortion and Noise - 250 Hz WB 506
5.2 RCV Distortion and Noise - 315 Hz WB 508
5.2 RCV Distortion and Noise - 400 Hz WB 510
5.2 RCV Distortion and Noise - 500 Hz WB 512
5.2 RCV Distortion and Noise - 630 Hz WB 514
5.2 RCV Distortion and Noise - 800 Hz WB 516
5.2 RCV Distortion and Noise - 1000 Hz WB 518
5.2 RCV Distortion and Noise - 1250 Hz WB 520
5.2 RCV Distortion and Noise - 1600 Hz WB 522
5.2 RCV Distortion and Noise - 2000 Hz WB 524
5.2 RCV Distortion and Noise - 2500 Hz WB 526
5.2 RCV Distortion and Noise - 3150 Hz WB 528
5.2 RCV Distortion and Noise - 4000 Hz WB 530
5.2 RCV Distortion and Noise - 5000 Hz WB 532
5.3 Frequency Response 8N FF 534

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-13.2



Channel	Speech level	Activity	
RCV	84.52 dB[SPL]	84.05%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

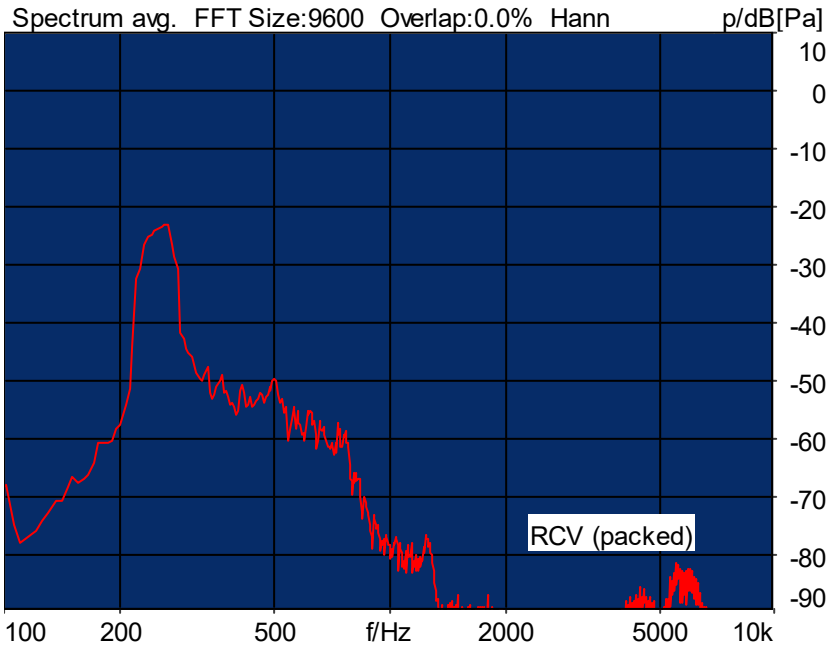
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 23.94 dB (6.35%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_250Hz

Hardware Config Settings

Used Setting	TIA5050

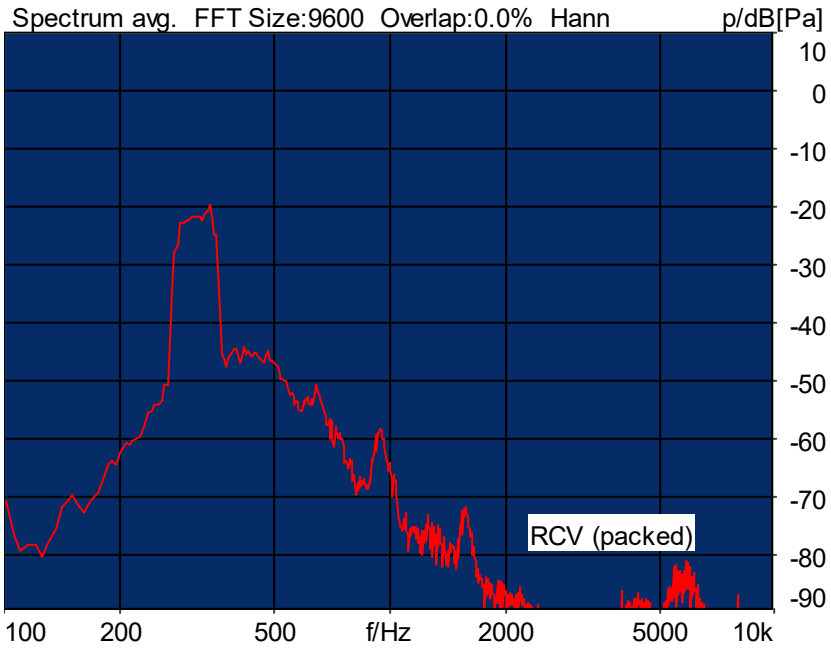
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 23.87 dB (6.40%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_315Hz

Hardware Config Settings

Used Setting	TIA5050

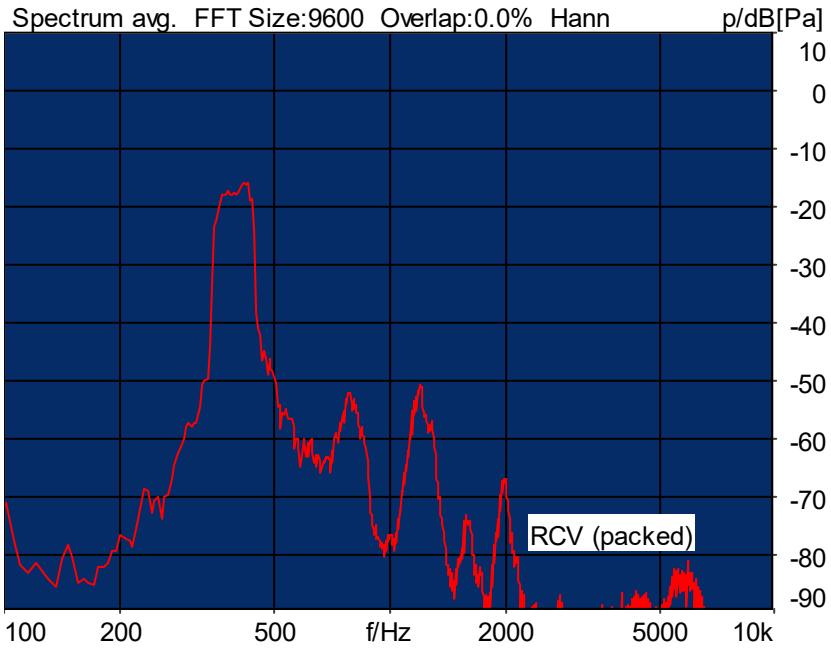
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.81 dB (2.88%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

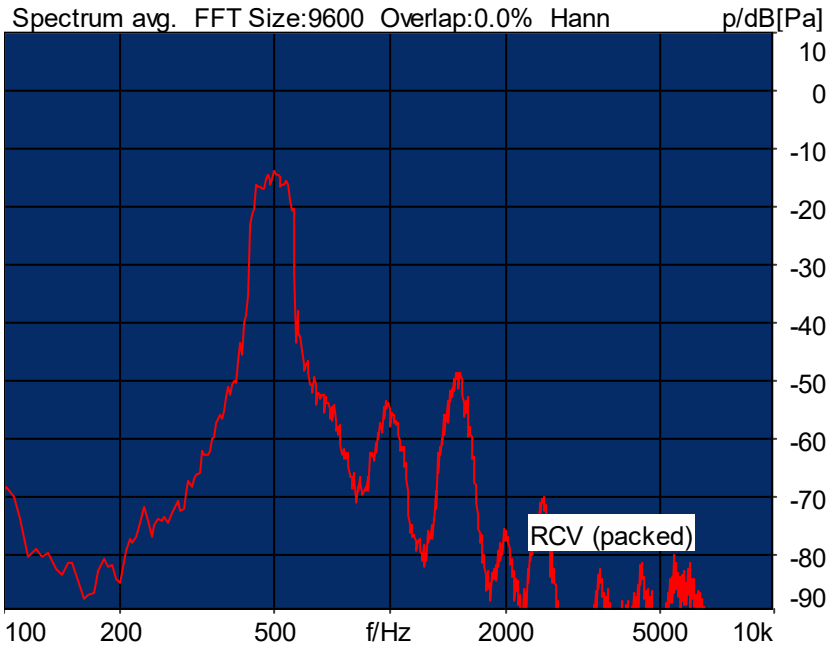
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.21 dB (3.09%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

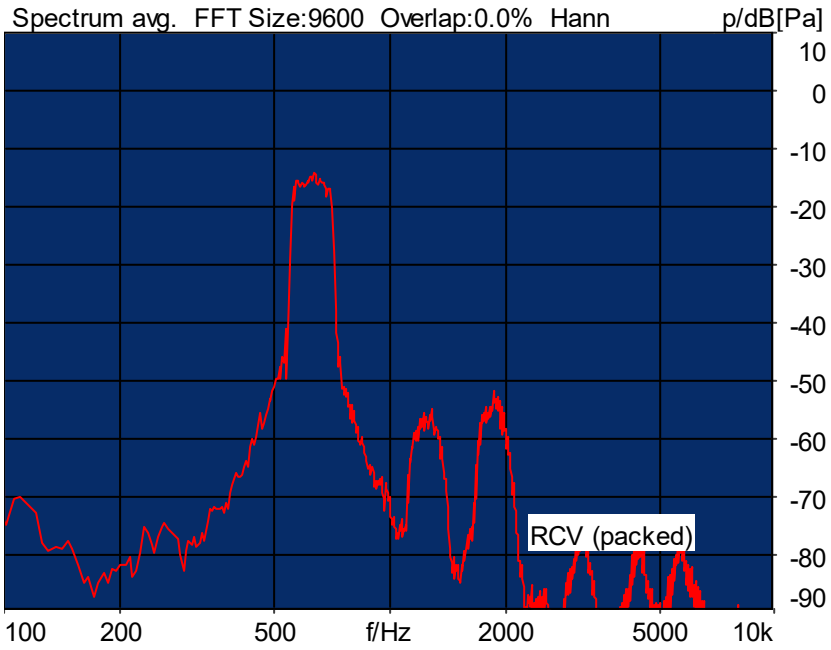
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 32.63 dB (2.34%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

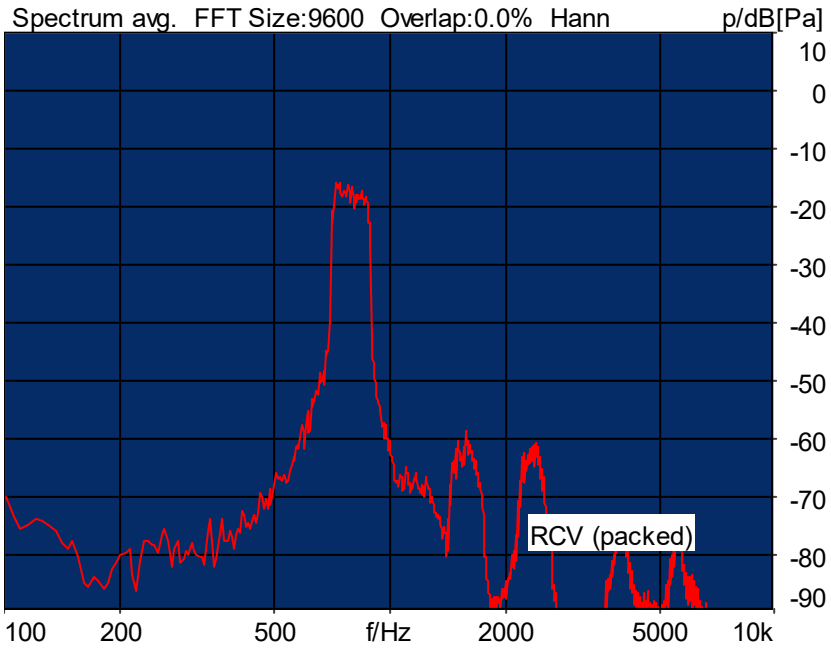
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 35.35 dB (1.71%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

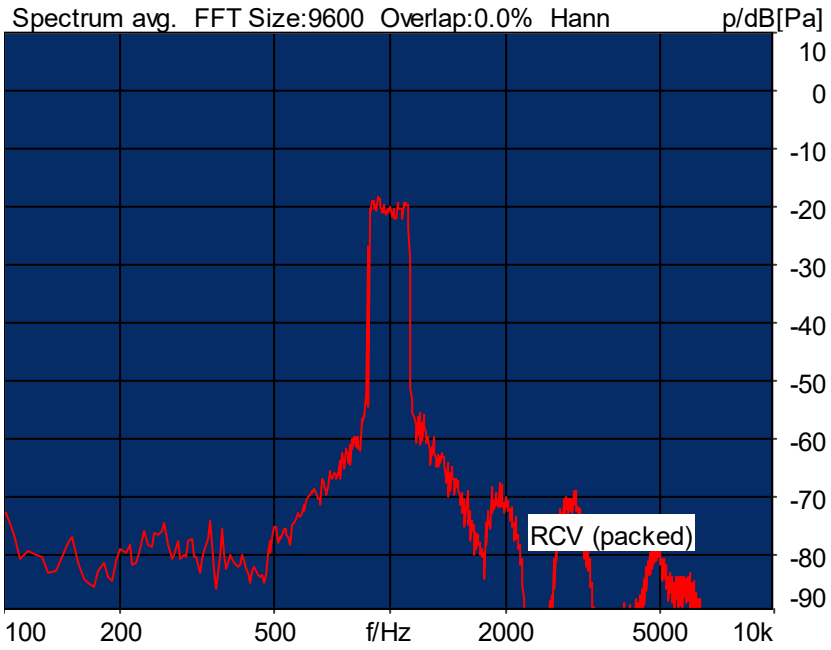
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 37.00 dB (1.41%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

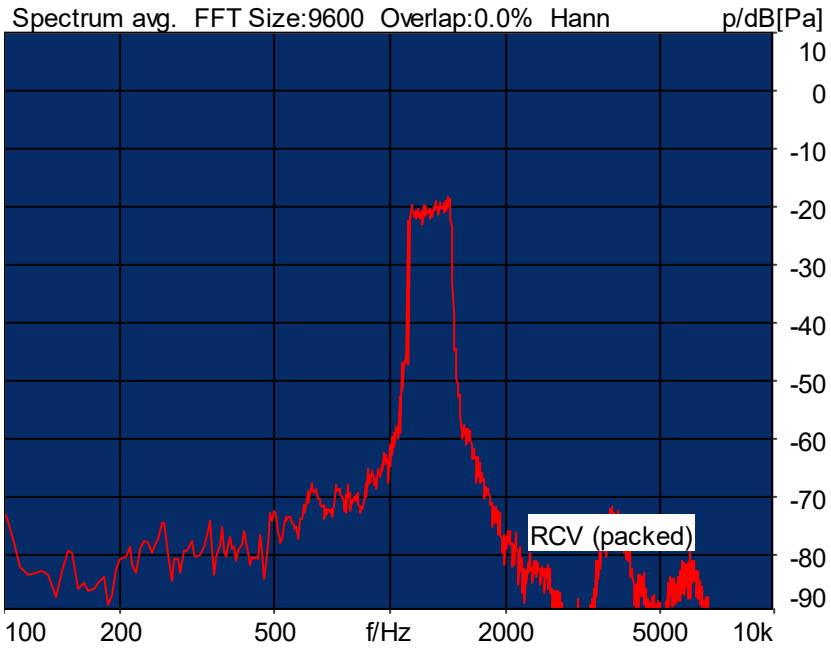
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 26.93 dB (4.50%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

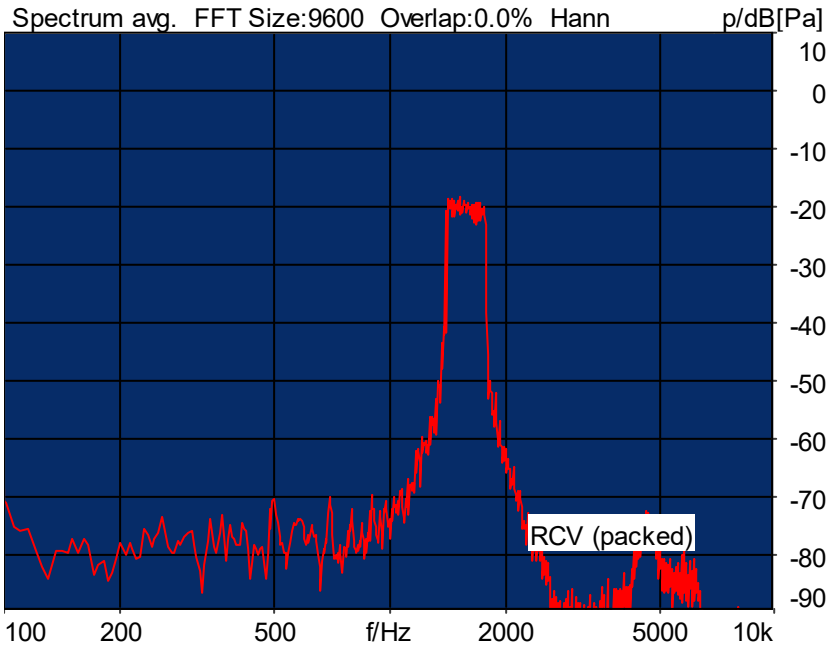
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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

