

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@schiiit.com with a copy of your results so we can bring back your product and check it against our standard.

Summary

USB

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

Optical

Jitter Level Sweep	✓ PASSED
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Sequence Result:

Sequence Result: ✓ PASSED

APx Instrument

Instrument ID: 11571
Calibration Date: 3/23/2021
APx Version: 6.0.2.600.149330

USB : Signal Path Setup

Output Connector:	ASIO
Asio Device:	ASIO4ALL v2
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	512
Clock Source:	Big Ben
Input 1:	Analog Unbalanced
Input Bandwidth:	AC (<10 Hz) - 20 kHz (44.1 kHz SR)
Input EQ:	None
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
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.	
• Clocks	
Output Rate:	Track Output SR
Sync Out Level:	3.300 V

Sync Out Polarity: Normal
 Timebase Reference: Internal
 Jitter: Disabled
 • Triggers
 Source: Off
 Input Logic Level: 3.300 V
 Edge: Rising

USB : 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 (10/31/2022 2:37:53.494 PM)

Ch1 1.935 Vrms
 Ch2 1.935 Vrms

USB : 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

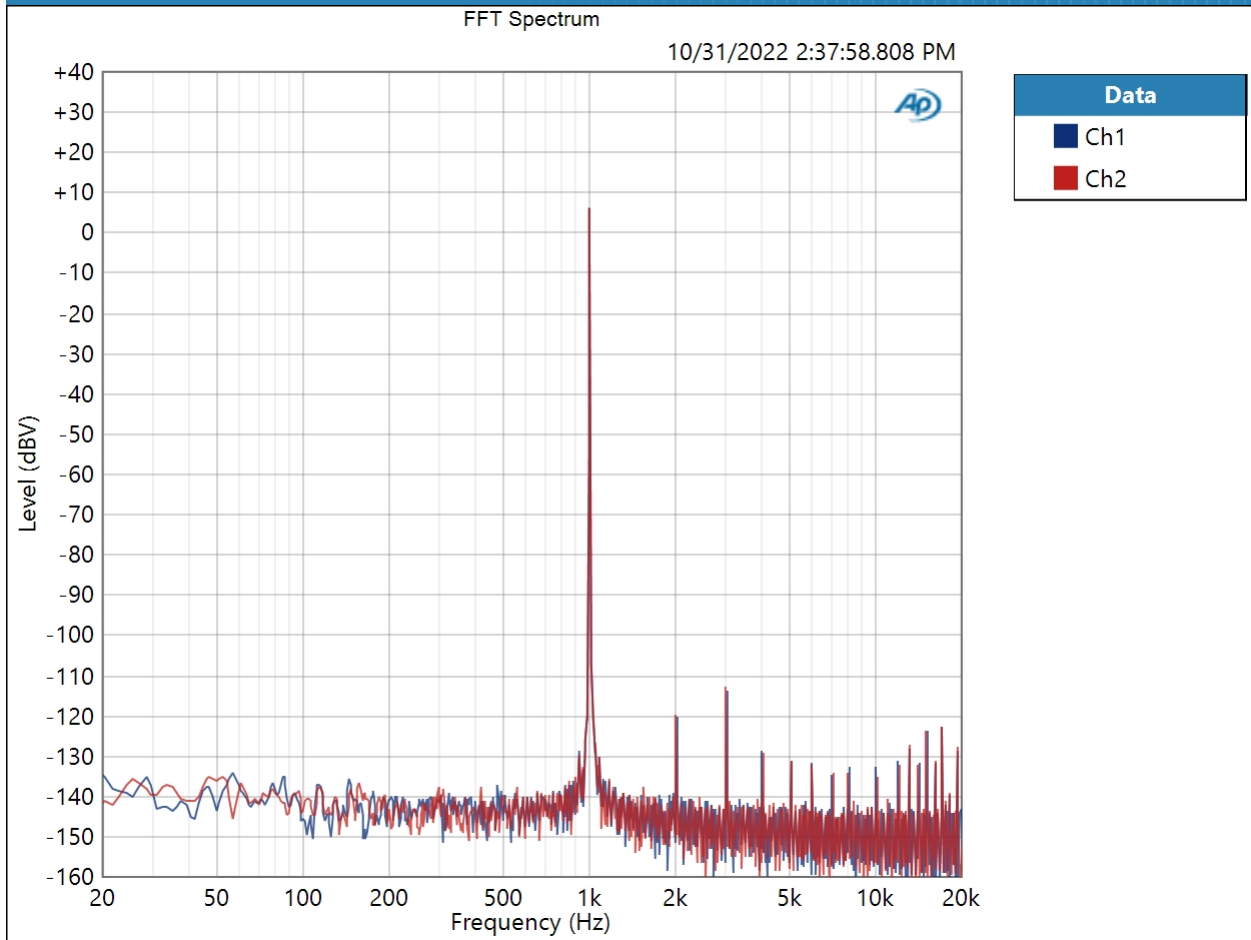
DC Level (10/31/2022 2:37:54.720 PM)

