

Notes:

This is a test of a representative sample. If you have measurements that differ significantly from these, first check your analyzer and setup carefully, and (ideally) see if you can replicate the results on another analyzer. If the odd results persist, contact info@schiiit.com so we can have a look.

Summary

Passive

Level and Gain	✓ PASSED
DC Level	✓ PASSED
Signal Analyzer	✓ PASSED
Frequency Response	✓ PASSED
Signal to Noise Ratio	✓ PASSED
THD+N	✓ PASSED
IMD Level Sweep (CCIF)	✓ PASSED
IMD Frequency Sweep (CCIF)	✓ PASSED
Crosstalk, One Channel Undriven	✓ PASSED
Stepped Level Sweep	✓ PASSED

Low Gain Balanced

Level and Gain	✓ PASSED
DC Level	✓ PASSED
Signal Analyzer	✓ PASSED
Frequency Response	✓ PASSED
Signal to Noise Ratio	✓ PASSED
THD+N	✓ PASSED
IMD Level Sweep (CCIF)	✓ PASSED
IMD Frequency Sweep (CCIF)	✓ PASSED
Stepped Level Sweep	✓ PASSED

High Gain Balanced

Level and Gain	✓ PASSED
DC Level	✓ PASSED
Signal Analyzer	✓ PASSED
Frequency Response	✓ PASSED
Signal to Noise Ratio	✓ PASSED
THD+N	✓ PASSED
IMD Level Sweep (CCIF)	✓ PASSED
IMD Frequency Sweep (CCIF)	✓ PASSED
Stepped Level Sweep	✓ PASSED

Low Gain SE

Level and Gain	✓ PASSED
DC Level	✓ PASSED

Signal Analyzer	✔ PASSED
Frequency Response	✔ PASSED
Signal to Noise Ratio	✔ PASSED
THD+N	✔ PASSED
IMD Level Sweep (CCIF)	✔ PASSED
IMD Frequency Sweep (CCIF)	✔ PASSED
Stepped Level Sweep	✔ PASSED

High Gain SE

Level and Gain	✔ PASSED
DC Level	✔ PASSED
Signal Analyzer	✔ PASSED
Frequency Response	✔ PASSED
Signal to Noise Ratio	✔ PASSED
THD+N	✔ PASSED
IMD Level Sweep (CCIF)	✔ PASSED
IMD Frequency Sweep (CCIF)	✔ PASSED
Stepped Level Sweep	✔ PASSED

Sequence Result:

Sequence Result: ✔ PASSED

APx Instrument

Instrument ID:	100546525
Calibration Date:	2/10/2021
APx Version:	7.1.0.321

Passive : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Source Impedance:	20 ohm
Auto Range:	Enabled
Output EQ:	None
Input 1:	Analog Unbalanced
Measure:	Auto
Channels:	Auto (2 Channels)
Ch1	Data from Ch1, Sensitivity = 0.00 dB, Gain = 0.00 dB
Ch2	Data from Ch2, Sensitivity = 0.00 dB, Gain = 0.00 dB
Input Bandwidth:	AC (<10 Hz) - 20 kHz (44.1 kHz SR)
Input EQ:	None
Termination:	100 kohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
Analog Input	
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dB SPL1:	10.00 mVrms
dB SPL2:	10.00 mVrms
dB SPL1 Calibrator Level:	94.000 dB SPL
dB SPL2 Calibrator Level:	94.000 dB SPL
dBm (Input Power):	600.0 ohm
W(watts) (Input Power):	8.000 ohm
• DCX	
DCX is not detected.	

Passive : Level and Gain

Waveform: Sine
Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (7/15/2024 1:30:14.430 PM)

Ch1 1.996 Vrms
Ch2 1.996 Vrms

Passive : DC Level

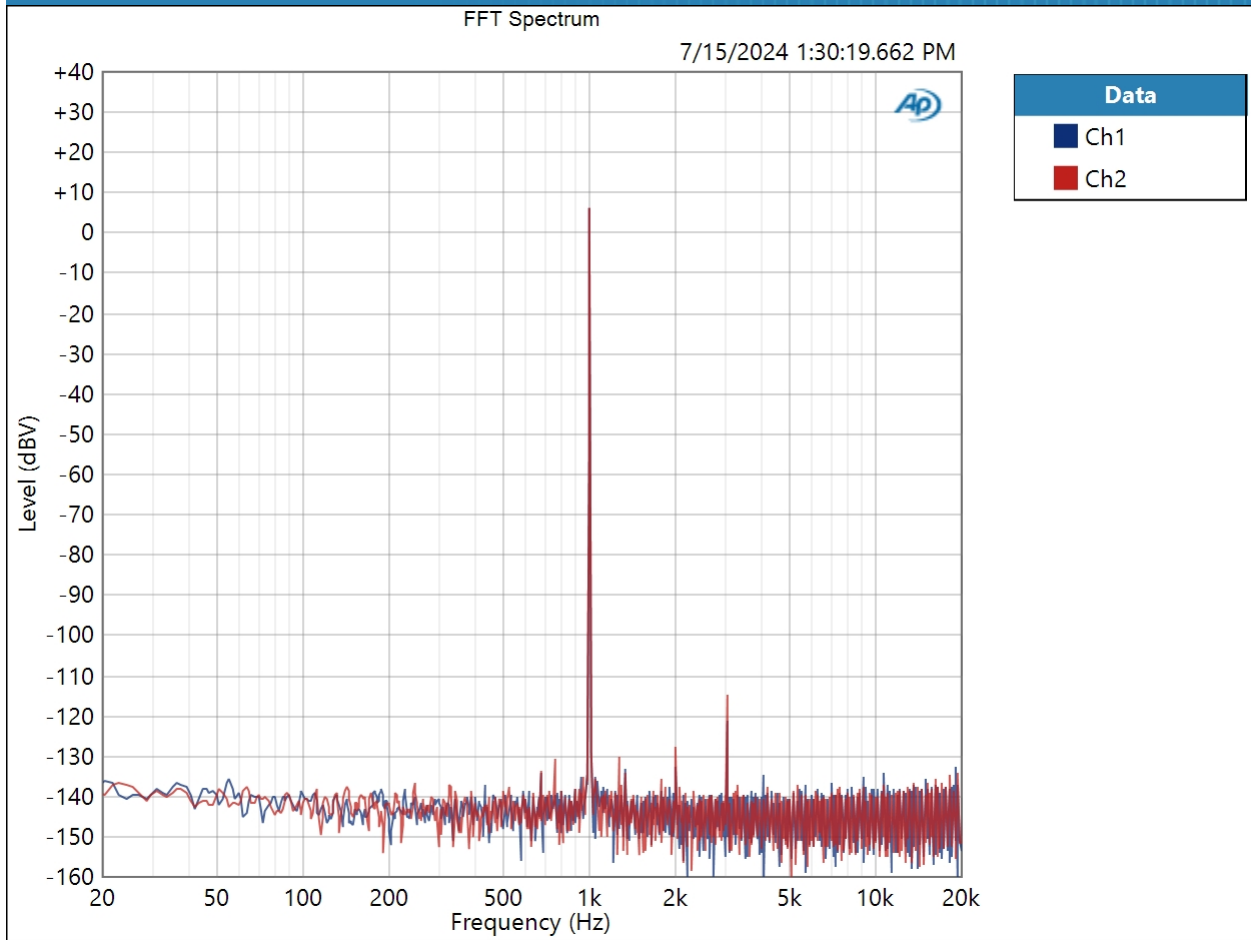
Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

DC Level (7/15/2024 1:30:15.653 PM)

Ch1 59.46 uV
Ch2 -50.08 uV

Passive : Signal Analyzer

Waveform: Sine
Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 7/15/2024 1:30:19 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32768
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)
FFT Spectrum (7/15/2024 1:30:19.662 PM)

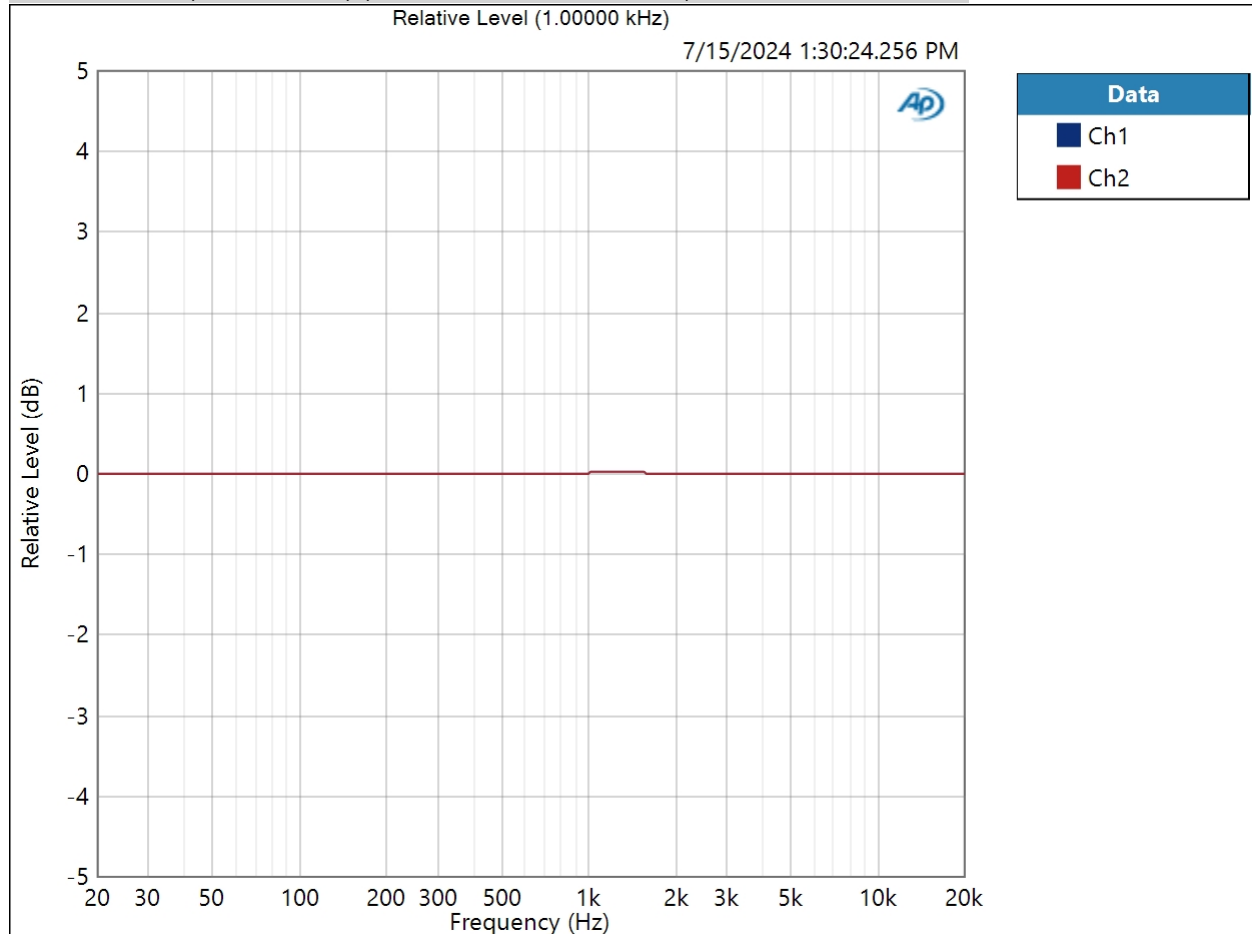


Result: PASSED

Passive : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 1.000 Vrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 7/15/2024 1:30:24 PM

Relative Level (1.00000 kHz) (7/15/2024 1:30:24.256 PM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (7/15/2024 1:30:24.256 PM)

Ch1 ± 0.008 dB

Ch2 ± 0.009 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Passive : Signal to Noise Ratio

Waveform: Sine

Generator Level: 2.000 Vrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

High-pass Filter: Elliptic

High-pass Frequency: 20 Hz

Low-pass Filter: Elliptic

Low-pass Frequency: 20 kHz

Weighting Filter: A-wt.

Signal to Noise Ratio (7/15/2024 1:30:26.409 PM)

Ch1 128.285 dB

Ch2 128.174 dB

Passive : THD+N

Waveform: Sine
 Generator Level: 2.000 Vrms
 DC Offset: 0.000 V
 Frequency: 1.00000 kHz
 High-pass Filter: Elliptic
 High-pass Frequency: 20 Hz
 Low-pass Filter: Elliptic
 Low-pass Frequency: 20 kHz
 Weighting Filter: Signal Path
 Notch Tuning Mode: Measured Frequency

THD+N Ratio (7/15/2024 1:30:28.905 PM)

Ch1 0.000257 %
 Ch2 0.000263 %

THD Ratio (7/15/2024 1:30:28.905 PM)

Ch1 0.000054 %
 Ch2 0.000094 %

Noise Ratio (7/15/2024 1:30:28.905 PM)

Ch1 0.000247 %
 Ch2 0.000245 %

Distortion Product Ratio (7/15/2024 1:30:28.905 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-136.60	-128.54	-139.71	-139.34	-142.28	-143.32	-141.78	-139.81	-140.11
Ch2	-0.00	-136.47	-121.80	-144.18	-140.79	-141.09	-142.38	-142.21	-136.15	-141.14

Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Schiit Preamp APx Test Suite: Saga 2



Passive : IMD Level Sweep (CCIF)