EVS-WB-13.2



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

Ok

2026/1/13 19:50 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

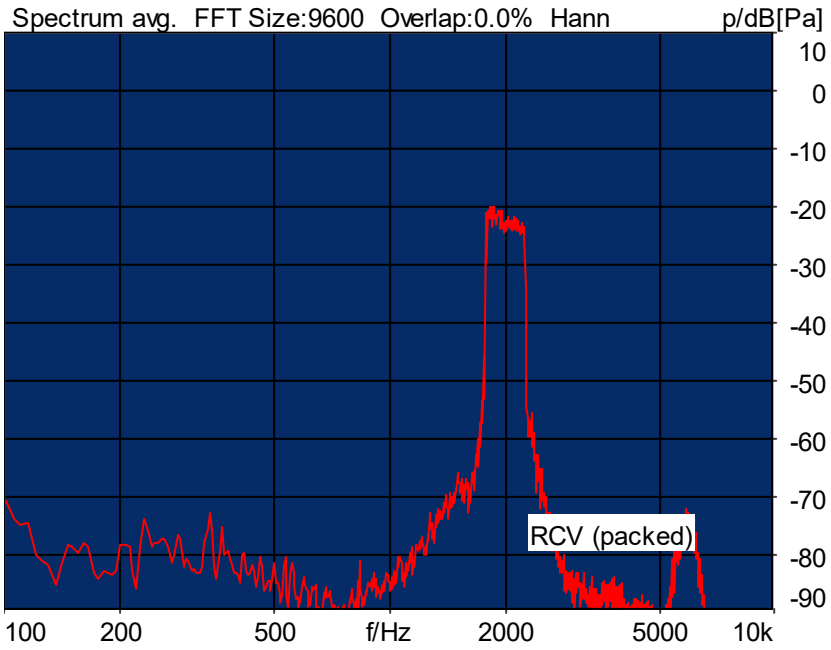
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 38.06 dB (1.25%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

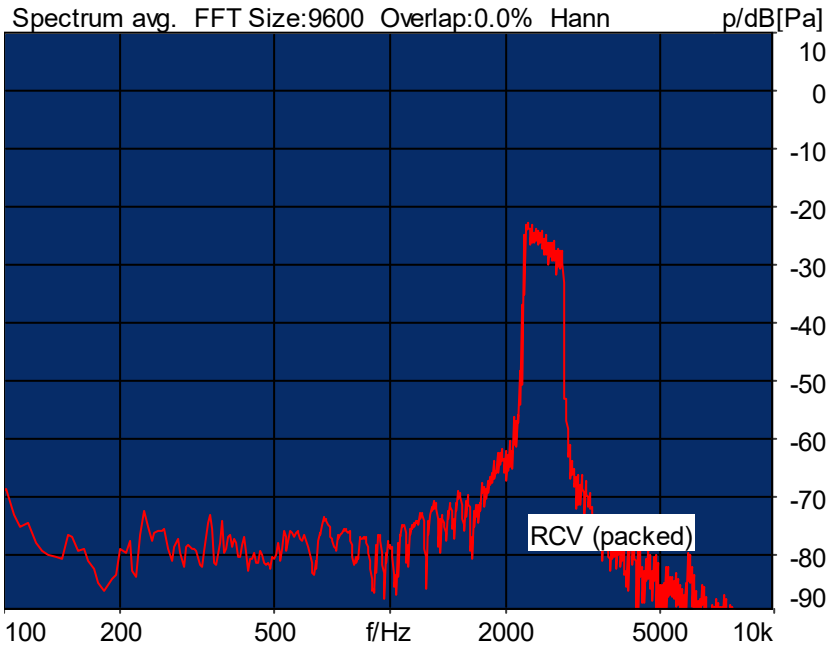
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 31.23 dB (2.74%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

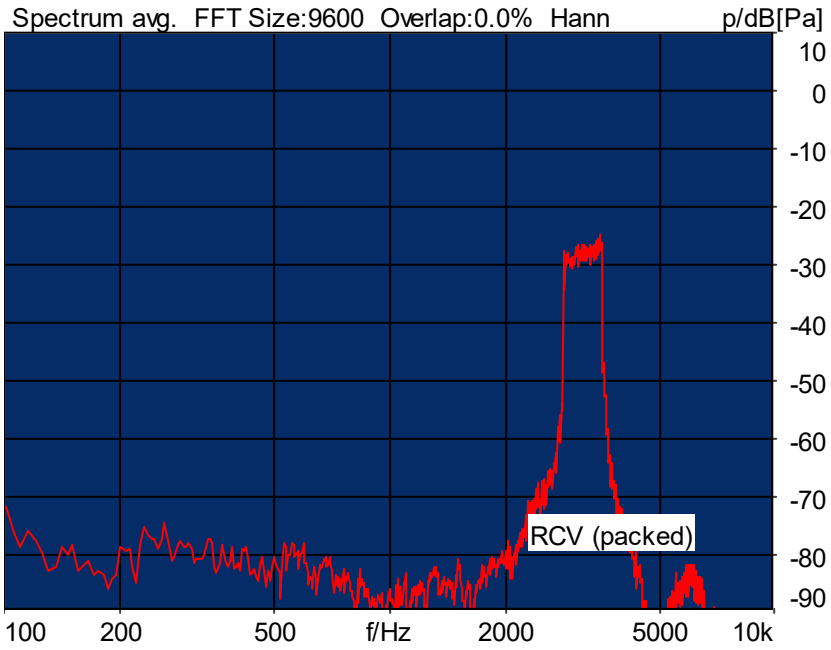
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 31.59 dB (2.63%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

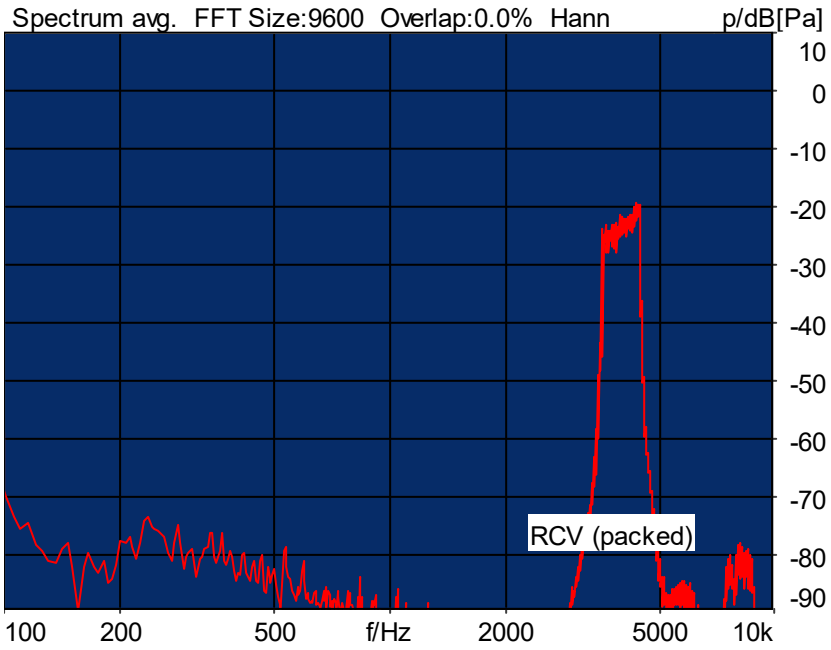
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 31.91 dB (2.54%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_4000Hz

Hardware Config Settings

Used Setting	TIA5050

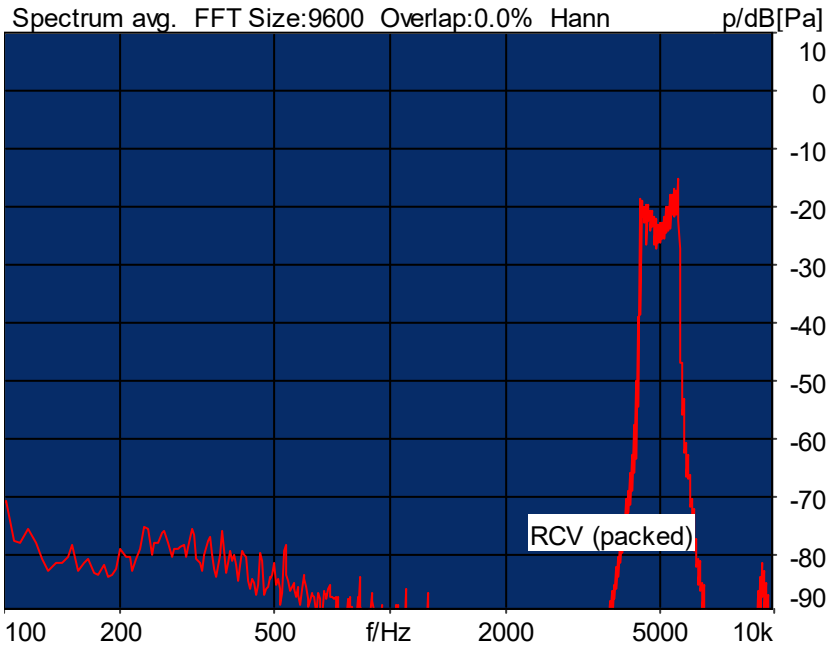
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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

EVS-WB-13.2



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

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_5000Hz

Hardware Config Settings

Used Setting	TIA5050

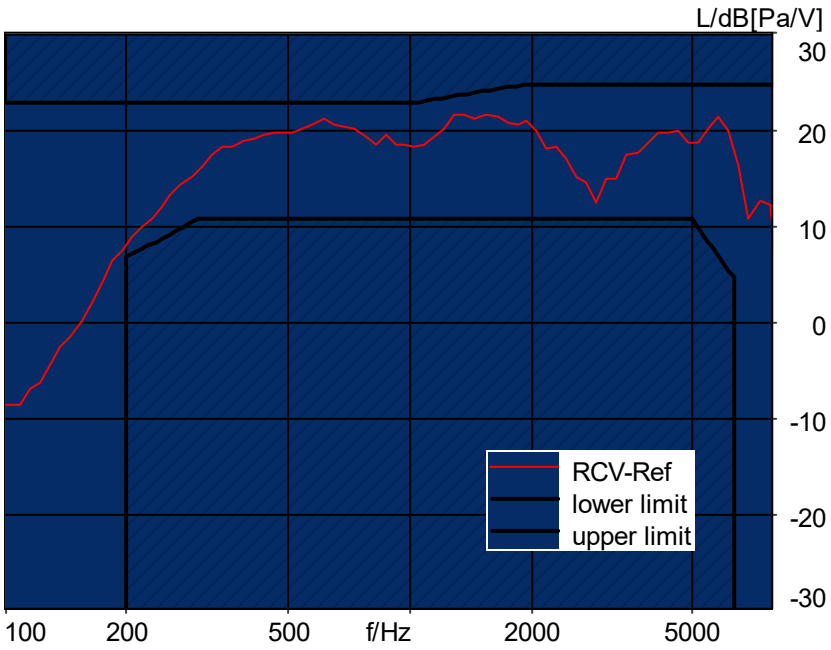
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF

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

EVS-WB-13.2



Absolute minimal distance

1.71 dB at 2883.7 Hz Ok

Ok

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Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	141.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(19#)

Measurement Object	BL-SH25C1365-WIFI5.2G

Status Overview

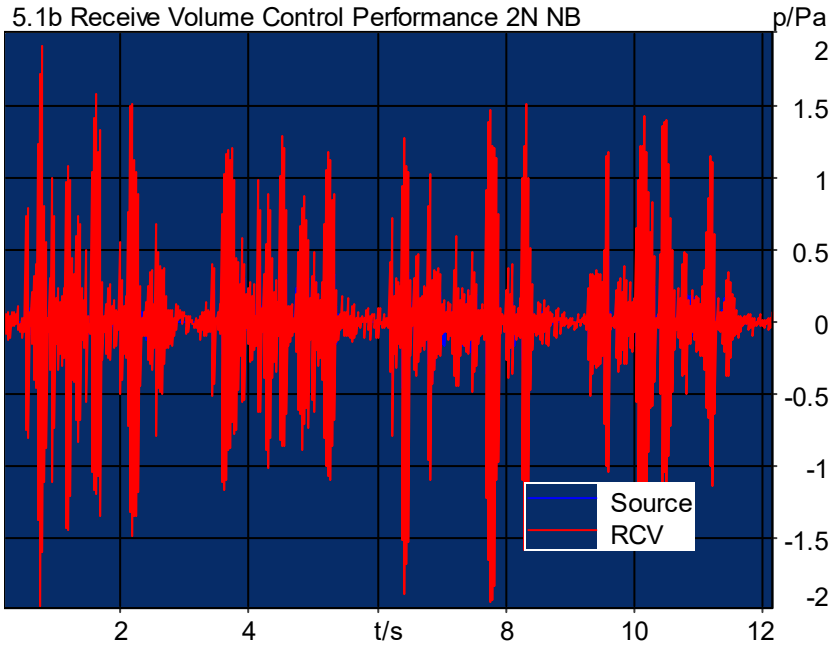
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	80.27	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 400 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	24.25	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.01	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 630 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	25.60	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 800 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.50	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 1000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	33.52	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 1250 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	28.71	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 1600 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	35.36	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 2000 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	33.46	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 2500 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	30.84	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 3150 Hz NB	Ok	Distortion (Noise) [dB], 0.0 dB	26.97	BL-SH25C1365-WIFI5.2G
5.3 Frequency Response 2N FF HANB	Ok	Min. dist. to tolerance scheme [dB], 1547.5 Hz	0.56	BL-SH25C1365-WIFI5.2G

5.1 Receive Volume Control Performance 2N NB (BL-SH25C1365-WIFI5.2G) 539
5.2 RCV Distortion and Noise - 400 Hz NB (BL-SH25C1365-WIFI5.2G) 541
5.2 RCV Distortion and Noise - 500 Hz NB (BL-SH25C1365-WIFI5.2G) 543
5.2 RCV Distortion and Noise - 630 Hz NB (BL-SH25C1365-WIFI5.2G) 545
5.2 RCV Distortion and Noise - 800 Hz NB (BL-SH25C1365-WIFI5.2G) 547
5.2 RCV Distortion and Noise - 1000 Hz NB (BL-SH25C1365-WIFI5.2G) 549
5.2 RCV Distortion and Noise - 1250 Hz NB (BL-SH25C1365-WIFI5.2G) 551
5.2 RCV Distortion and Noise - 1600 Hz NB (BL-SH25C1365-WIFI5.2G) 553
5.2 RCV Distortion and Noise - 2000 Hz NB (BL-SH25C1365-WIFI5.2G) 555
5.2 RCV Distortion and Noise - 2500 Hz NB (BL-SH25C1365-WIFI5.2G) 557
5.2 RCV Distortion and Noise - 3150 Hz NB (BL-SH25C1365-WIFI5.2G) 559
5.3 Frequency Response 2N FF HANB (BL-SH25C1365-WIFI5.2G) 561

5.1b Receive Volume Control Performance 2N NB (BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	80.27 dB[SPL]	80.57%	Ok

Ok

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Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

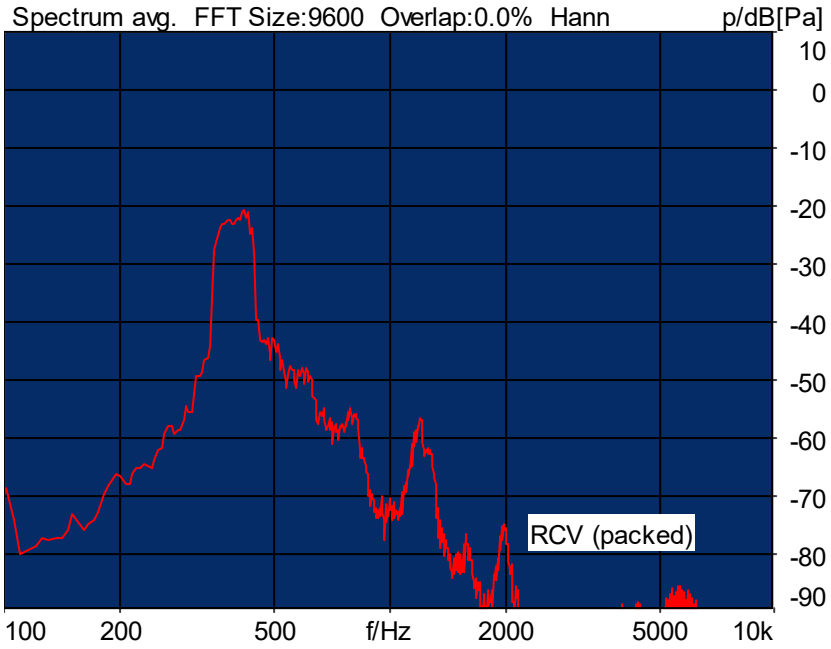
Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz NB

(BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 24.25 dB (6.13%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_400Hz

Hardware Config Settings

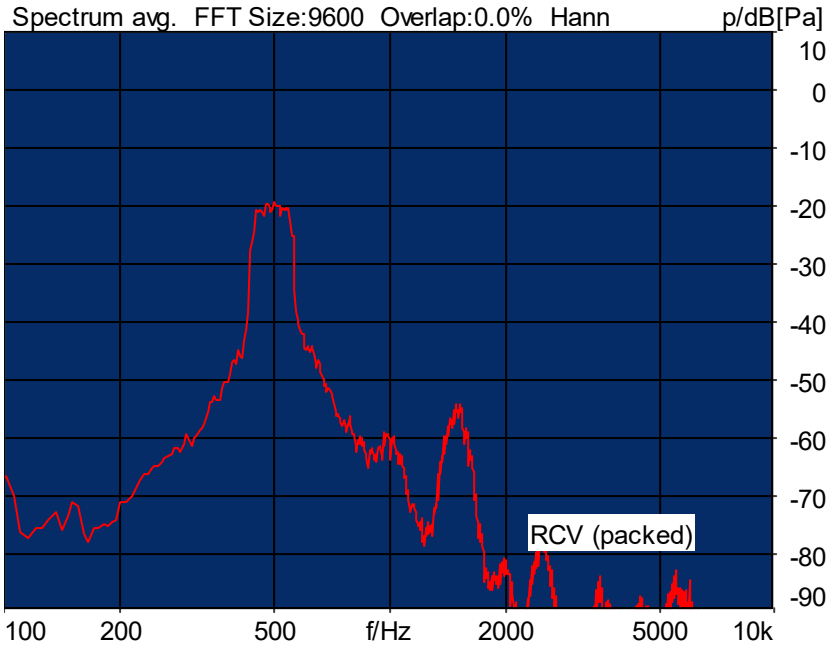
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz NB (BL-SH25C1365-WIFI5.2G)