Ch1 1.319 mV
 Ch2 444.2 uV

USB : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/31/2022 2:37:58 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32K
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (10/31/2022 2:37:58.808 PM)

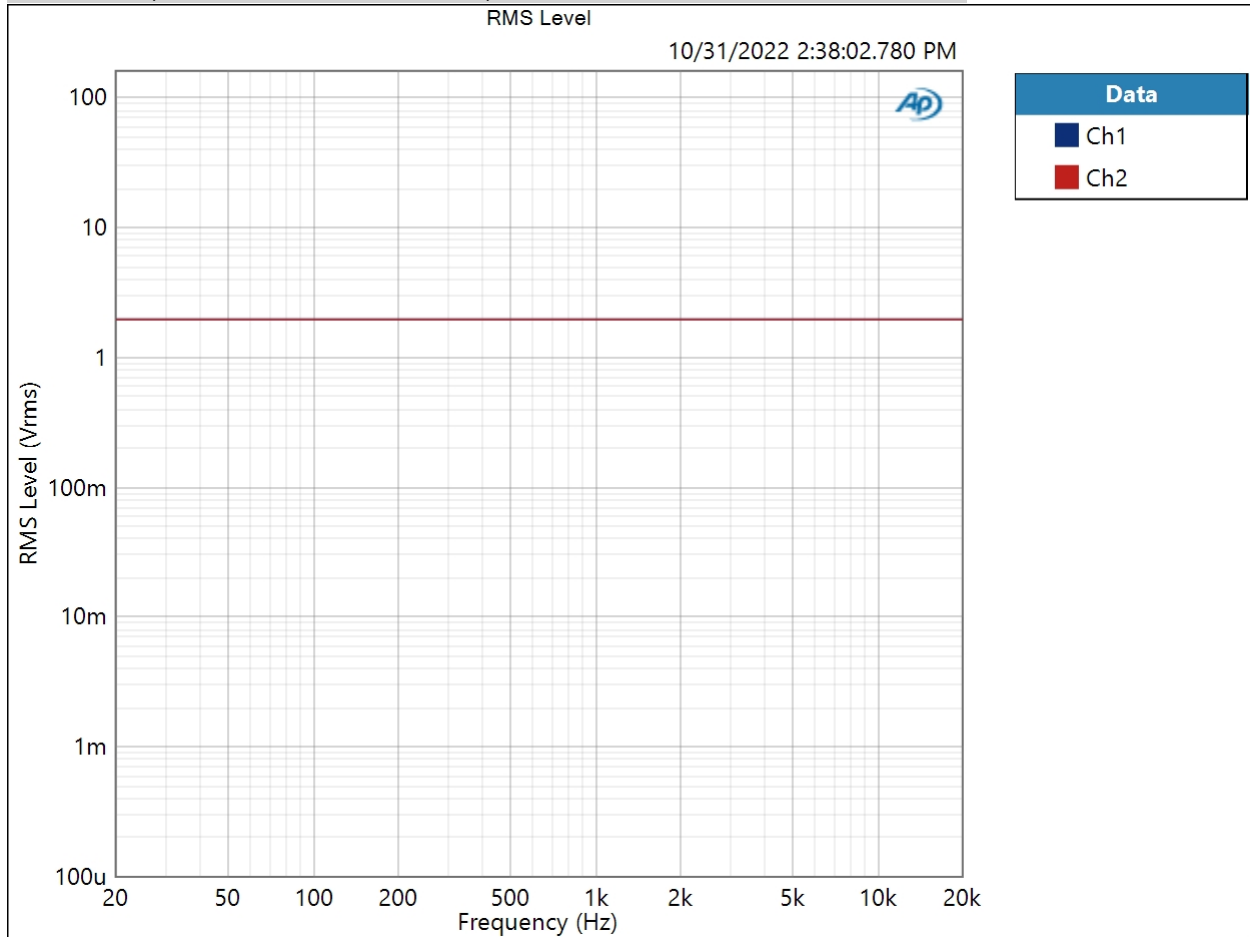


Result:  PASSED

USB : 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: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 10/31/2022 2:38:02 PM

