

Notes:

This is a test of a representative production line sample. If you have difficulties reproducing these results, check your analyzer set-up and ancillary equipment carefully. ensure your analyzer has had a recent calibration, and contact the analyzer manufacturer for help if necessary. If you still have significantly different results, please contact info@schitt.com with a copy of your results so we can bring back your product and check it against our standard.

Summary

Low Gain

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

Negative Gain

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

High Gain

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 USB Power Only

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

Optical

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
Bandpass Level Sweep	✓ PASSED

Sequence Result:

Sequence Result: ✓ PASSED

APx Instrument

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

Low Gain : Signal Path Setup

Output Connector:	ASIO
Asio Device:	ASIO4ALL v2
Scaling Mode:	Digital
Output Sample Rate:	48.0000 kHz
Output Latency:	Auto
Buffer Size:	1024
Clock Source:	Big Ben
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:	300 ohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	-20.000 dBFS
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 : Level and Gain

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (10/2/2024 12:42:53.354 PM)

Ch1 2.026 Vrms
Ch2 2.018 Vrms

Low Gain : DC Level

Waveform: Sine
Generator Level: $-\infty$ dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

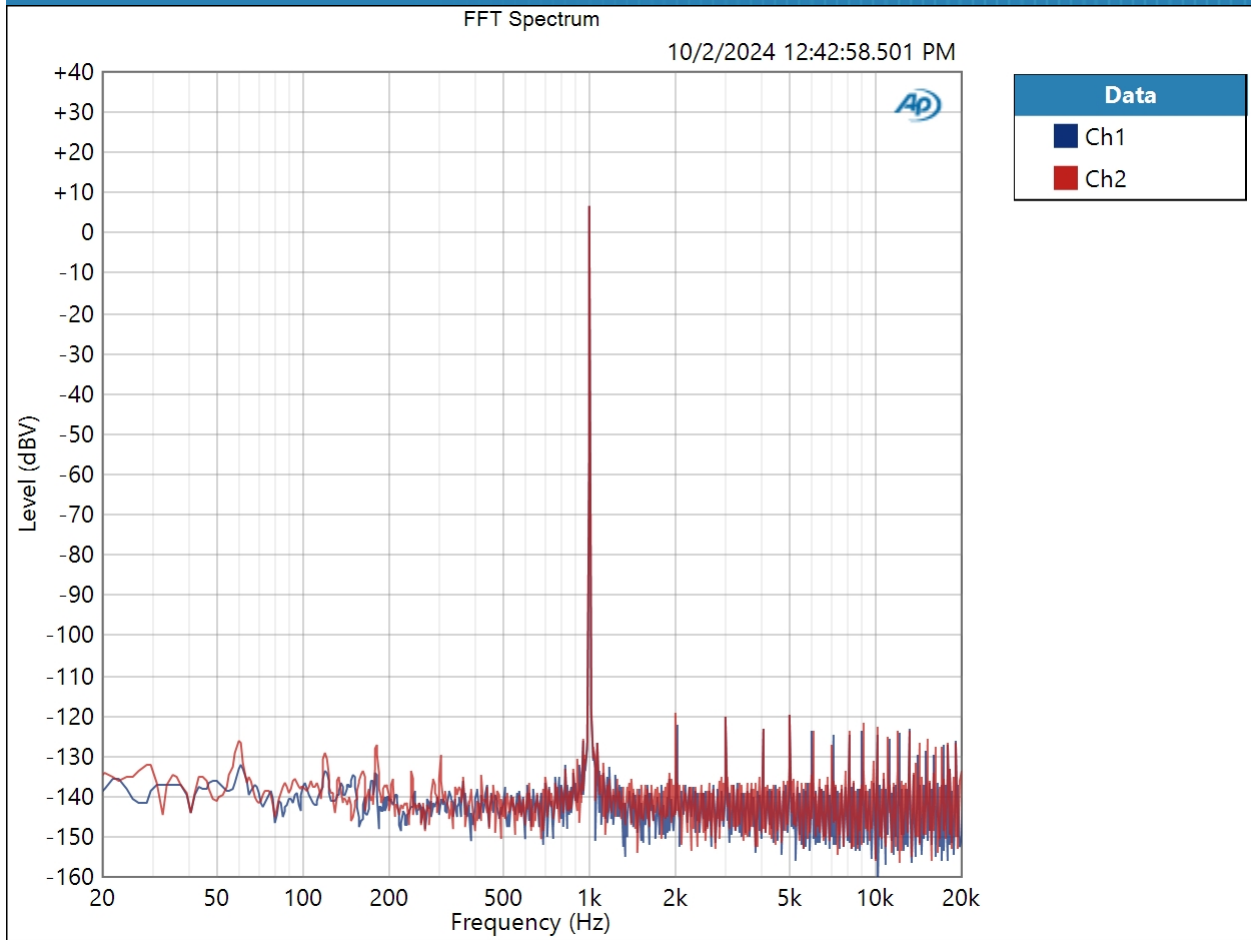
DC Level (10/2/2024 12:42:54.523 PM)

Ch1 -388.9 μ V
Ch2 -36.84 μ V

Low Gain : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/2/2024 12:42:58 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 (10/2/2024 12:42:58.501 PM)

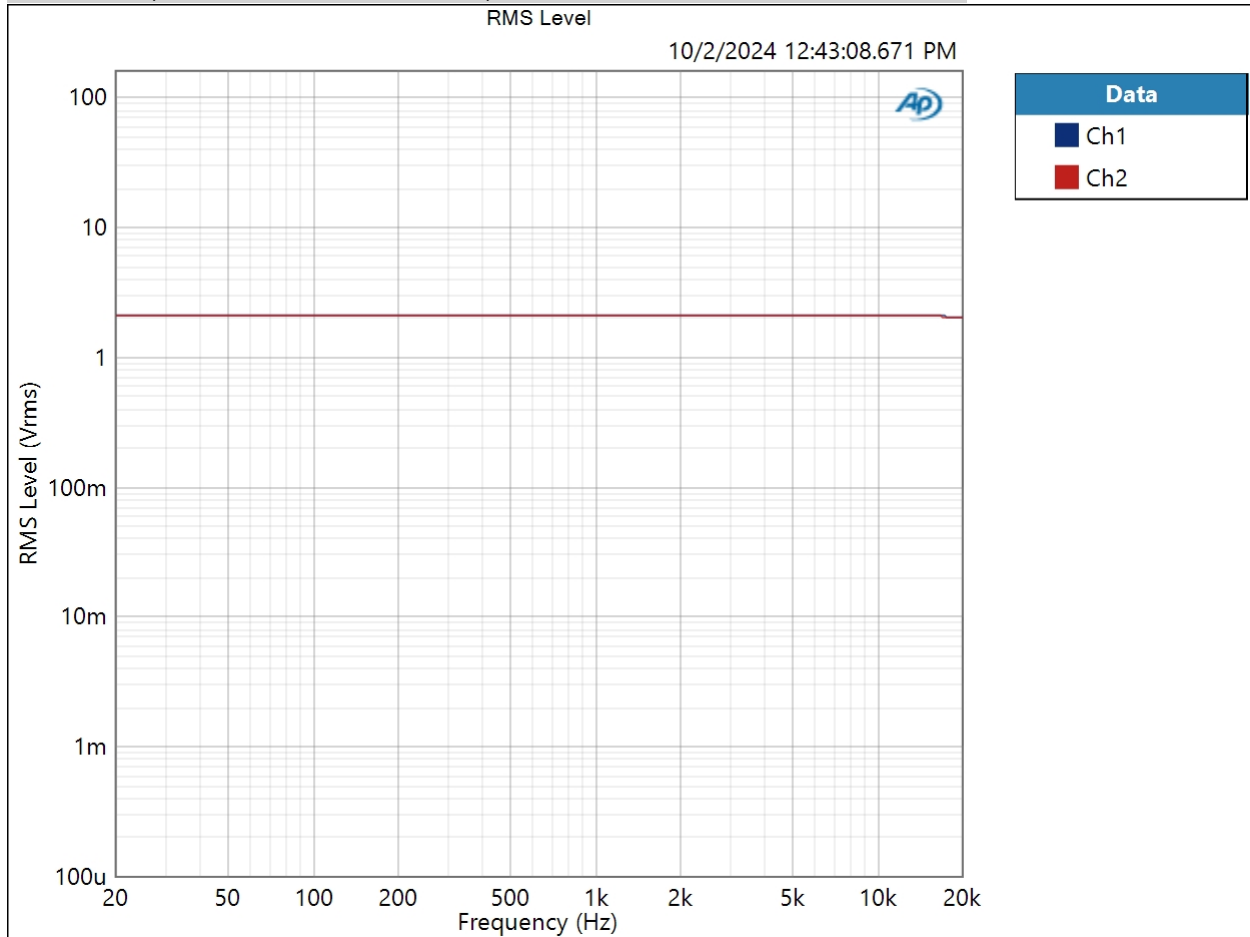


Result: PASSED

Low Gain : Frequency Response

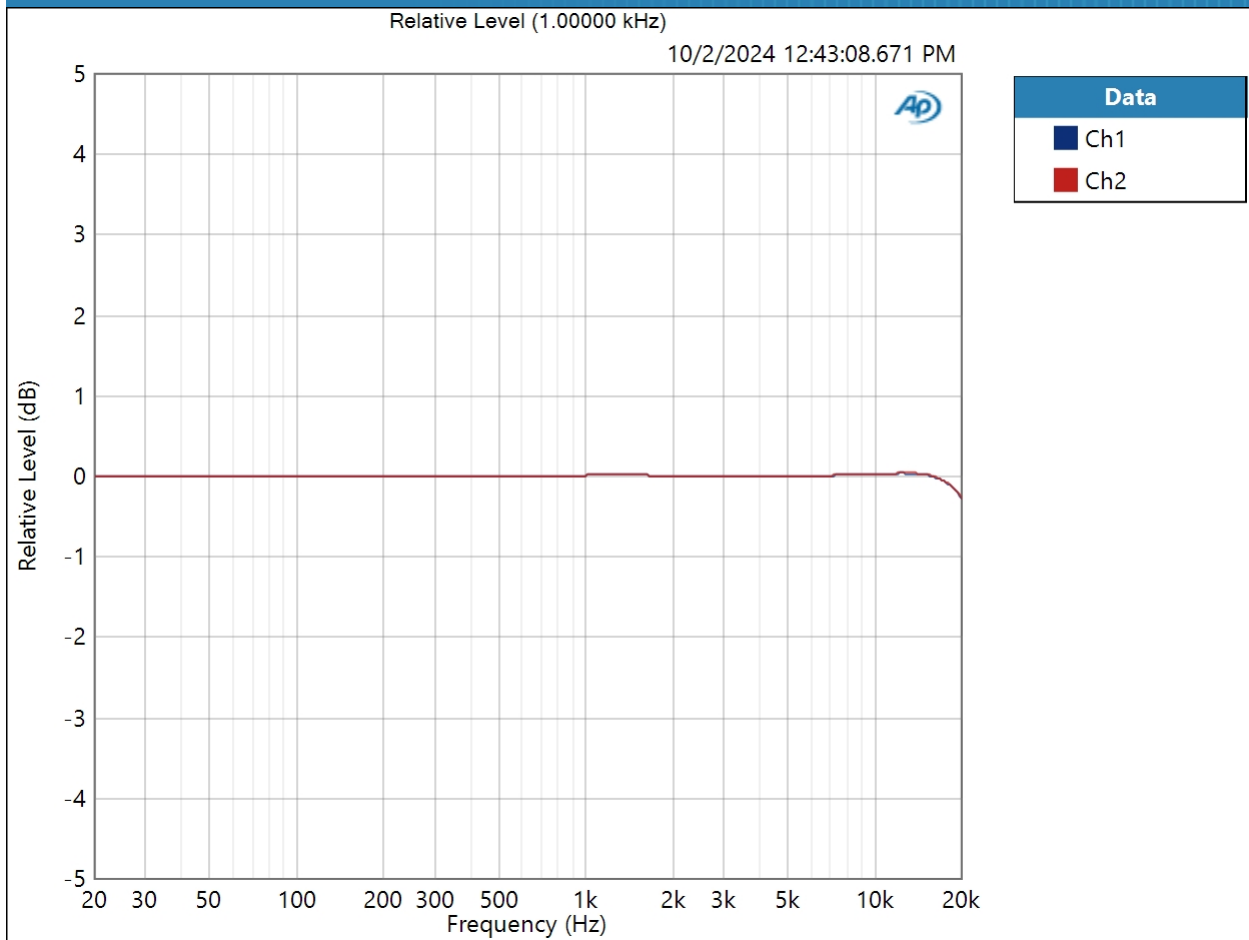
Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
EQ: None
Pre-Sweep: 500.0 ms
Sweep: 1.000 s
Extend Acquisition By: 3.000 s
Secondary Source: None
Measured 1 10/2/2024 12:43:08 PM

RMS Level (10/2/2024 12:43:08.671 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/2/2024 12:43:08.671 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) (10/2/2024 12:43:08.671 PM)

Ch1 ± 0.175 dB

Ch2 ± 0.173 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Low Gain : Signal to Noise Ratio

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 (10/2/2024 12:43:10.755 PM)

Ch1 115.751 dB
Ch2 114.870 dB

Low Gain : THD+N

Waveform: Sine
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 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 (10/2/2024 12:43:13.129 PM)

Ch1 0.000332 %
 Ch2 0.000372 %

THD Ratio (10/2/2024 12:43:13.129 PM)

Ch1 0.000185 %
 Ch2 0.000175 %

Noise Ratio (10/2/2024 12:43:13.129 PM)

Ch1 0.000273 %
 Ch2 0.000326 %

Distortion Product Ratio (10/2/2024 12:43:13.129 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	-130.68	-123.72	-136.52	-123.41	-130.94	-135.18	-124.95	-126.95	-133.63
Ch2	-0.00	-130.34	-127.14	-132.96	-122.54	-131.46	-136.28	-126.15	-127.76	-135.42

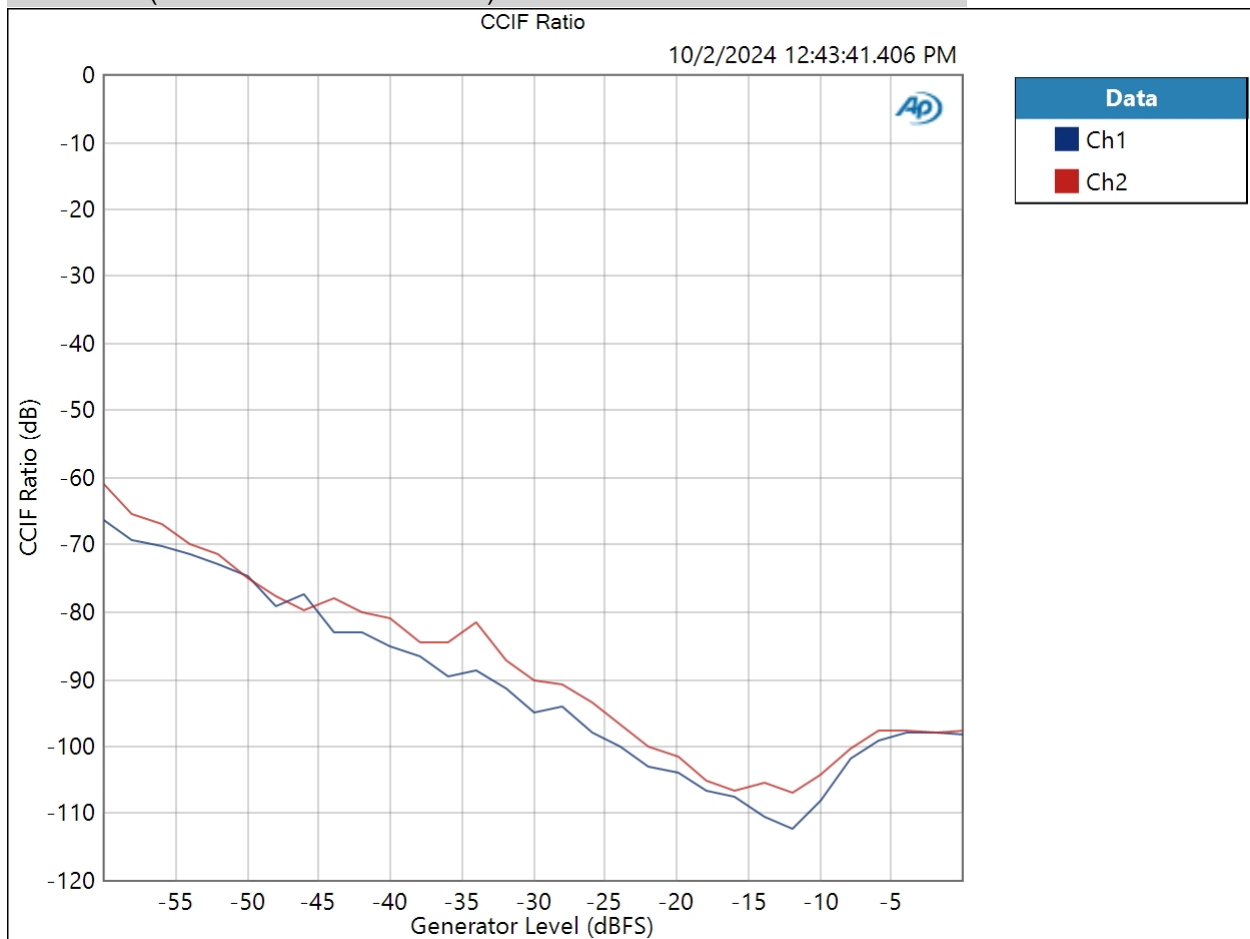
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Low Gain : IMD Level Sweep (CCIF)

