

Notes:

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.

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) - 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

Balanced : Level and Gain

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

RMS Level (10/8/2019 2:31:00.982 PM)

Ch1 4.195 Vrms
Ch2 4.194 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

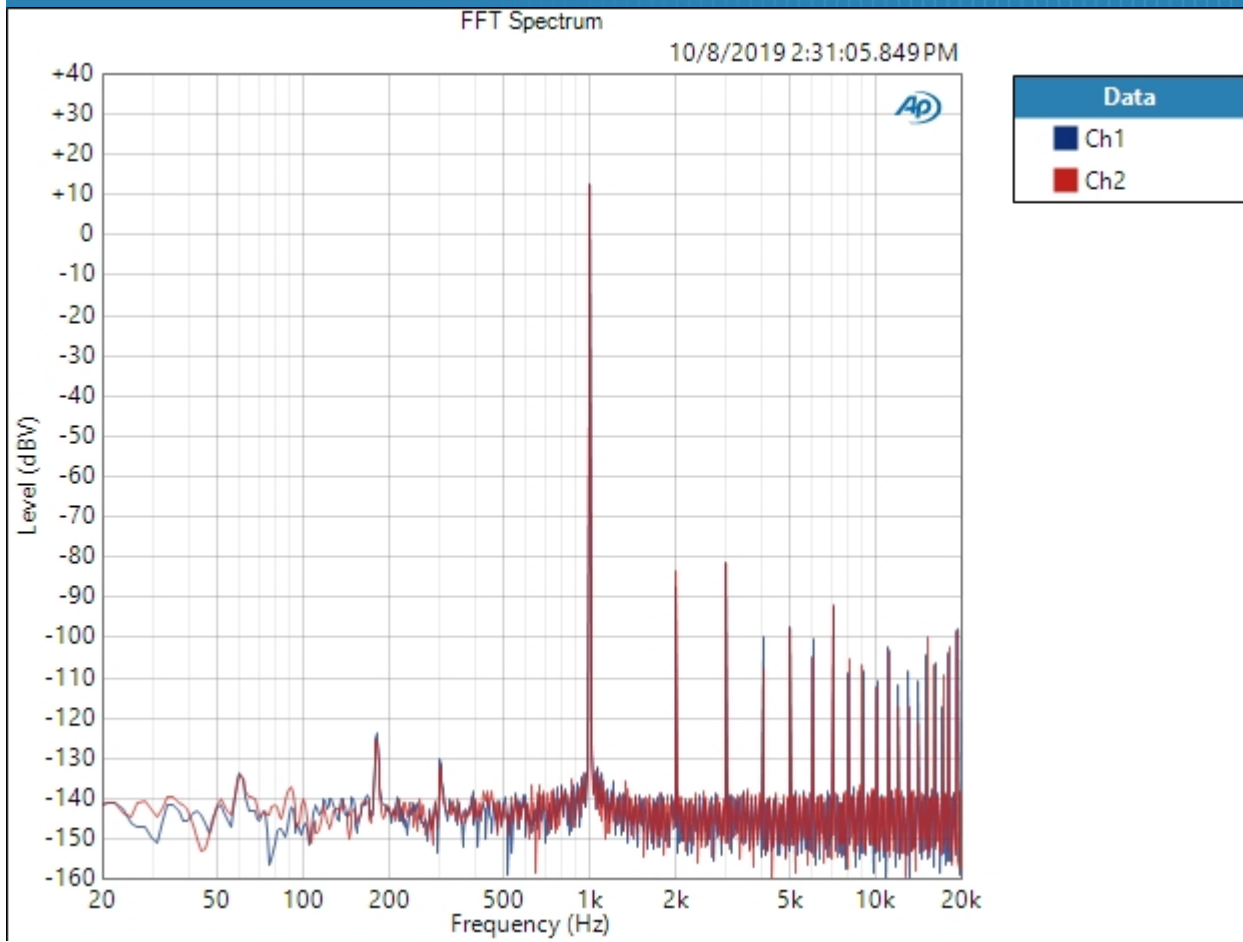
DC Level (10/8/2019 2:31:02.085 PM)

Ch1 151.5 μ V
Ch2 327.8 μ V

Balanced : Signal Analyzer 0dB

Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:31:05 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 (10/8/2019 2:31:05.849 PM)

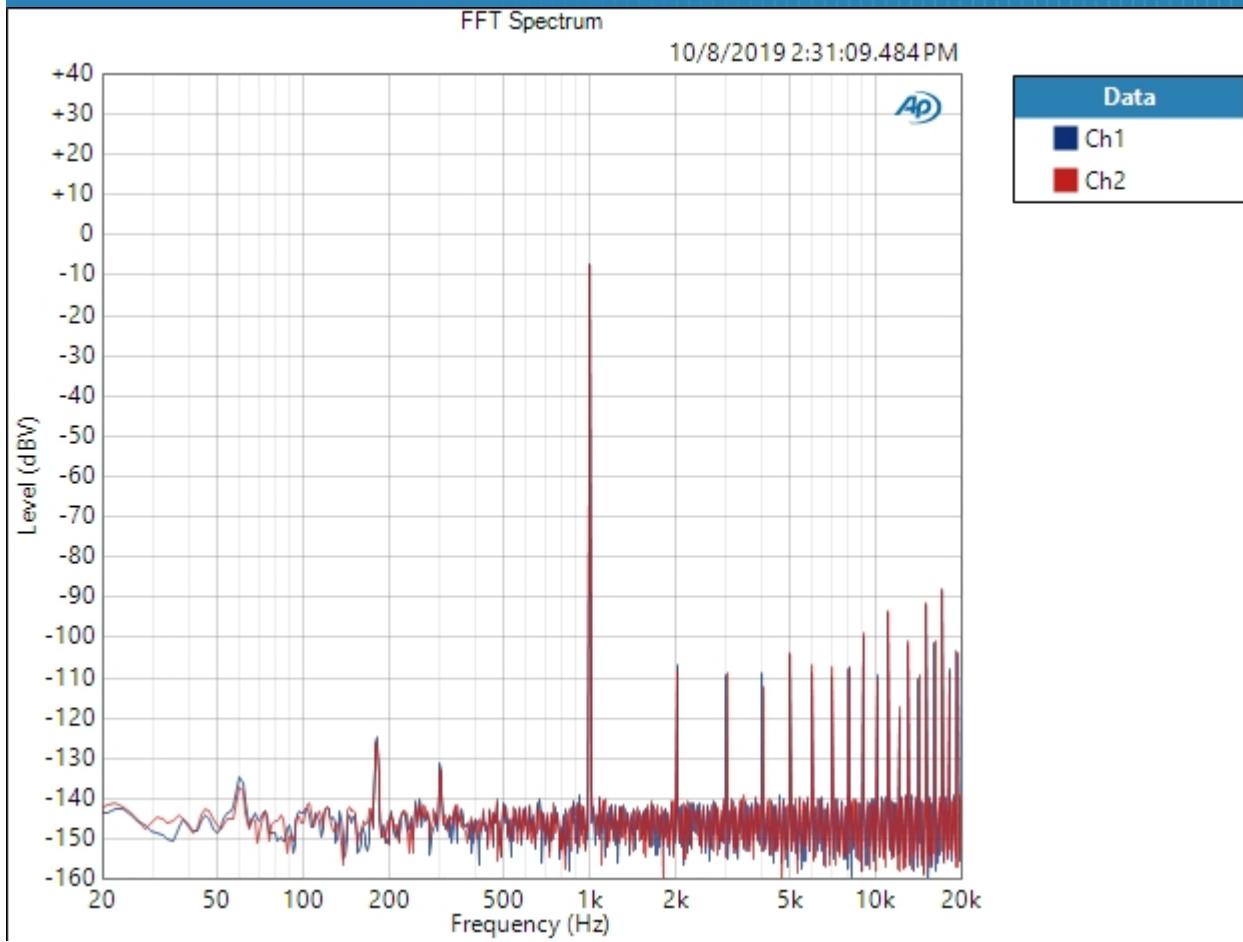


Result:  PASSED

Balanced : Signal Analyzer -20dB

Waveform: Sine
Generator Level: -20.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:31:09 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 (10/8/2019 2:31:09.484 PM)

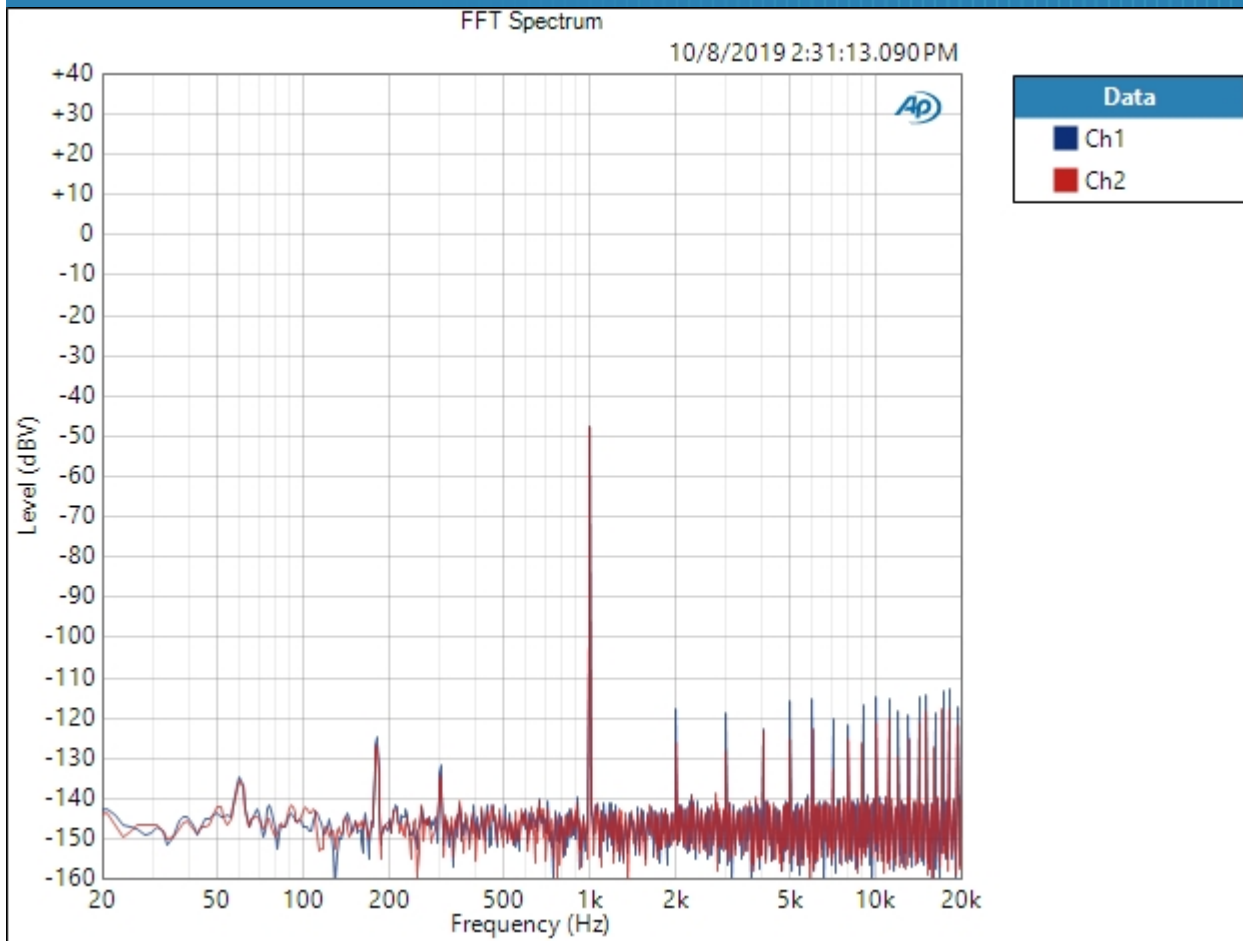


Result:  PASSED

Balanced : Signal Analyzer -60dB

Waveform: Sine
Generator Level: -60.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:31:13 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 (10/8/2019 2:31:13.090 PM)