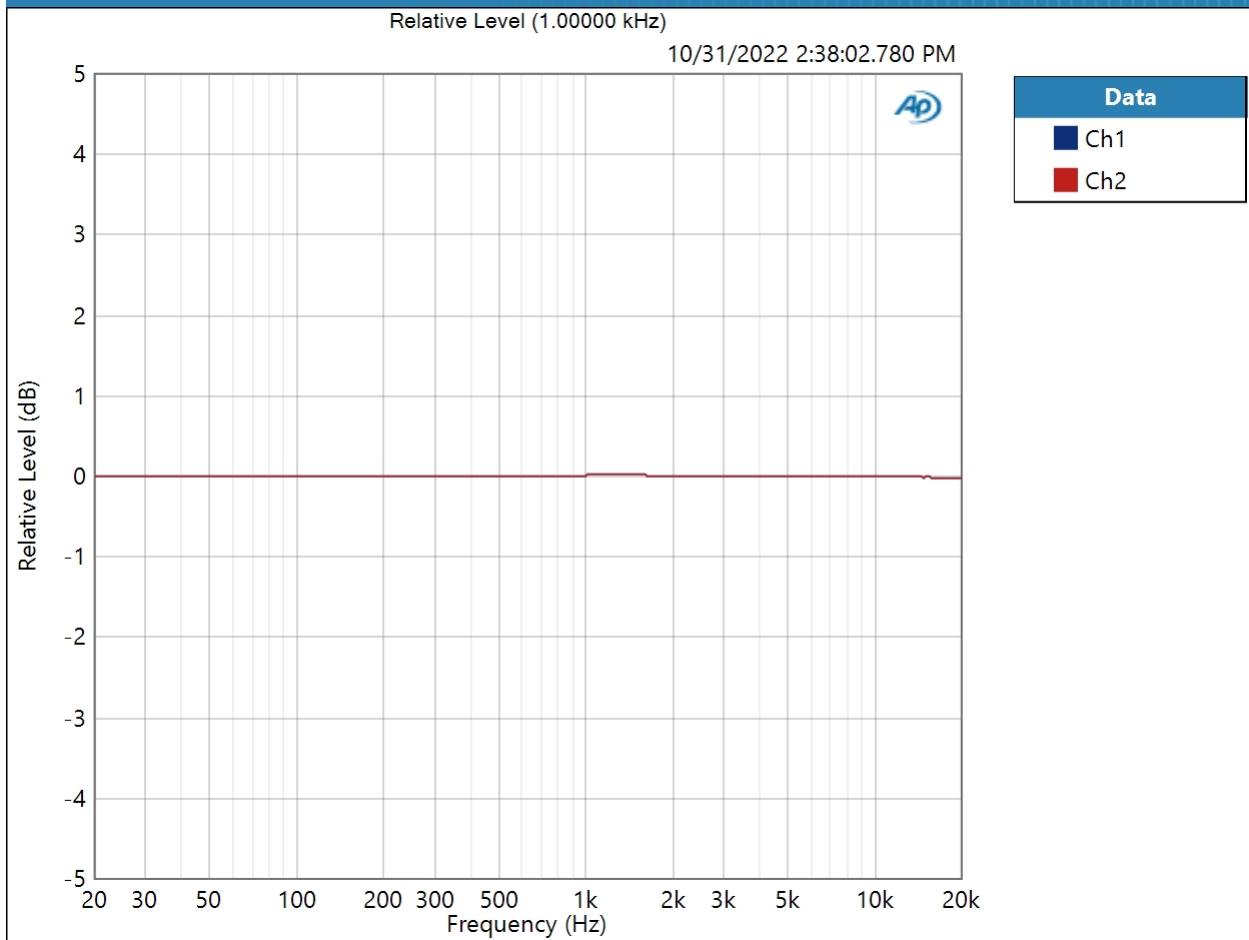
RMS Level (10/31/2022 2:38:02.780 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/31/2022 2:38:02.780 PM)

10/31/2022 2:41 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) (10/31/2022 2:38:02.780 PM)

Ch1 ± 0.027 dB

Ch2 ± 0.027 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

USB : 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: Signal Path

Signal to Noise Ratio (10/31/2022 2:38:04.825 PM)

