

Notes:

This is a test of a representative sample. If you have measurements that differ significantly from these, first check your analyzer and setup carefully, and (ideally) see if you can replicate the results on another analyzer. If the odd results persist, contact info@schiiit.com so we can have a look.

Summary

300 Ohm Low Gain

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
Stepped Level Sweep	✓ PASSED


300 Ohm High Gain

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
Stepped Level Sweep	✓ PASSED

Preamp

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
Stepped Level Sweep	✓ PASSED

Sequence Result:

Sequence Result:  PASSED

APx Instrument

Instrument ID: 100546525
Calibration Date: 2/10/2021
APx Version: 6.0.1.592.148673

300 Ohm Low Gain : Signal Path Setup

Output Connector: Analog Unbalanced
 Channels: 2
 Source Impedance: 20 ohm
 Auto Range: Enabled
 Output EQ: None
 Input 1: Analog Unbalanced
 Input Bandwidth: AC (<10 Hz) - 20 kHz (44.1 kHz SR)
 Input EQ: None
 Channels: 2
 Termination: 300 ohm
 Input 2: None
 Device Delay: 0.000 s

• References

dBr G: 100.0 mVrms
 dBm (Output Power): 600.0 ohm
 W(watts) (Output Power): 8.000 ohm
 Shared Frequency Reference: 1.00000 kHz

Analog Input

dBrA: 1.000 Vrms
 dBrB: 1.000 Vrms
 dBrA Offset: 0.000 dB
 dBrB Offset: 0.000 dB
 dB SPL1: 10.00 mVrms
 dB SPL2: 10.00 mVrms
 dB SPL1 Calibrator Level: 94.000 dB SPL
 dB SPL2 Calibrator Level: 94.000 dB SPL
 dBm (Input Power): 600.0 ohm
 W(watts) (Input Power): 8.000 ohm

• DCX

DCX is not detected.

300 Ohm Low Gain : Level and Gain

Waveform: Sine
Generator Level: 0.950 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (6/22/2023 1:19:11.474 PM)

Ch1 1.010 Vrms
Ch2 1.010 Vrms

300 Ohm Low Gain : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

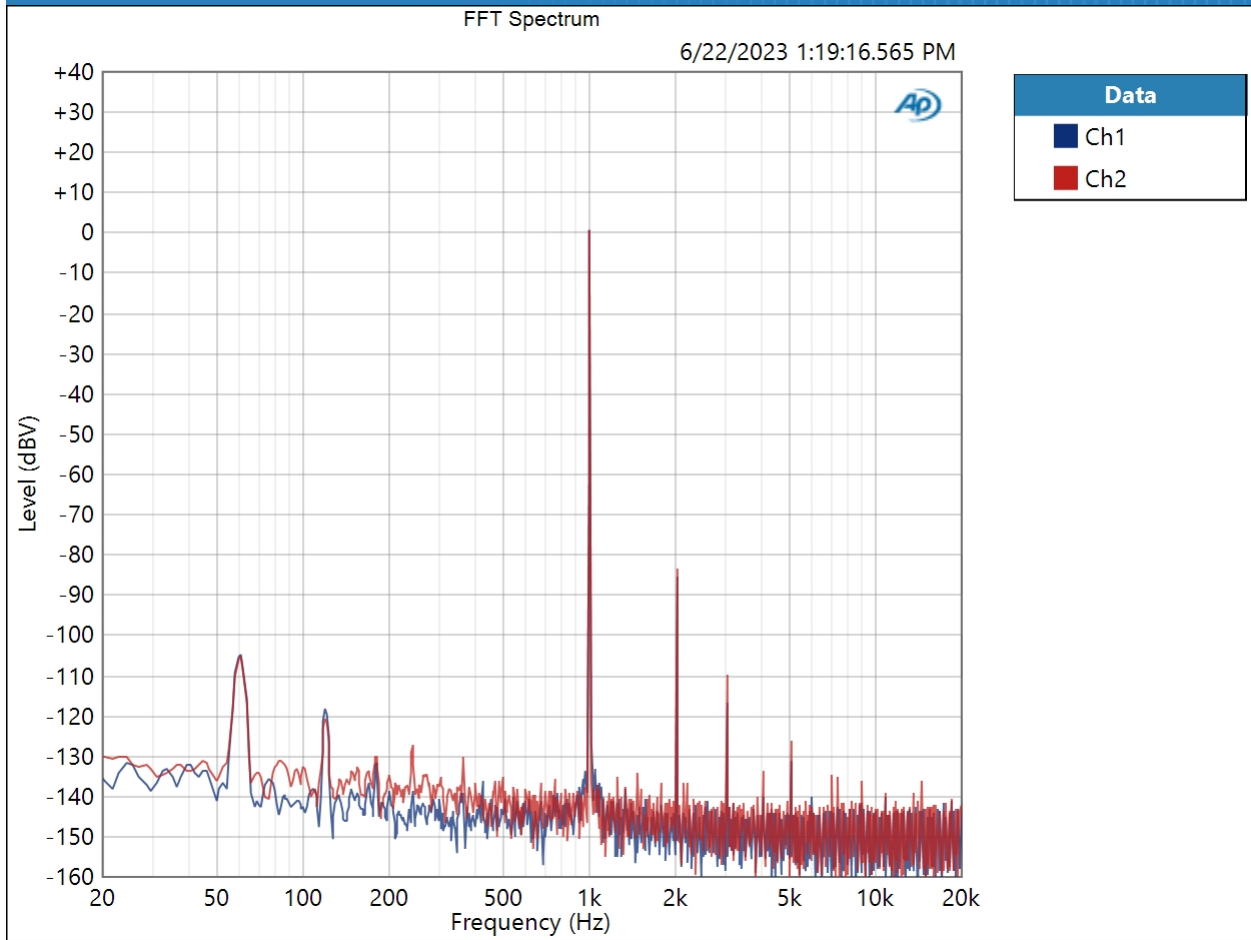
DC Level (6/22/2023 1:19:12.701 PM)