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.01 dB (5.01%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

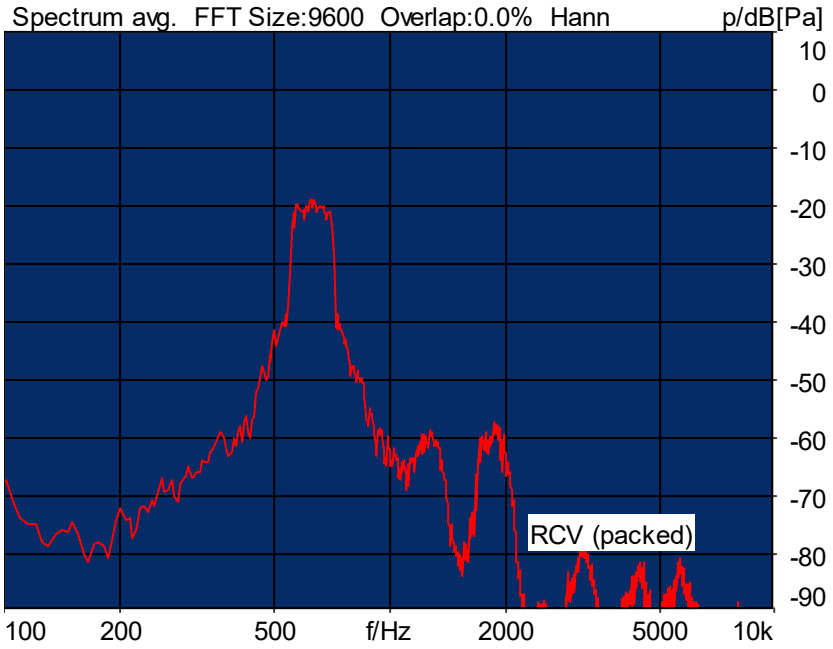
Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz NB

(BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 25.60 dB (5.25%) Ok

Ok

2026/1/15 9:08 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

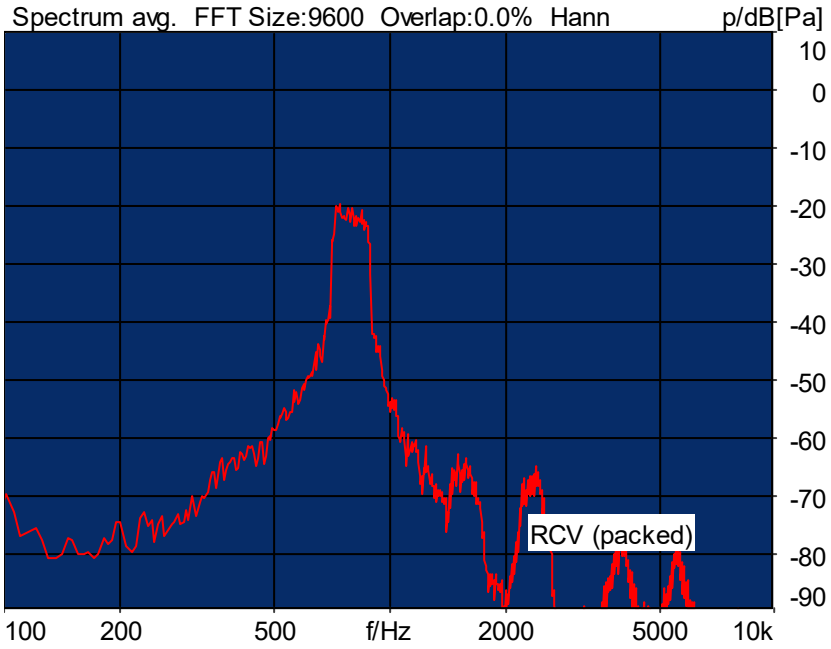
Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz NB

(BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.50 dB (4.73%) Ok

Ok

2026/1/15 9:09 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_800Hz

Hardware Config Settings

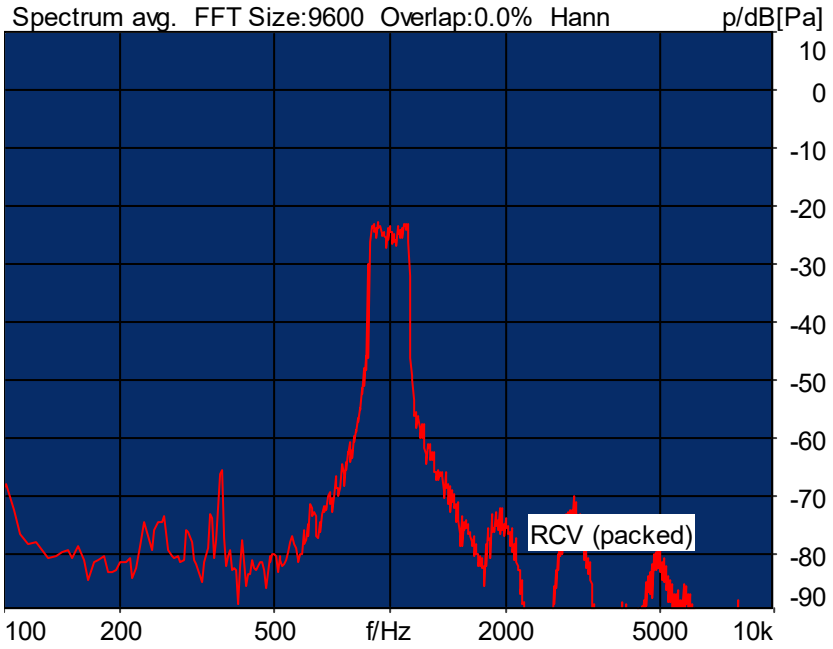
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz NB (BL-SH25C1365-WIFI5.2G)

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N EVS-NB-13.2



Distortion (Noise) RCV (packed): 33.52 dB (2.11%) Ok

Ok

2026/1/15 9:09 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1000Hz

Hardware Config Settings

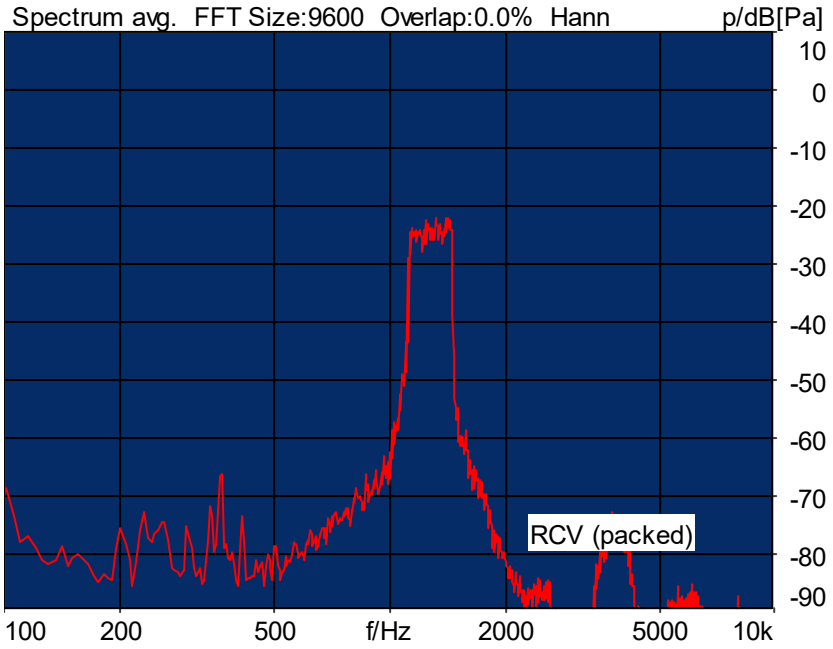
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz NB (BL-SH25C1365-WIFI5.2G)

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N EVS-NB-13.2



Distortion (Noise) RCV (packed): 28.71 dB (3.67%) Ok

Ok

2026/1/15 9:09 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1250Hz

Hardware Config Settings

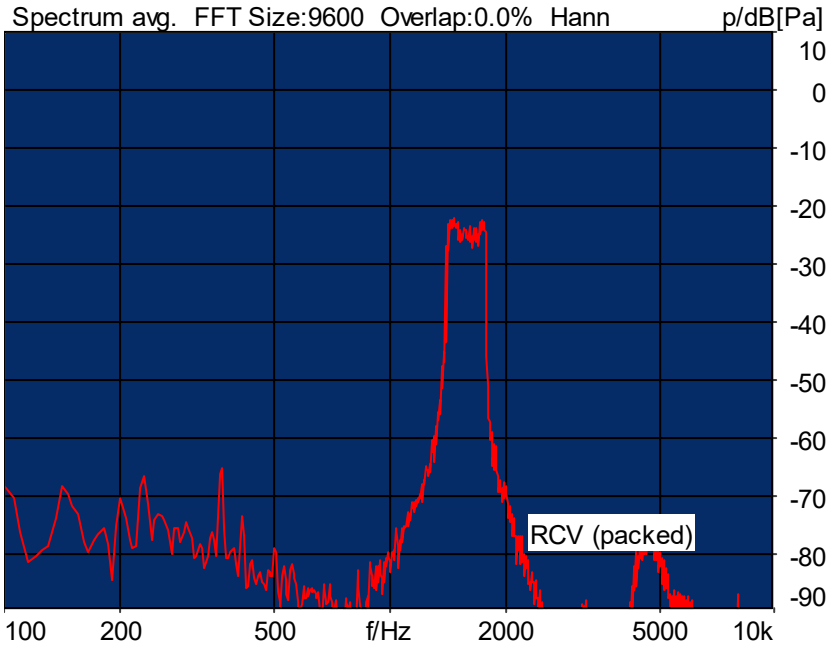
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz NB (BL-SH25C1365-WIFI5.2G)

TIA-5050 (2018-01) \ Measurements \ Narrowband \ 5.2 Receive Distortion and Noise 2N EVS-NB-13.2



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

Ok

2026/1/15 9:10 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

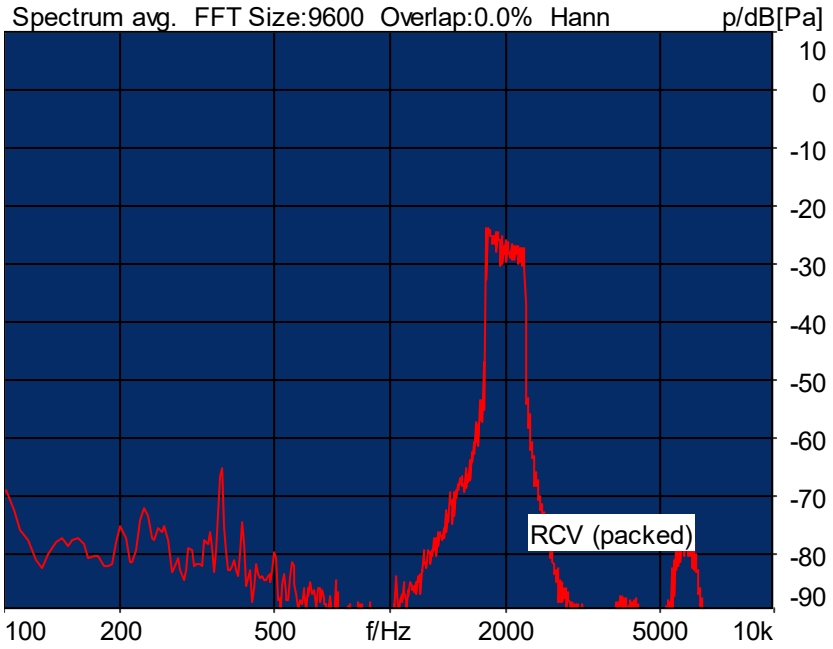
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz NB (BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



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

Ok

2026/1/15 9:10 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

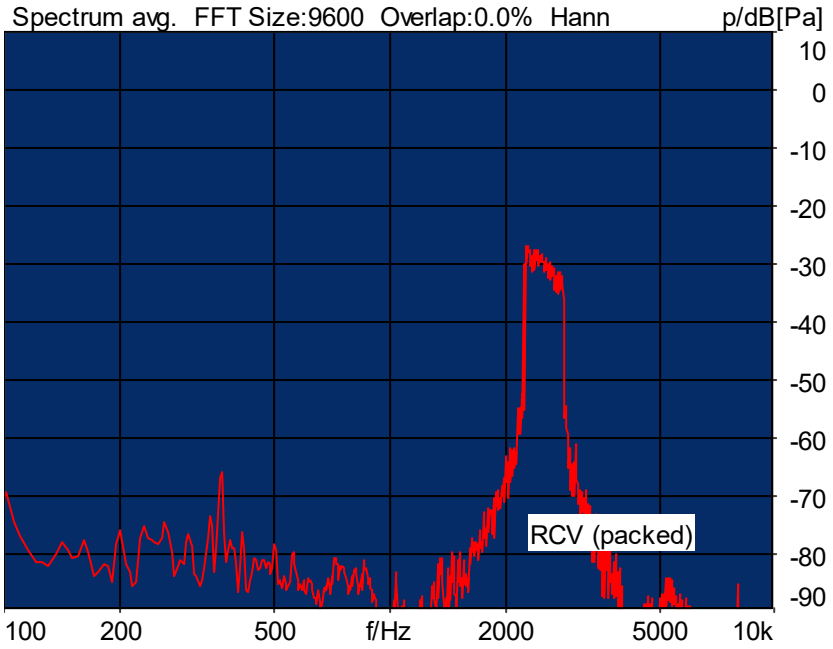
Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz NB

(BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 30.84 dB (2.87%) Ok

Ok

2026/1/15 9:11 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

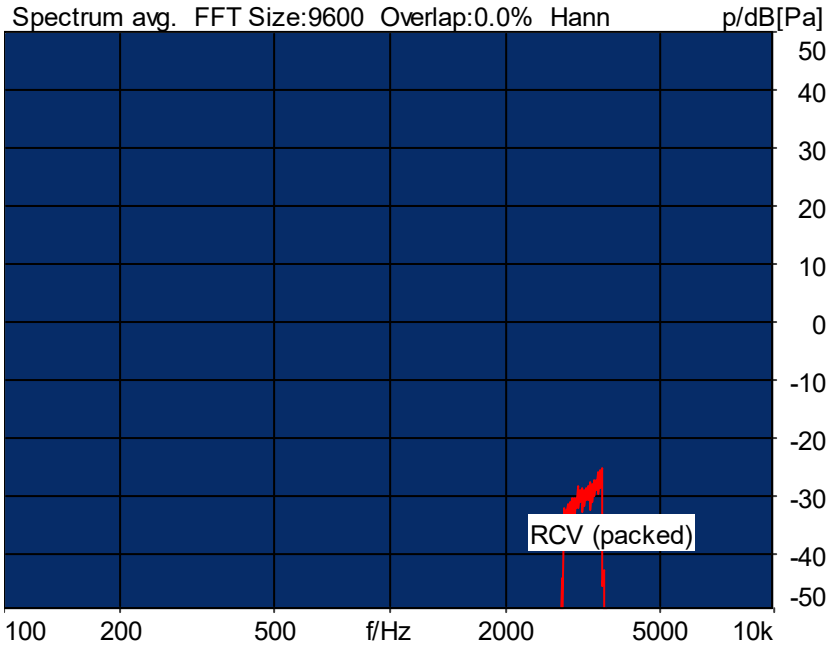
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz NB (BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Distortion (Noise) RCV (packed): 26.97 dB (4.48%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment	Channel 1	Gain	-90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVNB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

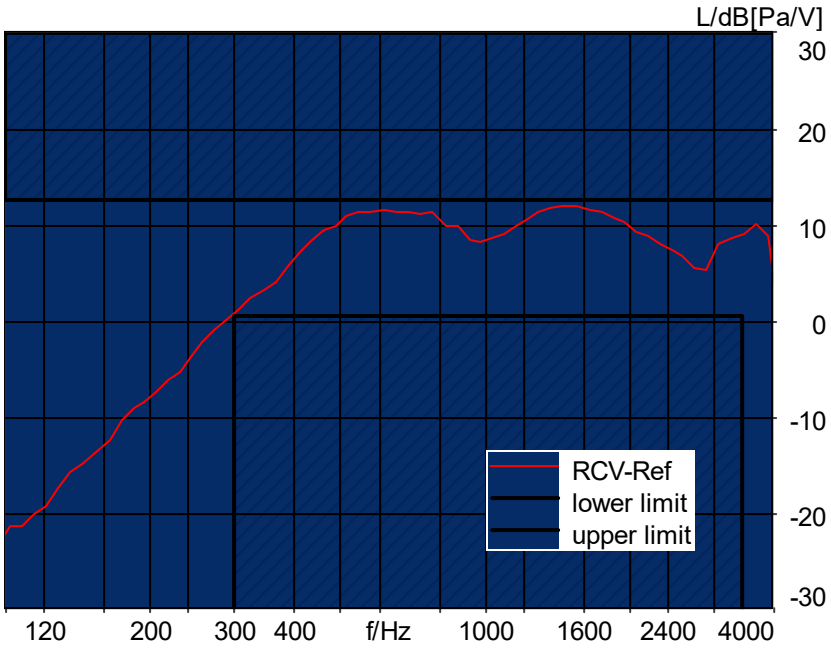
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 2N FF HANB (BL-SH25C1365-WIFI5.2G)

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

EVS-NB-13.2



Absolute minimal distance

0.56 dB at 1547.5 Hz Ok

Ok

2026/1/15 9:11 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_nb_r16.dat

Level adjustment	Channel 1	Gain	-90.00 dB
Level adjustment	Channel 2	Gain	-4.00 dB

NARROWBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -16 dBm0, margin 15.9 dB +

