



## Sequence Report



### Pre-Sequence Inputs:

ID: Ferrum WANDLA Digital Vol Control

### Summary

#### SIG 1 - Scope Views (44.1khz)

1khz Tone View	✓ PASSED
15khz Tone View	✓ PASSED
-90.31dBFS 1khz 16 bit undithered sine (96khz Bandwidth)	✓ PASSED
-90.31dBFS 1khz 16 bit dithered sine (96khz Bandwidth)	✓ PASSED
-90.31dBFS 1khz 24 bit undithered sine (96khz Bandwidth)	✓ PASSED
-90.31dBFS 1khz 24 bit dithered sine (96khz Bandwidth)	✓ PASSED
Filter Ultrasonic Attenuation	✓ PASSED
20hz-90khz Noise RMS Level	✓ PASSED

#### SIG 1.5 - Scope Views (44.1khz)

1khz Tone View	✓ PASSED
15khz Tone View	✓ PASSED
-90.31dBFS 1khz undithered 16b sine (1Mhz bandwidth)	✓ PASSED
-90.31dBFS 1khz dithered 16b sine (1Mhz bandwidth)	✓ PASSED
-90.31dBFS 1khz undithered 24b sine (1Mhz bandwidth)	✓ PASSED
-90.31dBFS 1khz dithered 24b sine (1Mhz bandwidth)	✓ PASSED
Filter Ultrasonic Attenuation	✓ PASSED
1Mhz RMS Noise Level	✓ PASSED

#### SIG 2 - Main Measurements (44.1khz)

Output Level (Vrms)	✓ PASSED
Frequency Response (Audible Band)	✓ PASSED
20hz-20khz Noise RMS Level	✓ PASSED
Idle Noise FFT	✓ PASSED
1khz FFT (0dbfs)	✓ PASSED
1khz FFT (-3dbfs)	✓ PASSED
50khz FFT (0dbfs)	✓ PASSED
50hz FFT (-3dbfs)	✓ PASSED
Effective Number of Bits 0dbfs	✓ PASSED
Effective Number of Bits -3dbfs	✓ PASSED
THD+N 0dbfs	✓ PASSED
THD+N -3dbfs	✓ PASSED

THD+N/Frequency	✔ PASSED
Dynamic Range - AES17	✔ PASSED
Signal to Noise Ratio	✔ PASSED
IMD ( SMPTE )	✔ PASSED
50hz/7khz IMD SMPTE FFT	✔ PASSED
IMD Level Sweep ( SMPTE )	✔ PASSED
Linearity	✔ PASSED
Linearity (No Bandpass)	✔ PASSED
Crosstalk Sweep, One Channel Driven	✔ PASSED
DC Offset (active)	✔ PASSED
DC Offset (idle)	✔ PASSED
SIG 3 - 44.1khz Jitter	
44.1khz J-Test (Jitter)	✔ PASSED
SIG 4 - 48khz Jitter	
48khz J-Test (Jitter)	✔ PASSED
SIG 5 - Bandwidth (192khz)	
90khz Bandwidth	✔ PASSED
SIG 6 - THD and Phase vs Frequency	
THD+N vs frequency (AES 40khz filter)	✔ PASSED
Interchannel Phase and Group Delay	✔ PASSED
SIG 7 - Wideband and Intersample Overs	
Wideband idle noise	✔ PASSED
1khz 0dbfs wideband	✔ PASSED
1khz -3dbfs wideband	✔ PASSED
Intersample Overs (+3dB)	✔ PASSED
Intersample Overs (+1dB)	✔ PASSED
SIG 8 - Multitone	
32 Tone Test	✔ PASSED
Sequence Result:	
Sequence Result:	✔ PASSED



## Sequence Report



### SIG 1 - Scope Views (44.1kHz) : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
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) - 90k (192 kHz SR)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL



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dB SPL2 Calibrator Level:	50.000 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



## Sequence Report



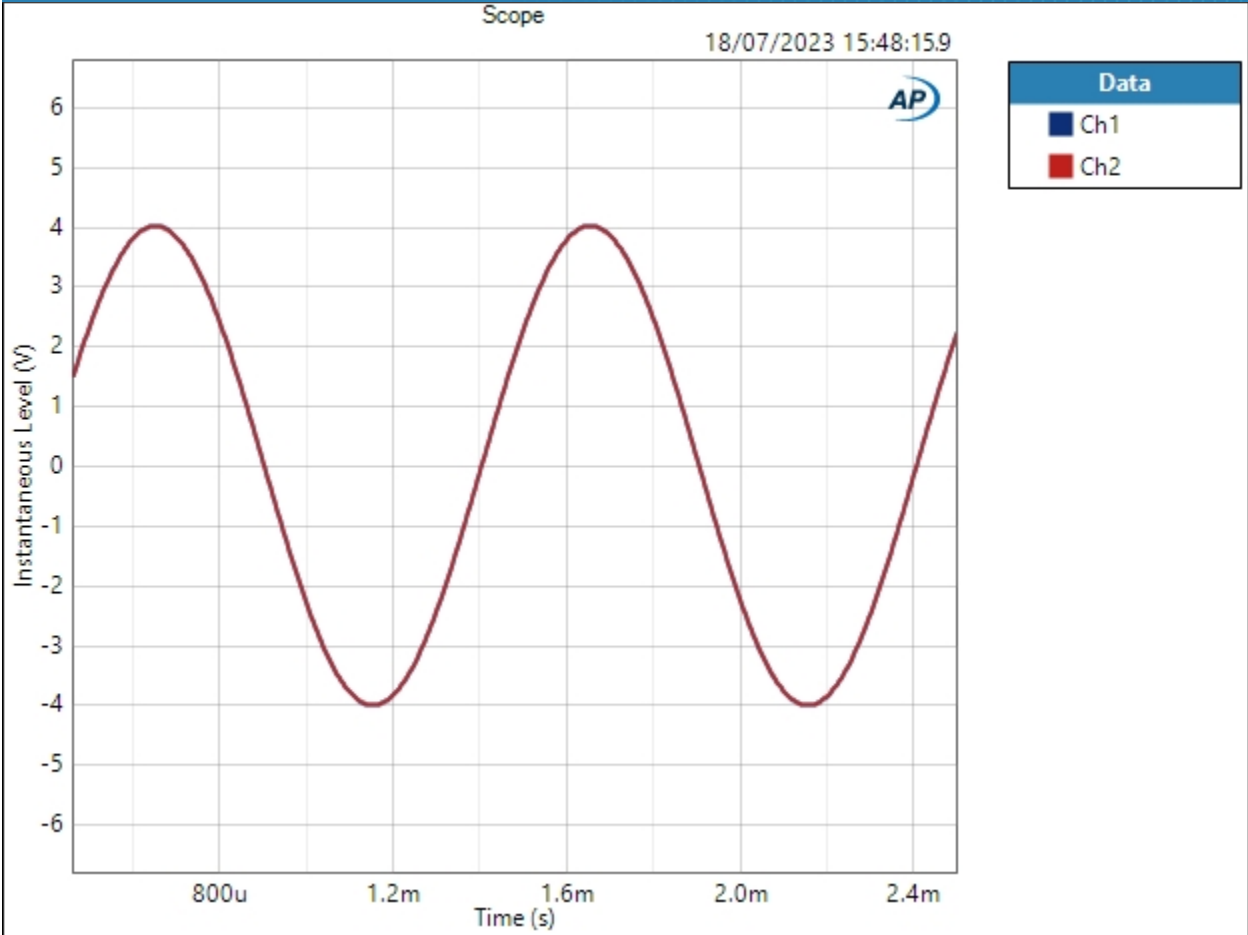
### SIG 1 - Scope Views (44.1kHz) : 1kHz Tone View

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 15:48:15  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 1  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:48:15.963)



# Sequence Report AP



Scope Parameters

Interpolated: On

Result: ✔ PASSED



## Sequence Report



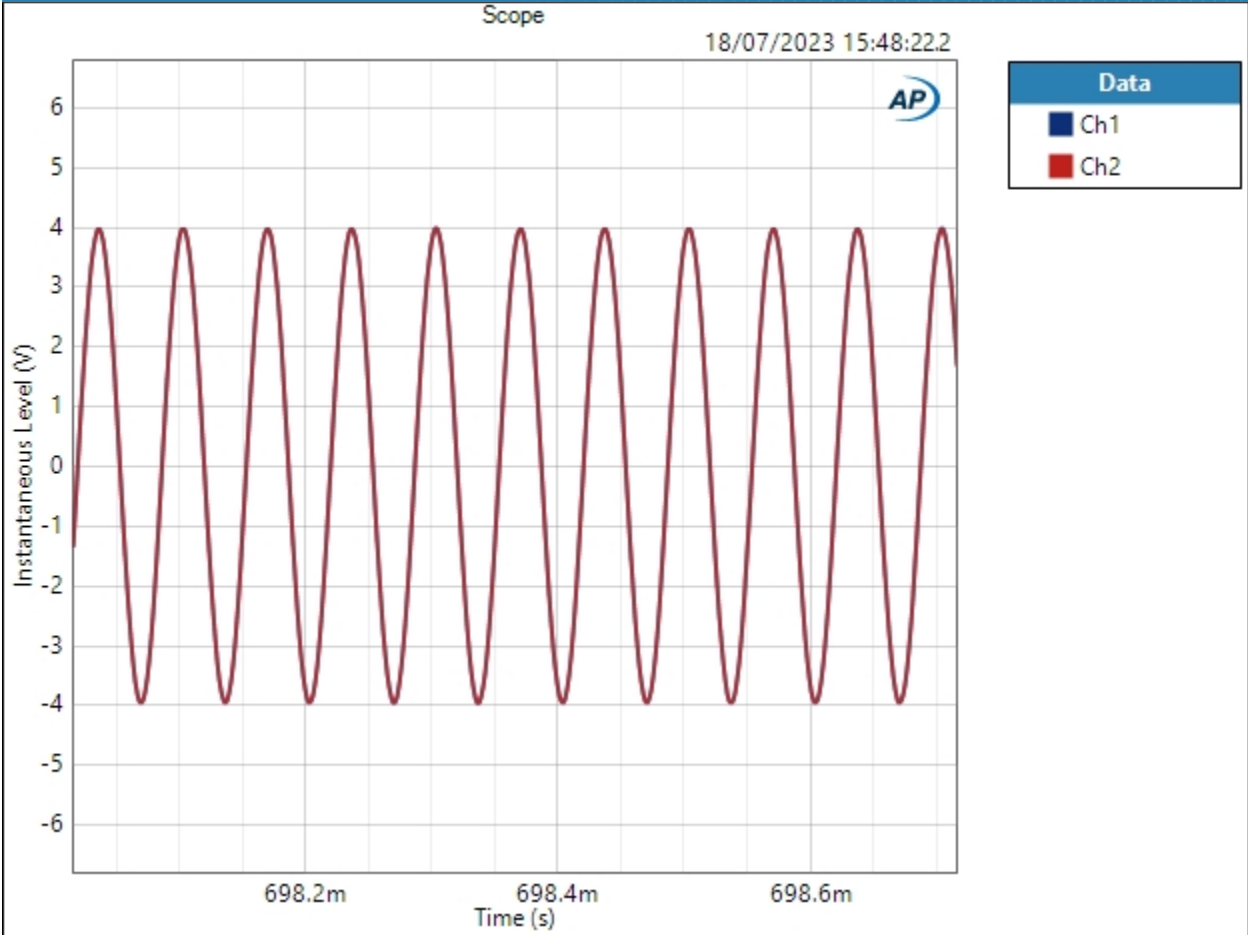
### SIG 1 - Scope Views (44.1kHz) : 15kHz Tone View

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 15.0000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 15:48:22  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 1  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:48:22.209)



# Sequence Report



### Scope Parameters

Interpolated: On

Result: PASSED





## Sequence Report



SIG 1 - Scope Views (44.1kHz) : -90.31dBFS 1kHz 16 bit undithered sine (96kHz Bandwidth)

Waveform: 1kHz -90.31dB undithered 16b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:48:28

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

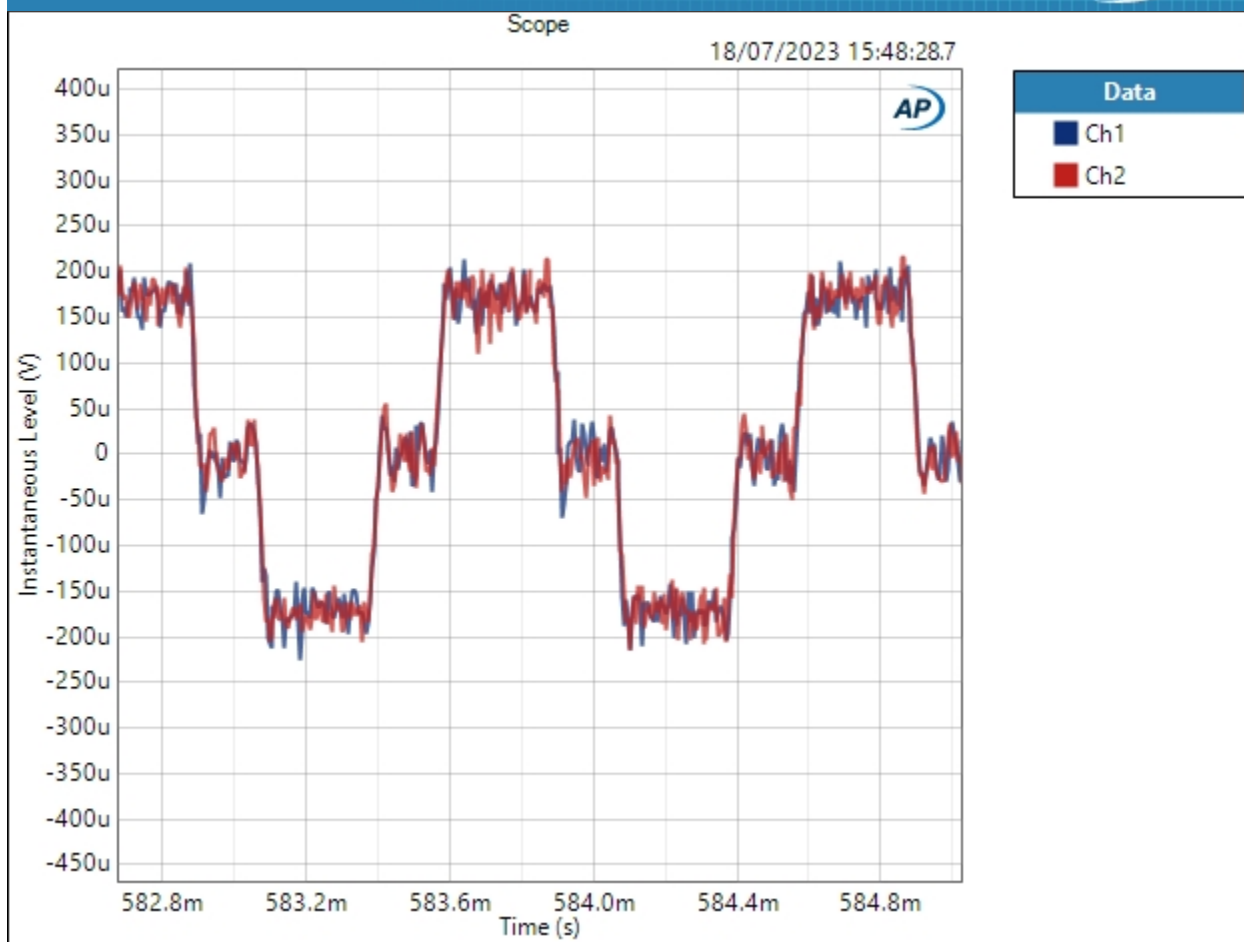
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:48:28.711)



## Sequence Report



Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 1 - Scope Views (44.1kHz) : -90.31dBFS 1kHz 16 bit dithered sine (96kHz Bandwidth)

Waveform: 1kHz -90.31dB dithered 16b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:48:35

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

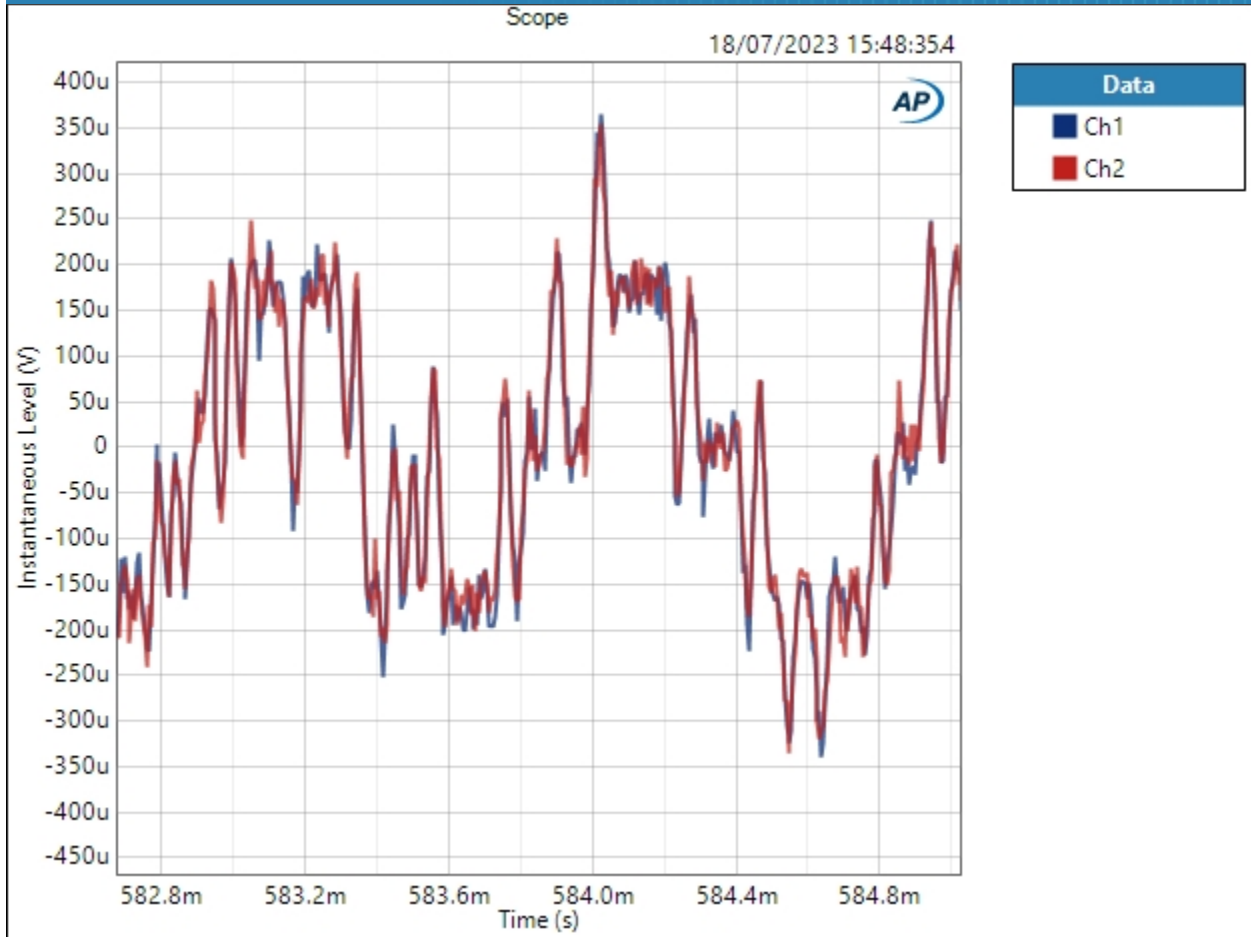
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:48:35.403)



## Sequence Report



Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 1 - Scope Views (44.1kHz) : -90.31dBFS 1kHz 24 bit undithered sine (96kHz Bandwidth)

Waveform: 1kHz -90.31dB undithered 24b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:48:42

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

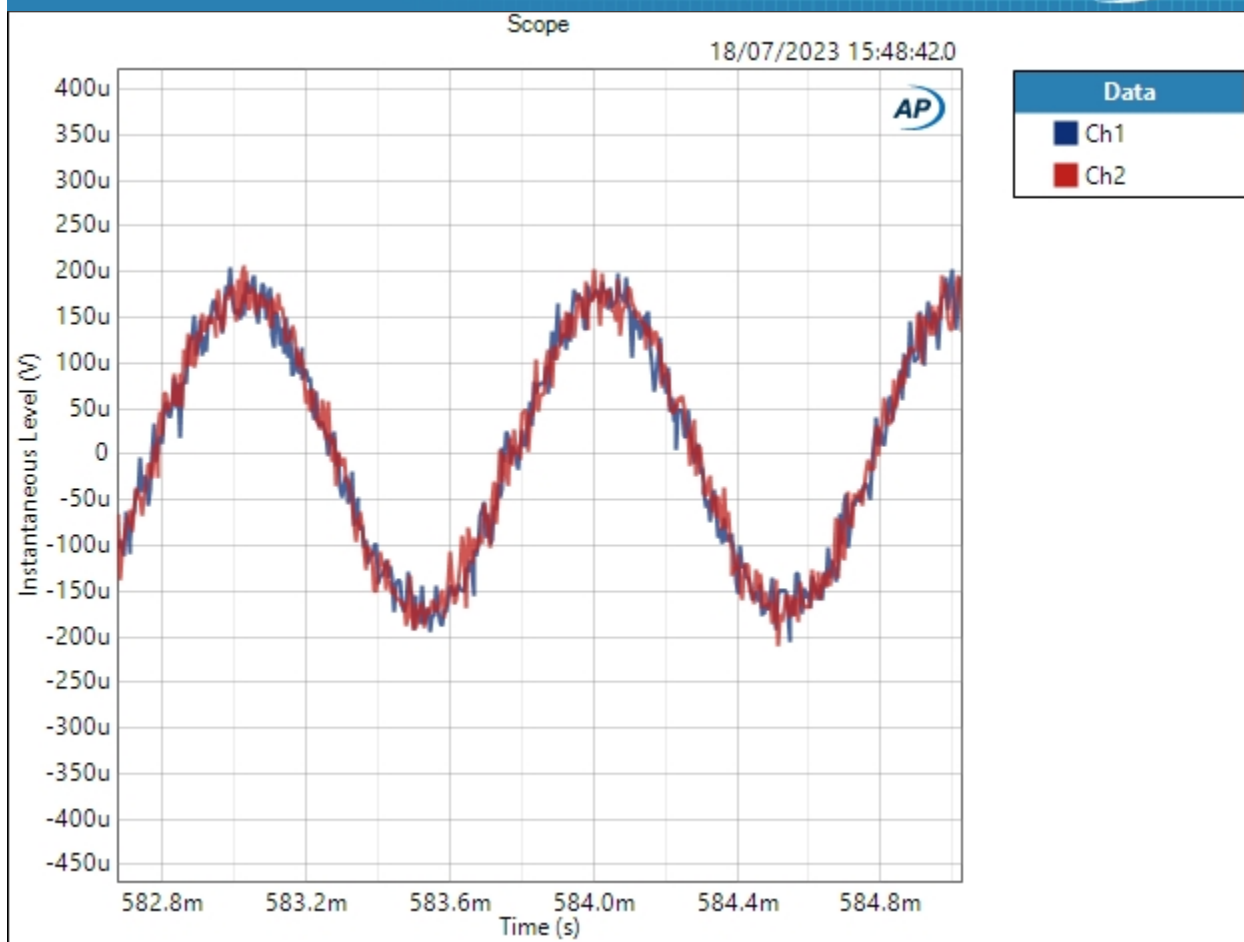
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:48:42.042)



## Sequence Report



Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 1 - Scope Views (44.1kHz) : -90.31dBFS 1kHz 24 bit dithered sine (96kHz Bandwidth)

Waveform: 1kHz -90.31dB dithered 24b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:48:48

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

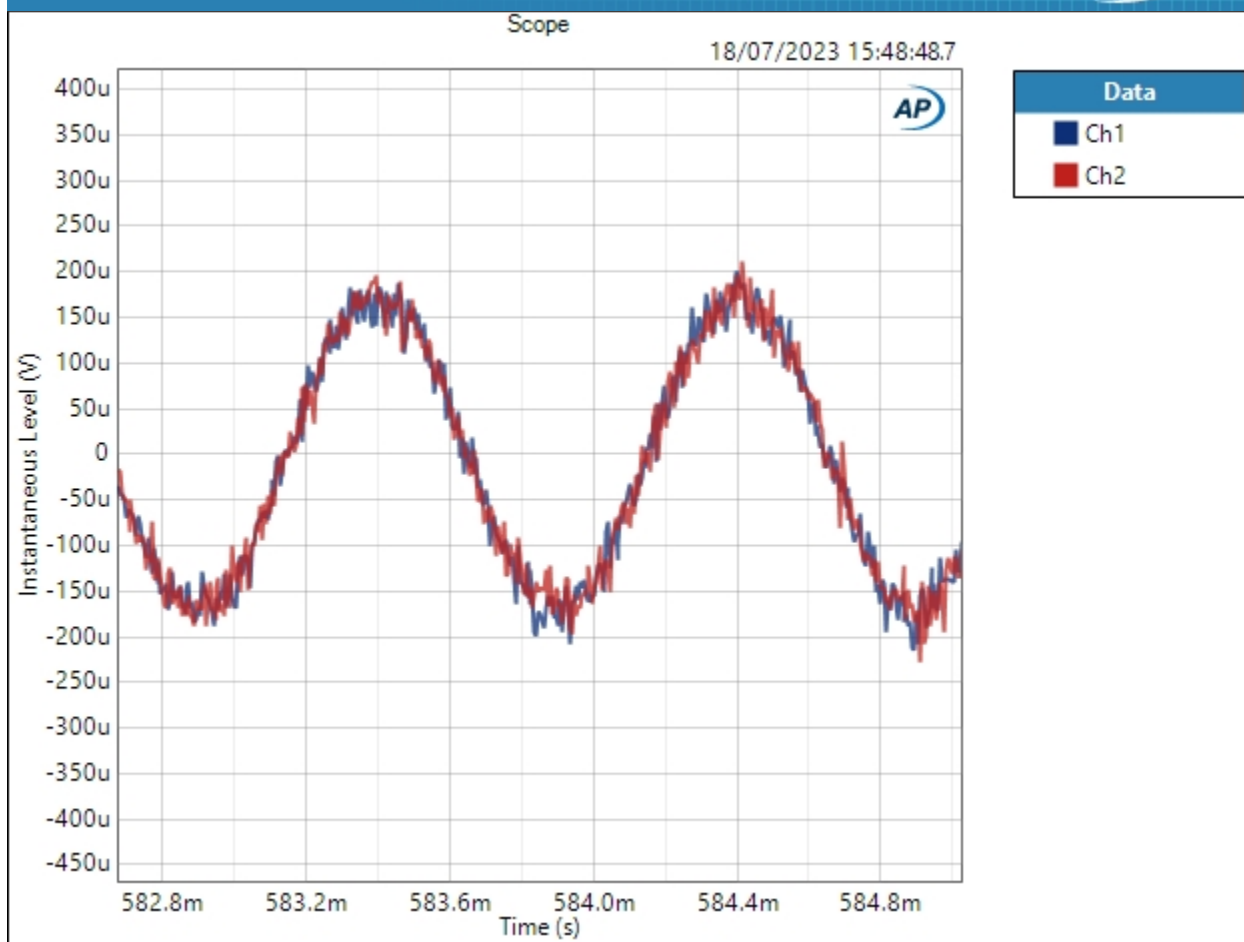
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:48:48.711)