Ch1 347.6 uV
Ch2 113.6 uV

300 Ohm Low Gain : Signal Analyzer

Waveform: Sine
Generator Level: 0.950 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 6/22/2023 1:19:16 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 (6/22/2023 1:19:16.565 PM)

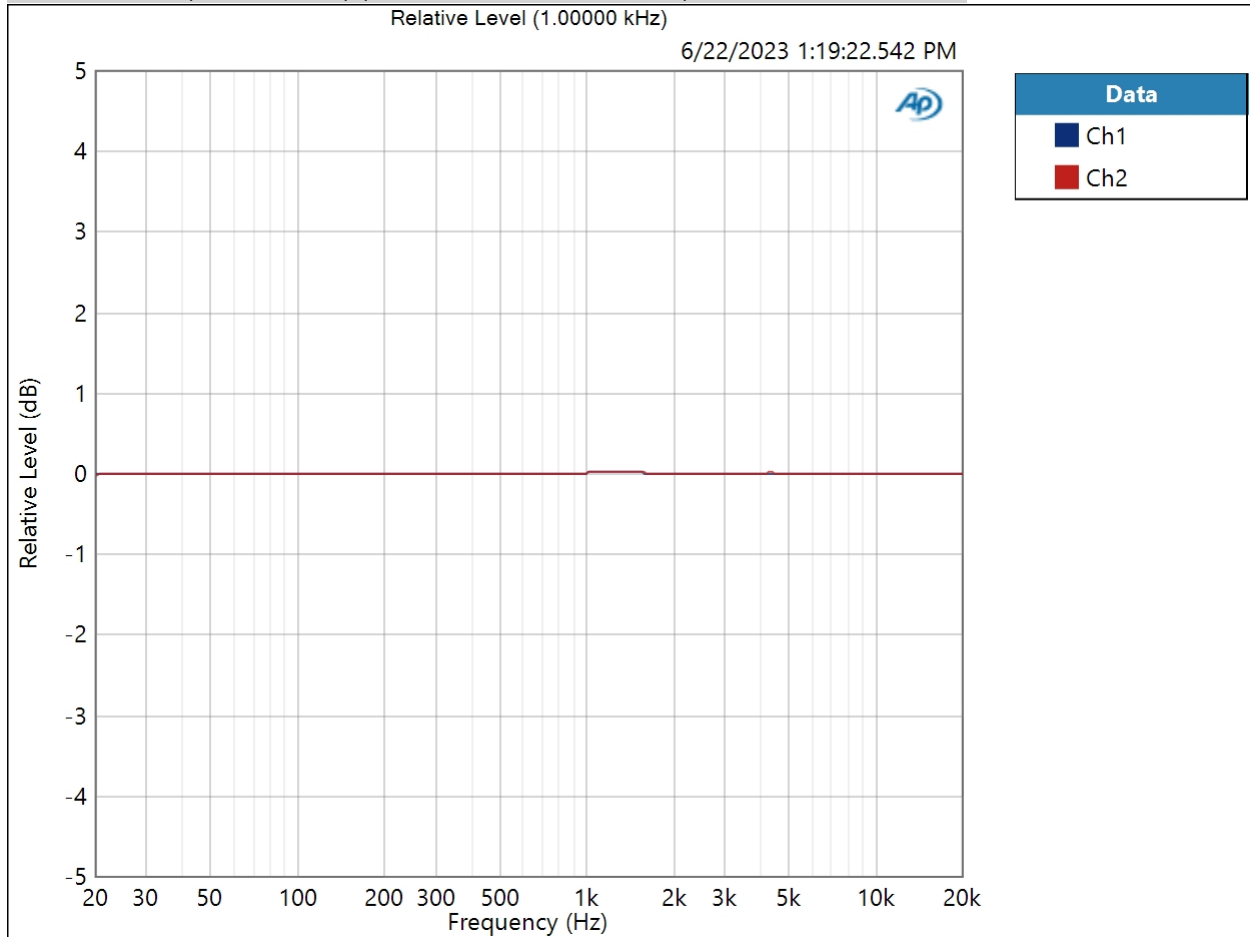


Result: PASSED

300 Ohm Low Gain : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 0.950 Vrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 2.000 s
Secondary Source: None
Measured 1 6/22/2023 1:19:22 PM

Relative Level (1.00000 kHz) (6/22/2023 1:19:22.542 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) (6/22/2023 1:19:22.542 PM)

Ch1 ± 0.010 dB

Ch2 ± 0.013 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

300 Ohm Low Gain : Signal to Noise Ratio

Waveform: Sine

Generator Level: 1.900 Vrms

DC Offset: 0.000 V

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 (6/22/2023 1:19:24.589 PM)

Ch1 120.158 dB

Ch2 117.897 dB

300 Ohm Low Gain : THD+N

Waveform: Sine
 Generator Level: 0.950 Vrms
 DC Offset: 0.000 V
 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 (6/22/2023 1:19:26.492 PM)