IMD Type: CCIF

Mean Frequency: 12.5000 kHz

Diff Frequency: 80.0000 Hz

IMD Split: False

Start Level: 1.000 mVrms

Stop Level: 8.000 Vrms

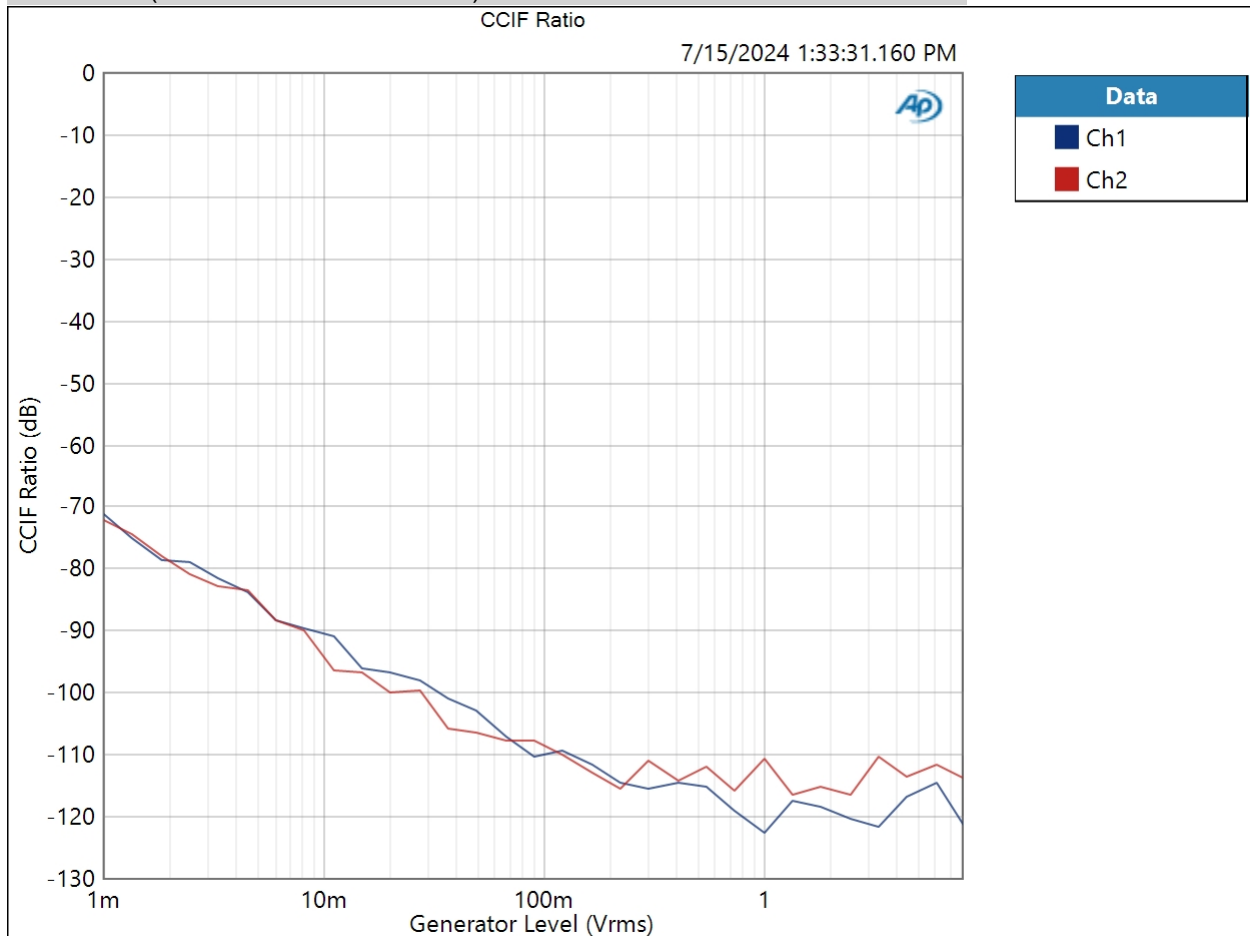
Step Type: Logarithmic

Number of Points: 31

Mode: d2+d3

Measured 1 7/15/2024 1:33:31 PM

CCIF Ratio (7/15/2024 1:33:31.160 PM)



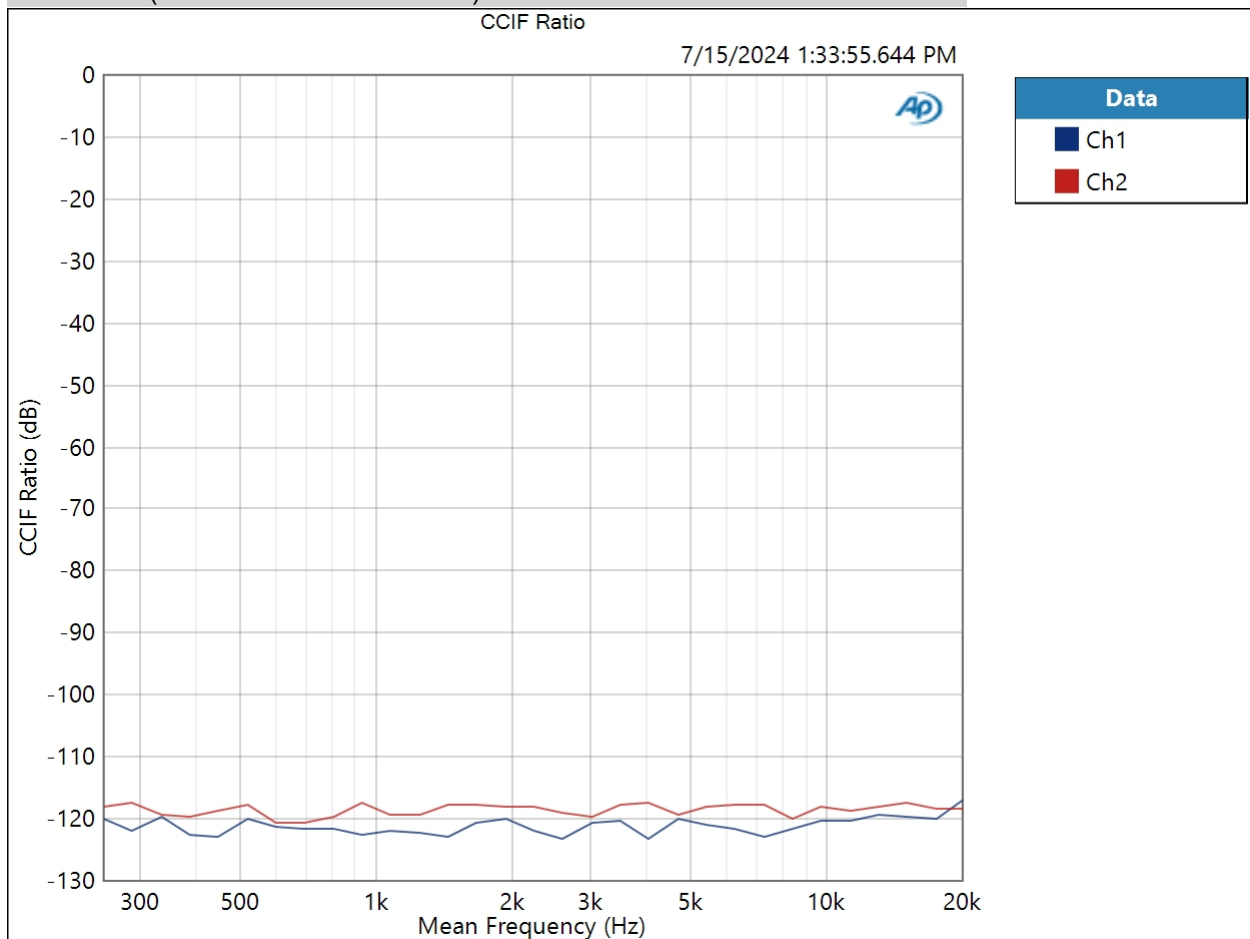
Result: PASSED

7/15/2024 1:53 PM

Passive : IMD Frequency Sweep (CCIF)

Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Sweep Frequency: Mean Frequency
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Frequency: 20.0000 kHz
Stop Frequency: 250.000 Hz
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:33:55 PM

CCIF Ratio (7/15/2024 1:33:55.644 PM)



Result:  PASSED

Passive : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: 2.000 Vrms

DC Offset: 0.000 V

Frequency: 10.0000 kHz

Crosstalk (7/15/2024 1:31:09.250 PM)

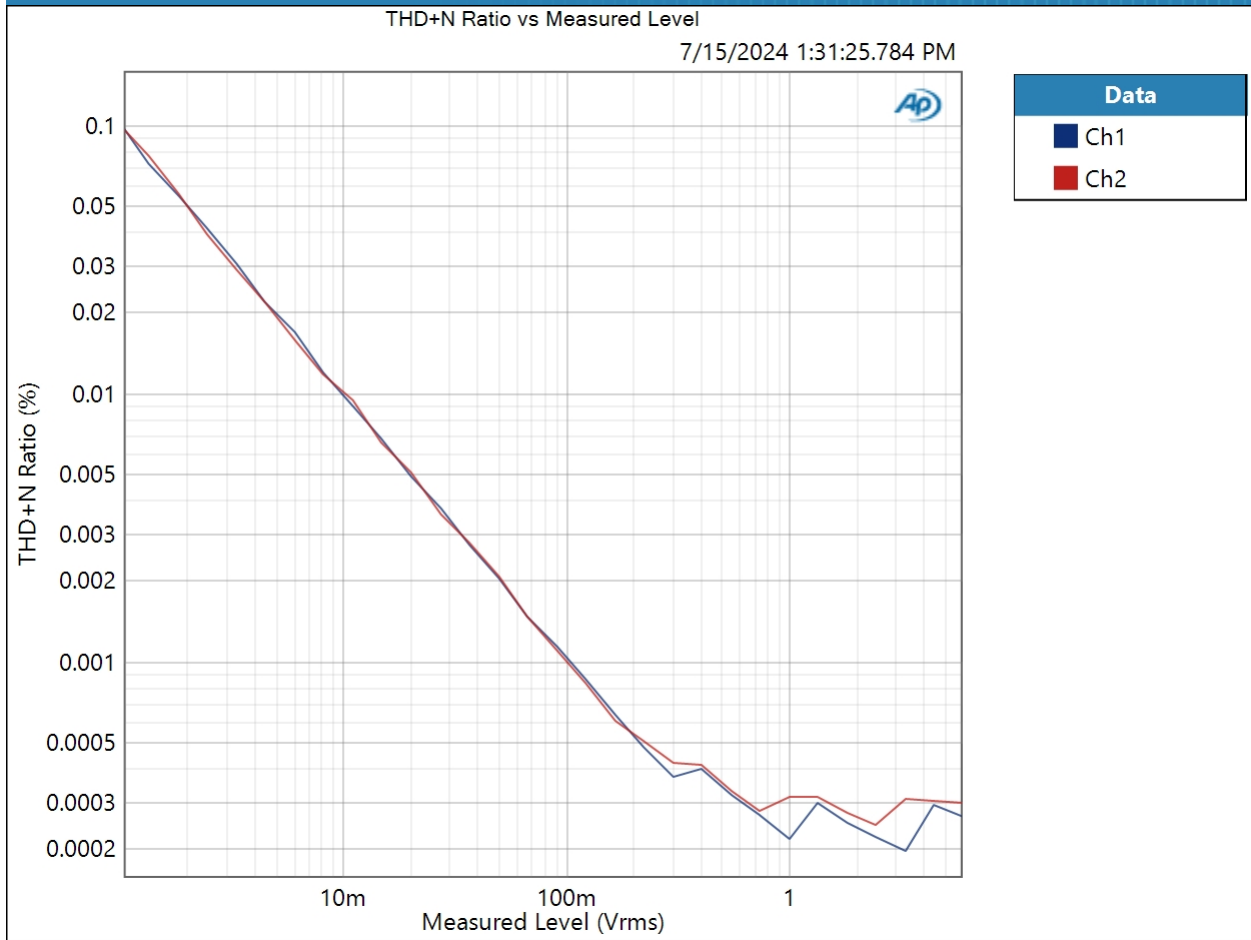
Ch1 -107.539 dB

Ch2 -105.628 dB

Passive : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 8.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Offset: 0.000 V
High-pass Filter: Elliptic
High-pass Frequency: 20 Hz
Low-pass Filter: Elliptic
Low-pass Frequency: 20 kHz
Weighting Filter: Signal Path
Notch Tuning Mode: Generator Frequency
Measured 1 7/15/2024 1:31:25 PM

THD+N Ratio vs Measured Level (7/15/2024 1:31:25.784 PM)



Result: PASSED

Low Gain Balanced : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Source Impedance:	20 ohm
Auto Range:	Enabled
Output EQ:	None
Input 1:	Analog Balanced
Measure:	Auto
Channels:	Auto (2 Channels)
Ch1	Data from Ch1, Sensitivity = 0.00 dB, Gain = 0.00 dB
Ch2	Data from Ch2, Sensitivity = 0.00 dB, Gain = 0.00 dB
Input Bandwidth:	AC (<10 Hz) - 20 kHz (44.1 kHz SR)
Input EQ:	None
Termination:	200 kohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
Analog Input	
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dB SPL1:	10.00 mVrms
dB SPL2:	10.00 mVrms
dB SPL1 Calibrator Level:	94.000 dB SPL
dB SPL2 Calibrator Level:	94.000 dB SPL
dBm (Input Power):	600.0 ohm
W(watts) (Input Power):	8.000 ohm
• DCX	
DCX is not detected.	

Low Gain Balanced : Level and Gain

Waveform: Sine
Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (7/15/2024 1:37:02.126 PM)

Ch1 4.003 Vrms
Ch2 3.997 Vrms

Low Gain Balanced : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

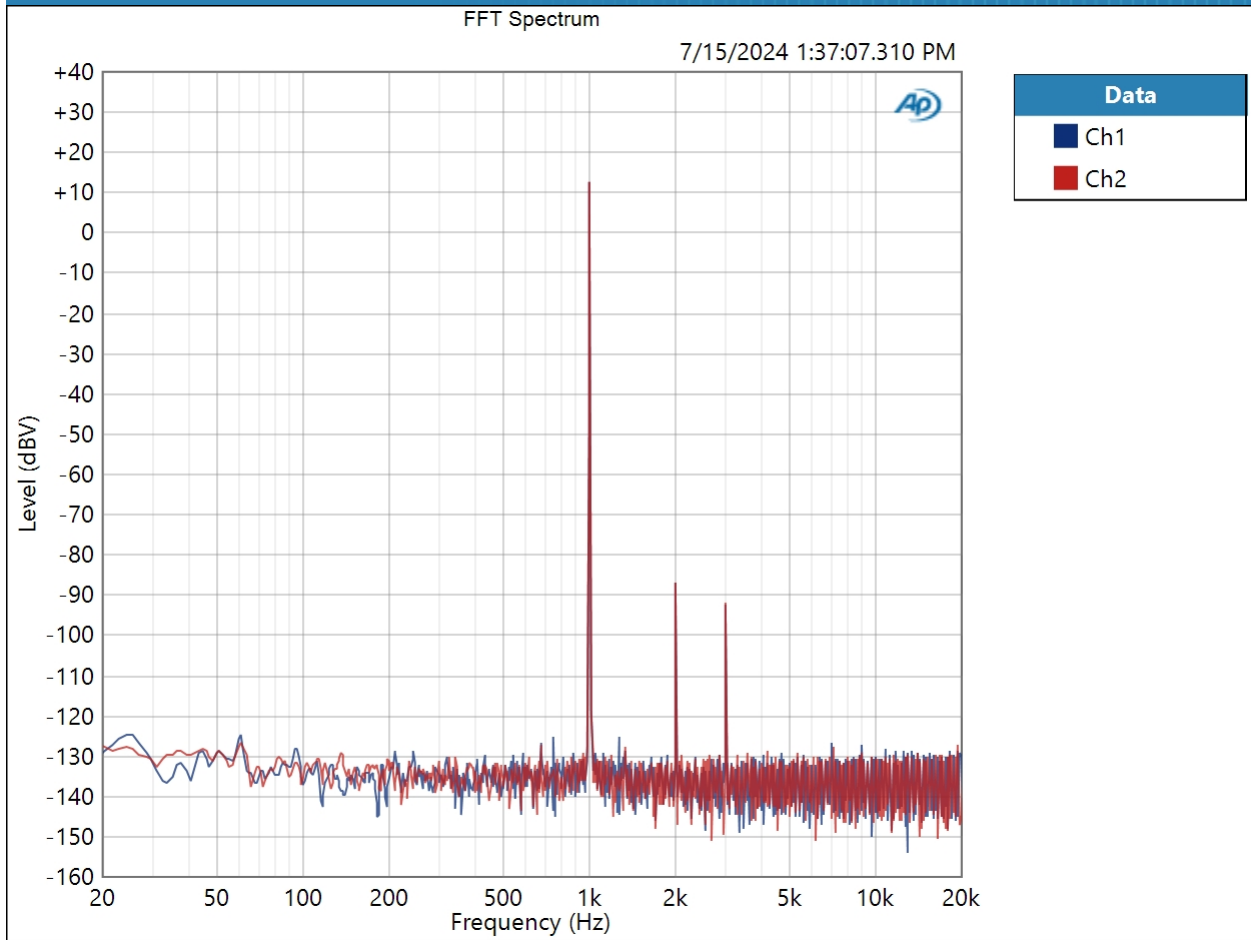
DC Level (7/15/2024 1:37:03.298 PM)