Ch1 117.801 dB
Ch2 117.848 dB

USB : 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 (10/31/2022 2:38:07.471 PM)

Ch1 0.000211 %
 Ch2 0.000219 %

THD Ratio (10/31/2022 2:38:07.471 PM)

Ch1 0.000142 %
 Ch2 0.000151 %

Noise Ratio (10/31/2022 2:38:07.471 PM)

Ch1 0.000156 %
 Ch2 0.000161 %

Distortion Product Ratio (10/31/2022 2:38:07.471 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	-127.33	-119.14	-132.97	-136.98	-135.68	-136.15	-140.17	-148.85	-138.81
Ch2	-0.00	-126.64	-118.39	-132.78	-138.61	-136.85	-137.58	-139.52	-141.19	-140.18

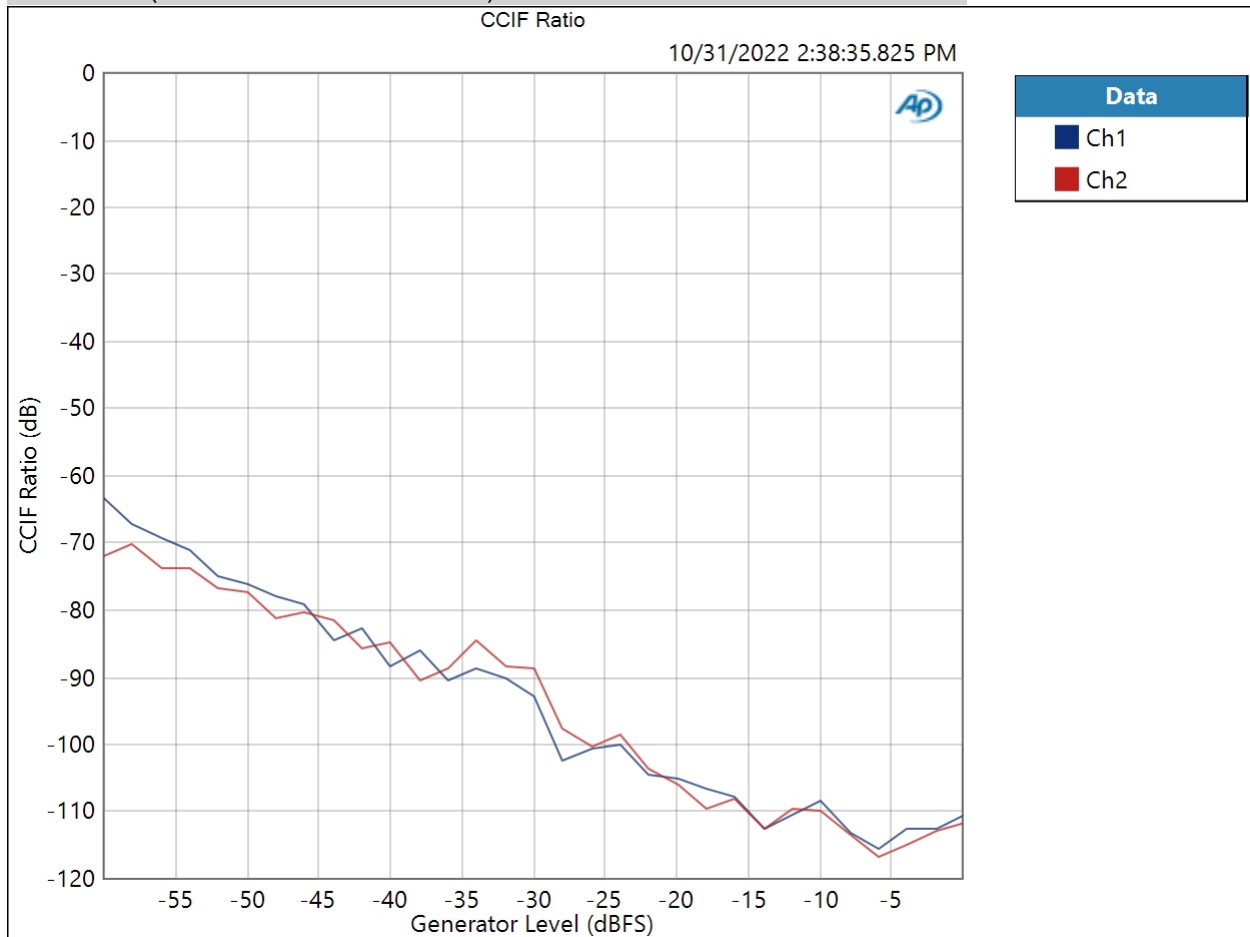
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