Ch1 0.005219 %
 Ch2 0.006750 %

THD Ratio (6/22/2023 1:19:26.492 PM)

Ch1 0.005172 %
 Ch2 0.006719 %

Noise Ratio (6/22/2023 1:19:26.492 PM)

Ch1 0.000667 %
 Ch2 0.000639 %

Distortion Product Ratio (6/22/2023 1:19:26.492 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	-85.73	-116.45	-140.52	-133.52	-141.37	-140.32	-140.66	-138.50	-138.95
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-83.46	-110.20	-134.29	-127.10	-135.29	-132.31	-140.39	-133.91	-135.40

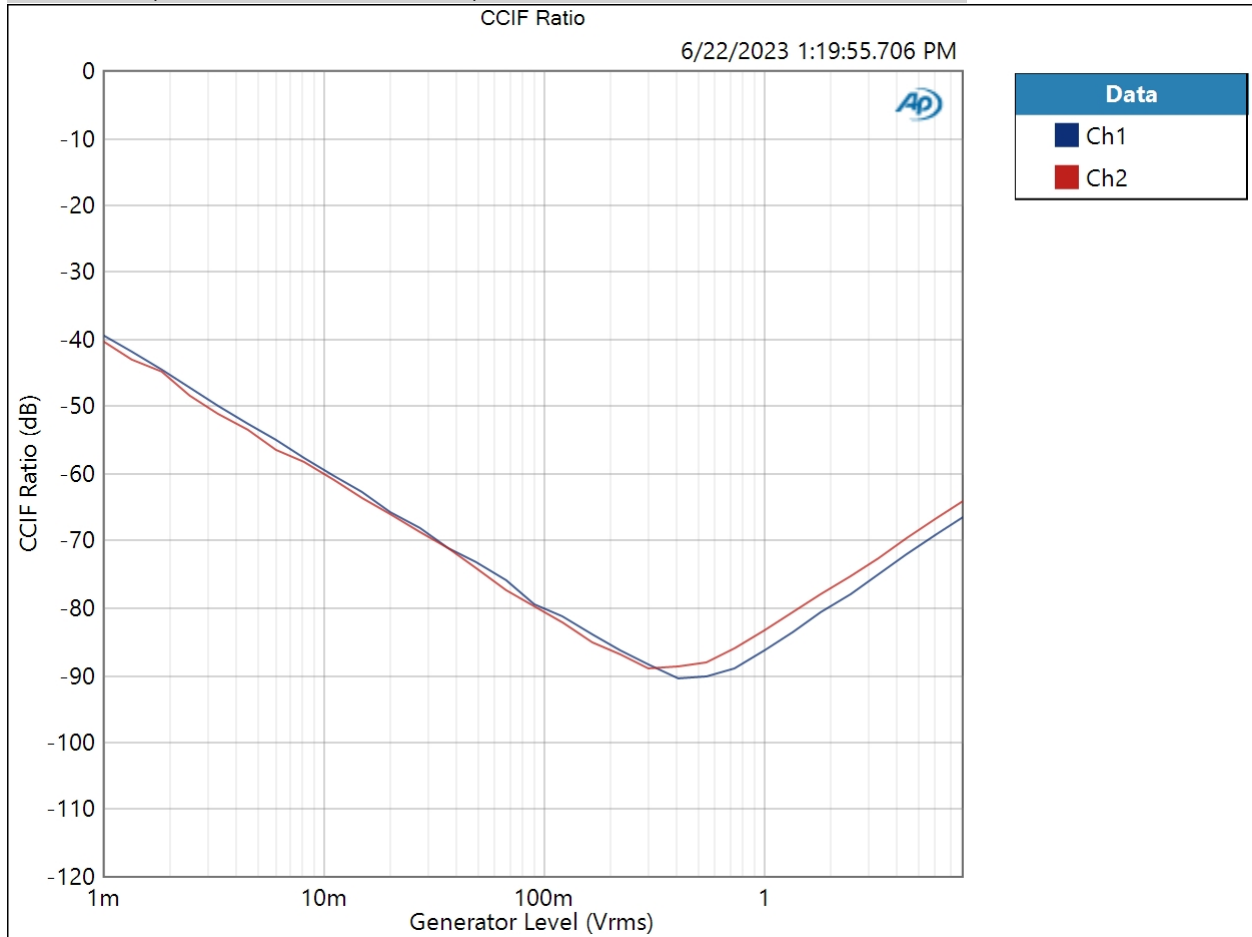
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

300 Ohm Low Gain : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: 1.000 mVrms
 Stop Level: 8.000 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 6/22/2023 1:19:55 PM

CCIF Ratio (6/22/2023 1:19:55.706 PM)