Pause till end of file

Signal level (ch1): -16 dBm0 Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 4.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hanb.fft		
Tol. scheme file	521_rcv_frq_man_hanb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	4000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	157.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(20#)

Measurement Object	BL-SH25C1365-WIFI5.2G

Status Overview

SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	85.51	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	23.49	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 315 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	22.41	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 400 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.31	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	27.27	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 630 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	28.33	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 800 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	34.30	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 1000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	36.27	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 1250 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.56	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 1600 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.41	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 2000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	37.10	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 2500 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	35.16	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 3150 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	30.43	BL-SH25C1365-WIFI5.2G
5.2 RCV Distortion and Noise - 4000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	32.00	BL-SH25C1365-WIFI5.2G

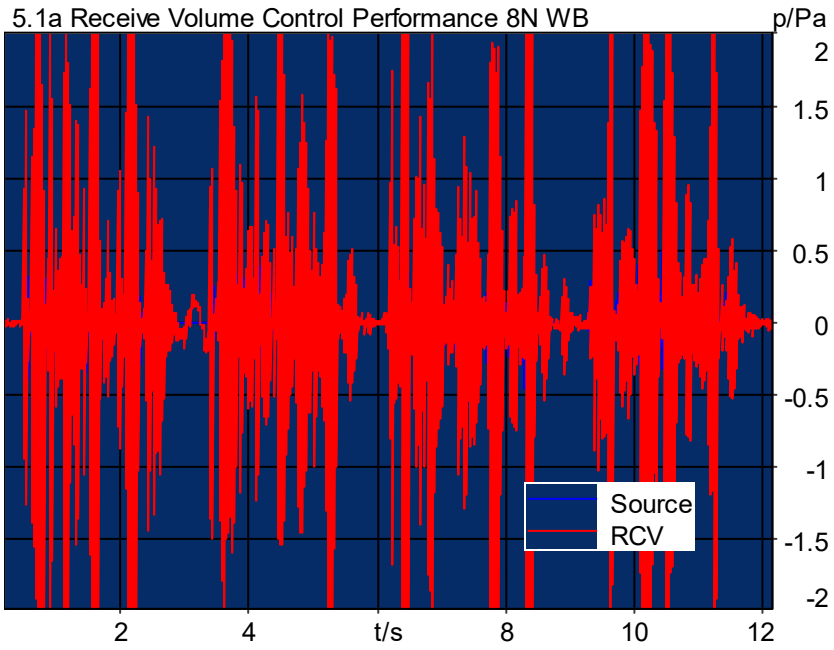
5.2 RCV Distortion and Noise - 5000 Hz WB	Ok	Distortion (Noise) [dB], 0.0 dB	31.35	BL-SH25C1365-WIFI5.2G
5.3 Frequency Response 8N FF	Ok	Min. dist. to tolerance scheme [dB], 5767.3 Hz	0.79	BL-SH25C1365-WIFI5.2G

5.1a Receive Volume Control Performance 8N WB 567
5.2 RCV Distortion and Noise - 250 Hz WB 569
5.2 RCV Distortion and Noise - 315 Hz WB 571
5.2 RCV Distortion and Noise - 400 Hz WB 573
5.2 RCV Distortion and Noise - 500 Hz WB 575
5.2 RCV Distortion and Noise - 630 Hz WB 577
5.2 RCV Distortion and Noise - 800 Hz WB 579
5.2 RCV Distortion and Noise - 1000 Hz WB 581
5.2 RCV Distortion and Noise - 1250 Hz WB 583
5.2 RCV Distortion and Noise - 1600 Hz WB 585
5.2 RCV Distortion and Noise - 2000 Hz WB 587
5.2 RCV Distortion and Noise - 2500 Hz WB 589
5.2 RCV Distortion and Noise - 3150 Hz WB 591
5.2 RCV Distortion and Noise - 4000 Hz WB 593
5.2 RCV Distortion and Noise - 5000 Hz WB 595
5.3 Frequency Response 8N FF 597

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-13.2



Channel	Speech level	Activity	
RCV	85.51 dB[SPL]	84.14%	Ok

Ok

2026/1/15 9:33 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

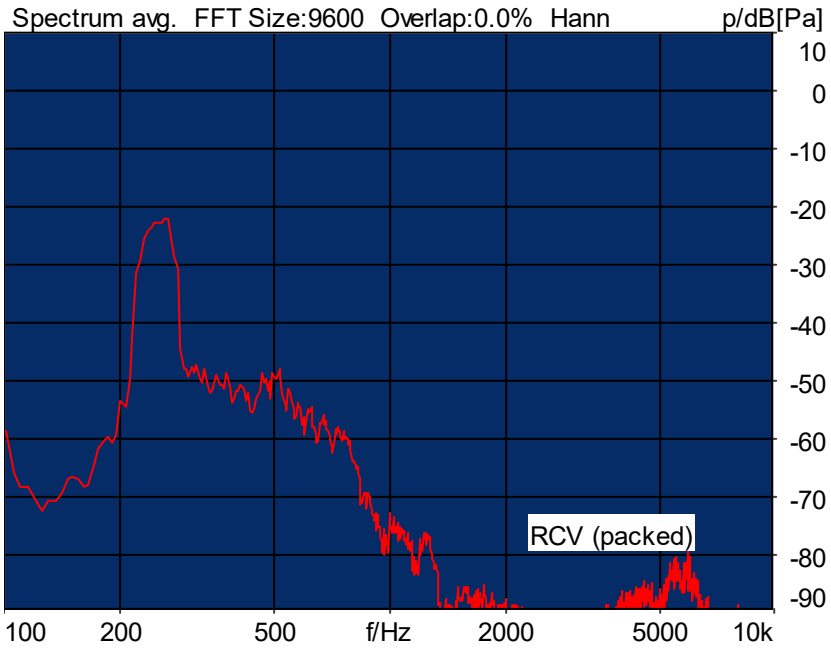
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 23.49 dB (6.69%) Ok

Ok

2026/1/15 9:40 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_250hz_sr20dbm0_v02.dat.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	190.0 Hz	Stimulus max.	315.0 Hz
Analysis min.	20.0 Hz	Analysis max.	185.0 Hz
Analysis (2) min.	320.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_250Hz

Hardware Config Settings

Used Setting	TIA5050

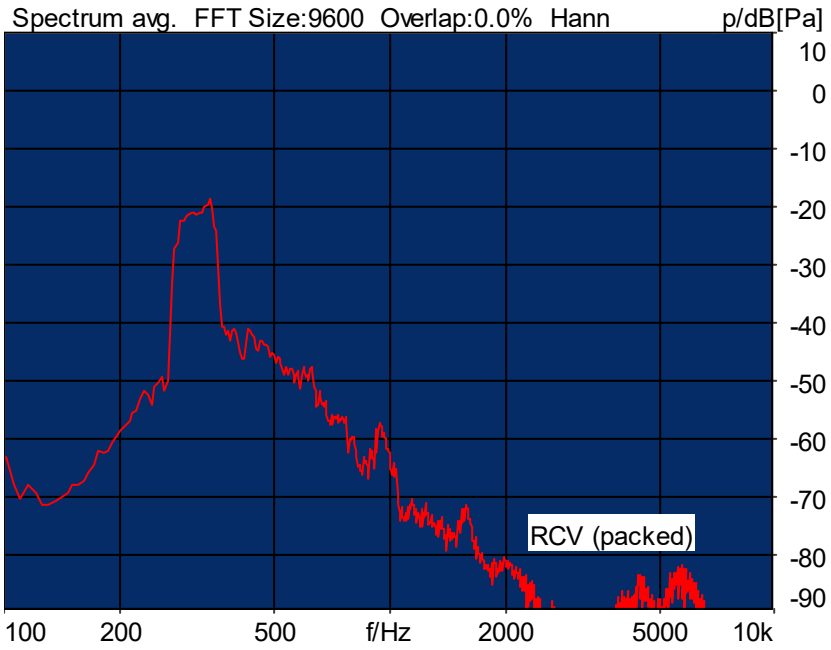
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 315 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 22.41 dB (7.57%) Ok

Ok

2026/1/15 9:34 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_315hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	245.0 Hz	Stimulus max.	390.0 Hz
Analysis min.	20.0 Hz	Analysis max.	240.0 Hz
Analysis (2) min.	395.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_315Hz

Hardware Config Settings

Used Setting	TIA5050

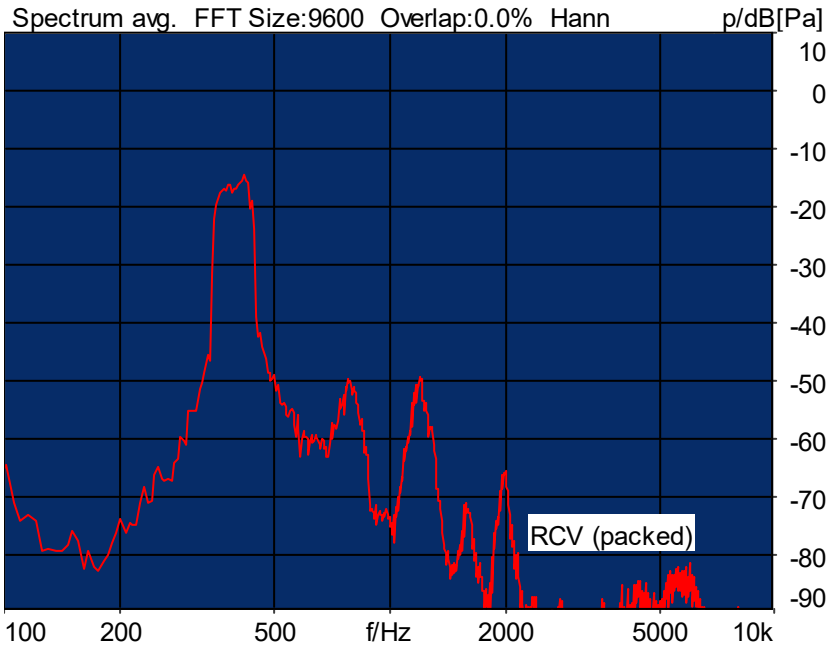
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 400 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.31 dB (3.05%) Ok

Ok

2026/1/15 9:34 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_400hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	320.0 Hz	Stimulus max.	480.0 Hz
Analysis min.	20.0 Hz	Analysis max.	315.0 Hz
Analysis (2) min.	485.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_400Hz

Hardware Config Settings

Used Setting	TIA5050

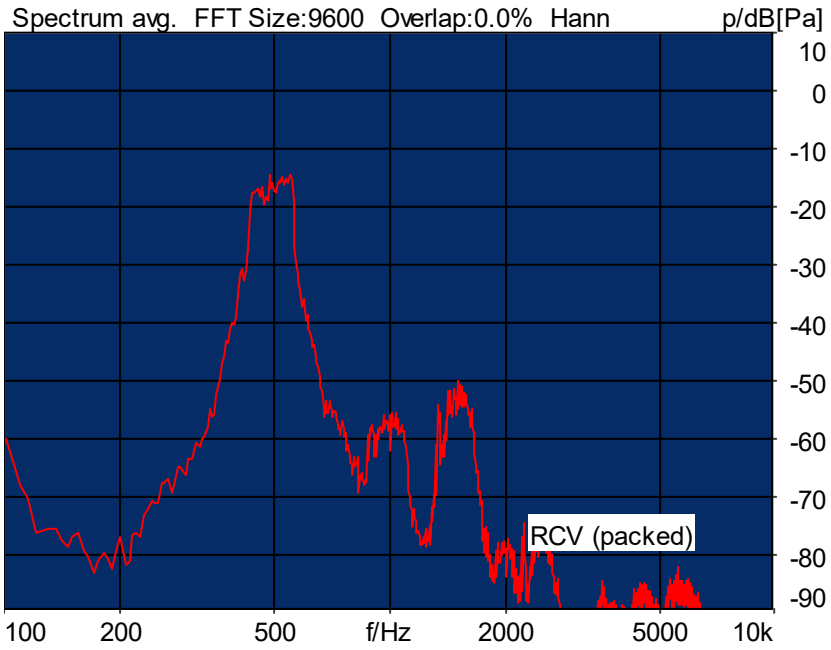
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 27.27 dB (4.33%) Ok

Ok

2026/1/15 9:34 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	410.0 Hz	Stimulus max.	595.0 Hz
Analysis min.	20.0 Hz	Analysis max.	405.0 Hz
Analysis (2) min.	600.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_500Hz

Hardware Config Settings

Used Setting	TIA5050

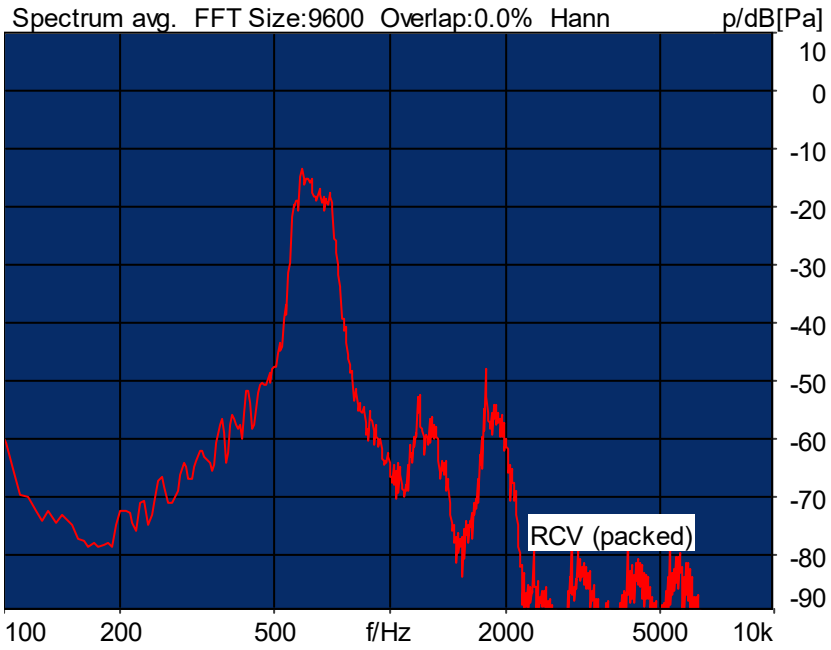
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 630 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 28.33 dB (3.83%) Ok

Ok

2026/1/15 9:35 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_630hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	525.0 Hz	Stimulus max.	745.0 Hz
Analysis min.	20.0 Hz	Analysis max.	520.0 Hz
Analysis (2) min.	750.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_630Hz

Hardware Config Settings

Used Setting	TIA5050

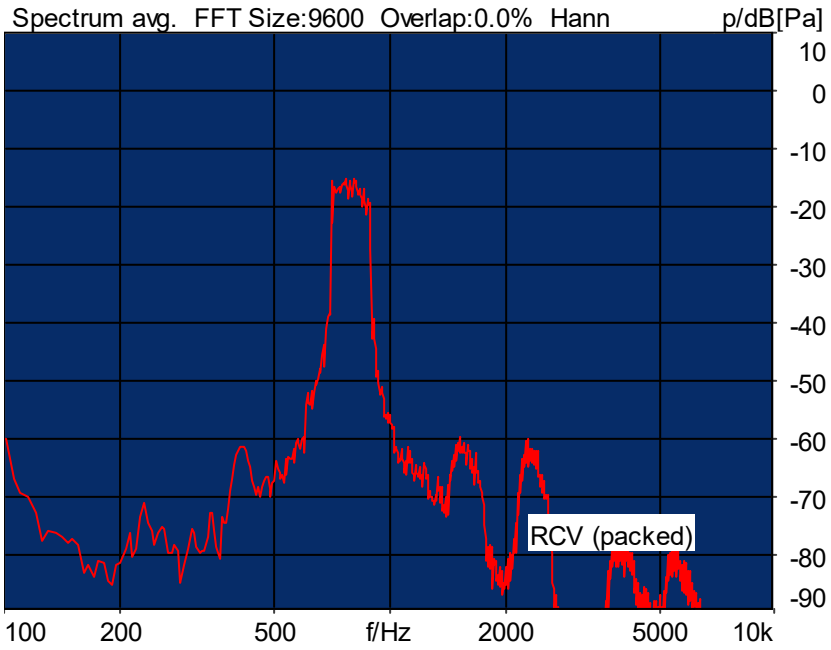
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 800 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 34.30 dB (1.93%) Ok

Ok

2026/1/15 9:35 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_800hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	675.0 Hz	Stimulus max.	925.0 Hz
Analysis min.	20.0 Hz	Analysis max.	670.0 Hz
Analysis (2) min.	930.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_800Hz

Hardware Config Settings

Used Setting	TIA5050

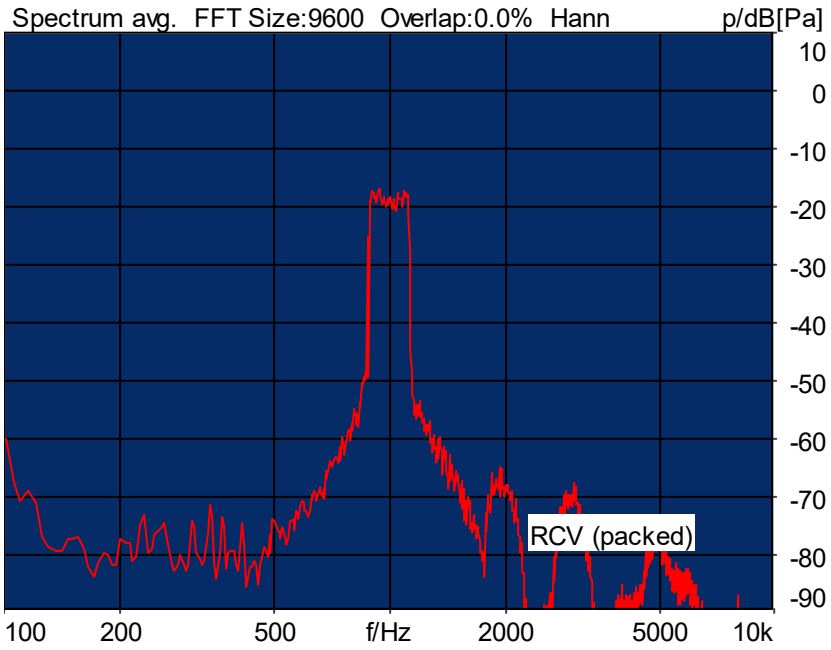
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1000 Hz WB