USB : 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 10/31/2022 2:38:35 PM

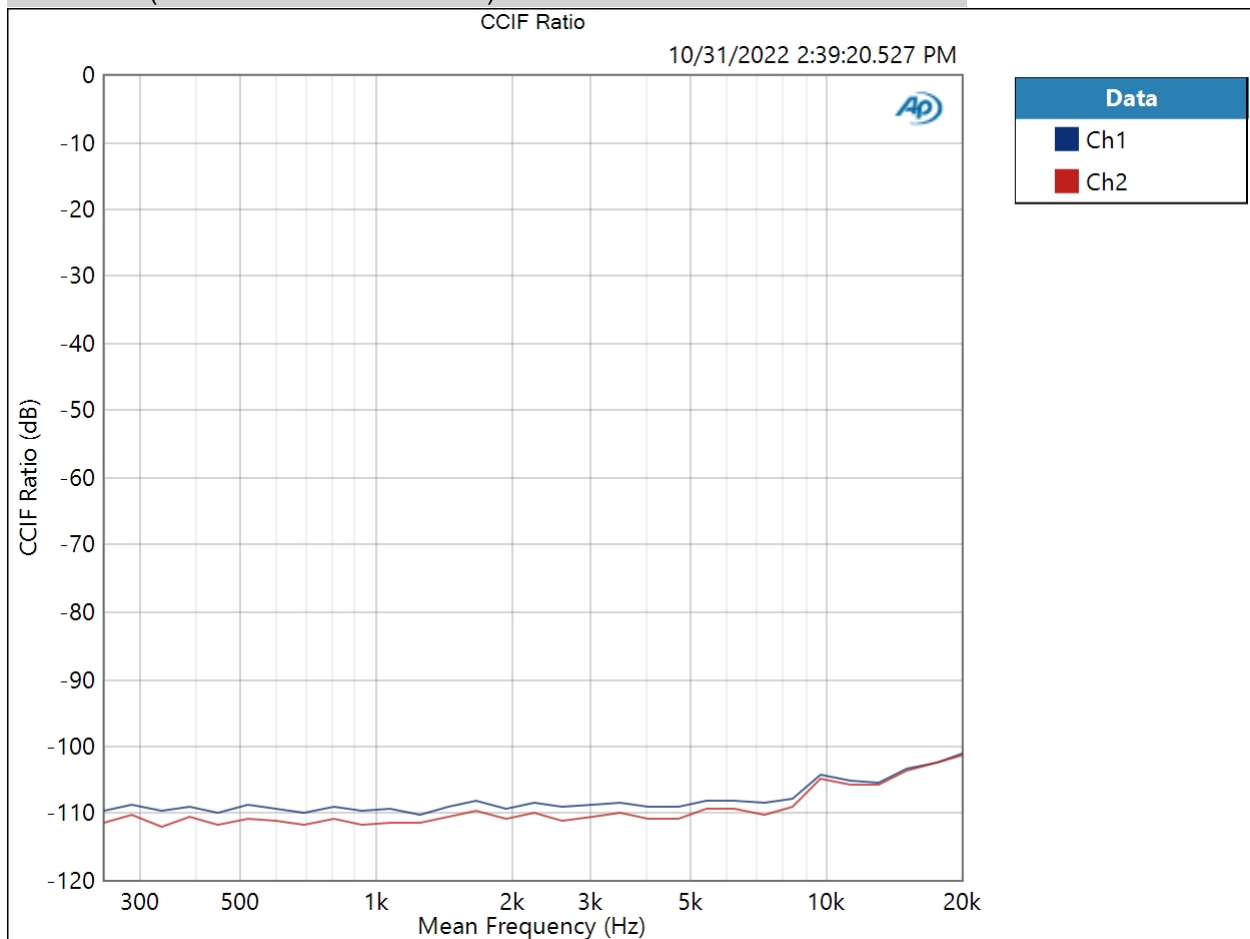
CCIF Ratio (10/31/2022 2:38:35.825 PM)



Result:  PASSED

USB : 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 10/31/2022 2:39:20 PM

CCIF Ratio (10/31/2022 2:39:20.527 PM)



Result:  PASSED

USB : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 10.0000 kHz

Crosstalk (10/31/2022 2:39:25.588 PM)

