

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

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
Crosstalk, One Channel Undriven	✓ PASSED
Crosstalk Sweep, One Channel Driven	✓ PASSED
Bandpass Level Sweep	✓ PASSED

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
Crosstalk, One Channel Undriven	✓ PASSED
Crosstalk Sweep, One Channel Driven	✓ 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: 5/8/2018

APx Version: 5.0.0.105.133644

Balanced : Signal Path Setup

Output Connector:	ASIO
Output Sample Rate:	48.0000 kHz
Output EQ:	None
Input Connector:	Analog Balanced
Channels:	2
Termination:	200 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 90k (192 kHz SR)
Device Delay:	0.000 s
Input EQ:	None
• References	
dBr G:	-20.000 dBFS
Shared Frequency Reference:	1.00000 kHz
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

Balanced : Level and Gain

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

RMS Level (5/21/2020 2:00:10.107 PM)

Ch1 3.951 Vrms
Ch2 3.951 Vrms

Balanced : 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

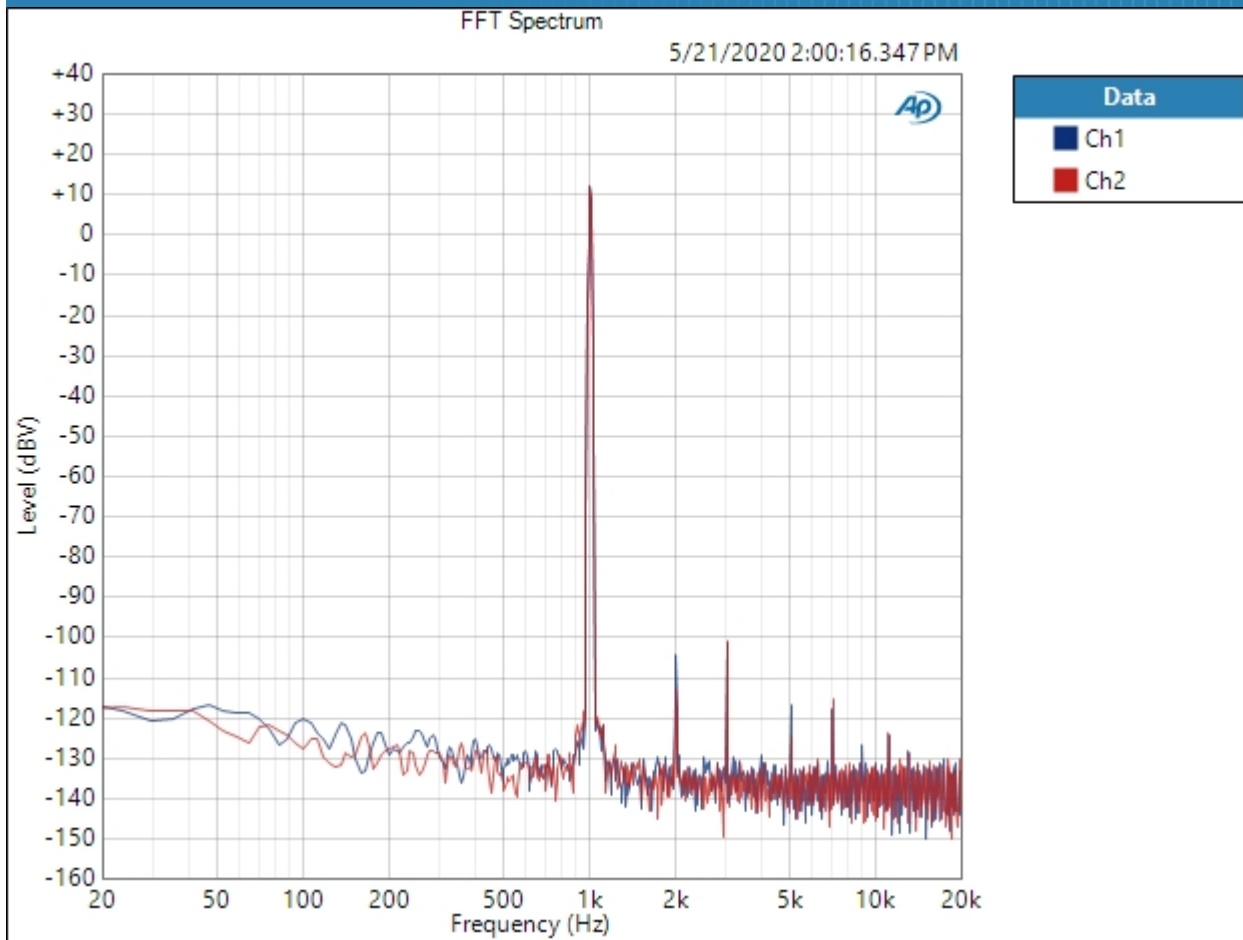
DC Level (5/21/2020 2:00:11.777 PM)

Ch1 118.1 uV
Ch2 -174.9 uV

Balanced : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 5/21/2020 2:00:16 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 1.000 s
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 (5/21/2020 2:00:16.347 PM)



Result:  PASSED

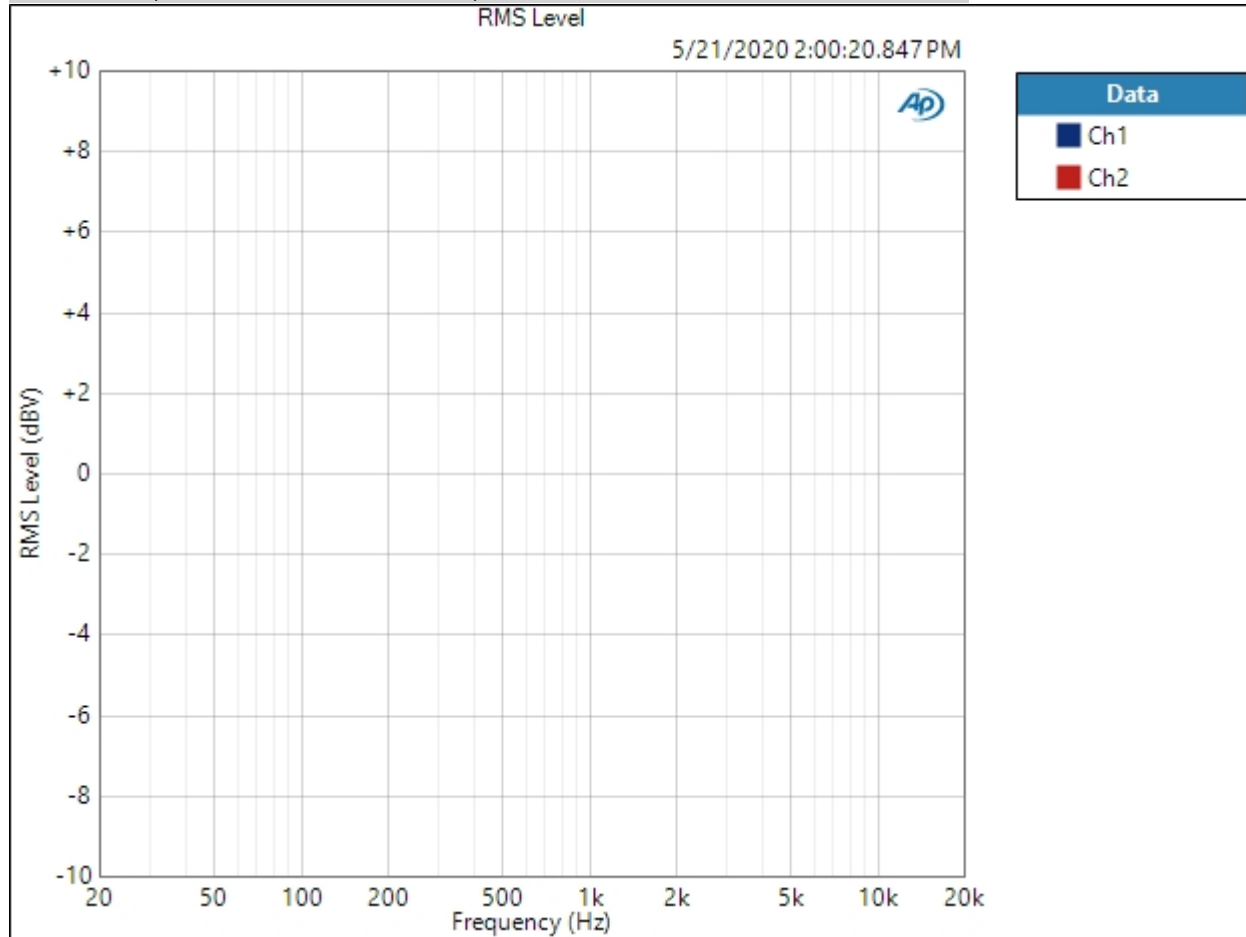
Schiit DAC APx555 Standard Test Suite: Modius