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

EVS-WB-13.2



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

Ok

2026/1/15 9:35 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	855.0 Hz	Stimulus max.	1155.0 Hz
Analysis min.	20.0 Hz	Analysis max.	850.0 Hz
Analysis (2) min.	1160.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1000Hz

Hardware Config Settings

Used Setting	TIA5050

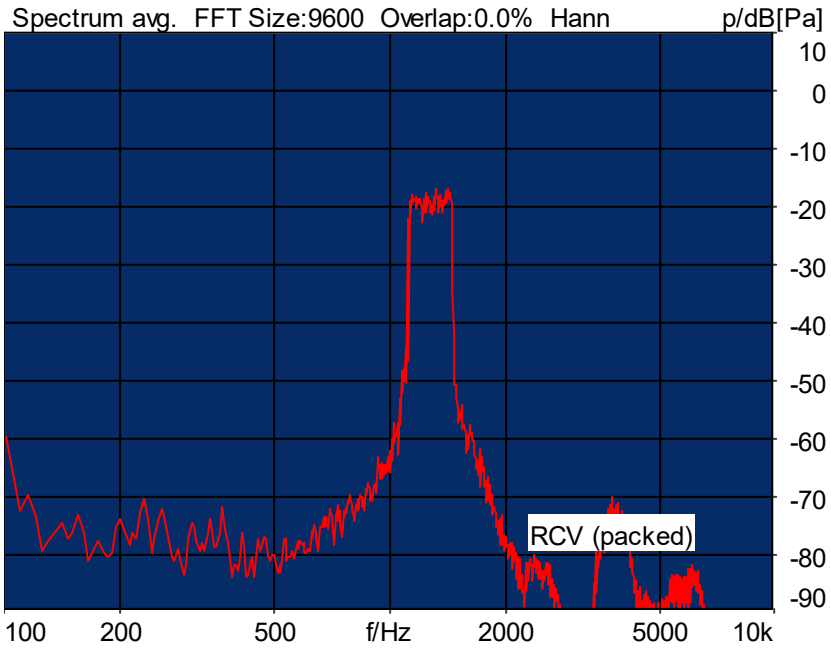
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1250 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.56 dB (2.97%) Ok

Ok

2026/1/15 9:36 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1250hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1085.0 Hz	Stimulus max.	1450.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1080.0 Hz
Analysis (2) min.	1455.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1250Hz

Hardware Config Settings

Used Setting	TIA5050

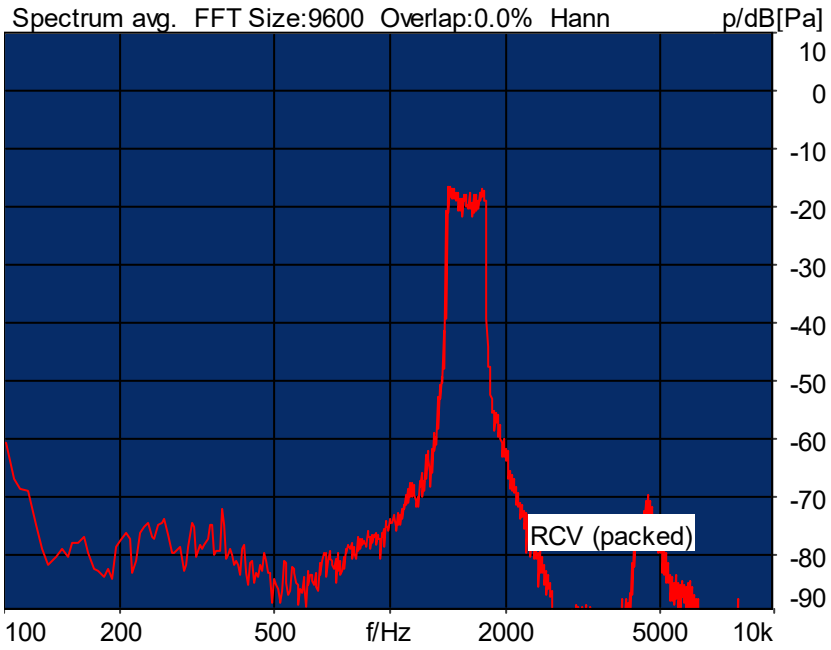
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 1600 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 37.41 dB (1.35%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_1600hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1375.0 Hz	Stimulus max.	1815.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1370.0 Hz
Analysis (2) min.	1820.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_1600Hz

Hardware Config Settings

Used Setting	TIA5050

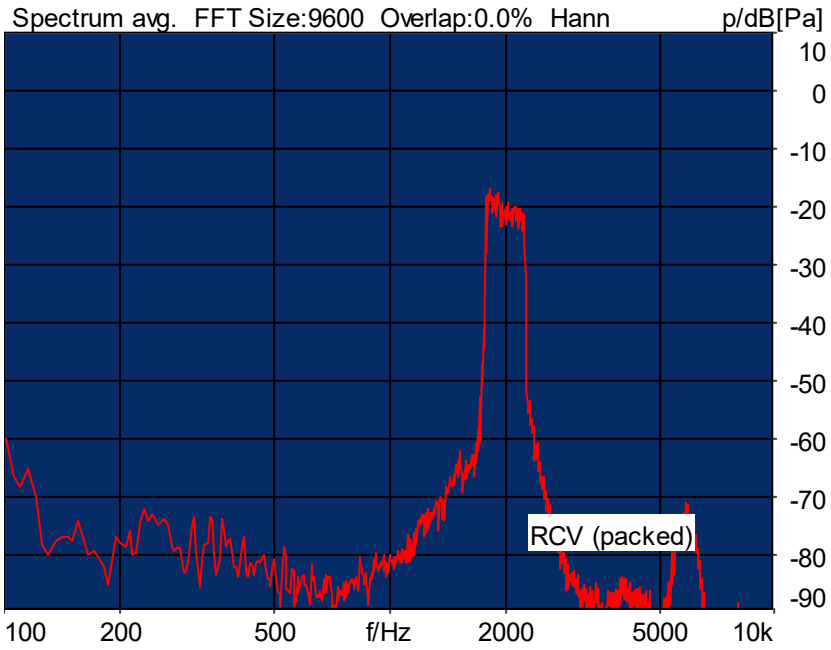
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 37.10 dB (1.40%) Ok

Ok

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Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	1745.0 Hz	Stimulus max.	2275.0 Hz
Analysis min.	20.0 Hz	Analysis max.	1740.0 Hz
Analysis (2) min.	2280.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2000Hz

Hardware Config Settings

Used Setting	TIA5050

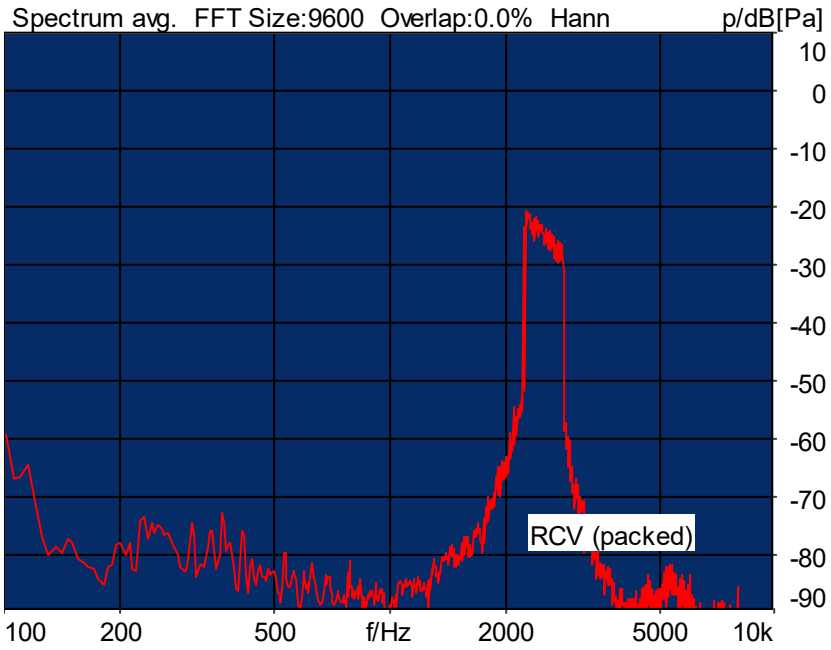
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 2500 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 35.16 dB (1.75%) Ok

Ok

2026/1/15 9:37 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_2500hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2205.0 Hz	Stimulus max.	2855.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2200.0 Hz
Analysis (2) min.	2860.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_2500Hz

Hardware Config Settings

Used Setting	TIA5050

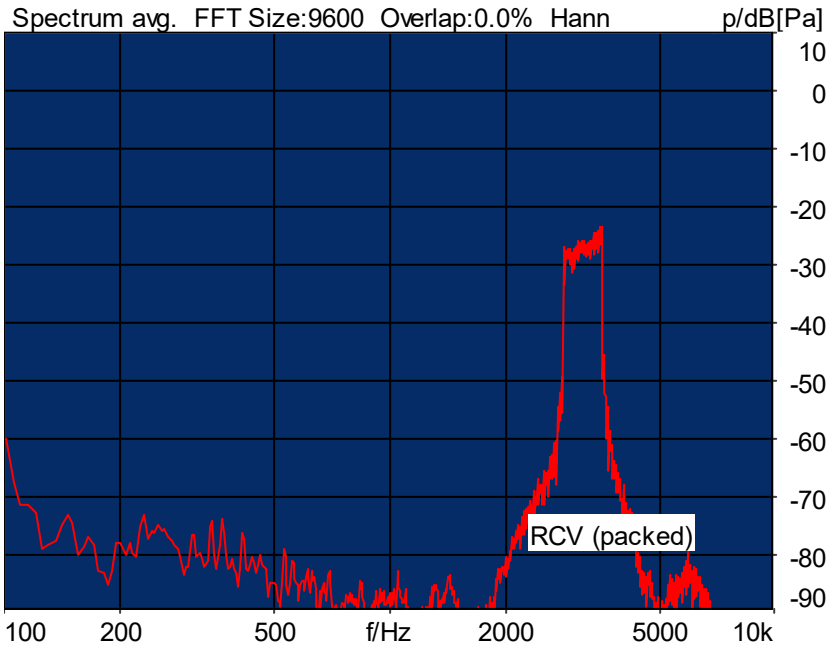
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 3150 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 30.43 dB (3.01%) Ok

Ok

2026/1/15 9:37 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_3150hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	2785.0 Hz	Stimulus max.	3585.0 Hz
Analysis min.	20.0 Hz	Analysis max.	2780.0 Hz
Analysis (2) min.	3590.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_3150Hz

Hardware Config Settings

Used Setting	TIA5050

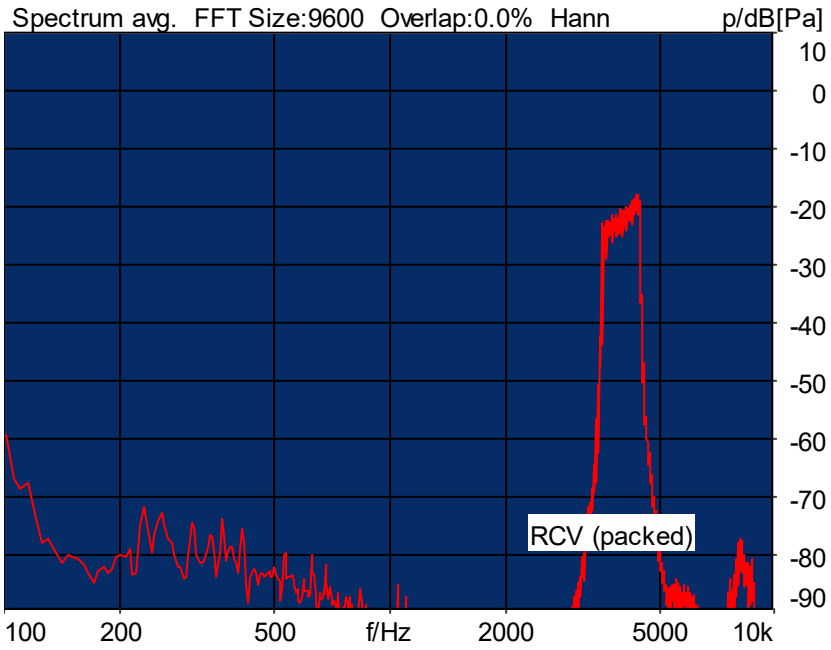
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 4000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 32.00 dB (2.51%) Ok

Ok

2026/1/15 9:38 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_4000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	3515.0 Hz	Stimulus max.	4500.0 Hz
Analysis min.	20.0 Hz	Analysis max.	3510.0 Hz
Analysis (2) min.	4505.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_4000Hz

Hardware Config Settings

Used Setting	TIA5050

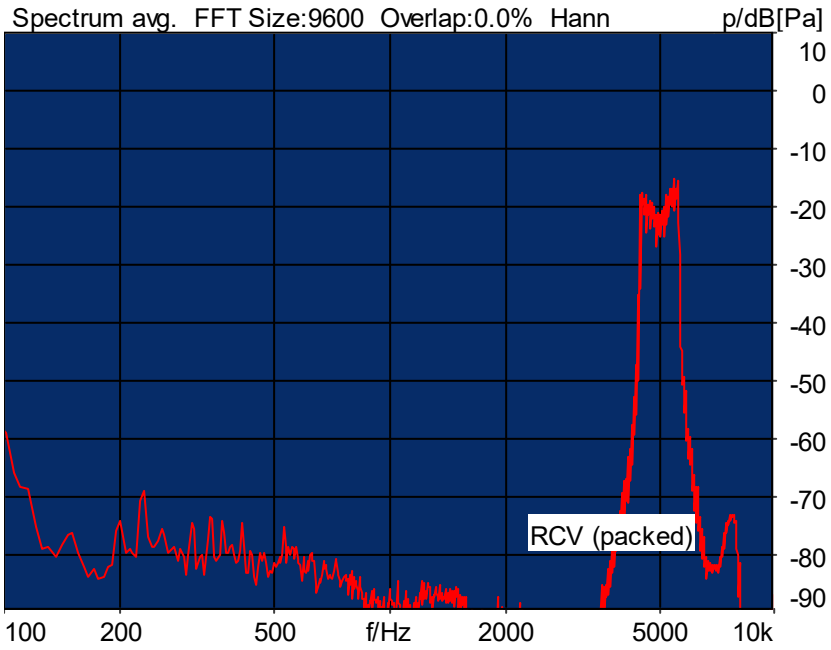
MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.2 RCV Distortion and Noise - 5000 Hz WB

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

EVS-WB-13.2



Distortion (Noise) RCV (packed): 31.35 dB (2.71%) Ok

Ok

2026/1/15 9:38 ACQUA 6.2.100

Limits

lower
20.00 dB

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: act_rpn_b250ms_5000hz_sr20dbm0_v02.dat

Level adjustment Channel 1 Gain -90.00 dB

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	13550.00 ms	Range length	200.00 ms
Number of seq.	10	Sequence length	400.00 ms
Frequency base	Transformation		
FFT size	9600	Overlap	0 %
Window function	Hann	Smooth	Off
dB weighting	A Weighting		
Stimulus min.	4430.0 Hz	Stimulus max.	5660.0 Hz
Analysis min.	20.0 Hz	Analysis max.	4425.0 Hz
Analysis (2) min.	5665.0 Hz	Analysis (2) max.	20000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)		
Channels	2	Store to variable	RCVWB10_5000Hz

Hardware Config Settings

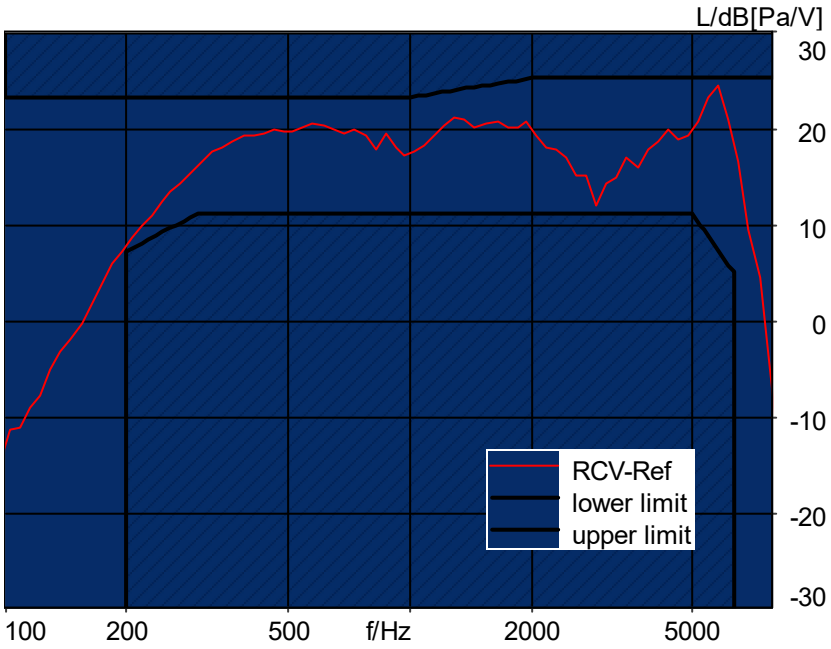
Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

5.3 Frequency Response 8N FF

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



Absolute minimal distance

0.79 dB at 5767.3 Hz Ok

Ok

2026/1/15 18:54 ACQUA 6.2.100

Limits

lower
Fit into tolerance

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Source: respmaleieee269_wb_r20_v01.dat

Level adjustment	Channel 1	Gain	-90.00 dB

WIDEBAND IEEE-269-2010 Real Speech Signal at Channel 2

Pause 0.5 s +

Real Speech (english, male speaker) 11.5 s, Active Speech Level: -22,2 dBV, margin 15.9 dB +

Pause till end of file

Signal level (ch2): -22,2 dBV Active Speech Level, margin 15.9 dB

Signal taken from "IEEE_269-2010_Male_mono_48_kHz.wav"

Alteration:

0.2 s Pause added at the beginning of the file.