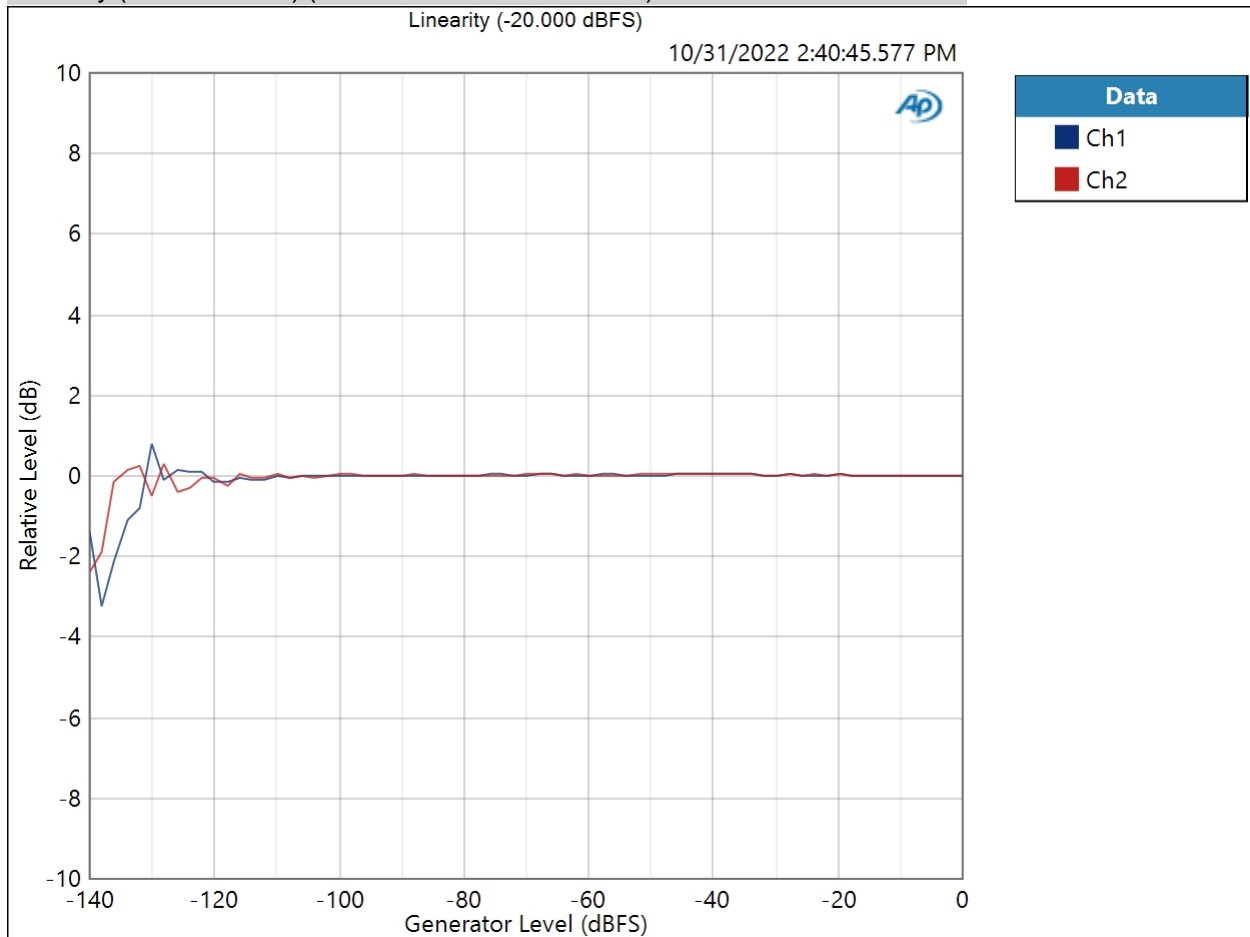
Ch1 -137.572 dB

Ch2 -131.810 dB

USB : 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 10/31/2022 2:40:45 PM

Linearity (-20.000 dBFS) (10/31/2022 2:40:45.577 PM)



Linearity (-20.000 dBFS) Parameters

Schiit DAC APx555 Standard Test Suite: Modi+



Mode: Normalized at Reference

Relative Level: -20.000 dBFS

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
Input Bandwidth:	AC (<10 Hz) - 20 kHz (44.1 kHz SR)
Input EQ:	None
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Disabled
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.