Balanced : 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 5/21/2020 2:00:20 PM

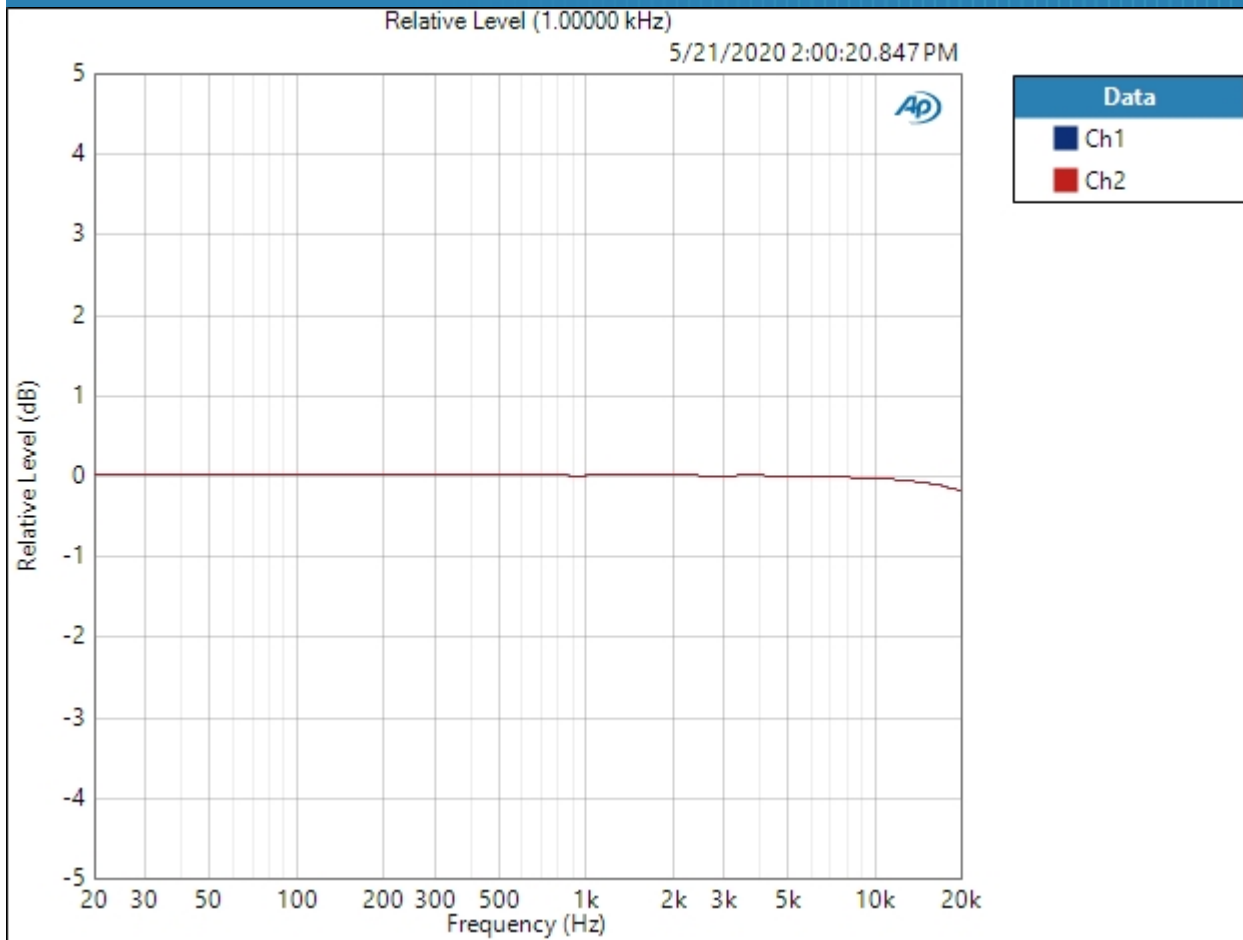
RMS Level (5/21/2020 2:00:20.847 PM)



Result: PASSED

Relative Level (1.00000 kHz) (5/21/2020 2:00:20.847 PM)

5/21/2020 2:10 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) (5/21/2020 2:00:20.847 PM)

Ch1 ± 0.106 dB

Ch2 ± 0.108 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Balanced : Signal to Noise Ratio

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 1.00000 kHz

Low-pass Filter: 20 kHz

Weighting Filter: Signal Path

High-pass Filter: 20 Hz

Signal to Noise Ratio (5/21/2020 2:00:23.708 PM)

Ch1 115.962 dB

Ch2 115.954 dB

Balanced : THD+N

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

THD+N Ratio (5/21/2020 2:00:26.278 PM)

Ch1 0.009952 %
 Ch2 0.003431 %

THD Ratio (5/21/2020 2:00:26.278 PM)

Ch1 0.000275 %
 Ch2 0.000235 %

Noise Ratio (5/21/2020 2:00:26.278 PM)

Ch1 0.000160 %
 Ch2 0.000206 %

Distortion Product Ratio (5/21/2020 2:00:26.278 PM)

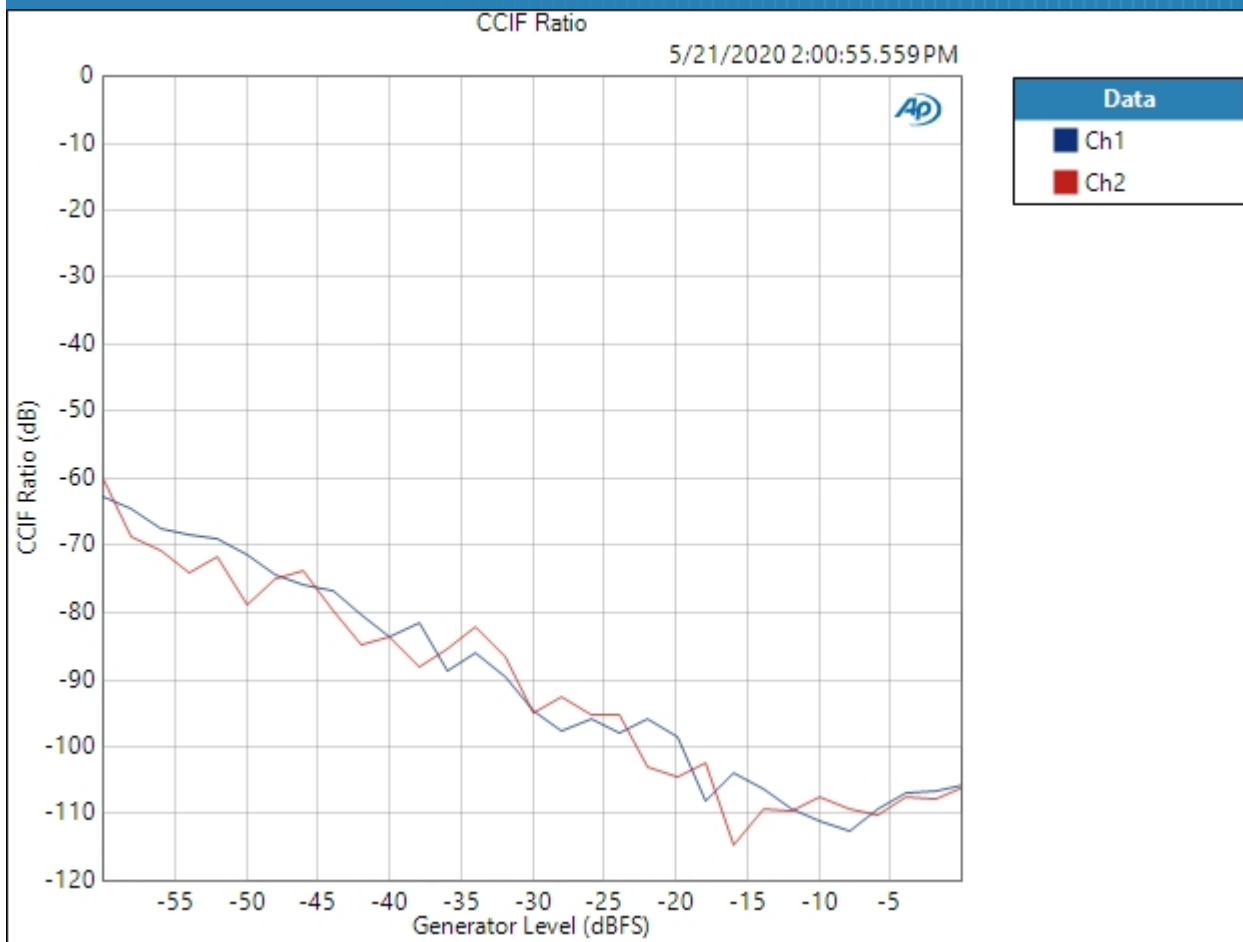
Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-115.92	-113.30	-138.84	-128.48	-142.95	-130.48	-142.52	-140.47	-145.34
Ch2	-0.00	-125.28	-113.08	-145.28	-135.10	-144.54	-127.19	-142.35	-146.79	-152.27

Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB

Balanced : IMD Level Sweep (CCIF)
IMD Type: CCIF
Waveform: IMD
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 5/21/2020 2:00:55 PM

CCIF Ratio (5/21/2020 2:00:55.559 PM)



Result: PASSED

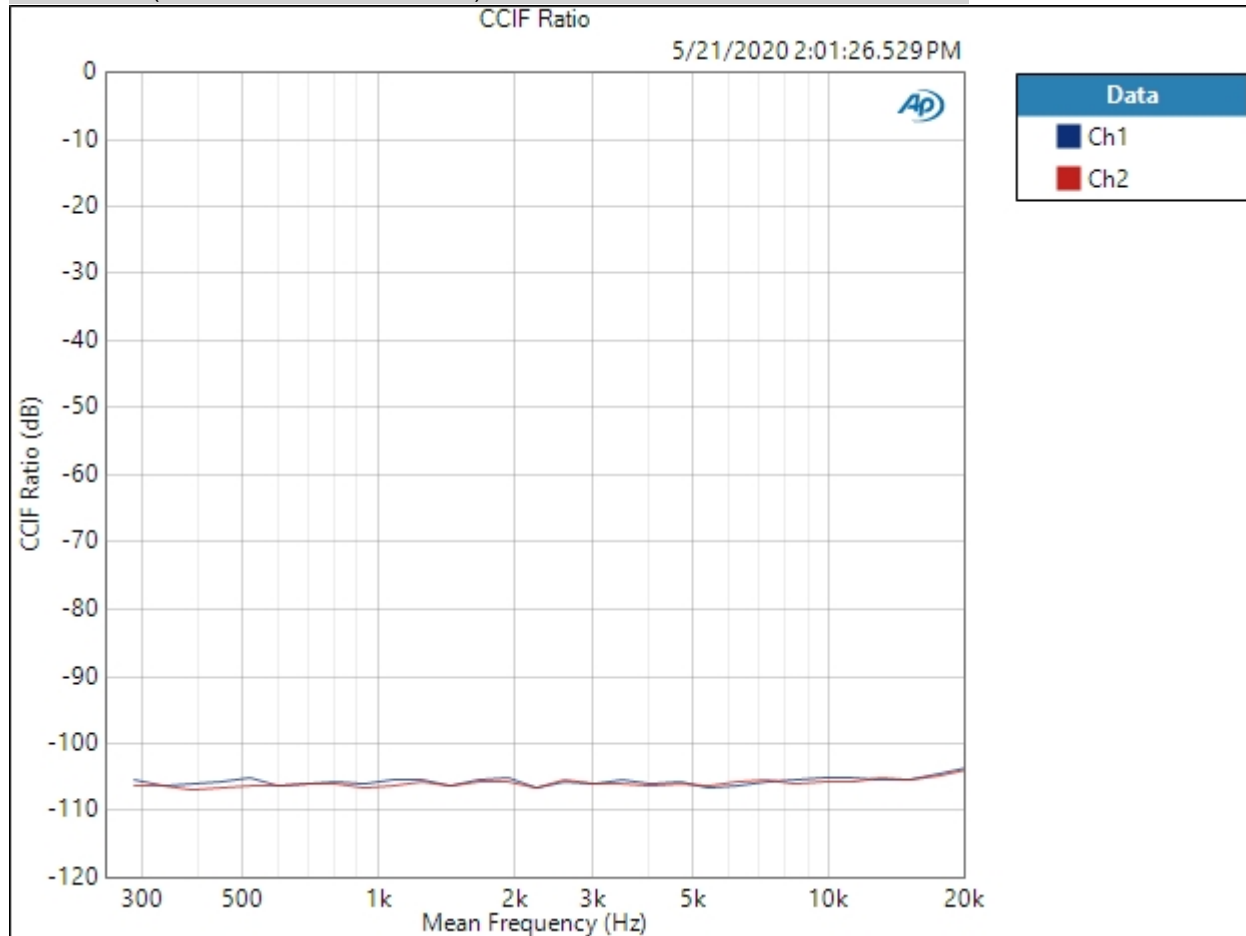
Schiit DAC APx555 Standard Test Suite: Modius



Balanced : IMD Frequency Sweep (CCIF)

Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Sweep Frequency: Mean Frequency
Mean Frequency: 12.5000 kHz
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 5/21/2020 2:01:26 PM

CCIF Ratio (5/21/2020 2:01:26.529 PM)



5/21/2020 2:10 PM

Result:  PASSED

Balanced : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 10.0000 kHz

Crosstalk (5/21/2020 2:01:31.369 PM)

Ch1 -131.347 dB

Ch2 -135.539 dB

Balanced : Crosstalk Sweep, One Channel Driven

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Start Frequency: 20.0000 kHz

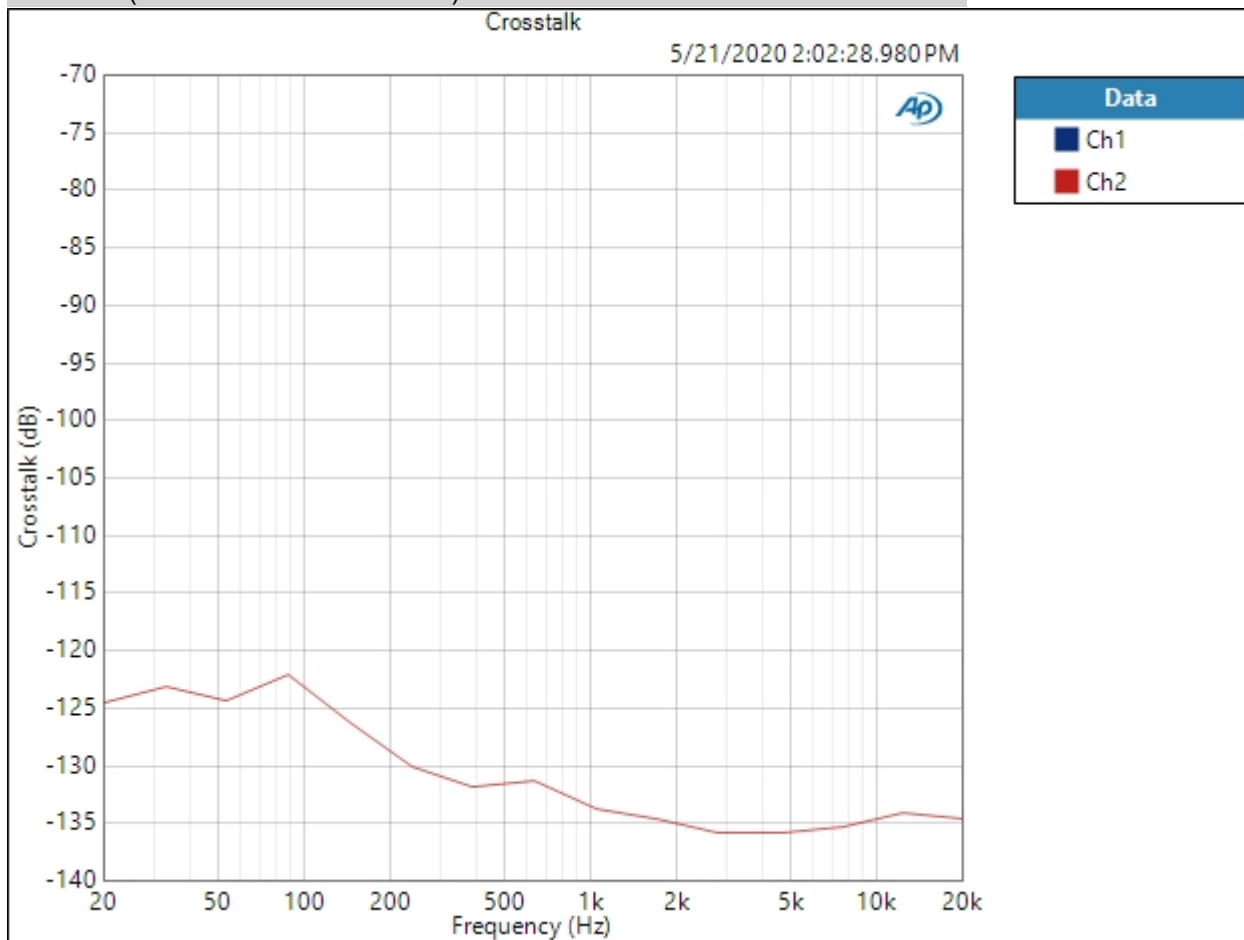
Stop Frequency: 20.0000 Hz

Step Type: Logarithmic

Number of Points: 15

Measured 1 5/21/2020 2:02:28 PM

Crosstalk (5/21/2020 2:02:28.980 PM)



