APx555 Test Suite: Magni Unity 9018 DAC

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@schiit.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
Bandpass Level Sweep	PASSED

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
dBSPL1:	10.00 mVrms
dBSPL2:	10.00 mVrms
dBSPL1 Calibrator Level:	94.000 dBSPL
dBSPL2 Calibrator Level:	94.000 dBSPL
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 (12/14/2023 12:41:00.672 PM)

Ch1 1.905 Vrms
Ch2 1.903 Vrms

USB : DC Level

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

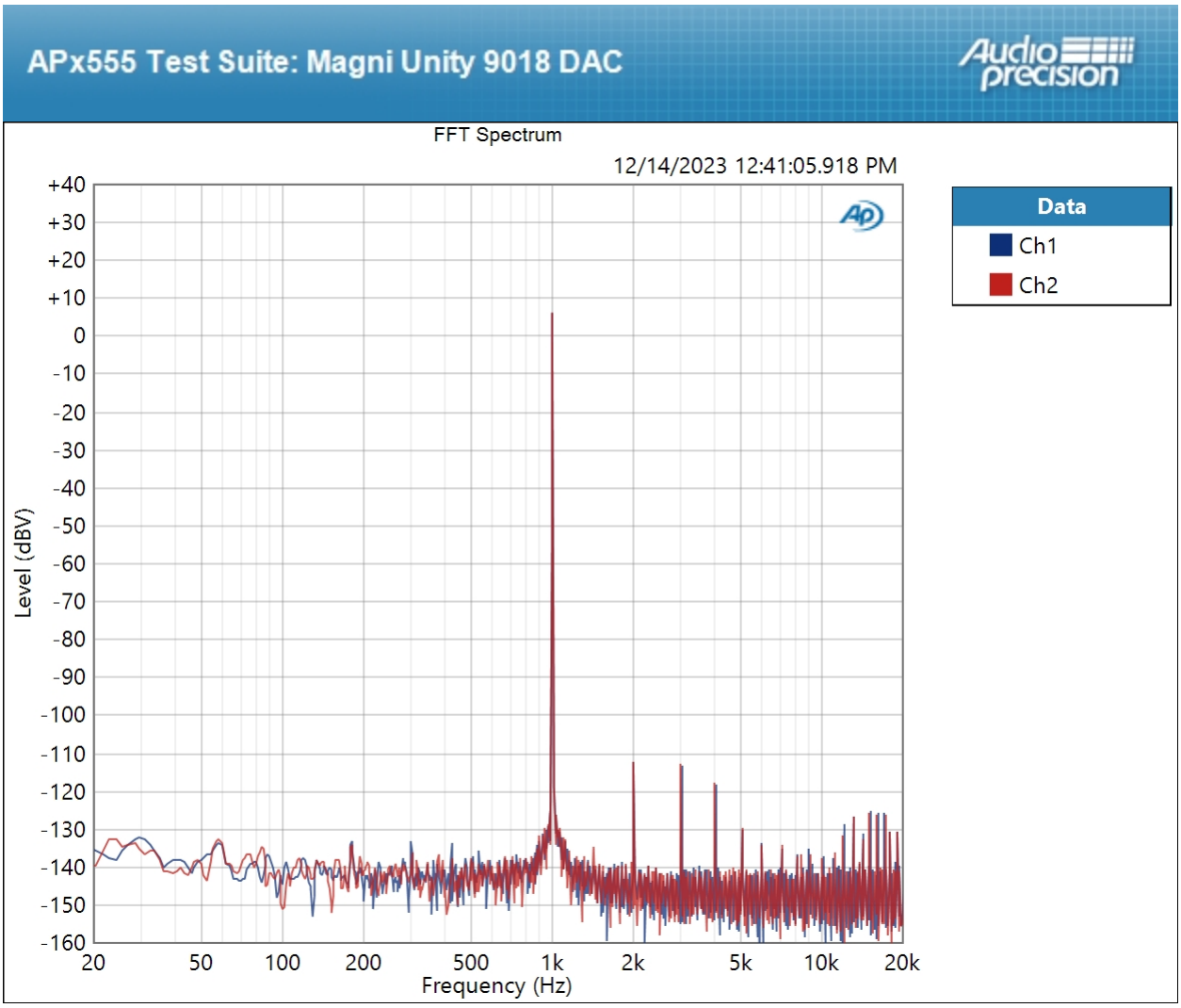
DC Level (12/14/2023 12:41:01.896 PM)