IMD Type: CCIF
Mean Frequency: 12.5000 kHz
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Level: -60.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 31
Step Size: +2.000 dBFS
Mode: d2+d3
Measured 1 10/2/2024 12:43:41 PM

CCIF Ratio (10/2/2024 12:43:41.406 PM)

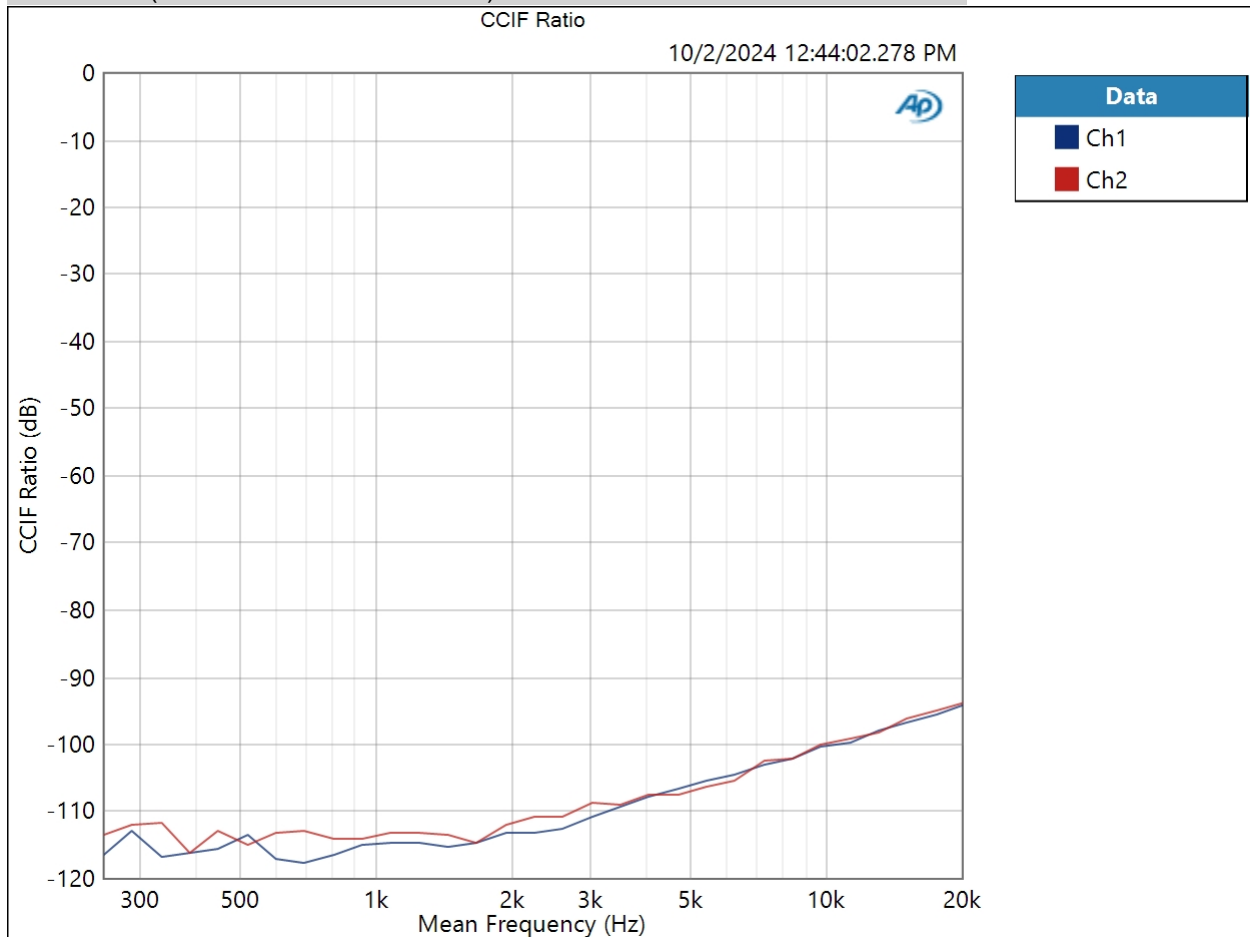


Result:  PASSED

Low Gain : IMD Frequency Sweep (CCIF)

Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 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 10/2/2024 12:44:02 PM

CCIF Ratio (10/2/2024 12:44:02.278 PM)



Result:  PASSED

Low Gain : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 1.00000 kHz

Crosstalk (10/2/2024 12:44:05.798 PM)

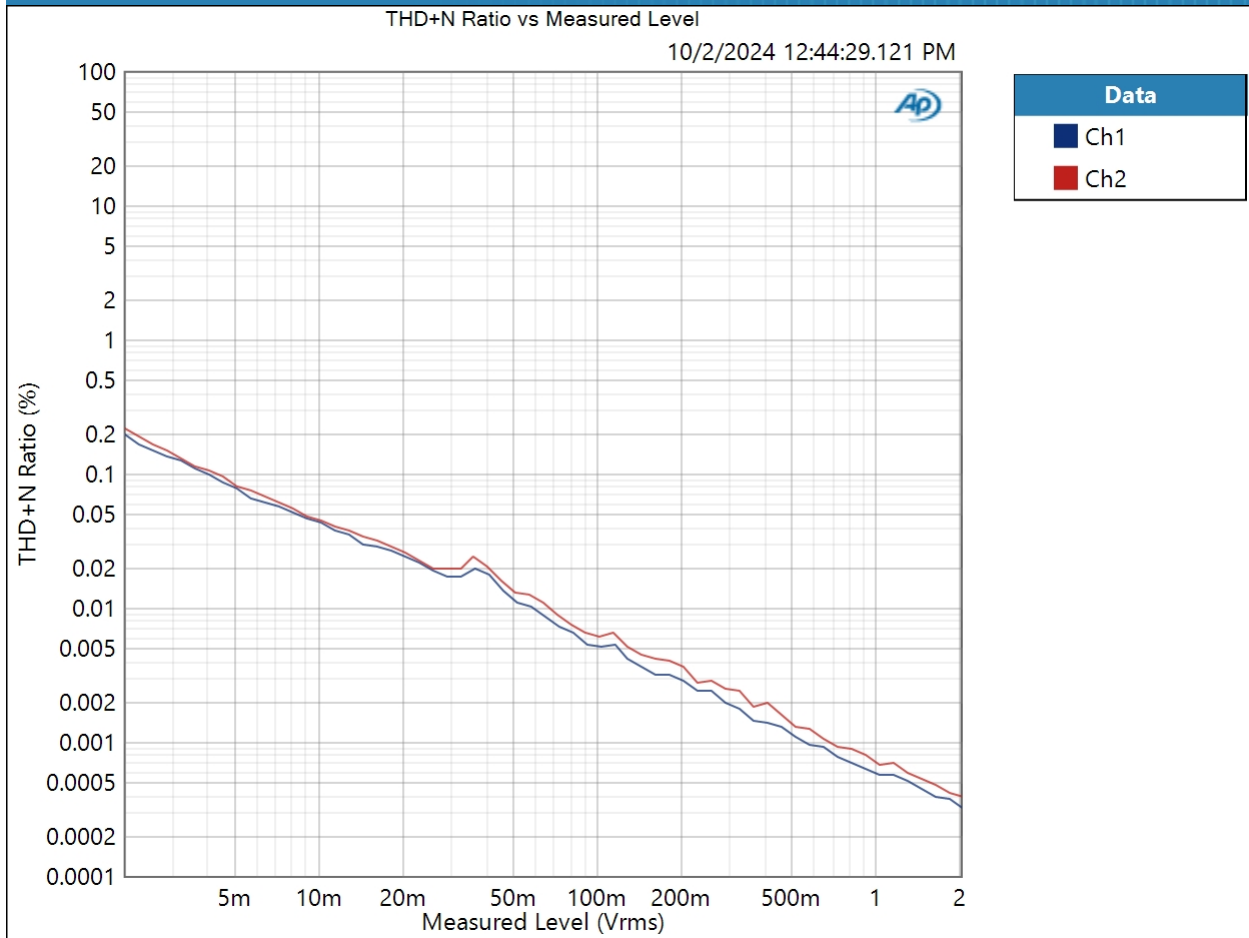
Ch1 -84.577 dB

Ch2 -82.722 dB

Low Gain : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: -60.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 61
Step Size: +1.000 dBFS
Offset: 0.000 D
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 10/2/2024 12:44:29 PM

THD+N Ratio vs Measured Level (10/2/2024 12:44:29.121 PM)



Result: PASSED

Negative Gain : Signal Path Setup

Output Connector:	ASIO
Asio Device:	ASIO4ALL v2
Scaling Mode:	Digital
Output Sample Rate:	48.0000 kHz
Output Latency:	Auto
Buffer Size:	256
Clock Source:	Big Ben
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:	300 ohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	-20.000 dBFS
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.	

Negative Gain : Level and Gain

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (10/2/2024 12:46:52.290 PM)

Ch1 643.2 mVrms
Ch2 640.9 mVrms

Negative Gain : DC Level

Waveform: Sine
Generator Level: $-\infty$ dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

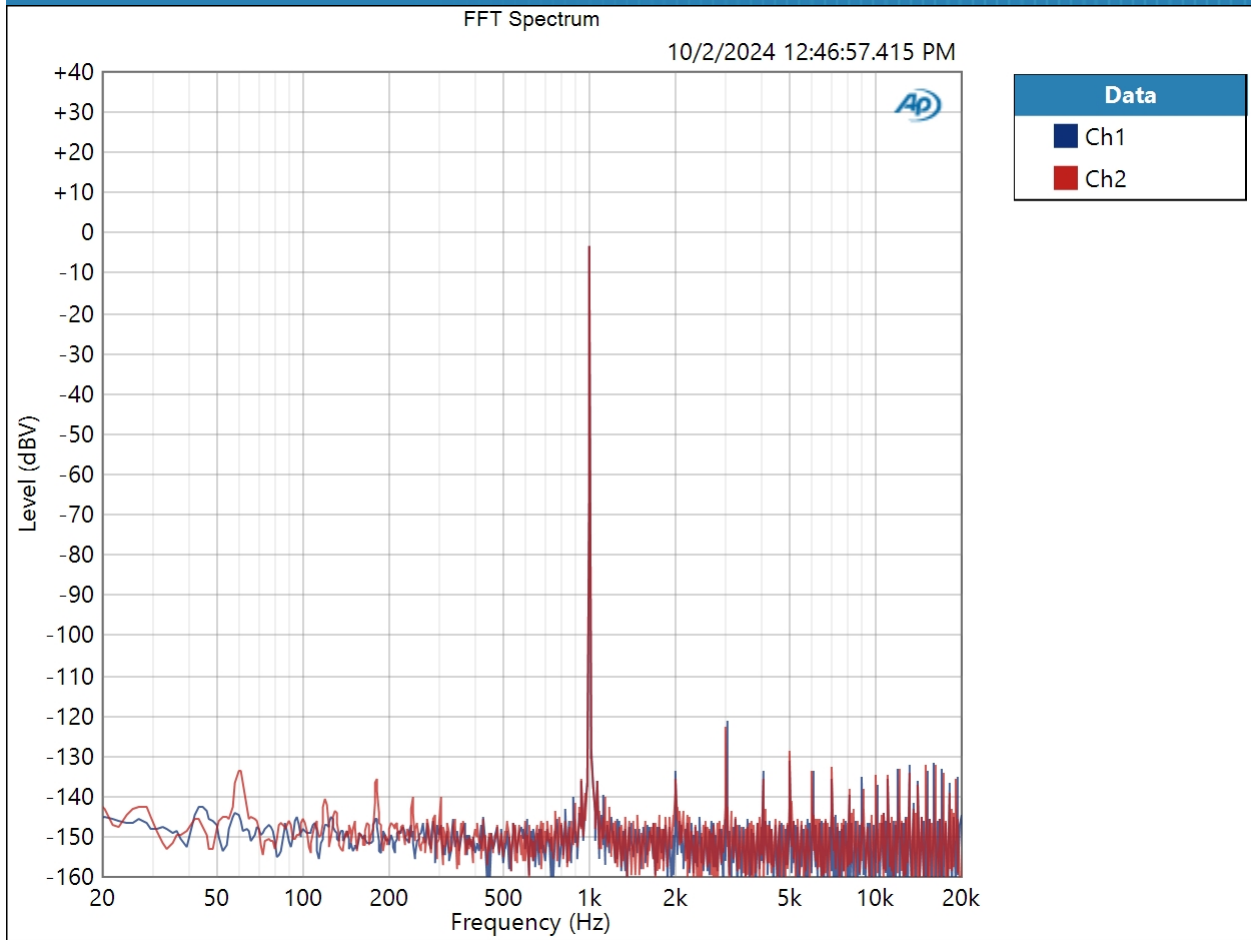
DC Level (10/2/2024 12:46:53.452 PM)

Ch1 -78.95 uV
Ch2 -40.37 uV

Negative Gain : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/2/2024 12:46:57 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)