## Sequence Report



Scope Parameters

Interpolated: On

Result: PASSED





## Sequence Report



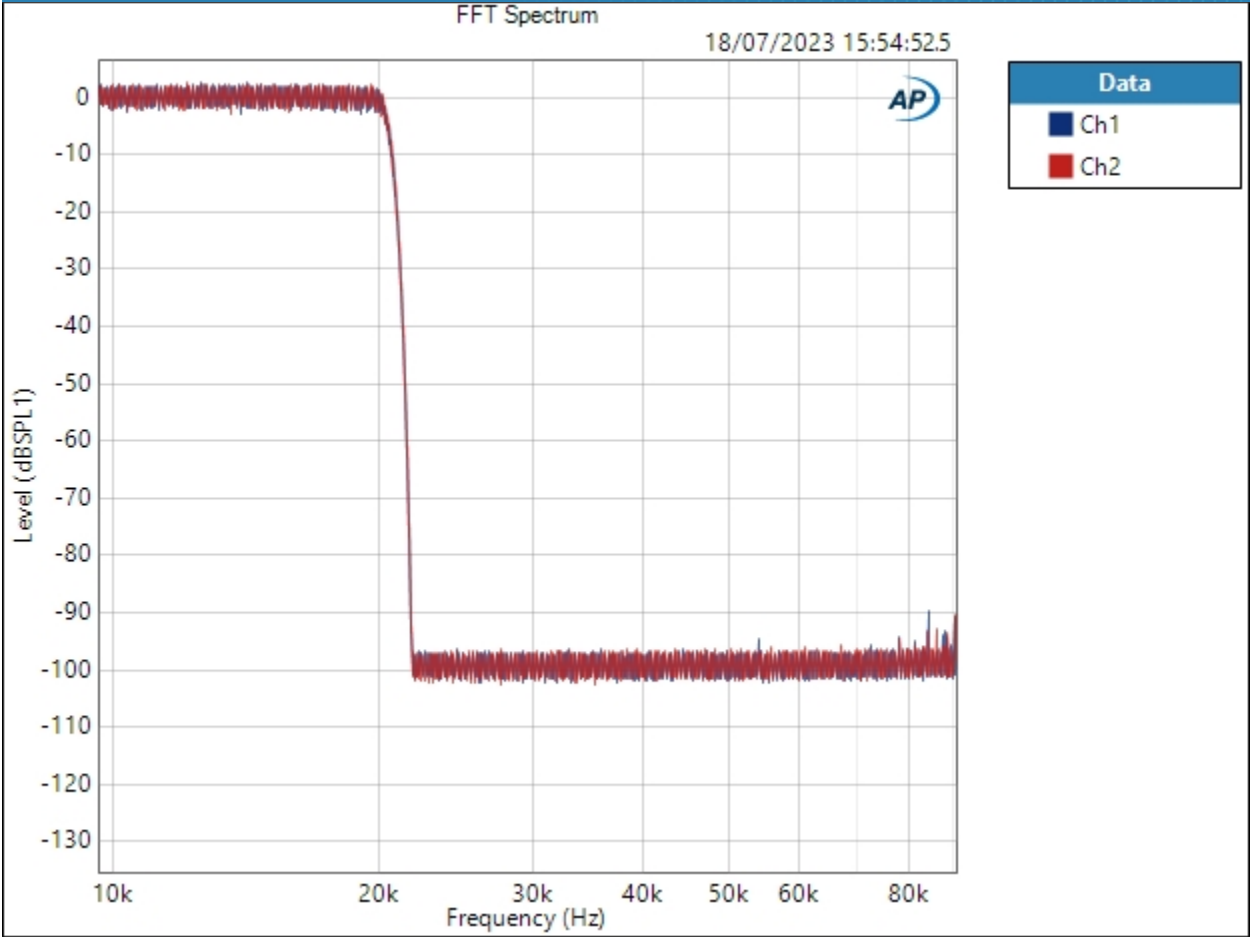
### SIG 1 - Scope Views (44.1khz) : Filter Ultrasonic Attenuation

Waveform: Noise  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Noise Shape: White  
Secondary Source: None  
Measured 1: 18/07/2023 15:54:52  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 1248000  
Averaging: Power  
Averages: 50  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 15:54:52.507)



# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



SIG 1 - Scope Views (44.1kHz) : 20hz-90kHz Noise RMS Level

Waveform:	None
High-pass Filter:	Elliptic
High-pass Frequency:	20 Hz
Low-pass Filter:	Signal Path
Weighting Filter:	Signal Path
Acquisition Time:	250.0 ms
Delay Time:	300.0 ms

Noise Level (18/07/2023 15:54:54.131)

Ch1 17.17 uVrms

Ch2 17.21 uVrms



## Sequence Report



### SIG 1.5 - Scope Views (44.1kHz) : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
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) - 1M (2.496 MHz SR)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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



## Sequence Report



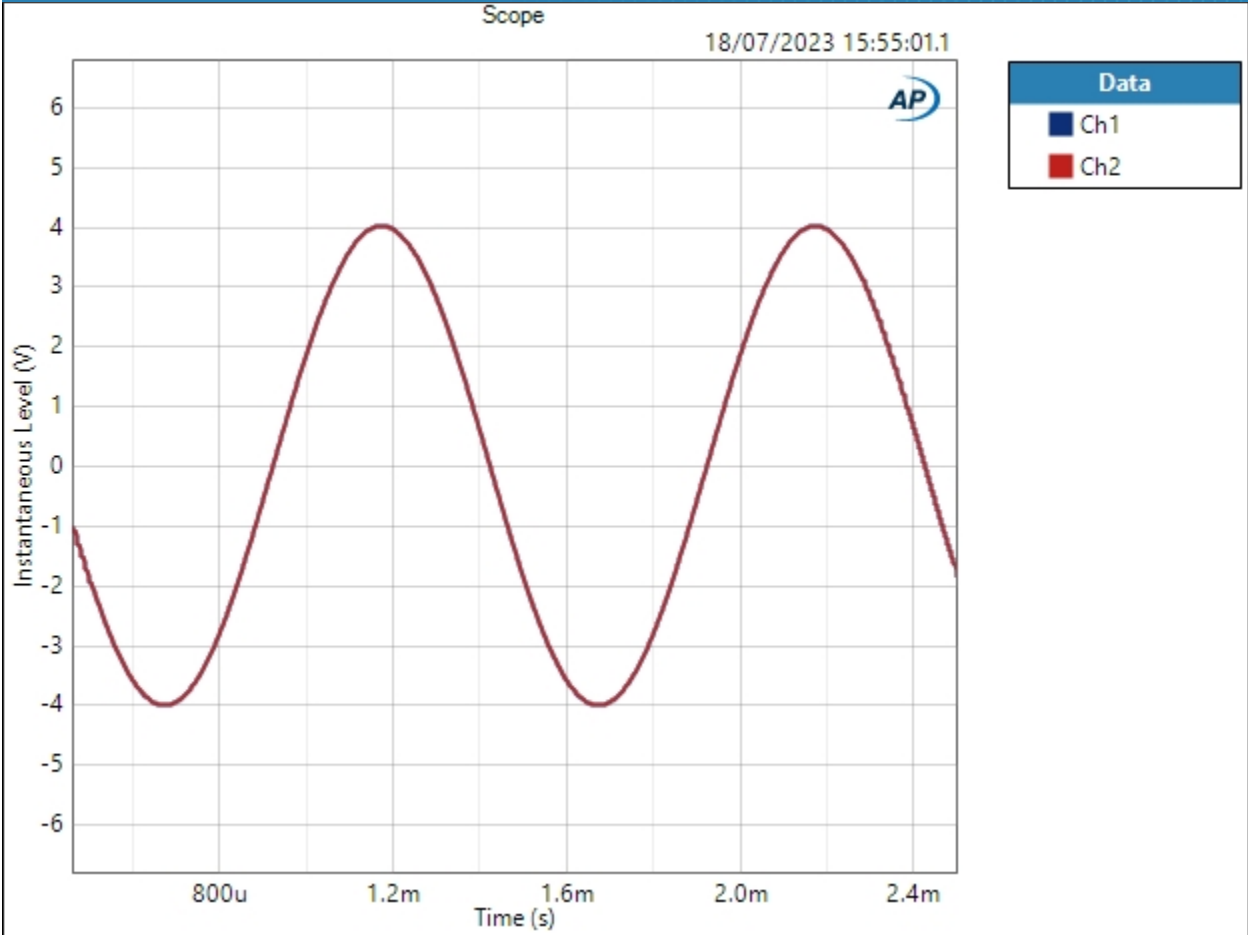
SIG 1.5 - Scope Views (44.1kHz) : 1kHz Tone View

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 15:55:01  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 1  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:55:01.122)



# Sequence Report



### Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



### SIG 1.5 - Scope Views (44.1kHz) : 15kHz Tone View

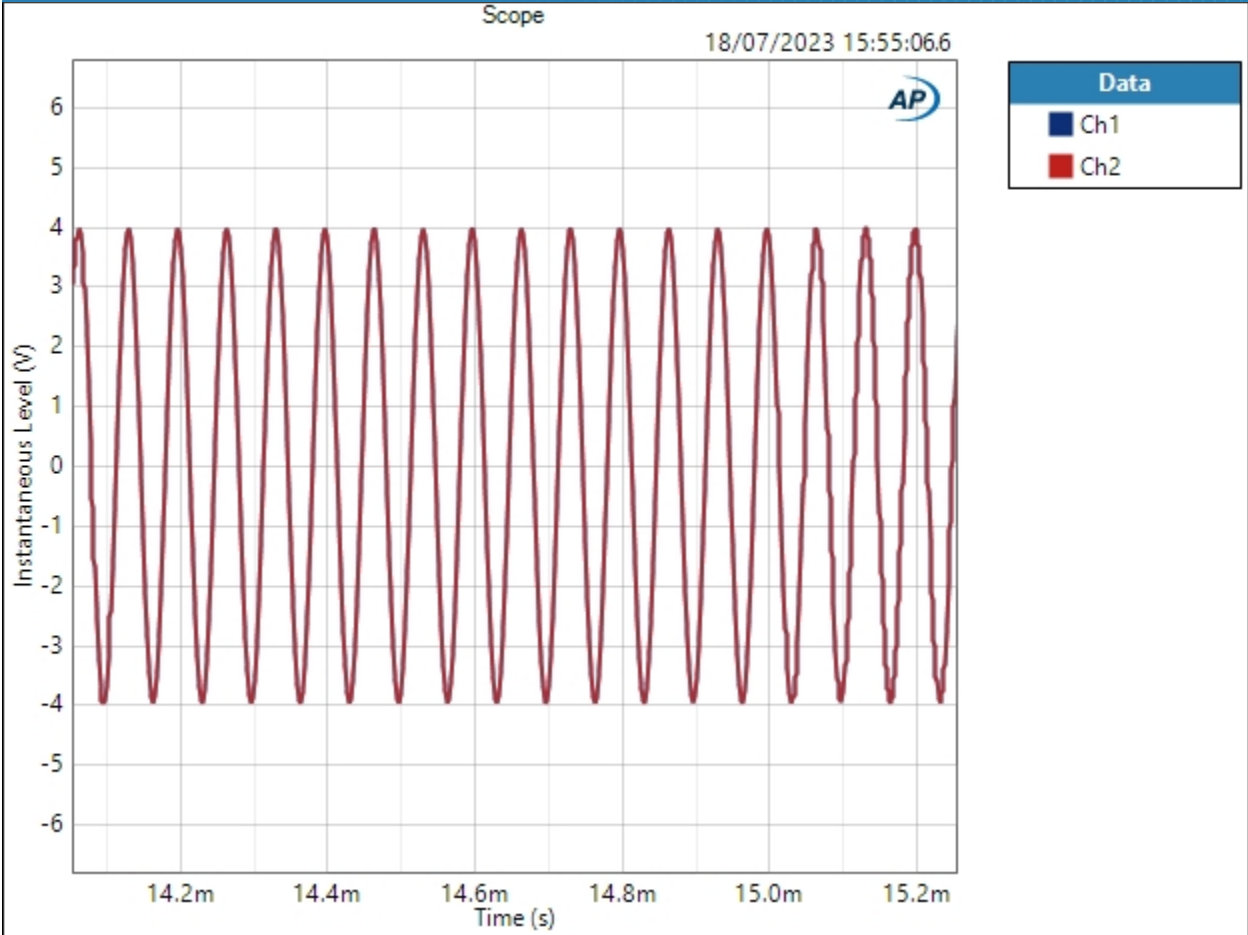
Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 15.0000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 15:55:06  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 1  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:55:06.648)





# Sequence Report



### Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 1.5 - Scope Views (44.1kHz) : -90.31dBFS 1kHz undithered 16b sine (1Mhz bandwidth)

Waveform: 1kHz -90.31dB undithered 16b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:55:12

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

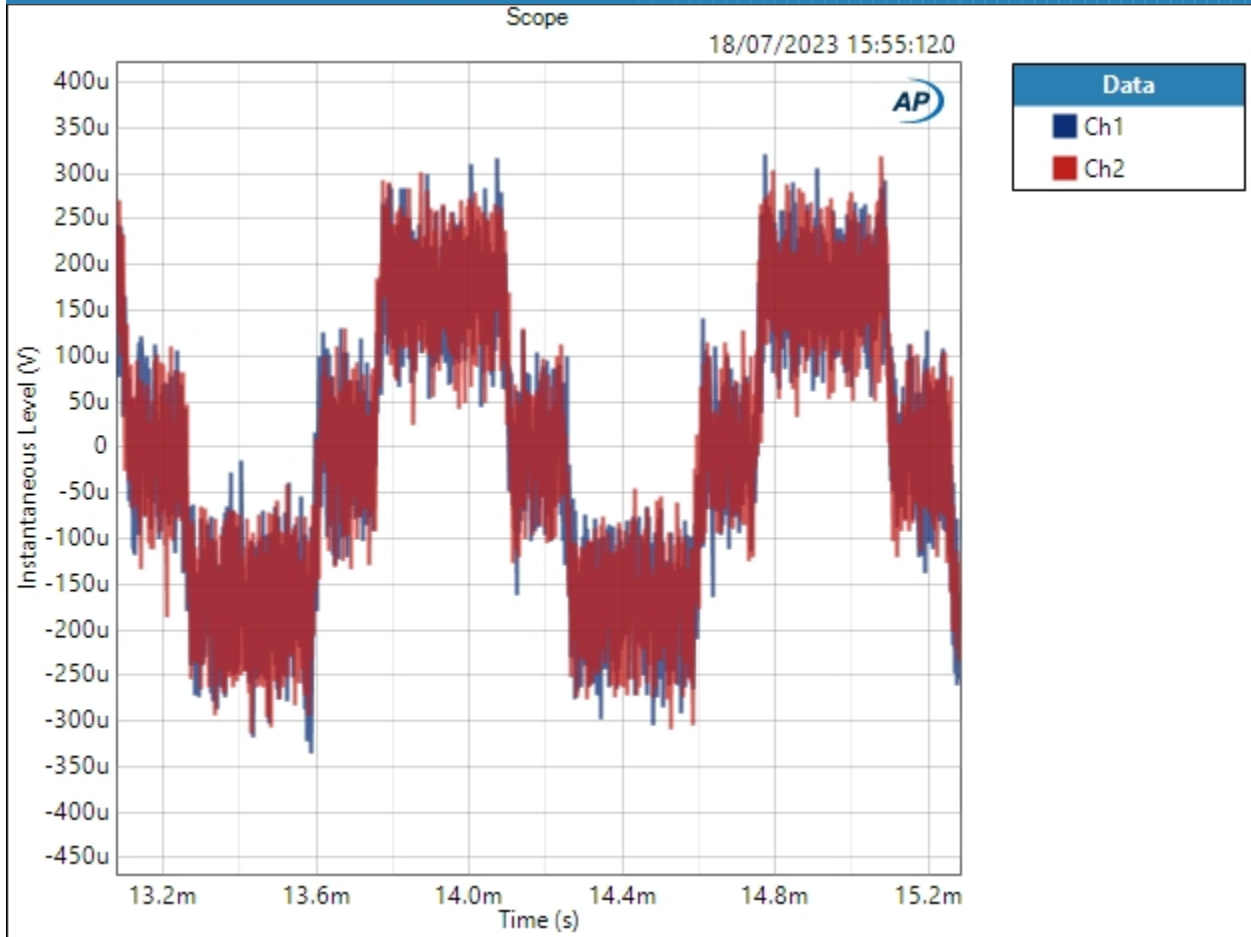
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:55:12.069)



## Sequence Report



Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 1.5 - Scope Views (44.1kHz) : -90.31dBFS 1kHz dithered 16b sine (1Mhz bandwidth)

Waveform: 1kHz -90.31dB dithered 16b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:55:17

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

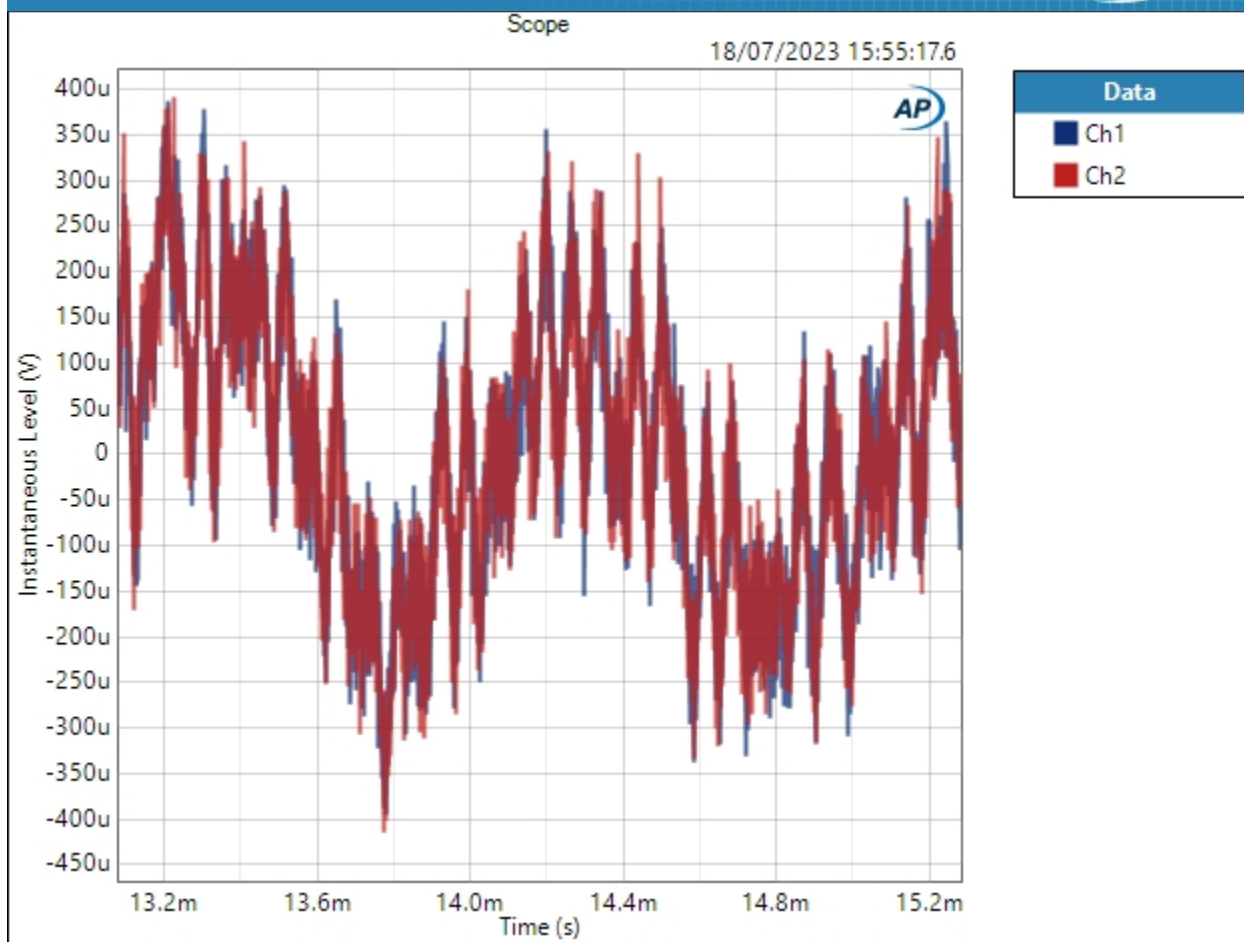
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:55:17.651)



## Sequence Report



Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 1.5 - Scope Views (44.1kHz) : -90.31dBFS 1kHz undithered 24b sine (1Mhz bandwidth)

Waveform: 1kHz -90.31dB undithered 24b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:55:24

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

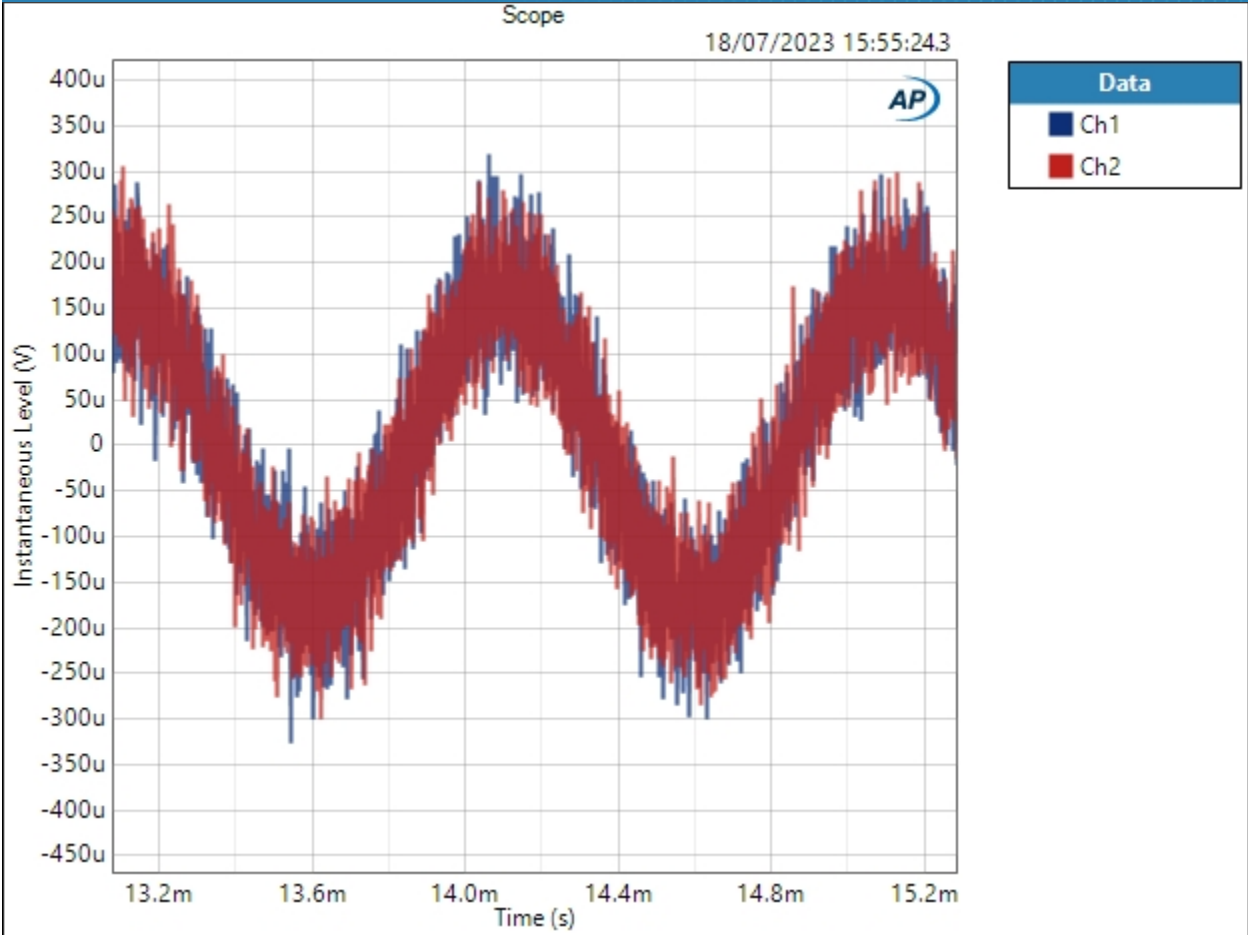
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:55:24.330)