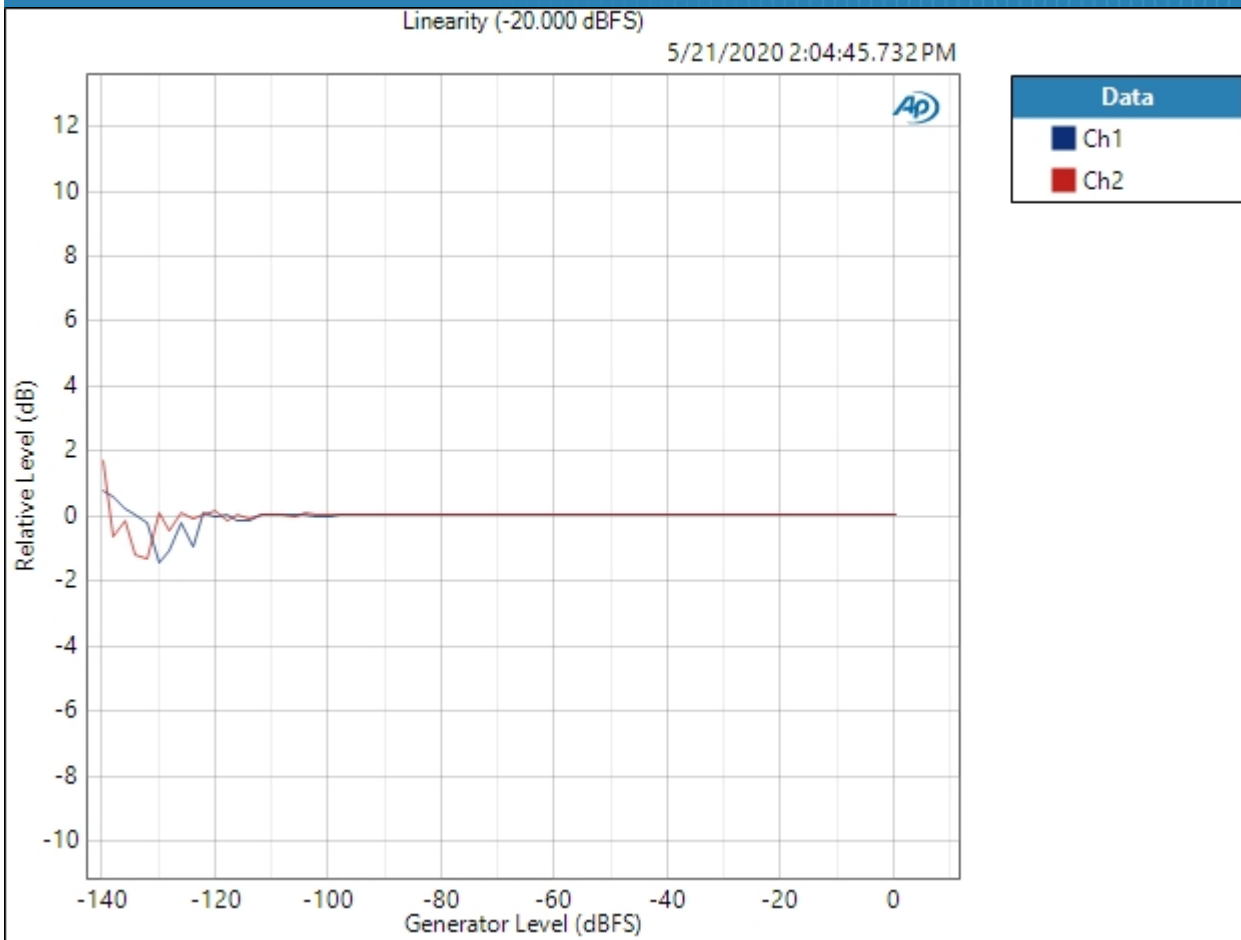
Crosstalk Parameters

Source: Ch1

Result: PASSED

Balanced : Bandpass Level Sweep

Waveform: Sine
Generator Level: -20.000 dBFS
DC Offset: 0.000 D
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 5/21/2020 2:04:45 PM
Linearity (-20.000 dBFS) (5/21/2020 2:04:45.732 PM)



Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

Relative Level: -20.000 dBFS

Result: PASSED

SE : Signal Path Setup

Output Connector:	ASIO
Output Sample Rate:	48.0000 kHz
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None
• References	
dBr G:	-20.000 dBFS
Shared Frequency Reference:	1.00000 kHz
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

SE : Level and Gain

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

RMS Level (5/21/2020 2:05:01.824 PM)

Ch1 1.972 Vrms
Ch2 1.975 Vrms

SE : 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

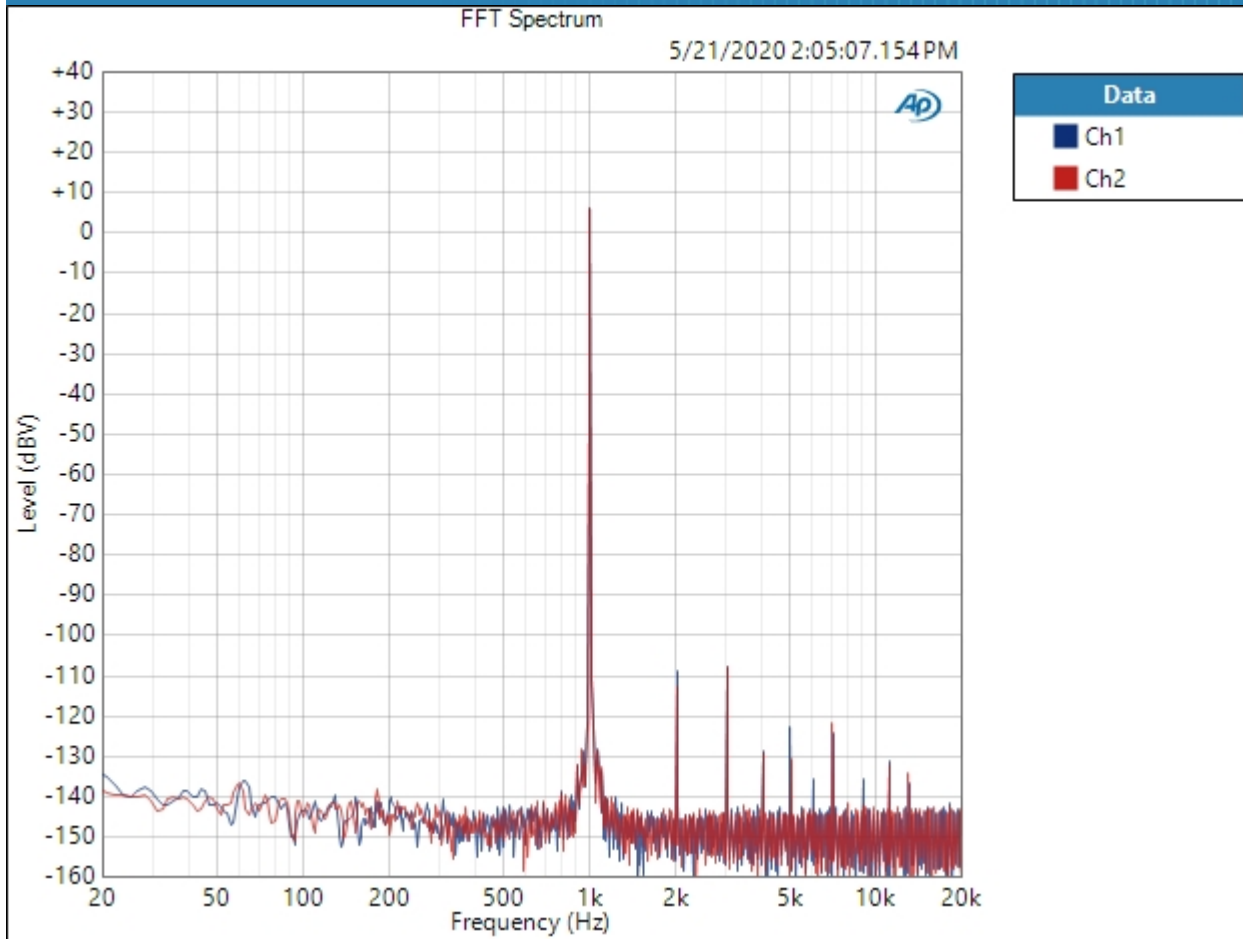
DC Level (5/21/2020 2:05:03.214 PM)