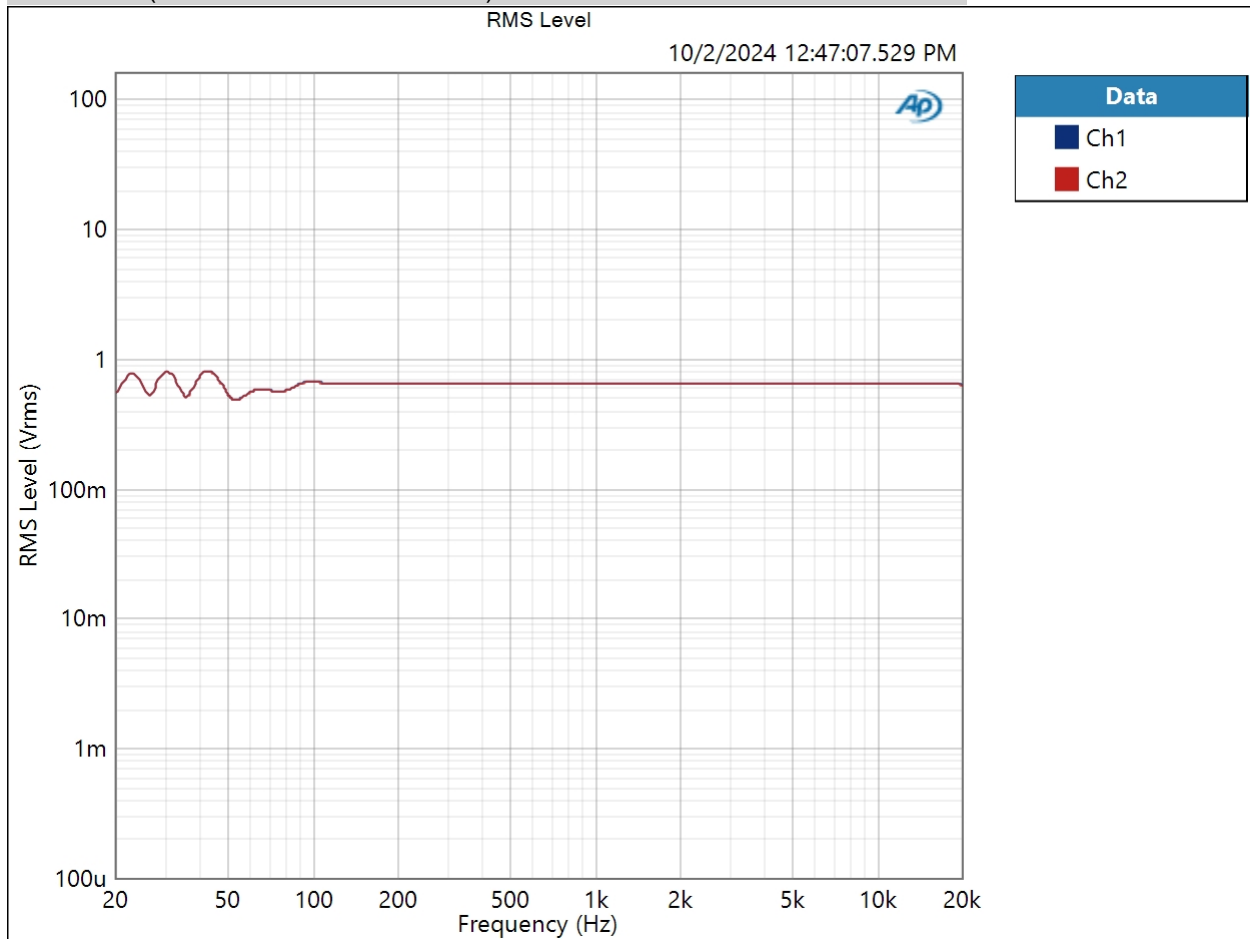
FFT Spectrum (10/2/2024 12:46:57.415 PM)



Result: PASSED

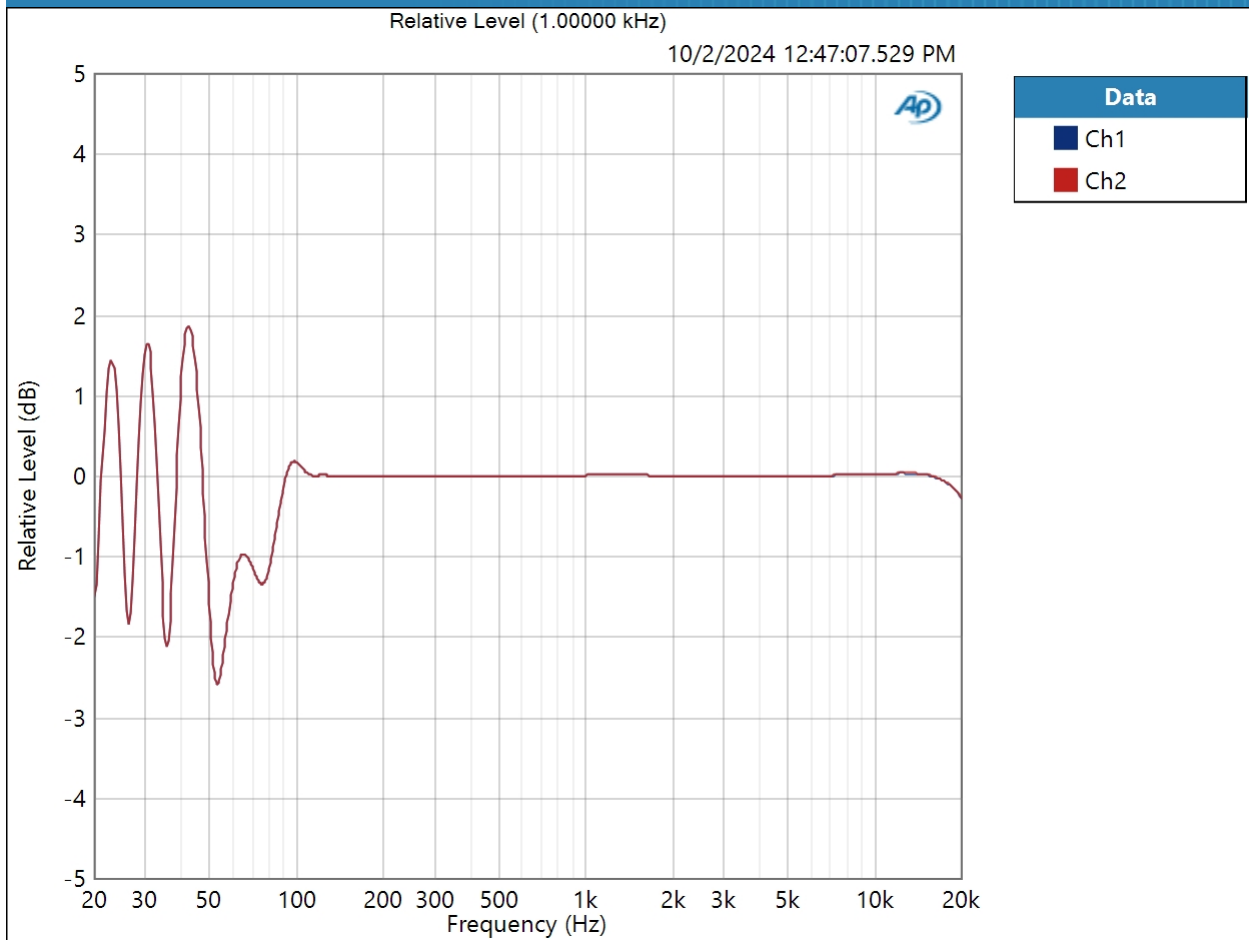
Negative Gain : Frequency Response
 Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 EQ: None
 Pre-Sweep: 500.0 ms
 Sweep: 1.000 s
 Extend Acquisition By: 3.000 s
 Secondary Source: None
 Measured 1 10/2/2024 12:47:07 PM

RMS Level (10/2/2024 12:47:07.529 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/2/2024 12:47:07.529 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) (10/2/2024 12:47:07.529 PM)

Ch1 ± 2.219 dB

Ch2 ± 2.219 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Negative Gain : Signal to Noise Ratio

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 (10/2/2024 12:47:09.591 PM)

Ch1 113.643 dB
Ch2 112.953 dB

Negative Gain : THD+N

Waveform: Sine
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 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 (10/2/2024 12:47:12.398 PM)

Ch1 0.000397 %
 Ch2 0.000442 %

THD Ratio (10/2/2024 12:47:12.398 PM)

Ch1 0.000230 %
 Ch2 0.000223 %

Noise Ratio (10/2/2024 12:47:12.398 PM)

Ch1 0.000323 %
 Ch2 0.000377 %

Distortion Product Ratio (10/2/2024 12:47:12.398 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	-126.71	-119.00	-121.48	-125.50	-128.00	-126.81	-127.08	-123.82	-129.71
Ch2	-0.00	-129.00	-119.65	-127.79	-121.03	-130.08	-124.52	-132.80	-122.18	-131.95

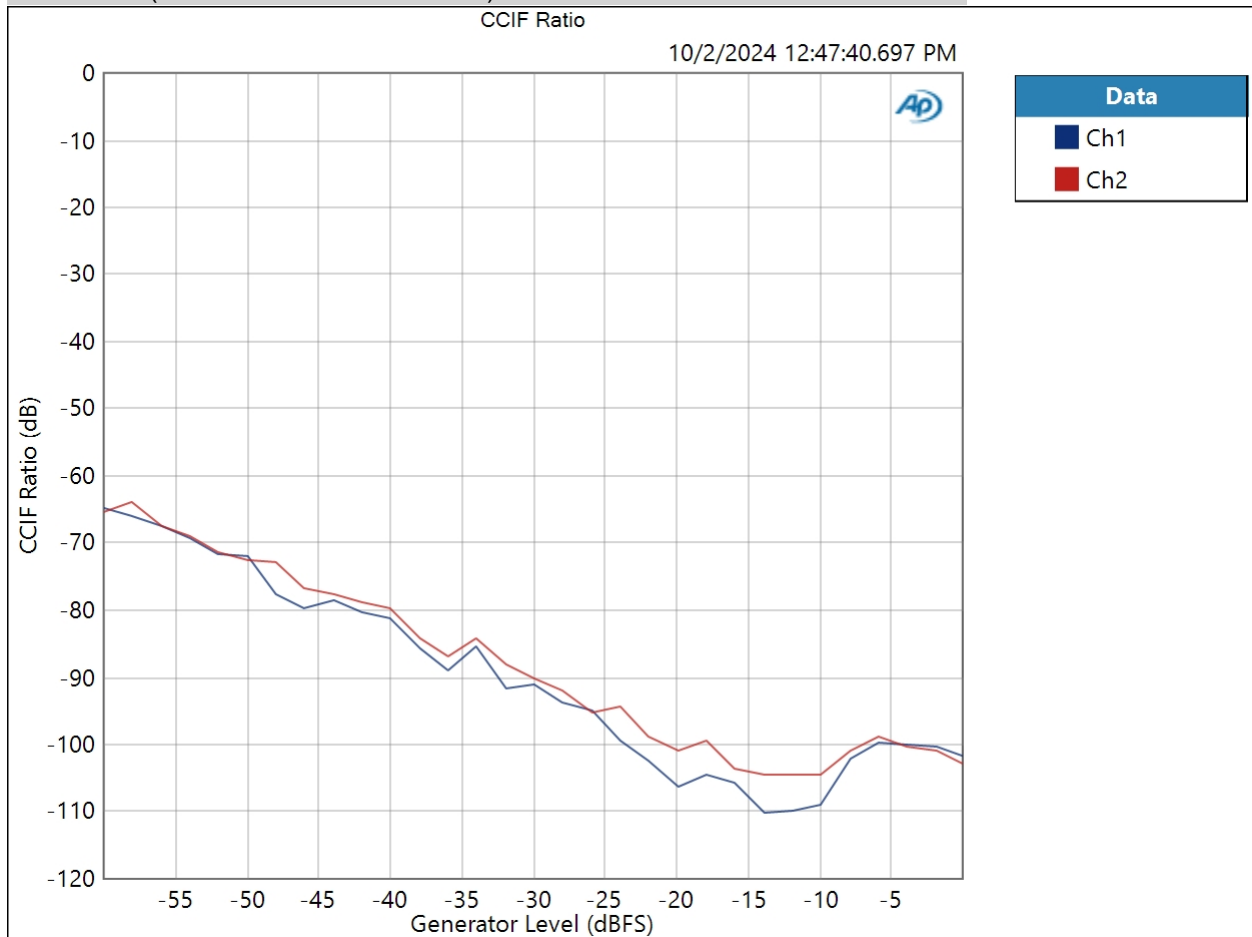
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Negative Gain : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: -60.000 dBFS
 Stop Level: -0.000 dBFS
 Step Type: Linear
 Number of Points: 31
 Step Size: +2.000 dBFS
 Mode: d2+d3
 Measured 1 10/2/2024 12:47:40 PM

CCIF Ratio (10/2/2024 12:47:40.697 PM)

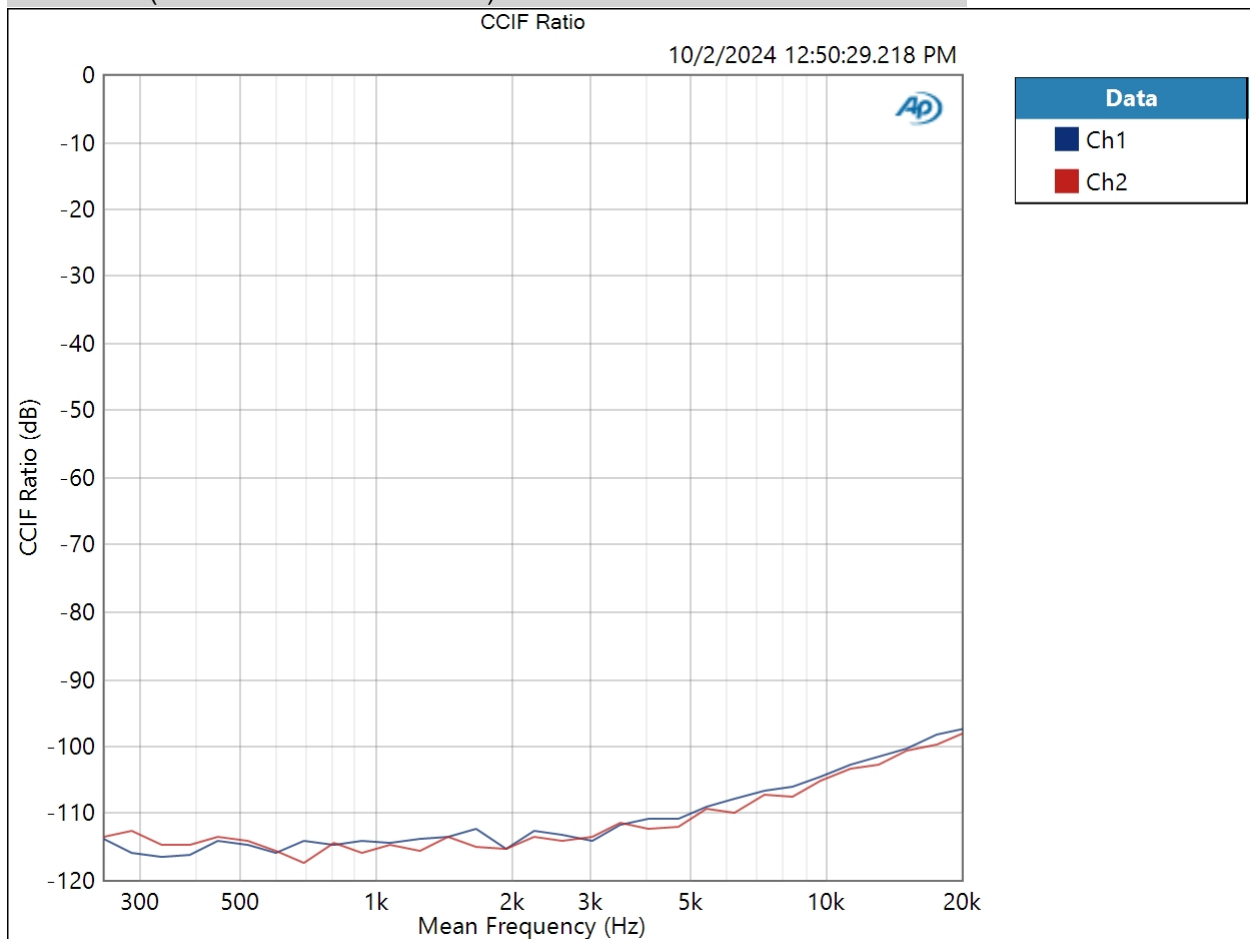


Result:  PASSED

Negative Gain : IMD Frequency Sweep (CCIF)

Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 10/2/2024 12:50:29 PM

CCIF Ratio (10/2/2024 12:50:29.218 PM)



Result:  PASSED

Negative Gain : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 1.00000 kHz

Crosstalk (10/2/2024 12:55:32.954 PM)