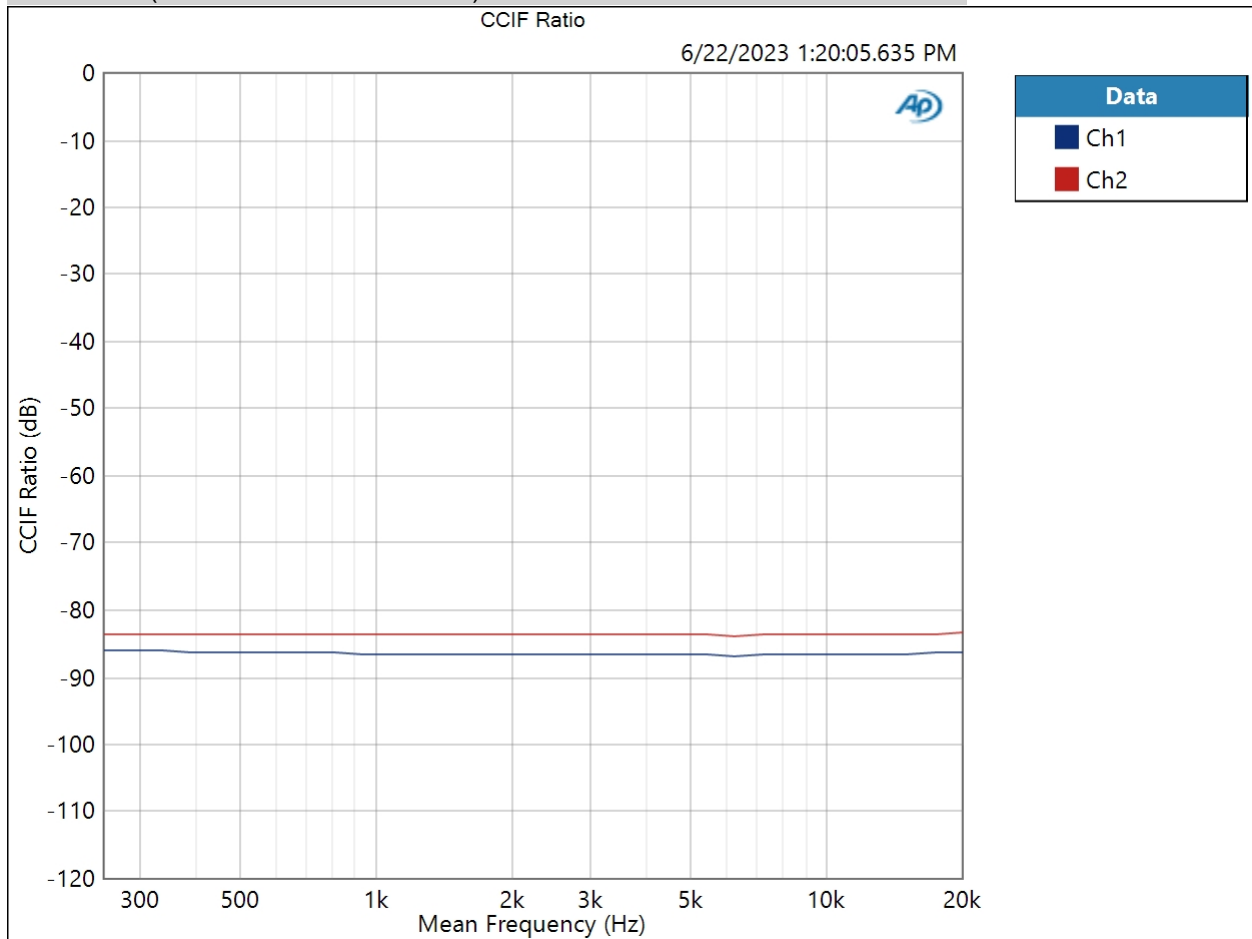
Result: PASSED

6/22/2023 1:27 PM

300 Ohm Low Gain : IMD Frequency Sweep (CCIF)

Generator Level: 0.950 Vrms
DC Offset: 0.000 V
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 6/22/2023 1:20:05 PM

CCIF Ratio (6/22/2023 1:20:05.635 PM)



Result:  PASSED

300 Ohm Low Gain : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: 0.905 Vrms

DC Offset: 0.000 V

Frequency: 10.0000 kHz

Crosstalk (6/22/2023 1:20:07.116 PM)