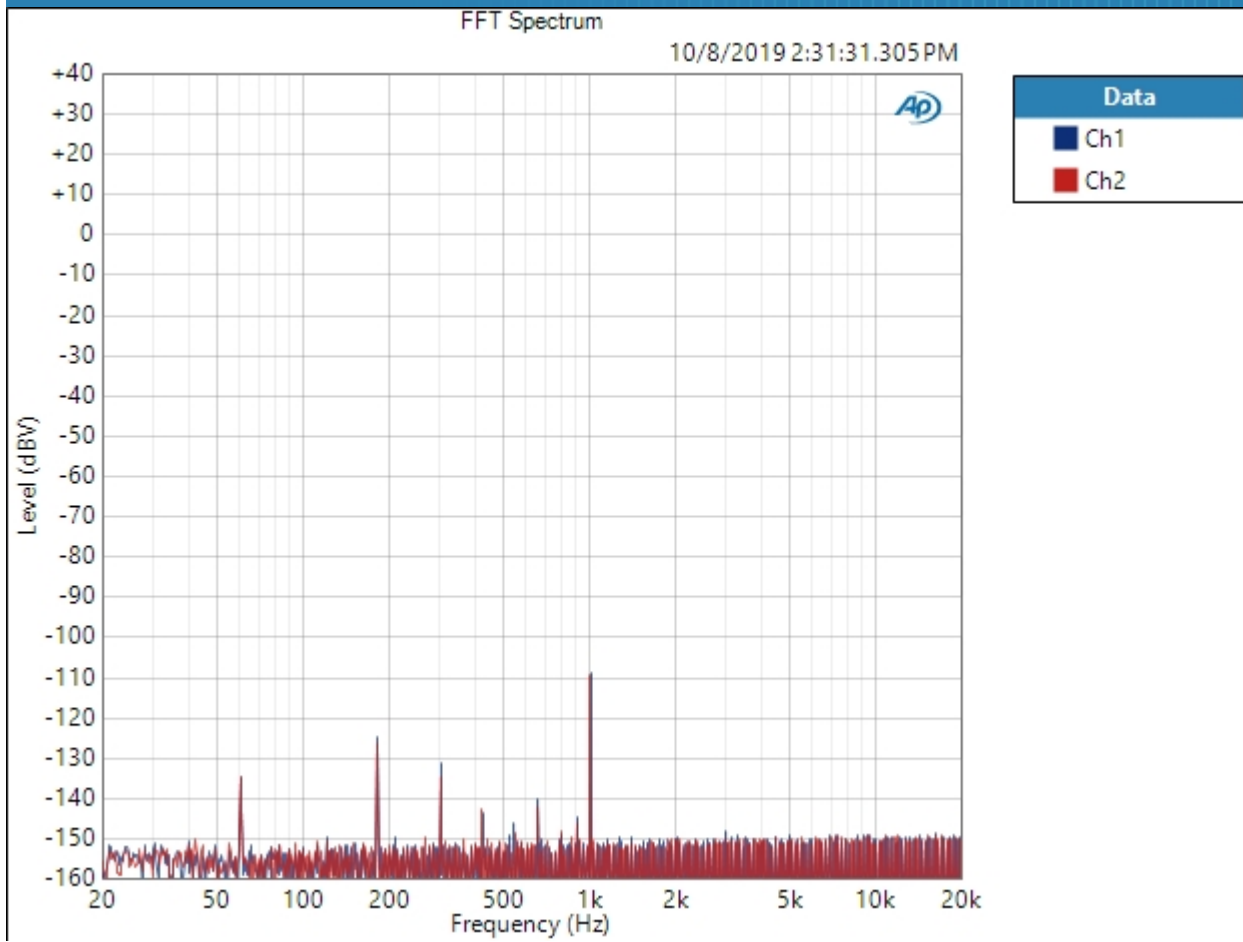


Result: PASSED

Balanced : Signal Analyzer -120dB

Waveform: Sine
Generator Level: -120.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:31:31 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 256K
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (10/8/2019 2:31:31.305 PM)

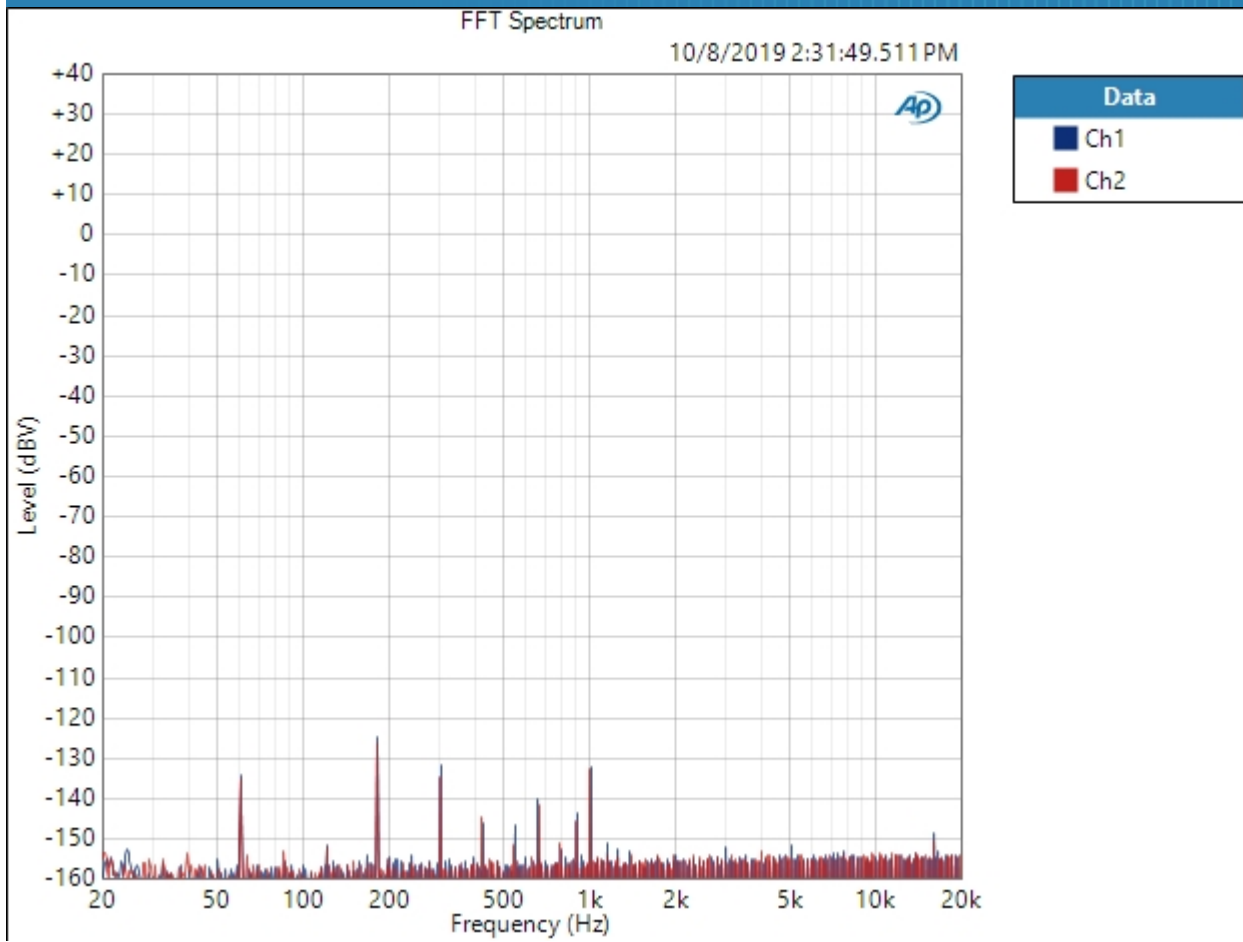


Result: PASSED

Balanced : Signal Analyzer -144dB

Waveform: Sine
Generator Level: -144.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:31:49 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 256K
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (10/8/2019 2:31:49.511 PM)

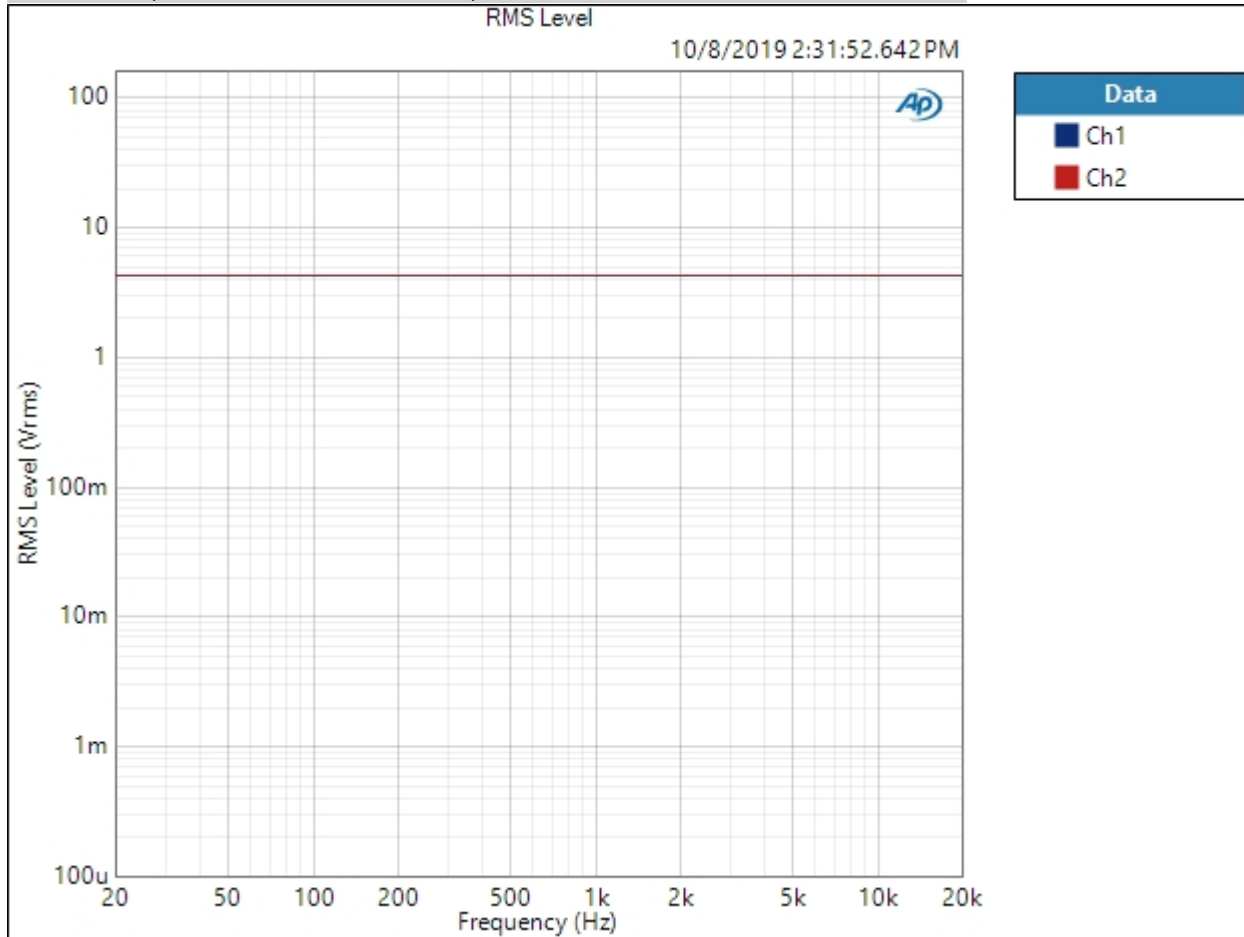


Result: PASSED

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: 500.0 ms
 Secondary Source: None
 Measured 1 10/8/2019 2:31:52 PM