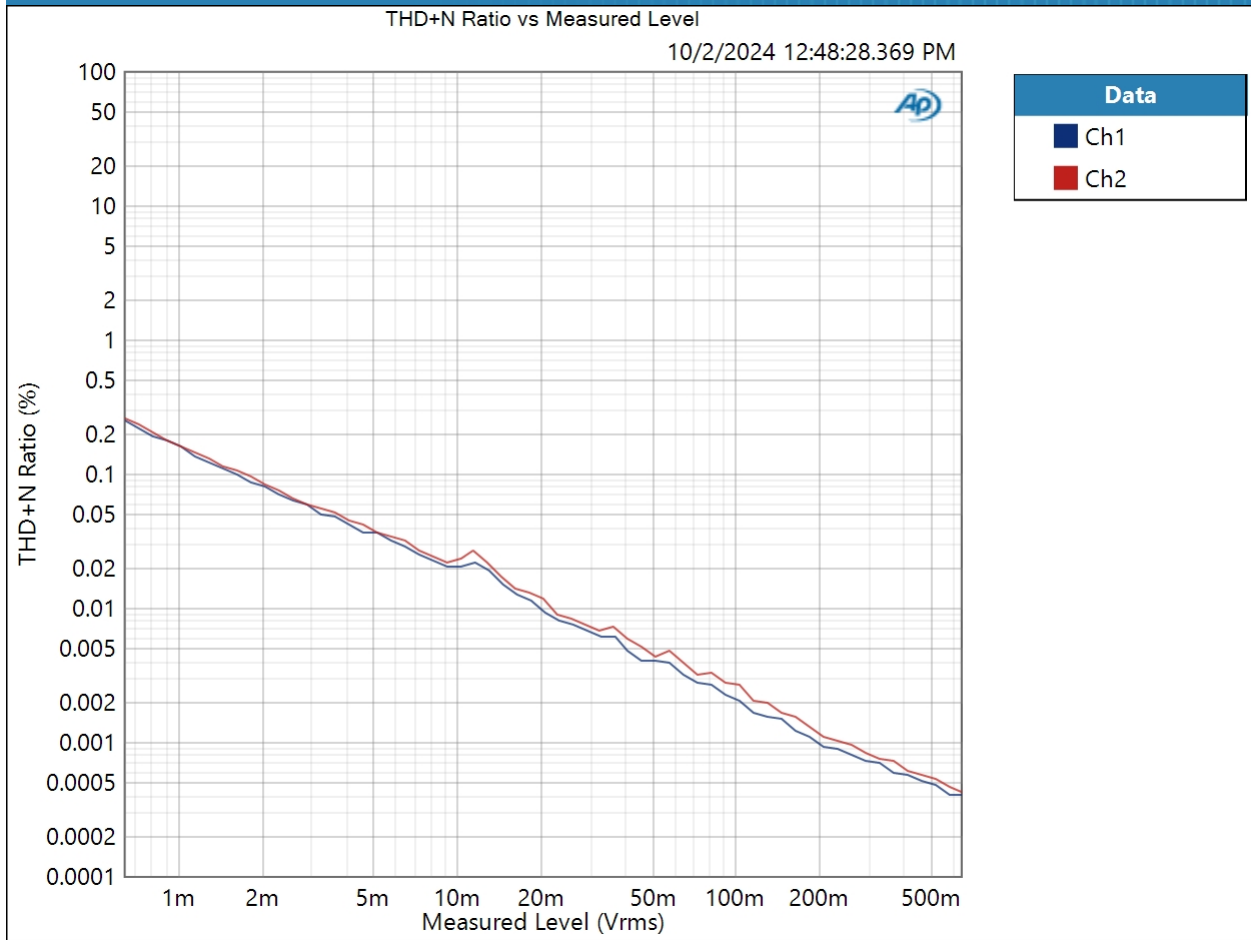
Ch1 -84.913 dB

Ch2 -83.399 dB

Negative Gain : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: -60.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 61
Step Size: +1.000 dBFS
Offset: 0.000 D
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 10/2/2024 12:48:28 PM

THD+N Ratio vs Measured Level (10/2/2024 12:48:28.369 PM)



Result: PASSED

High Gain : Signal Path Setup

Output Connector:	ASIO
Asio Device:	ASIO4ALL v2
Scaling Mode:	Digital
Output Sample Rate:	48.0000 kHz
Output Latency:	Auto
Buffer Size:	256
Clock Source:	Big Ben
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:	300 ohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	-20.000 dBFS
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 : Level and Gain

Waveform: Sine
Generator Level: -11.300 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (10/2/2024 12:55:53.373 PM)

Ch1 2.029 Vrms
Ch2 2.023 Vrms

High Gain : DC Level

Waveform: Sine
Generator Level: $-\infty$ dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

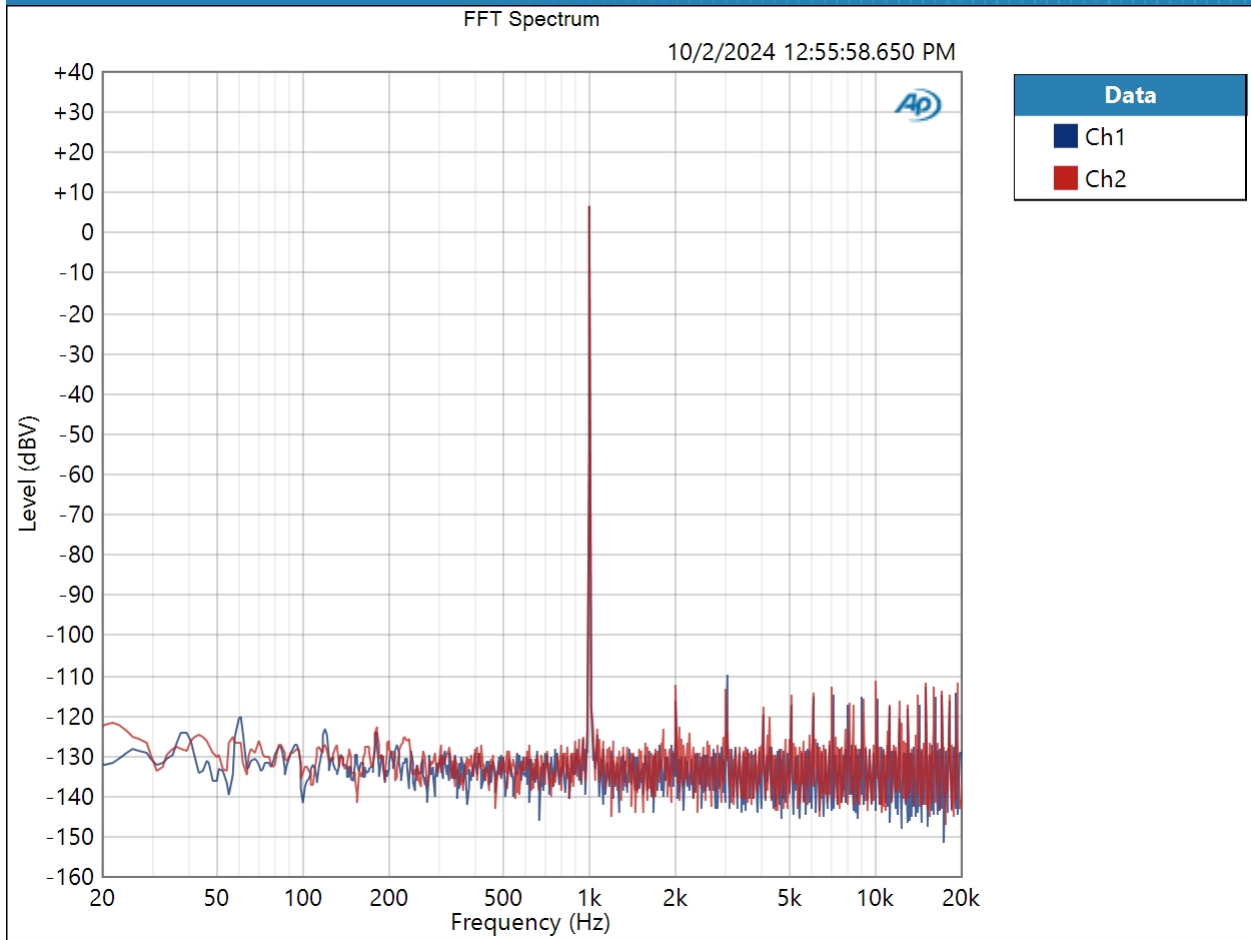
DC Level (10/2/2024 12:55:54.606 PM)

Ch1 -56.51 uV
Ch2 172.0 uV

High Gain : Signal Analyzer

Waveform: Sine
Generator Level: -11.300 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/2/2024 12:55:58 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 (10/2/2024 12:55:58.650 PM)

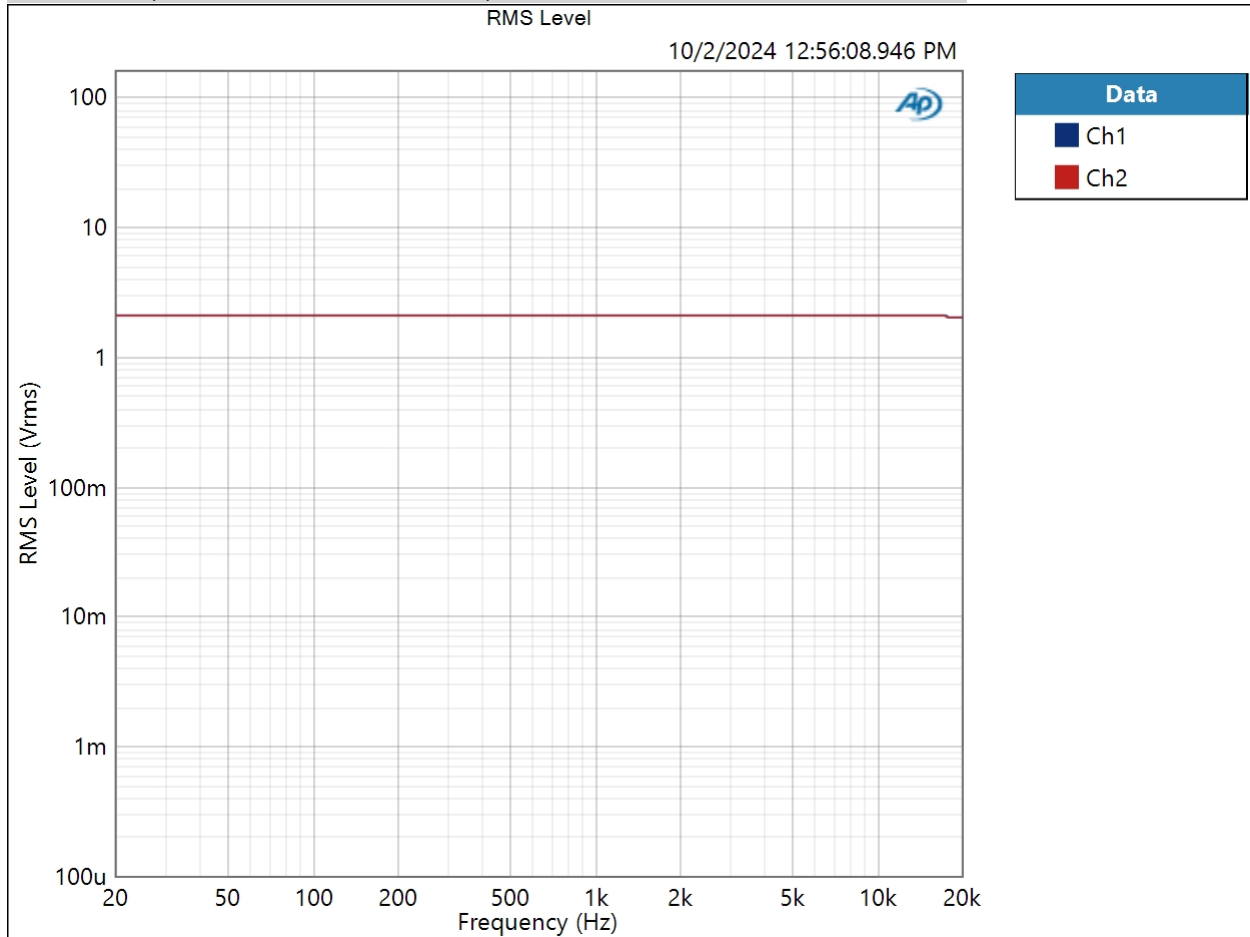


Result:  PASSED

High Gain : Frequency Response

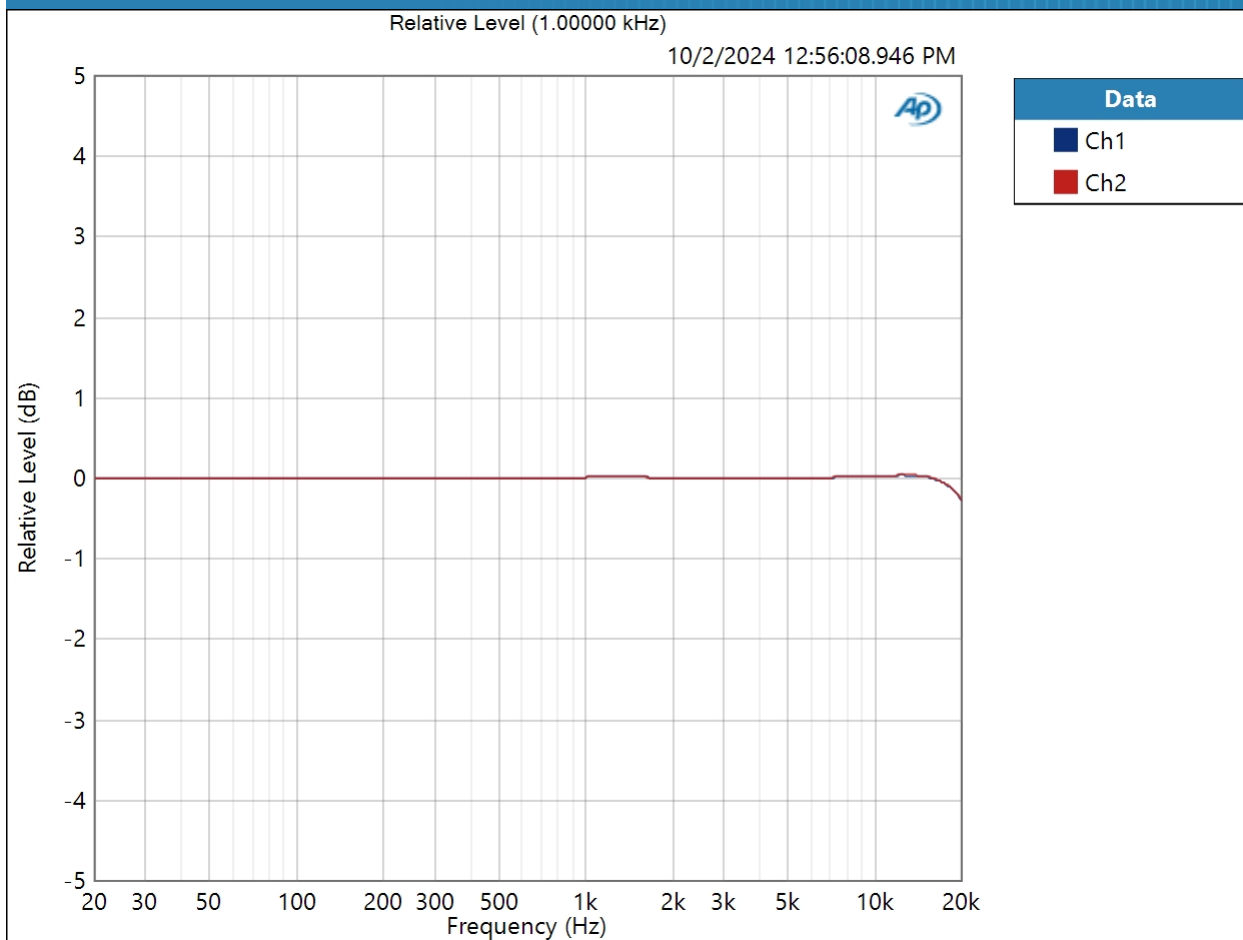
Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: -11.300 dBFS
DC Offset: 0.000 D
EQ: None
Pre-Sweep: 500.0 ms
Sweep: 1.000 s
Extend Acquisition By: 3.000 s
Secondary Source: None
Measured 1 10/2/2024 12:56:08 PM

RMS Level (10/2/2024 12:56:08.946 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/2/2024 12:56:08.946 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) (10/2/2024 12:56:08.946 PM)

Ch1 ± 0.175 dB

Ch2 ± 0.173 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

High Gain : Signal to Noise Ratio

Waveform: Sine
Generator Level: -11.300 dBFS
DC Offset: 0.000 D
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 (10/2/2024 12:56:11.082 PM)

Ch1 105.740 dB
Ch2 104.587 dB

High Gain : THD+N

Waveform: Sine
 Generator Level: -11.300 dBFS
 DC Offset: 0.000 D
 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 (10/2/2024 12:56:13.817 PM)