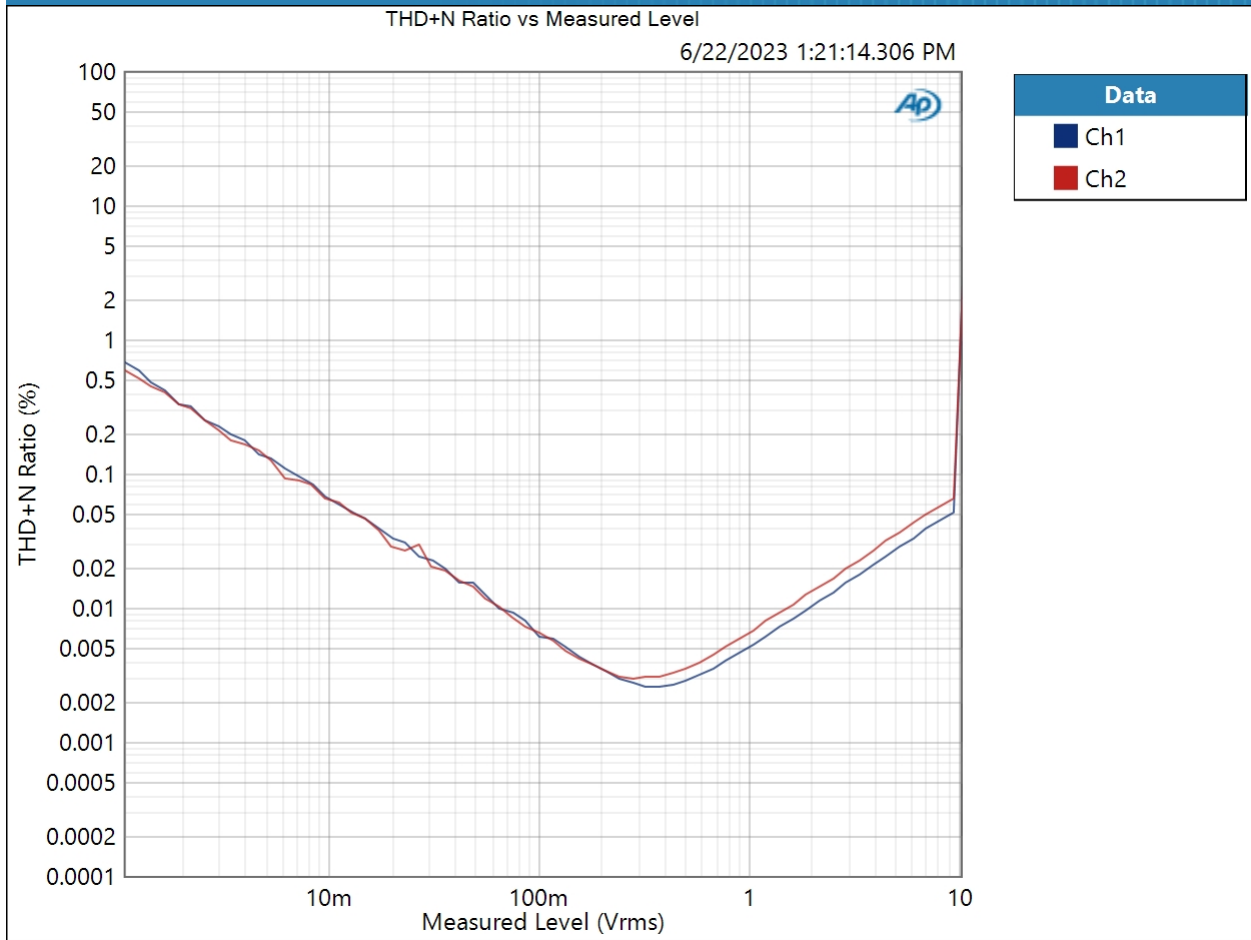
Ch1 -87.396 dB

Ch2 -88.337 dB

300 Ohm Low Gain : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 10.00 Vrms
Step Type: Logarithmic
Number of Points: 64
Offset: 0.000 V
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 6/22/2023 1:21:14 PM

THD+N Ratio vs Measured Level (6/22/2023 1:21:14.306 PM)



Result: PASSED

300 Ohm High Gain : Signal Path Setup

Output Connector: Analog Unbalanced
 Channels: 2
 Source Impedance: 20 ohm
 Auto Range: Enabled
 Output EQ: None
 Input 1: Analog Unbalanced
 Input Bandwidth: AC (<10 Hz) - 20 kHz (44.1 kHz SR)
 Input EQ: None
 Channels: 2
 Termination: 300 ohm
 Input 2: None
 Device Delay: 0.000 s

• References

dBr G: 100.0 mVrms
 dBm (Output Power): 600.0 ohm
 W(watts) (Output Power): 8.000 ohm
 Shared Frequency Reference: 1.00000 kHz

Analog Input

dBrA: 1.000 Vrms
 dBrB: 1.000 Vrms
 dBrA Offset: 0.000 dB
 dBrB Offset: 0.000 dB
 dB SPL1: 10.00 mVrms
 dB SPL2: 10.00 mVrms
 dB SPL1 Calibrator Level: 94.000 dB SPL
 dB SPL2 Calibrator Level: 94.000 dB SPL
 dBm (Input Power): 600.0 ohm
 W(watts) (Input Power): 8.000 ohm

• DCX

DCX is not detected.

300 Ohm High Gain : Level and Gain

Waveform: Sine
Generator Level: 220.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (6/22/2023 1:26:28.742 PM)