0.8 s Pause added at the and of the file.

filtered with 8.0 kHz low-pass filter

signal level changed

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	500.00 ms	Range length	11500.00 ms
Frequency base	12th octave	DIN Row	Row A
Method	FFT		
FFT size	4096	Overlap	75 %
Window function	Hann		
Reference file	r521_rcv_frq_spee269_hawb.fft		
Tol. scheme file	521_rcv_frq_man_hawb.tol	Min. freq. for tol.	100.0 Hz
Auto adjust	Centrate	Max. freq. for tol.	8000.0 Hz

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(21#)

Measurement Object	BL-SH25C1365-GSM850

Status Overview

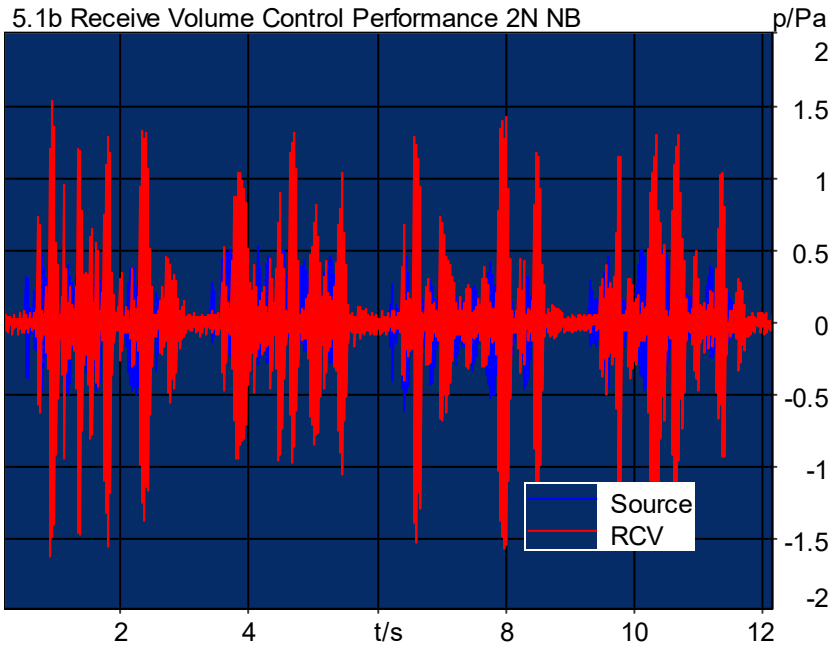
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	79.49	BL-SH25C1365-GSM850

5.1b Receive Volume Control Performance 2N NB 602

5.1b Receive Volume Control Performance 2N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	79.49 dB[SPL]	80.04%	Ok

Ok

2026/1/13 22:20 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(22#)

Measurement Object	BL-SH25C1365-GSM850

Status Overview

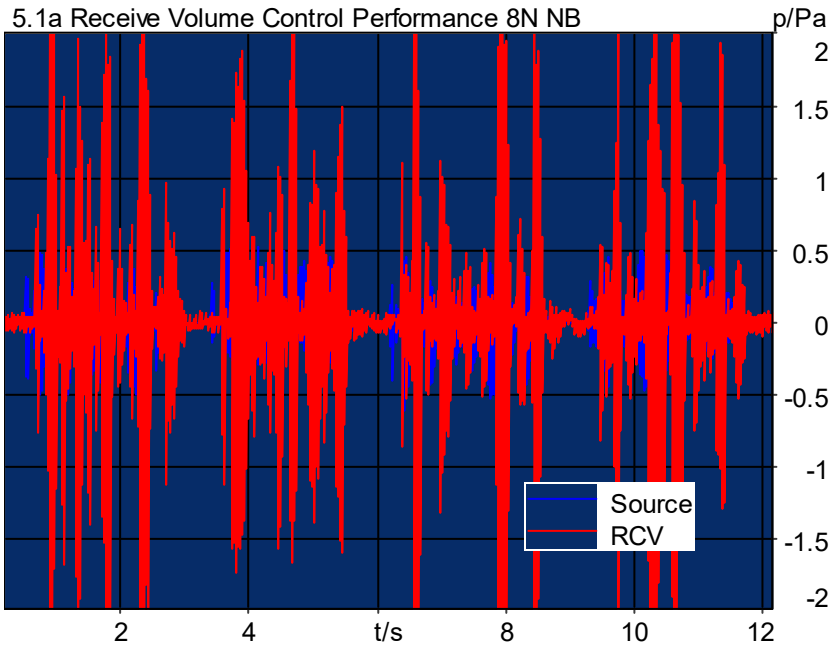
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	84.09	BL-SH25C1365-GSM850

5.1a Receive Volume Control Performance 8N NB 606

5.1a Receive Volume Control Performance 8N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	84.09 dB[SPL]	80.22%	Ok

Ok

2026/1/13 22:21 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(23#)

Measurement Object	BL-SH25C1365-WCDMAB5

Status Overview

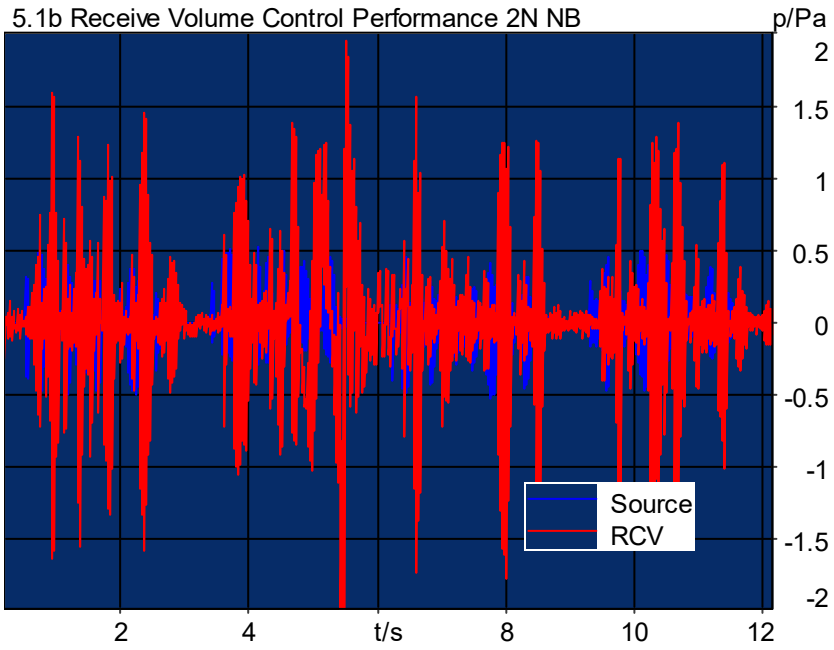
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	79.83	BL-SH25C1365-WCDMAB5

5.1b Receive Volume Control Performance 2N NB 610

5.1b Receive Volume Control Performance 2N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	79.83 dB[SPL]	80.41%	Ok

Ok

2026/1/13 22:35 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(24#)

Measurement Object	BL-SH25C1365-WCDMAB5

Status Overview

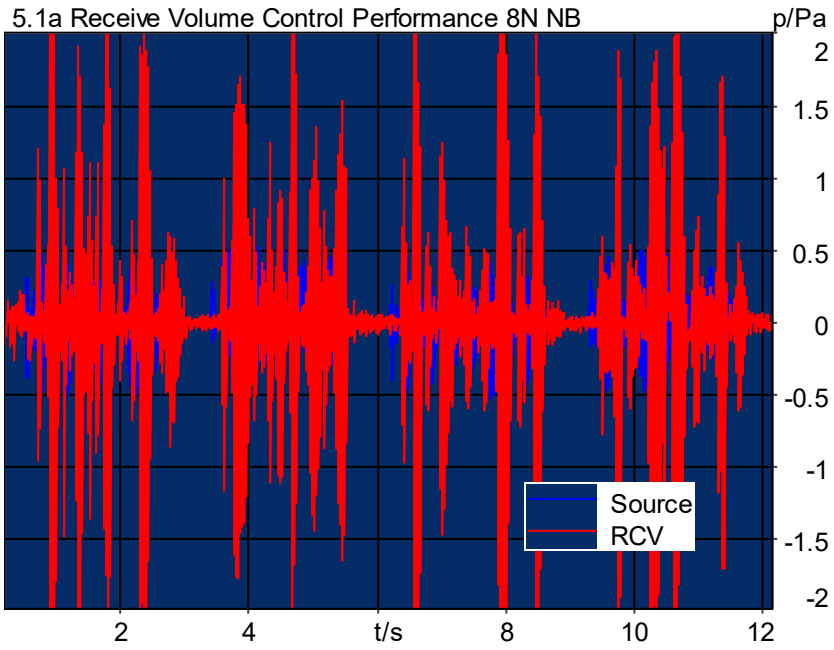
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	84.05	BL-SH25C1365-WCDMAB5

5.1a Receive Volume Control Performance 8N NB 614

5.1a Receive Volume Control Performance 8N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	84.05 dB[SPL]	80.24%	Ok

Ok

2026/1/13 22:36 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(25#)

Measurement Object	BL-SH25C1365-LTE B2

Status Overview

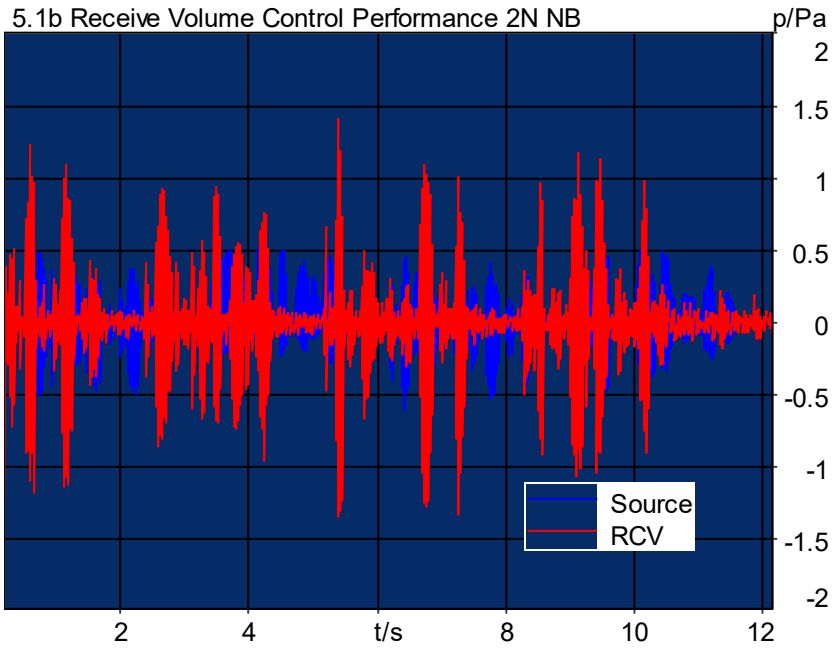
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	77.48	BL-SH25C1365-LTE B2

5.1b Receive Volume Control Performance 2N NB 618

5.1b Receive Volume Control Performance 2N NB

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	77.48 dB[SPL]	74.46%	Ok

Ok

2026/1/8 19:50 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1140.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(26#)

Measurement Object	BL-SH25C1365-LTE B2

Status Overview

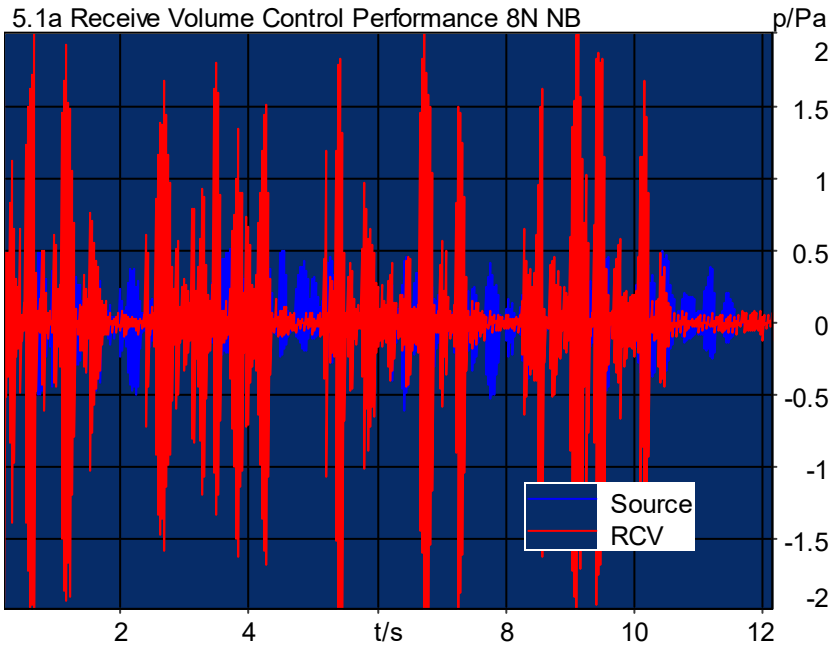
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	82.81	BL-SH25C1365-LTE B2

5.1a Receive Volume Control Performance 8N NB 622

5.1a Receive Volume Control Performance 8N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	82.81 dB[SPL]	74.28%	Ok

Ok

2026/1/8 19:52 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1140.6000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(27#)

Measurement Object	BL-SH25C1365-B4

Status Overview

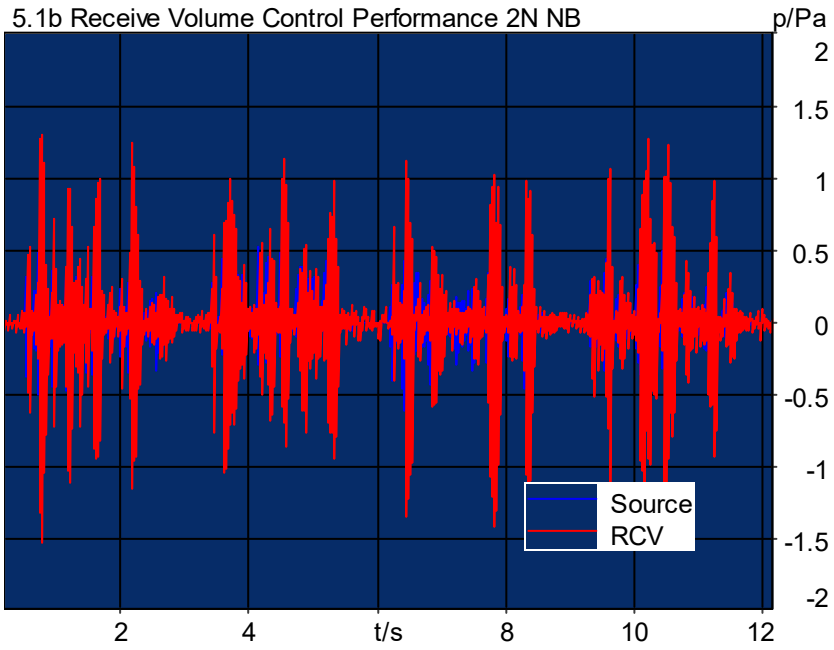
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.07	BL-SH25C1365-B4

5.1b Receive Volume Control Performance 2N NB 626

5.1b Receive Volume Control Performance 2N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	78.07 dB[SPL]	79.96%	Ok

Ok

2026/1/8 20:21 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	87.9000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(28#)

Measurement Object	BL-SH25C1365-B4

Status Overview

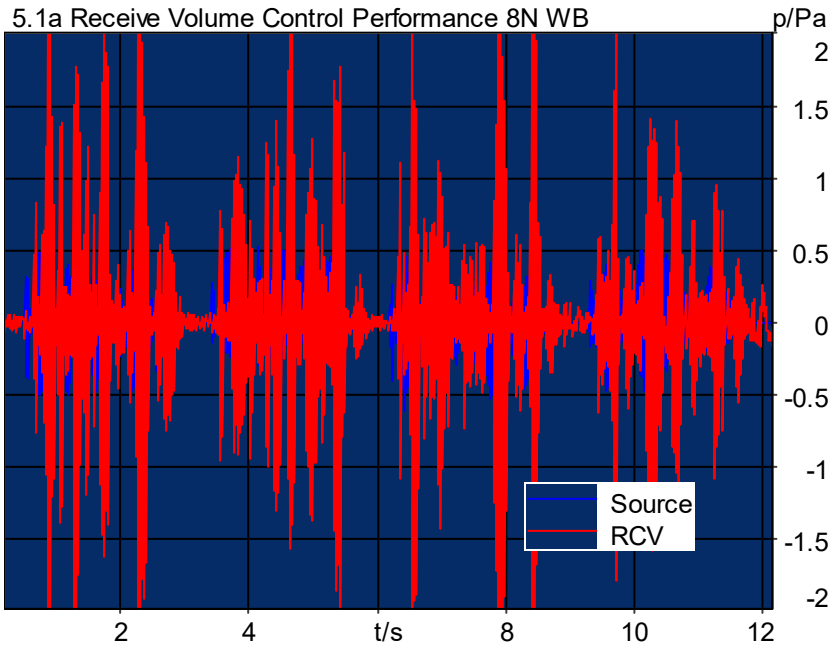
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	82.64	BL-SH25C1365-B4

5.1a Receive Volume Control Performance 8N WB 630

5.1a Receive Volume Control Performance 8N WB

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

AMR-WB-6.6



Channel	Speech level	Activity	
RCV	82.64 dB[SPL]	83.70%	Ok

Ok

2026/1/8 20:24 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(29#)