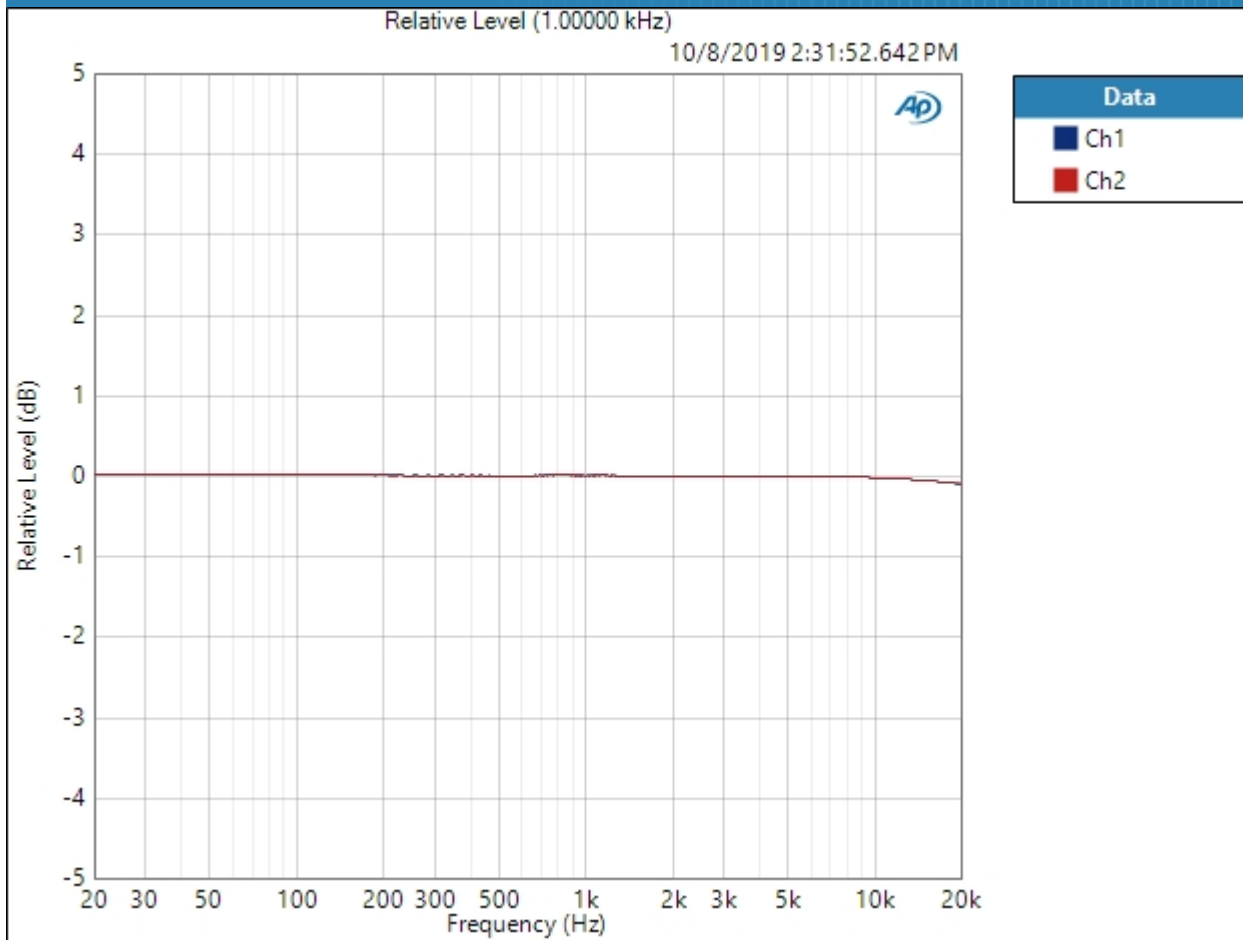
RMS Level (10/8/2019 2:31:52.642 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/8/2019 2:31:52.642 PM)

10/8/2019 2:40 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) (10/8/2019 2:31:52.642 PM)

Ch1 ± 0.064 dB

Ch2 ± 0.063 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 (10/8/2019 2:31:54.538 PM)

Ch1 126.276 dB

Ch2 126.350 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 (10/8/2019 2:31:56.914 PM)

Ch1 0.005024 %
 Ch2 0.004628 %

THD Ratio (10/8/2019 2:31:56.914 PM)

Ch1 0.002390 %
 Ch2 0.002704 %

Noise Ratio (10/8/2019 2:31:56.914 PM)

Ch1 0.000113 %
 Ch2 0.000111 %

Distortion Product Ratio (10/8/2019 2:31:56.914 PM)

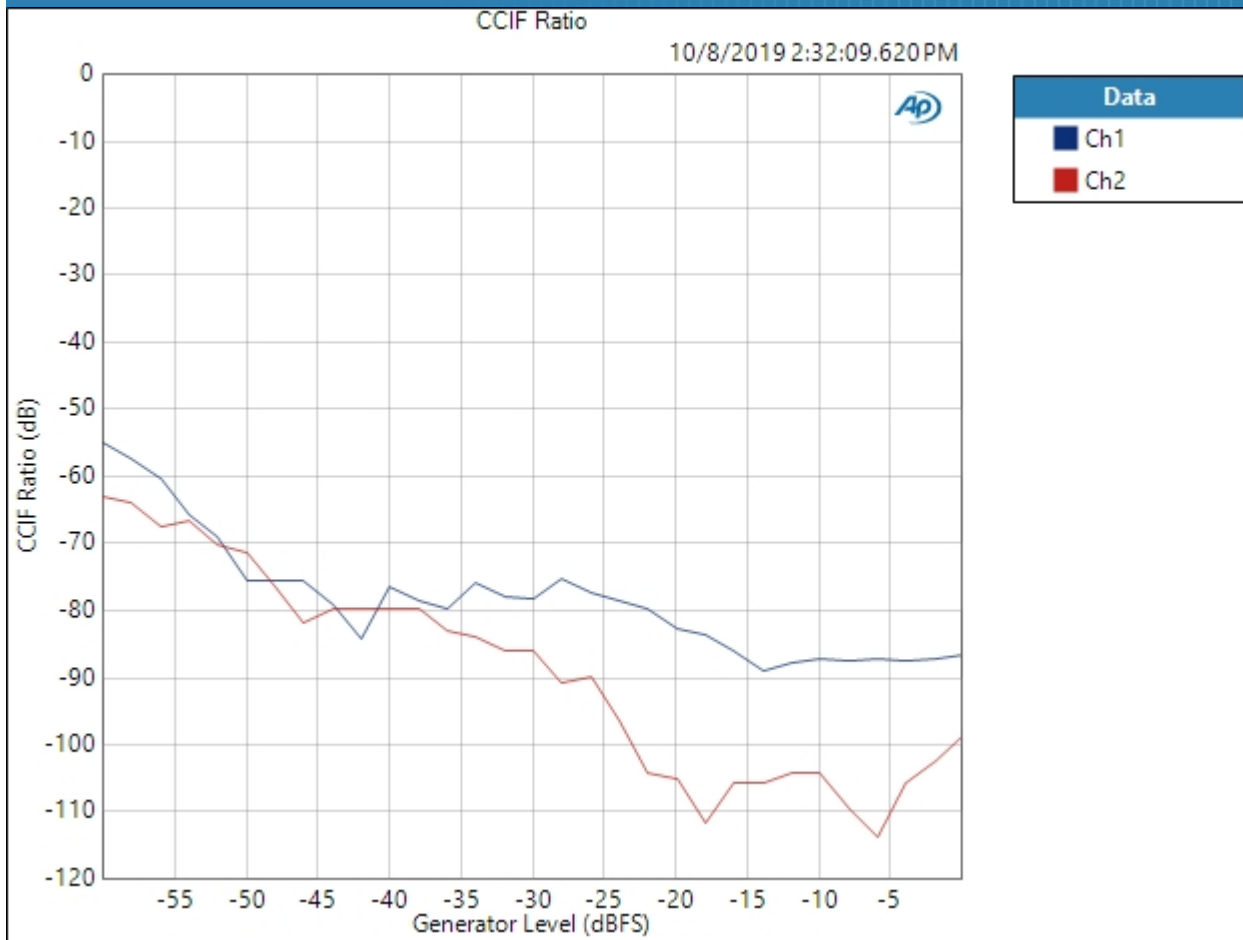
Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-100.27	-93.96	-114.19	-111.43	-114.41	-104.61	-117.45	-124.44	-129.66
Ch2	-0.00	-95.84	-93.99	-121.29	-112.22	-120.21	-104.12	-126.71	-121.18	-123.04

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
Measured 1 10/8/2019 2:32:09 PM

CCIF Ratio (10/8/2019 2:32:09.620 PM)

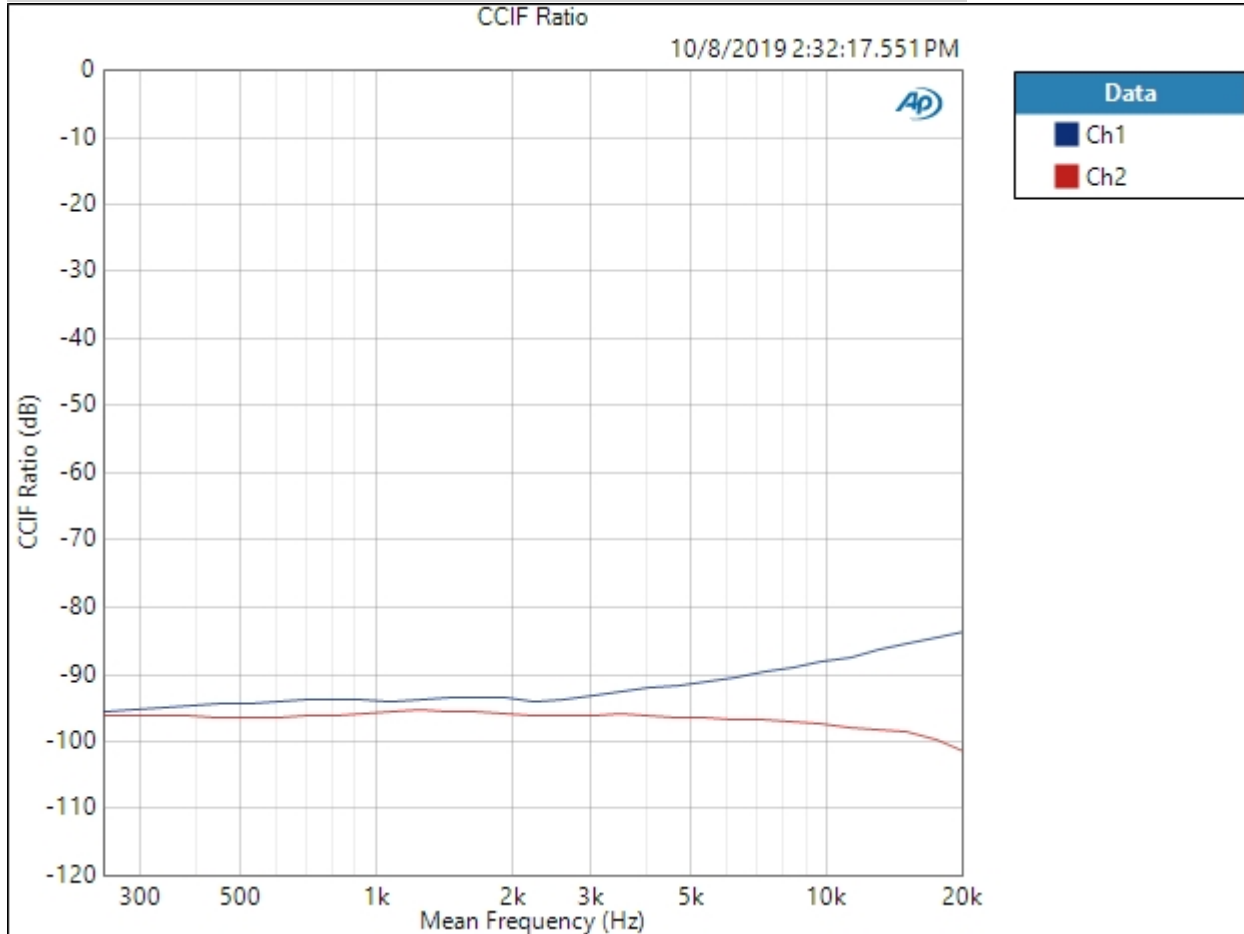


Result: PASSED

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
 Measured 1 10/8/2019 2:32:17 PM

CCIF Ratio (10/8/2019 2:32:17.551 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 (10/8/2019 2:32:18.754 PM)

Ch1 -103.380 dB
Ch2 -105.008 dB

Balanced : Crosstalk Sweep, One Channel Driven

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Start Frequency: 20.0000 kHz