Ch1 1.001 Vrms
Ch2 0.967 Vrms

300 Ohm High Gain : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

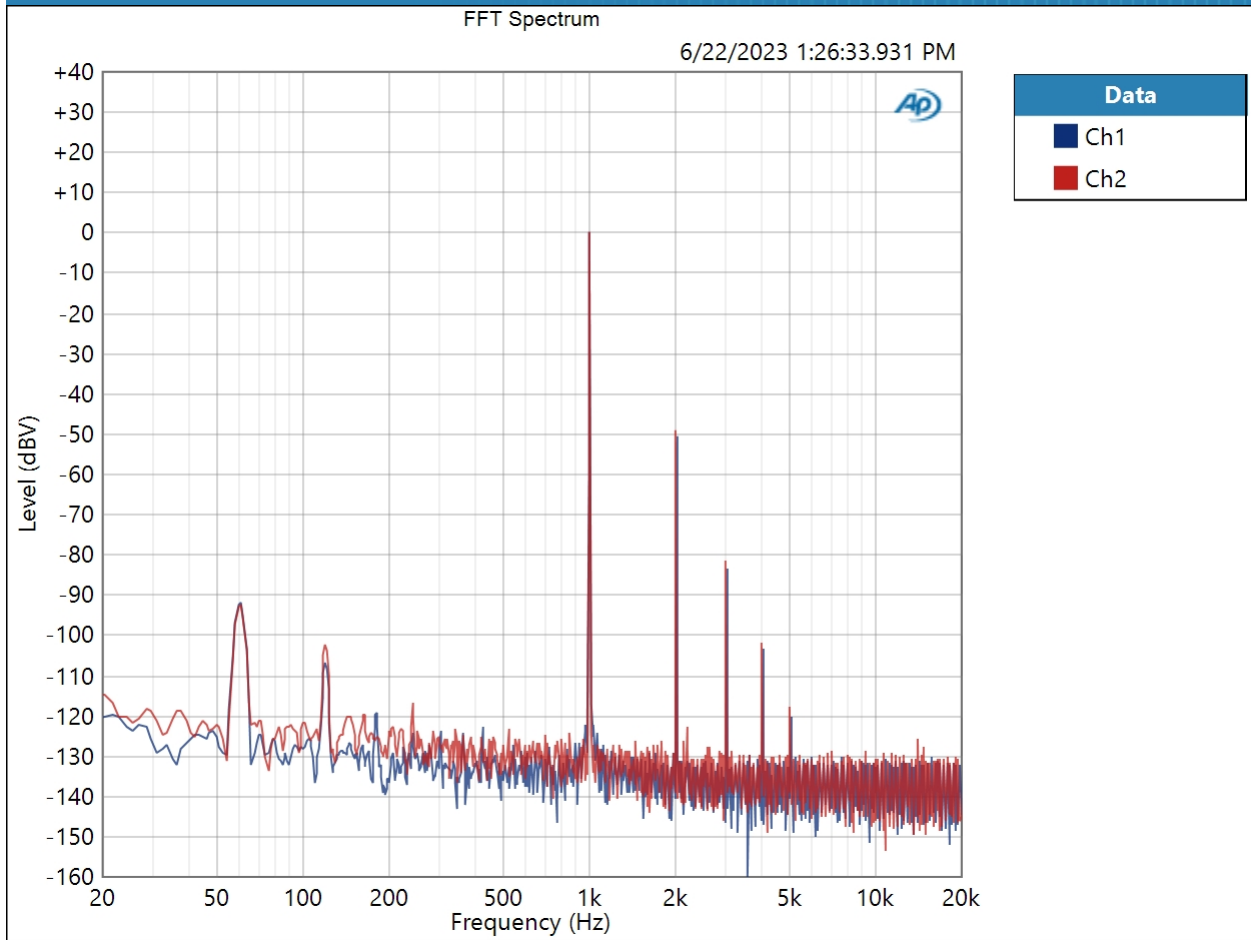
DC Level (6/22/2023 1:26:29.995 PM)

Ch1 139.1 uV
Ch2 15.82 uV

300 Ohm High Gain : Signal Analyzer

Waveform: Sine
Generator Level: 220.0 mVrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 6/22/2023 1:26:33 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 (6/22/2023 1:26:33.931 PM)