Measurement Object	BL-SH25C1365-B5

Status Overview

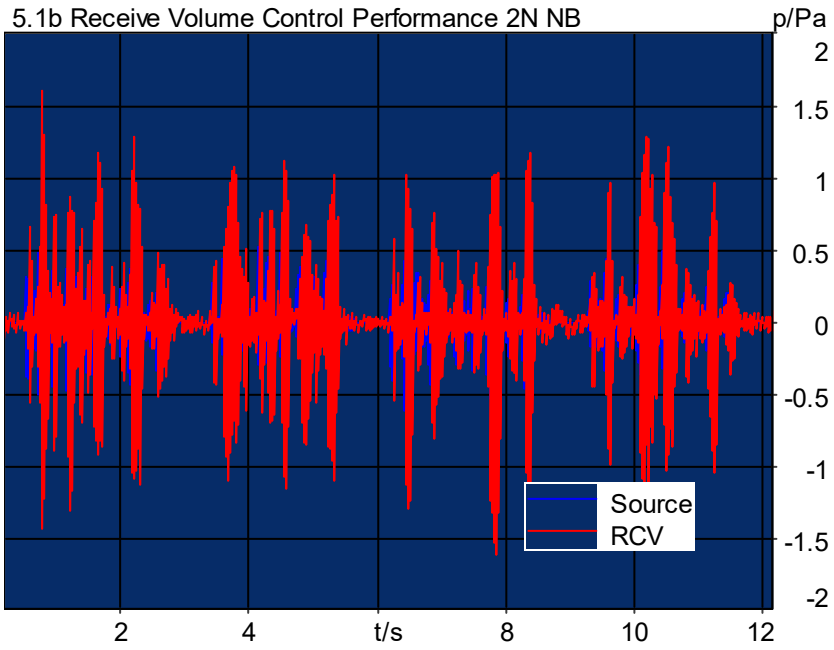
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.76	BL-SH25C1365-B5

5.1b Receive Volume Control Performance 2N NB 634

5.1b Receive Volume Control Performance 2N NB

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	78.76 dB[SPL]	80.41%	Ok

Ok

2026/1/8 20:51 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	93.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(30#)

Measurement Object	BL-SH25C1365-B5

Status Overview

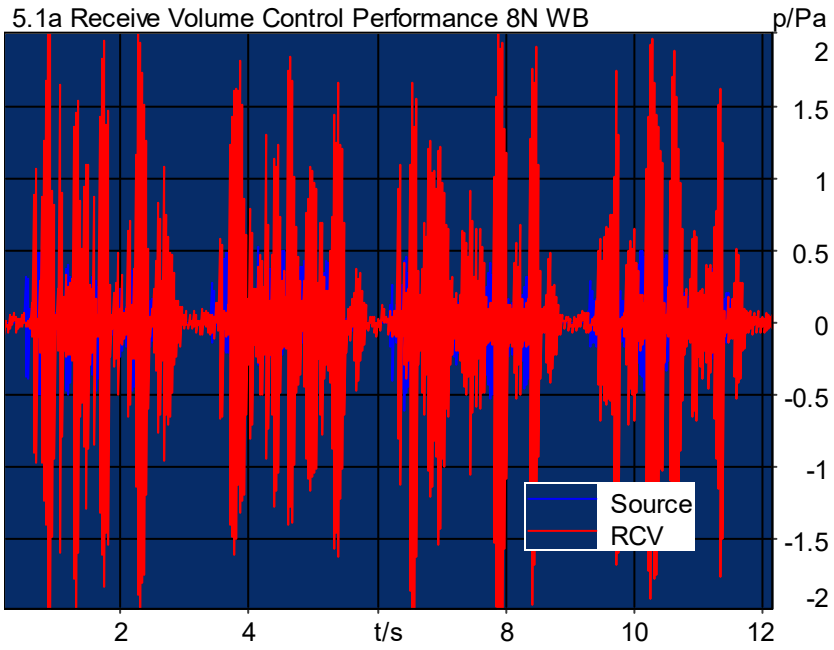
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	83.17	BL-SH25C1365-B5

5.1a Receive Volume Control Performance 8N WB 638

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-13.2



Channel	Speech level	Activity	
RCV	83.17 dB[SPL]	84.38%	Ok

Ok

2026/1/8 20:55 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(31#)

Measurement Object	BL-SH25C1365-B12

Status Overview

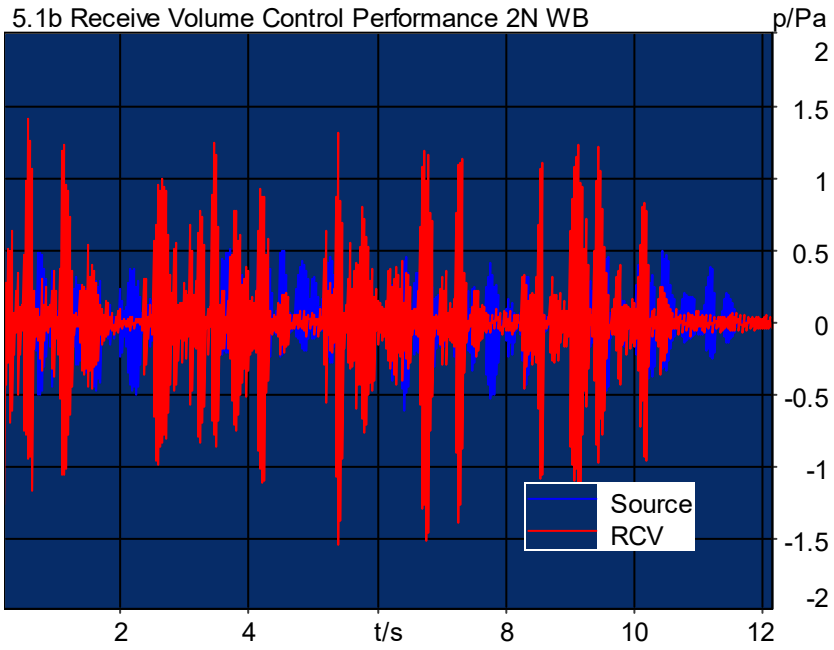
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	78.31	BL-SH25C1365-B12

5.1b Receive Volume Control Performance 2N WB 642

5.1b Receive Volume Control Performance 2N WB

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

AMR-WB-23.85



Channel	Speech level	Activity	
RCV	78.31 dB[SPL]	78.24%	Ok

Ok

2026/1/8 21:14 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(32#)

Measurement Object	BL-SH25C1365-B12

Status Overview

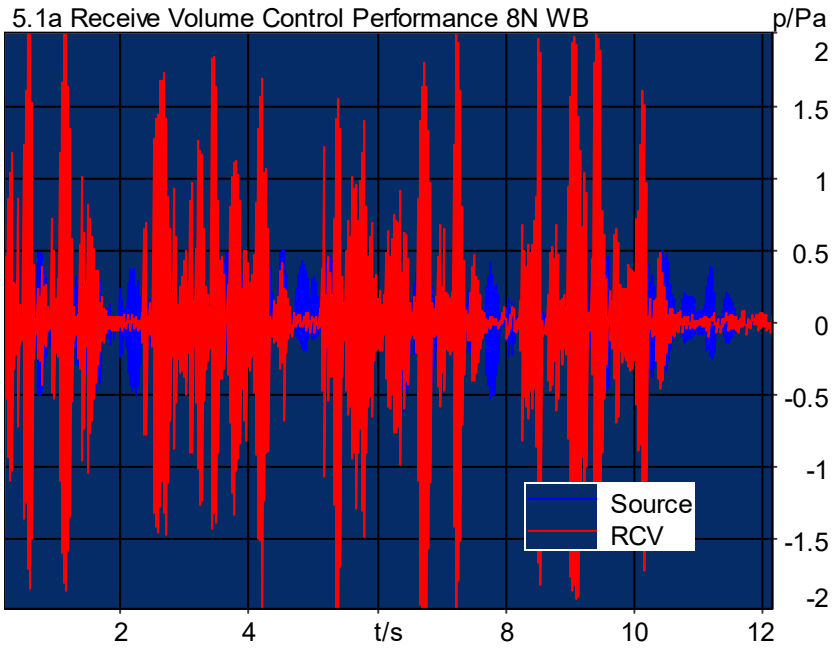
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	83.04	BL-SH25C1365-B12

5.1a Receive Volume Control Performance 8N WB 646

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-5.9



Channel	Speech level	Activity	
RCV	83.04 dB[SPL]	78.11%	Ok

Ok

2026/1/8 21:19 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	1183.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(33#)

Measurement Object	BL-SH25C1365-B13

Status Overview

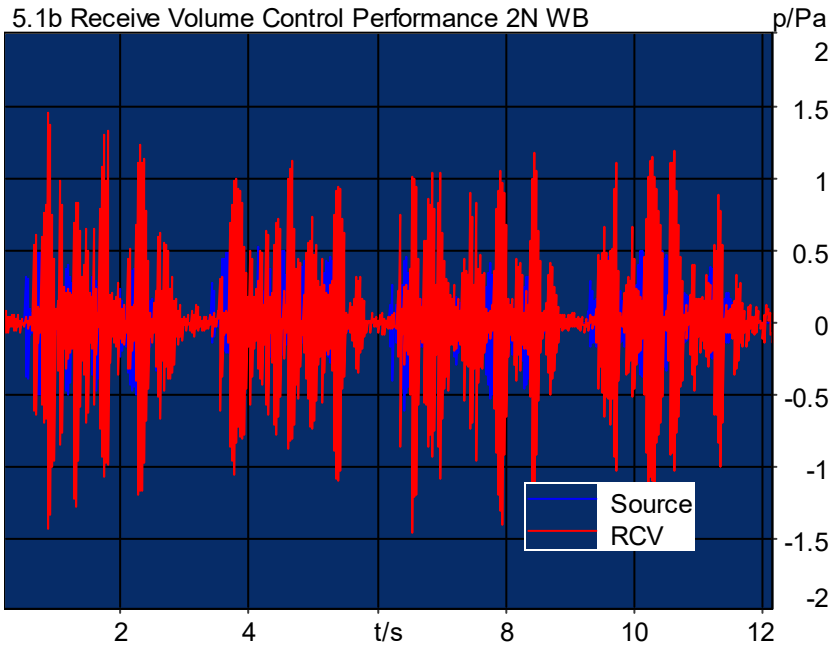
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	78.80	BL-SH25C1365-B13

5.1b Receive Volume Control Performance 2N WB 650

5.1b Receive Volume Control Performance 2N WB

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

AMR-WB-23.85



Channel	Speech level	Activity	
RCV	78.80 dB[SPL]	84.61%	Ok

Ok

2026/1/8 21:39 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(34#)

Measurement Object	BL-SH25C1365-B13

Status Overview

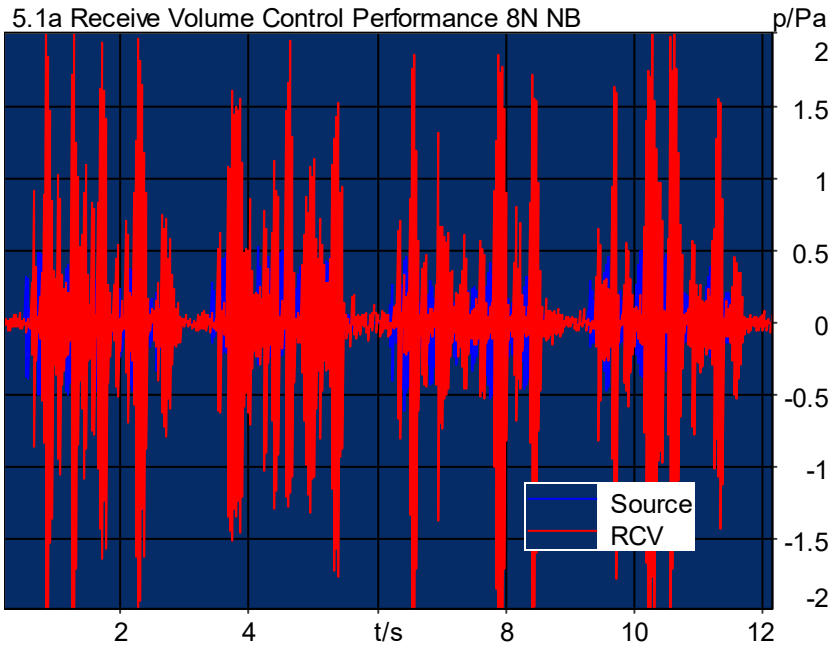
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	83.23	BL-SH25C1365-B13

5.1a Receive Volume Control Performance 8N NB 654

5.1a Receive Volume Control Performance 8N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	83.23 dB[SPL]	80.68%	Ok

Ok

2026/1/8 21:28 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(35#)

Measurement Object	BL-SH25C1365-B66

Status Overview

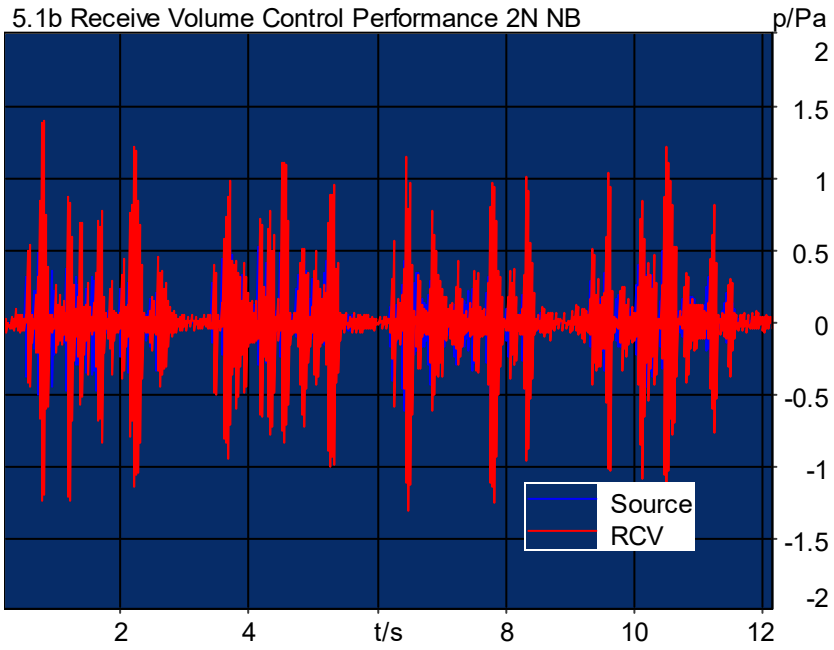
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	77.67	BL-SH25C1365-B66

5.1b Receive Volume Control Performance 2N NB ..... 错误！未定义书签。

5.1b Receive Volume Control Performance 2N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	77.67 dB[SPL]	80.01%	Ok

Ok

2026/1/8 21:59 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(36#)

Measurement Object	BL-SH25C1365-B66

Status Overview

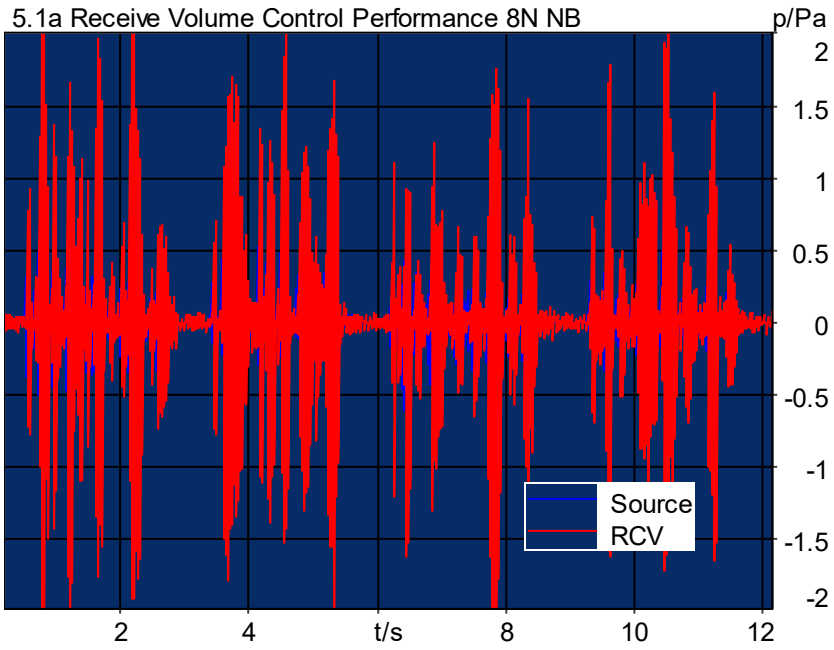
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	82.66	BL-SH25C1365-B66

5.1a Receive Volume Control Performance 8N WB .....错误！未定义书签。

5.1a Receive Volume Control Performance 8N NB

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

EVS-NB-13.2



Channel	Speech level	Activity	
RCV	82.66 dB[SPL]	80.55%	Ok

Ok

2026/1/8 22:08 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	105.1000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(37#)