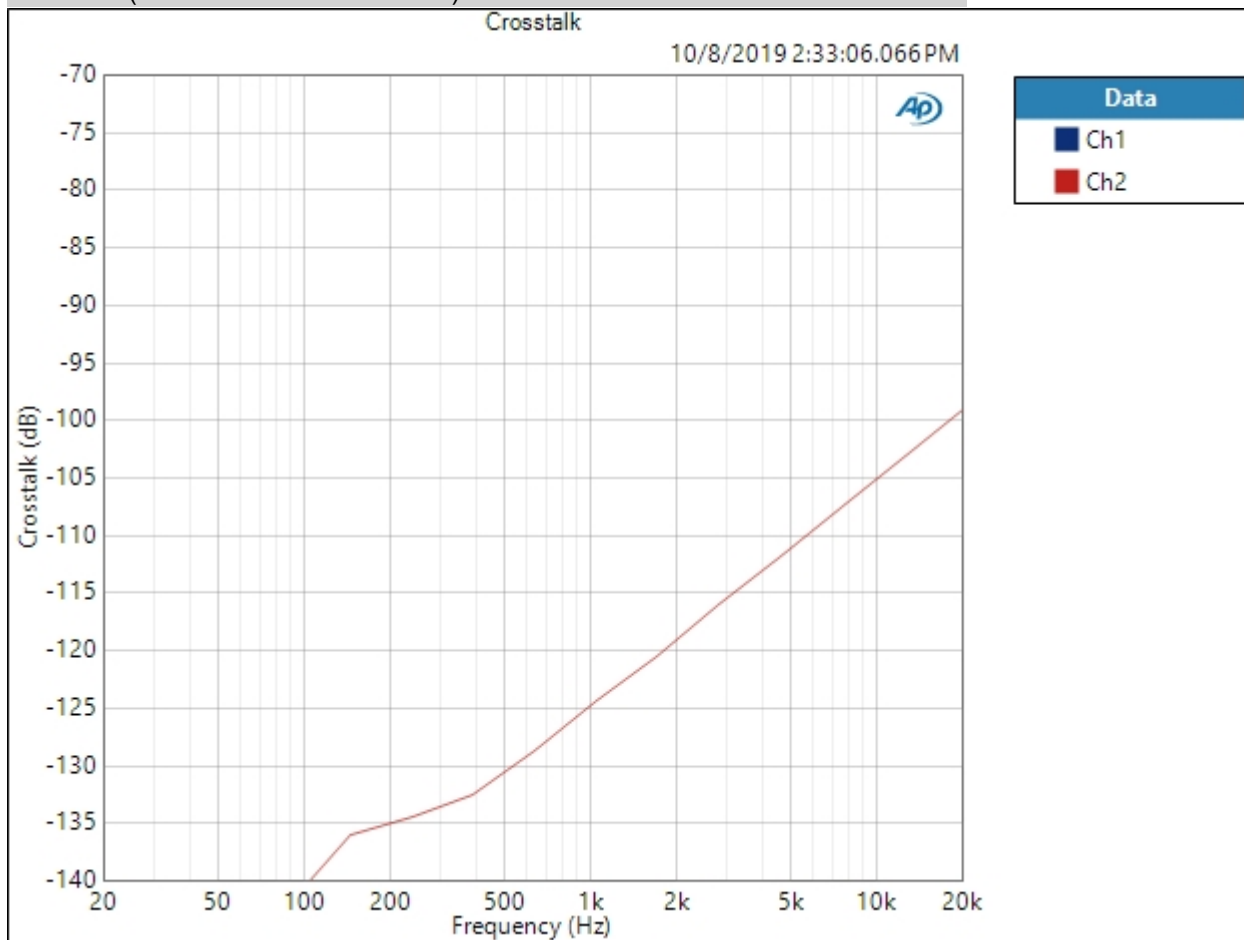
Stop Frequency: 20.0000 Hz

Step Type: Logarithmic

Number of Points: 15

Measured 1 10/8/2019 2:33:06 PM

Crosstalk (10/8/2019 2:33:06.066 PM)



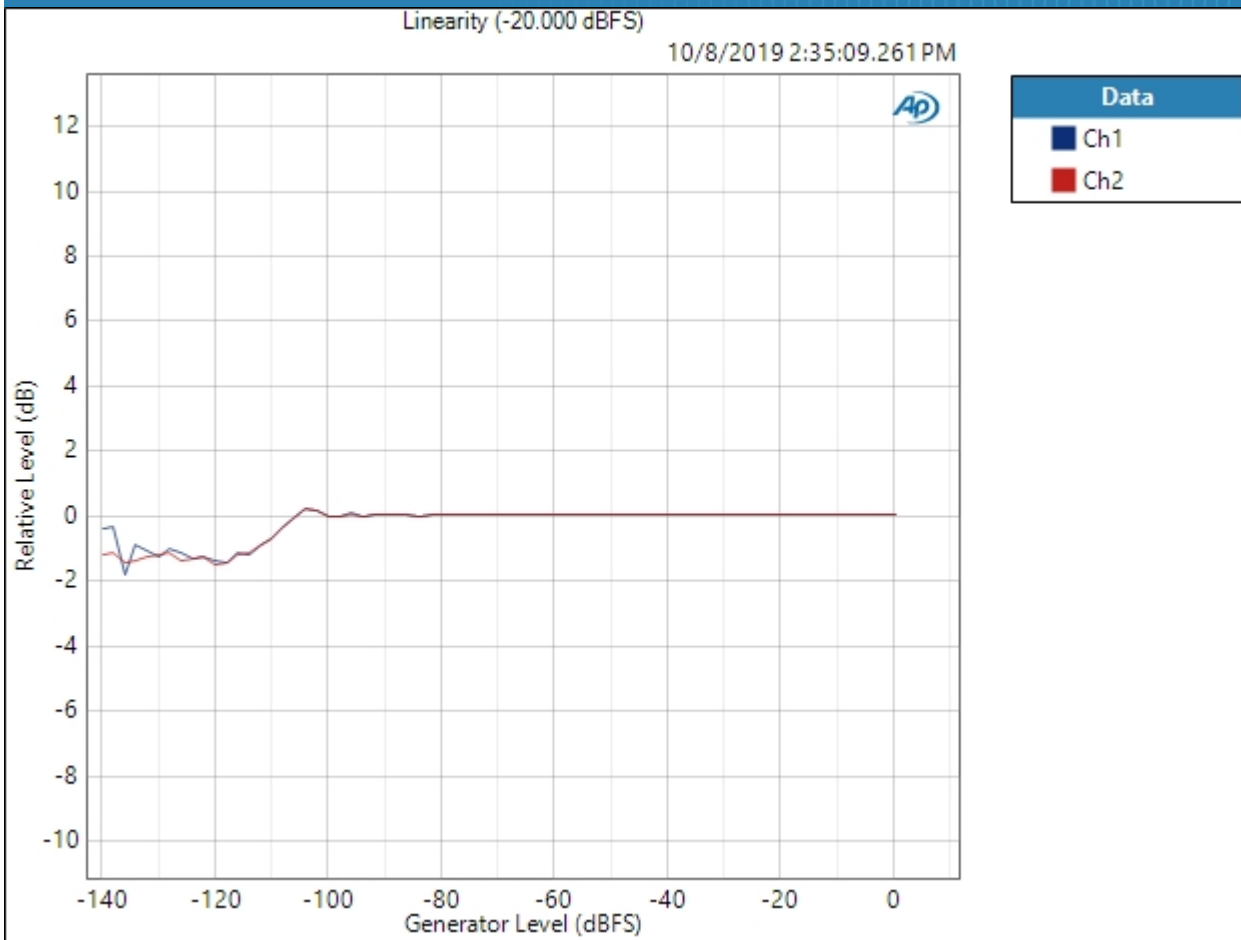
Crosstalk Parameters

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 10/8/2019 2:35:09 PM
Linearity (-20.000 dBFS) (10/8/2019 2:35:09.261 PM)



Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

Relative Level: -20.000 dBFS

Result: PASSED

Single Ended : 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

Single Ended : Level and Gain

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

RMS Level (10/8/2019 2:35:16.820 PM)

Ch1 1.895 Vrms
Ch2 1.895 Vrms

Single Ended : 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

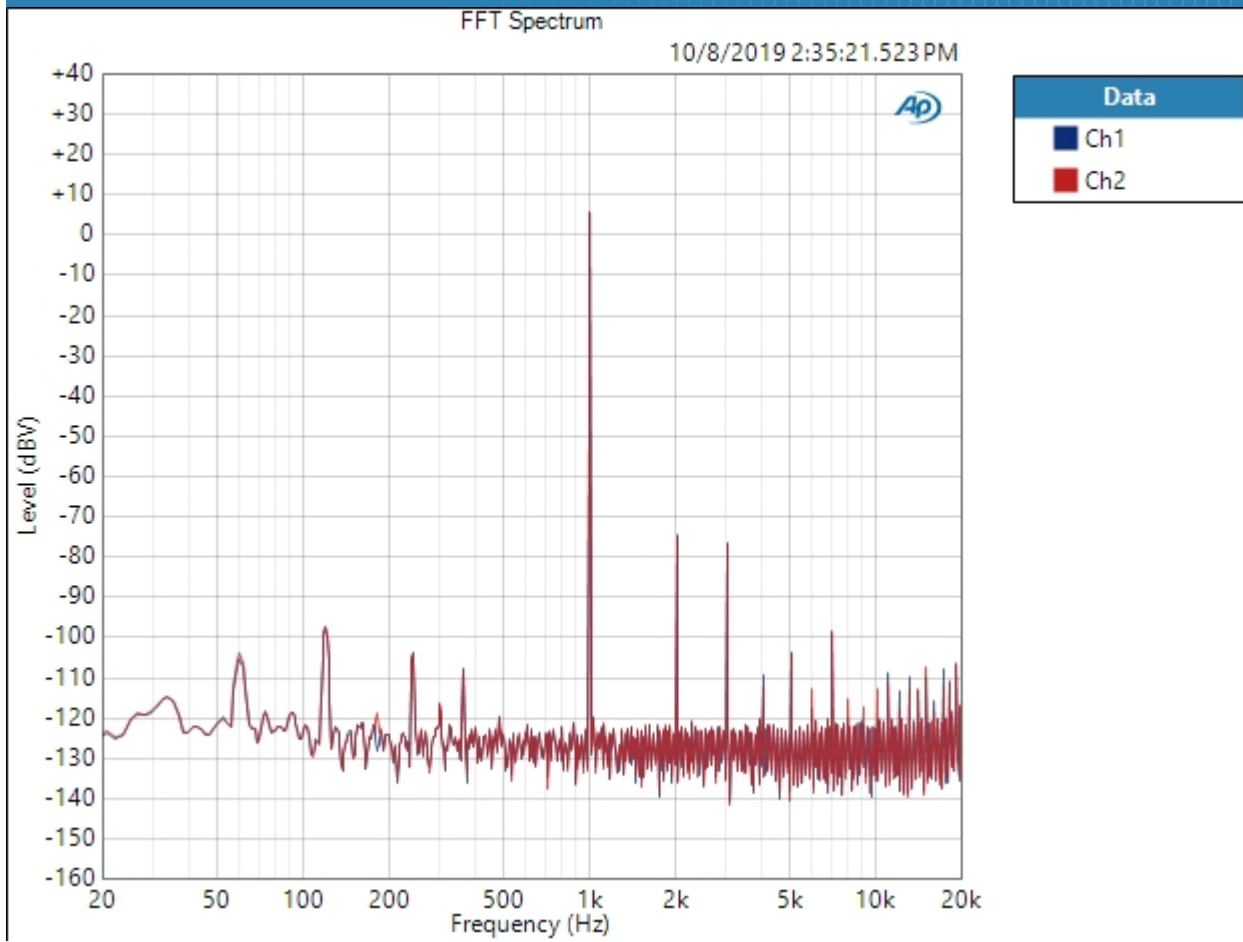
DC Level (10/8/2019 2:35:17.880 PM)