Ch1 115.9 uV
Ch2 2.704 uV

Low Gain Balanced : Signal Analyzer

Waveform: Sine
Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 7/15/2024 1:37:07 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32768
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (7/15/2024 1:37:07.310 PM)

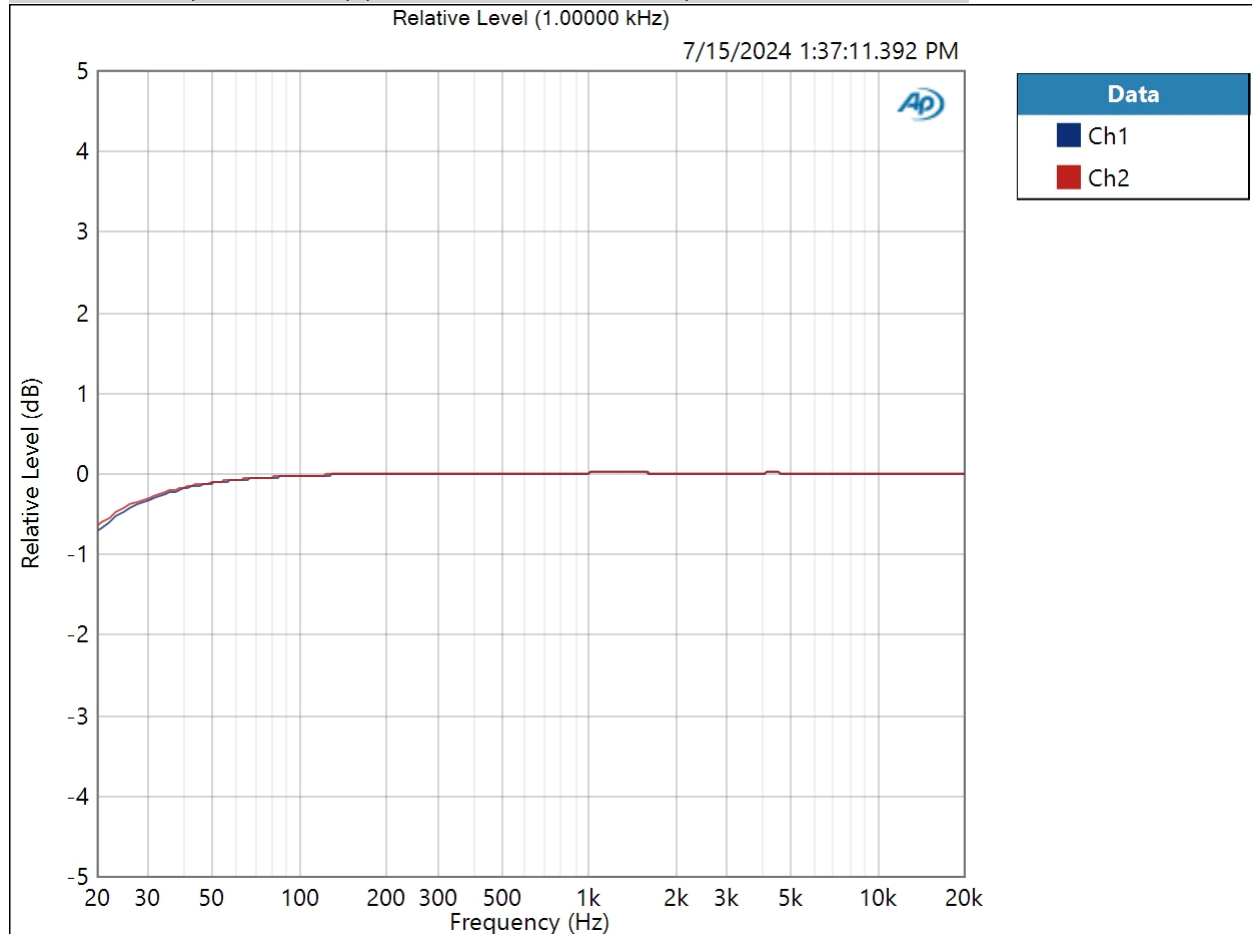


Result:  PASSED

Low Gain Balanced : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 1.000 Vrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 7/15/2024 1:37:11 PM

Relative Level (1.00000 kHz) (7/15/2024 1:37:11.392 PM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (7/15/2024 1:37:11.392 PM)

Ch1 ± 0.354 dB

Ch2 ± 0.323 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Low Gain Balanced : Signal to Noise Ratio

Waveform: Sine

Generator Level: 2.000 Vrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

High-pass Filter: Elliptic

High-pass Frequency: 20 Hz

Low-pass Filter: Elliptic

Low-pass Frequency: 20 kHz

Weighting Filter: A-wt.

Signal to Noise Ratio (7/15/2024 1:37:13.634 PM)

Ch1 124.699 dB

Ch2 124.698 dB

Low Gain Balanced : THD+N

Waveform: Sine
 Generator Level: 2.000 Vrms
 DC Offset: 0.000 V
 Frequency: 1.00000 kHz
 High-pass Filter: Elliptic
 High-pass Frequency: 20 Hz
 Low-pass Filter: Elliptic
 Low-pass Frequency: 20 kHz
 Weighting Filter: Signal Path
 Notch Tuning Mode: Measured Frequency

THD+N Ratio (7/15/2024 1:37:15.590 PM)

Ch1 0.001305 %
 Ch2 0.001311 %

THD Ratio (7/15/2024 1:37:15.590 PM)

Ch1 0.001258 %
 Ch2 0.001272 %

Noise Ratio (7/15/2024 1:37:15.590 PM)

Ch1 0.000309 %
 Ch2 0.000314 %

Distortion Product Ratio (7/15/2024 1:37:15.590 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-99.09	-104.60	-134.83	-138.42	-145.80	-134.42	-137.41	-137.22	-135.05
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-99.09	-104.19	-136.44	-139.35	-139.37	-139.51	-139.52	-136.46	-142.57

Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

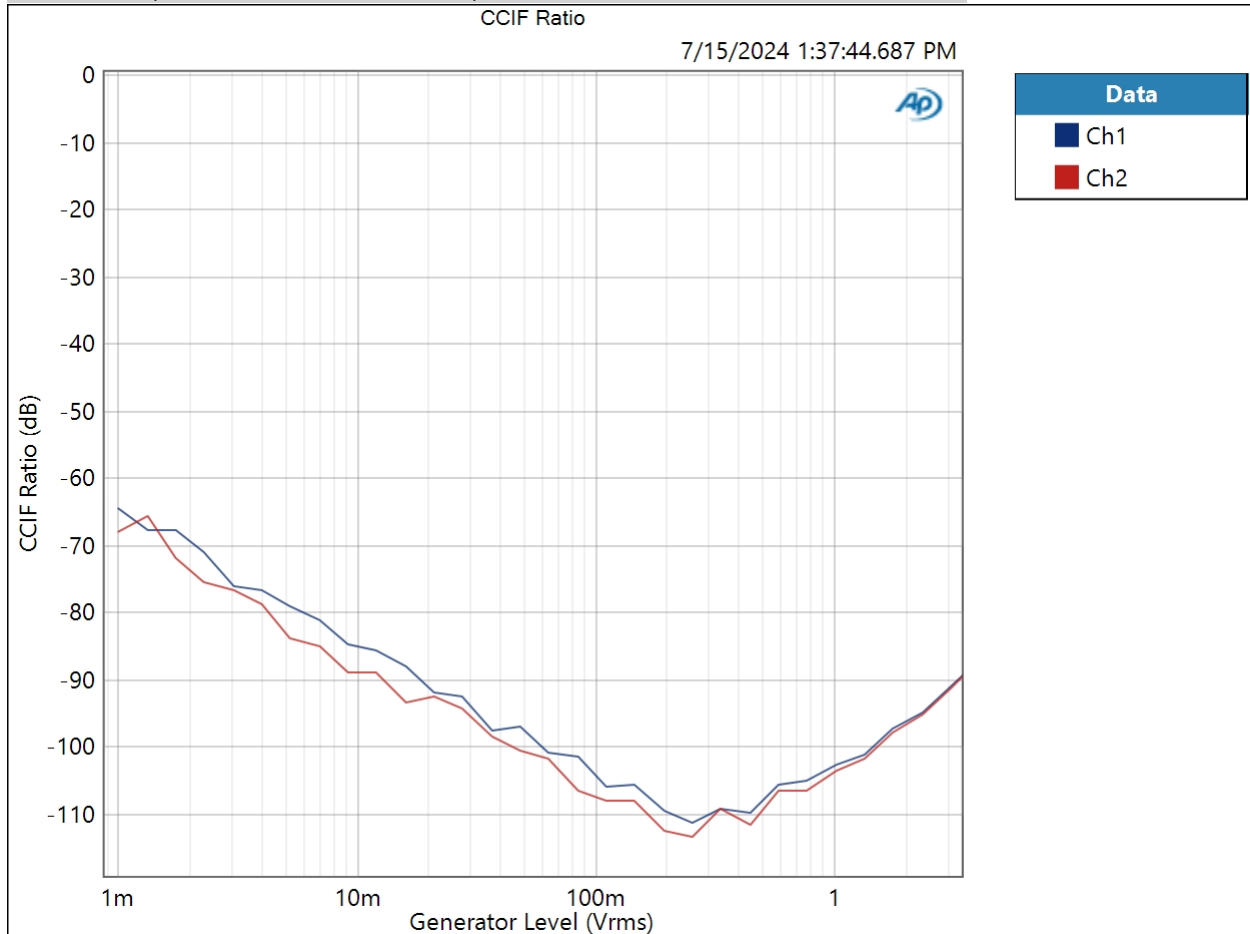
Schiit Preamp APx Test Suite: Saga 2



Low Gain Balanced : IMD Level Sweep (CCIF)

IMD Type: CCIF
Mean Frequency: 12.5000 kHz
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:37:44 PM

CCIF Ratio (7/15/2024 1:37:44.687 PM)



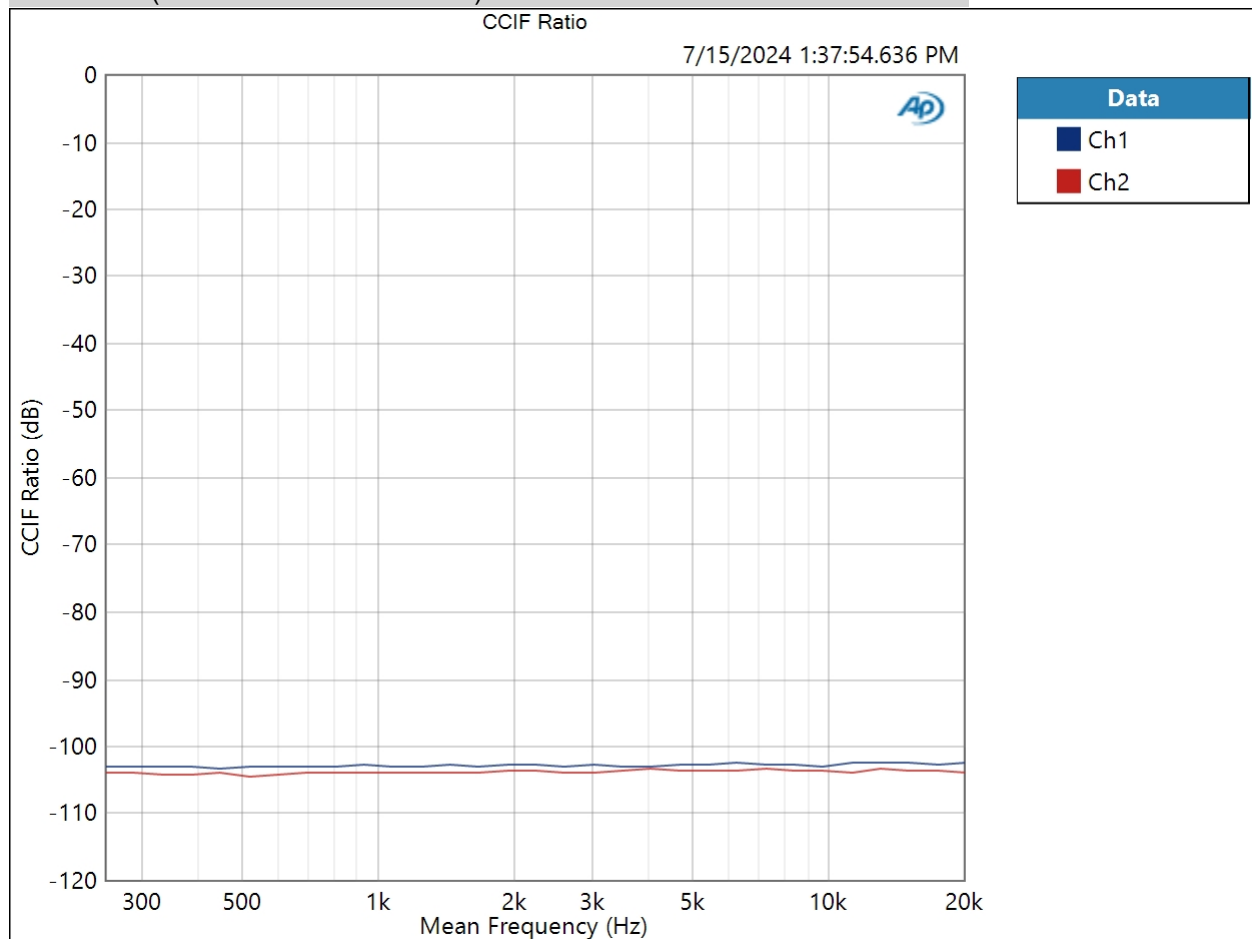
Result: PASSED

7/15/2024 1:53 PM

Low Gain Balanced : IMD Frequency Sweep (CCIF)