Ch1 0.000950 %
 Ch2 0.001219 %

THD Ratio (10/2/2024 12:56:13.817 PM)

Ch1 0.000573 %
 Ch2 0.000574 %

Noise Ratio (10/2/2024 12:56:13.817 PM)

Ch1 0.000776 %
 Ch2 0.001096 %

Distortion Product Ratio (10/2/2024 12:56:13.817 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	-114.09	-115.07	-133.17	-115.40	-117.36	-117.14	-125.80	-117.70	-119.06
Ch2	-0.00	-117.19	-119.59	-116.36	-115.94	-120.83	-119.87	-120.44	-115.51	-120.78

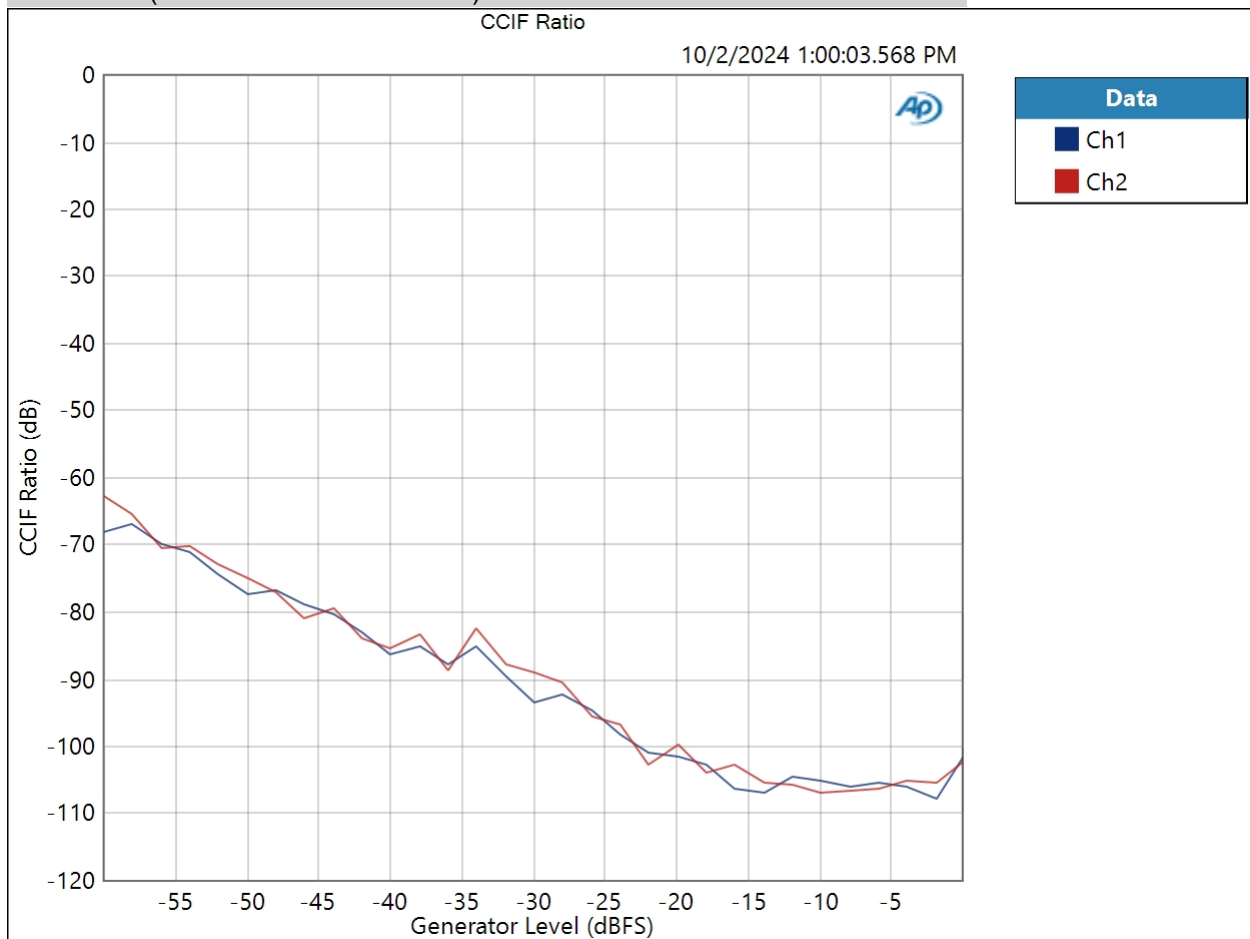
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

High Gain : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: -60.000 dBFS
 Stop Level: -0.000 dBFS
 Step Type: Linear
 Number of Points: 31
 Step Size: +2.000 dBFS
 Mode: d2+d3
 Measured 1 10/2/2024 1:00:03 PM

CCIF Ratio (10/2/2024 1:00:03.568 PM)

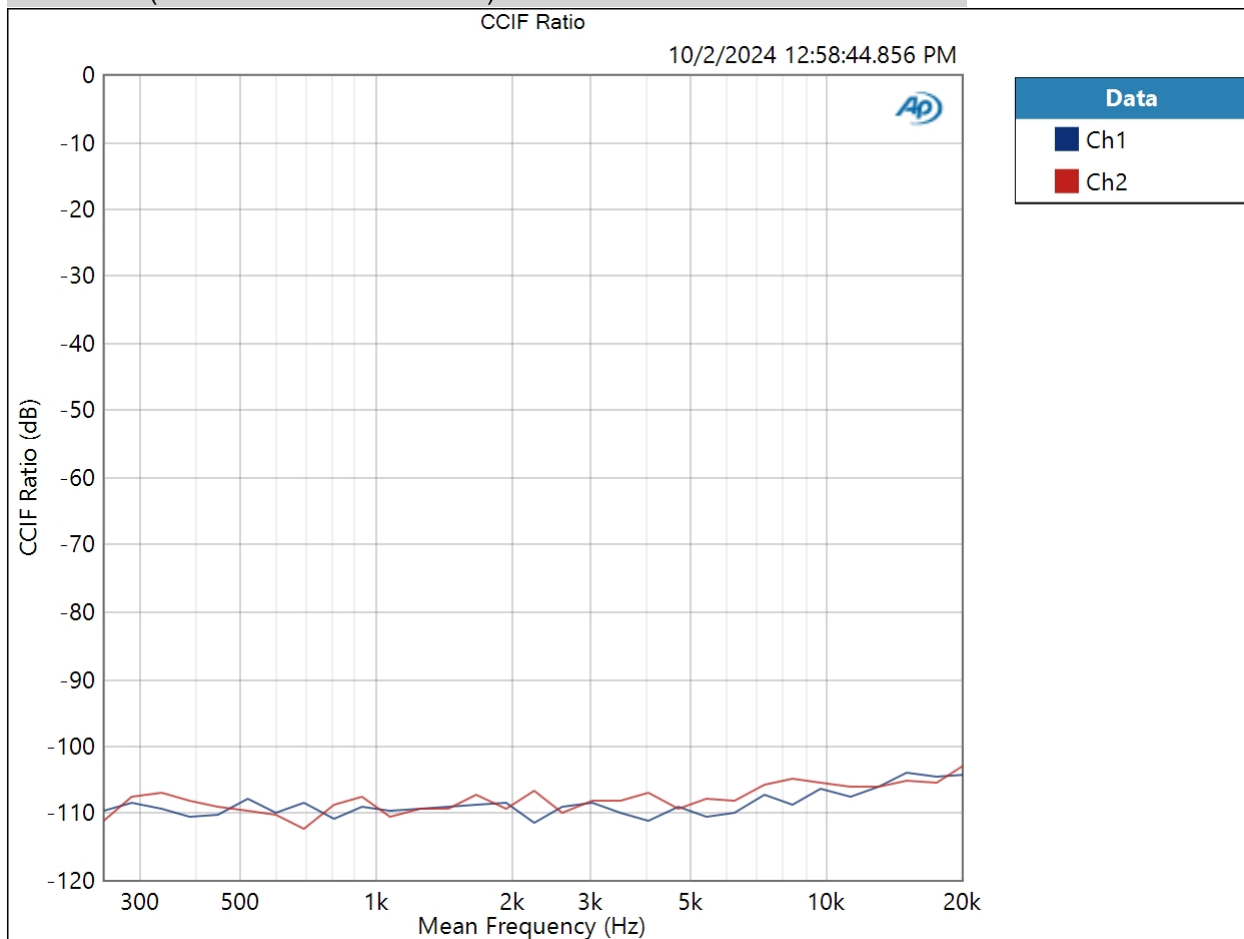


Result:  PASSED

High Gain : IMD Frequency Sweep (CCIF)

Generator Level: -11.300 dBFS
DC Offset: 0.000 D
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 10/2/2024 12:58:44 PM

CCIF Ratio (10/2/2024 12:58:44.856 PM)



Result:  PASSED

High Gain : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -11.300 dBFS

DC Offset: 0.000 D

Frequency: 1.00000 kHz

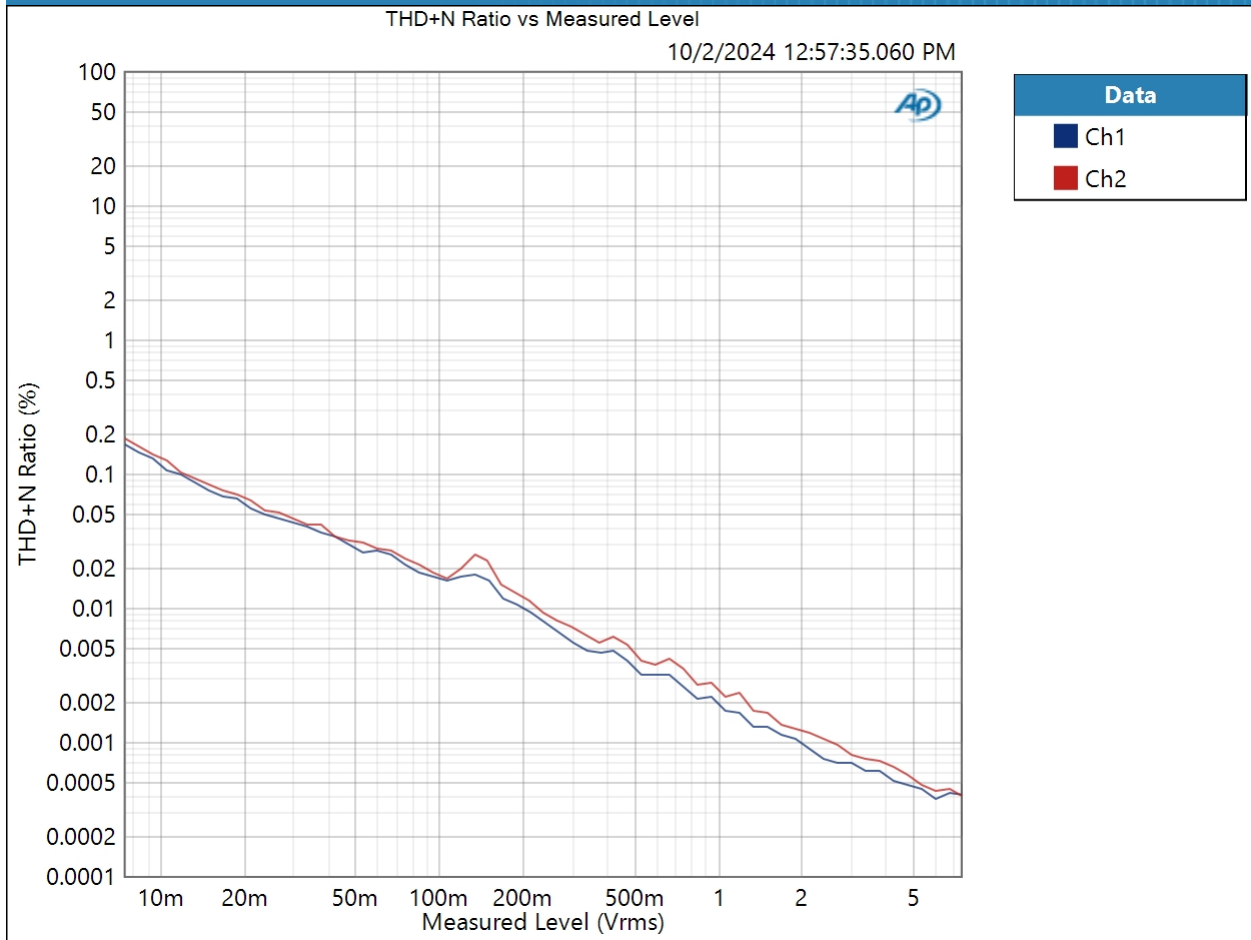
Crosstalk (10/2/2024 12:57:06.427 PM)

Ch1 -85.025 dB

Ch2 -84.813 dB

High Gain : Stepped Level Sweep
Waveform: Sine
Frequency: 1.00000 kHz
Start Level: -60.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 61
Step Size: +1.000 dBFS
Offset: 0.000 D
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 10/2/2024 12:57:35 PM

THD+N Ratio vs Measured Level (10/2/2024 12:57:35.060 PM)



Result: PASSED

Low Gain USB Power Only : Signal Path Setup

Output Connector:	ASIO
Asio Device:	ASIO4ALL v2
Scaling Mode:	Digital
Output Sample Rate:	48.0000 kHz
Output Latency:	Auto
Buffer Size:	1024
Clock Source:	Big Ben
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:	300 ohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	-20.000 dBFS
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 USB Power Only : Level and Gain

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (10/2/2024 1:15:50.862 PM)

Ch1 640.4 mVrms
Ch2 638.2 mVrms

Low Gain USB Power Only : DC Level

Waveform: Sine
Generator Level: $-\infty$ dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

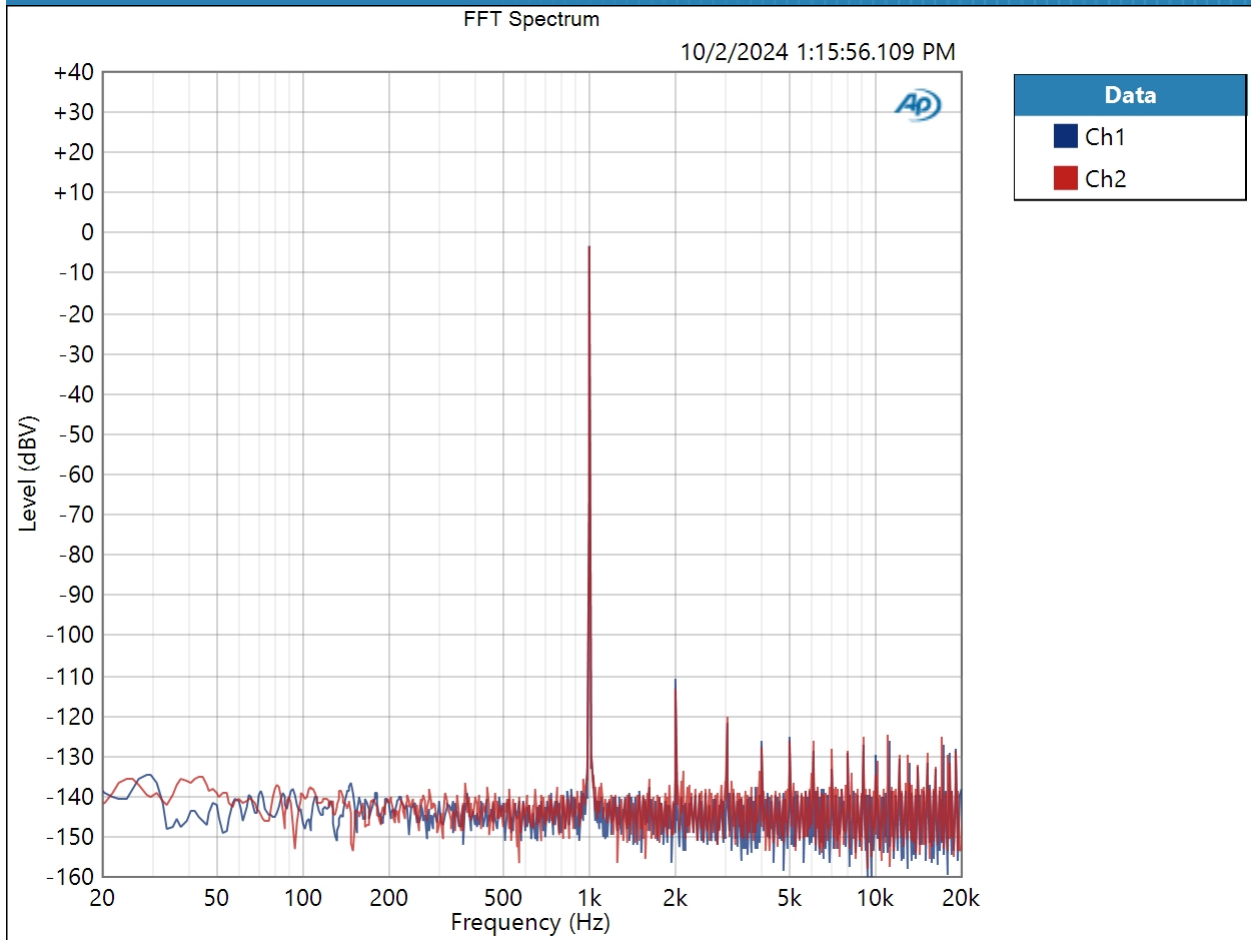
DC Level (10/2/2024 1:15:52.103 PM)