Ch1 -4.113 mV
Ch2 -3.675 mV

Single Ended : Signal Analyzer 0dB

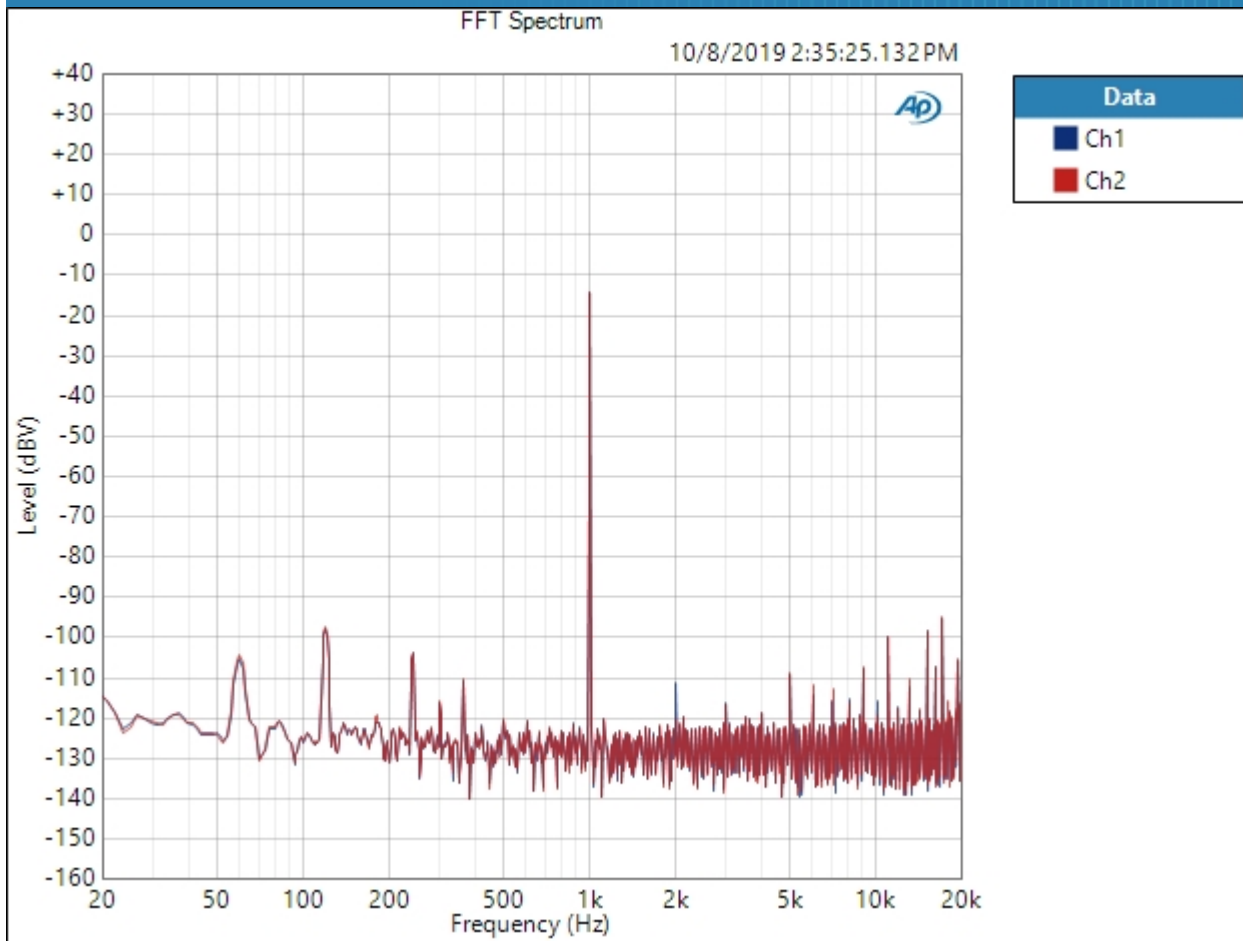
Waveform: Sine
Generator Level: -0.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:35:21 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 32K
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (10/8/2019 2:35:21.523 PM)



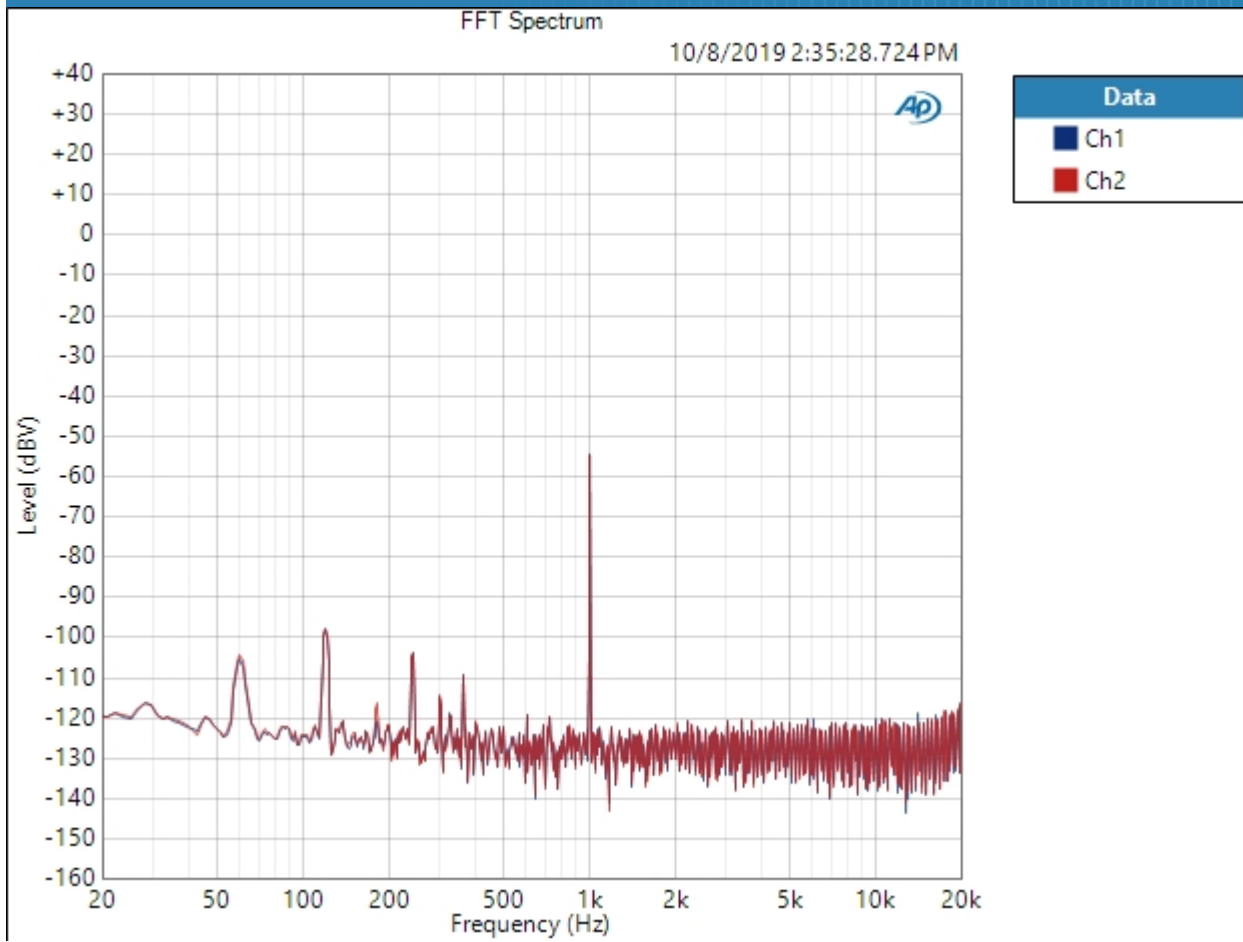
Result:  PASSED

Single Ended : Signal Analyzer -20dB
Waveform: Sine
Generator Level: -20.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:35:25 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 (10/8/2019 2:35:25.132 PM)



Result:  PASSED

Single Ended : Signal Analyzer -60dB
Waveform: Sine
Generator Level: -60.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:35:28 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 (10/8/2019 2:35:28.724 PM)

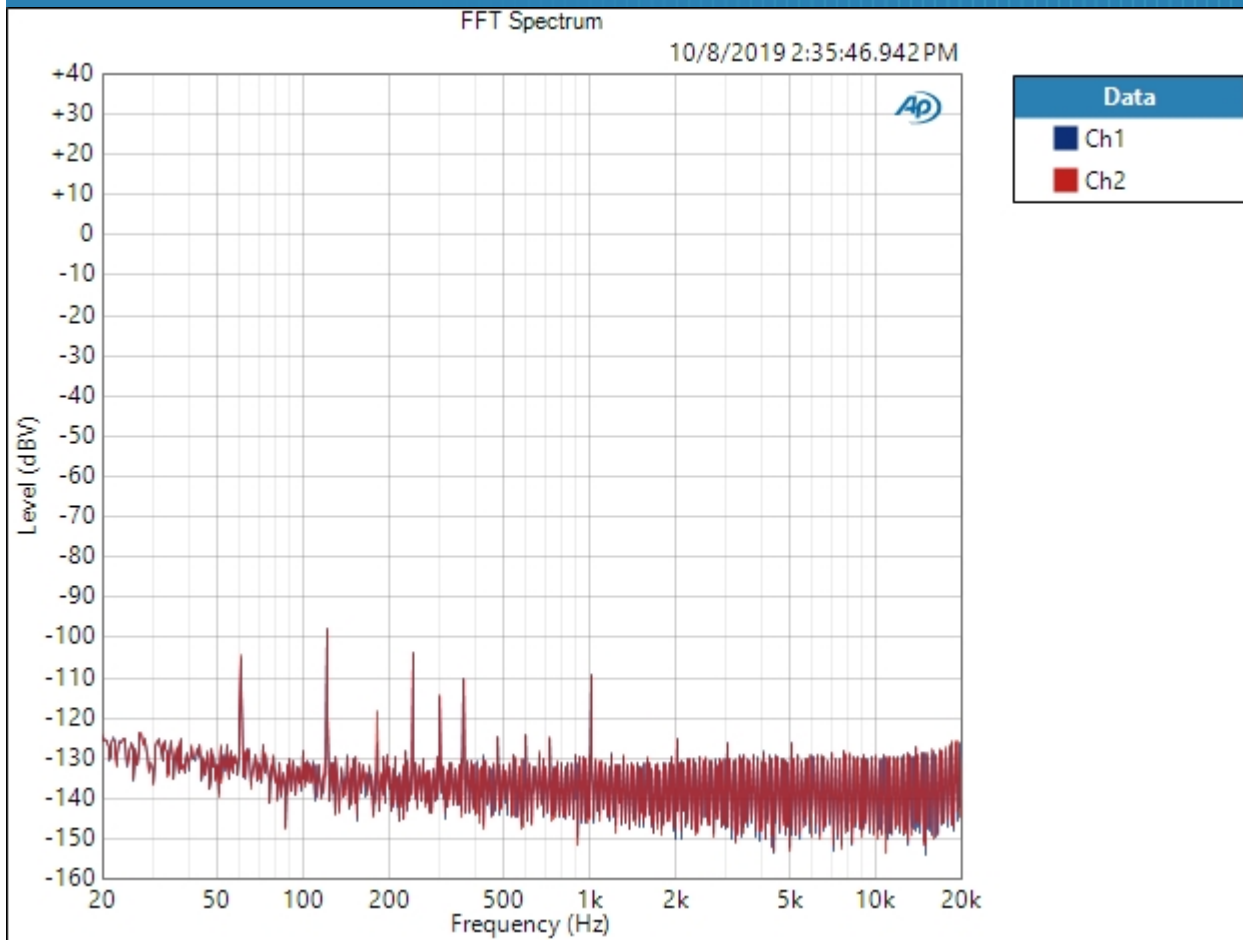


Result: PASSED

Single Ended : Signal Analyzer -120dB

Waveform: Sine
Generator Level: -120.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:35:46 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 256K
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (10/8/2019 2:35:46.942 PM)