Generator Level: 1.000 Vrms
DC Offset: 0.000 V
Sweep Frequency: Mean Frequency
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Frequency: 20.0000 kHz
Stop Frequency: 250.000 Hz
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:37:54 PM

CCIF Ratio (7/15/2024 1:37:54.636 PM)

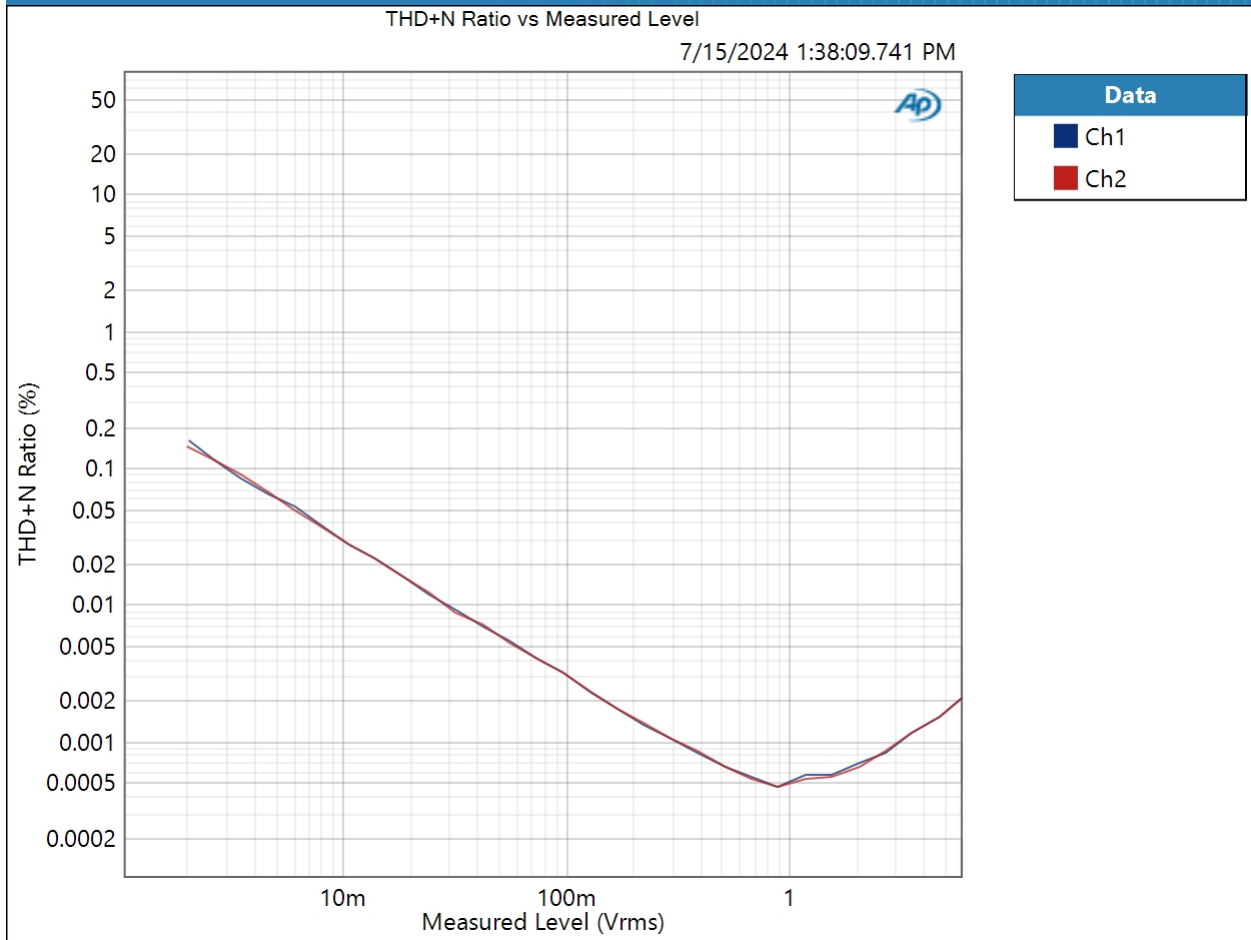


Result:  PASSED

Low Gain Balanced : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Offset: 0.000 V
High-pass Filter: Elliptic
High-pass Frequency: 20 Hz
Low-pass Filter: Elliptic
Low-pass Frequency: 20 kHz
Weighting Filter: Signal Path
Notch Tuning Mode: Generator Frequency
Measured 1 7/15/2024 1:38:09 PM

THD+N Ratio vs Measured Level (7/15/2024 1:38:09.741 PM)



Result: ✔ PASSED

High Gain Balanced : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Source Impedance:	20 ohm
Auto Range:	Enabled
Output EQ:	None
Input 1:	Analog Balanced
Measure:	Auto
Channels:	Auto (2 Channels)
Ch1	Data from Ch1, Sensitivity = 0.00 dB, Gain = 0.00 dB
Ch2	Data from Ch2, Sensitivity = 0.00 dB, Gain = 0.00 dB
Input Bandwidth:	AC (<10 Hz) - 20 kHz (44.1 kHz SR)
Input EQ:	None
Termination:	200 kohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
Analog Input	
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dB SPL1:	10.00 mVrms
dB SPL2:	10.00 mVrms
dB SPL1 Calibrator Level:	94.000 dB SPL
dB SPL2 Calibrator Level:	94.000 dB SPL
dBm (Input Power):	600.0 ohm
W(watts) (Input Power):	8.000 ohm
• DCX	
DCX is not detected.	

High Gain Balanced : Level and Gain

Waveform: Sine
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (7/15/2024 1:52:30.363 PM)

Ch1 3.986 Vrms
Ch2 3.983 Vrms

High Gain Balanced : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

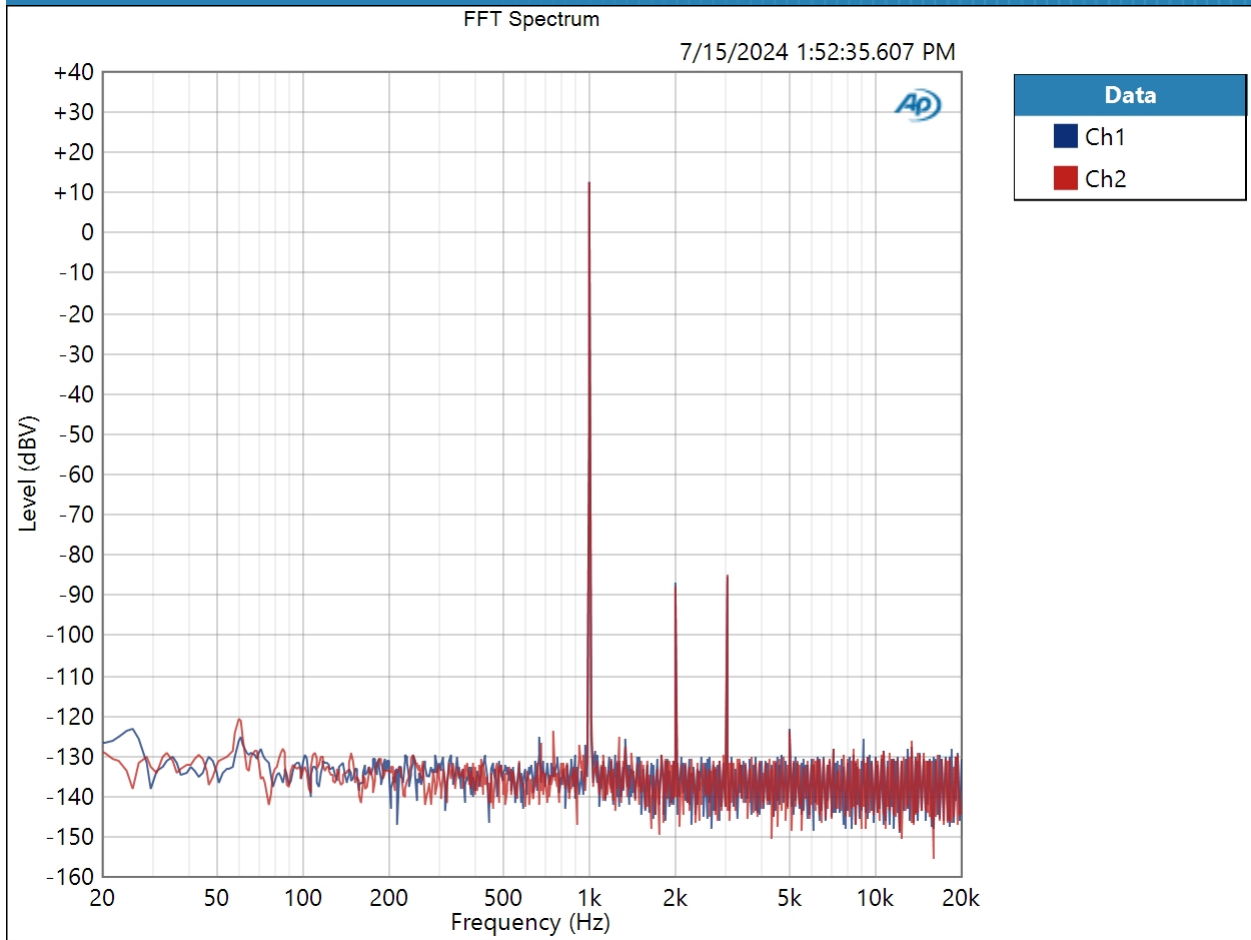
DC Level (7/15/2024 1:52:31.597 PM)

Ch1 128.9 uV
Ch2 -14.88 uV

High Gain Balanced : Signal Analyzer

Waveform: Sine
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 7/15/2024 1:52:35 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32768
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (7/15/2024 1:52:35.607 PM)

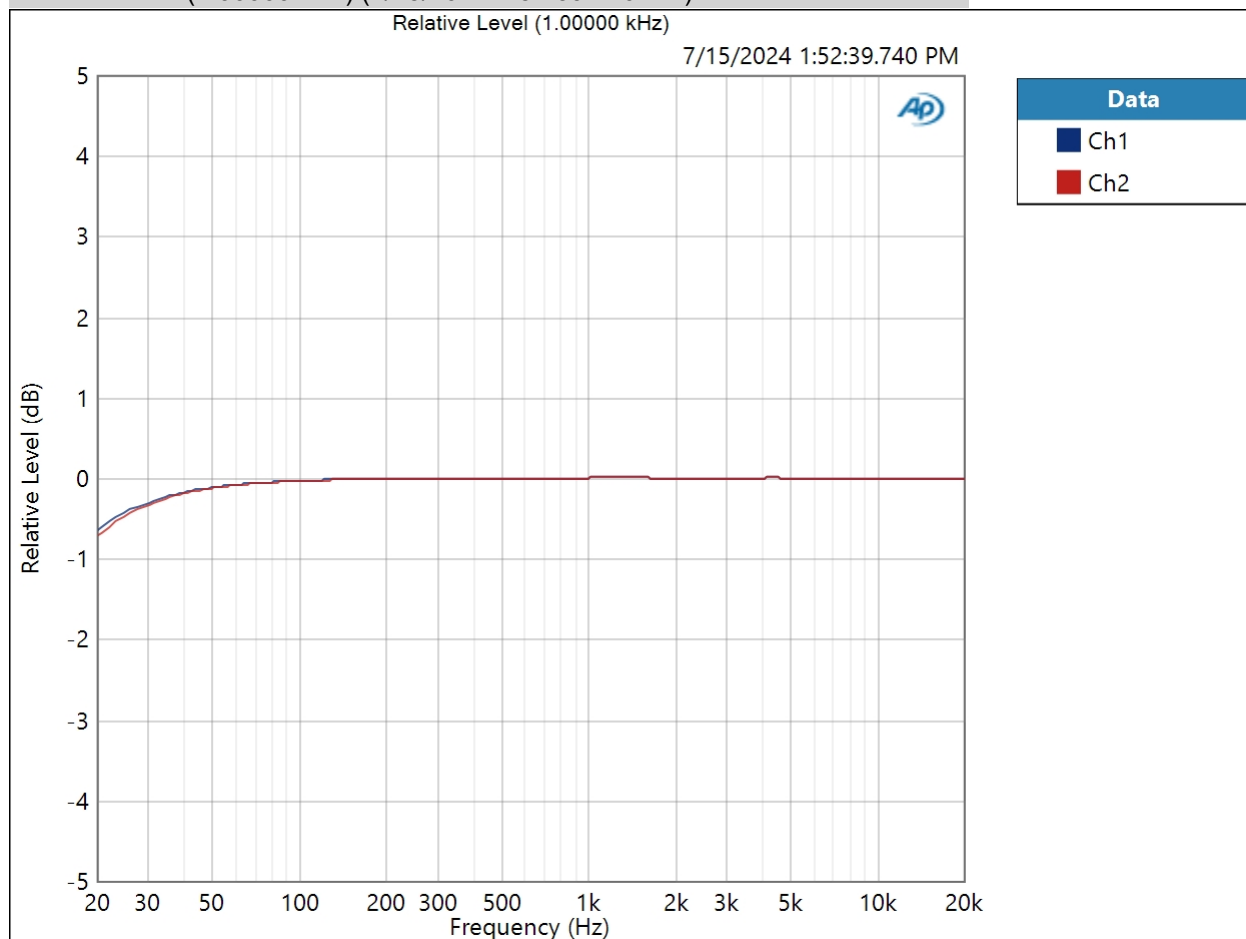


Result: PASSED

High Gain Balanced : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 7/15/2024 1:52:39 PM

Relative Level (1.00000 kHz) (7/15/2024 1:52:39.740 PM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (7/15/2024 1:52:39.740 PM)

Ch1 ± 0.323 dB

Ch2 ± 0.354 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

High Gain Balanced : Signal to Noise Ratio

Waveform: Sine

Generator Level: 500.0 mVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

High-pass Filter: Elliptic

High-pass Frequency: 20 Hz

Low-pass Filter: Elliptic

Low-pass Frequency: 20 kHz

Weighting Filter: Signal Path

Signal to Noise Ratio (7/15/2024 1:52:41.861 PM)

Ch1 117.559 dB

Ch2 117.524 dB

High Gain Balanced : THD+N

Waveform: Sine
 Generator Level: 500.0 mVrms
 DC Offset: 0.000 V
 Frequency: 1.00000 kHz
 High-pass Filter: Elliptic
 High-pass Frequency: 20 Hz
 Low-pass Filter: Elliptic
 Low-pass Frequency: 20 kHz
 Weighting Filter: A-wt.
 Notch Tuning Mode: Measured Frequency