Ch1 -171.8 μ V
Ch2 -2.759 mV

SE : Signal Analyzer

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 5/21/2020 2:05:07 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 (5/21/2020 2:05:07.154 PM)

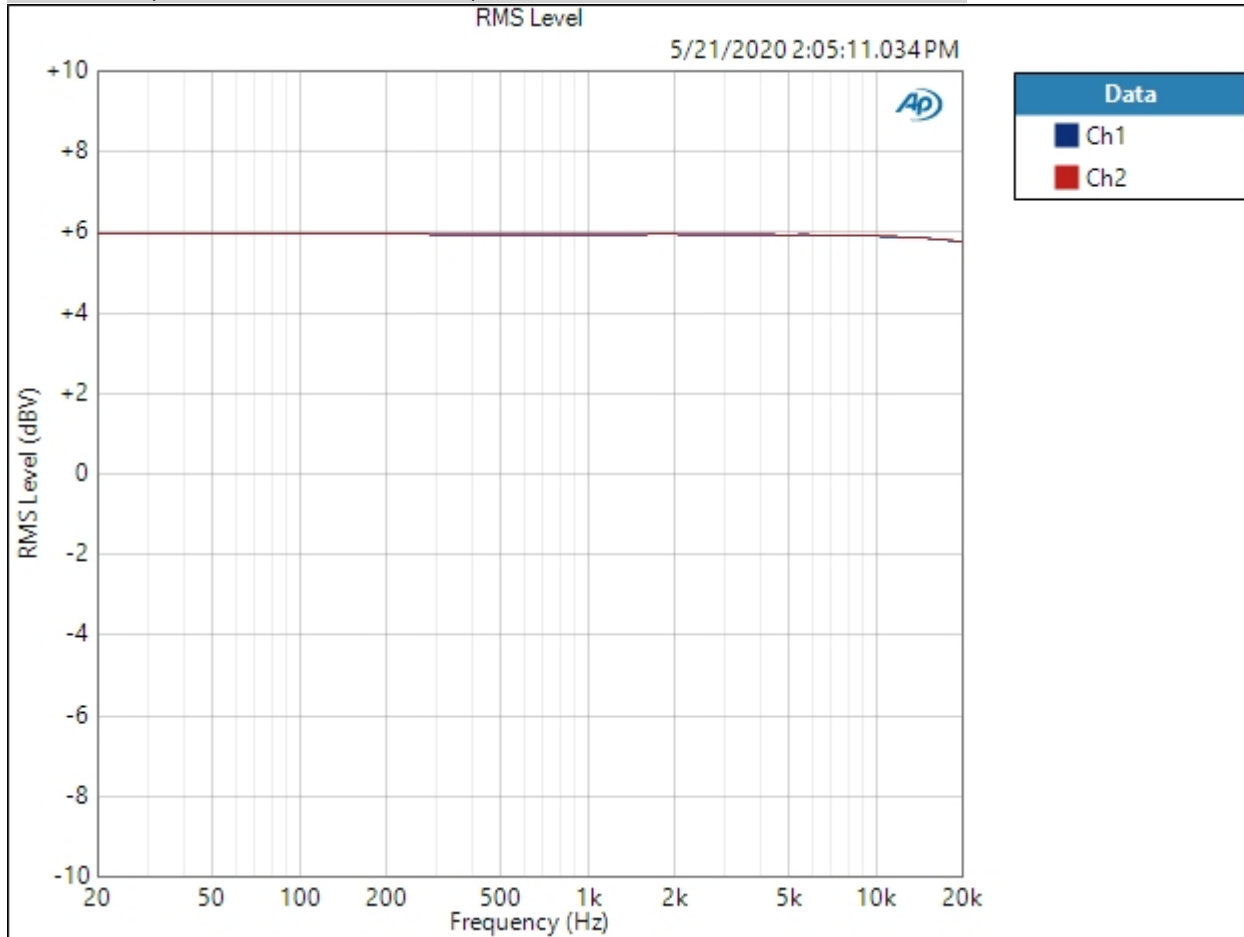


Result:  PASSED

SE : Frequency Response

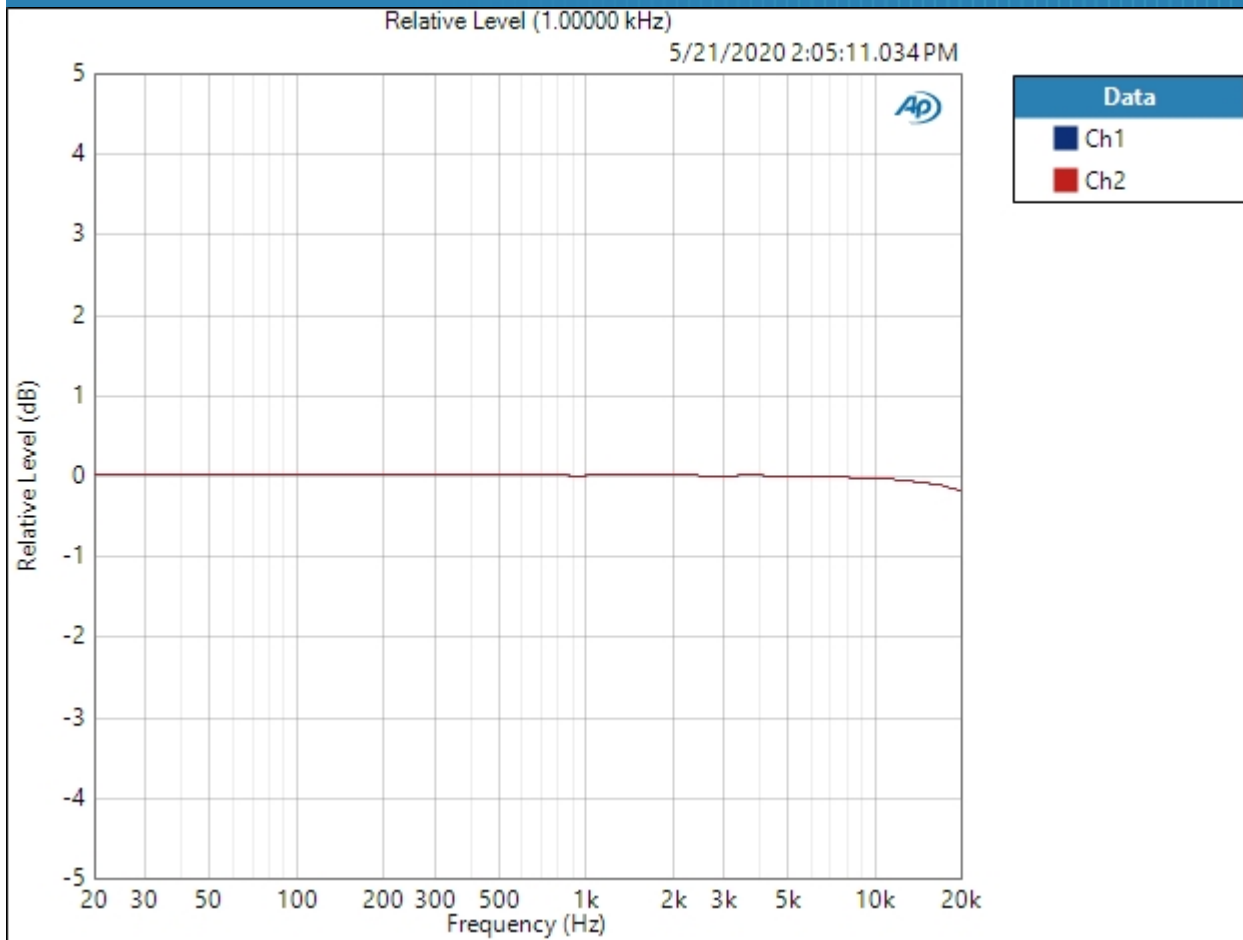
Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 5/21/2020 2:05:11 PM

RMS Level (5/21/2020 2:05:11.034 PM)



Result: PASSED

Relative Level (1.00000 kHz) (5/21/2020 2:05:11.034 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) (5/21/2020 2:05:11.034 PM)

Ch1 ± 0.105 dB

Ch2 ± 0.103 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

SE : Signal to Noise Ratio

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 1.00000 kHz

Low-pass Filter: 20 kHz

Weighting Filter: Signal Path

High-pass Filter: 20 Hz

Signal to Noise Ratio (5/21/2020 2:05:13.231 PM)