# Sequence Report AP



Scope Parameters

Interpolated: On

Result: ✔ PASSED



## Sequence Report



SIG 1.5 - Scope Views (44.1kHz) : -90.31dBFS 1kHz dithered 24b sine (1Mhz bandwidth)

Waveform: 1kHz -90.31dB dithered 24b sine.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 15:55:31

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 250.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 262144

Averaging: Power

Averages: 1

Window: AP-Equiripple

Record Acquisition: False

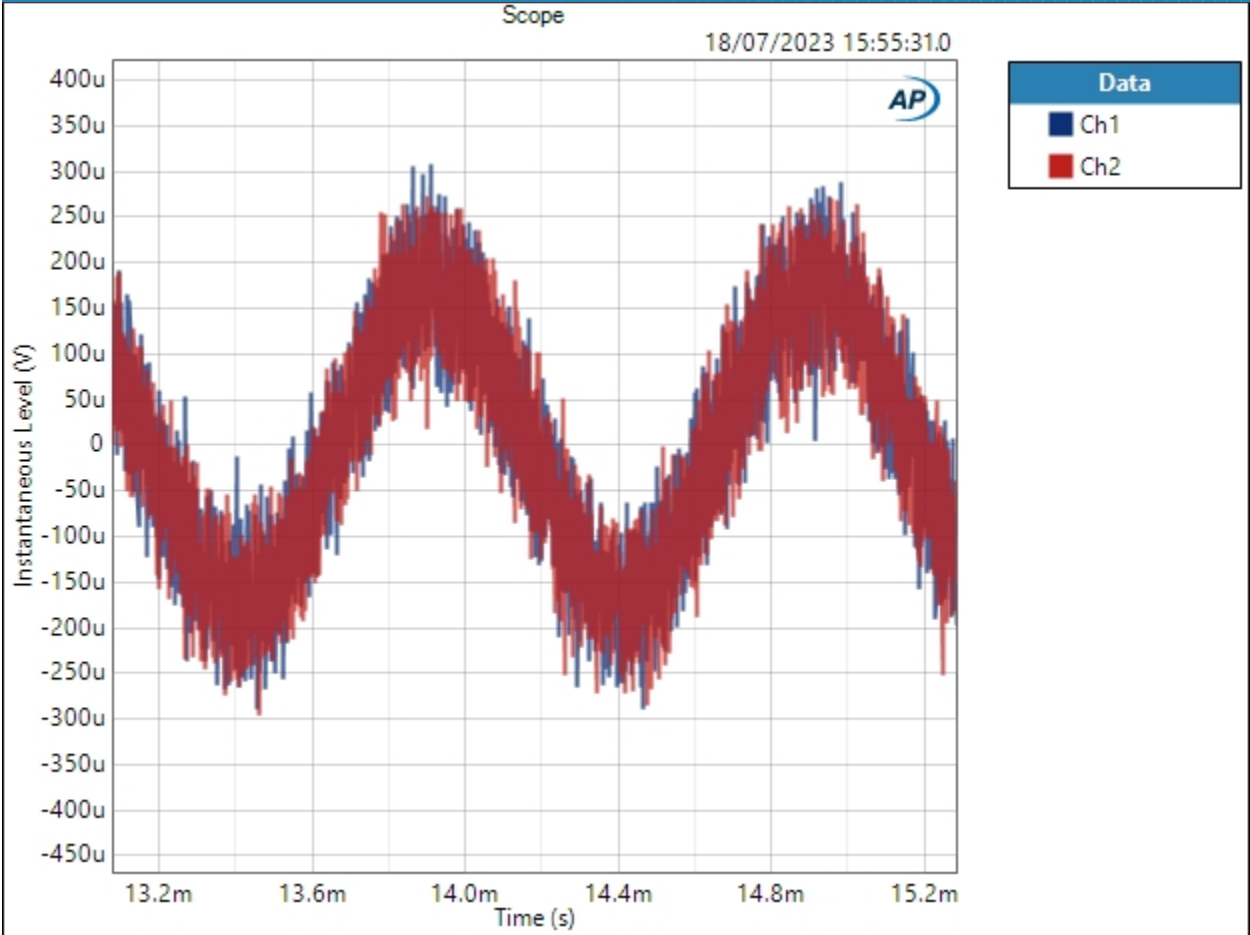
Recording Type: Multiple Mono PCM (.wav)

Scope (18/07/2023 15:55:31.064)





# Sequence Report AP



Scope Parameters

Interpolated: On

Result: ✔ PASSED



## Sequence Report



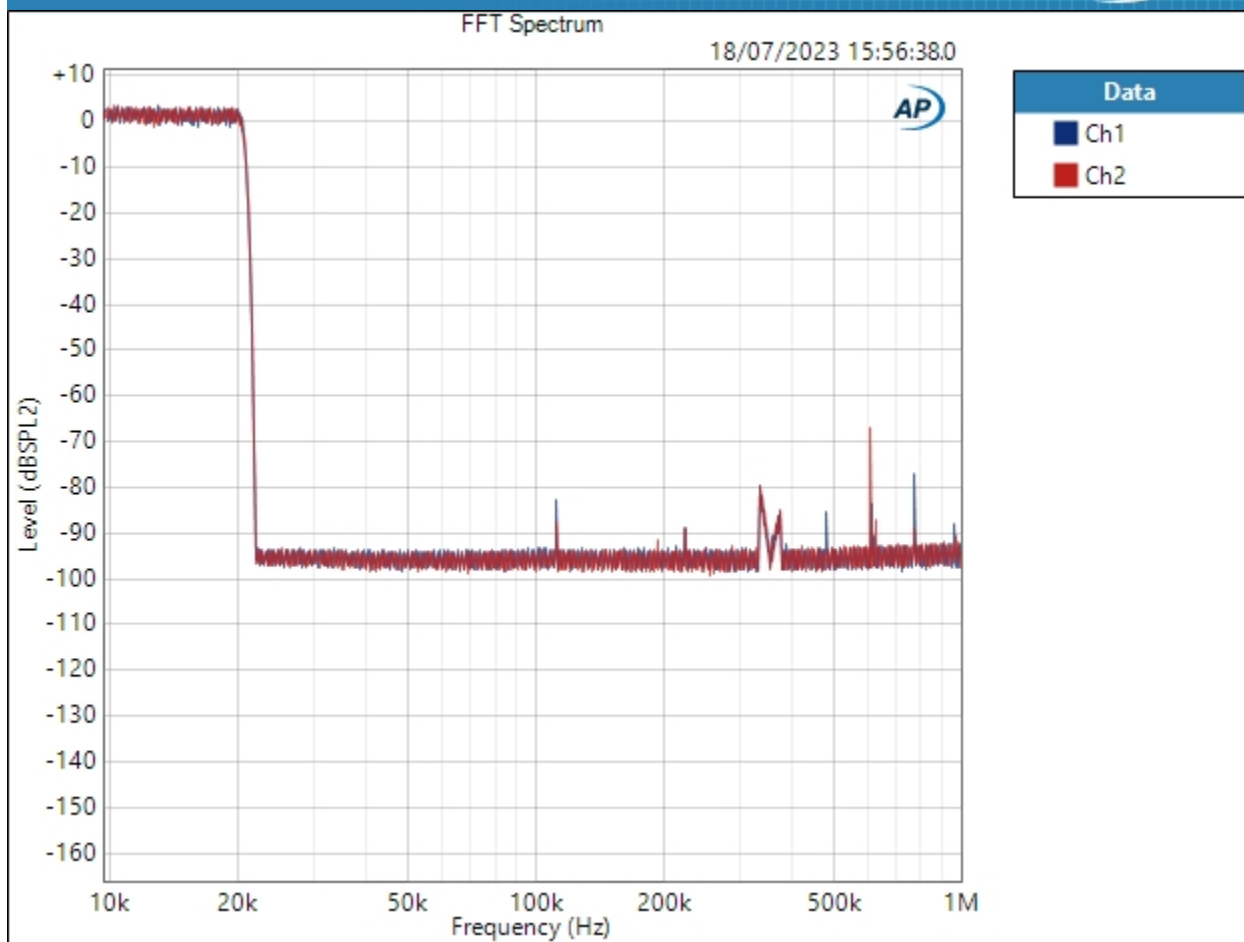
SIG 1.5 - Scope Views (44.1kHz) : Filter Ultrasonic Attenuation

Waveform: Noise  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Noise Shape: White  
Secondary Source: None  
Measured 1: 18/07/2023 15:56:38  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 1248000  
Averaging: Power  
Averages: 50  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 15:56:38.032)

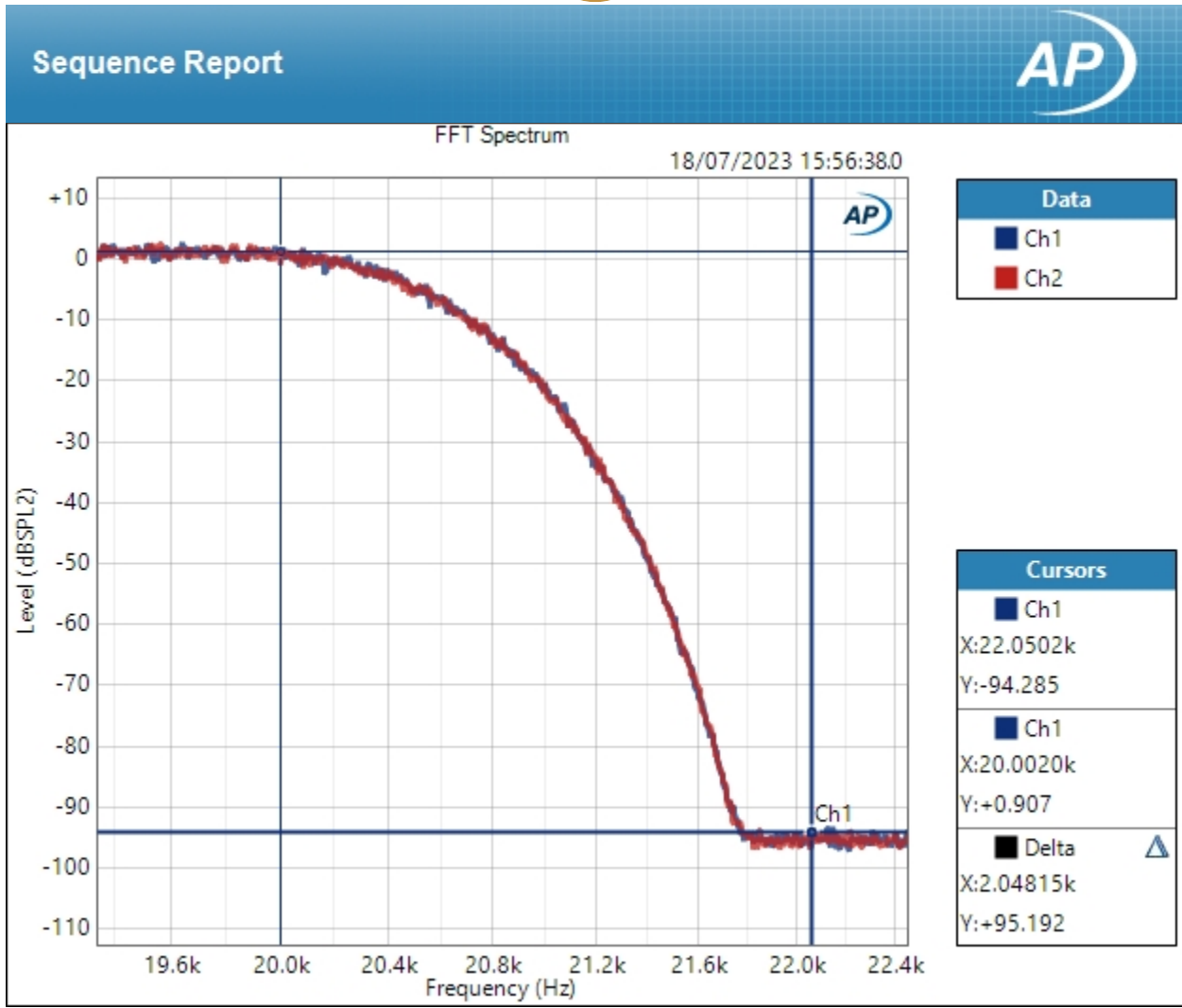


## Sequence Report



Result: PASSED

FFT Spectrum (18/07/2023 15:56:38.032)



Result: PASSED



## Sequence Report



SIG 1.5 - Scope Views (44.1kHz) : 1Mhz RMS Noise Level

Waveform:	None
High-pass Filter:	Elliptic
High-pass Frequency:	20 Hz
Low-pass Filter:	Signal Path
Weighting Filter:	Signal Path
Acquisition Time:	250.0 ms
Delay Time:	300.0 ms

Noise Level (18/07/2023 15:56:41.079)

Ch1 44.17 uVrms

Ch2 43.96 uVrms



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
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) - AES17 (20 kHz)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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

### SIG 2 - Main Measurements (44.1khz) : Output Level (Vrms)

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

### RMS Level (18/07/2023 15:56:45.938)

Ch1	3.995 Vrms
Ch2	3.991 Vrms



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### SIG 2 - Main Measurements (44.1kHz) : Frequency Response (Audible Band)

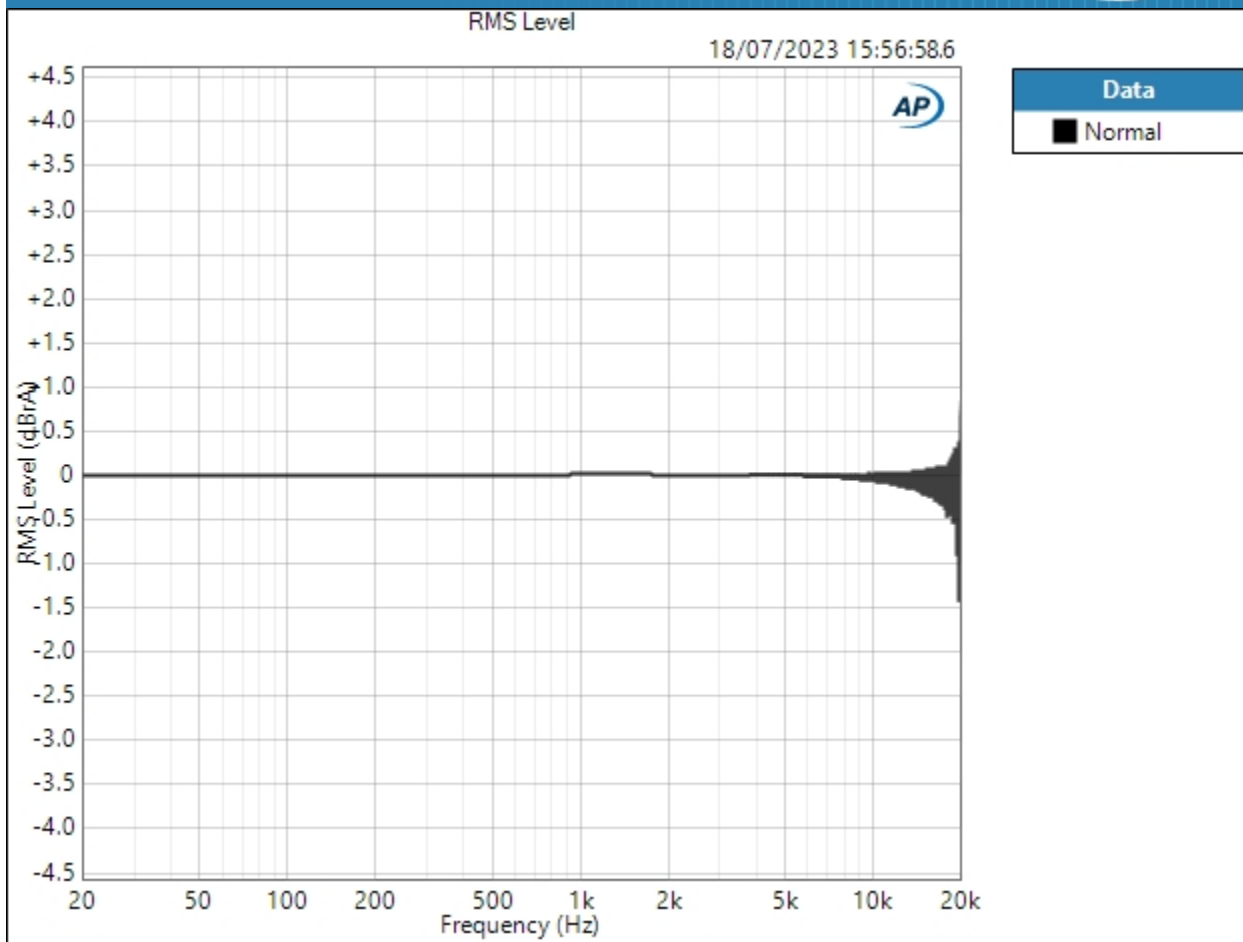
Start Frequency:	20.0000 Hz
Stop Frequency:	22.0500 kHz
Generator Level:	-0.000 dBFS
DC Offset:	0.000 D
EQ:	None
Pre-Sweep:	50.00 ms
Sweep:	5.000 s
Extend Acquisition By:	50.00 ms
Secondary Source:	None
Measured 1	18/07/2023 15:56:58

RMS Level (18/07/2023 15:56:58.652)





# Sequence Report



Result: PASSED

Deviation (20.0000 Hz - 4.00000 kHz) (18/07/2023 15:56:58.652)

Ch1  $\pm 0.005$  dB

Ch2  $\pm 0.005$  dB

Deviation (20.0000 Hz - 4.00000 kHz) Parameters

Min: 20.0000 Hz

Max: 4.00000 kHz

7/18/2023 4:19 PM



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : 20hz-20khz Noise RMS Level

Waveform:	None
High-pass Filter:	Elliptic
High-pass Frequency:	20 Hz
Low-pass Filter:	Elliptic
Low-pass Frequency:	20 kHz
Weighting Filter:	Signal Path
Acquisition Time:	250.0 ms
Delay Time:	300.0 ms

### Noise Level (18/07/2023 15:57:02.757)

Ch1 8.190 uVrms  
Ch2 8.116 uVrms



## Sequence Report



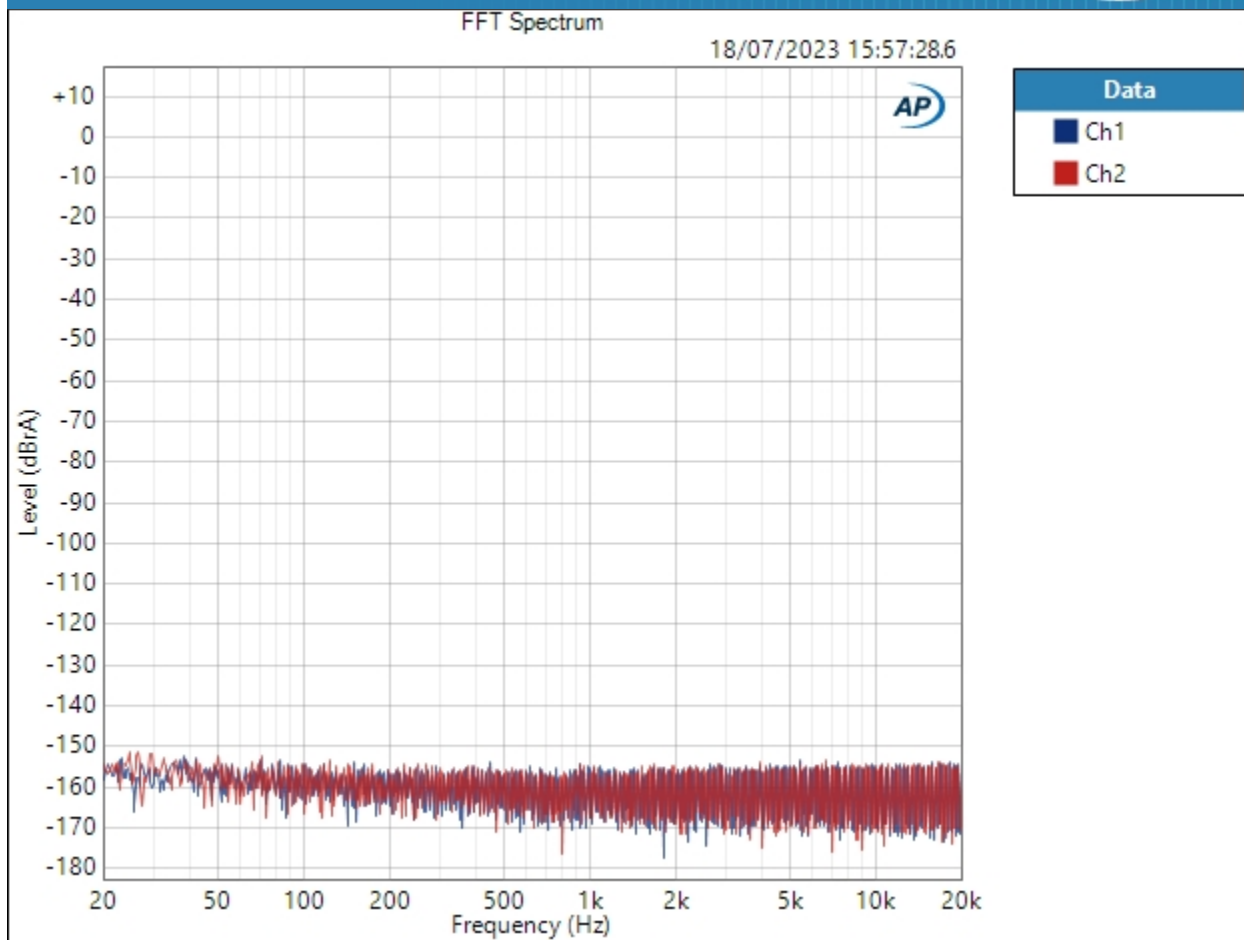
### SIG 2 - Main Measurements (44.1kHz) : Idle Noise FFT

Waveform: Sine  
Generator Level:  $-\infty$  dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1: 18/07/2023 15:57:28  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 15:57:28.697)



## Sequence Report



Result: PASSED



## Sequence Report



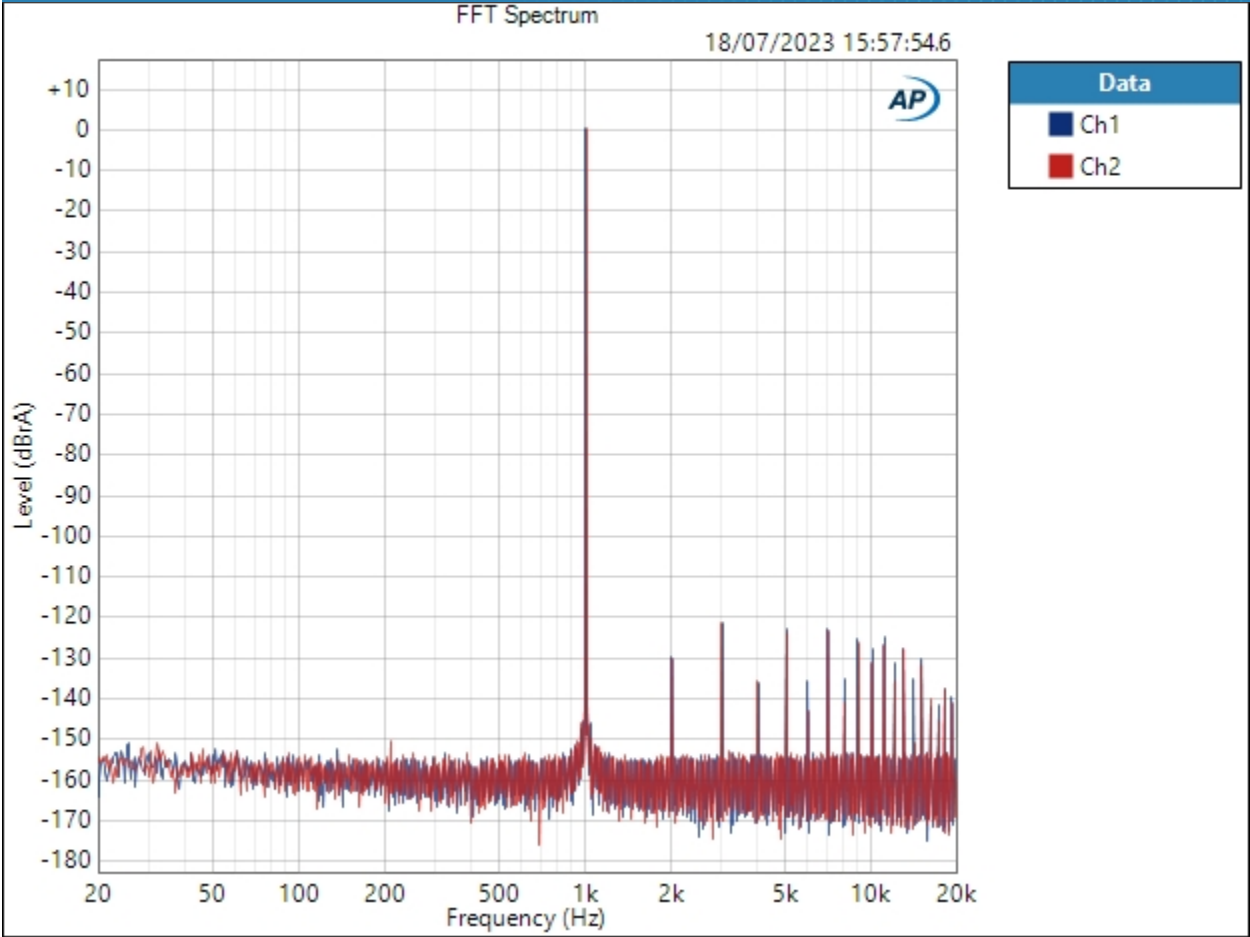
### SIG 2 - Main Measurements (44.1kHz) : 1kHz FFT (0dbfs)