THD+N Ratio (7/15/2024 1:52:43.767 PM)

Ch1 0.002026 %
 Ch2 0.001967 %

THD Ratio (7/15/2024 1:52:43.767 PM)

Ch1 0.002010 %
 Ch2 0.001947 %

Noise Ratio (7/15/2024 1:52:43.767 PM)

Ch1 0.000236 %
 Ch2 0.000229 %

Distortion Product Ratio (7/15/2024 1:52:43.767 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-97.79	-96.25	-133.47	-131.21	-138.72	-140.38	-141.68	-138.25	-139.68
Ch2	-0.00	-98.96	-95.99	-137.64	-136.57	-139.00	-136.06	-141.77	-136.72	-140.54

Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

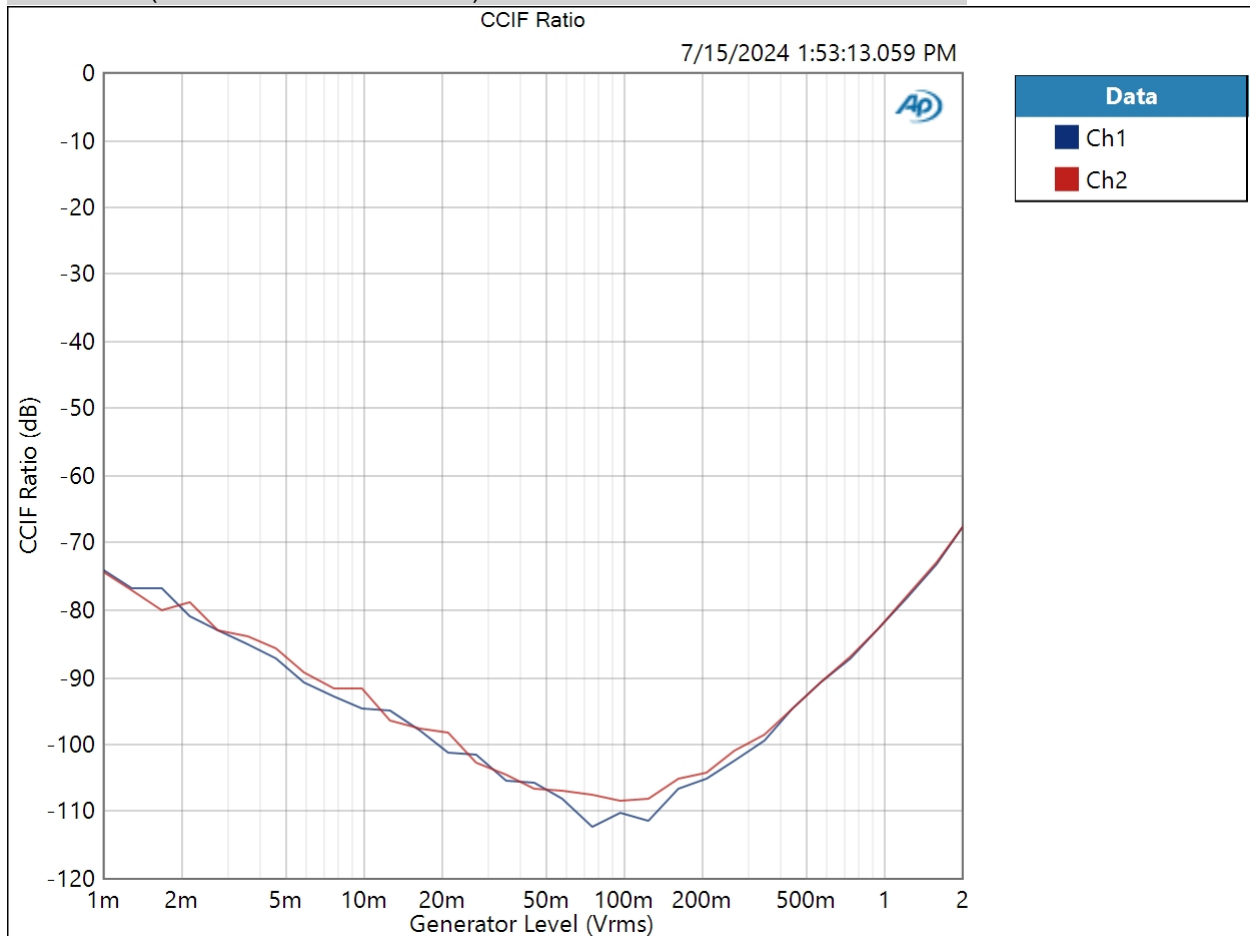
Schiit Preamp APx Test Suite: Saga 2



High Gain Balanced : IMD Level Sweep (CCIF)

IMD Type: CCIF
Mean Frequency: 12.5000 kHz
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Level: 1.000 mVrms
Stop Level: 2.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:53:13 PM

CCIF Ratio (7/15/2024 1:53:13.059 PM)



Result: PASSED

7/15/2024 1:53 PM

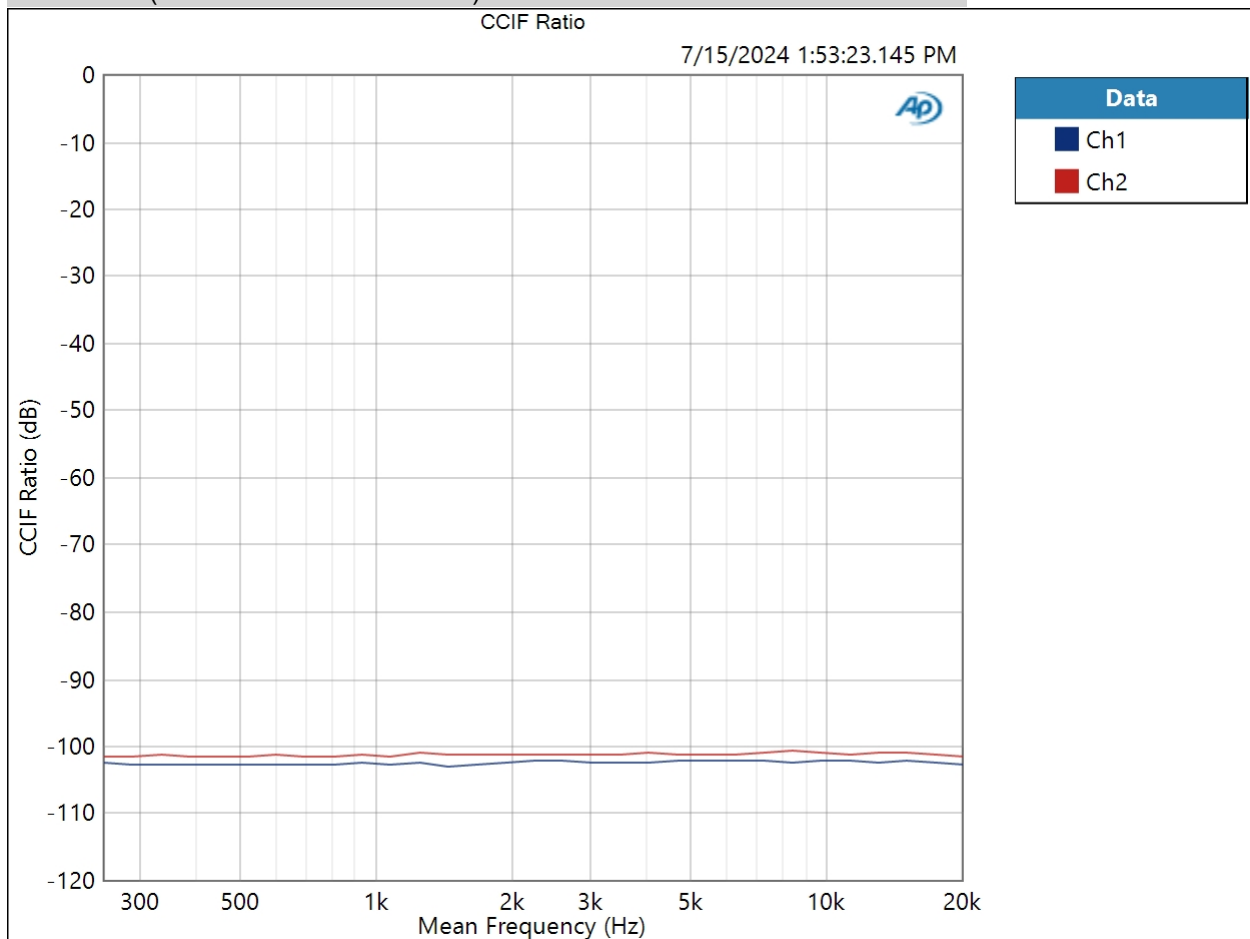
Schiit Preamp APx Test Suite: Saga 2



High Gain Balanced : IMD Frequency Sweep (CCIF)

Generator Level: 265.0 mVrms
DC Offset: 0.000 V
Sweep Frequency: Mean Frequency
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Frequency: 20.0000 kHz
Stop Frequency: 250.000 Hz
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:53:23 PM

CCIF Ratio (7/15/2024 1:53:23.145 PM)

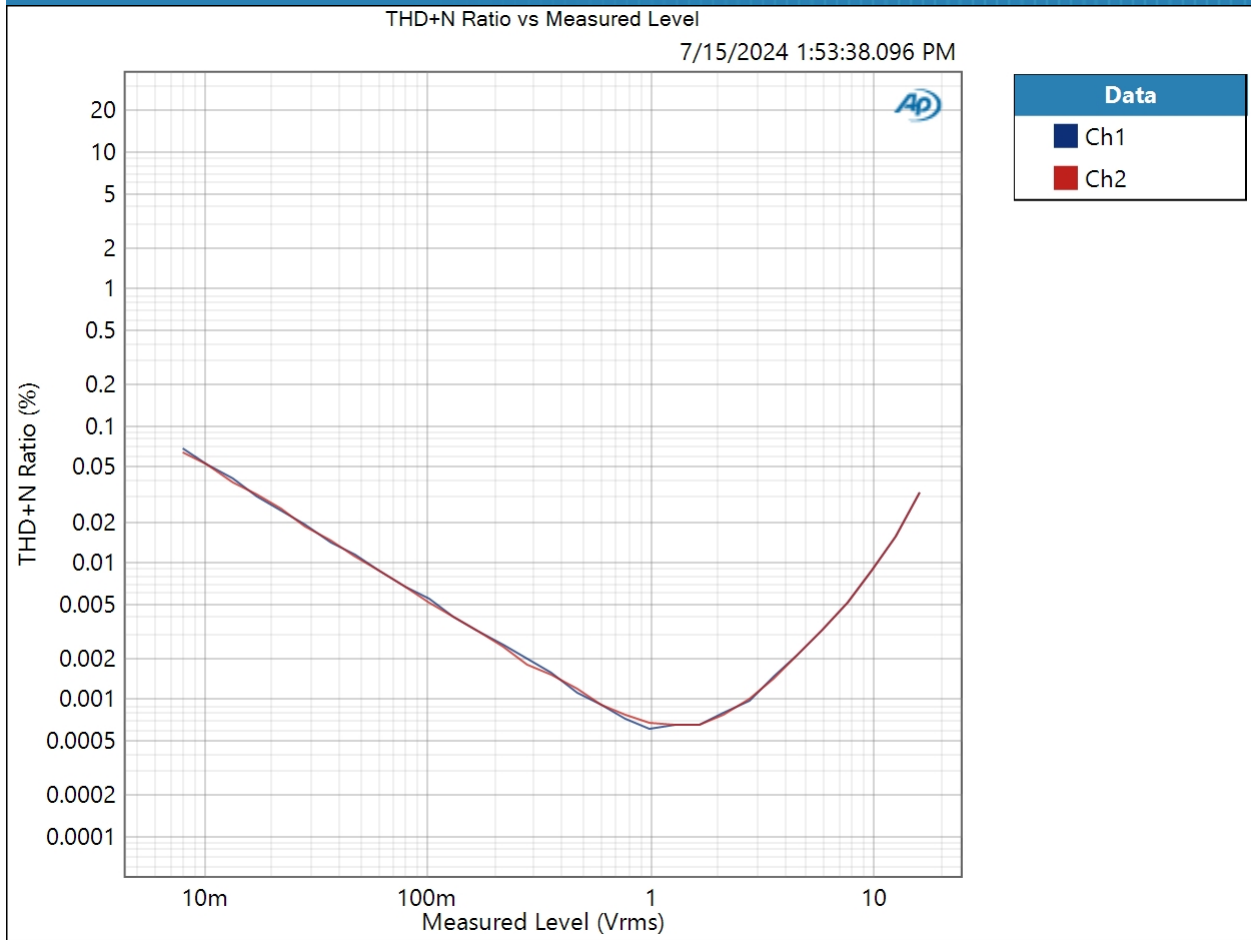


Result:  PASSED

High Gain Balanced : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 2.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Offset: 0.000 V
High-pass Filter: Elliptic
High-pass Frequency: 20 Hz
Low-pass Filter: Elliptic
Low-pass Frequency: 20 kHz
Weighting Filter: Signal Path
Notch Tuning Mode: Generator Frequency
Measured 1 7/15/2024 1:53:38 PM

THD+N Ratio vs Measured Level (7/15/2024 1:53:38.096 PM)



Result: PASSED

Low Gain SE : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Source Impedance:	20 ohm
Auto Range:	Enabled
Output EQ:	None
Input 1:	Analog Unbalanced
Measure:	Auto
Channels:	Auto (2 Channels)
Ch1	Data from Ch1, Sensitivity = 0.00 dB, Gain = 0.00 dB
Ch2	Data from Ch2, Sensitivity = 0.00 dB, Gain = 0.00 dB
Input Bandwidth:	AC (<10 Hz) - 20 kHz (44.1 kHz SR)
Input EQ:	None
Termination:	100 kohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
Analog Input	
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dB SPL1:	10.00 mVrms
dB SPL2:	10.00 mVrms
dB SPL1 Calibrator Level:	94.000 dB SPL
dB SPL2 Calibrator Level:	94.000 dB SPL
dBm (Input Power):	600.0 ohm
W(watts) (Input Power):	8.000 ohm
• DCX	
DCX is not detected.	