Ch1 117.360 dB

Ch2 117.331 dB

SE : THD+N

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

THD+N Ratio (5/21/2020 2:05:15.761 PM)

Ch1 0.000313 %
 Ch2 0.000282 %

THD Ratio (5/21/2020 2:05:15.761 PM)

Ch1 0.000280 %
 Ch2 0.000246 %

Noise Ratio (5/21/2020 2:05:15.761 PM)

Ch1 0.000138 %
 Ch2 0.000135 %

Distortion Product Ratio (5/21/2020 2:05:15.761 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	-114.63	-113.91	-133.29	-129.12	-141.77	-129.30	-145.84	-139.69	-143.27
Ch2	-0.00	-118.74	-113.55	-135.31	-141.00	-148.50	-127.38	-141.13	-144.47	-144.28

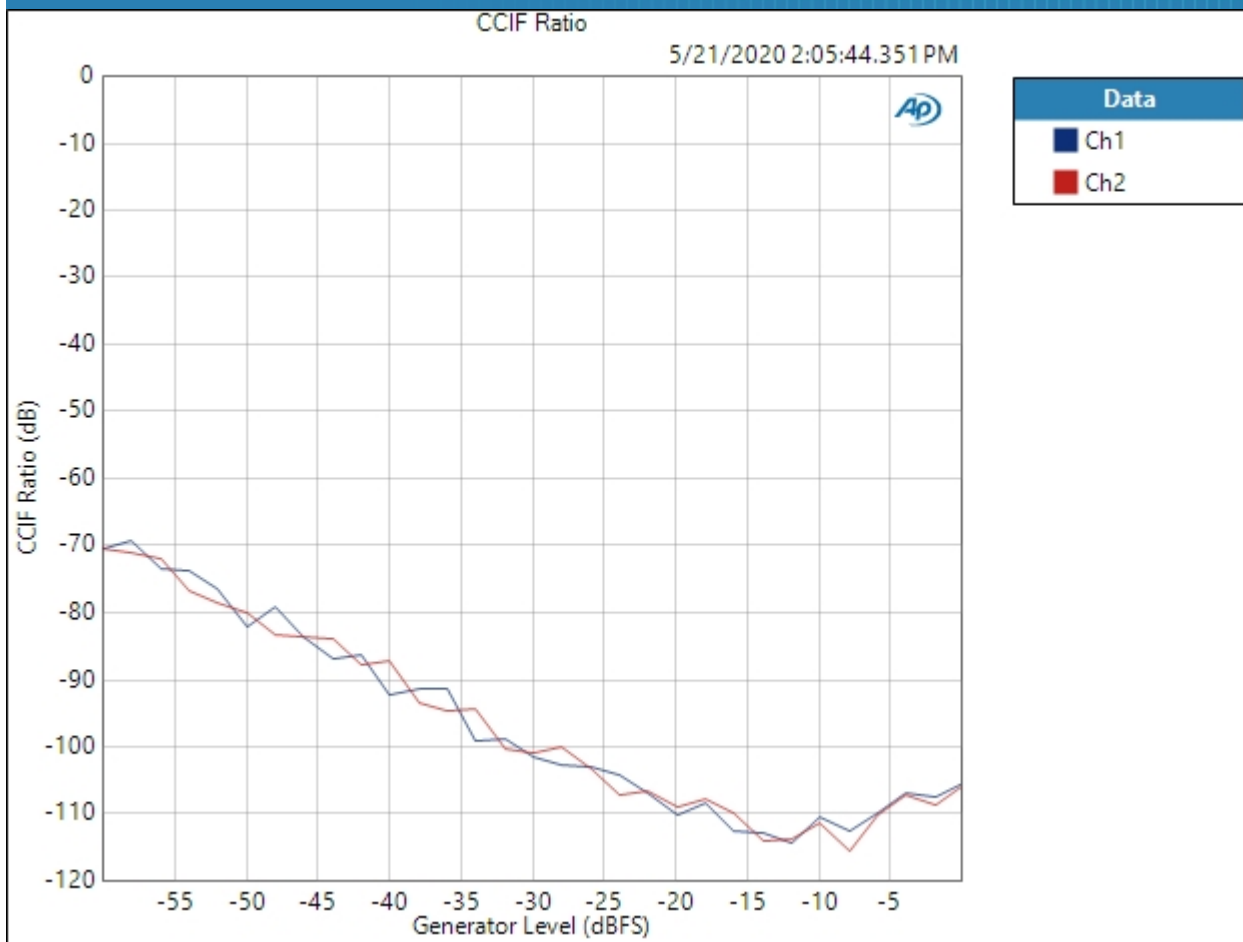
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB

SE : IMD Level Sweep (CCIF)

IMD Type: CCIF
Waveform: IMD
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
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 5/21/2020 2:05:44 PM

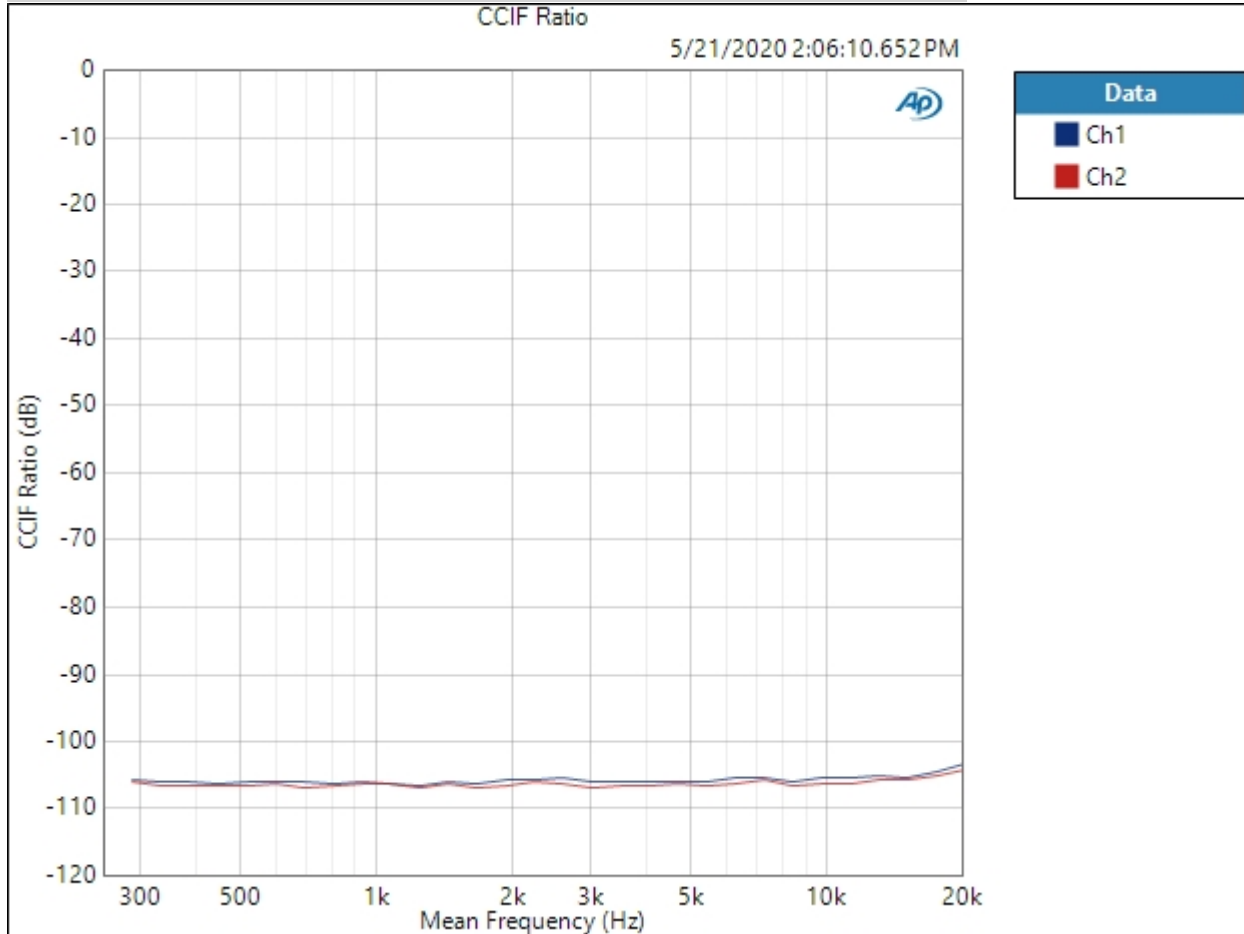
CCIF Ratio (5/21/2020 2:05:44.351 PM)