Waveform: Sine  
Generator Level: -0.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 15:57:54  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 15:57:54.652)



# Sequence Report



Result: PASSED



## Sequence Report



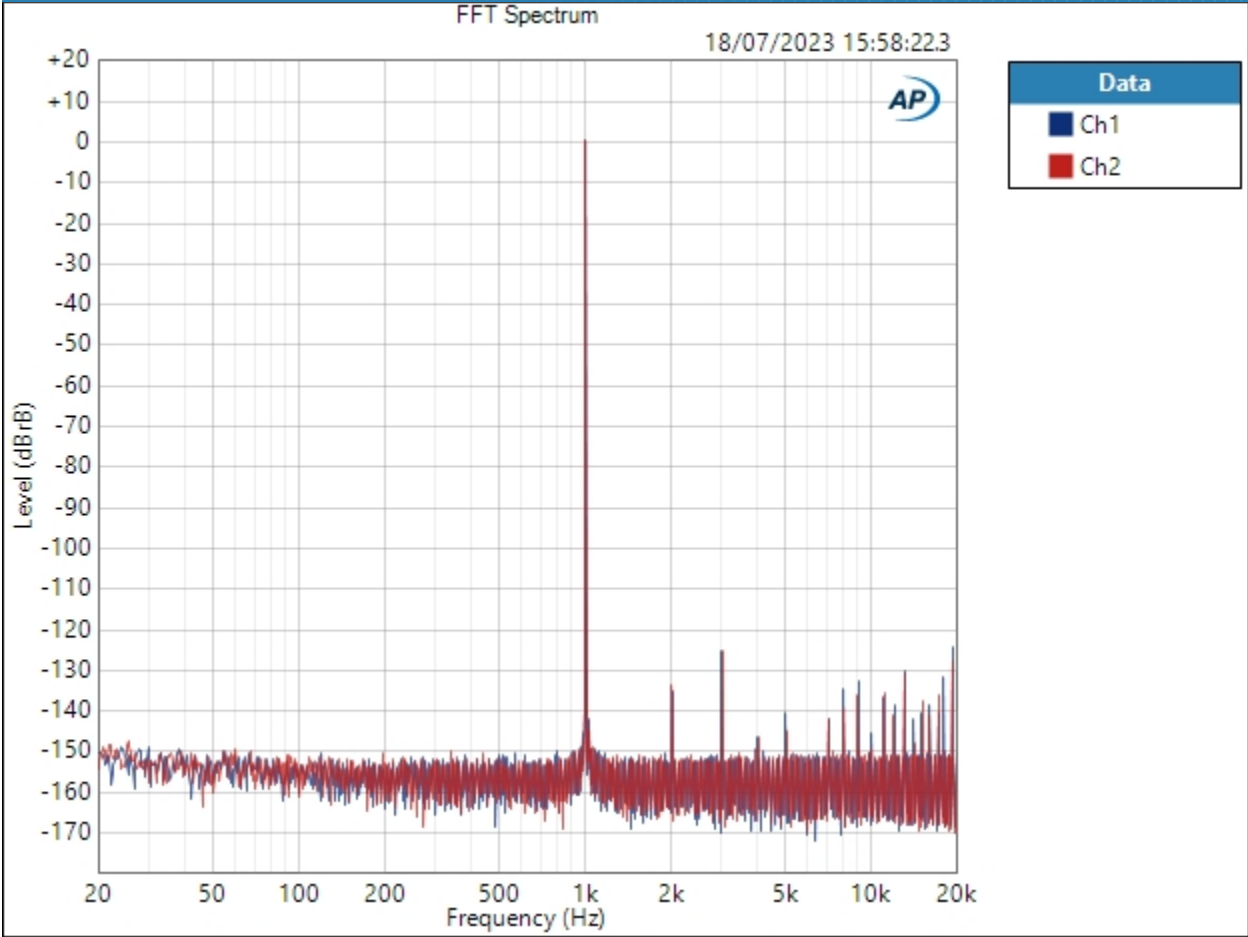
### SIG 2 - Main Measurements (44.1kHz) : 1kHz FFT (-3dbfs)

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 15:58:22  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

### FFT Spectrum (18/07/2023 15:58:22.318)



# Sequence Report



Result: PASSED





## Sequence Report



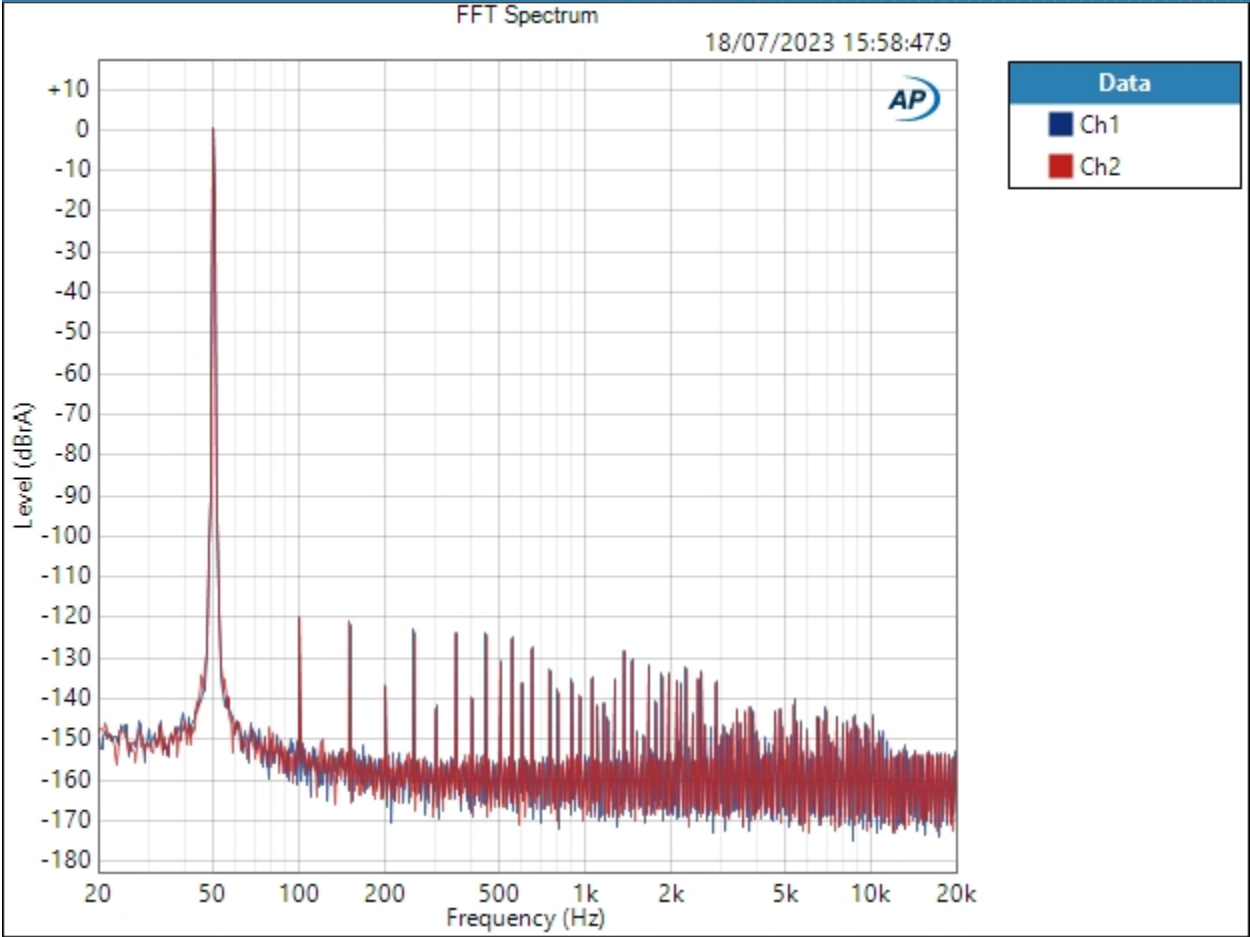
### SIG 2 - Main Measurements (44.1khz) : 50khz FFT (0dbfs)

Waveform: Sine  
Generator Level: -0.000 dBFS  
DC Offset: 0.000 D  
Frequency: 50.0000 Hz  
Secondary Source: None  
Measured 1 18/07/2023 15:58:47  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 15:58:47.921)



# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



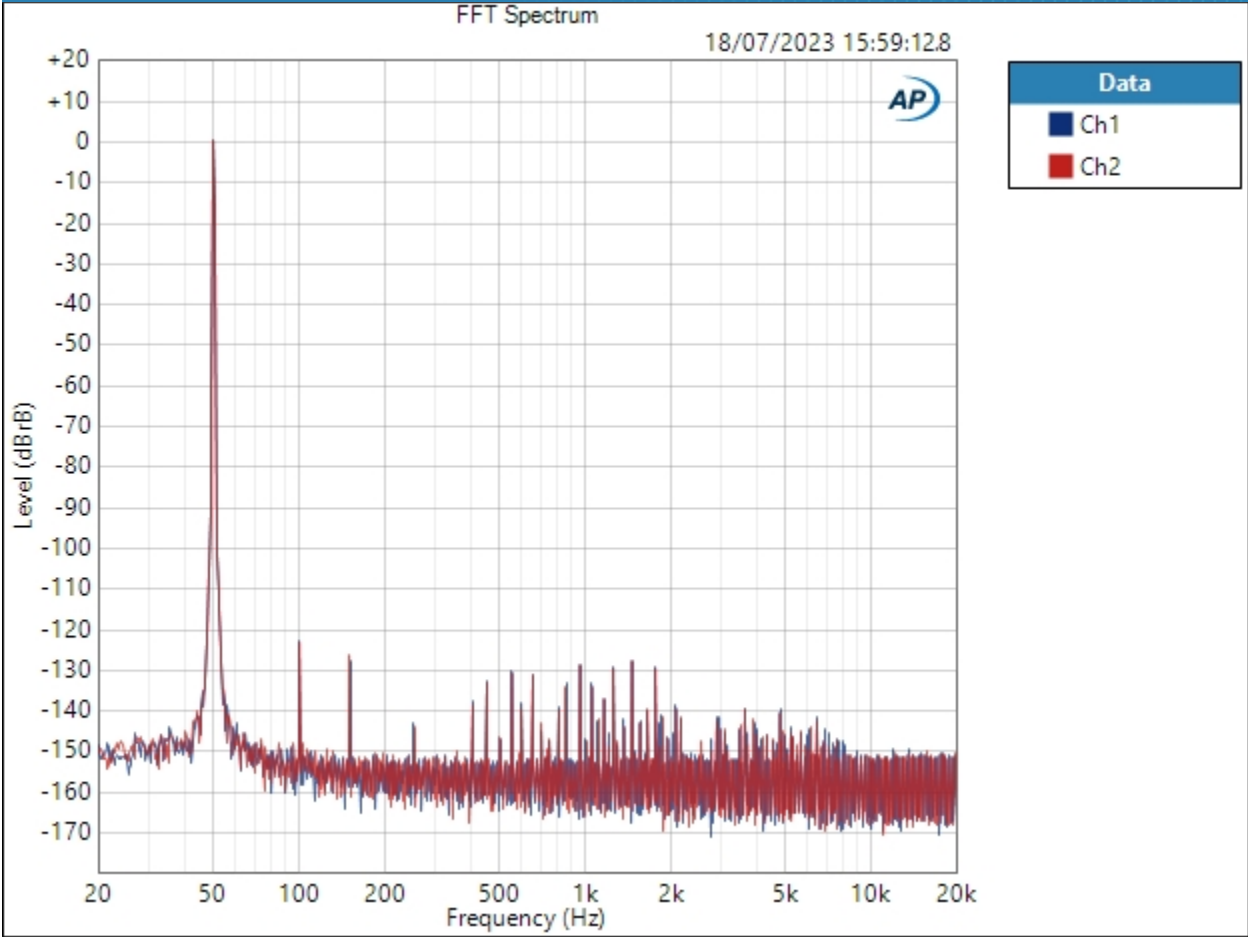
### SIG 2 - Main Measurements (44.1kHz) : 50hz FFT (-3dbfs)

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 50.0000 Hz  
Secondary Source: None  
Measured 1 18/07/2023 15:59:12  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

### FFT Spectrum (18/07/2023 15:59:12.862)



# Sequence Report



Result: PASSED



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : Effective Number of Bits 0dbfs

Waveform: Sine (1 kHz)  
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

ENOB (18/07/2023 15:59:17.154)

Ch1 18.1  
Ch2 18.2

### SIG 2 - Main Measurements (44.1kHz) : Effective Number of Bits -3dbfs

Waveform: Sine (1 kHz)  
Generator Level: -3.000 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

ENOB (18/07/2023 15:59:19.573)

Ch1 18.0  
Ch2 18.0



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : THD+N 0dbfs

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 (18/07/2023 15:59:22.311)

Ch1 0.000281 %  
 Ch2 0.000270 %

#### THD+N Level (18/07/2023 15:59:22.311)

Ch1 -111.017 dBrA  
 Ch2 -111.377 dBrA

#### Noise Level (18/07/2023 15:59:22.311)

Ch1 8.394 uVrms  
 Ch2 8.484 uVrms

#### Distortion Product Ratio (18/07/2023 15:59:22.311)

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	-128.03	-121.09	-136.63	-122.46	-133.28	-122.33	-133.68	-123.96	-127.24
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-128.83	-121.48	-134.23	-122.69	-138.49	-123.72	-140.84	-127.02	-132.76

#### Distortion Product Ratio Parameters

Frequency Unit: Hz  
 Ratio Unit: dB  
 Channel: Ch1



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : THD+N -3dbfs

Waveform: Sine  
 Generator Level: -3.000 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 (18/07/2023 15:59:24.839)

Ch1 0.000316 %  
 Ch2 0.000314 %

#### THD+N Level (18/07/2023 15:59:24.839)

Ch1 -109.988 dBBrB  
 Ch2 -110.075 dBBrB

#### Noise Level (18/07/2023 15:59:24.839)

Ch1 8.302 uVrms  
 Ch2 8.456 uVrms

#### Distortion Product Ratio (18/07/2023 15:59:24.839)

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	-132.61	-124.56	-137.43	-138.54	-137.55	-136.09	-134.75	-131.88	-137.77
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-134.82	-124.23	-138.00	-141.04	-139.93	-139.10	-137.32	-137.47	-142.03

#### Distortion Product Ratio Parameters

Frequency Unit: Hz  
 Ratio Unit: dB  
 Channel: Ch1



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : THD+N/Frequency

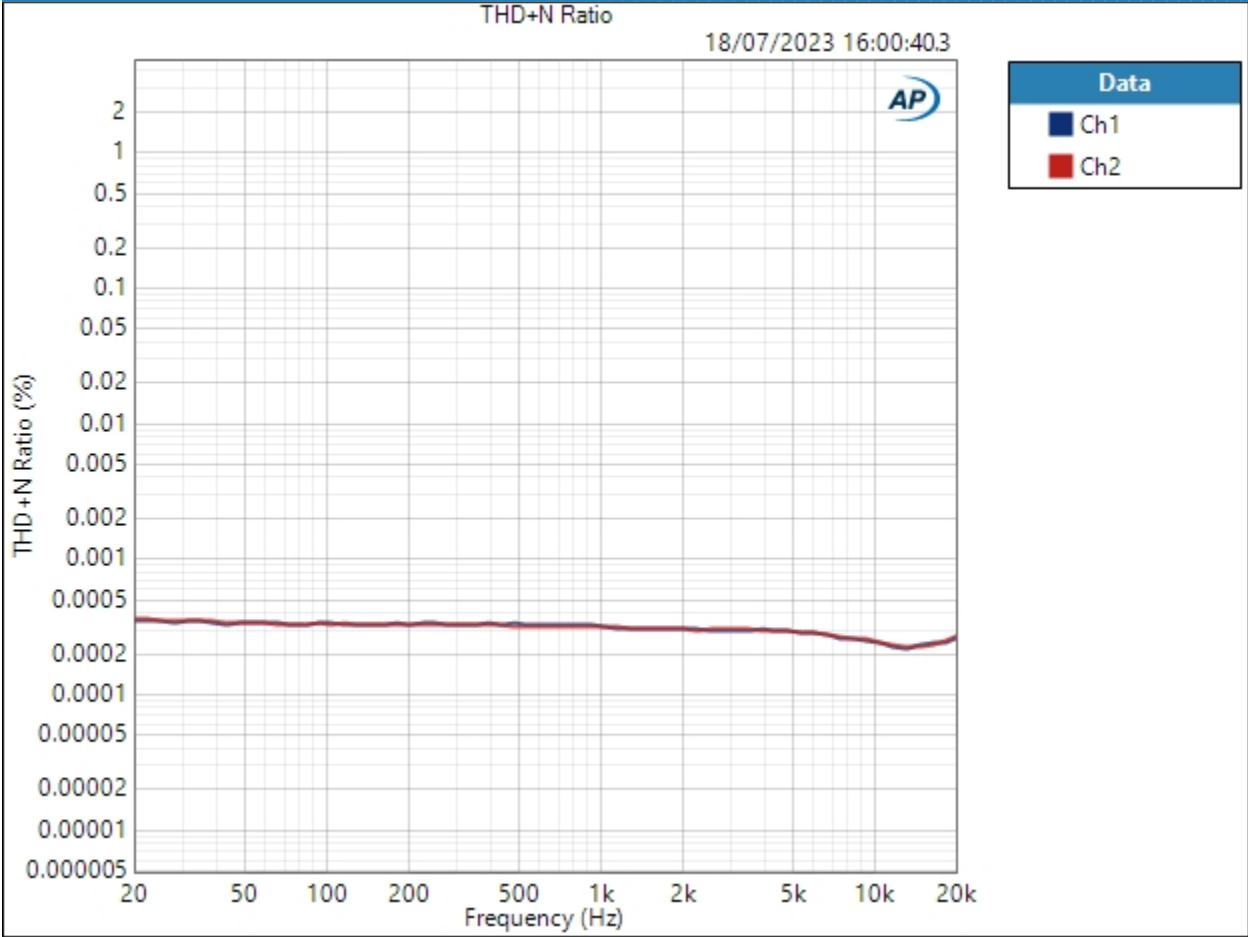
Waveform:	Sine
Generator Level:	-3.000 dBFS
DC Offset:	0.000 D
EQ:	None
Start Frequency:	20.0000 kHz
Stop Frequency:	20.0000 Hz
Step Type:	Logarithmic
Number of Points:	64
High-pass Filter:	Elliptic
High-pass Frequency:	20 Hz
Low-pass Filter:	Signal Path
Weighting Filter:	Signal Path
Phase Ref Channel:	Ch1
Measured 1	18/07/2023 16:00:40

THD+N Ratio (18/07/2023 16:00:40.324)





# Sequence Report



Result: ✔ PASSED



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : Dynamic Range - AES17

Waveform: Sine  
Generator Level: -0.000 dBFS  
DC Offset: 0.000 D  
Frequency: 0.99700 kHz  
Level Ratio: -60.000 dB  
High-pass Filter: Signal Path  
Low-pass Filter: Elliptic  
Low-pass Frequency: 20 kHz  
Weighting Filter: CCIR-2k

### Dynamic Range - AES17 (18/07/2023 16:00:48.007)

Ch1 112.247 dB  
Ch2 112.224 dB

### SIG 2 - Main Measurements (44.1kHz) : 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 (18/07/2023 16:00:51.456)

Ch1 113.854 dB  
Ch2 113.853 dB



## Sequence Report



### SIG 2 - Main Measurements (44.1kHz) : IMD ( SMPTE )

IMD Type: SMPTE  
Waveform: IMD  
Generator Level: -0.000 dBFS  
DC Offset: 0.000 D  
Frequency 1: 60.0000 Hz  
Frequency 2: 7.00000 kHz  
Frequency Ratio: 4:1  
IMD Split: False

### SMPTE Ratio (18/07/2023 16:00:57.576)

Ch1 -105.791 dB

Ch2 -106.432 dB

### SMPTE Distortion Product Ratio (18/07/2023 16:00:57.576)

Channel	f1	d5	d4	d3	d2	f2	d2	d3	d4	d5
	60.00	6.760k	6.820k	6.880k	6.940k	7.000k	7.060k	7.120k	7.180k	7.240k
Ch1	12.05	-124.75	-131.45	-114.26	-124.00	0.00	-122.40	-113.16	-123.45	-119.87
	60.00	6.760k	6.820k	6.880k	6.940k	7.000k	7.060k	7.120k	7.180k	7.240k
Ch2	12.05	-121.05	-122.94	-122.20	-115.22	0.00	-114.45	-123.85	-120.11	-123.01

### SMPTE Distortion Product Ratio Parameters

Frequency Unit: Hz  
Ratio Unit: dB  
Channel: Ch1



## Sequence Report



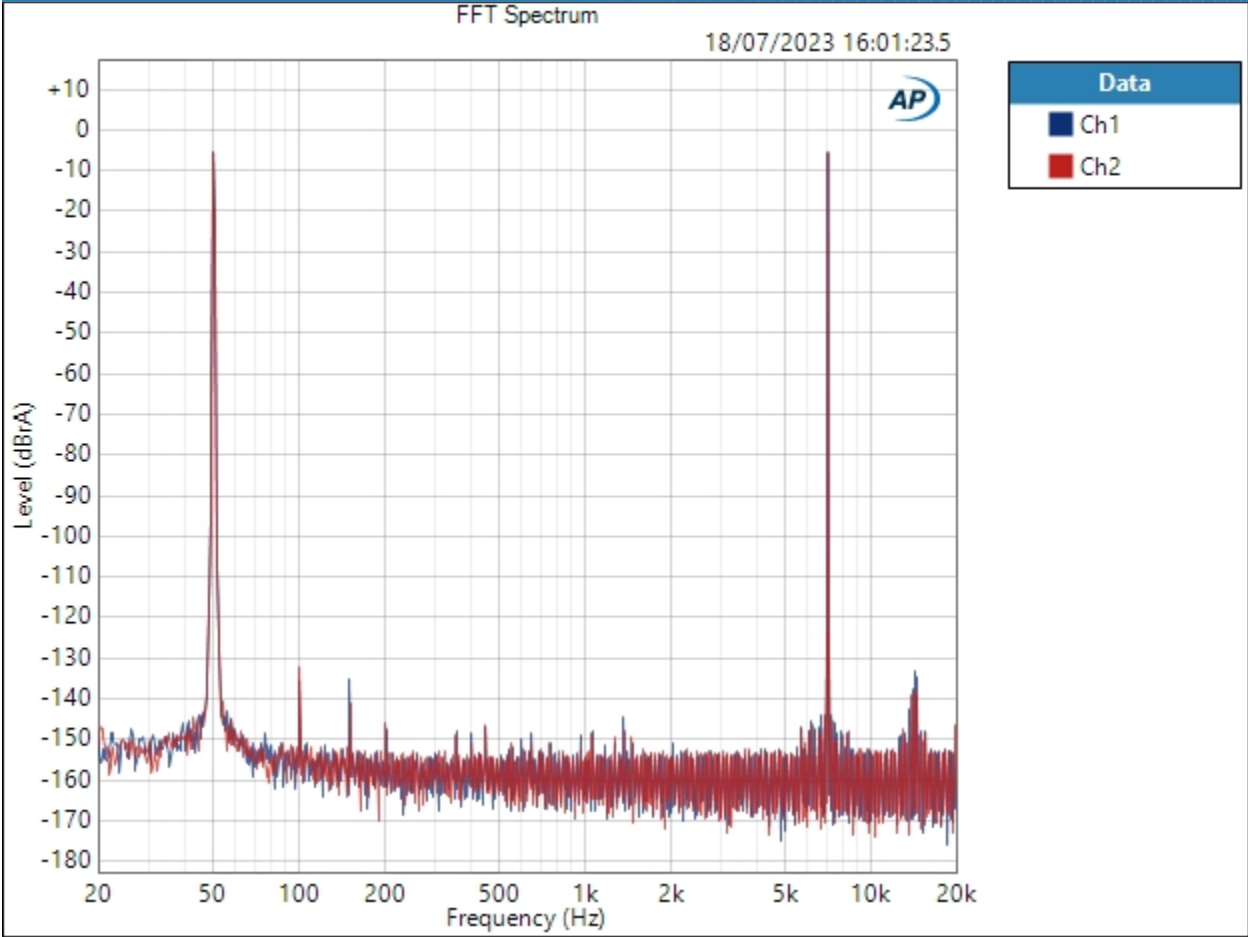
SIG 2 - Main Measurements (44.1kHz) : 50hz/7khz IMD SMPTE FFT

Waveform: Sine, Dual  
Generator Level: -0.000 dBFS  
DC Offset: 0.000 D  
Frequency: 50.0000 Hz  
Frequency B: 7.00000 kHz  
IMD Split: No  
FB:FA Ratio: 1.000 x/y  
Secondary Source: None  
Measured 1 18/07/2023 16:01:23  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 500.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:01:23.599)



# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



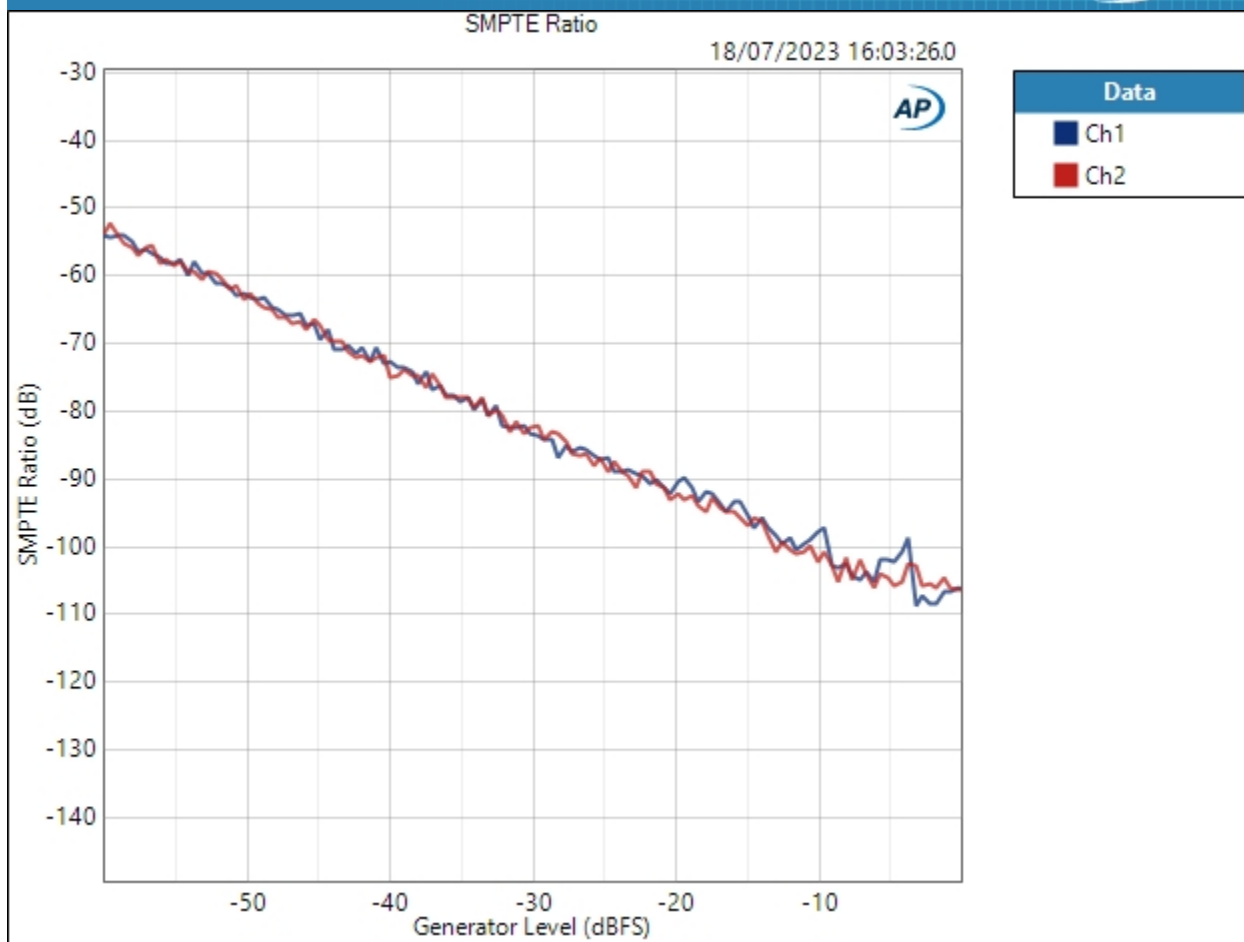
SIG 2 - Main Measurements (44.1kHz) : IMD Level Sweep ( SMPTE )

IMD Type: SMPTE  
Frequency 1: 60.0000 Hz  
Frequency 2: 7.00000 kHz  
Frequency Ratio: 4:1  
IMD Split: False  
Start Level: -60.000 dBFS  
Stop Level: -0.000 dBFS  
Step Type: Linear  
Number of Points: 124  
Step Size: +0.488 dBFS  
Measured 1 18/07/2023 16:03:26

SMPTE Ratio (18/07/2023 16:03:26.097)



## Sequence Report

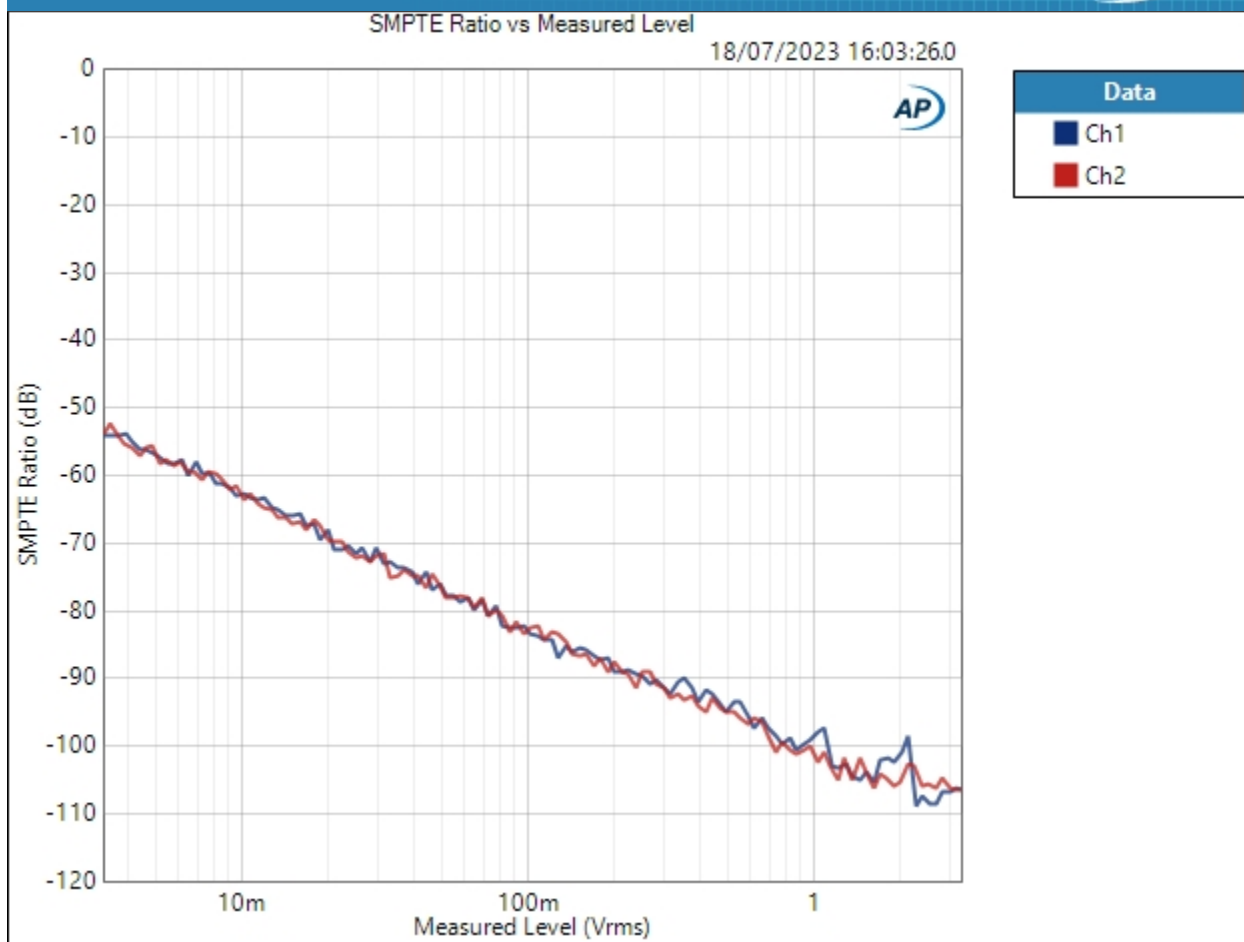


Result: ✔ PASSED

SMPTE Ratio vs Measured Level (18/07/2023 16:03:26.097)



## Sequence Report



Result: PASSED





## Sequence Report



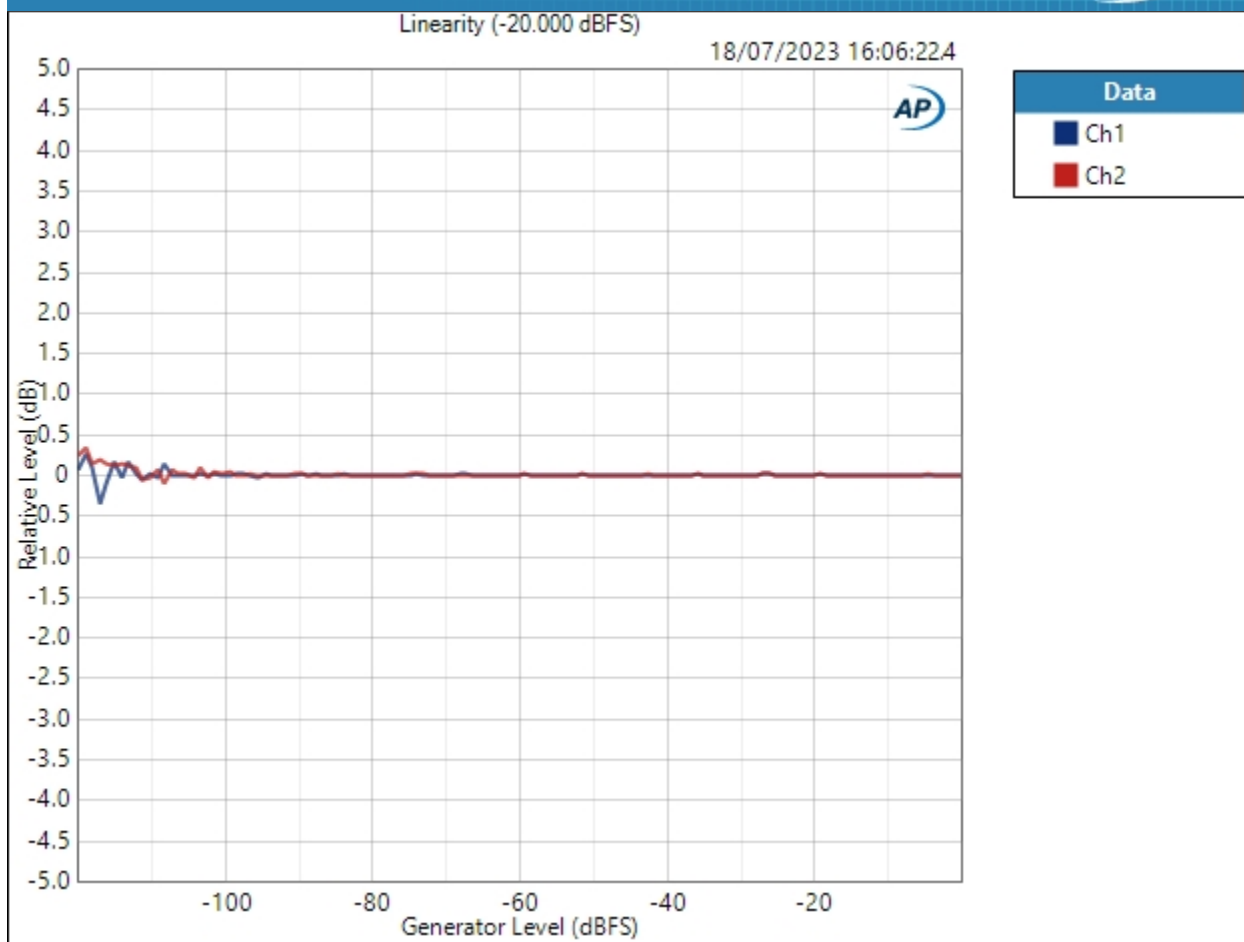
### SIG 2 - Main Measurements (44.1kHz) : Linearity

Waveform:	Sine
Frequency:	1.00000 kHz
Start Level:	-120.000 dBFS
Stop Level:	-0.000 dBFS
Step Type:	Linear
Number of Points:	124
Step Size:	+0.976 dBFS
Offset:	0.000 D
Selectivity:	1/24 octave
Bandpass Tuning Mode:	Generator Frequency
Measured 1	18/07/2023 16:06:22

Linearity (-20.000 dBFS) (18/07/2023 16:06:22.404)



## Sequence Report



### Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

Relative Level: -20.000 dBFS

Result: PASSED



## Sequence Report



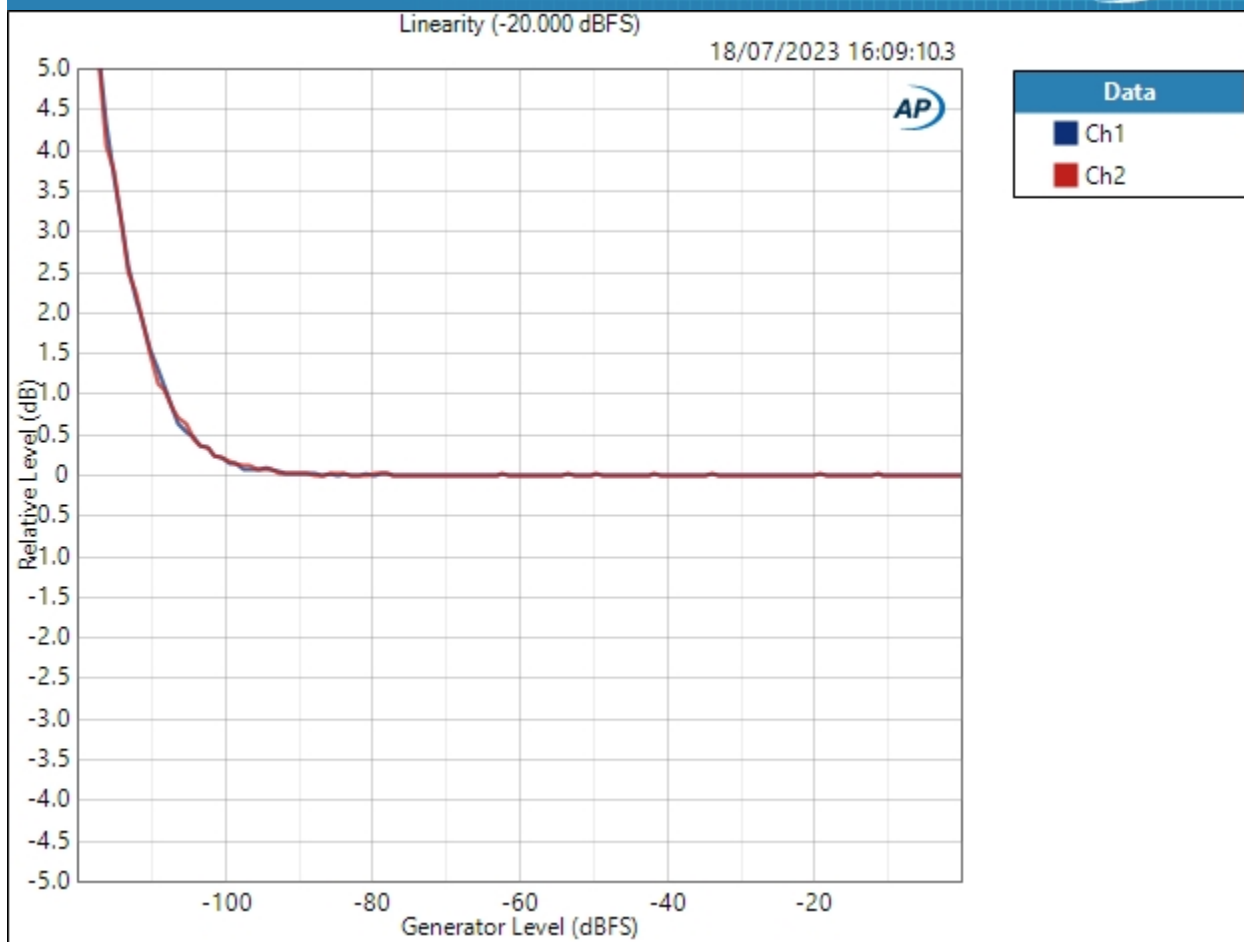
### SIG 2 - Main Measurements (44.1kHz) : Linearity (No Bandpass)

Waveform:	Sine
Frequency:	1.00000 kHz
Start Level:	-120.000 dBFS
Stop Level:	-0.000 dBFS
Step Type:	Linear
Number of Points:	124
Step Size:	+0.976 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	18/07/2023 16:09:10

Linearity (-20.000 dBFS) (18/07/2023 16:09:10.383)



## Sequence Report



### Linearity (-20.000 dBFS) Parameters

Mode: Normalized at Reference

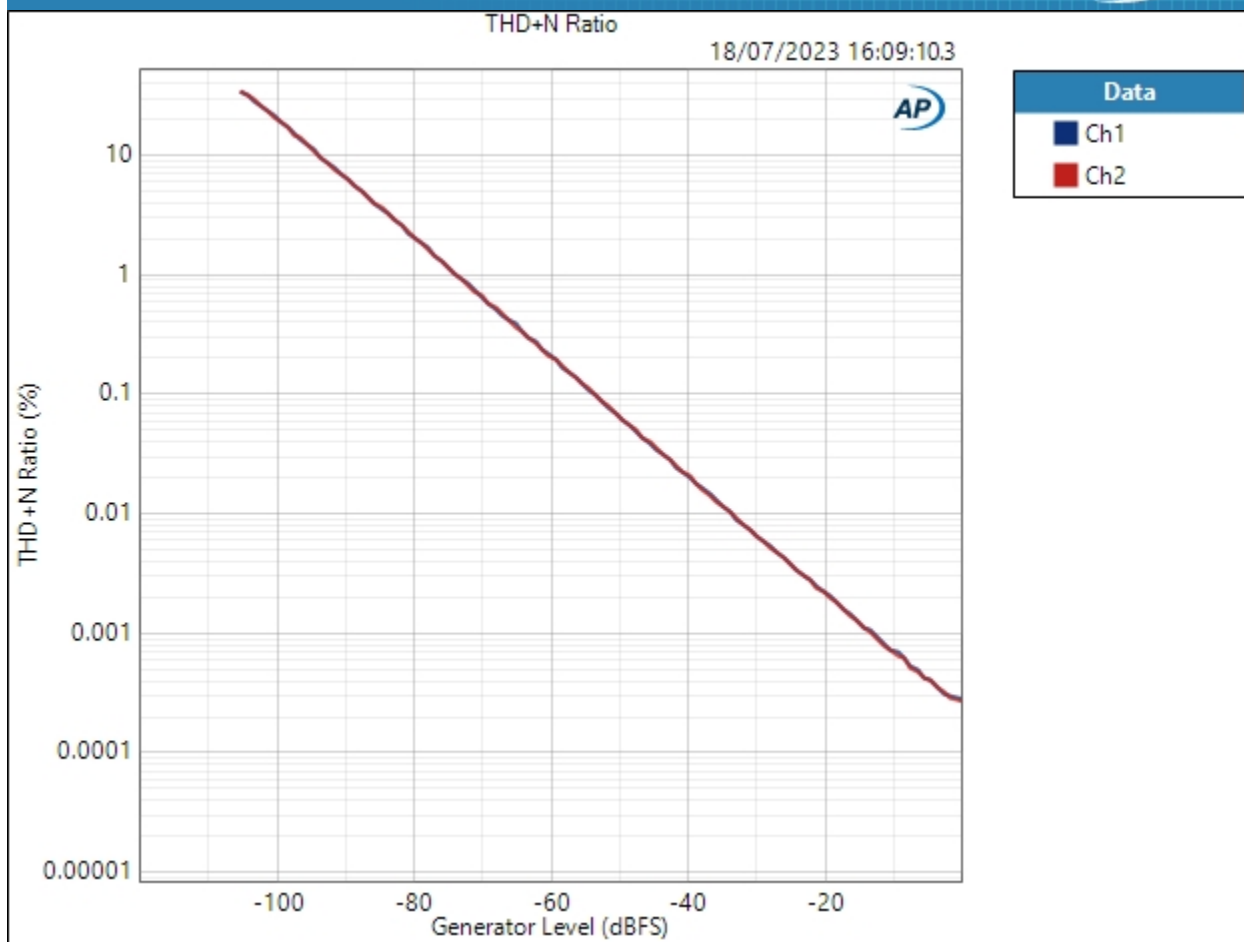
Relative Level: -20.000 dBFS

Result: ✔ PASSED

THD+N Ratio (18/07/2023 16:09:10.383)



## Sequence Report

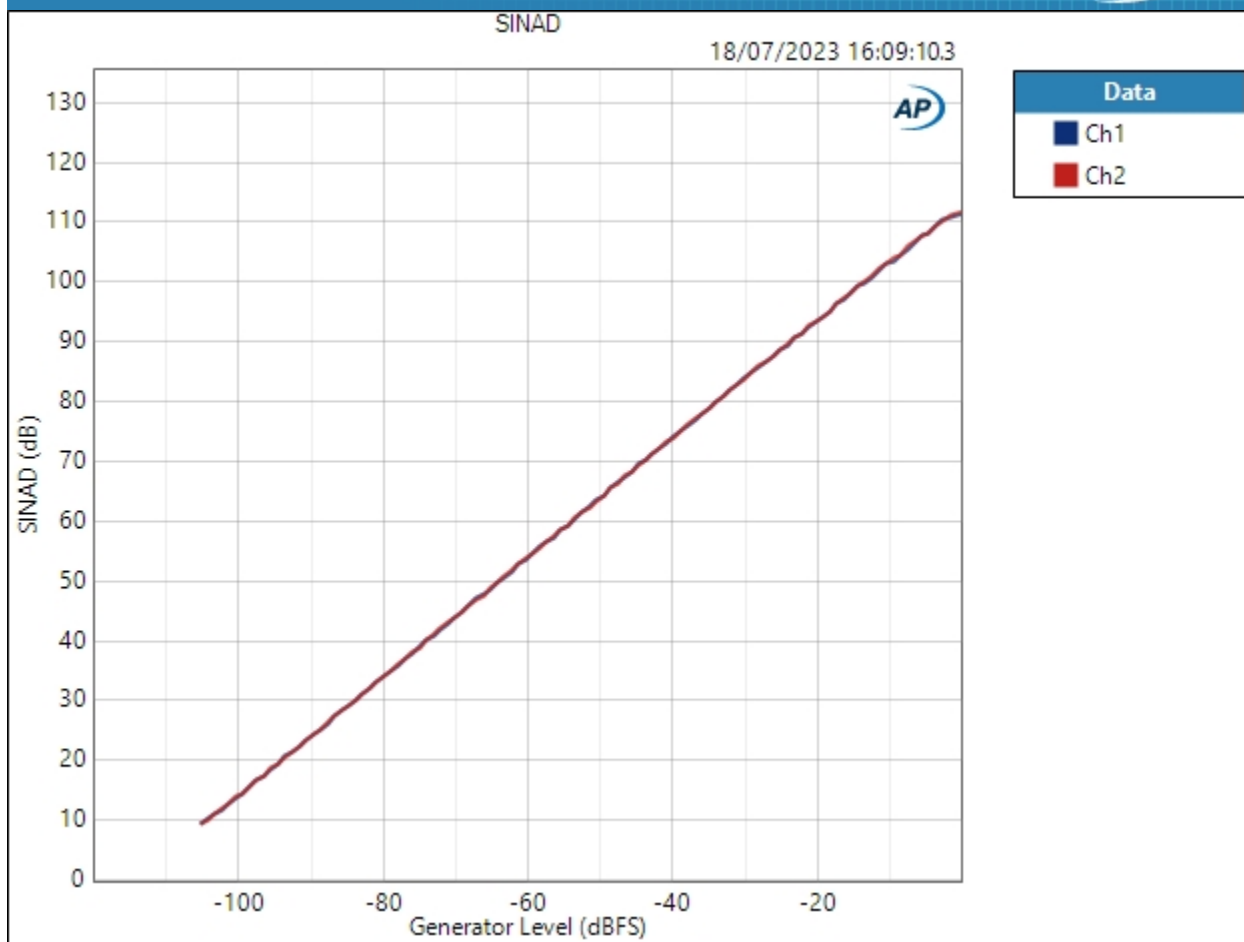


Result: PASSED

SINAD (18/07/2023 16:09:10.383)



## Sequence Report

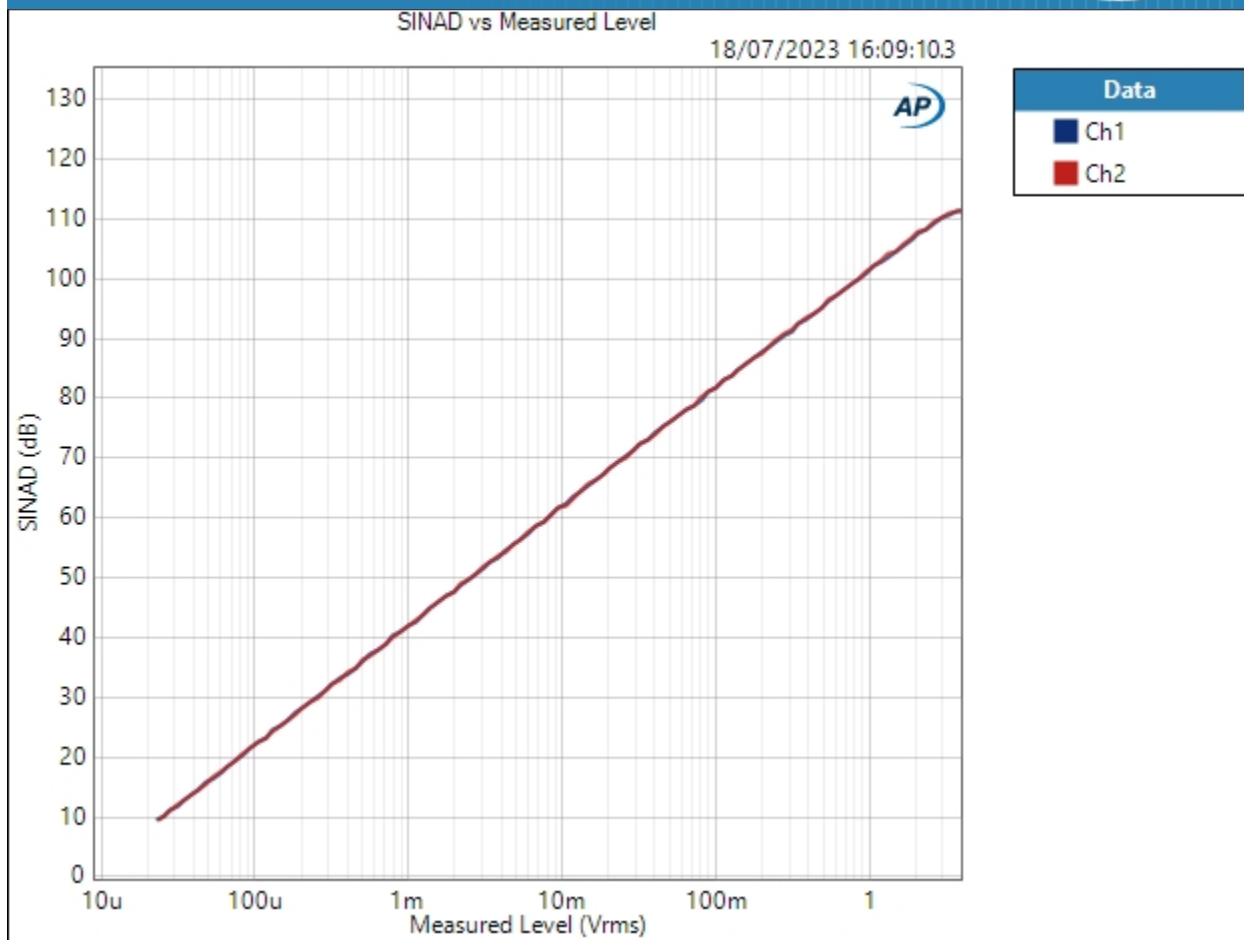


Result: ✔ PASSED

SINAD vs Measured Level (18/07/2023 16:09:10.383)