Ch1 -318.6 uV
Ch2 4.605 uV

Low Gain USB Power Only : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 10/2/2024 1:15:56 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 (10/2/2024 1:15:56.109 PM)

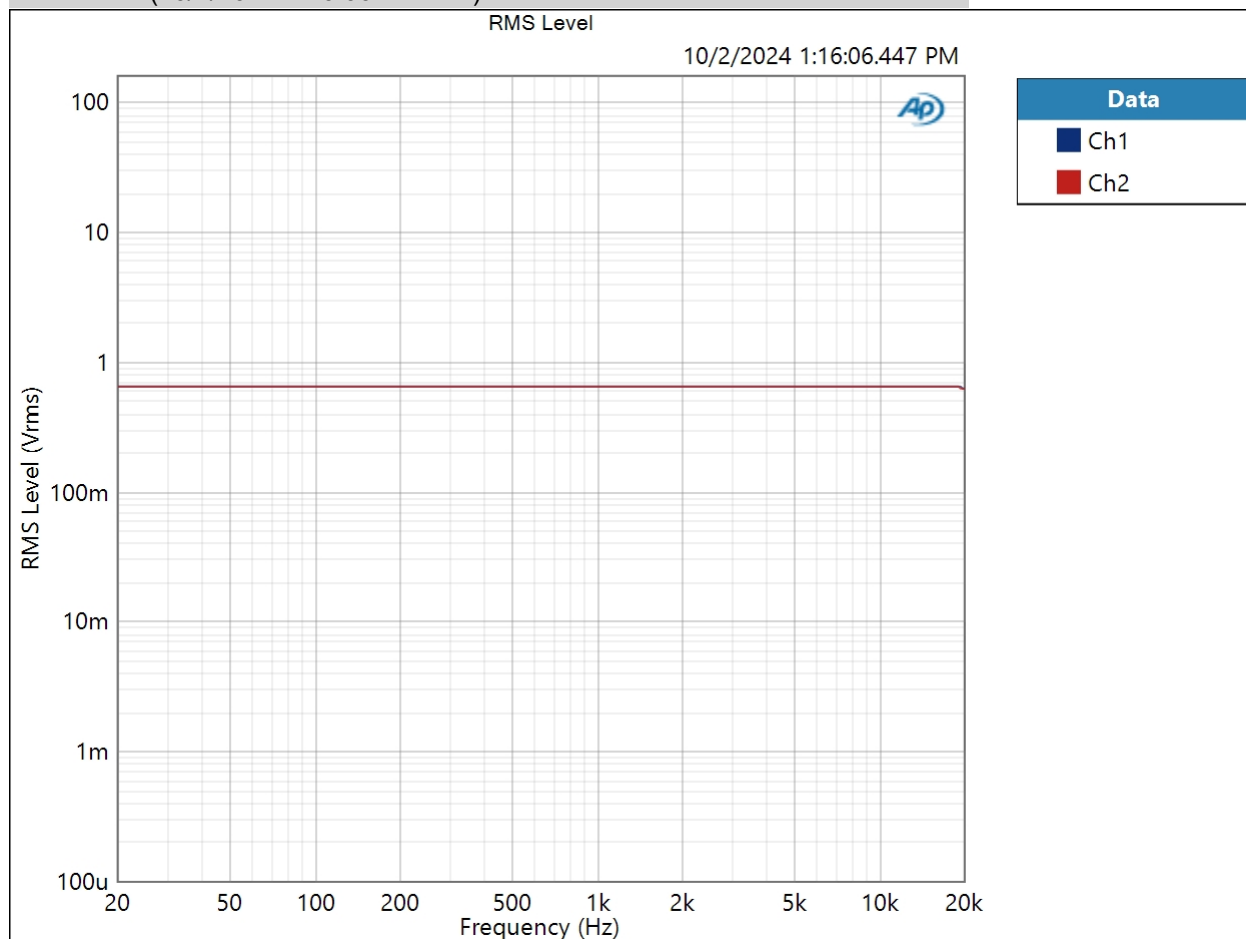


Result: PASSED

Low Gain USB Power Only : Frequency Response

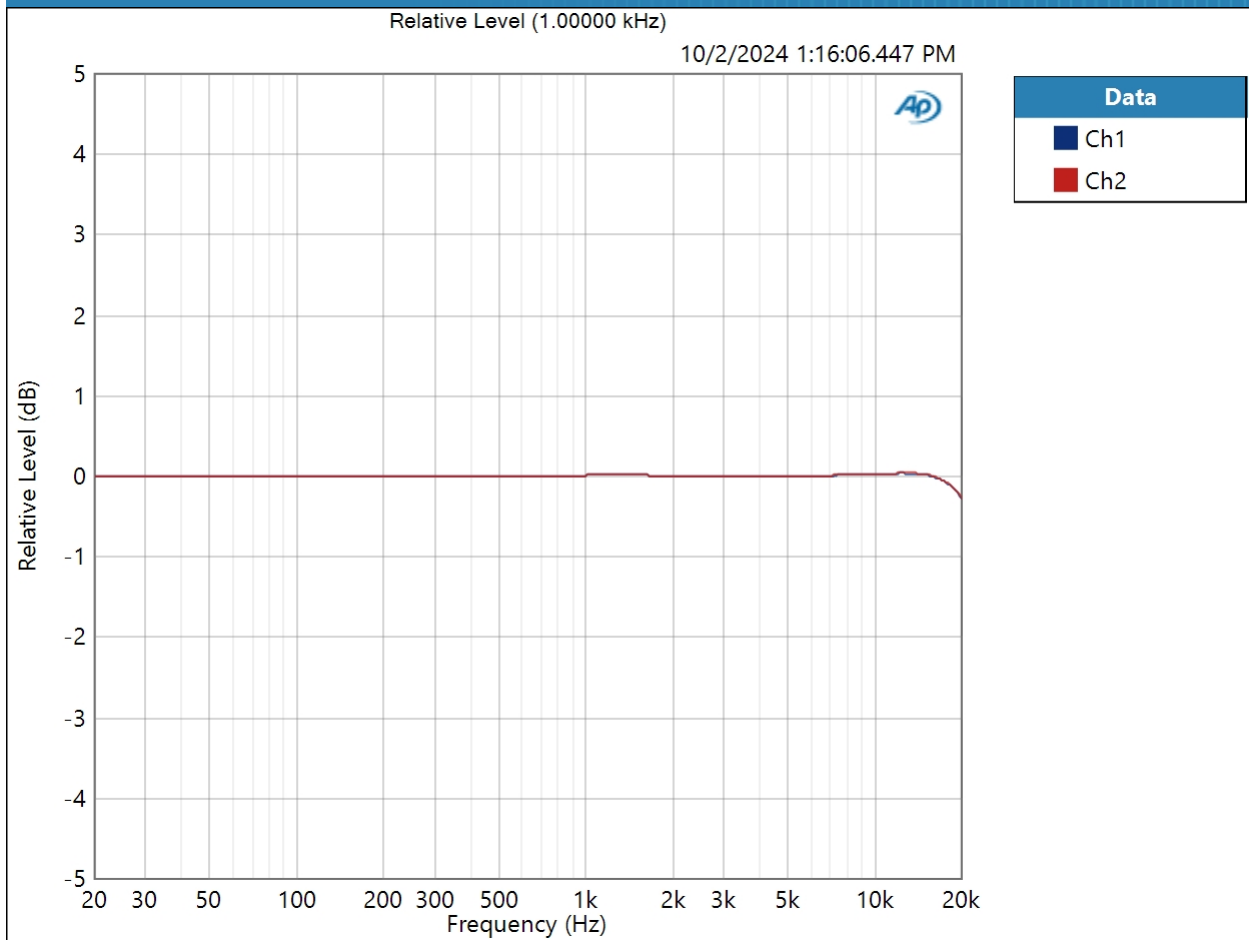
Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
EQ: None
Pre-Sweep: 500.0 ms
Sweep: 1.000 s
Extend Acquisition By: 3.000 s
Secondary Source: None
Measured 1 10/2/2024 1:16:06 PM

RMS Level (10/2/2024 1:16:06.447 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/2/2024 1:16:06.447 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) (10/2/2024 1:16:06.447 PM)

Ch1 ± 0.175 dB

Ch2 ± 0.173 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Low Gain USB Power Only : Signal to Noise Ratio

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 (10/2/2024 1:16:08.593 PM)

Ch1 106.340 dB
Ch2 105.703 dB

Low Gain USB Power Only : THD+N

Waveform: Sine
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 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 (10/2/2024 1:16:11.495 PM)

Ch1 0.000961 %
 Ch2 0.001090 %

THD Ratio (10/2/2024 1:16:11.495 PM)

Ch1 0.000561 %
 Ch2 0.000544 %

Noise Ratio (10/2/2024 1:16:11.495 PM)

Ch1 0.000743 %
 Ch2 0.000970 %

Distortion Product Ratio (10/2/2024 1:16:11.495 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	-109.81	-115.56	-115.59	-122.07	-120.40	-120.84	-115.96	-121.48	-124.40
Ch2	-0.00	-113.03	-114.30	-116.96	-121.88	-119.71	-118.00	-115.57	-121.16	-123.99

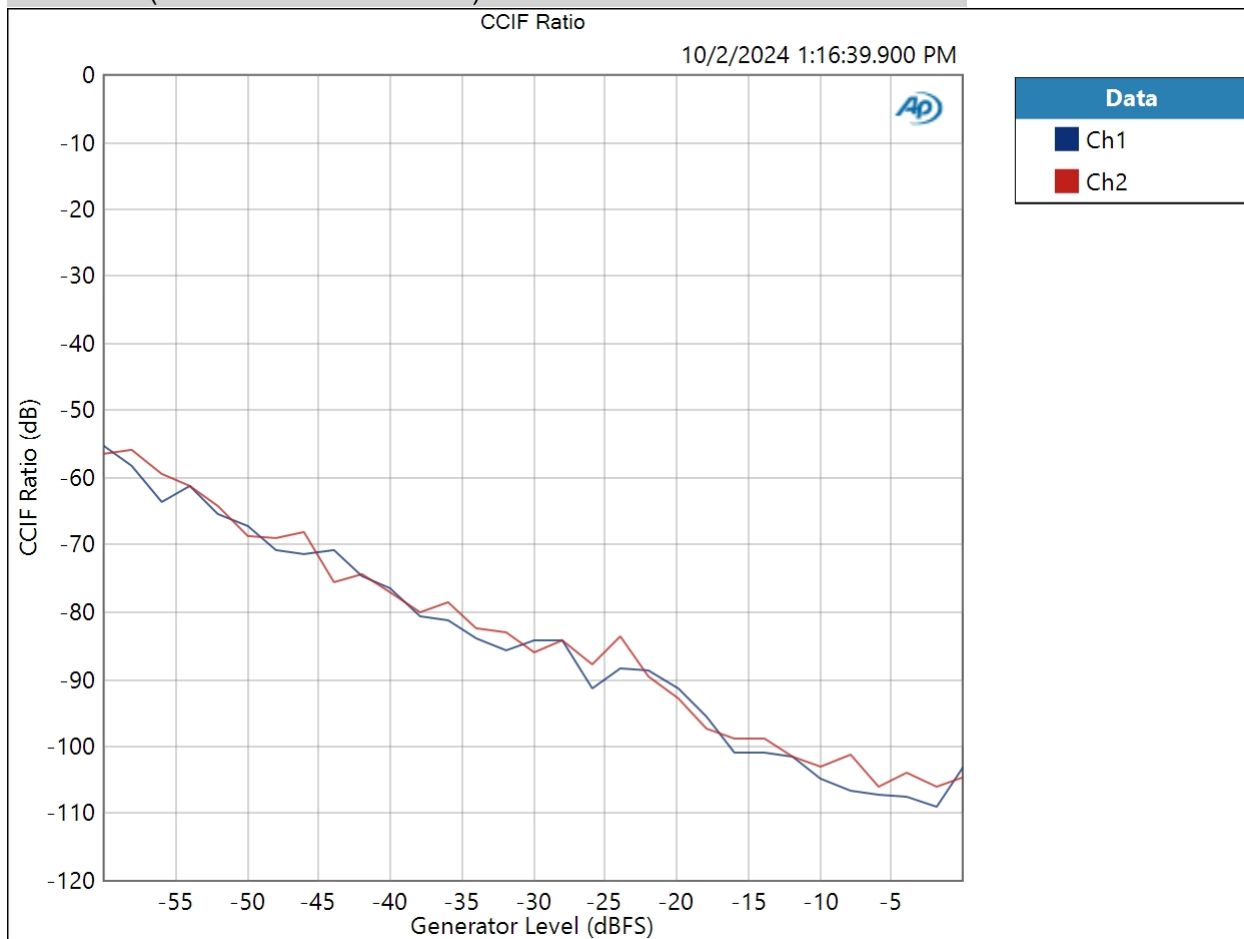
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Low Gain USB Power Only : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: -60.000 dBFS
 Stop Level: -0.000 dBFS
 Step Type: Linear
 Number of Points: 31
 Step Size: +2.000 dBFS
 Mode: d2+d3
 Measured 1 10/2/2024 1:16:39 PM

CCIF Ratio (10/2/2024 1:16:39.900 PM)