Ch1 -243.5 uV
Ch2 558.0 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	12/14/2023 12:41:05 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 (12/14/2023 12:41:05.918 PM)

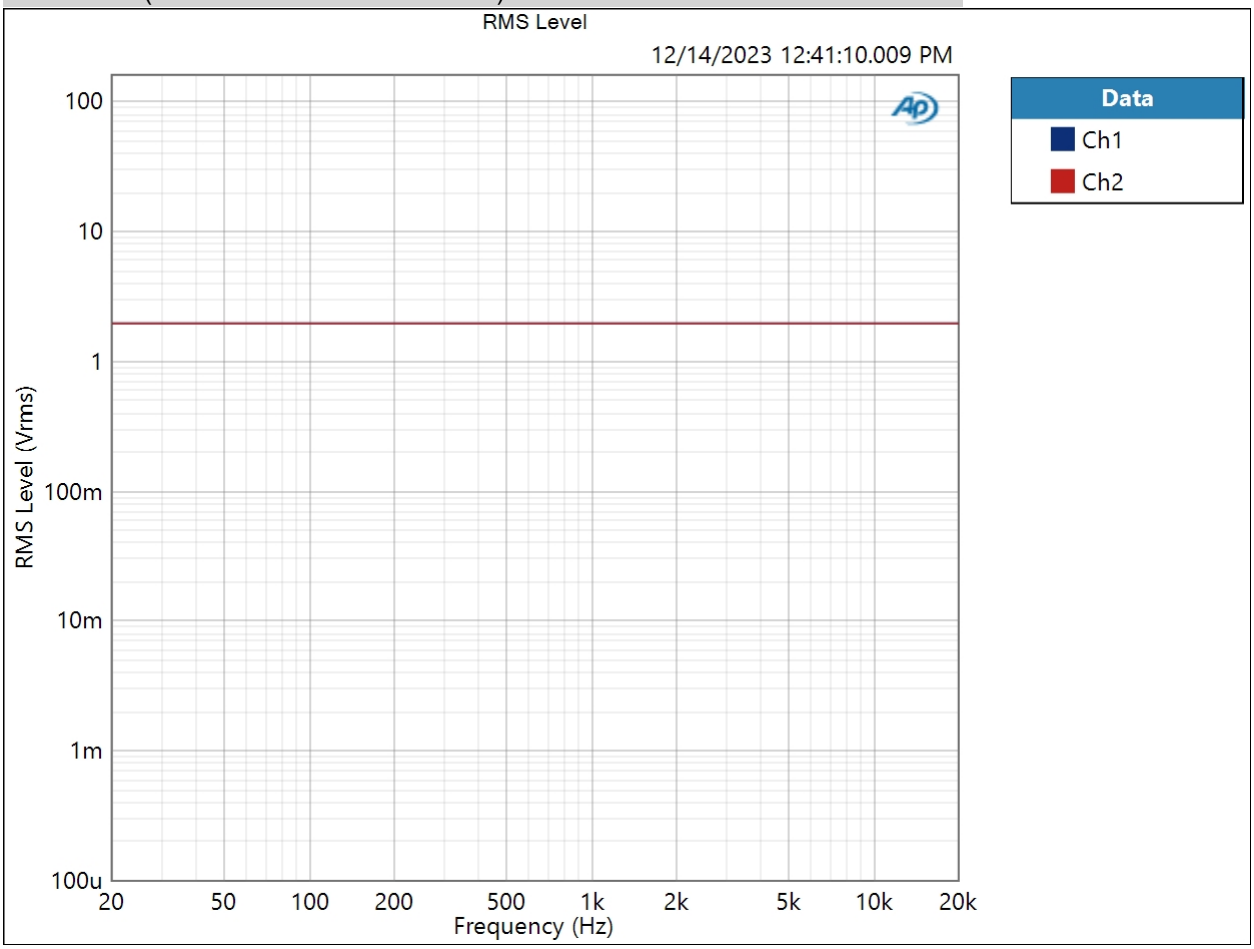


Result: PASSED

USB : Frequency Response

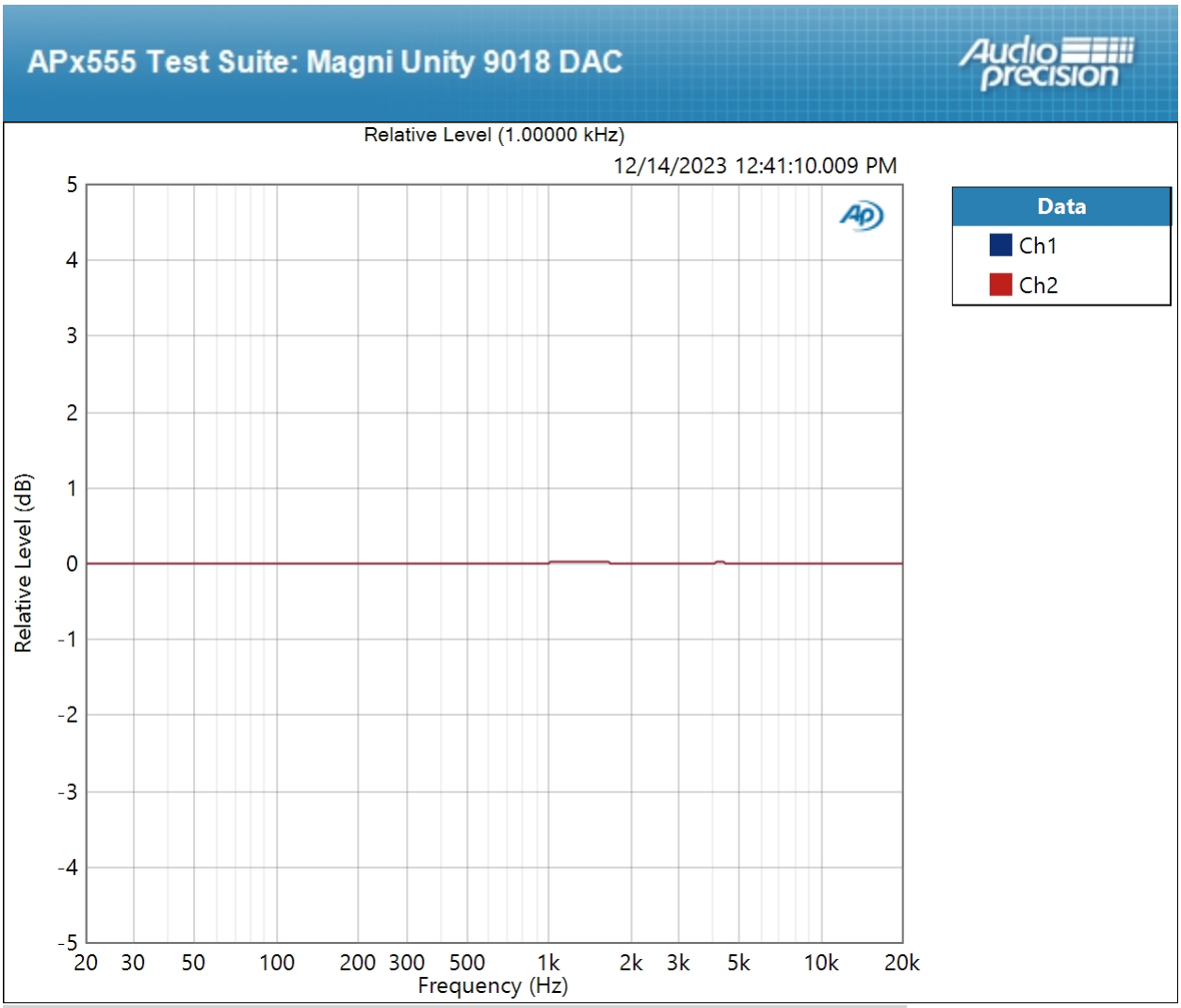
Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	-0.000 dBFS
DC Offset:	0.000 D
EQ:	None
Pre-Sweep:	100.0 ms
Sweep:	350.0 ms
Extend Acquisition By:	1.000 s
Secondary Source:	None
Measured 1	12/14/2023 12:41:10 PM

RMS Level (12/14/2023 12:41:10.009 PM)



Result: PASSED

Relative Level (1.00000 kHz) (12/14/2023 12:41:10.009 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) (12/14/2023 12:41:10.009 PM)

Ch1 ±0.019 dB

Ch2 ±0.019 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:	A-wt.