## Sequence Report



Result: ✔ PASSED



## Sequence Report



SIG 2 - Main Measurements (44.1kHz) : Crosstalk Sweep, One Channel Driven

Generator Level: -0.000 dBFS

DC Offset: 0.000 D

Start Frequency: 20.0000 kHz

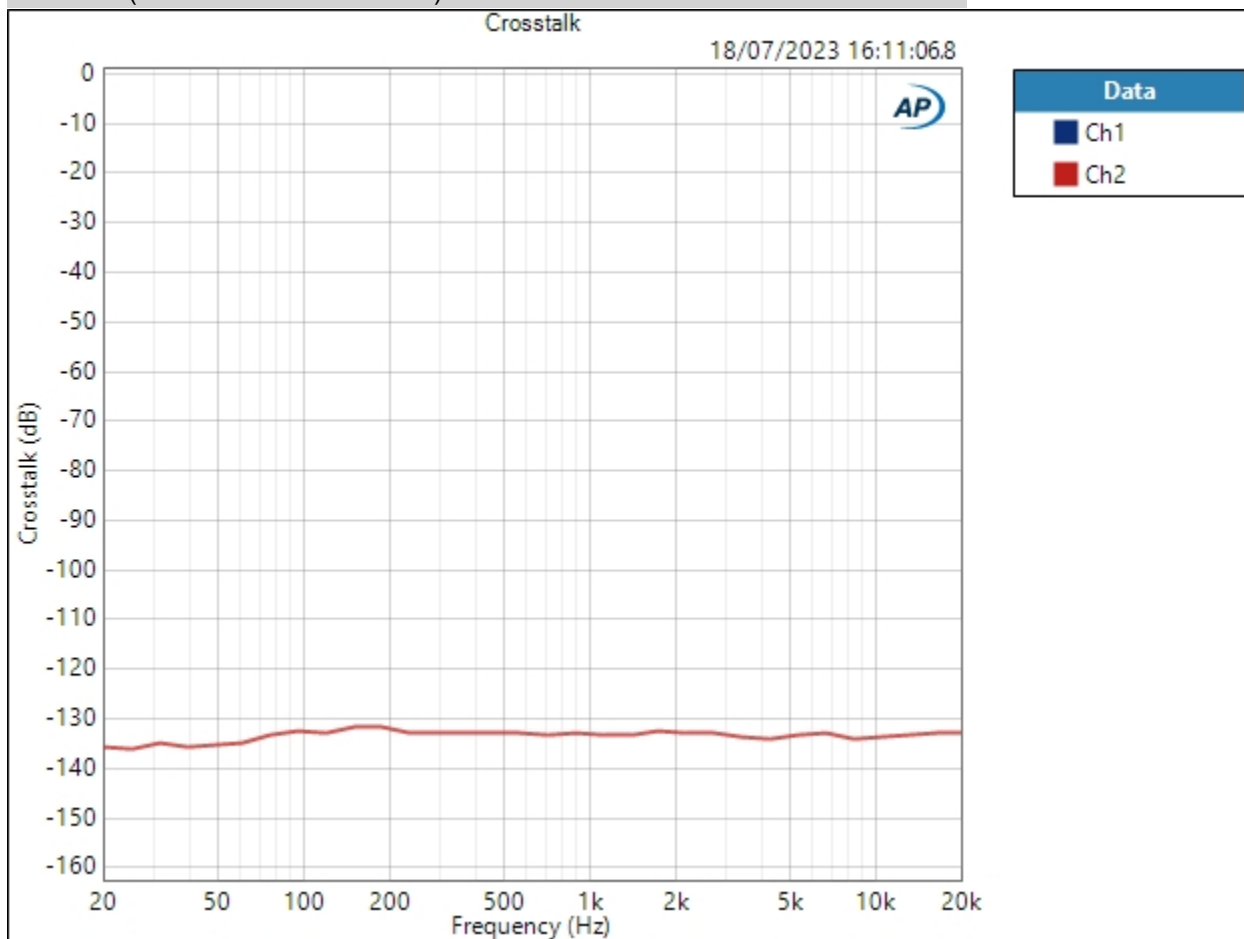
Stop Frequency: 20.0000 Hz

Step Type: Logarithmic

Number of Points: 32

Measured 1 18/07/2023 16:11:06

Crosstalk (18/07/2023 16:11:06.890)







## Sequence Report



### Crosstalk Parameters

Source: Ch1

Result:  PASSED

### SIG 2 - Main Measurements (44.1kHz) : DC Offset (active)

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Delay Time: 400.0 ms  
Acquisition Time: 333.0 ms

### DC Level (18/07/2023 16:13:07.470)

Ch1 -3.685 uV  
Ch2 72.25 uV

### SIG 2 - Main Measurements (44.1kHz) : DC Offset (idle)

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 (18/07/2023 16:13:14.112)

Ch1 -92.04 uV  
Ch2 77.81 uV



## Sequence Report



### SIG 3 - 44.1kHz Jitter : Signap Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
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) - 90k (192 kHz SR)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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



## Sequence Report



SIG 3 - 44.1kHz Jitter : 44.1kHz J-Test (Jitter)

Waveform: J-test\_44k\_PCM24\_LR.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 16:14:18

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 500.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 1248000

Averaging: Power

Averages: 8

Window: AP-Equiripple

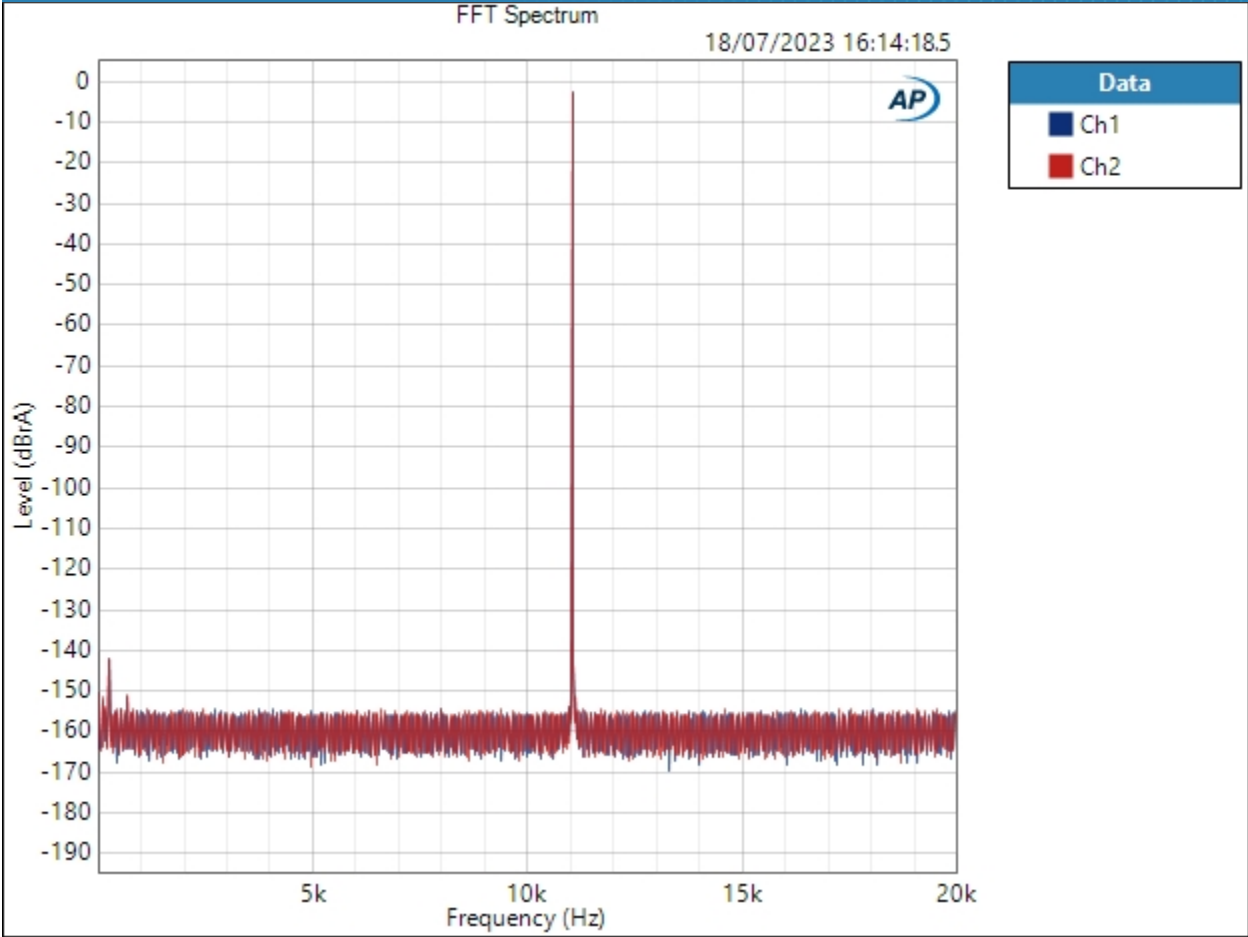
Record Acquisition: False

Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:14:18.595)



# Sequence Report



Result: PASSED



## Sequence Report



### SIG 4 - 48khz Jitter : Signap Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	48.0000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
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) - AES17 (20 kHz)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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



## Sequence Report



SIG 4 - 48khz Jitter : 48khz J-Test (Jitter)

Waveform: J-test\_48k\_PCM24\_LR.wav

Bit Exact: True

Start Offset (sec): 0.000 s

Secondary Source: None

Measured 1 18/07/2023 16:15:45

Acquisition Type: Auto

Trigger: Free Run

Delay Time: 500.0 ms

Input Bandwidth: Use Signal Path

FFT Length: 1248000

Averaging: Power

Averages: 3

Window: AP-Equiripple

Record Acquisition: False

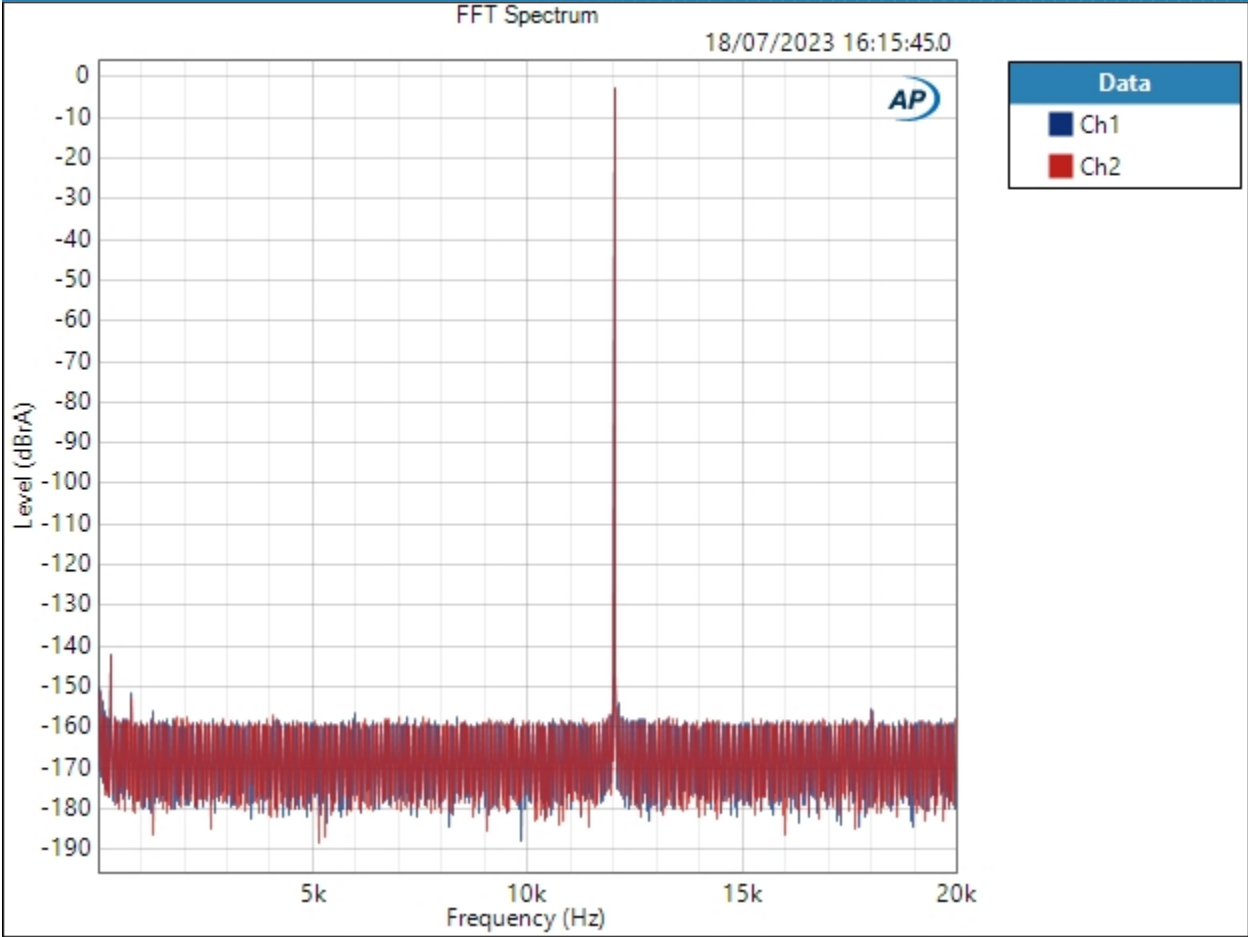
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:15:45.053)





# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



### SIG 5 - Bandwidth (192khz) : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	192.000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
Measure:	Auto
Channels:	Custom (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) - 90k (192 kHz SR)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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



## Sequence Report



SIG 5 - Bandwidth (192khz) : 90khz Bandwidth

Start Frequency: 20.0000 Hz

Stop Frequency: 90.0000 kHz

Generator Level: -3.000 dBFS

DC Offset: 0.000 D

EQ: None

Pre-Sweep: 500.0 ms

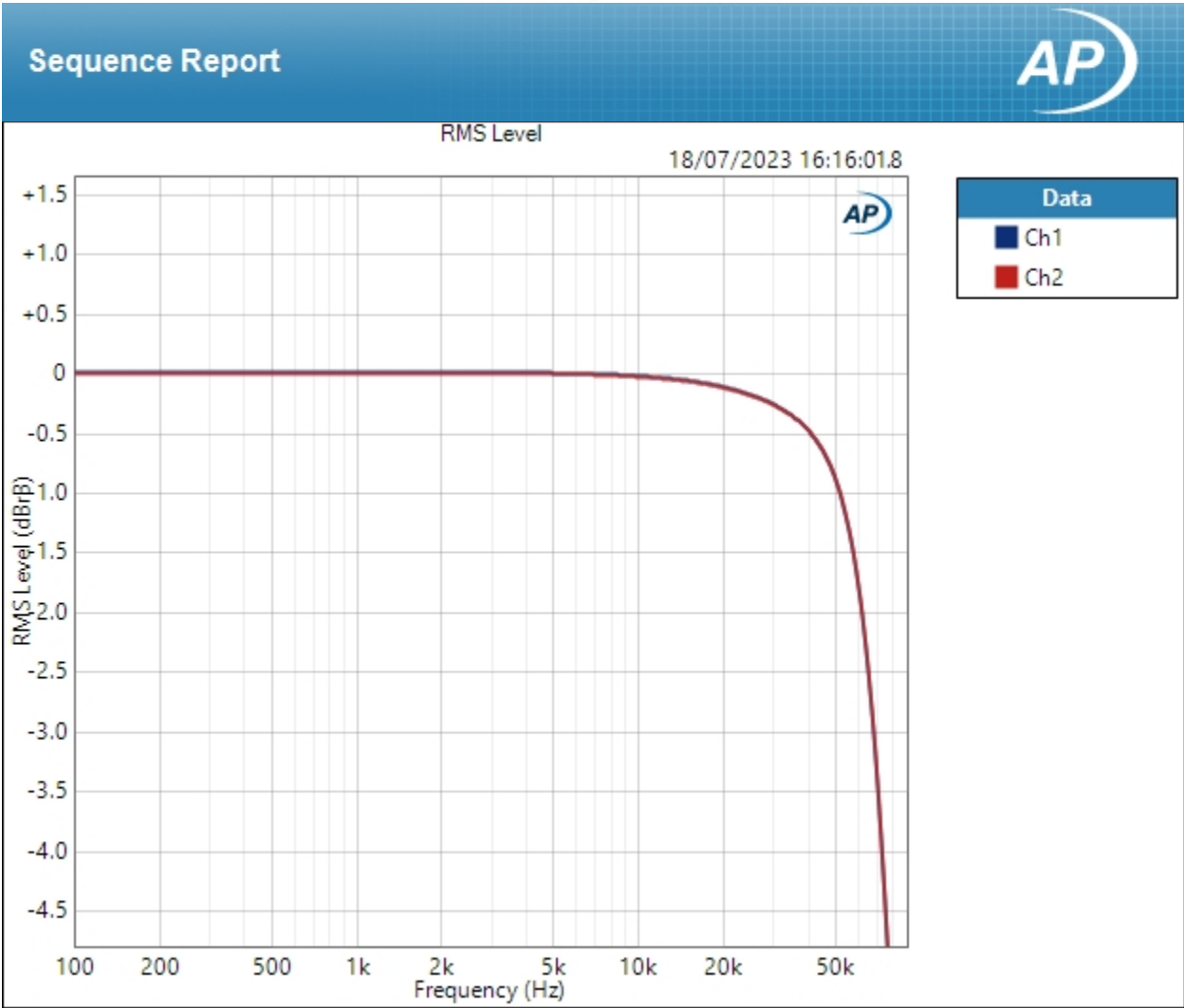
Sweep: 5.000 s

Extend Acquisition By: 500.0 ms

Secondary Source: None

Measured 1 18/07/2023 16:16:01

RMS Level (18/07/2023 16:16:01.855)



Result: PASSED



## Sequence Report



### SIG 6 - THD and Phase vs Frequency : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
Measure:	Auto
Channels:	Custom (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) - 90k (192 kHz SR)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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



## Sequence Report



SIG 6 - THD and Phase vs Frequency : THD+N vs frequency (AES 40kHz filter)

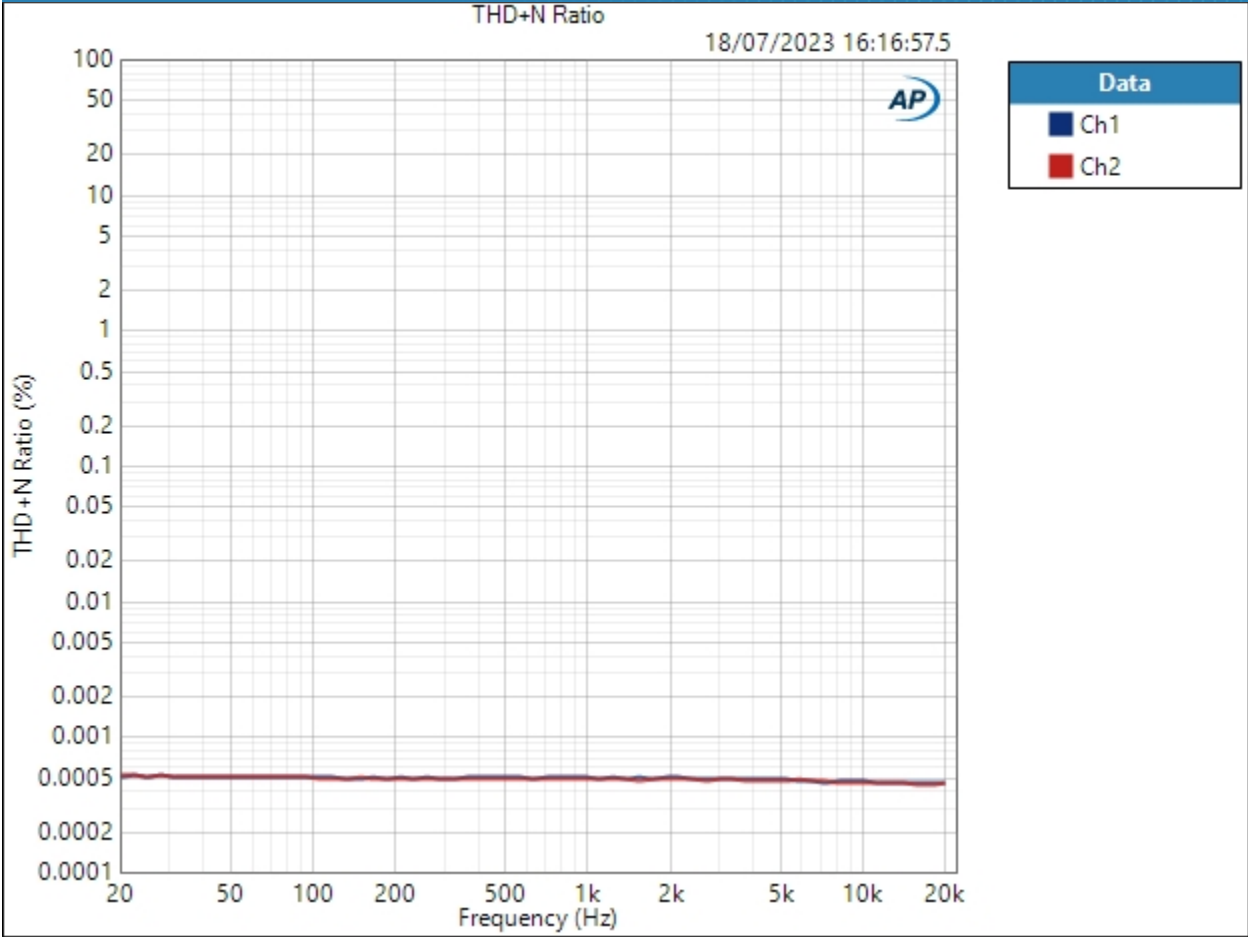
Waveform:	Sine
Generator Level:	-0.000 dBFS
DC Offset:	0.000 D
EQ:	None
Start Frequency:	22.0059 kHz
Stop Frequency:	20.0000 Hz
Step Type:	Logarithmic
Number of Points:	64
High-pass Filter:	Elliptic
High-pass Frequency:	20 Hz
Low-pass Filter:	Signal Path
Weighting Filter:	Signal Path
Phase Ref Channel:	Ch1
Measured 1	18/07/2023 16:16:57

THD+N Ratio (18/07/2023 16:16:57.574)





# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



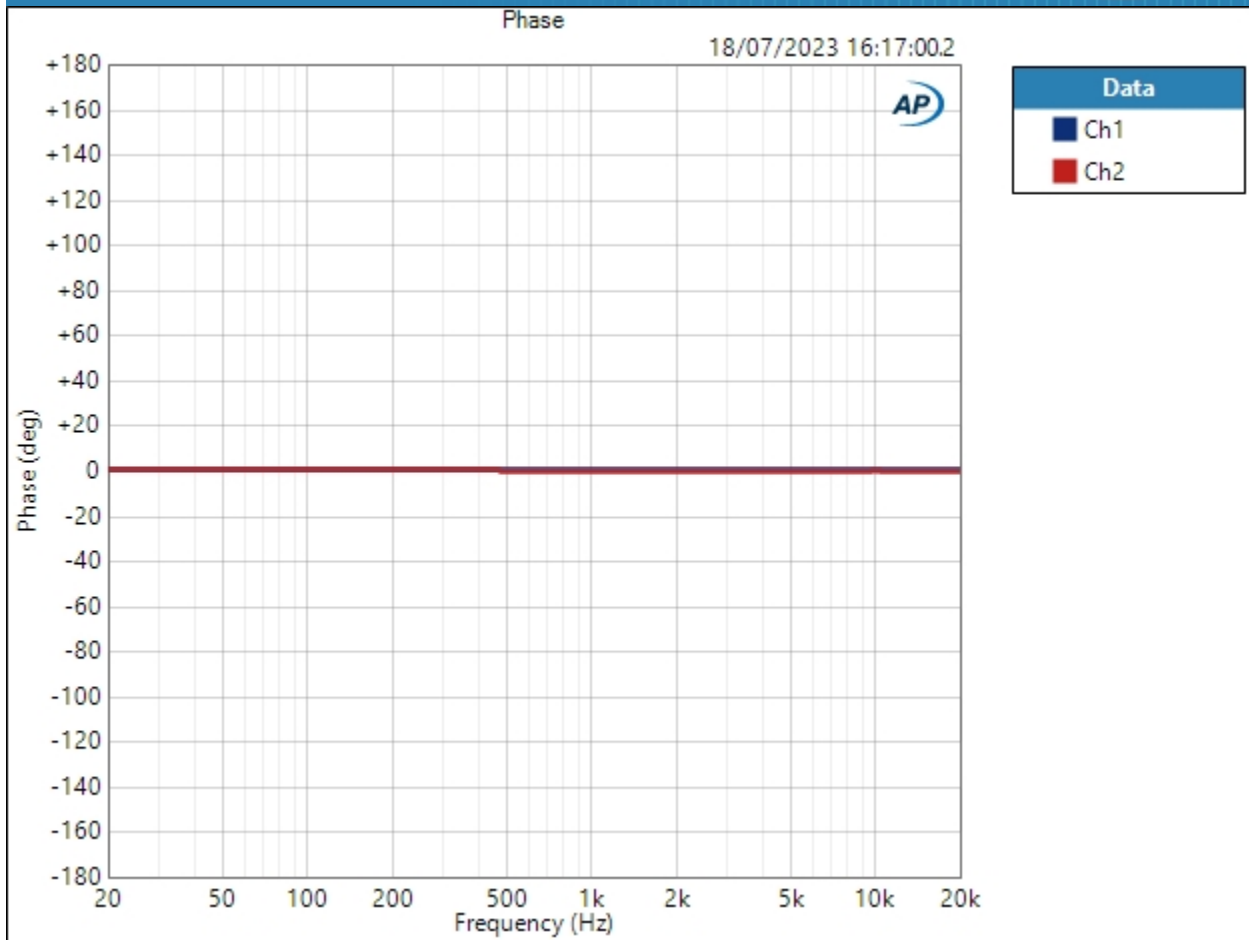
SIG 6 - THD and Phase vs Frequency : Interchannel Phase and Group Delay

Start Frequency: 20.0000 Hz  
Stop Frequency: 20.0000 kHz  
Generator Level: -20.000 dBFS  
DC Offset: 0.000 D  
EQ: None  
Pre-Sweep: 0.000 s  
Sweep: 350.0 ms  
Measured 1 18/07/2023 16:17:00  
Step Type: Log Chirp  
Extend Acquisition By: 50.00 ms  
Crosstalk Type: High speed  
Secondary Source: None

Phase (18/07/2023 16:17:00.287)



## Sequence Report



### Phase Parameters

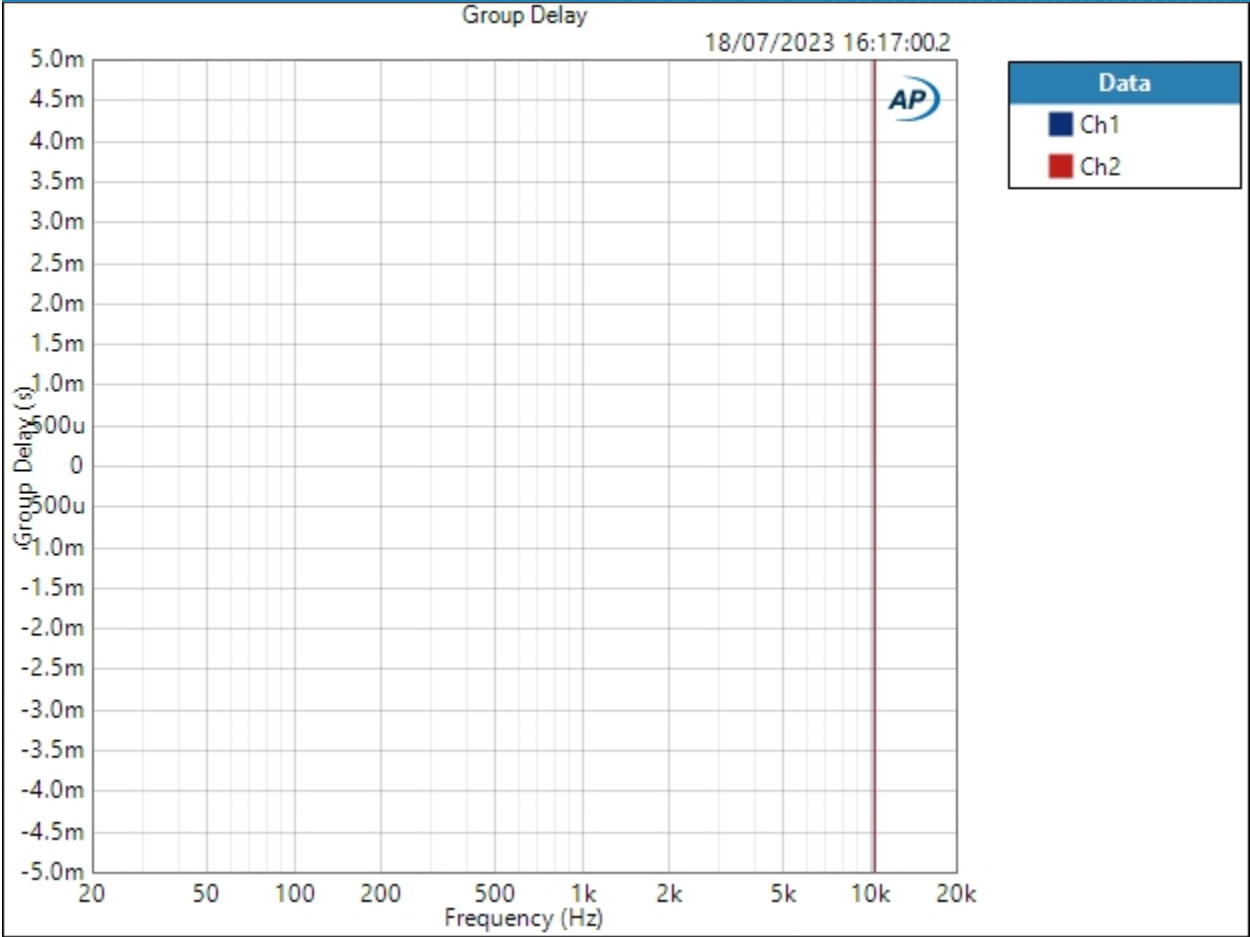
Mode: Relative to Ch1

Result: ✔ PASSED

Group Delay (18/07/2023 16:17:00.287)



# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



### SIG 7 - Wideband and Intersample Overs : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	44.1000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
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) - 1M (2.496 MHz SR)
Input EQ:	None
Termination:	200 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:	3.996 Vrms
dBrB:	3.996 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	3.996 Vrms
dB SPL2:	3.996 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	50.000 dB SPL



## Sequence Report



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



## Sequence Report



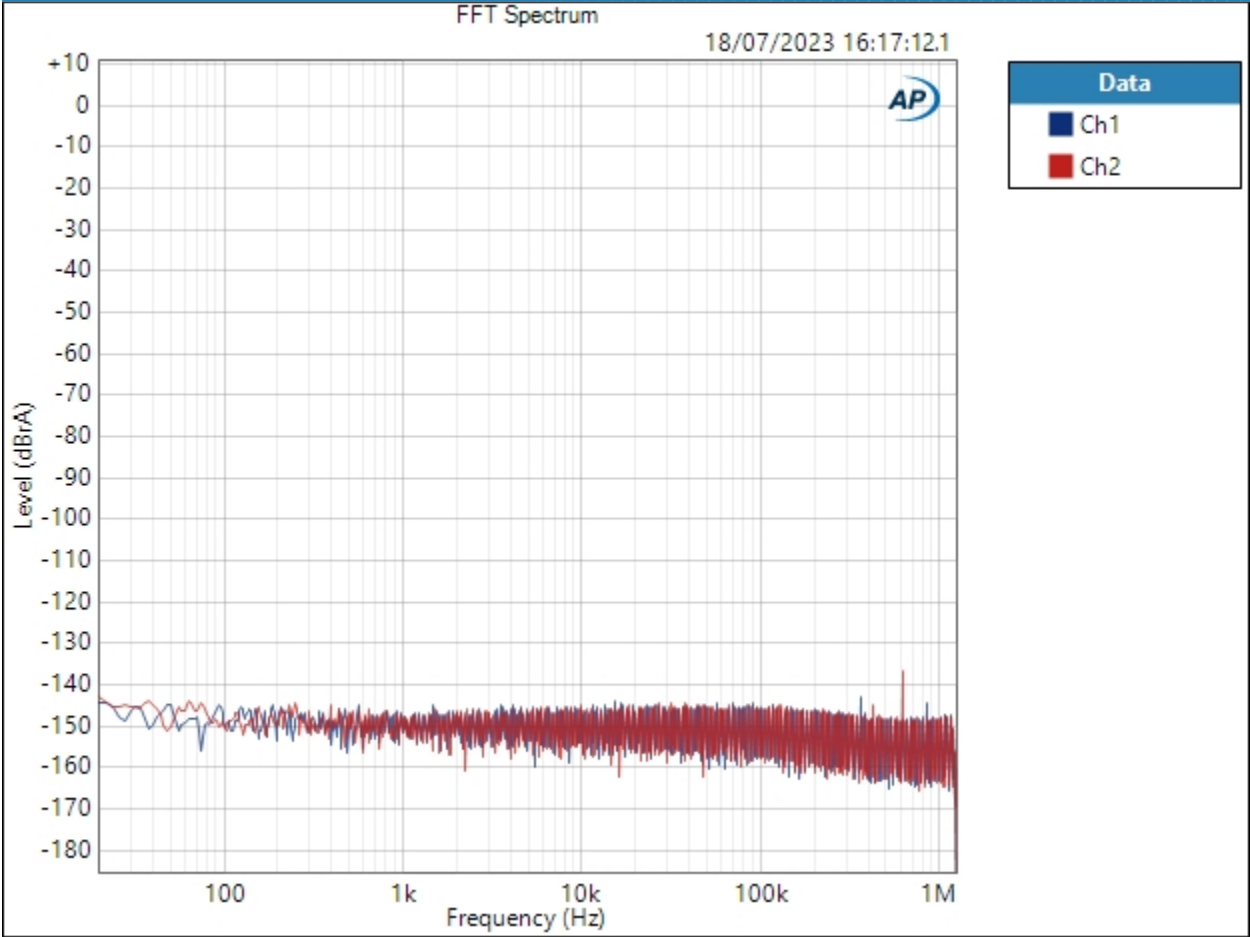
SIG 7 - Wideband and Intersample Overs : Wideband idle noise

Waveform: Sine  
Generator Level:  $-\infty$  dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1: 18/07/2023 16:17:12  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 1248000  
Averaging: Power  
Averages: 6  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:17:12.175)



# Sequence Report AP



Result: ✔ PASSED





## Sequence Report



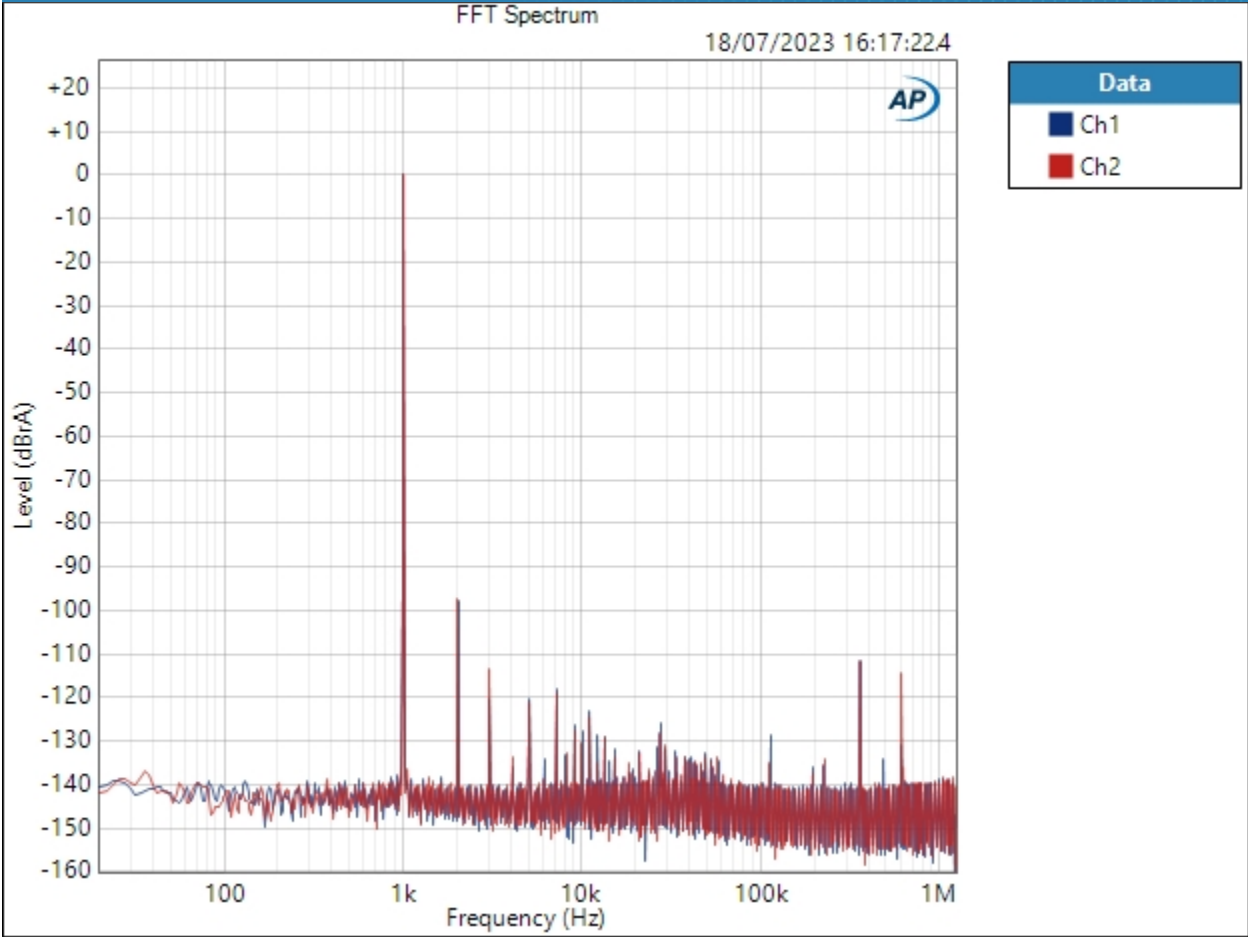
SIG 7 - Wideband and Intersample Overs : 1khz 0dbfs wideband

Waveform: Sine  
Generator Level: -0.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 16:17:22  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 1248000  
Averaging: Power  
Averages: 6  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:17:22.430)



# Sequence Report AP



Result: ✔ PASSED



## Sequence Report



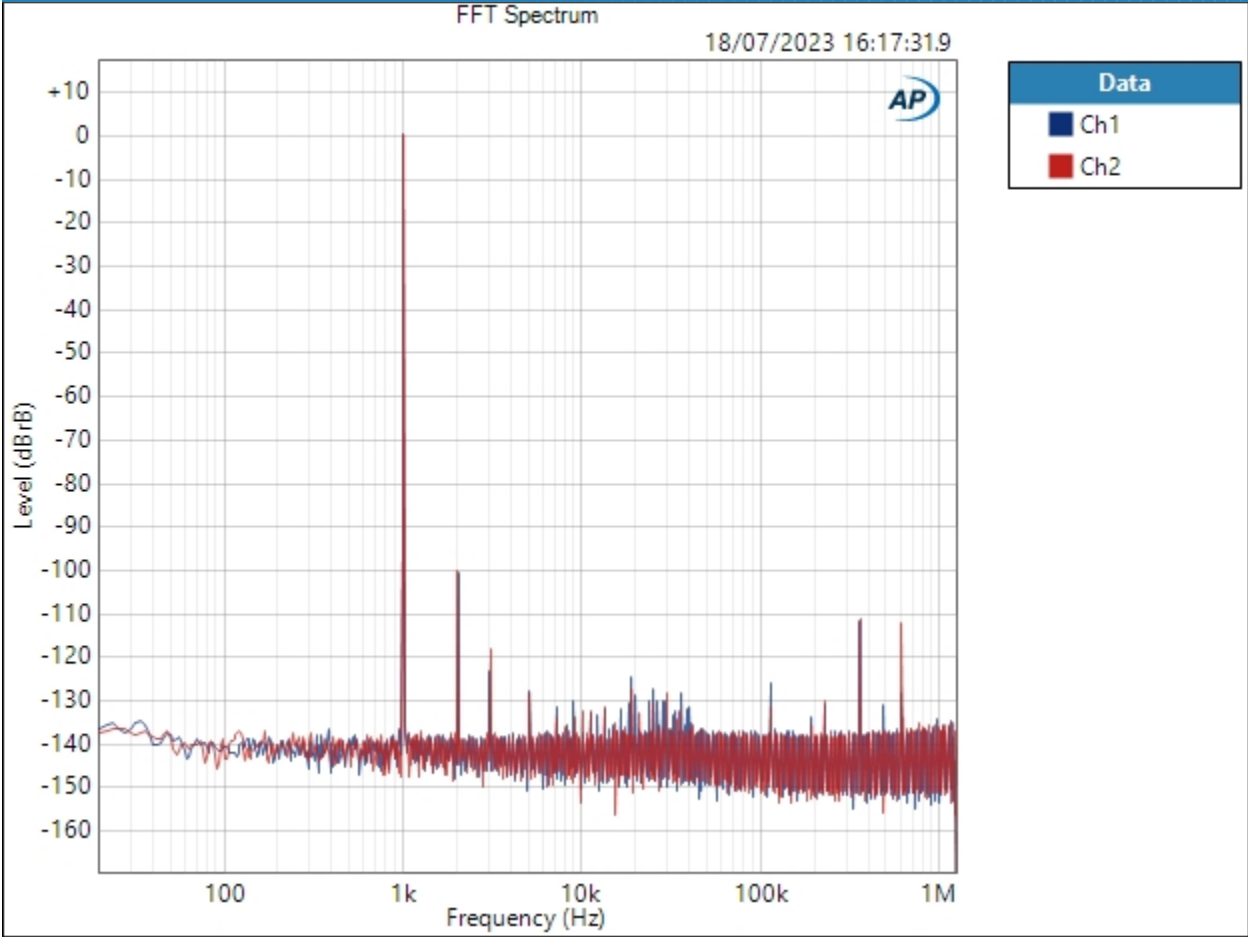
SIG 7 - Wideband and Intersample Overs : 1khz -3dbfs wideband

Waveform: Sine  
Generator Level: -3.000 dBFS  
DC Offset: 0.000 D  
Frequency: 1.00000 kHz  
Secondary Source: None  
Measured 1 18/07/2023 16:17:31  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 1248000  
Averaging: Power  
Averages: 6  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:17:31.904)



# Sequence Report



Result: PASSED



## Sequence Report



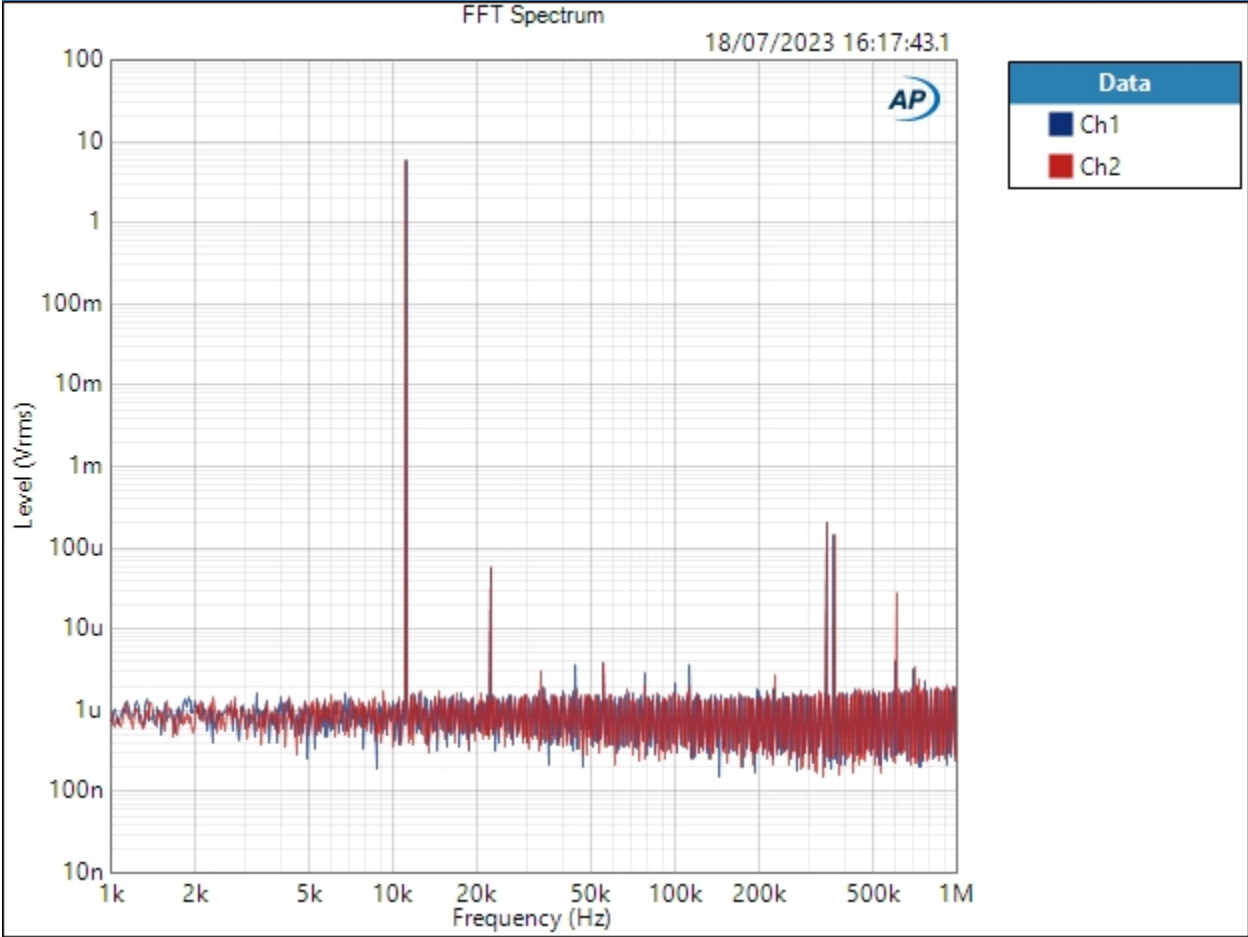
SIG 7 - Wideband and Intersample Overs : Intersample Overs (+3dB)

Waveform: Intersample overs +3dB.wav  
Bit Exact: True  
Start Offset (sec): 0.000 s  
Secondary Source: None  
Measured 1: 18/07/2023 16:17:43  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 1.000 s  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:17:43.187)



# Sequence Report AP

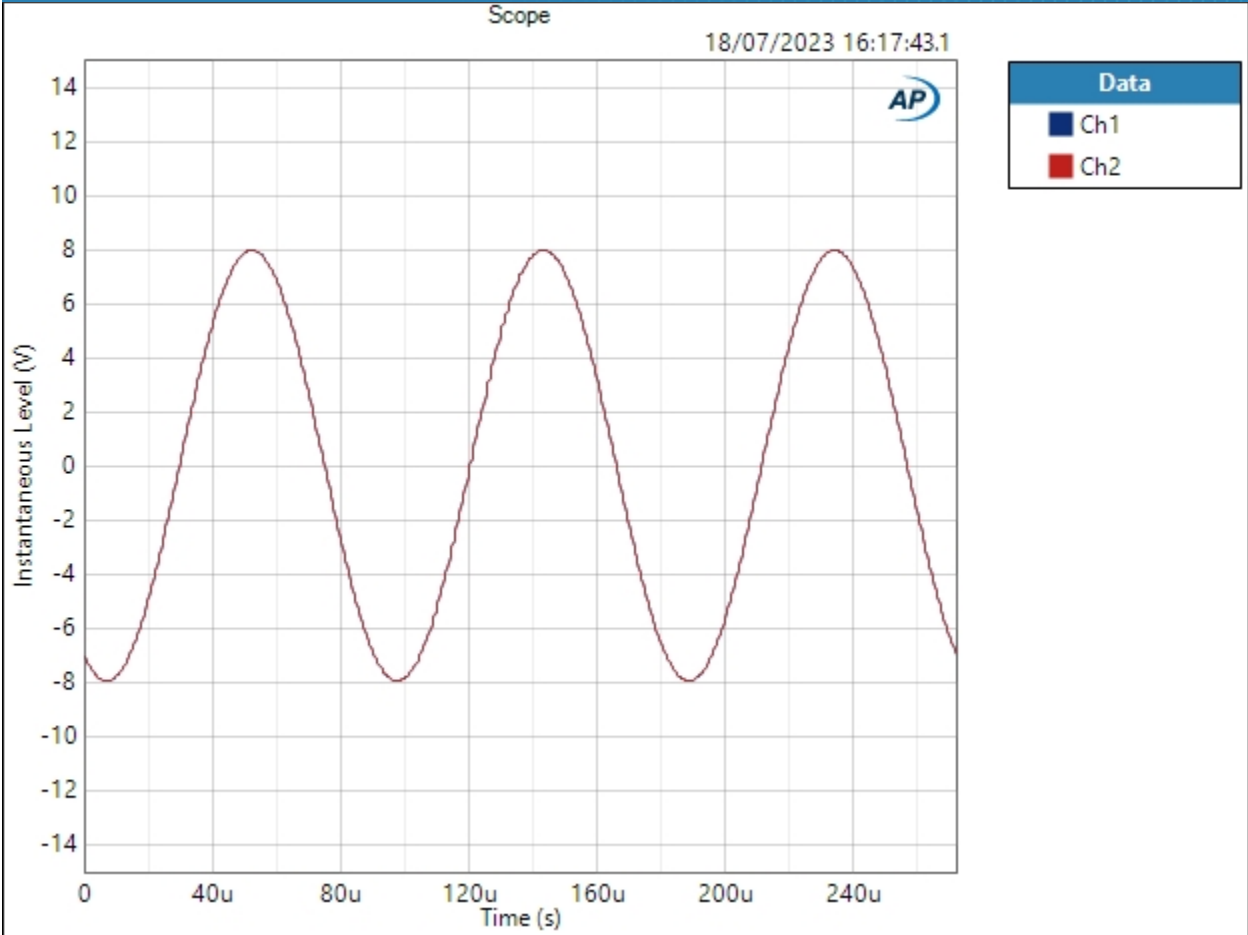


Result: ✔ PASSED

Scope (18/07/2023 16:17:43.187)