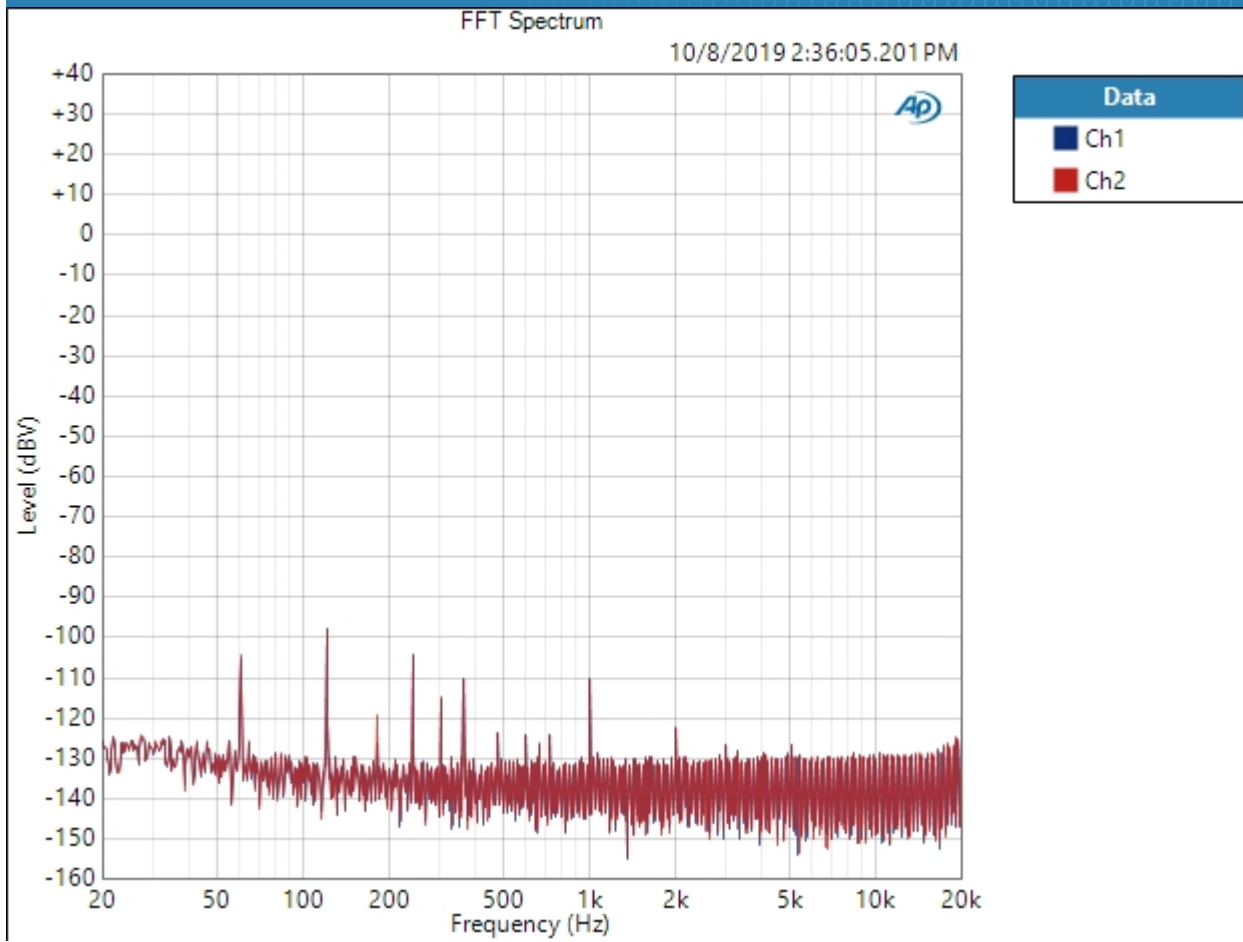


Result: PASSED

Single Ended : Signal Analyzer -144dB

Waveform: Sine
Generator Level: -144.000 dBFS
DC Offset: 0.000 D
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 10/8/2019 2:36:05 PM
Acquisition Type: Auto
Trigger: Free Run
Delay Time: 250.0 ms
Input Bandwidth: Use Signal Path
FFT Length: 256K
Averaging: Power
Averages: 3
Window: AP-Equiripple
Record Acquisition: False
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (10/8/2019 2:36:05.201 PM)

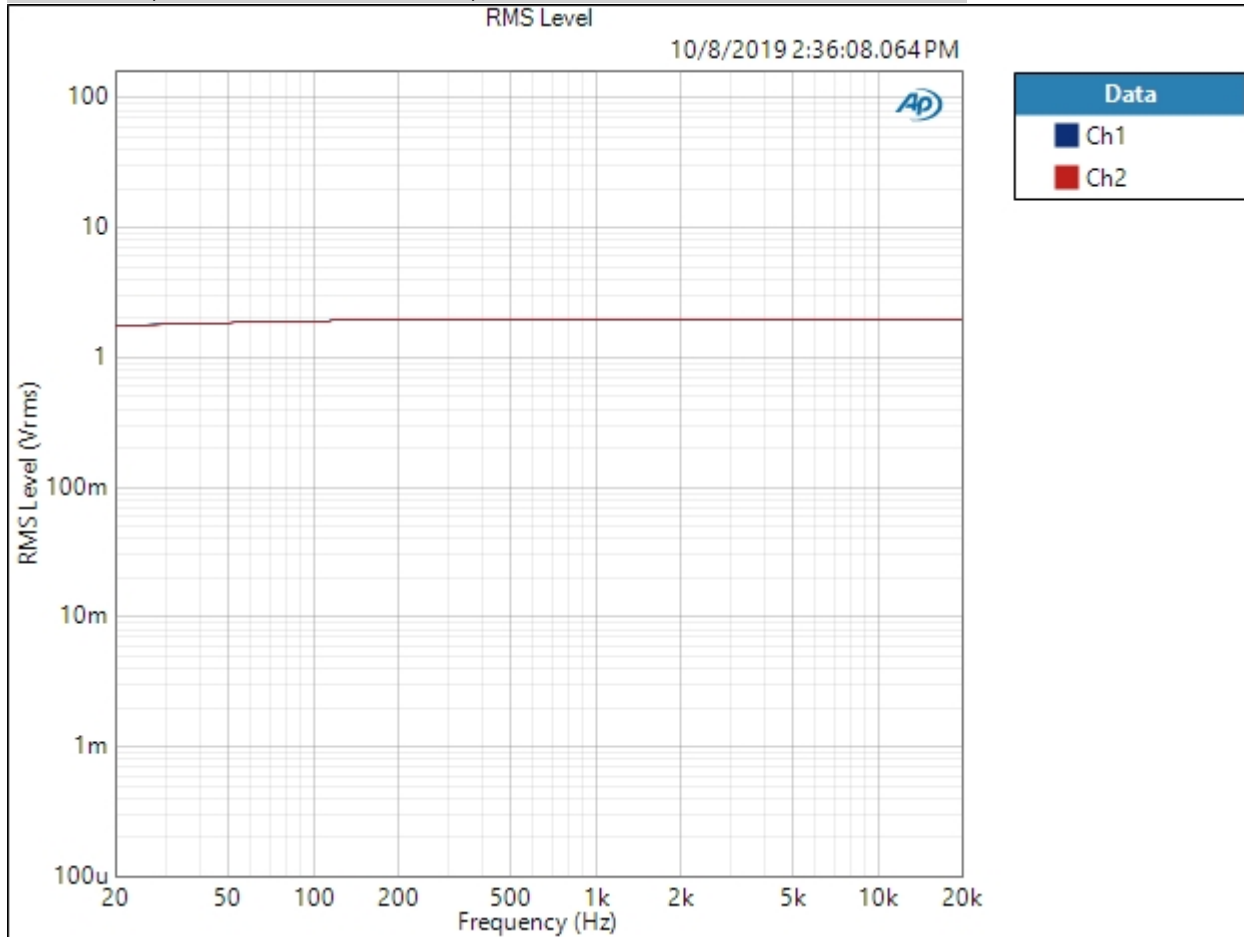


Result:  PASSED

Single Ended : Frequency Response

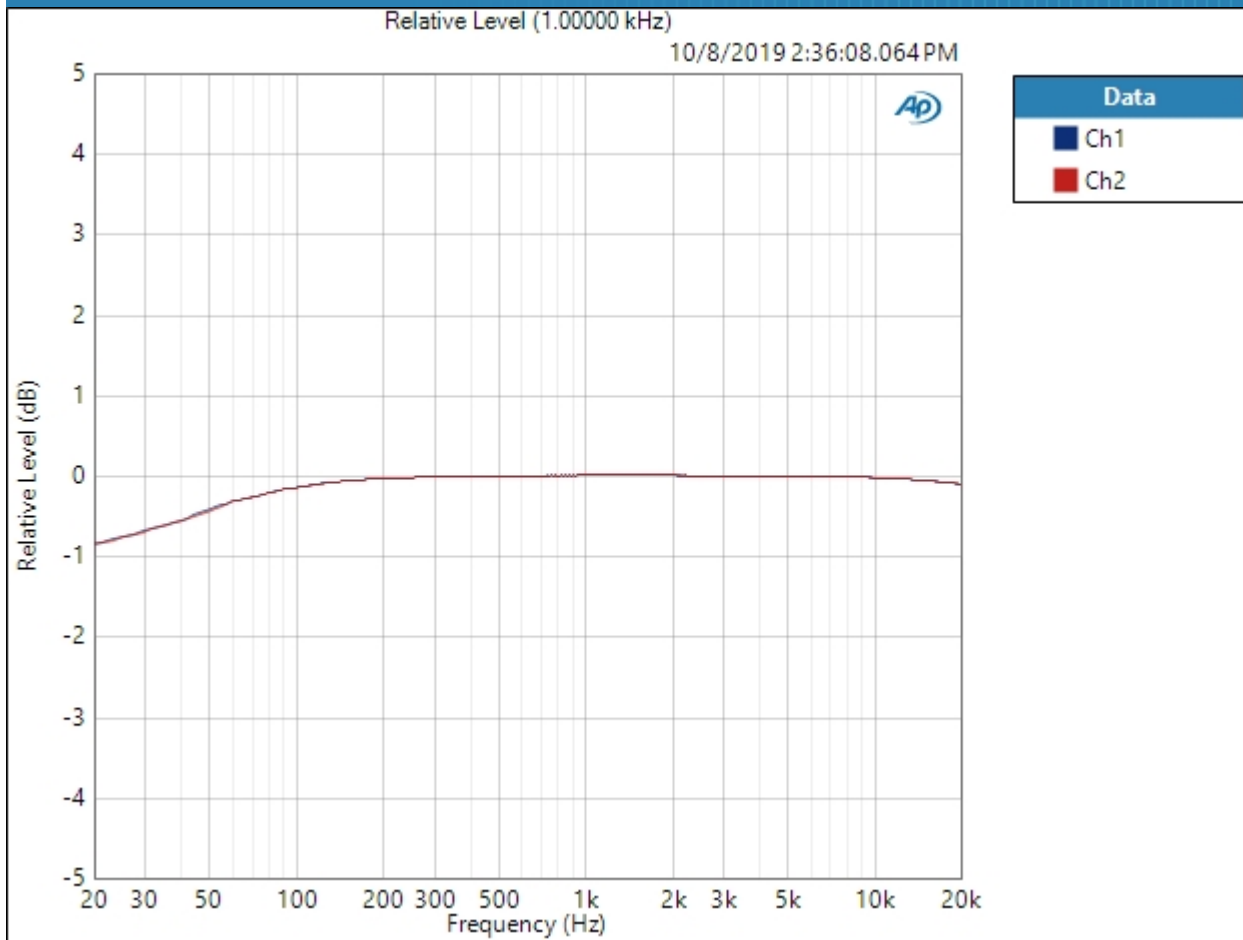
Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: -0.000 dBFS
 DC Offset: 0.000 D
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 500.0 ms
 Secondary Source: None
 Measured 1 10/8/2019 2:36:08 PM

RMS Level (10/8/2019 2:36:08.064 PM)



Result: PASSED

Relative Level (1.00000 kHz) (10/8/2019 2:36:08.064 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) (10/8/2019 2:36:08.064 PM)

Ch1 ± 0.418 dB

Ch2 ± 0.421 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Single Ended : 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: A-wt.
High-pass Filter: 20 Hz

Signal to Noise Ratio (10/8/2019 2:36:09.956 PM)

Ch1 96.561 dB
Ch2 96.525 dB

Single Ended : 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 (10/8/2019 2:36:11.749 PM)

Ch1 0.012970 %
 Ch2 0.012313 %

THD Ratio (10/8/2019 2:36:11.749 PM)

Ch1 0.012833 %
 Ch2 0.012159 %

Noise Ratio (10/8/2019 2:36:11.749 PM)

Ch1 0.002070 %
 Ch2 0.002118 %

Distortion Product Ratio (10/8/2019 2:36:11.749 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	-79.76	-82.37	-114.53	-111.70	-115.98	-104.40	-115.79	-122.40	-119.33
Ch2	-0.00	-80.16	-82.97	-114.58	-112.76	-119.41	-104.36	-117.63	-122.19	-118.47