Low Gain SE : Level and Gain

Waveform: Sine
Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (7/15/2024 1:39:45.205 PM)

Ch1 2.000 Vrms
Ch2 1.999 Vrms

Low Gain SE : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

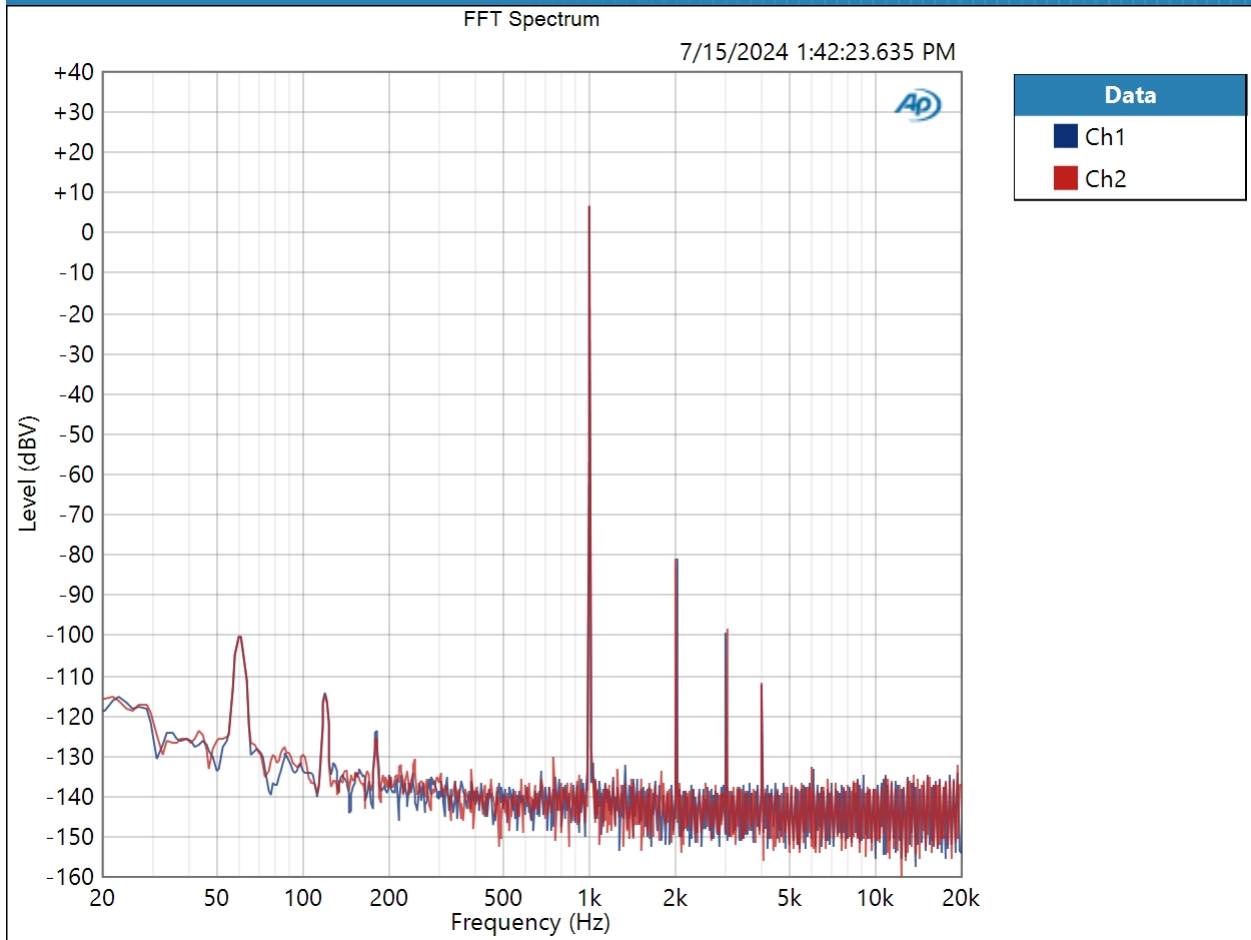
DC Level (7/15/2024 1:39:46.356 PM)

Ch1 -668.8 uV
Ch2 -642.2 uV

Low Gain SE : Signal Analyzer

Waveform: Sine
Generator Level: 2.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 7/15/2024 1:42:23 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32768
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (7/15/2024 1:42:23.635 PM)

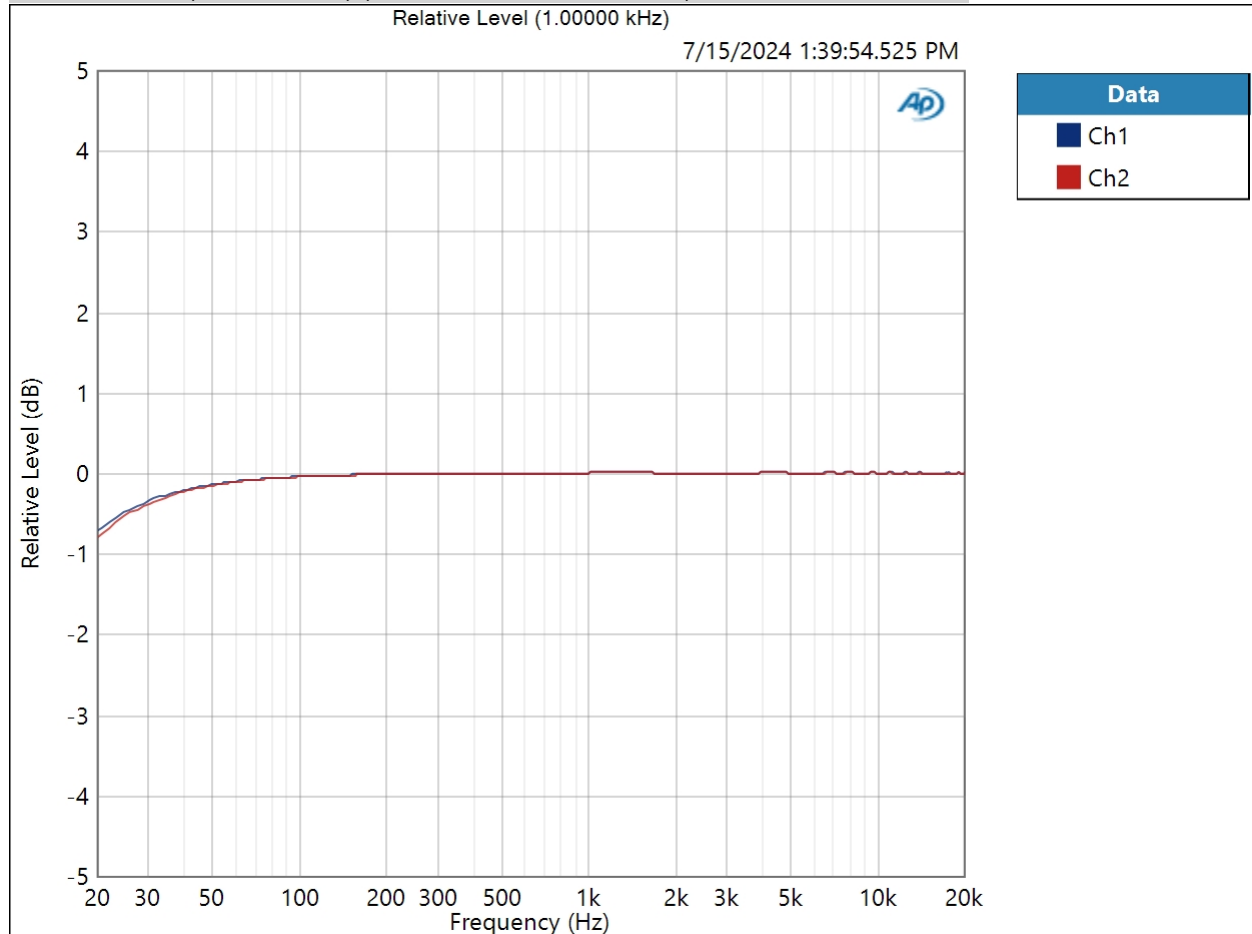


Result: PASSED

Low Gain SE : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 1.000 Vrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 7/15/2024 1:39:54 PM

Relative Level (1.00000 kHz) (7/15/2024 1:39:54.525 PM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (7/15/2024 1:39:54.525 PM)

Ch1 ± 0.357 dB

Ch2 ± 0.393 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Low Gain SE : Signal to Noise Ratio

Waveform: Sine

Generator Level: 2.000 Vrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

High-pass Filter: Elliptic

High-pass Frequency: 20 Hz

Low-pass Filter: Elliptic

Low-pass Frequency: 20 kHz

Weighting Filter: A-wt.

Signal to Noise Ratio (7/15/2024 1:39:56.700 PM)

Ch1 116.573 dB

Ch2 116.533 dB

Low Gain SE : THD+N

Waveform: Sine
 Generator Level: 2.000 Vrms
 DC Offset: 0.000 V
 Frequency: 1.00000 kHz
 High-pass Filter: Elliptic
 High-pass Frequency: 20 Hz
 Low-pass Filter: Elliptic
 Low-pass Frequency: 20 kHz
 Weighting Filter: Signal Path
 Notch Tuning Mode: Measured Frequency

THD+N Ratio (7/15/2024 1:39:58.650 PM)

Ch1 0.004723 %
 Ch2 0.004743 %

THD Ratio (7/15/2024 1:39:58.650 PM)

Ch1 0.004573 %
 Ch2 0.004583 %

Noise Ratio (7/15/2024 1:39:58.650 PM)

Ch1 0.001208 %
 Ch2 0.001190 %

Distortion Product Ratio (7/15/2024 1:39:58.650 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-86.86	-105.13	-117.74	-138.52	-138.55	-135.53	-137.78	-136.57	-140.60
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-86.86	-104.46	-118.09	-137.61	-135.04	-138.43	-136.53	-136.94	-138.84

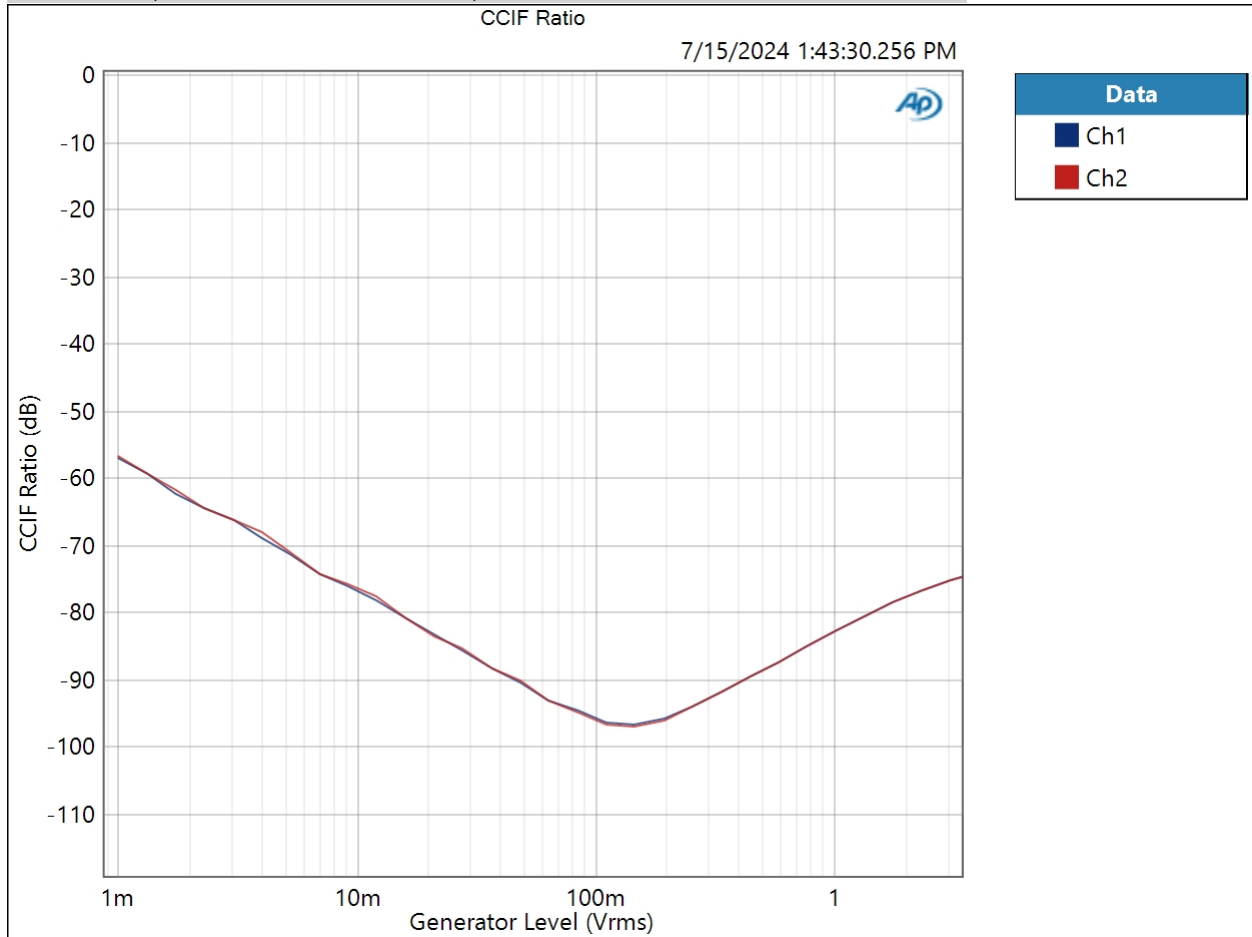
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Low Gain SE : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: 1.000 mVrms
 Stop Level: 4.000 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 7/15/2024 1:43:30 PM

CCIF Ratio (7/15/2024 1:43:30.256 PM)