Signal to Noise Ratio (12/14/2023 12:41:12.102 PM)

Ch1 116.795 dB
Ch2 116.949 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 (12/14/2023 12:41:14.666 PM)

Ch1 0.000288 %

Ch2 0.000290 %

THD Ratio (12/14/2023 12:41:14.666 PM)

Ch1 0.000200 %

Ch2 0.000204 %

Noise Ratio (12/14/2023 12:41:14.666 PM)

Ch1 0.000205 %

Ch2 0.000206 %

Distortion Product Ratio (12/14/2023 12:41:14.666 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	-117.91	-118.85	-123.29	-134.57	-140.25	-136.87	-130.46	-141.06	-135.47
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-118.08	-118.46	-123.06	-130.90	-138.74	-137.97	-129.75	-141.10	-138.86

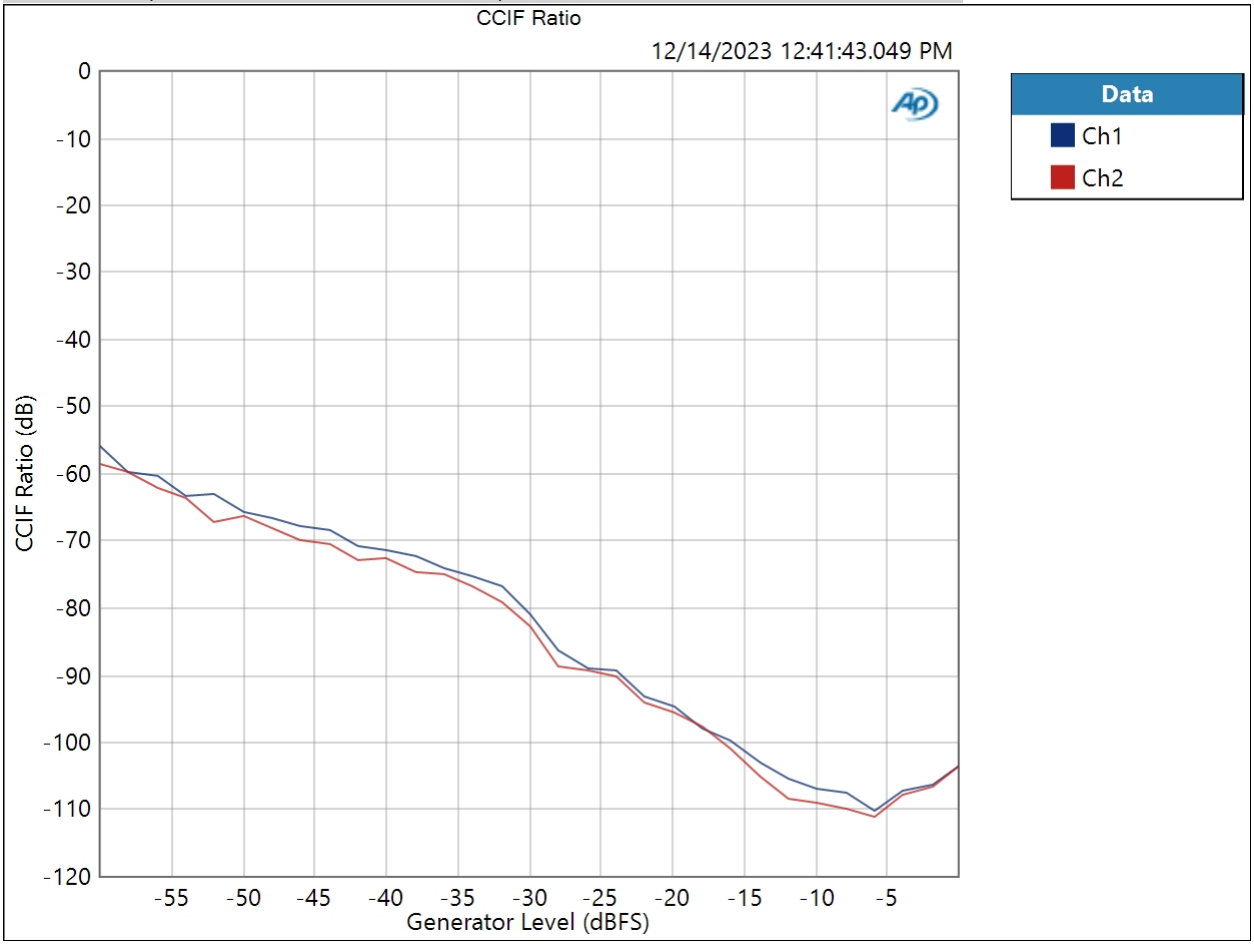
Distortion Product Ratio Parameters

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	12/14/2023 12:41:43 PM

CCIF Ratio (12/14/2023 12:41:43.049 PM)