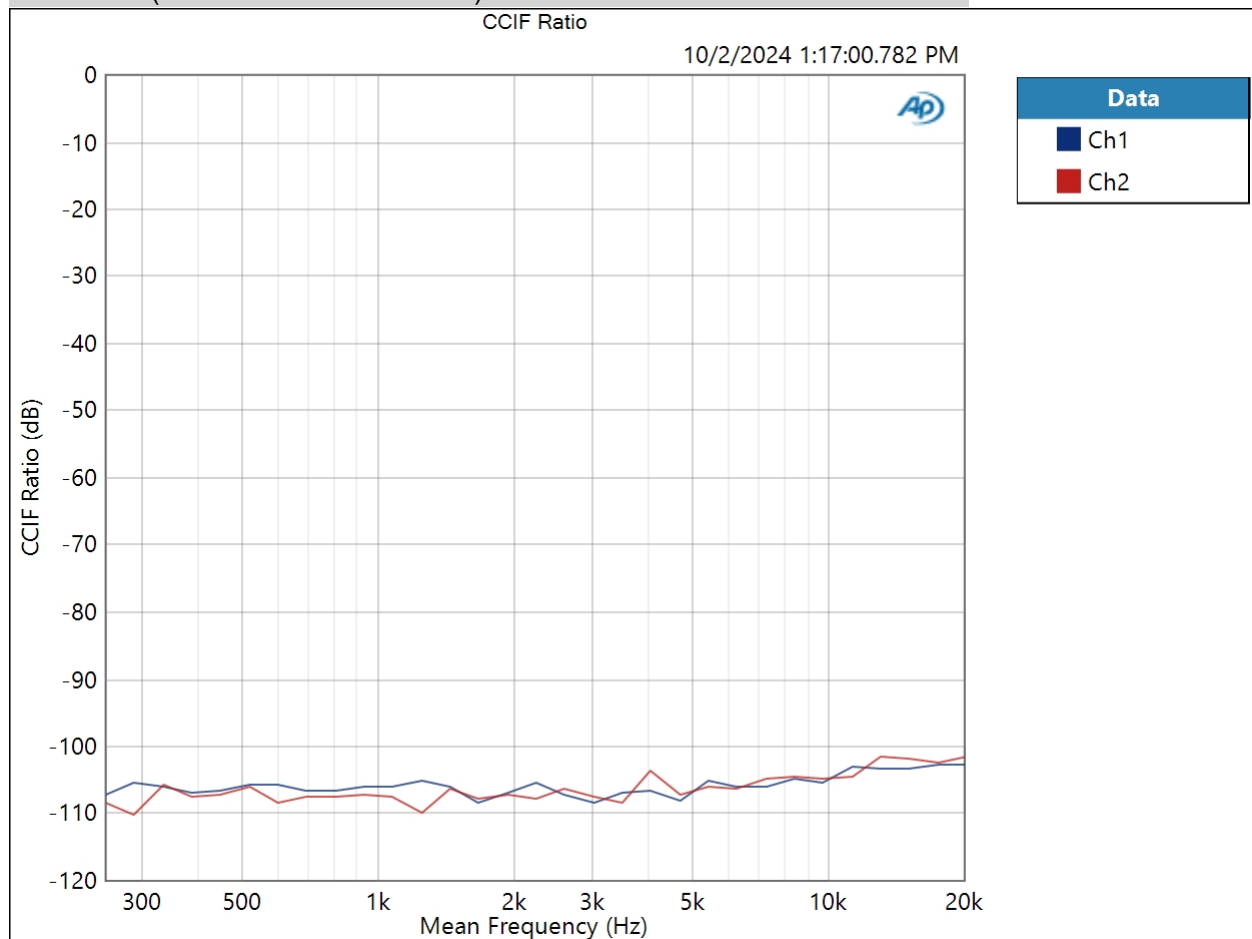


Result:  PASSED

Low Gain USB Power Only : IMD Frequency Sweep (CCIF)

Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 10/2/2024 1:17:00 PM

CCIF Ratio (10/2/2024 1:17:00.782 PM)



Result:  PASSED

Low Gain USB Power Only : Crosstalk, One Channel Undriven

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz

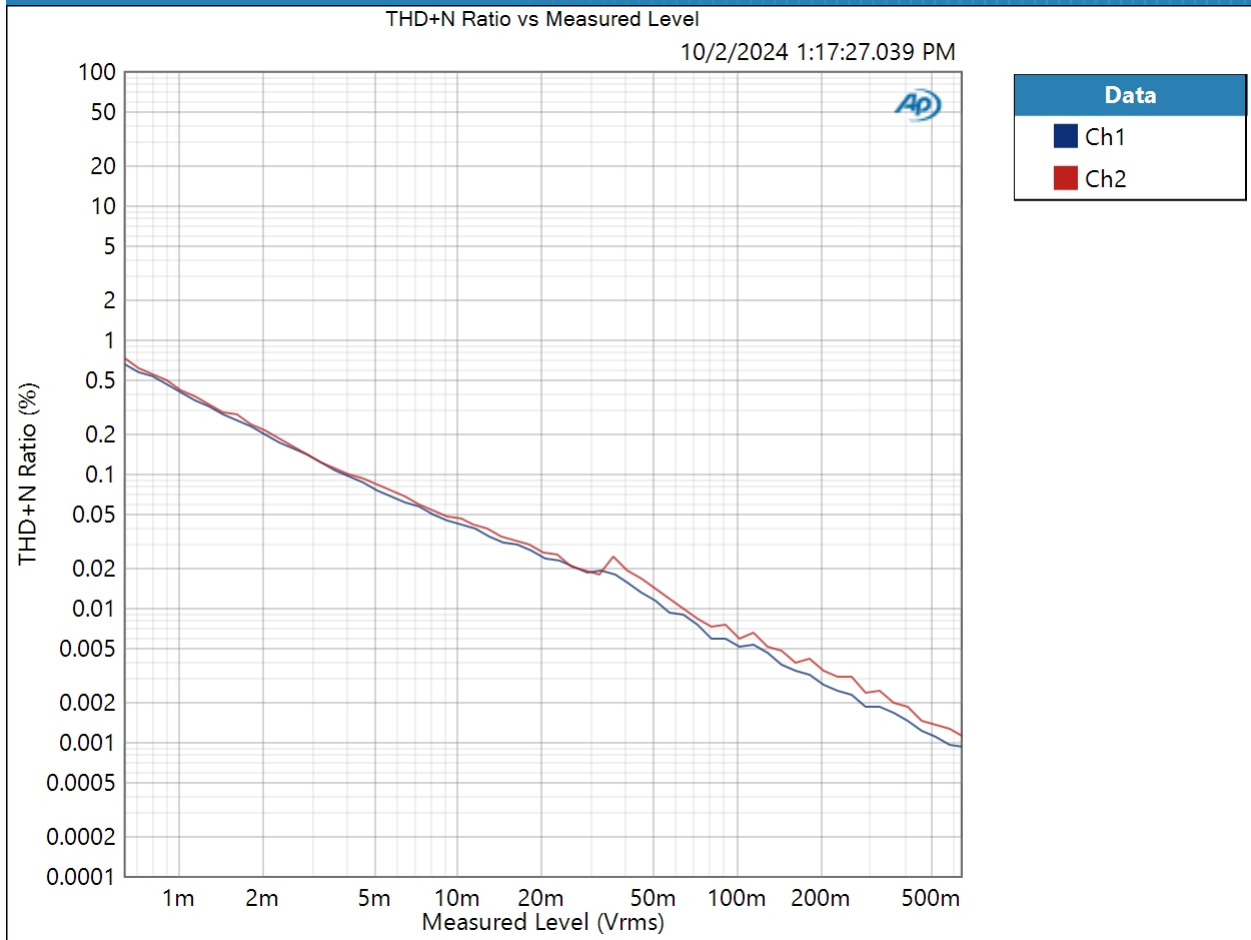
Crosstalk (10/2/2024 1:17:03.974 PM)

Ch1 -84.640 dB
Ch2 -82.611 dB

Low Gain USB Power Only : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: -60.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 61
Step Size: +1.000 dBFS
Offset: 0.000 D
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 10/2/2024 1:17:27 PM

THD+N Ratio vs Measured Level (10/2/2024 1:17:27.039 PM)



Result: PASSED

Optical : Signal Path Setup

Output Connector:	Digital Optical
Output Sample Rate:	44.1000 kHz
Output Bit Depth:	24
Dither:	Enabled
Output Mode:	Consumer
Status Bits:	Auto (Consumer)
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:	-20.000 dBFS
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.

10/2/2024 1:17 PM

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Optical : Level and Gain

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (10/2/2024 1:02:03.507 PM)

Ch1 2.035 Vrms
Ch2 2.027 Vrms

Optical : DC Level

Waveform: Sine
Generator Level: $-\infty$ dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

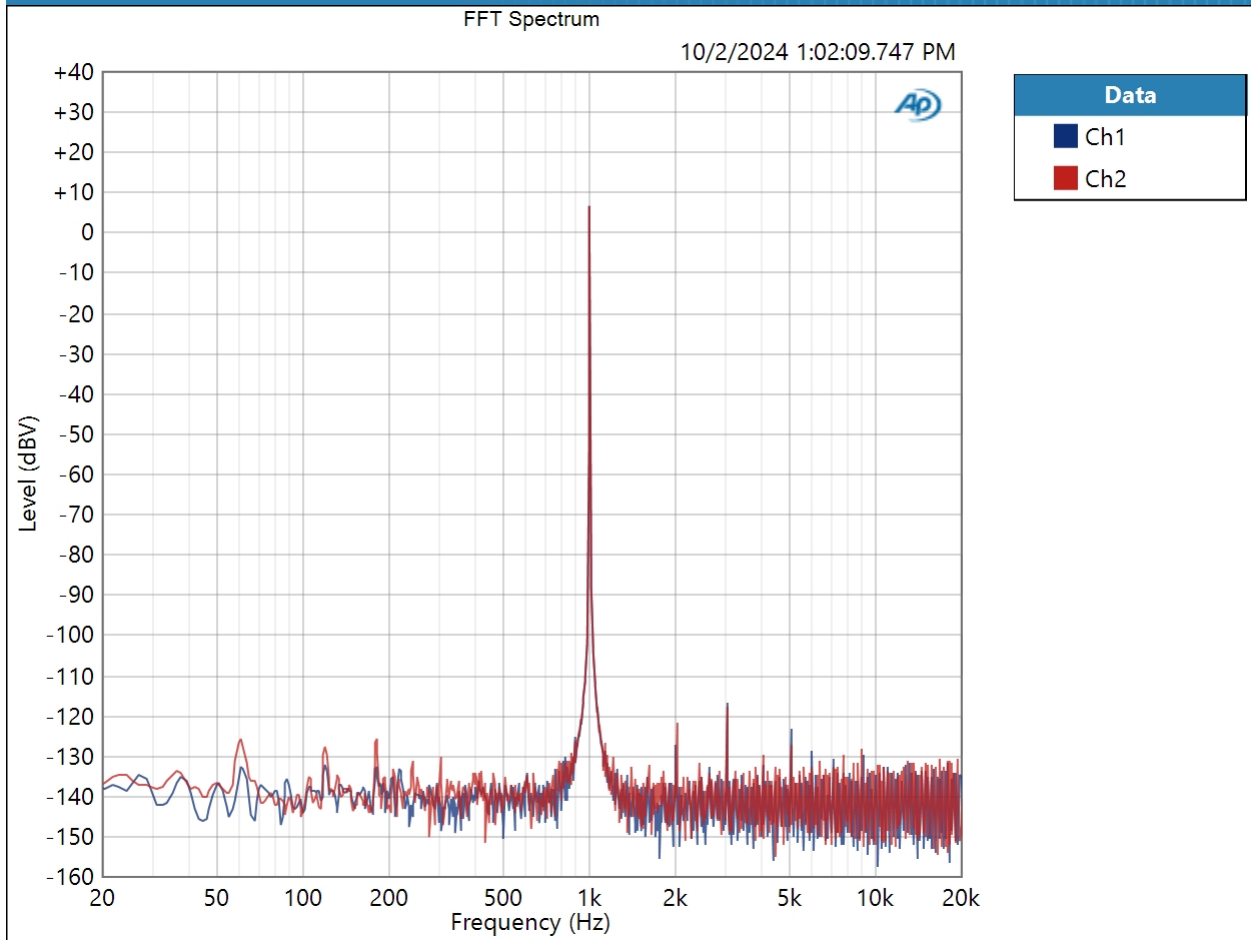
DC Level (10/2/2024 1:02:04.803 PM)

Ch1 -156.6 μ V
Ch2 193.5 μ V

Optical : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/2/2024 1:02:09 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 500.0 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 (10/2/2024 1:02:09.747 PM)