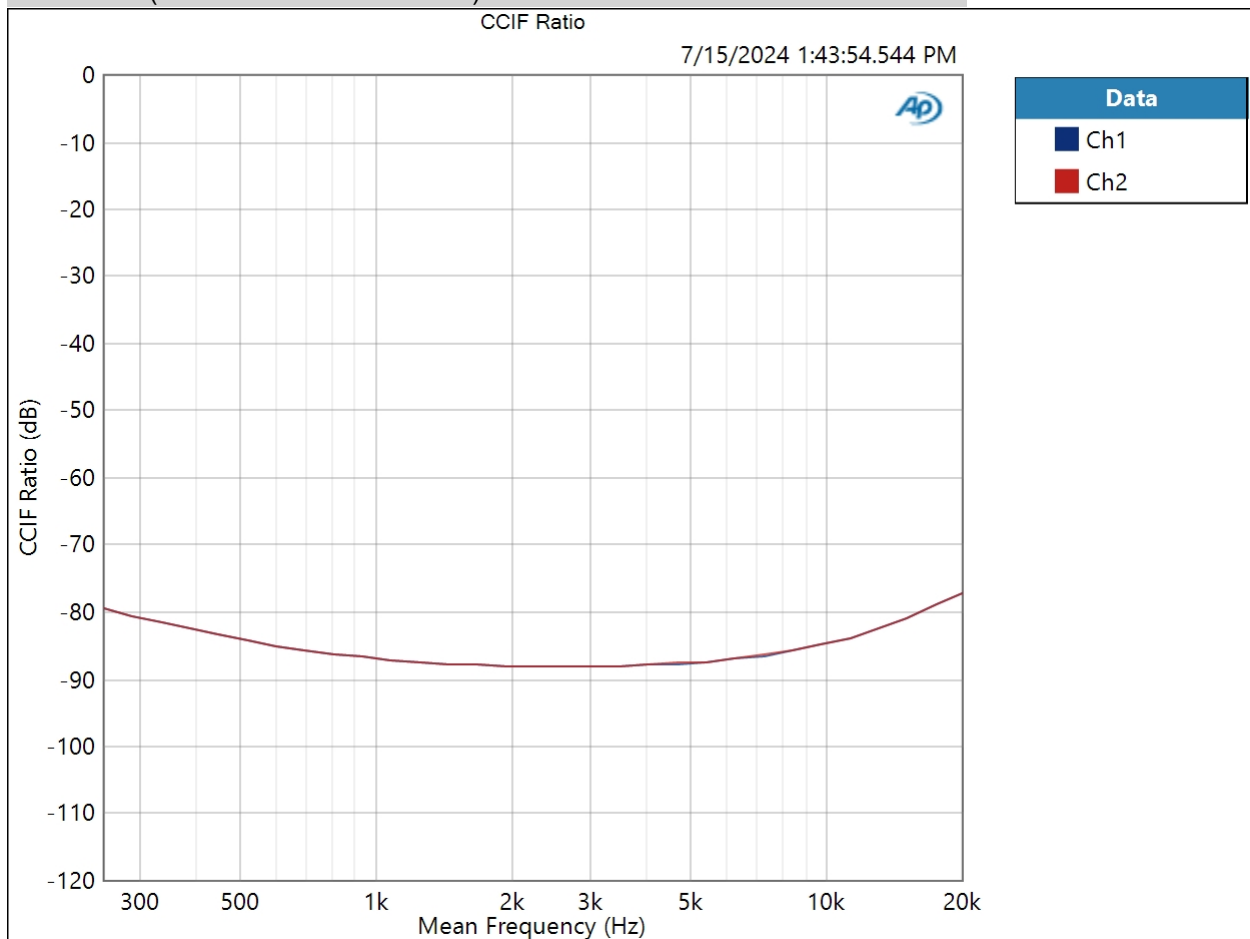
Result: PASSED

7/15/2024 1:53 PM

Low Gain SE : IMD Frequency Sweep (CCIF)

Generator Level: 1.000 Vrms
DC Offset: 0.000 V
Sweep Frequency: Mean Frequency
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Frequency: 20.0000 kHz
Stop Frequency: 250.000 Hz
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:43:54 PM

CCIF Ratio (7/15/2024 1:43:54.544 PM)

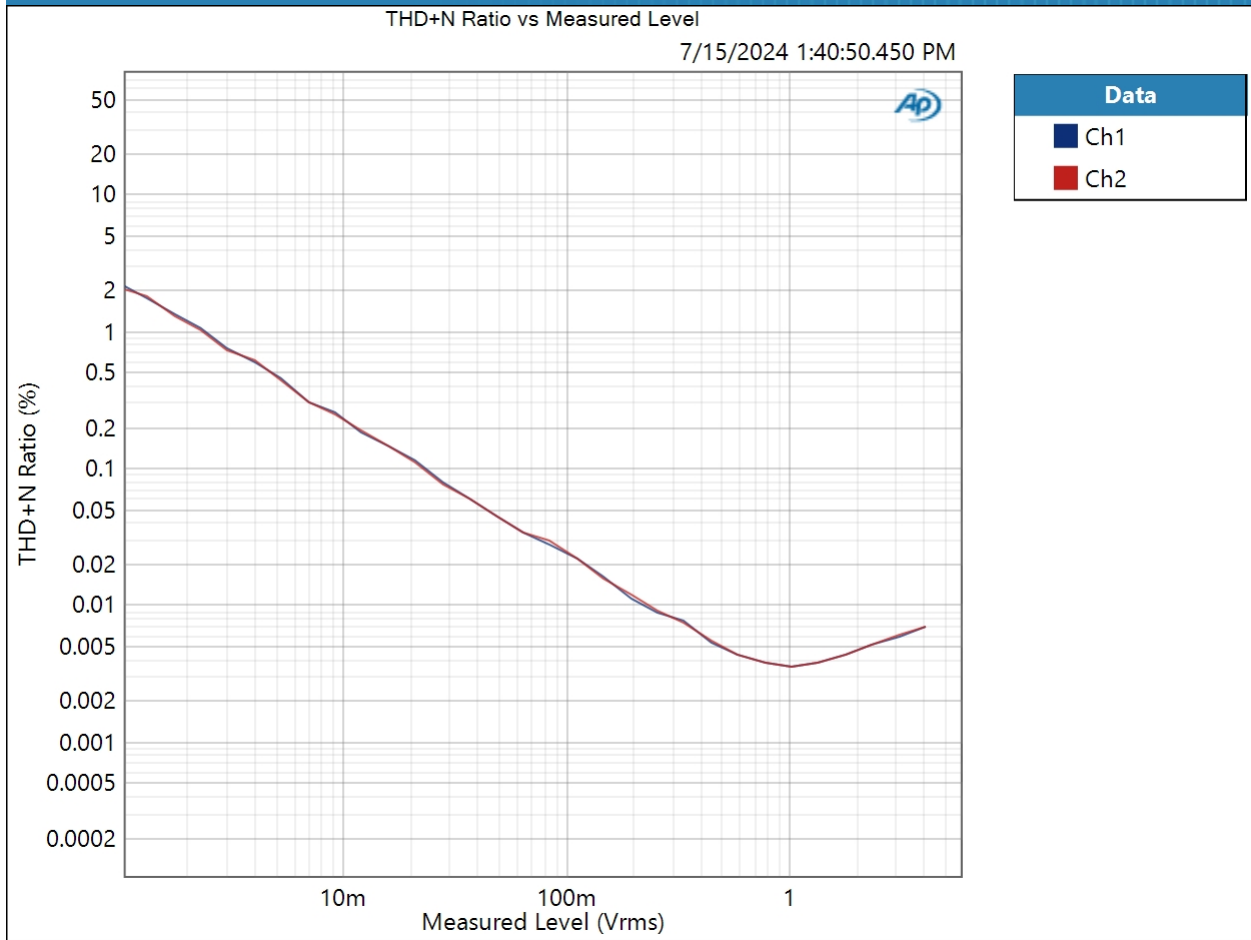


Result:  PASSED

Low Gain SE : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Offset: 0.000 V
High-pass Filter: Elliptic
High-pass Frequency: 20 Hz
Low-pass Filter: Elliptic
Low-pass Frequency: 20 kHz
Weighting Filter: Signal Path
Notch Tuning Mode: Generator Frequency
Measured 1 7/15/2024 1:40:50 PM

THD+N Ratio vs Measured Level (7/15/2024 1:40:50.450 PM)



Result: PASSED

High Gain SE : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Source Impedance:	20 ohm
Auto Range:	Enabled
Output EQ:	None
Input 1:	Analog Unbalanced
Measure:	Auto
Channels:	Auto (2 Channels)
Ch1	Data from Ch1, Sensitivity = 0.00 dB, Gain = 0.00 dB
Ch2	Data from Ch2, Sensitivity = 0.00 dB, Gain = 0.00 dB
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Input EQ:	None
Termination:	100 kohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
Analog Input	
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dB SPL1:	10.00 mVrms
dB SPL2:	10.00 mVrms
dB SPL1 Calibrator Level:	94.000 dB SPL
dB SPL2 Calibrator Level:	94.000 dB SPL
dBm (Input Power):	600.0 ohm
W(watts) (Input Power):	8.000 ohm
• DCX	
DCX is not detected.	

High Gain SE : Level and Gain

Waveform: Sine
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (7/15/2024 1:47:13.286 PM)

Ch1 1.993 Vrms
Ch2 1.991 Vrms

High Gain SE : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

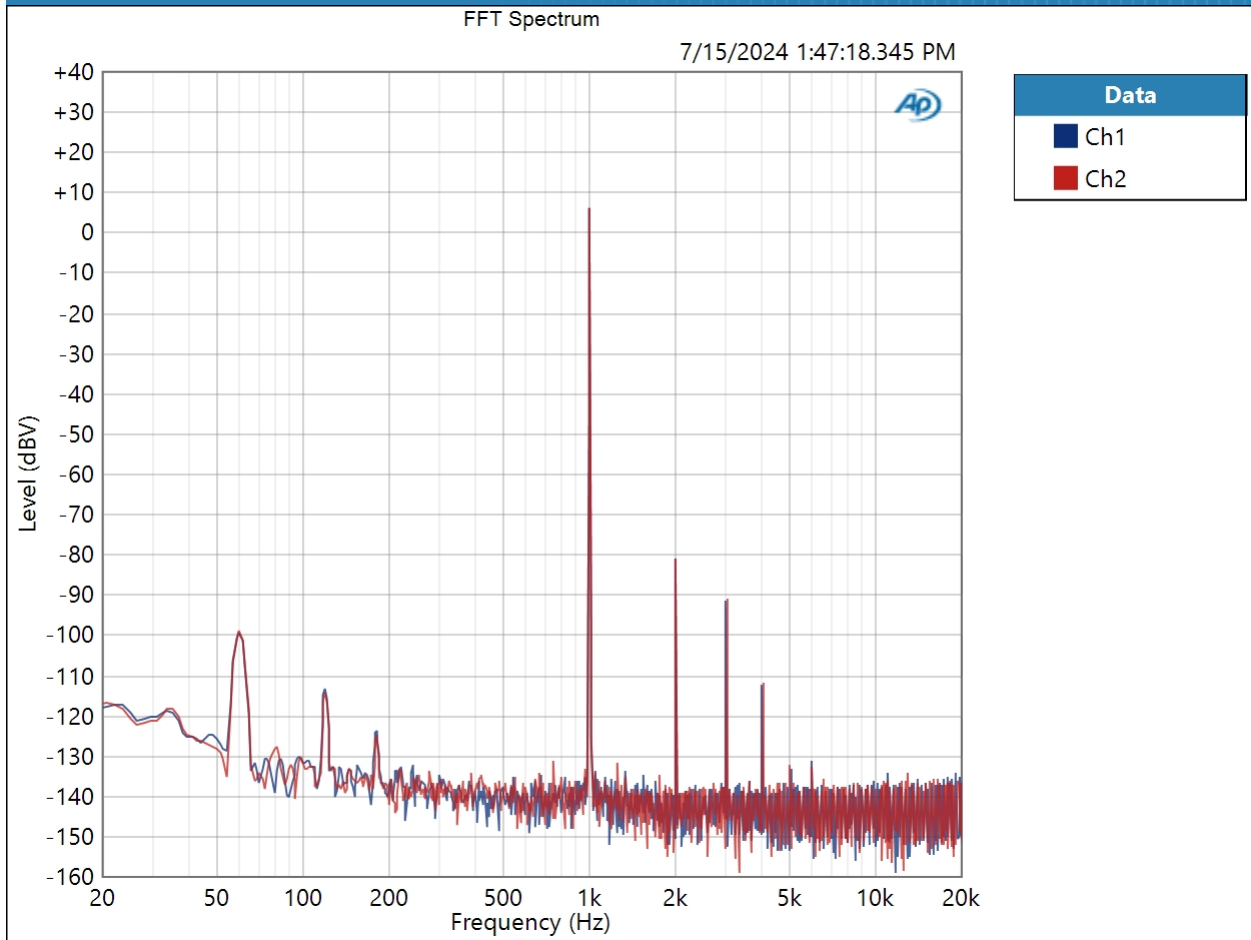
DC Level (7/15/2024 1:47:14.501 PM)

Ch1 -733.0 uV
Ch2 -716.5 uV

High Gain SE : Signal Analyzer

Waveform: Sine
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 7/15/2024 1:47:18 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32768
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (7/15/2024 1:47:18.345 PM)

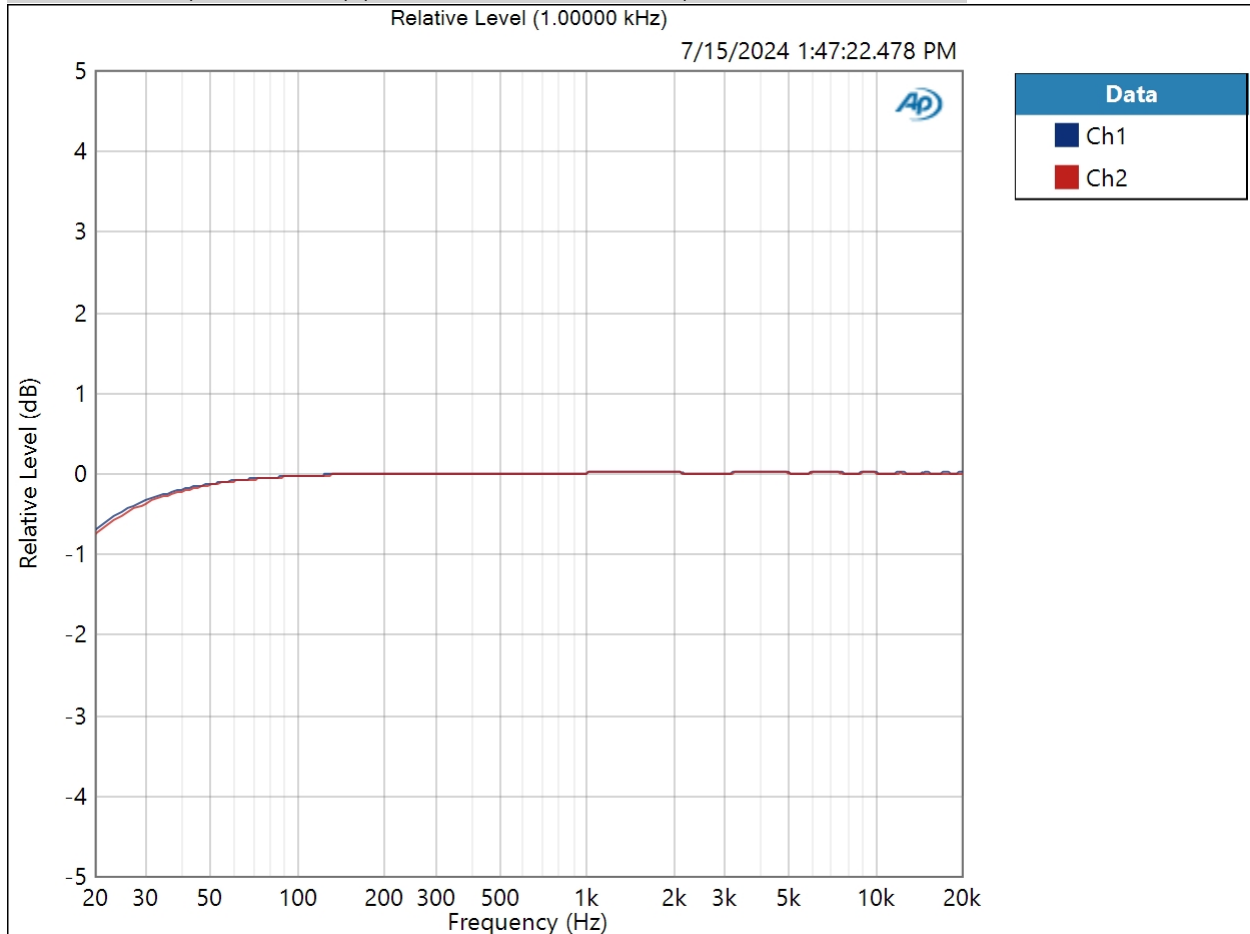


Result: PASSED

High Gain SE : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 7/15/2024 1:47:22 PM

Relative Level (1.00000 kHz) (7/15/2024 1:47:22.478 PM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (7/15/2024 1:47:22.478 PM)

Ch1 ± 0.352 dB

Ch2 ± 0.388 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

High Gain SE : Signal to Noise Ratio

Waveform: Sine
Generator Level: 500.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
High-pass Filter: Elliptic
High-pass Frequency: 20 Hz
Low-pass Filter: Elliptic
Low-pass Frequency: 20 kHz
Weighting Filter: A-wt.