Measurement Object	BL-SH25C1365-B71

Status Overview

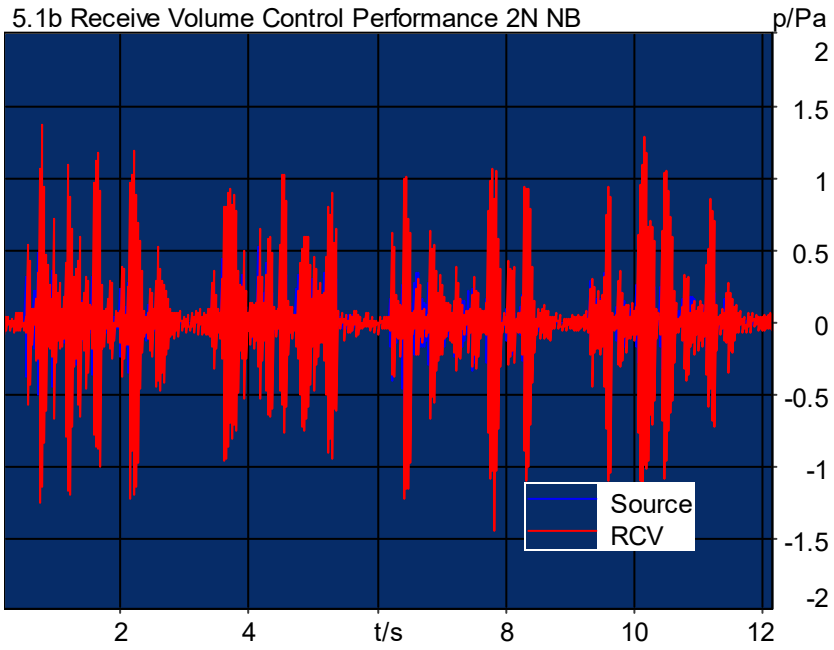
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N NB	Ok	Speech Level [dB[SPL]]	78.33	BL-SH25C1365-B71

5.1b Receive Volume Control Performance 2N NB 666

5.1b Receive Volume Control Performance 2N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	78.33 dB[SPL]	80.41%	Ok

Ok

2026/1/8 22:22 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(38#)

Measurement Object	BL-SH25C1365-B71

Status Overview

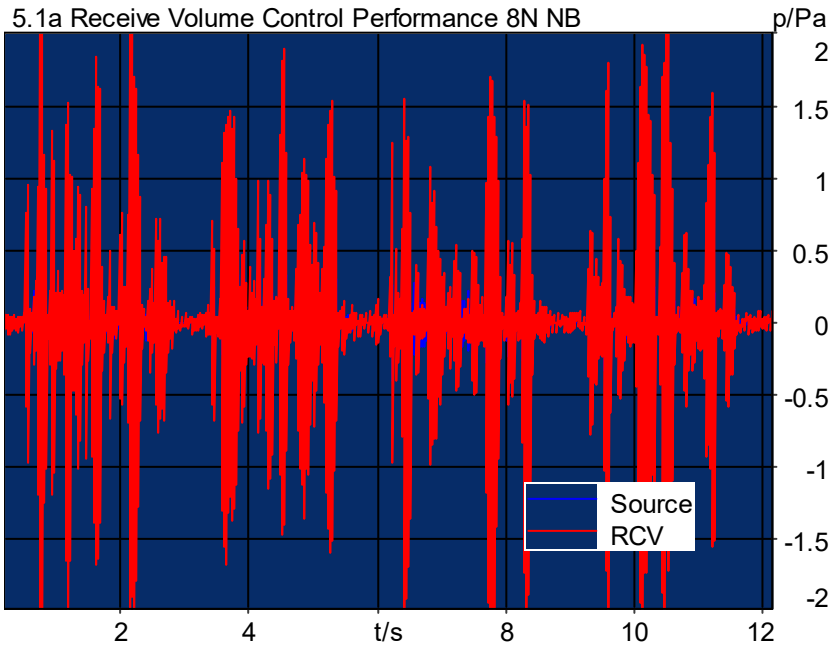
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N NB	Ok	Speech Level [dB[SPL]]	83.14	BL-SH25C1365-B71

5.1a Receive Volume Control Performance 8N NB 670

5.1a Receive Volume Control Performance 8N NB

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

AMR-NB-4.75



Channel	Speech level	Activity	
RCV	83.14 dB[SPL]	80.62%	Ok

Ok

2026/1/8 22:23 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Narrow Band	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	101.5000 ms (D_RCV_NB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(39#)

Measurement Object	BL-SH25C1365-B41

Status Overview

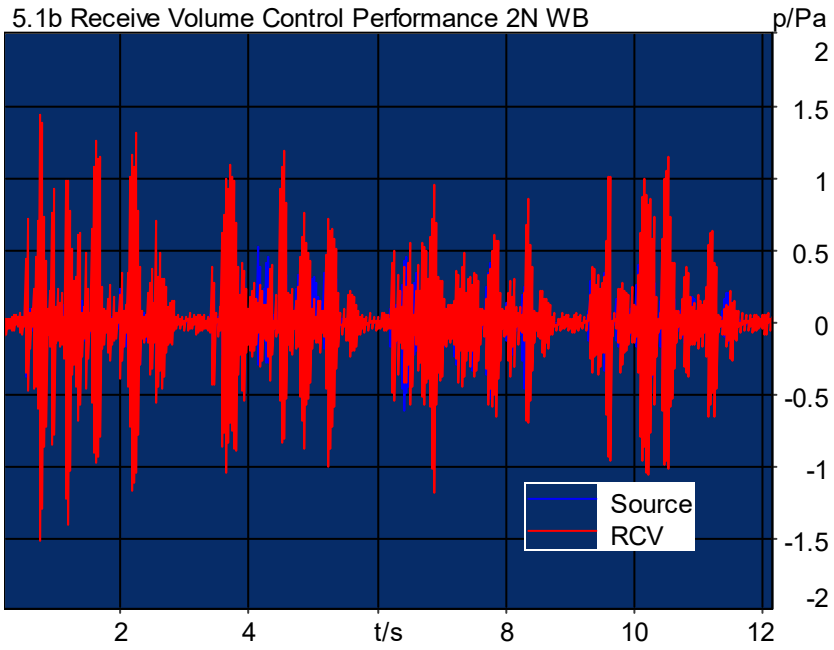
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	77.67	BL-SH25C1365-B41

5.1b Receive Volume Control Performance 2N WB 674

5.1b Receive Volume Control Performance 2N WB

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

AMR-WB-23.85



Channel	Speech level	Activity	
RCV	77.67 dB[SPL]	84.40%	Ok

Ok

2026/1/8 22:51 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	121.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(40#)

Measurement Object	BL-SH25C1365-B41

Status Overview

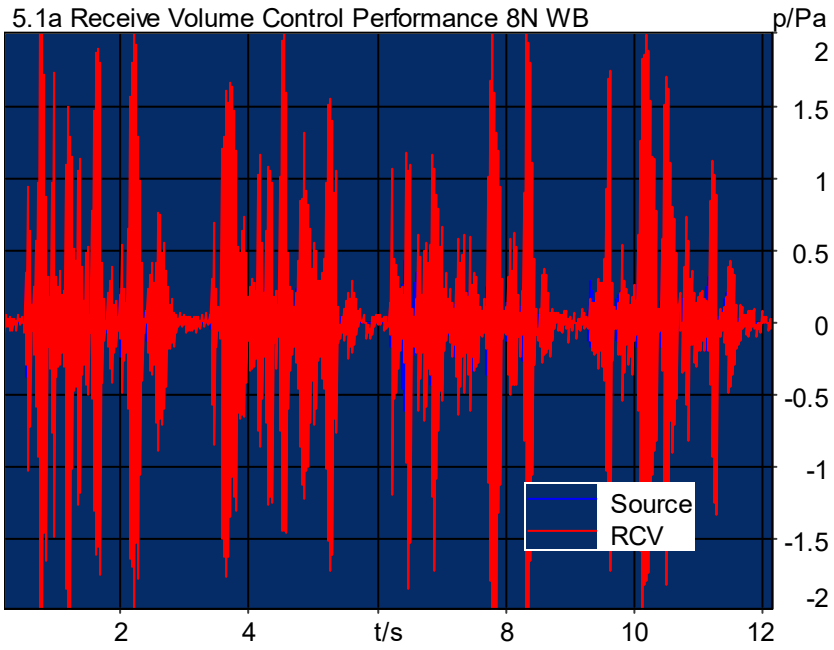
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	83.02	BL-SH25C1365-B41

5.1a Receive Volume Control Performance 8N WB .....错误！未定义书签。

5.1a Receive Volume Control Performance 8N WB

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

AMR-WB-23.85



Channel	Speech level	Activity	
RCV	83.02 dB[SPL]	80.95%	Ok

Ok

2026/1/8 22:50 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	121.2000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(41#)

Measurement Object	BL-SH25C1365-WIFI2.4g

Status Overview

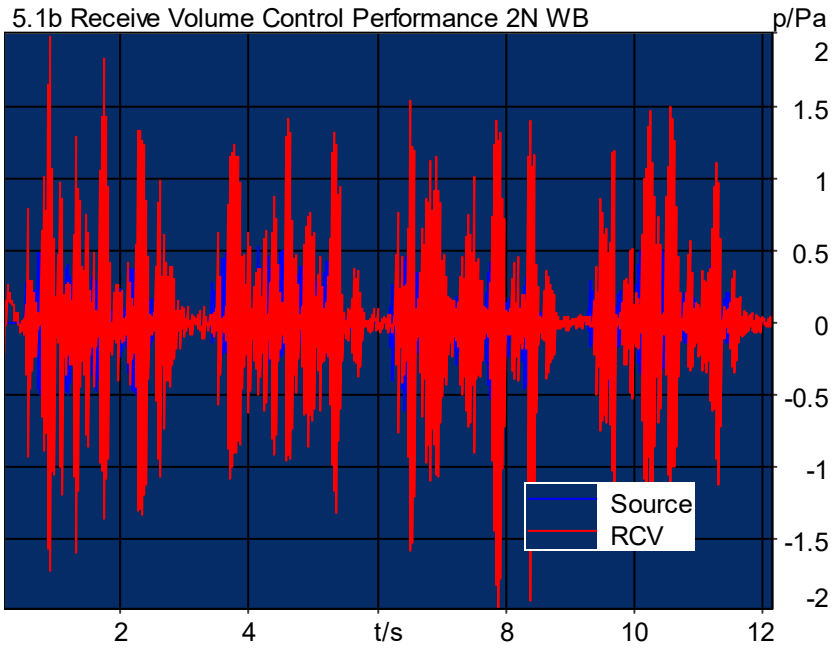
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	80.19	BL-SH25C1365-WIFI 2.4g

5.1b Receive Volume Control Performance 2N WB 682

5.1b Receive Volume Control Performance 2N WB

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

EVS-WB-5.9



Channel	Speech level	Activity	
RCV	80.19 dB[SPL]	85.51%	Ok

Ok

2026/1/15 9:52 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	141.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(42#)

Measurement Object	BL-SH25C1365-WIFI2.4g

Status Overview

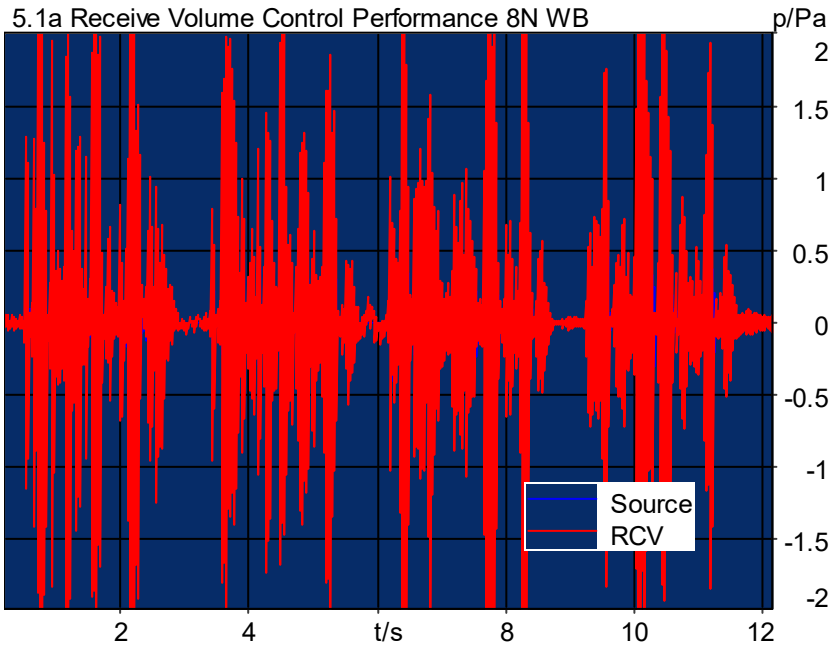
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	84.52	BL-SH25C1365-WIFI 2.4g

5.1a Receive Volume Control Performance 8N WB 686

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-13.2



Channel	Speech level	Activity	
RCV	84.52 dB[SPL]	84.05%	Ok

Ok

2026/1/13 19:46 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	139.5000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(43#)

Measurement Object	BL-SH25C1365-WIFI5.2G

Status Overview

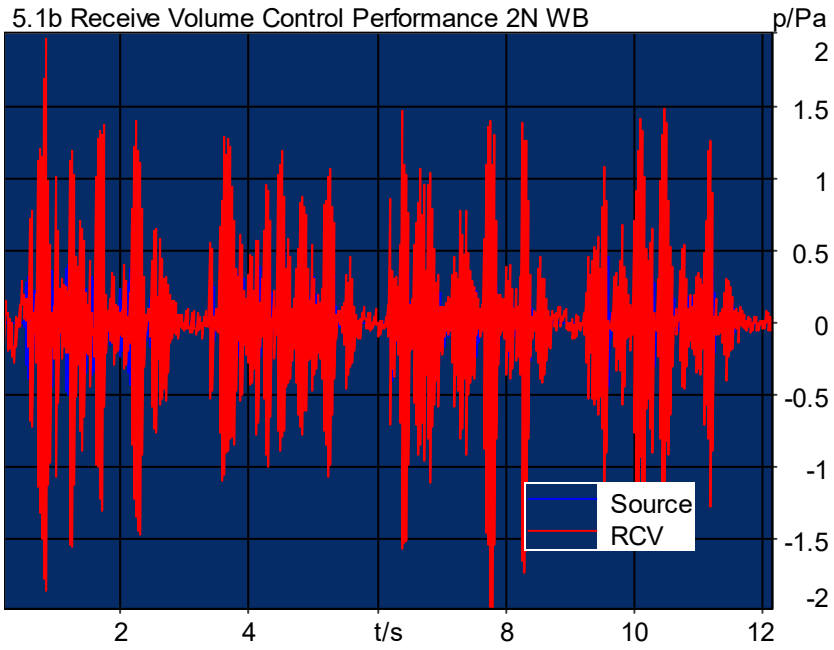
SMD	Status	Single Value Description	Single Value	Object
5.1b Receive Volume Control Performance 2N WB	Ok	Speech Level [dB[SPL]]	79.92	BL-SH25C1365-WIFI 5.2G

5.1b Receive Volume Control Performance 2N WB 690

5.1b Receive Volume Control Performance 2N WB

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

EVS-WB-5.9



Channel	Speech level	Activity	
RCV	79.92 dB[SPL]	84.59%	Ok

Ok

2026/1/15 9:51 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone

Measurement Protocol(44#)

Measurement Object	BL-SH25C1365-WIFI5.2G

Status Overview

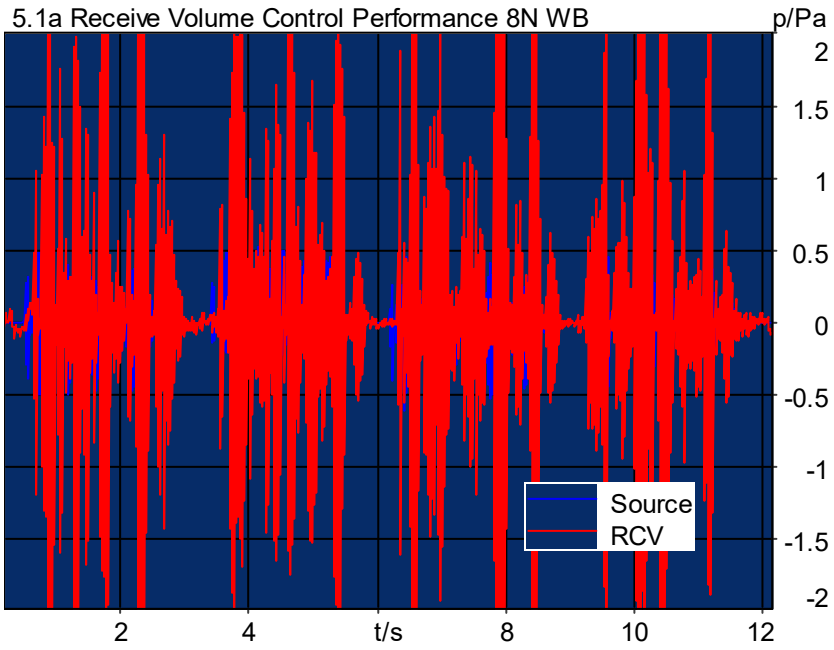
SMD	Status	Single Value Description	Single Value	Object
5.1a Receive Volume Control Performance 8N WB	Ok	Speech Level [dB[SPL]]	85.31	BL-SH25C1365-WIFI 5.2G

5.1a Receive Volume Control Performance 8N WB 694

5.1a Receive Volume Control Performance 8N WB

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

EVS-WB-5.9



Channel	Speech level	Activity	
RCV	85.31 dB[SPL]	84.29%	Ok

Ok

2026/1/15 9:54 ACQUA 6.2.100

Limits

lower
76.00 dB[SPL]

Meas. Setting DRP

Underlying Standard: TIA-5050 (2018-01)

Database Version: 40_HAC_Suite_Rev03

Calibration

RCV (2)	0.04 dB 2025/12/15 (HATS 1 (HMS II.3))
Output ch. 1	0.00 dB
Output ch. 2	0.00 dB (Radio Tester 1 (CMW500))

Analysis

Analyse	Channel 2		
Range start	200.00 ms	Range length	12000.00 ms
Bandpass filter	Super Wideband	Margin (15.9dB nom)	15.90 dB

Input Filters

FIR Filter	Channel 2	Filename	drp2ff_ieee1652.fft

Special Features

Show source signal	Source ch.2
Compensate delay	148.4000 ms (D_RCV_WB, Delay (Cross) RCV*Source)
Channels	2

Hardware Config Settings

Used Setting	TIA5050

MFE VI Settings

Output Ch.1	Line	Output Ch.2	Line
Input Ch.1	Microphone	Input Ch.2	Microphone