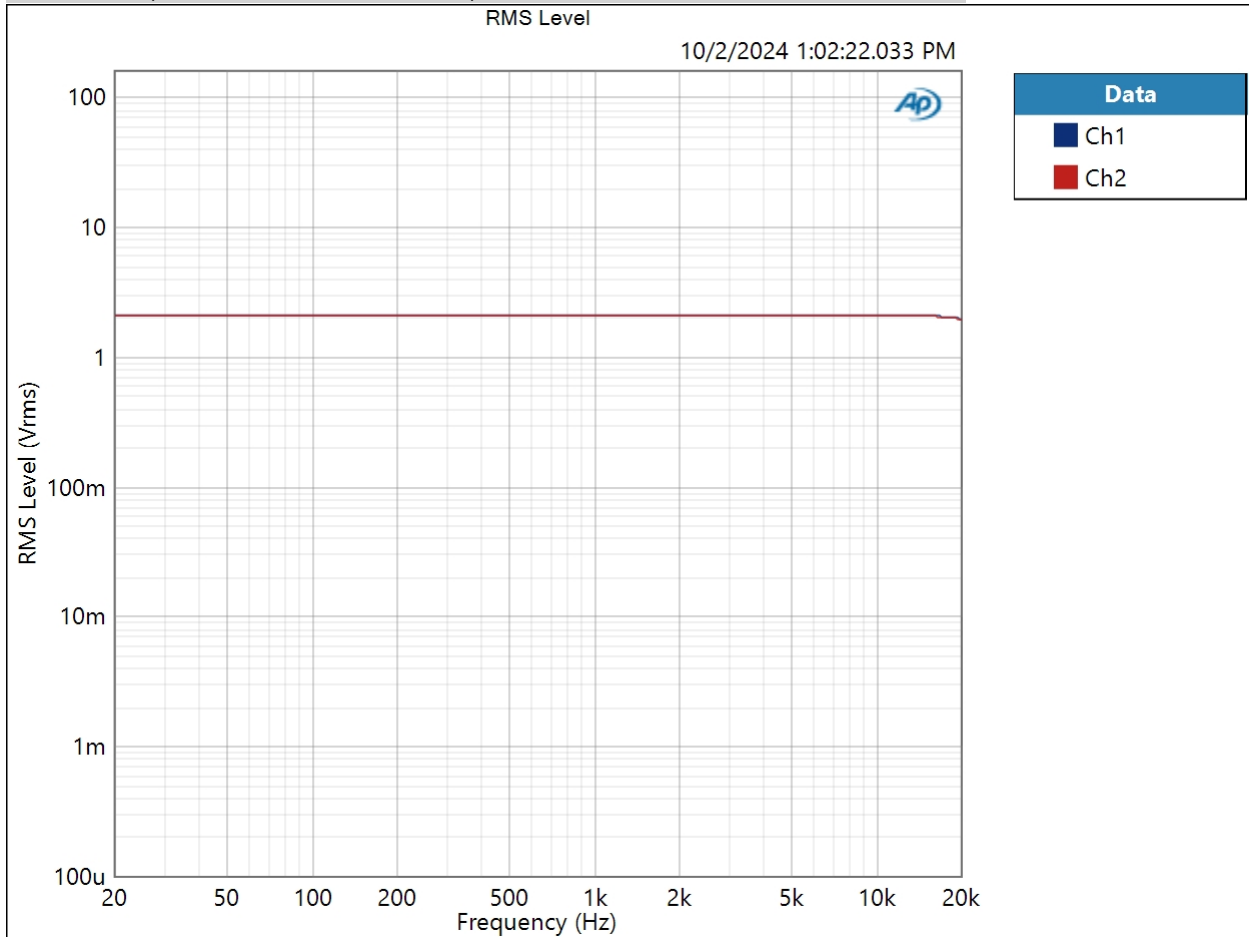


Result: PASSED

Optical : Frequency Response

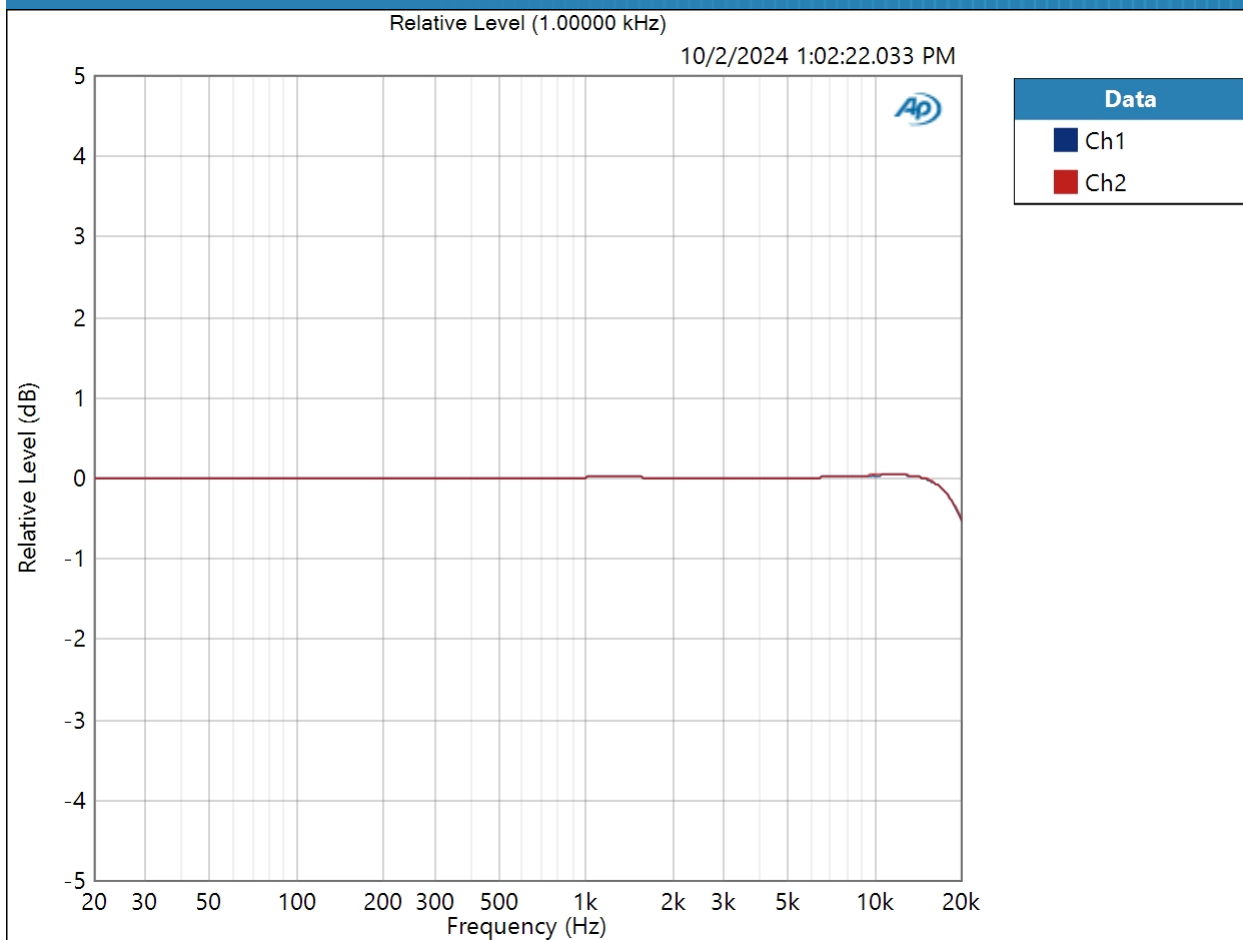
Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
EQ: None
Pre-Sweep: 200.0 ms
Sweep: 2.000 s
Extend Acquisition By: 3.000 s
Secondary Source: None
Measured 1 10/2/2024 1:02:22 PM

RMS Level (10/2/2024 1:02:22.033 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/2/2024 1:02:22.033 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) (10/2/2024 1:02:22.033 PM)

Ch1 ± 0.307 dB

Ch2 ± 0.304 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Optical : Signal to Noise Ratio

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 (10/2/2024 1:02:24.576 PM)

Ch1 115.187 dB
Ch2 114.414 dB

Optical : THD+N

Waveform: Sine
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 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 (10/2/2024 1:02:27.309 PM)

Ch1 0.000342 %
 Ch2 0.000398 %

THD Ratio (10/2/2024 1:02:27.309 PM)

Ch1 0.000099 %
 Ch2 0.000109 %

Noise Ratio (10/2/2024 1:02:27.309 PM)

Ch1 0.000327 %
 Ch2 0.000381 %

Distortion Product Ratio (10/2/2024 1:02:27.309 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	-131.85	-122.94	-137.31	-131.17	-136.07	-137.33	-135.50	-133.45	-139.47
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-128.93	-124.95	-136.27	-126.32	-139.71	-132.32	-134.84	-137.68	-134.95

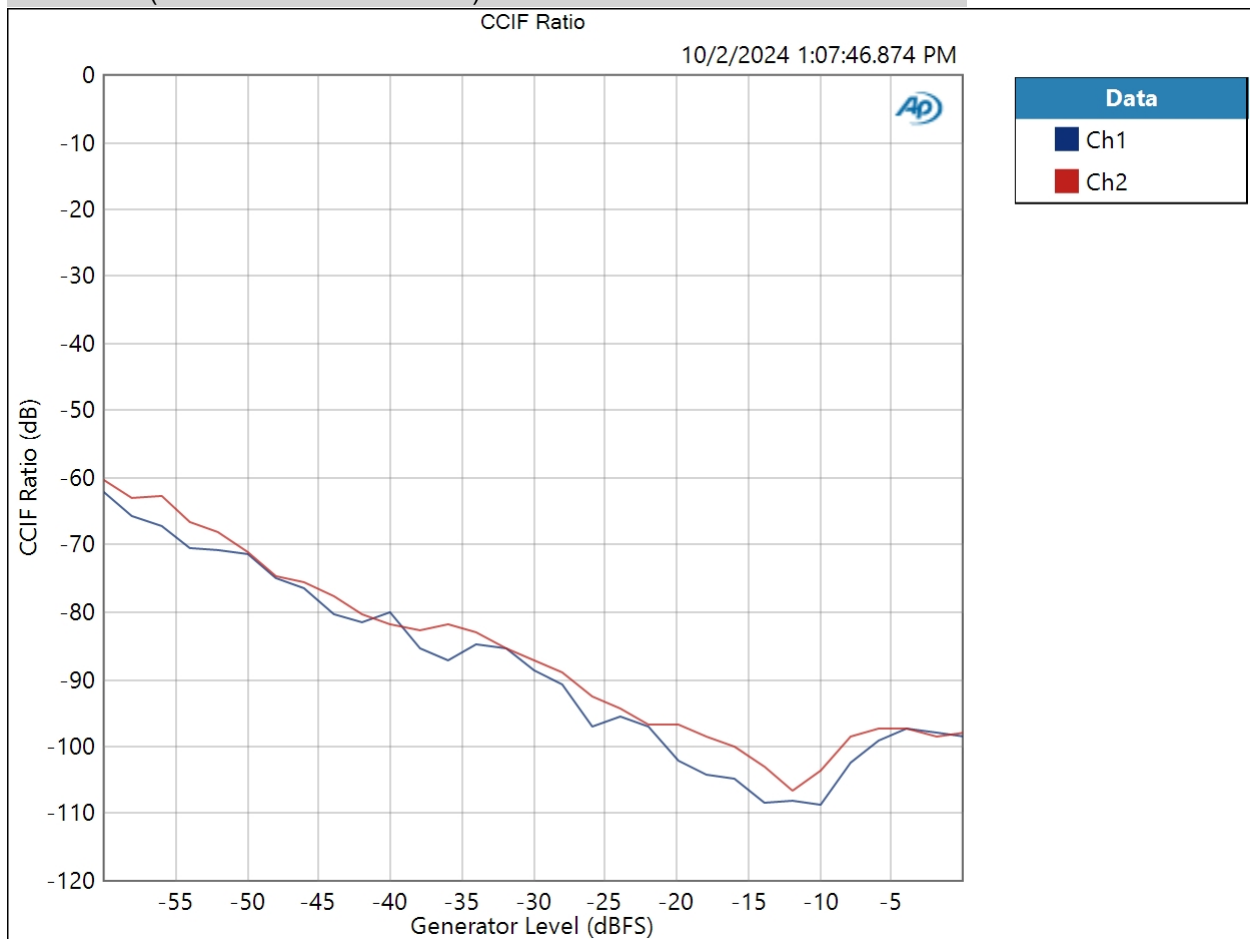
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Optical : IMD Level Sweep (CCIF)

IMD Type: CCIF
Mean Frequency: 12.5000 kHz
Diff Frequency: 80.0000 Hz
IMD Split: False
Start Level: -60.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 31
Step Size: +2.000 dBFS
Mode: d2+d3
Measured 1 10/2/2024 1:07:46 PM

CCIF Ratio (10/2/2024 1:07:46.874 PM)

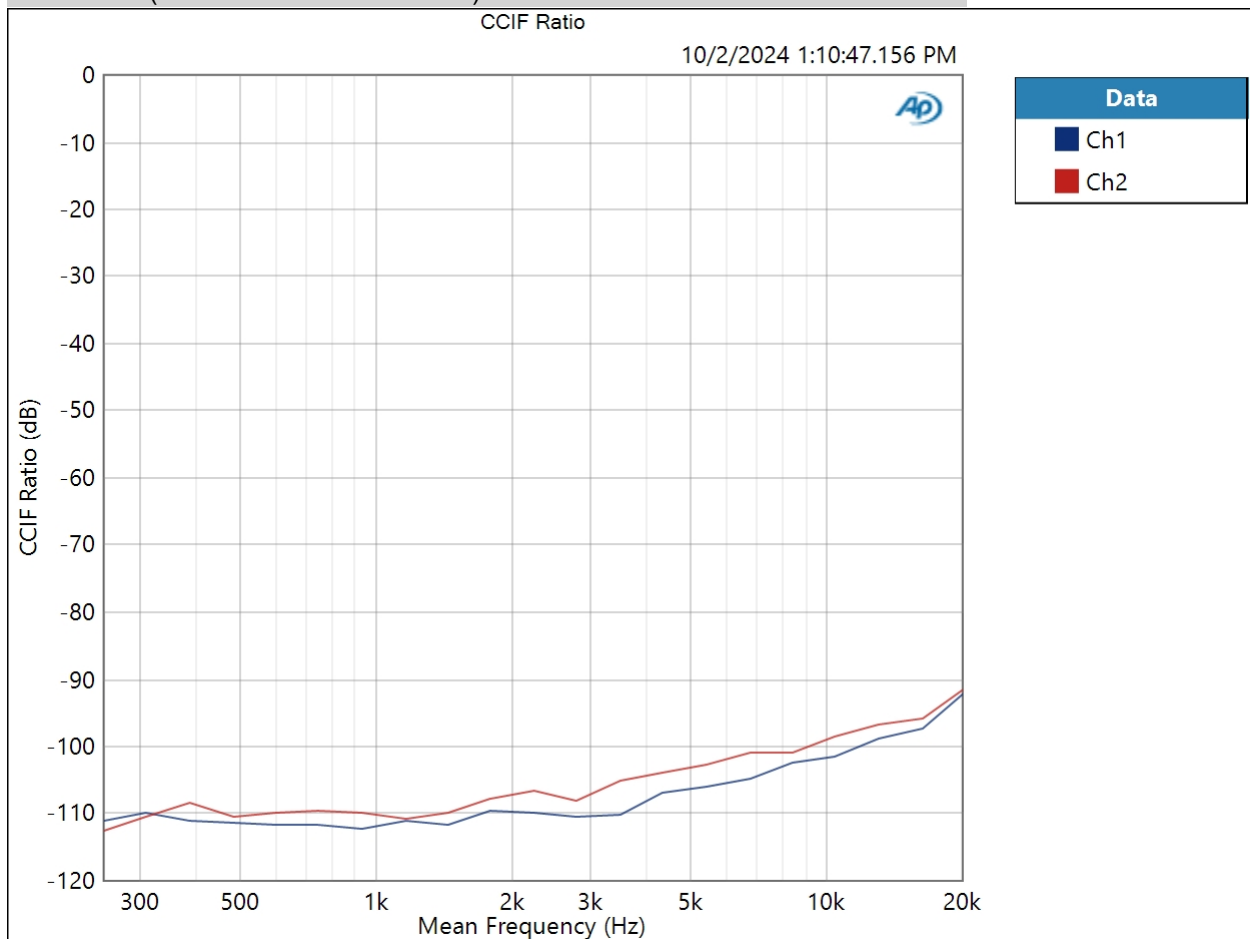


Result:  PASSED

Optical : IMD Frequency Sweep (CCIF)

Generator Level: -6.000 dBFS
 DC Offset: 0.000 D
 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: 21
 Mode: d2+d3
 Measured 1 10/2/2024 1:10:47 PM

CCIF Ratio (10/2/2024 1:10:47.156 PM)



Result:  PASSED

Optical : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 1.00000 kHz

Crosstalk (10/2/2024 1:08:20.779 PM)

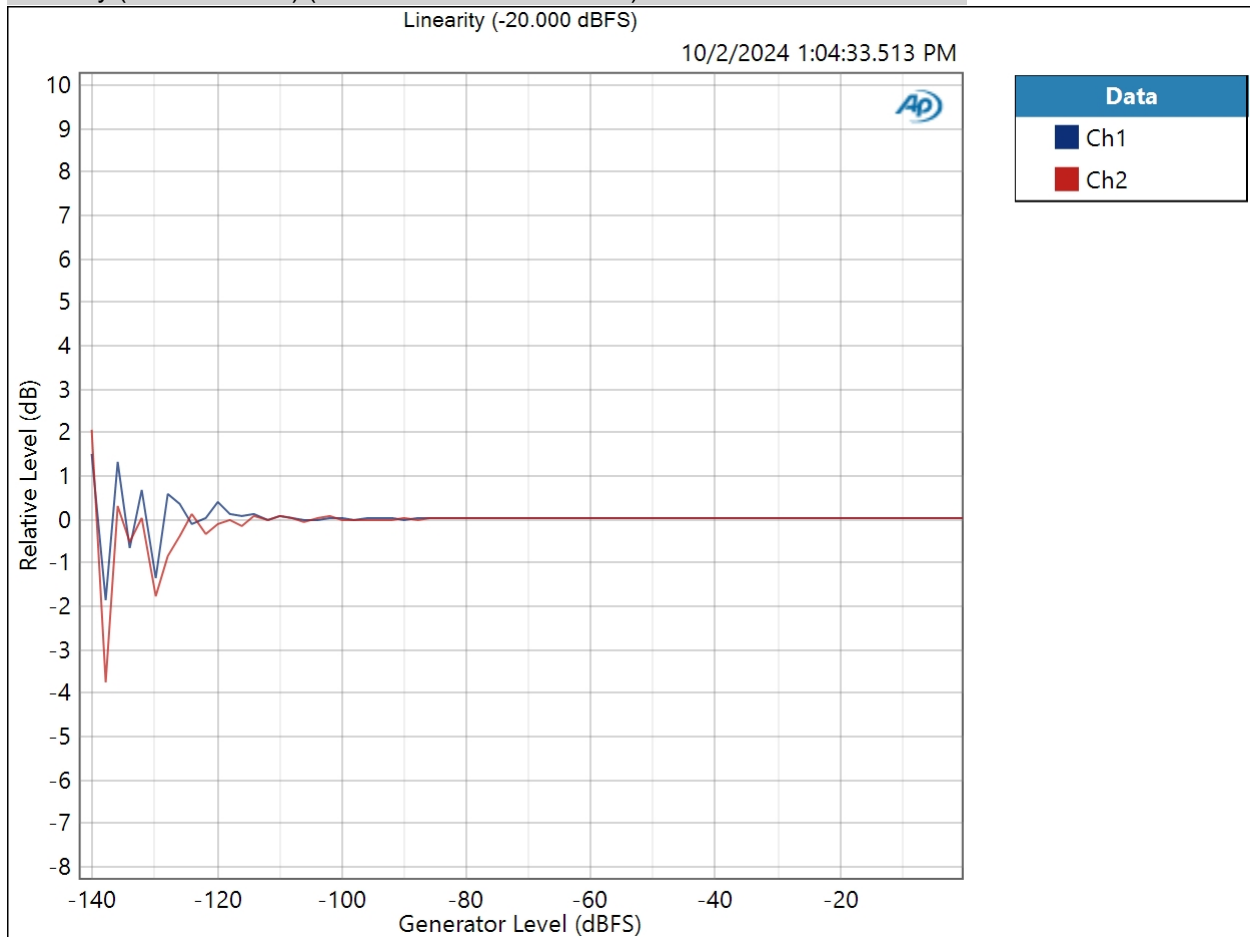
Ch1 -103.201 dB

Ch2 -88.658 dB

Optical : Bandpass Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: -140.000 dBFS
Stop Level: -0.000 dBFS
Step Type: Linear
Number of Points: 71
Step Size: +2.000 dBFS
Offset: 0.000 D
Selectivity: Window width
Bandpass Tuning Mode: Generator Frequency
Measured 1 10/2/2024 1:04:33 PM

Linearity (-20.000 dBFS) (10/2/2024 1:04:33.513 PM)



Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

Relative Level: -20.000 dBFS

Result:  PASSED