# Sequence Report



### Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



SIG 7 - Wideband and Intersample Overs : Intersample Overs (+1dB)

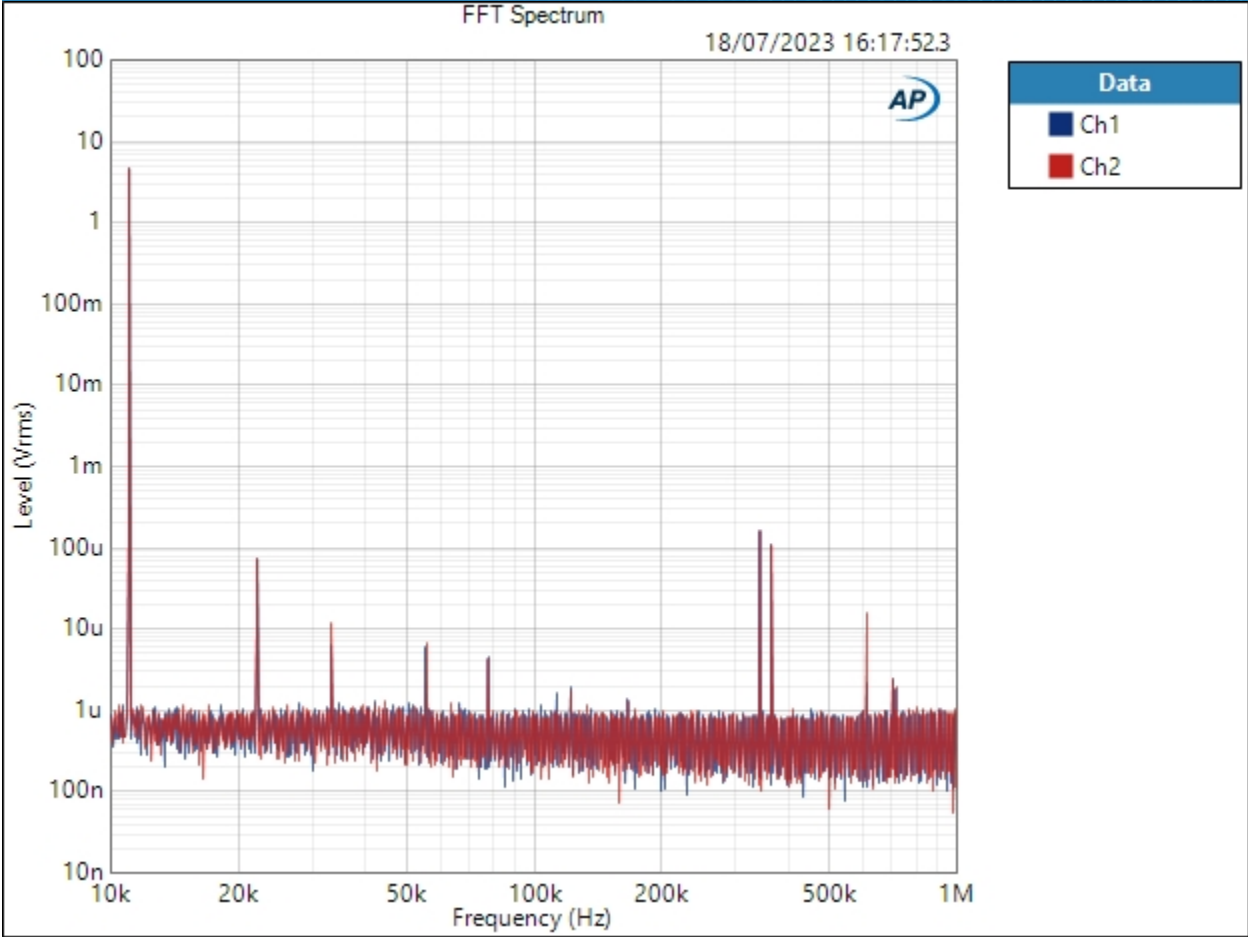
Waveform: Intersample Overs +1dB.wav  
Bit Exact: True  
Start Offset (sec): 0.000 s  
Secondary Source: None  
Measured 1: 18/07/2023 16:17:52  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 1.000 s  
Input Bandwidth: Use Signal Path  
FFT Length: 262144  
Averaging: Power  
Averages: 4  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:17:52.333)





# Sequence Report AP

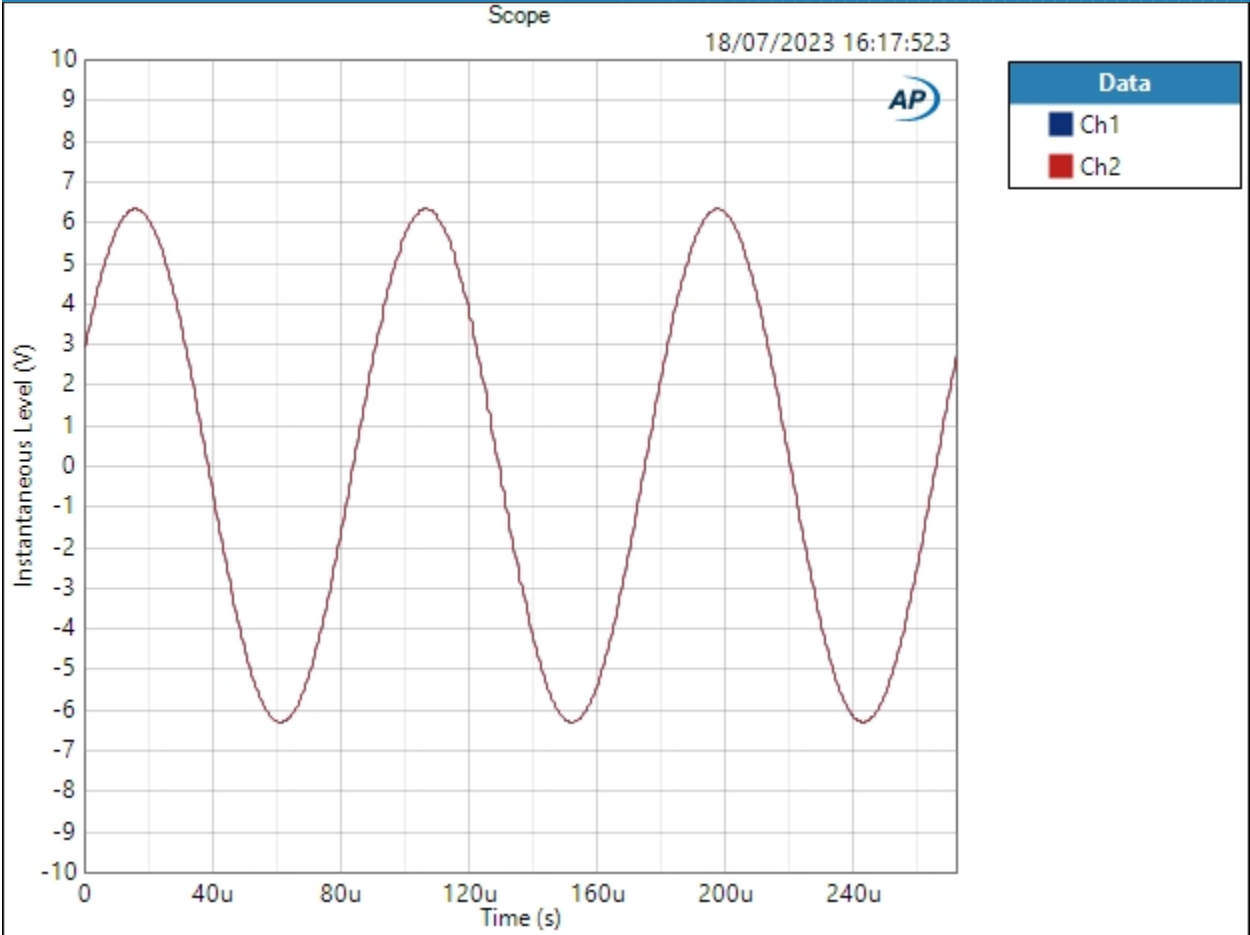


Result: ✔ PASSED

Scope (18/07/2023 16:17:52.333)



# Sequence Report



### Scope Parameters

Interpolated: On

Result: PASSED



## Sequence Report



### SIG 8 - Multitone : Signal Path Setup

Output Connector:	ASIO
Asio Device:	Ferrum USB Audio
Scaling Mode:	Digital
Output Sample Rate:	192.000 kHz
Output Latency:	Auto
Buffer Size:	2048
Clock Source:	Computer
Input 1:	Analog Balanced
Measure:	Auto
Channels:	Custom (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) - 90k (192 kHz SR)
Input EQ:	None
Termination:	200 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:	4.160 Vrms
dBrB:	4.160 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	3.000 dB
dB SPL1:	4.160 Vrms
dB SPL2:	3.995 Vrms
dB SPL1 Calibrator Level:	60.000 dB SPL
dB SPL2 Calibrator Level:	21.500 dB SPL



## Sequence Report



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



## Sequence Report



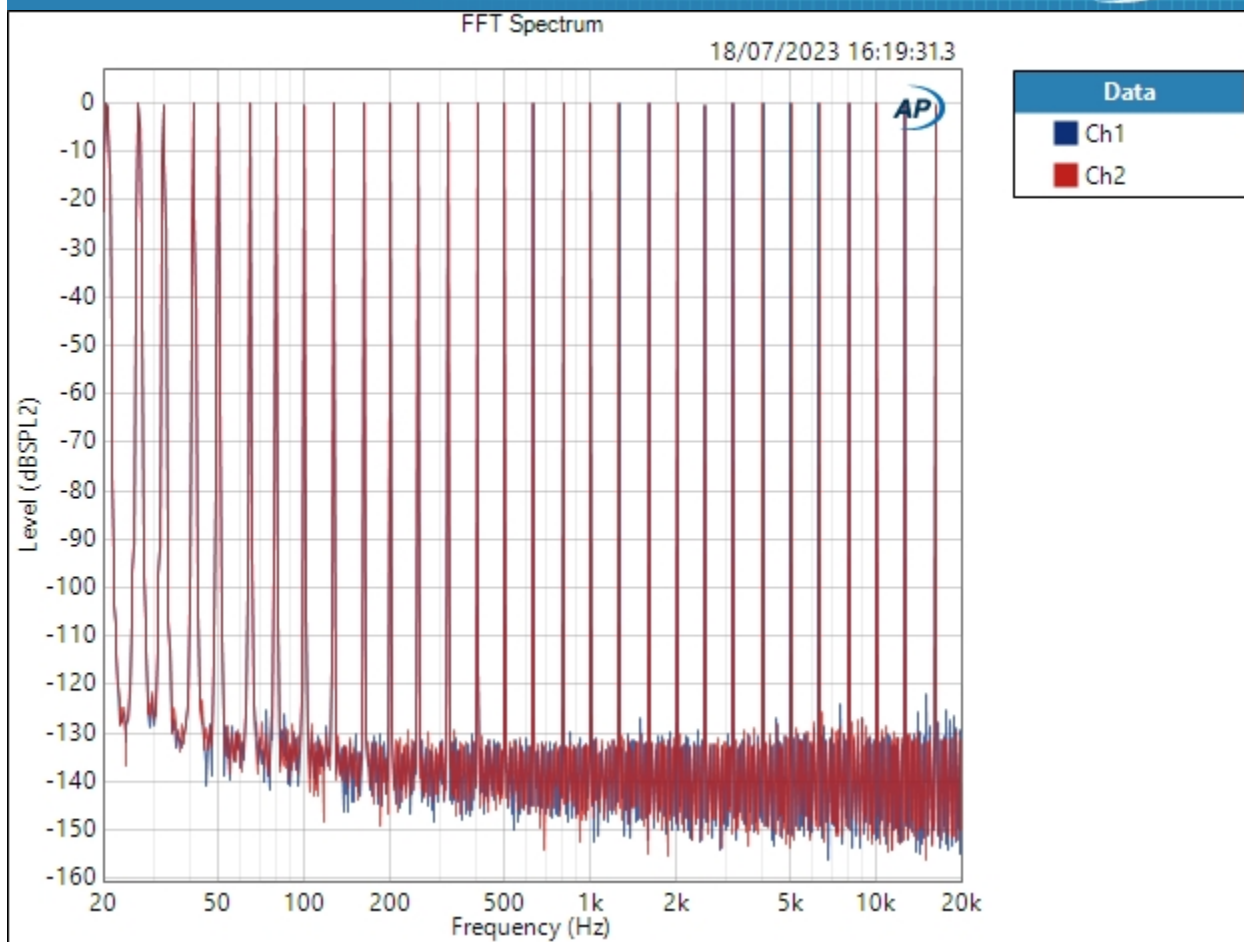
### SIG 8 - Multitone : 32 Tone Test

Waveform: APx555 Multitone 32 192 khz 24 bit.wav  
Bit Exact: True  
Start Offset (sec): 0.000 s  
Secondary Source: None  
Measured 1: 18/07/2023 16:19:31  
Acquisition Type: Auto  
Trigger: Free Run  
Delay Time: 250.0 ms  
Input Bandwidth: Use Signal Path  
FFT Length: 1248000  
Averaging: Power  
Averages: 3  
Window: AP-Equiripple  
Record Acquisition: False  
Recording Type: Multiple Mono PCM (.wav)

FFT Spectrum (18/07/2023 16:19:31.315)



## Sequence Report

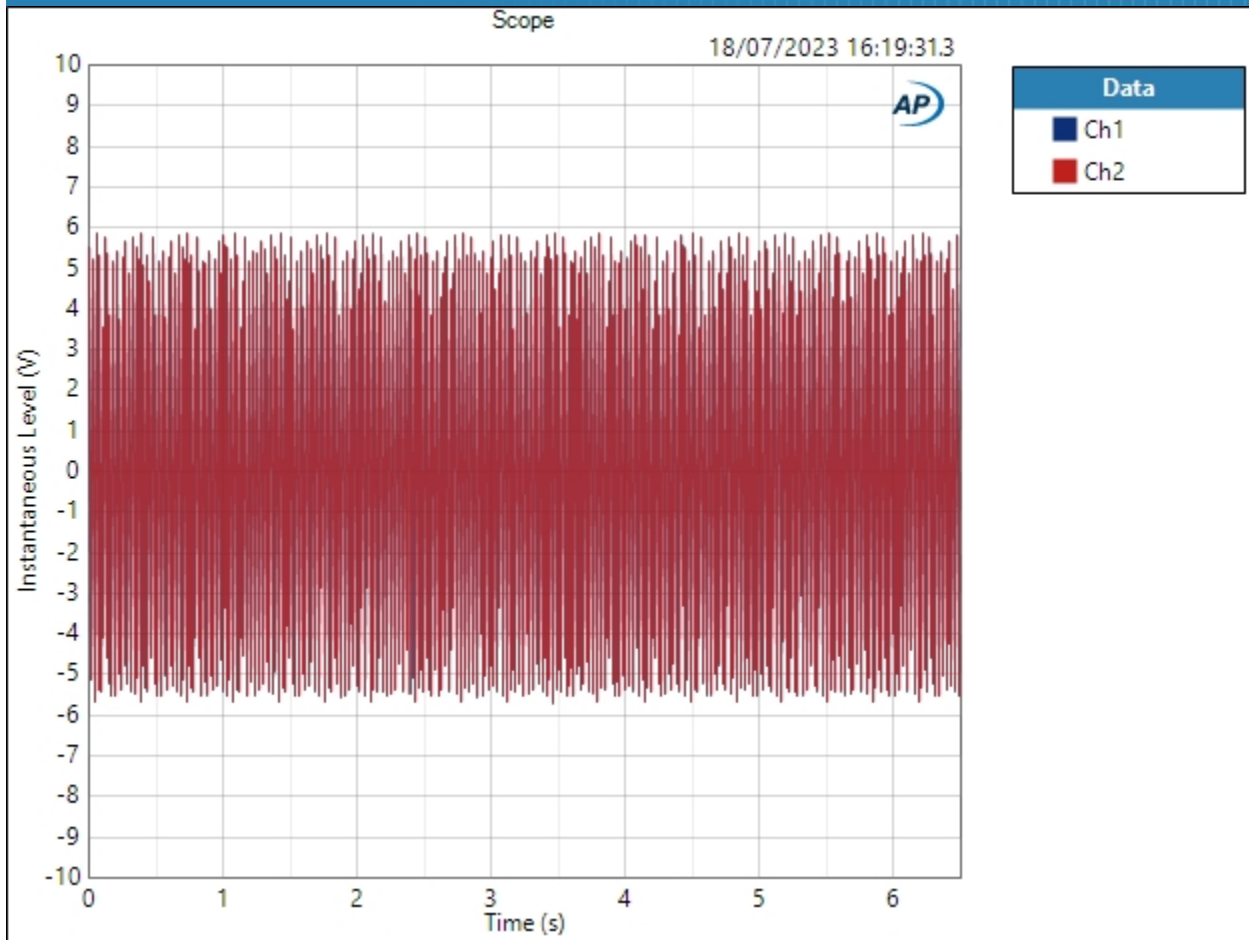


Result: PASSED

Scope (18/07/2023 16:19:31.315)



## Sequence Report



Scope Parameters

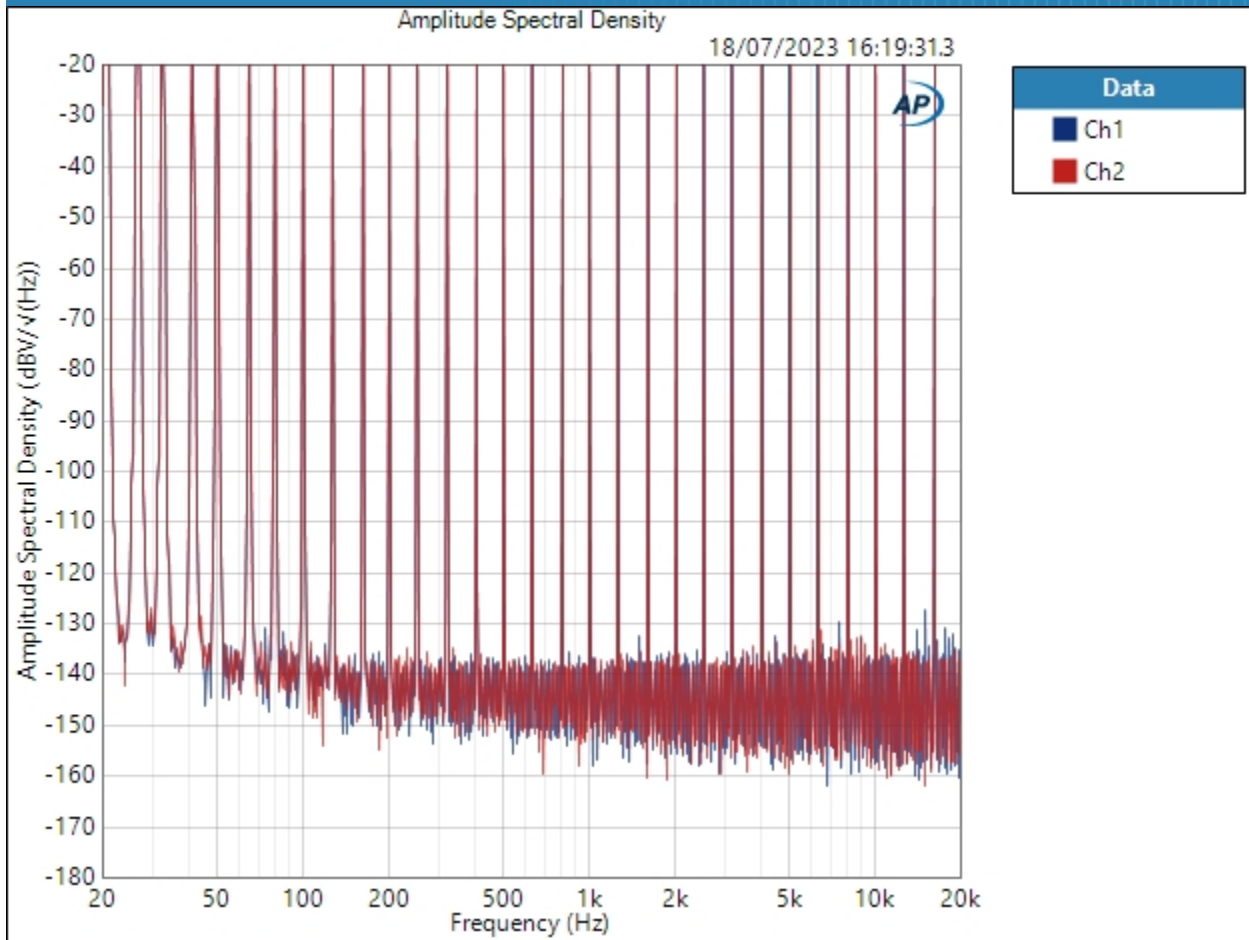
Interpolated: On

Result: PASSED

Amplitude Spectral Density (18/07/2023 16:19:31.315)



## Sequence Report



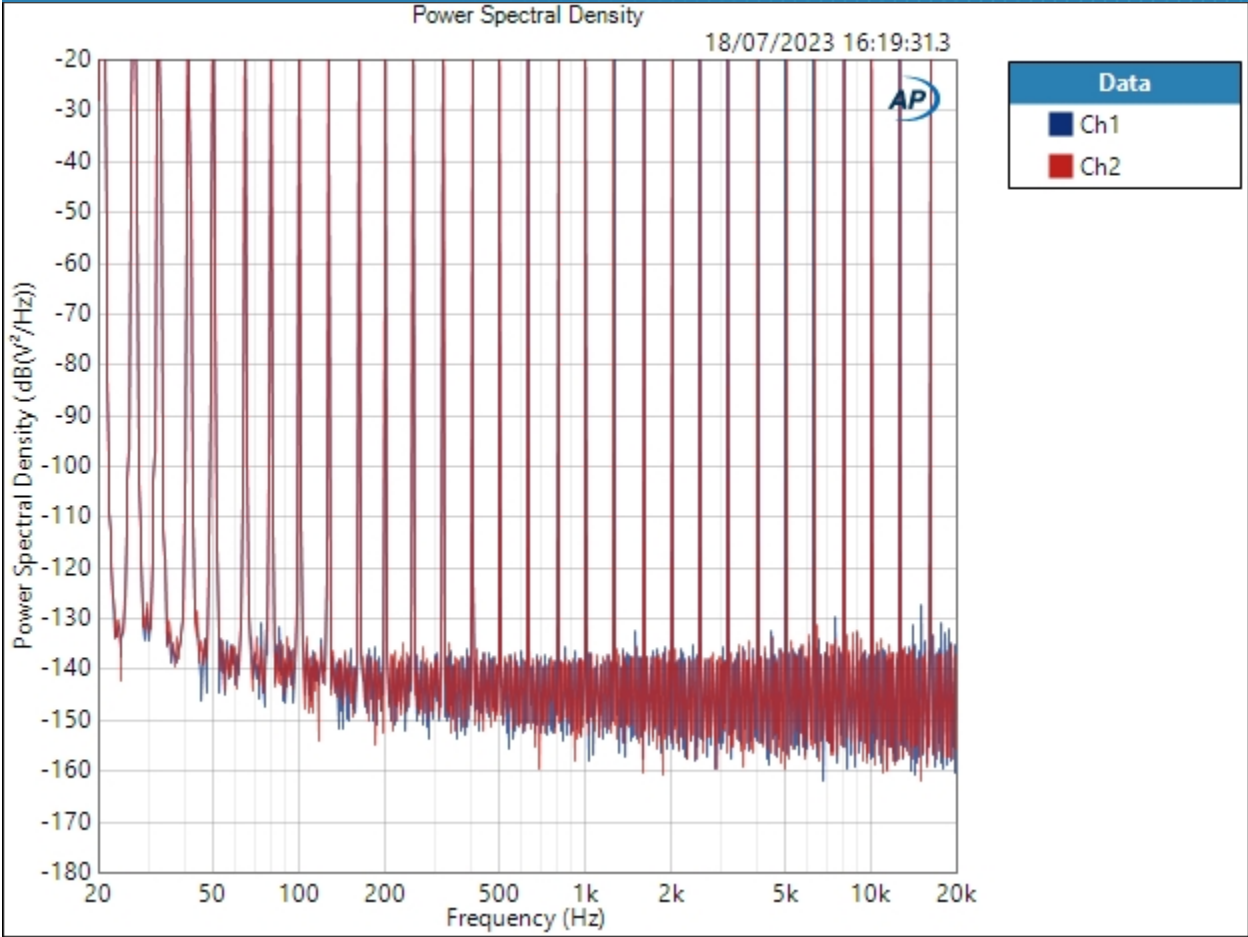
Result: PASSED

Power Spectral Density (18/07/2023 16:19:31.315)





# Sequence Report



Result: PASSED