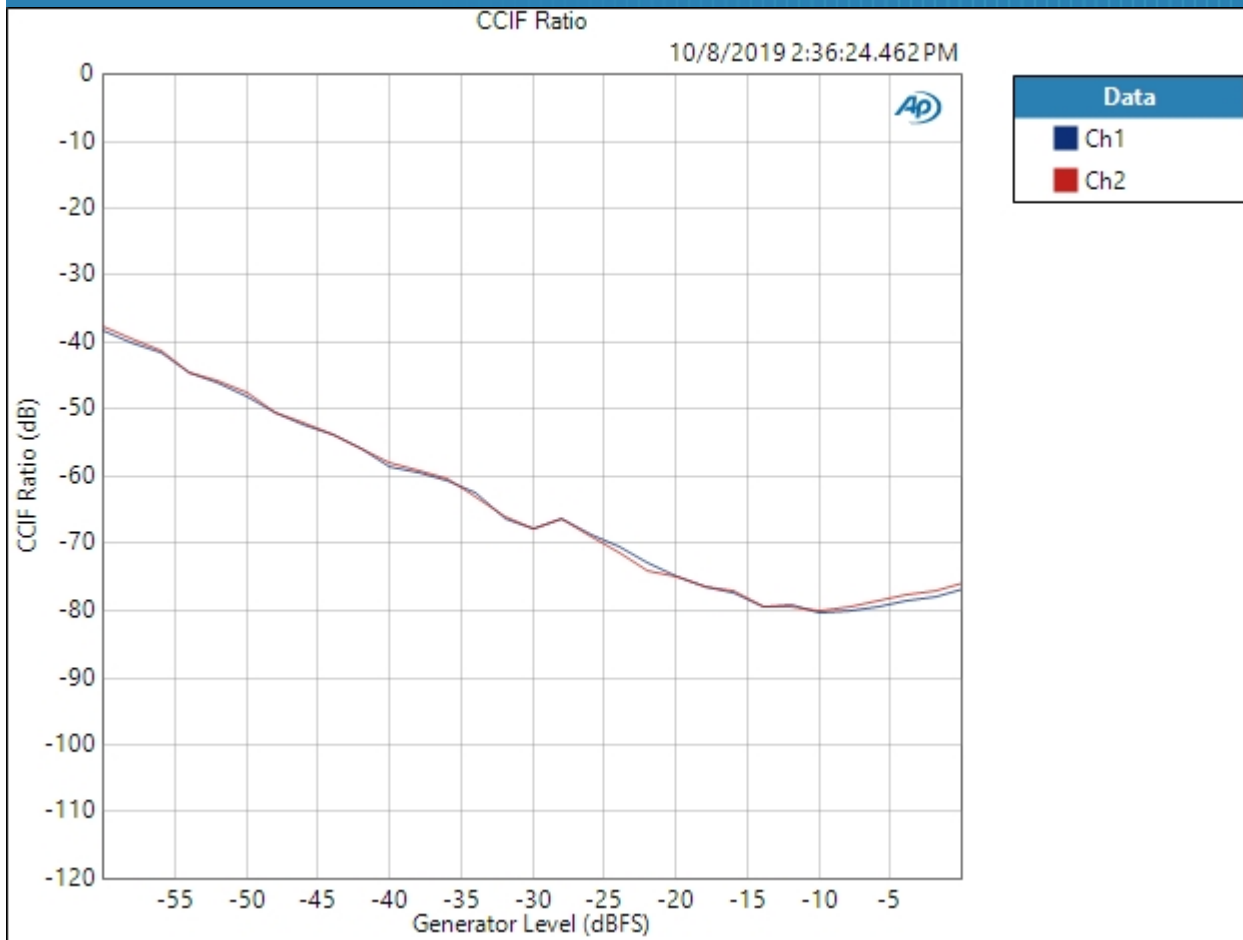
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB

Single Ended : 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
Measured 1 10/8/2019 2:36:24 PM

CCIF Ratio (10/8/2019 2:36:24.462 PM)

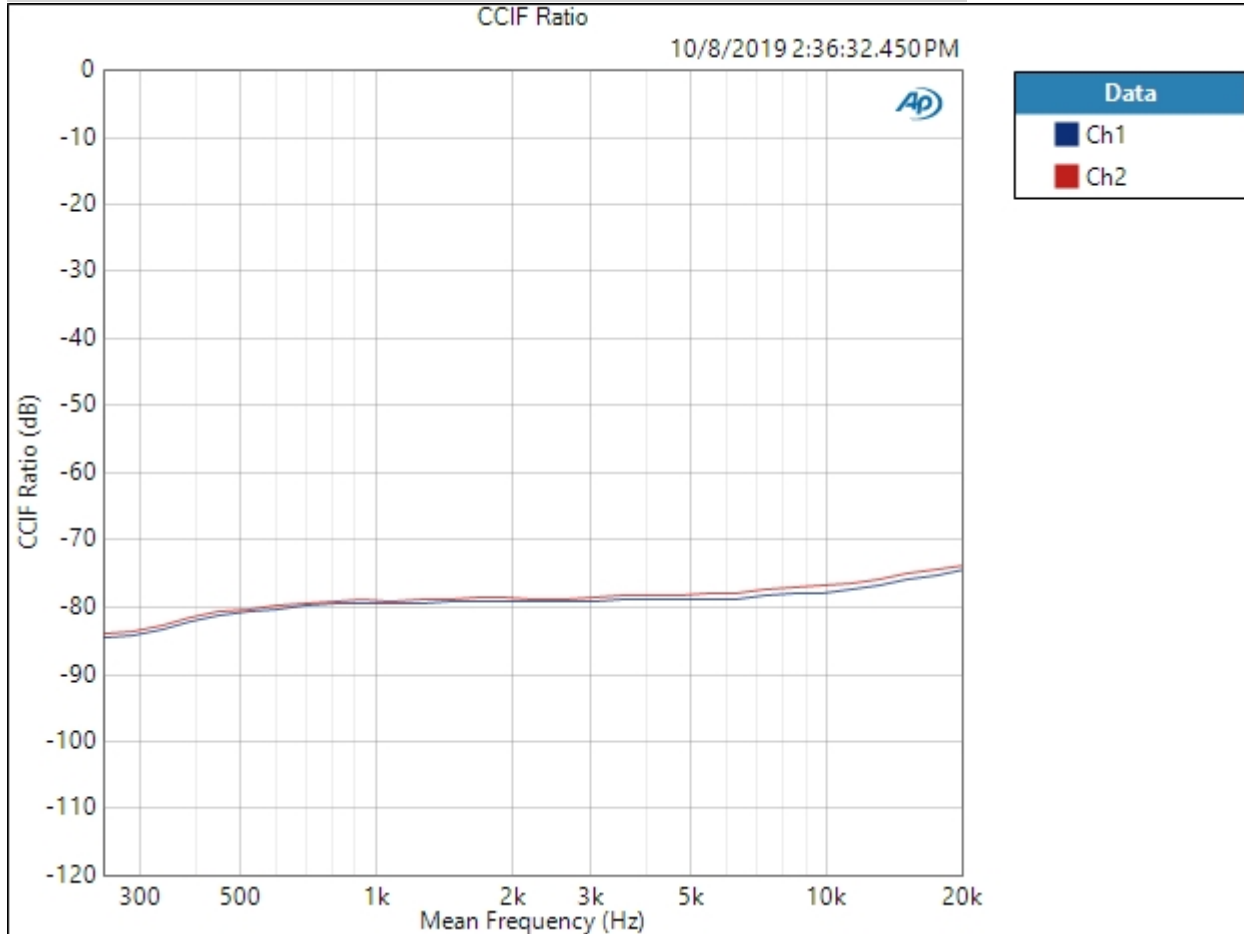


Result: PASSED

Single Ended : 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
 Measured 1 10/8/2019 2:36:32 PM

CCIF Ratio (10/8/2019 2:36:32.450 PM)



Result:  PASSED

Single Ended : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Frequency: 10.0000 kHz

Crosstalk (10/8/2019 2:36:34.533 PM)

Ch1 -81.784 dB

Ch2 -86.206 dB

Single Ended : Crosstalk Sweep, One Channel Driven

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Start Frequency: 20.0000 kHz

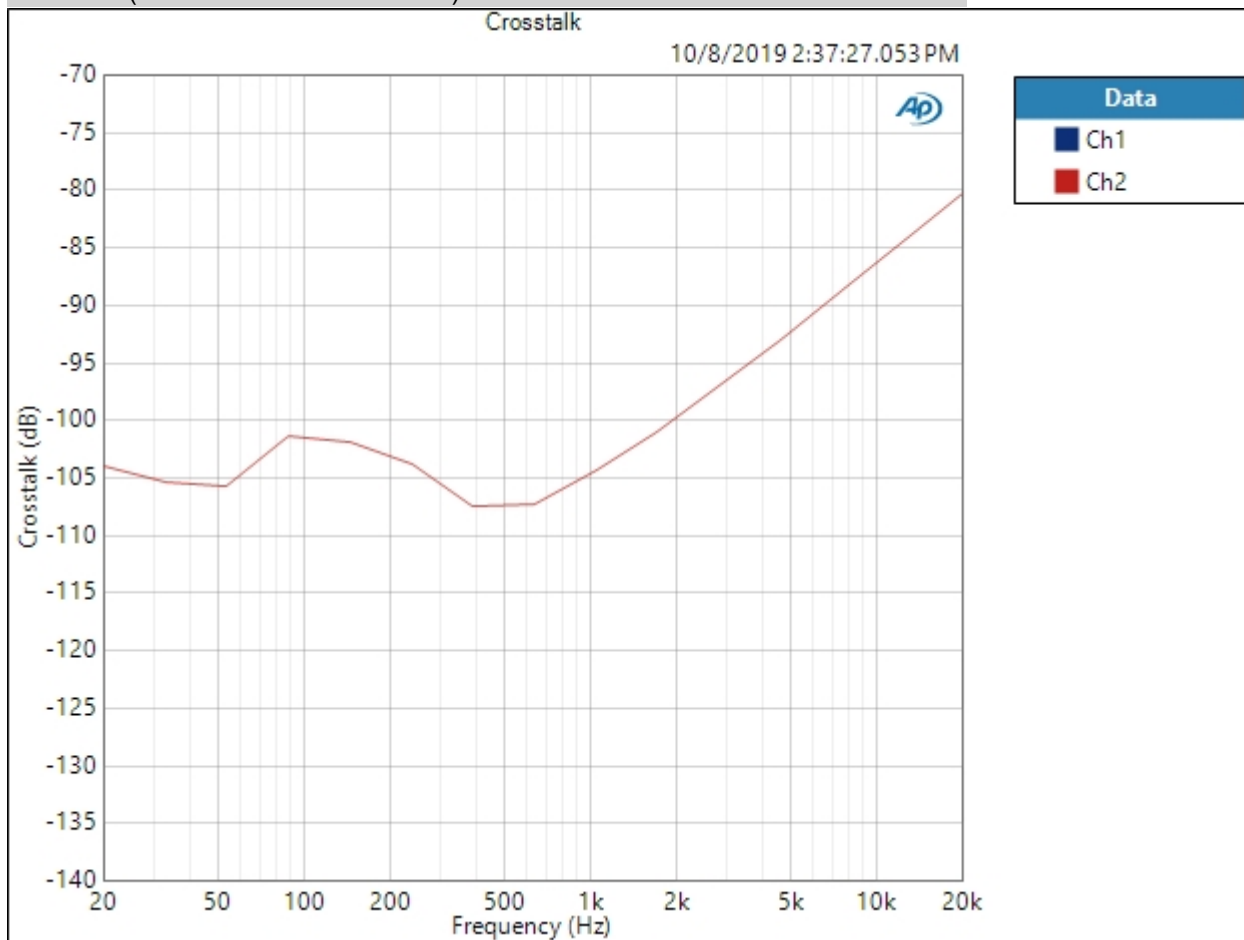
Stop Frequency: 20.0000 Hz

Step Type: Logarithmic

Number of Points: 15

Measured 1 10/8/2019 2:37:27 PM

Crosstalk (10/8/2019 2:37:27.053 PM)