• Clocks

Output Rate:	Track Output SR
Sync Out Level:	3.300 V

Sync Out Polarity:	Normal
Timebase Reference:	Internal
Jitter:	Disabled
• Triggers	
Source:	Off
Input Logic Level:	3.300 V
Edge:	Rising

Optical : Jitter Level Sweep

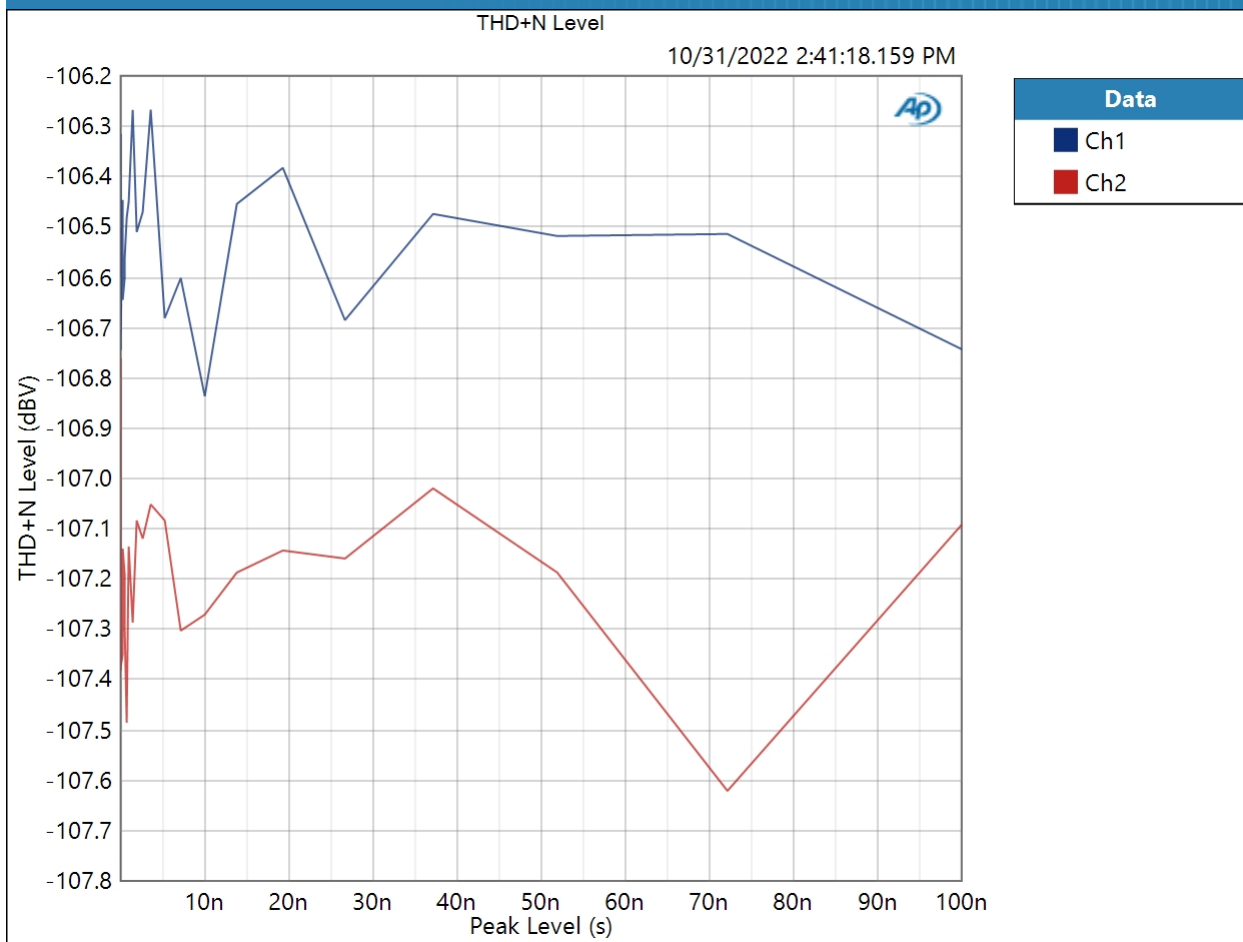
• Audio Generator

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

• Jitter Generator

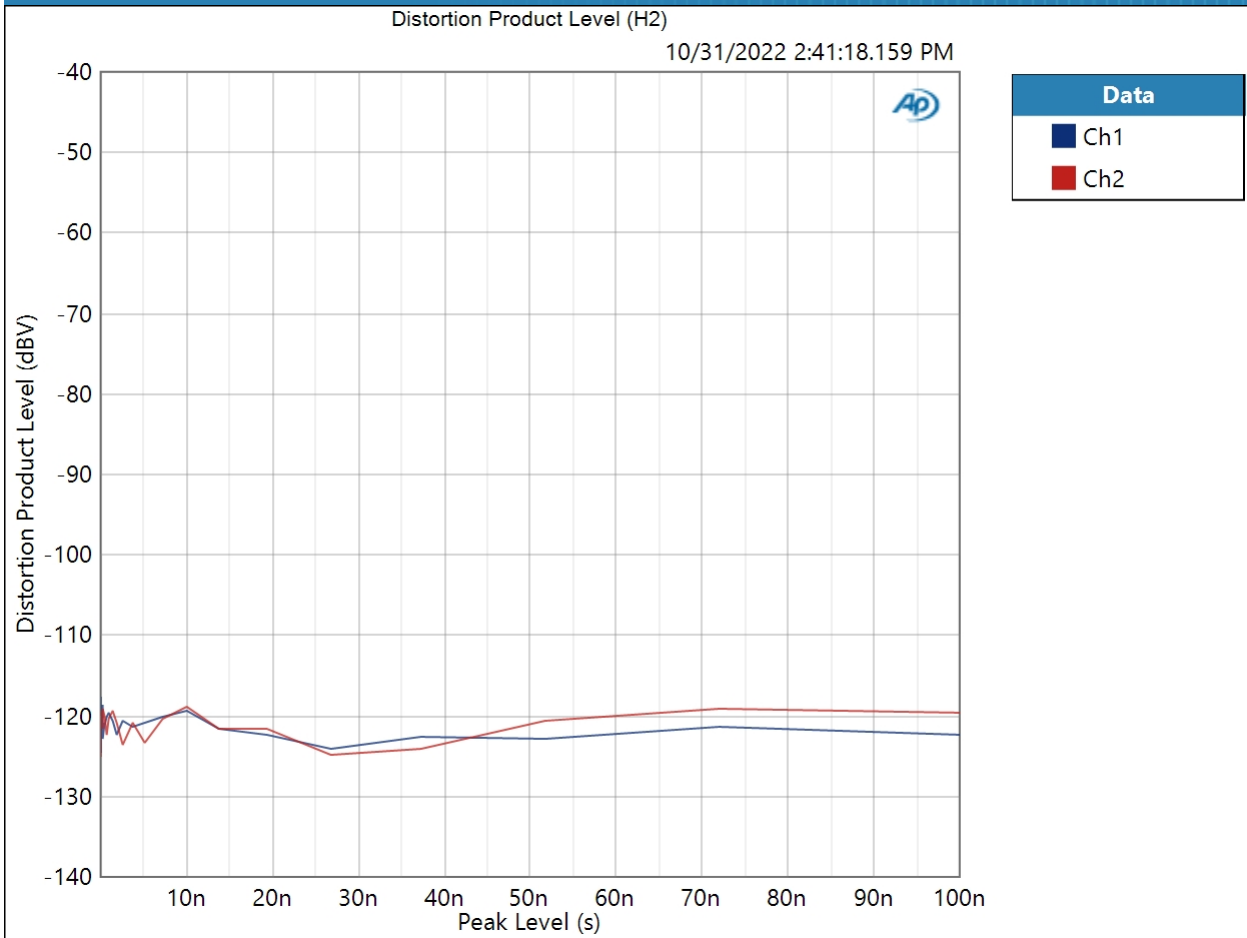
Jitter Waveform: Sine
 Start Level: 5.000 ps
 Stop Level: 100.0 ns
 Step Type: Logarithmic
 Number of Points: 31
 Jitter Frequency: 1.00000 kHz
 High-pass Filter: Elliptic
 High-pass Frequency: 20 Hz
 Low-pass Filter: Elliptic
 Low-pass Frequency: 20 kHz
 Weighting Filter: Signal Path
 Notch Tuning Mode: Generator Frequency
 Secondary Source: None
 Measured 1 10/31/2022 2:41:18 PM

THD+N Level (10/31/2022 2:41:18.159 PM)



Result: PASSED

Distortion Product Level (H2) (10/31/2022 2:41:18.159 PM)



Distortion Product Level (H2) Parameters

Harmonics: Single Harmonic

Harmonic Number: 2

Result: PASSED