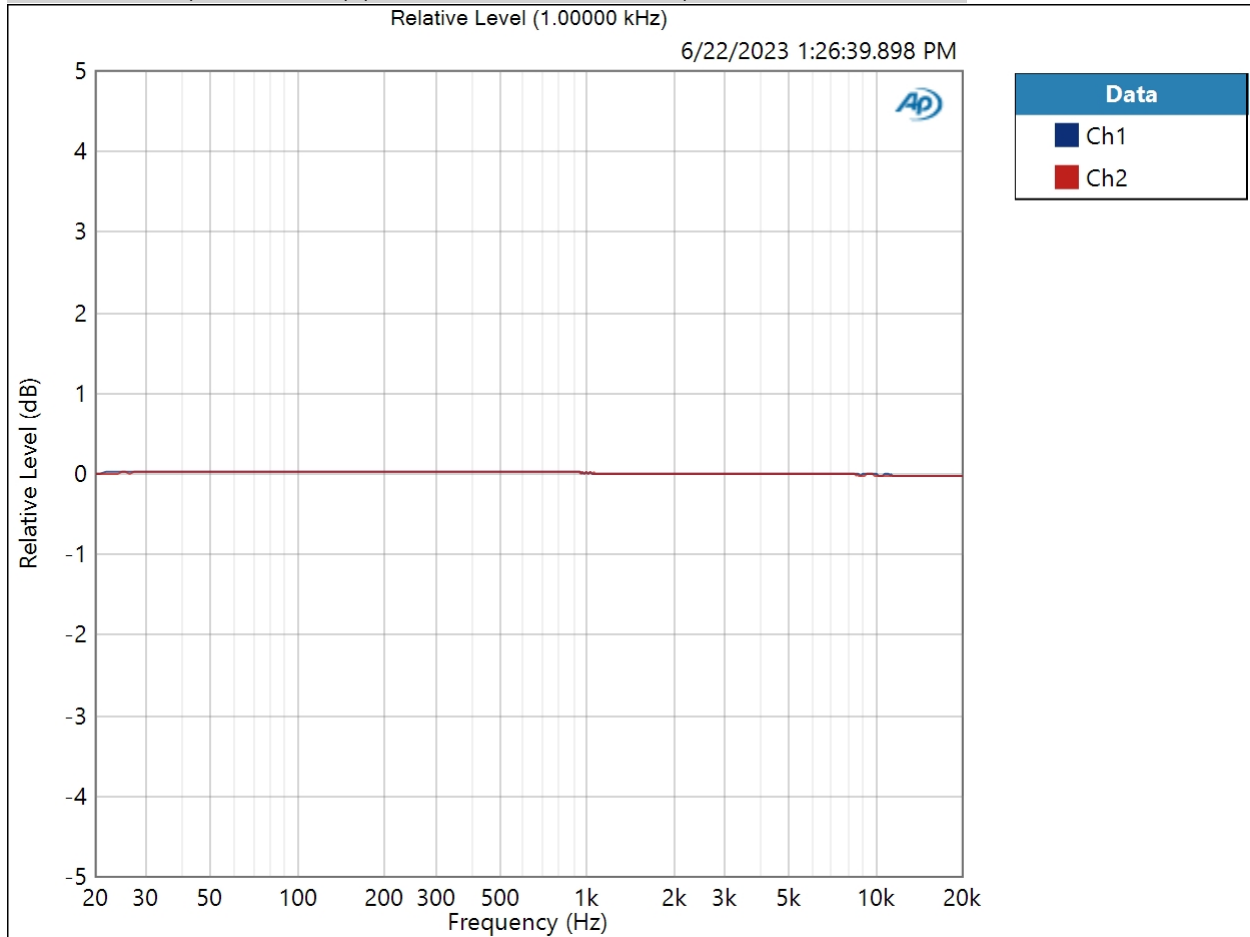


Result:  PASSED

300 Ohm High Gain : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 220.0 mVrms
 DC Offset: 0.000 V
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 2.000 s
 Secondary Source: None
 Measured 1 6/22/2023 1:26:39 PM

Relative Level (1.00000 kHz) (6/22/2023 1:26:39.898 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) (6/22/2023 1:26:39.898 PM)

Ch1 ± 0.034 dB

Ch2 ± 0.036 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

300 Ohm High Gain : Signal to Noise Ratio

Waveform: Sine

Generator Level: 440.0 mVrms

DC Offset: 0.000 V

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 (6/22/2023 1:26:41.920 PM)

Ch1 106.363 dB

Ch2 104.952 dB

300 Ohm High Gain : THD+N

Waveform: Sine
 Generator Level: 220.0 mVrms
 DC Offset: 0.000 V
 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 (6/22/2023 1:26:43.566 PM)

Ch1 0.295716 %
 Ch2 0.361811 %

THD Ratio (6/22/2023 1:26:43.566 PM)

Ch1 0.293705 %
 Ch2 0.359781 %

Noise Ratio (6/22/2023 1:26:43.566 PM)

Ch1 ---- %
 Ch2 ---- %

Distortion Product Ratio (6/22/2023 1:26:43.566 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	-50.64	-83.67	-103.06	-118.17	-129.38	-127.57	-127.77	-129.13	-129.47
Ch2	-0.00	-48.88	-81.22	-101.55	-115.37	-126.72	-126.04	-124.98	-126.53	-125.49

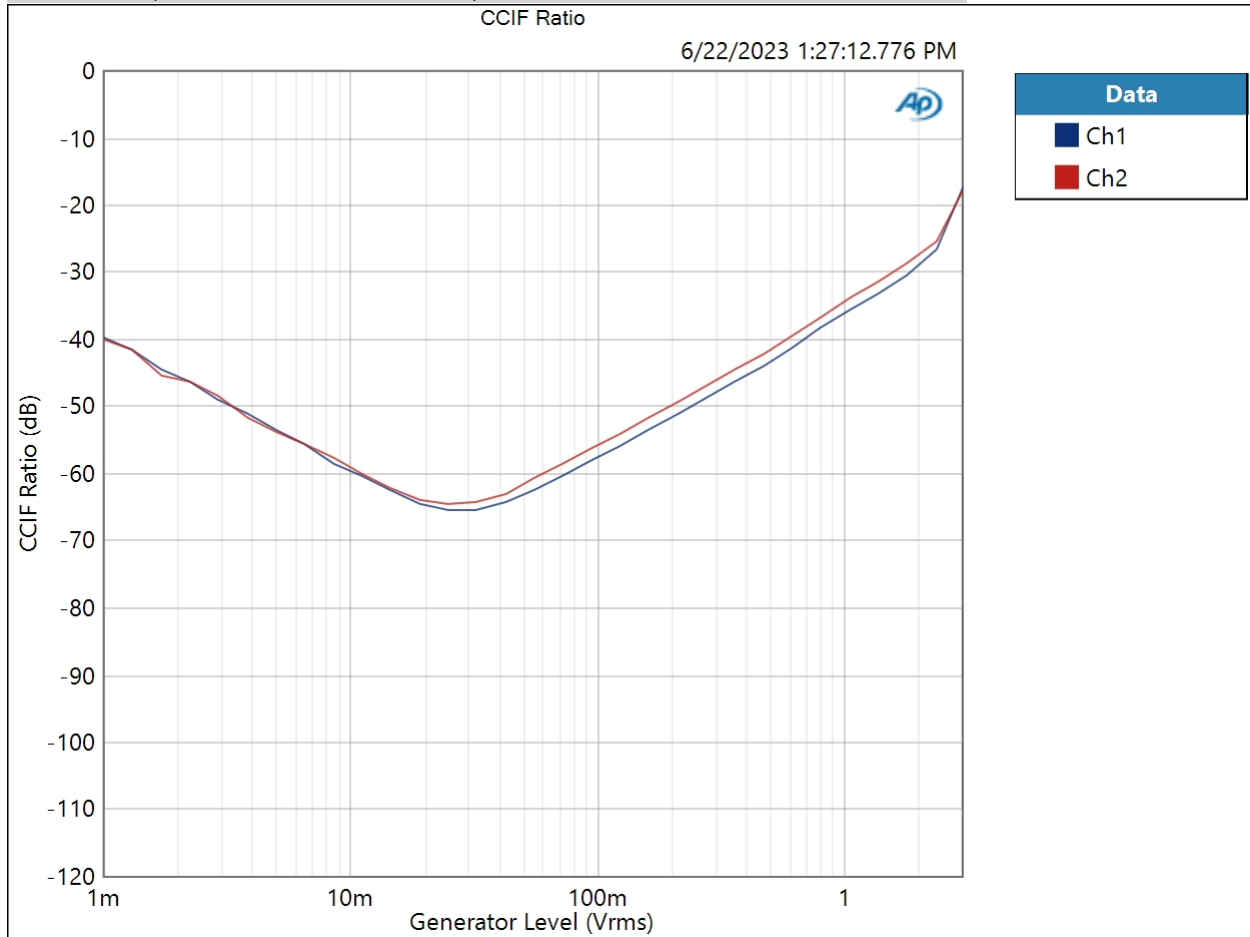
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