Result: PASSED

SE : IMD Frequency Sweep (CCIF)
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 Sweep Frequency: Mean Frequency
 Mean Frequency: 12.5000 kHz
 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 5/21/2020 2:06:10 PM

CCIF Ratio (5/21/2020 2:06:10.652 PM)



Result:  PASSED

SE : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 10.0000 kHz

Crosstalk (5/21/2020 2:06:15.472 PM)

Ch1 -131.286 dB

Ch2 -131.095 dB

SE : Crosstalk Sweep, One Channel Driven

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Start Frequency: 20.0000 kHz

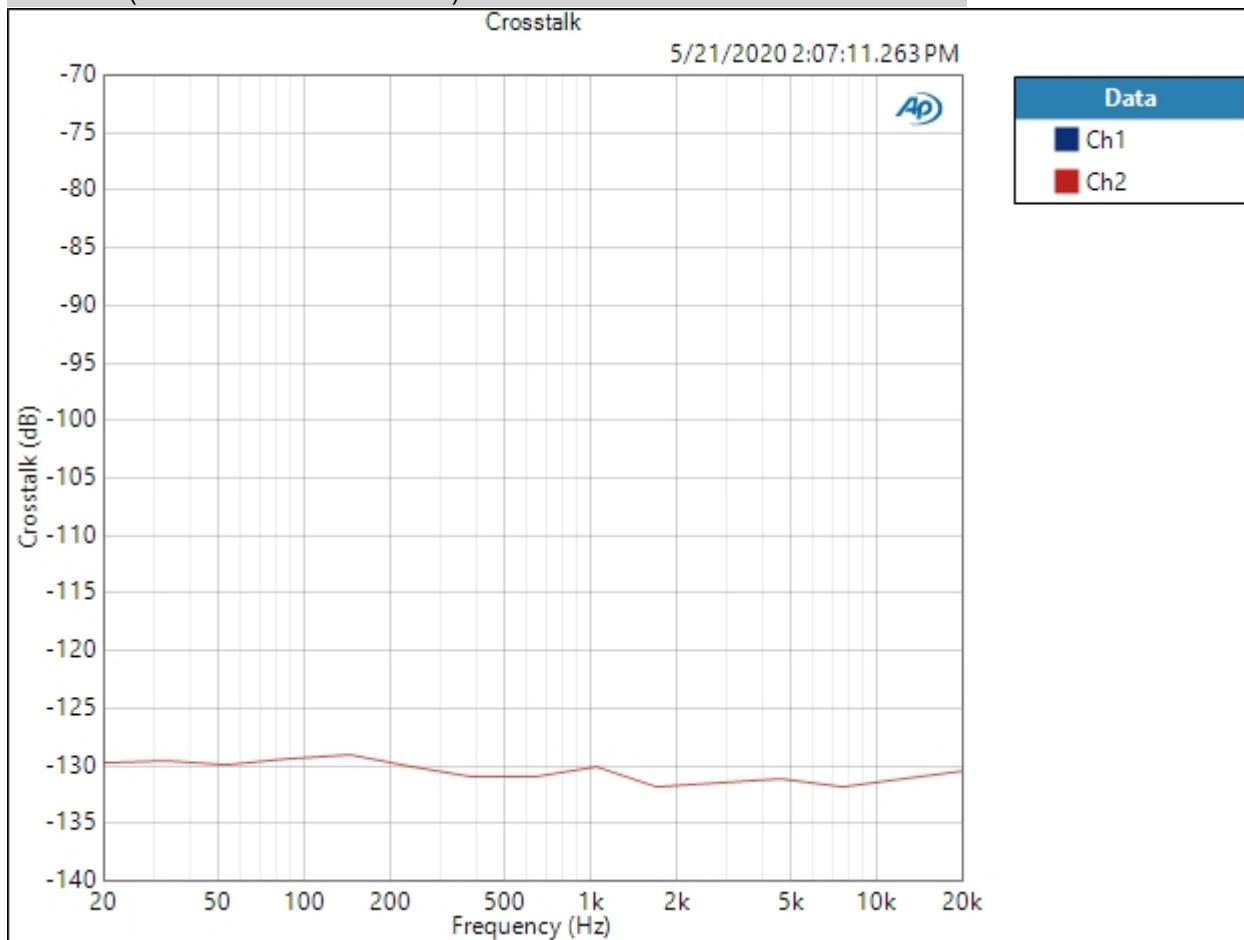
Stop Frequency: 20.0000 Hz

Step Type: Logarithmic

Number of Points: 15

Measured 1 5/21/2020 2:07:11 PM

Crosstalk (5/21/2020 2:07:11.263 PM)



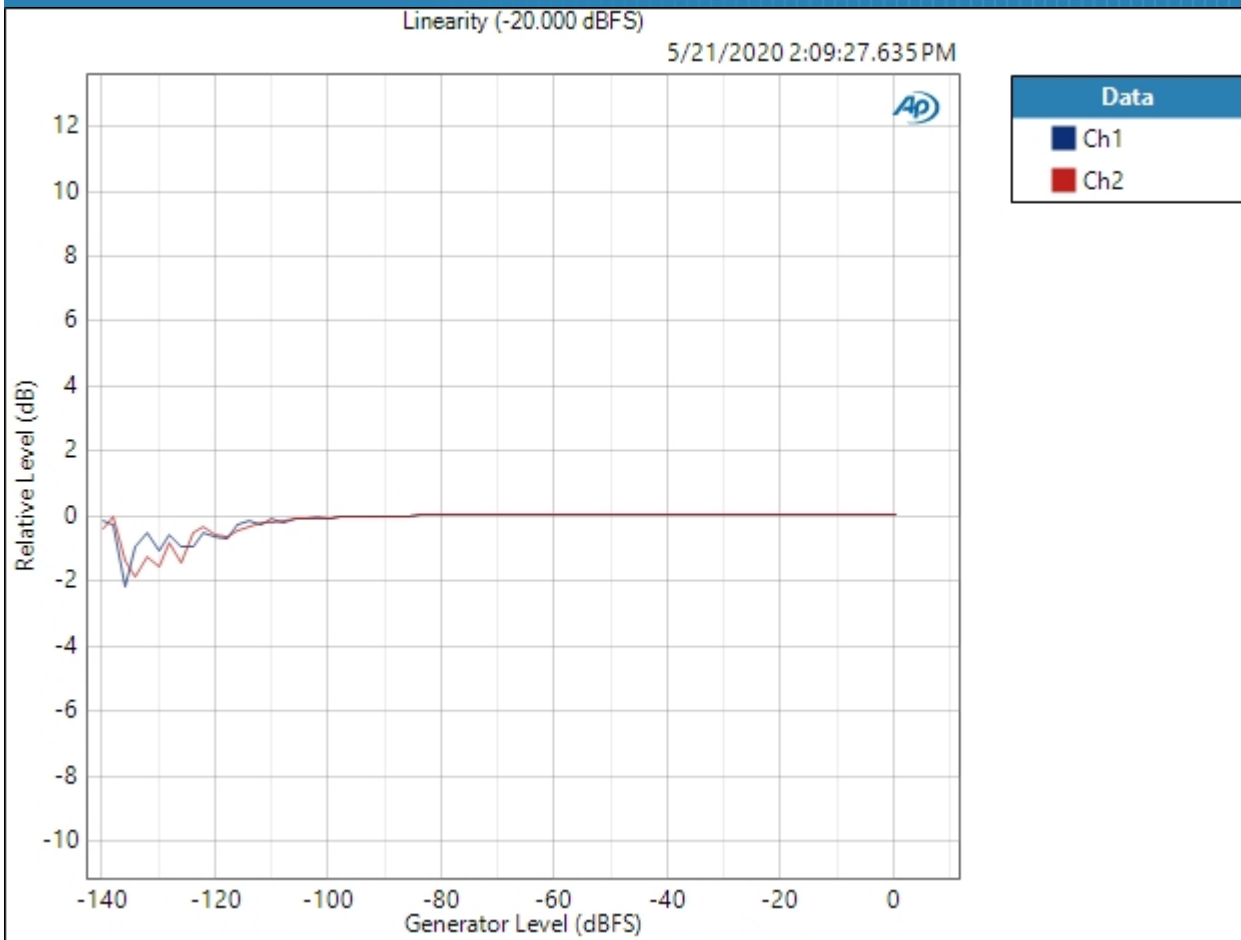
Crosstalk Parameters

Source: Ch1

Result: PASSED

SE : Bandpass Level Sweep

Waveform: Sine
Generator Level: -20.000 dBFS
DC Offset: 0.000 D
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 5/21/2020 2:09:27 PM
Linearity (-20.000 dBFS) (5/21/2020 2:09:27.635 PM)