Signal to Noise Ratio (7/15/2024 1:47:24.622 PM)

Ch1 115.867 dB

Ch2 115.508 dB

High Gain SE : THD+N

Waveform: Sine
 Generator Level: 500.0 mVrms
 DC Offset: 0.000 V
 Frequency: 1.00000 kHz
 High-pass Filter: Elliptic
 High-pass Frequency: 20 Hz
 Low-pass Filter: Elliptic
 Low-pass Frequency: 20 kHz
 Weighting Filter: Signal Path
 Notch Tuning Mode: Measured Frequency

THD+N Ratio (7/15/2024 1:47:26.669 PM)

Ch1 0.004760 %
 Ch2 0.004754 %

THD Ratio (7/15/2024 1:47:26.669 PM)

Ch1 0.004698 %
 Ch2 0.004696 %

Noise Ratio (7/15/2024 1:47:26.669 PM)

Ch1 0.000680 %
 Ch2 0.000652 %

Distortion Product Ratio (7/15/2024 1:47:26.669 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-86.93	-97.56	-118.07	-139.71	-140.03	-143.06	-137.68	-138.12	-137.22
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-86.97	-97.07	-117.90	-136.74	-136.15	-138.52	-138.01	-139.34	-141.18

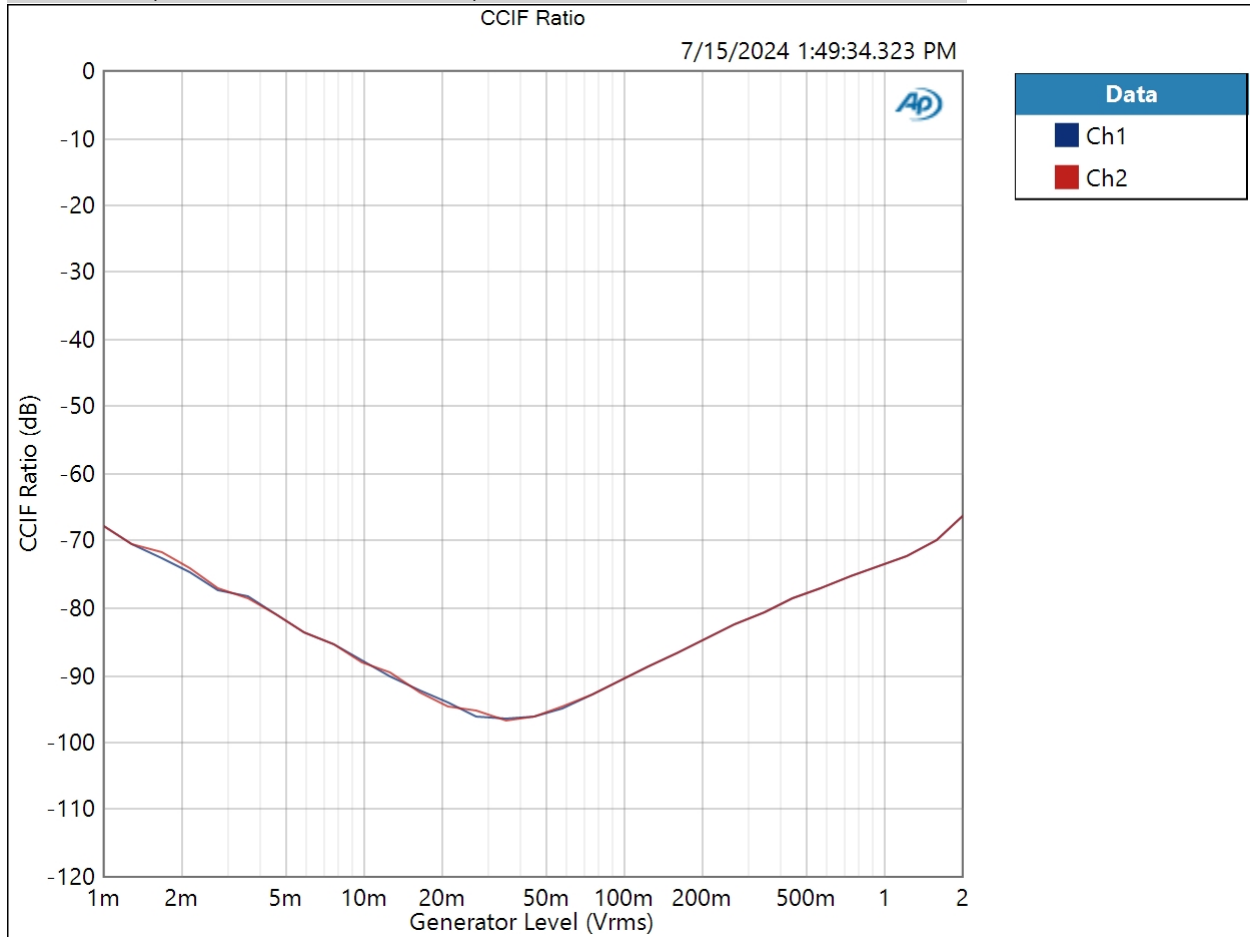
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

High Gain SE : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: 1.000 mVrms
 Stop Level: 2.000 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 7/15/2024 1:49:34 PM

CCIF Ratio (7/15/2024 1:49:34.323 PM)



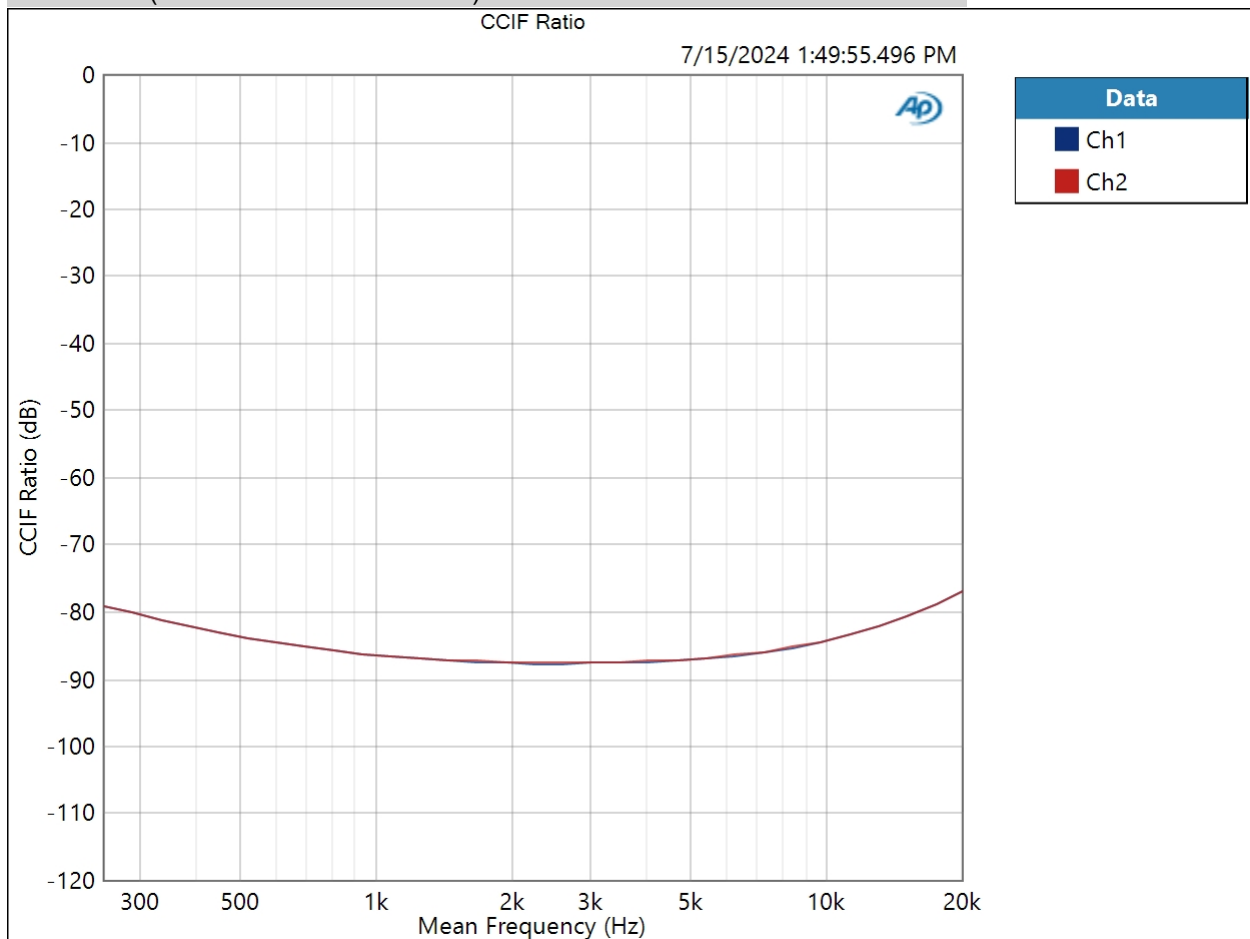
Result: PASSED

7/15/2024 1:53 PM

High Gain SE : IMD Frequency Sweep (CCIF)

Generator Level: 265.0 mVrms
DC Offset: 0.000 V
Sweep Frequency: Mean Frequency
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Frequency: 20.0000 kHz
Stop Frequency: 250.000 Hz
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 7/15/2024 1:49:55 PM

CCIF Ratio (7/15/2024 1:49:55.496 PM)



Result:  PASSED

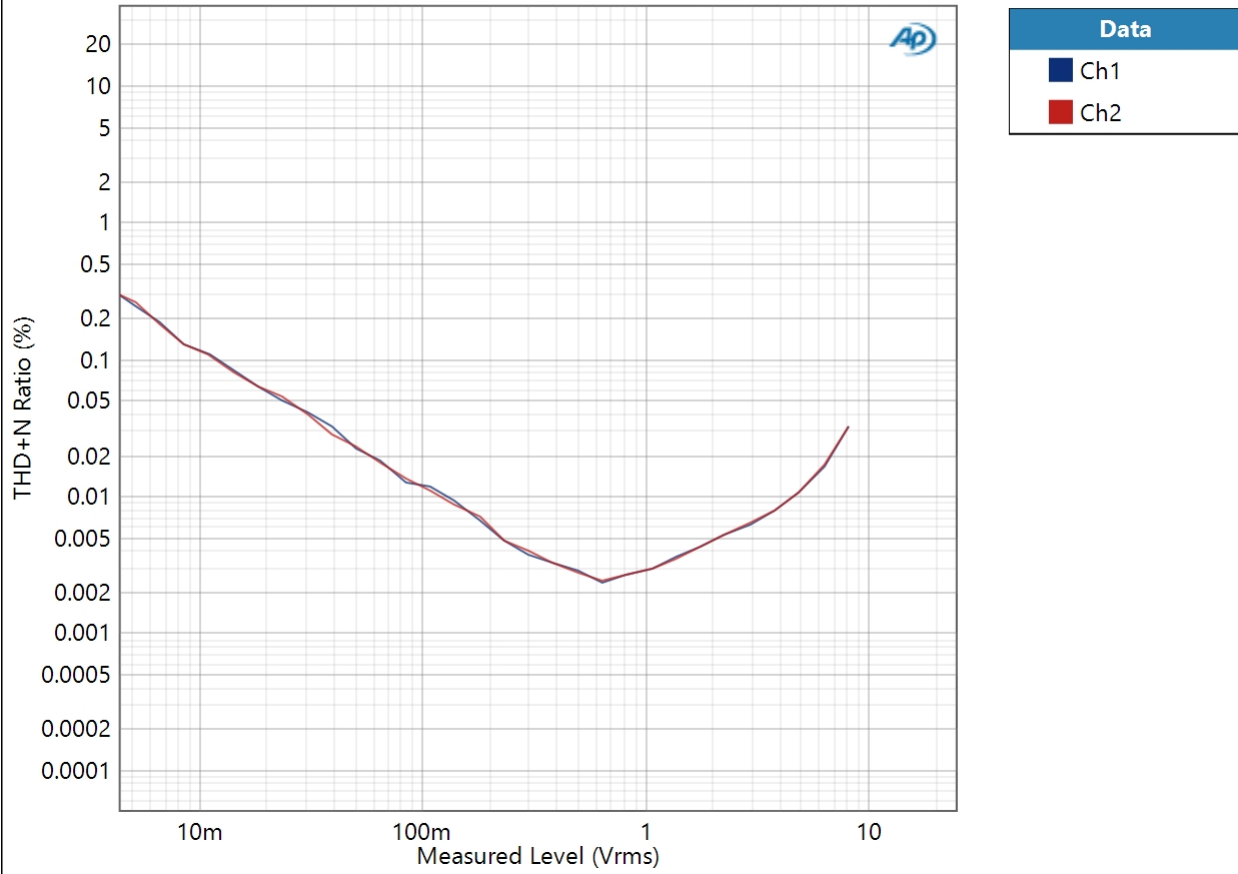
High Gain SE : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 2.000 Vrms
Step Type: Logarithmic
Number of Points: 31
Offset: 0.000 V
High-pass Filter: Elliptic
High-pass Frequency: 20 Hz
Low-pass Filter: Elliptic
Low-pass Frequency: 20 kHz
Weighting Filter: Signal Path
Notch Tuning Mode: Generator Frequency
Measured 1 7/15/2024 1:48:23 PM

THD+N Ratio vs Measured Level (7/15/2024 1:48:23.558 PM)

THD+N Ratio vs Measured Level

7/15/2024 1:48:23.558 PM



Result: PASSED