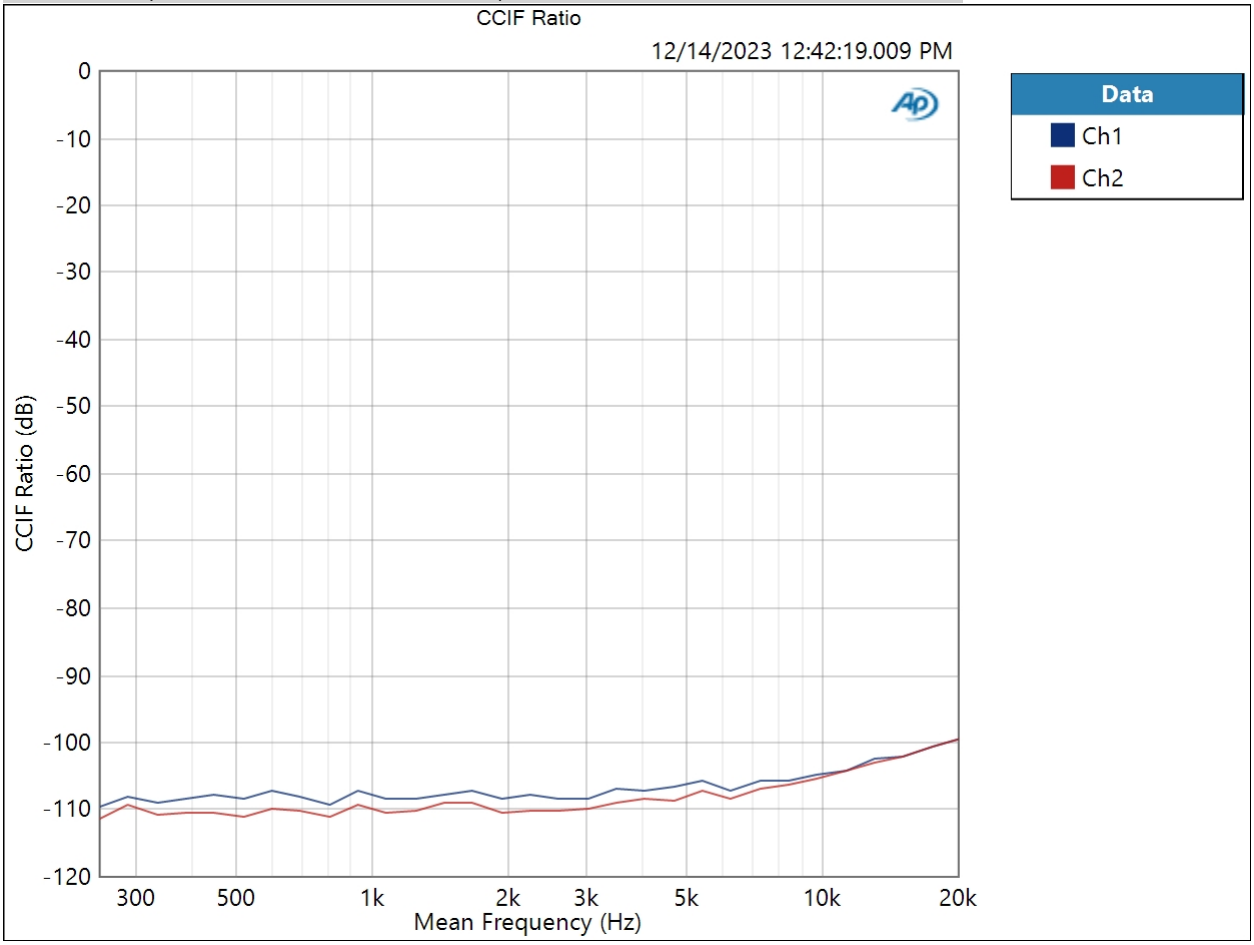


Result: PASSED

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	12/14/2023 12:42:19 PM

CCIF Ratio (12/14/2023 12:42:19.009 PM)