Linearity (-20.000 dBFS) Parameters

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)
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Disabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	-20.000 dBFS
Shared Frequency Reference:	1.00000 kHz
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

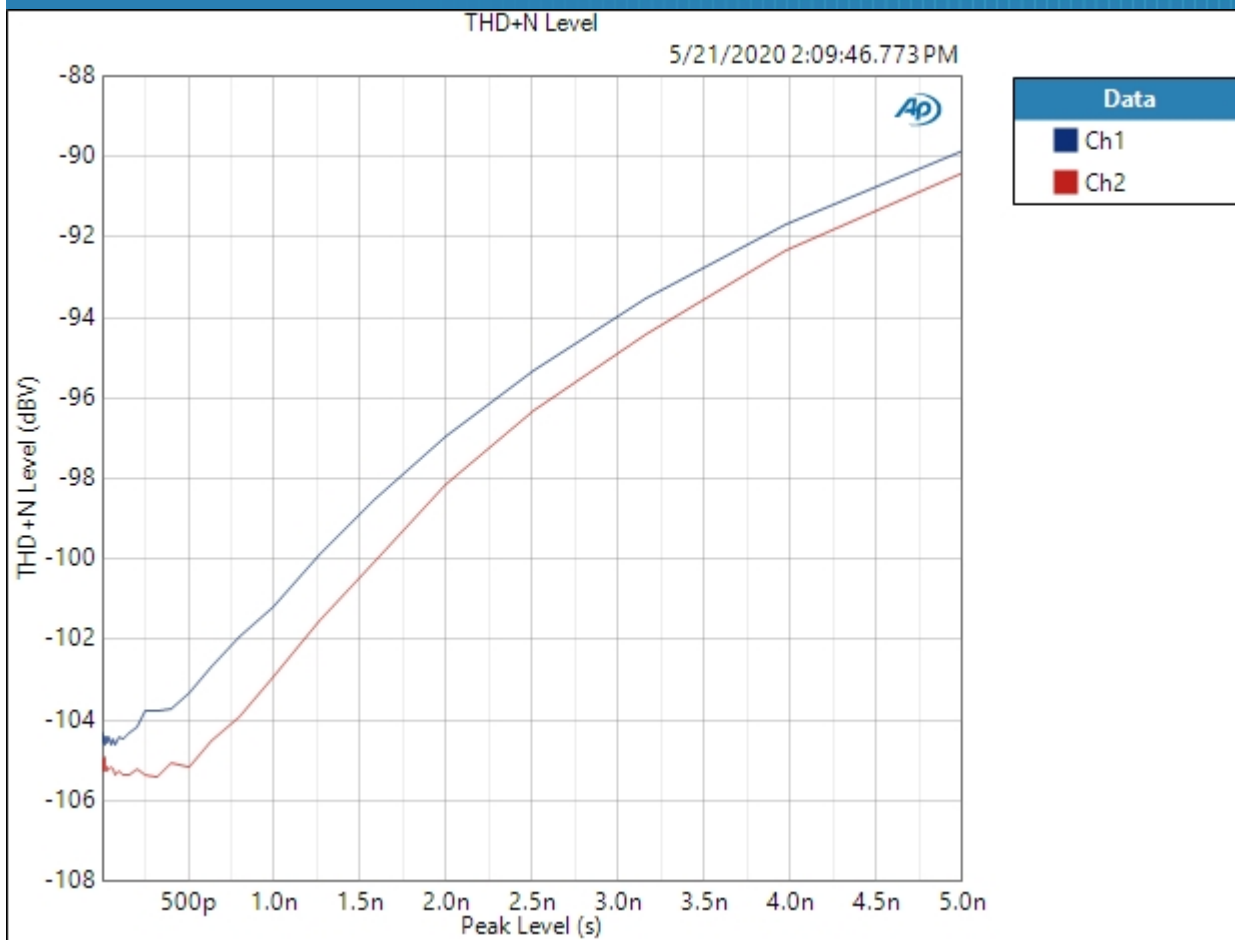
• Audio Generator

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

• Jitter Generator

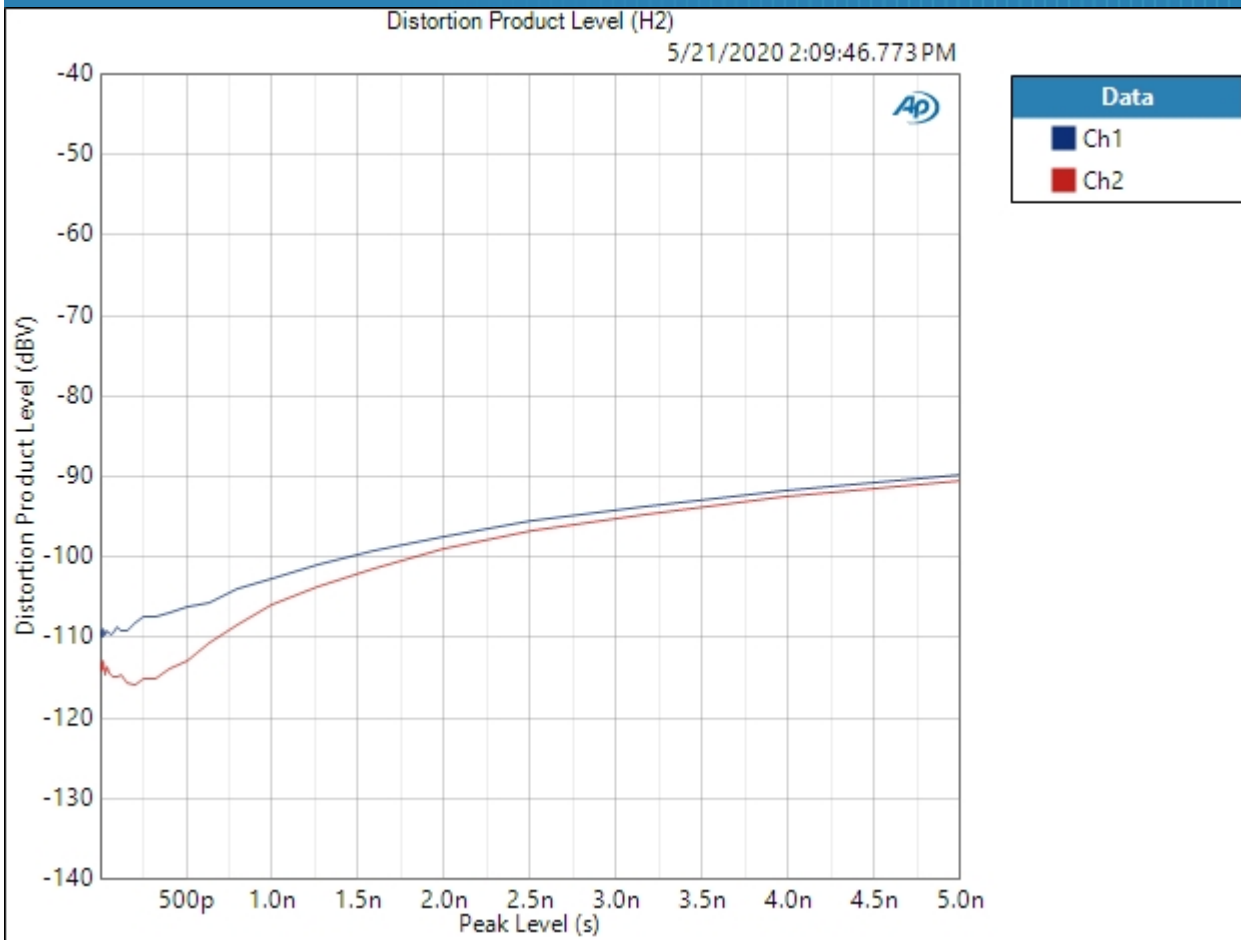
Jitter Waveform: Sine
Start Level: 5.000 ps
Stop Level: 5.000 ns
Step Type: Logarithmic
Number of Points: 31
Jitter Frequency: 1.00000 kHz
Low-pass Filter: 20 kHz
Weighting Filter: Signal Path
High-pass Filter: 20 Hz
Notch Tuning Mode: Generator Frequency
Secondary Source: None
Measured 1 5/21/2020 2:09:46 PM

THD+N Level (5/21/2020 2:09:46.773 PM)



Result: ✔ PASSED

Distortion Product Level (H2) (5/21/2020 2:09:46.773 PM)



Distortion Product Level (H2) Parameters

Harmonics: Single Harmonic

Harmonic Number: 2

Result: PASSED