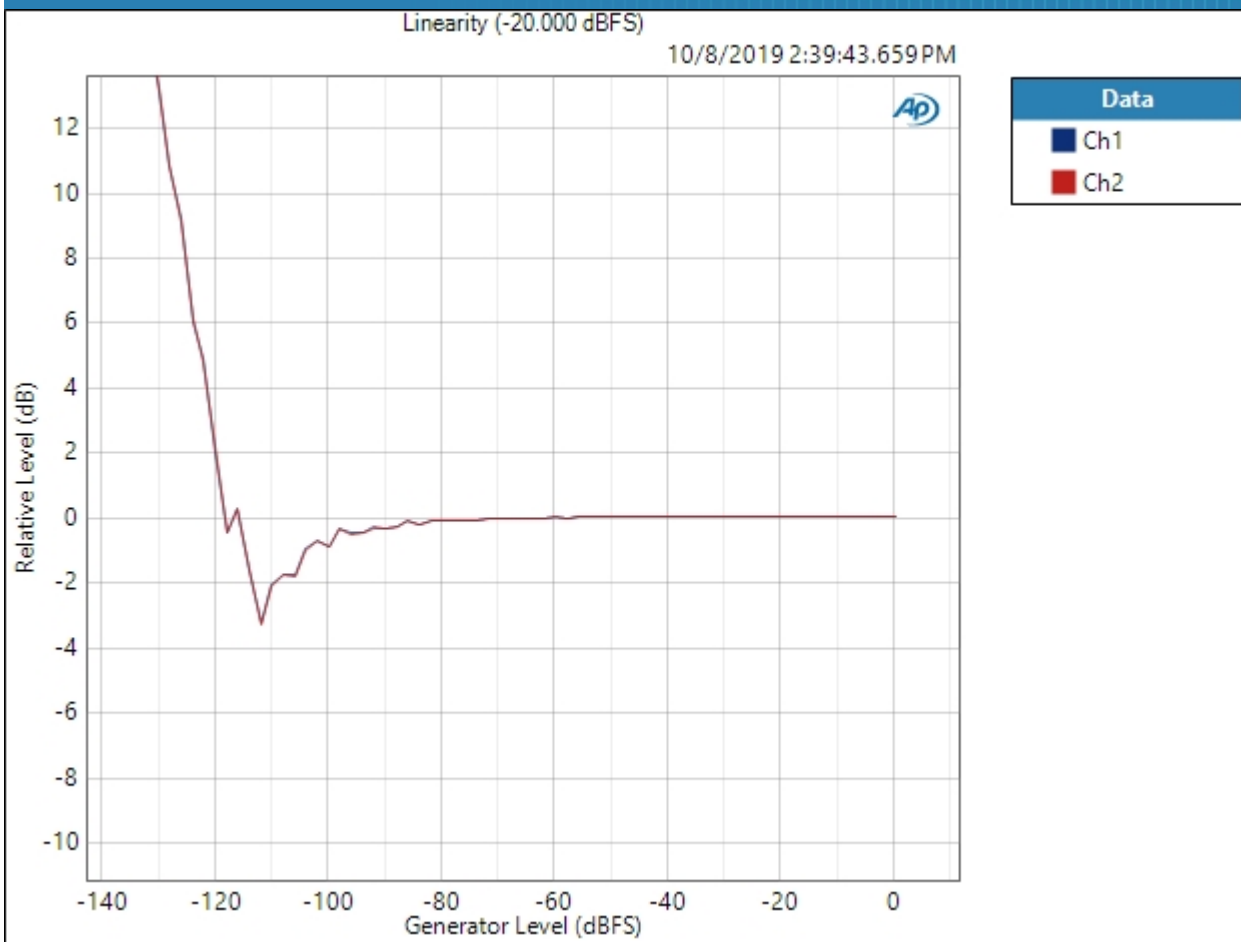
Crosstalk Parameters

Source: Ch1

Result: PASSED

Single Ended : 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 10/8/2019 2:39:43 PM
Linearity (-20.000 dBFS) (10/8/2019 2:39:43.659 PM)



Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

Relative Level: -20.000 dBFS

Result: PASSED

Jitter : 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
 dBSPL1: 10.00 mVrms
 dBSPL2: 10.00 mVrms
 dBSPL1 Calibrator Level: 94.000 dB SPL
 dBSPL2 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

Jitter : Jitter Level Sweep

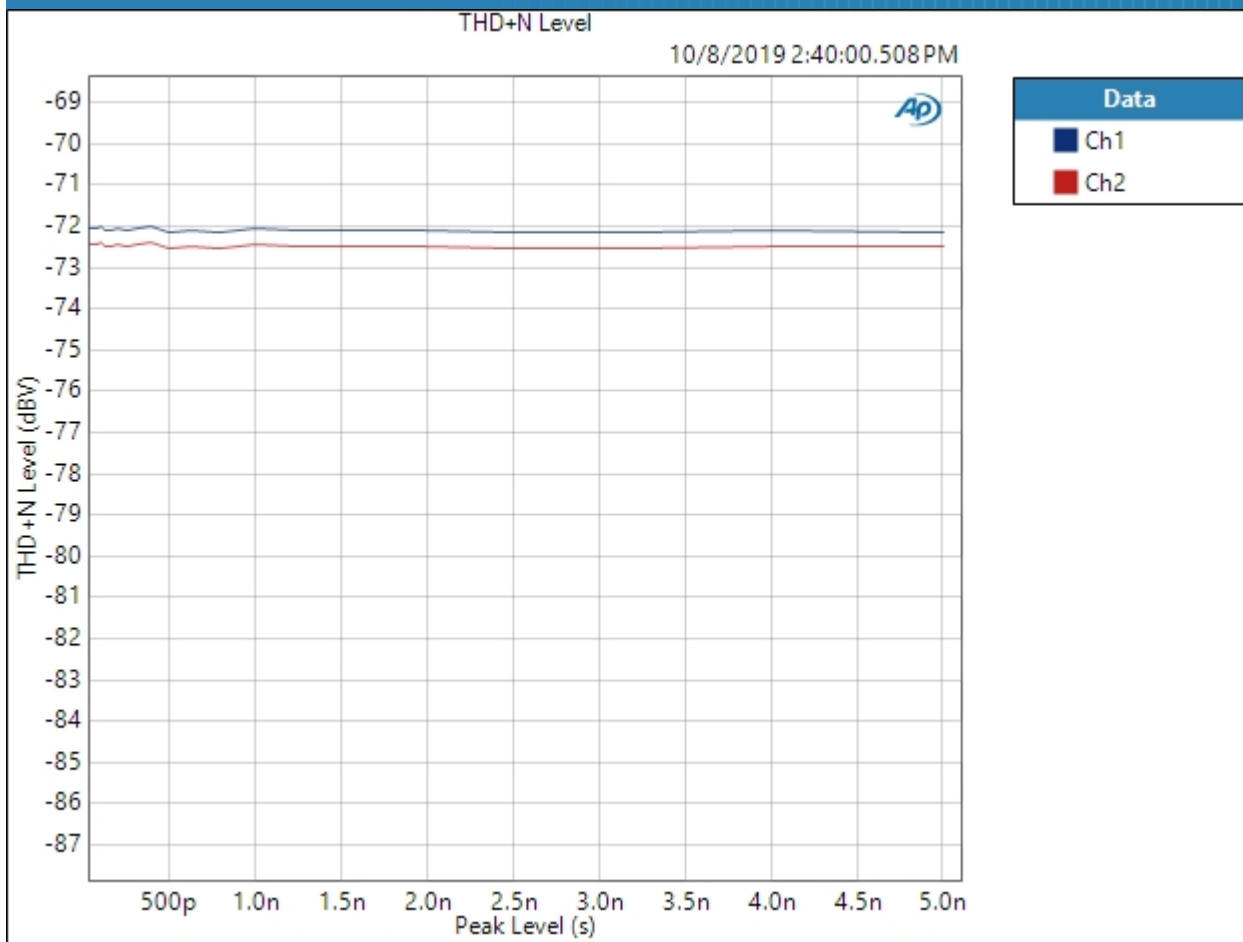
• Audio Generator

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

• Jitter Generator

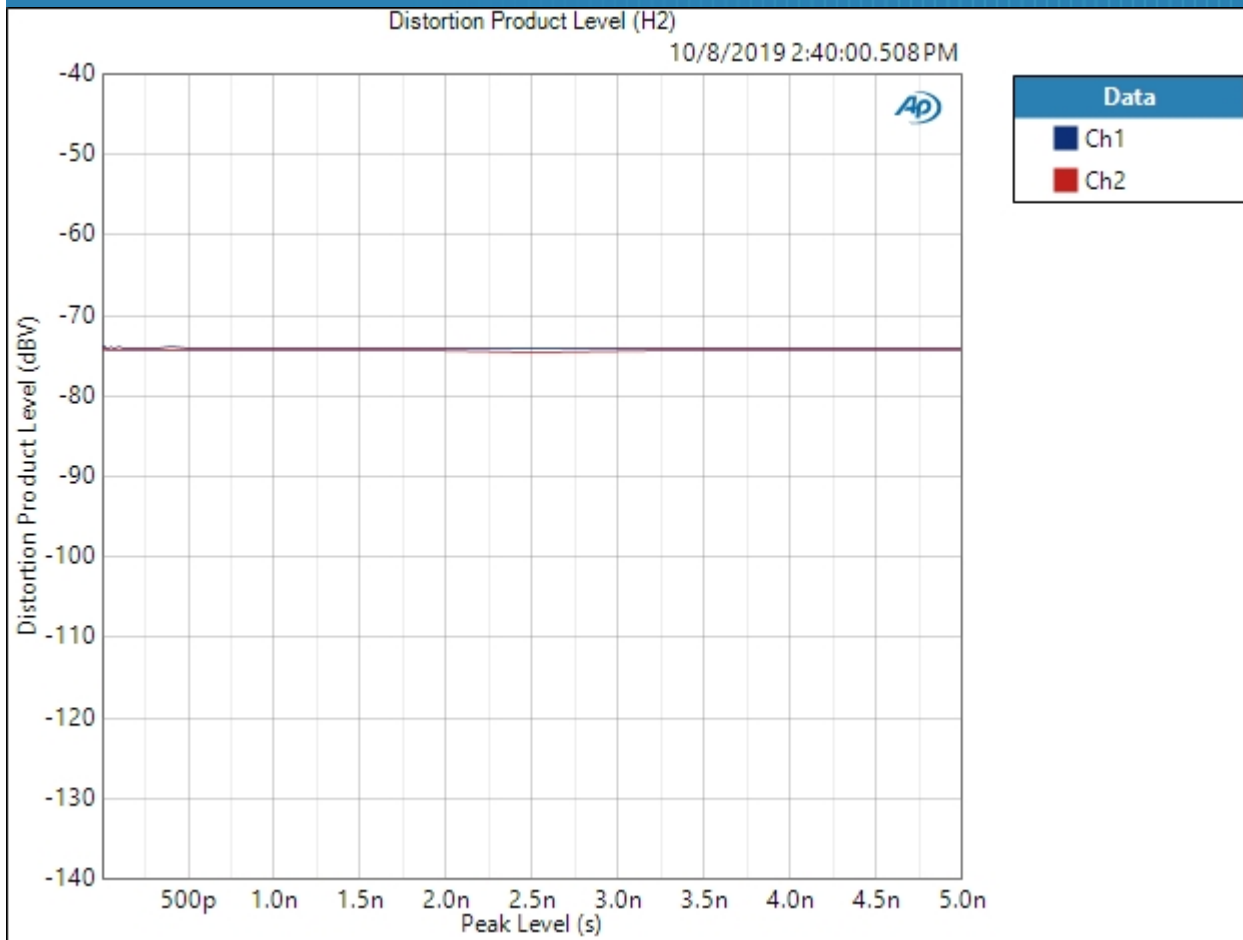
Jitter Waveform: Sine
 Start Level: 5.000 ps
 Stop Level: 5.000 ns
 Step Type: Logarithmic
 Number of Points: 31
 Jitter Frequency: 1.00000 kHz
 Low-pass Filter: 20 kHz
 Weighting Filter: Signal Path
 High-pass Filter: 20 Hz
 Notch Tuning Mode: Generator Frequency
 Secondary Source: None
 Measured 1 10/8/2019 2:40:00 PM

THD+N Level (10/8/2019 2:40:00.508 PM)



Result: PASSED

Distortion Product Level (H2) (10/8/2019 2:40:00.508 PM)



Distortion Product Level (H2) Parameters

Harmonics: Single Harmonic

Harmonic Number: 2

Result: PASSED