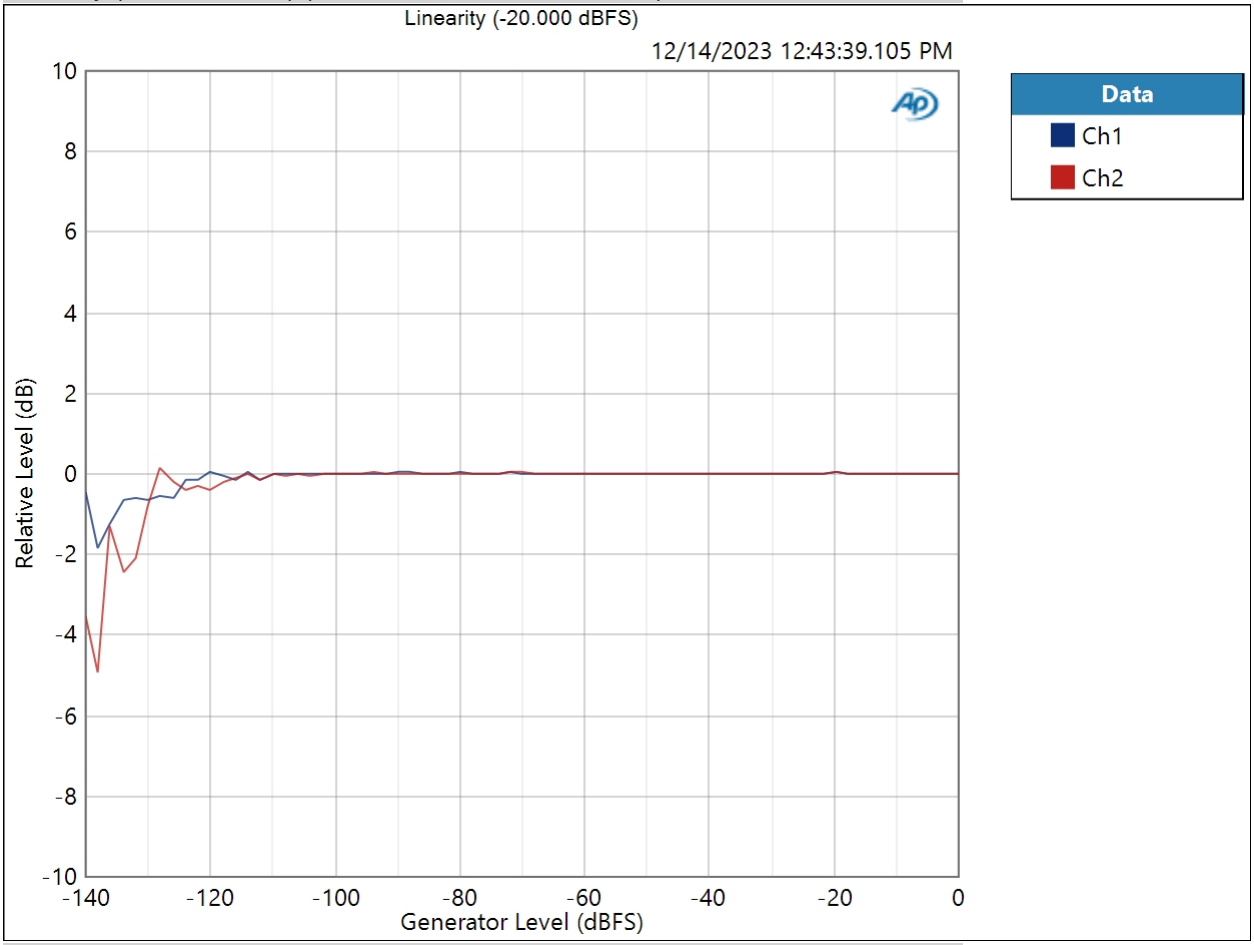


Result: PASSED

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	12/14/2023 12:43:39 PM

Linearity (-20.000 dBFS) (12/14/2023 12:43:39.105 PM)



Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

Relative Level: -20.000 dBFS

Result: PASSED