300 Ohm High Gain : IMD Level Sweep (CCIF)

IMD Type: CCIF
 Mean Frequency: 12.5000 kHz
 Diff Frequency: 80.0000 Hz
 IMD Split: False
 Start Level: 1.000 mVrms
 Stop Level: 3.000 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 6/22/2023 1:27:12 PM

CCIF Ratio (6/22/2023 1:27:12.776 PM)



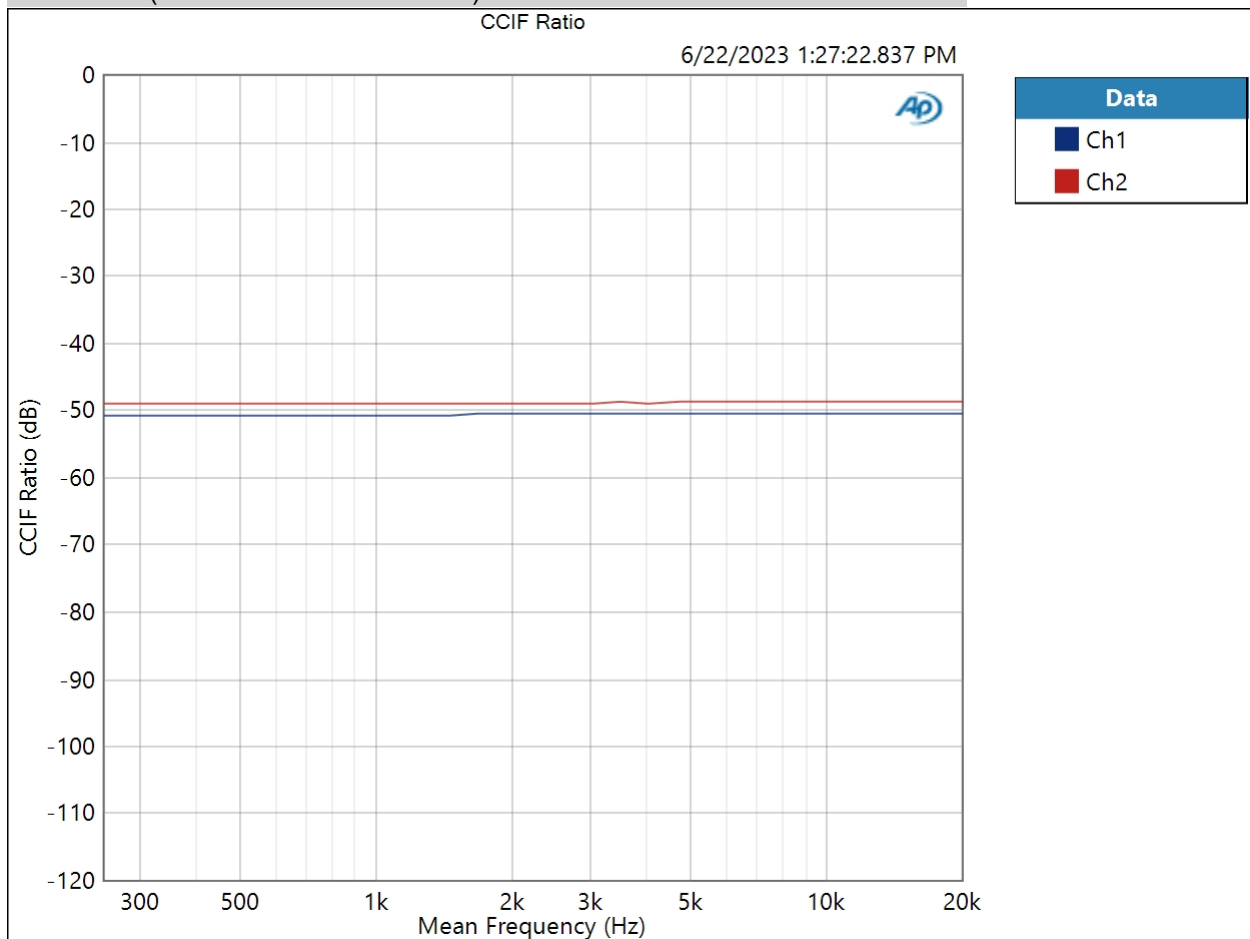
Result: PASSED

6/22/2023 1:27 PM

300 Ohm High Gain : IMD Frequency Sweep (CCIF)

Generator Level: 220.0 mVrms
 DC Offset: 0.000 V
 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 6/22/2023 1:27:22 PM

CCIF Ratio (6/22/2023 1:27:22.837 PM)



Result:  PASSED

300 Ohm High Gain : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency: 10.0000 kHz

Crosstalk (6/22/2023 1:27:24.269 PM)

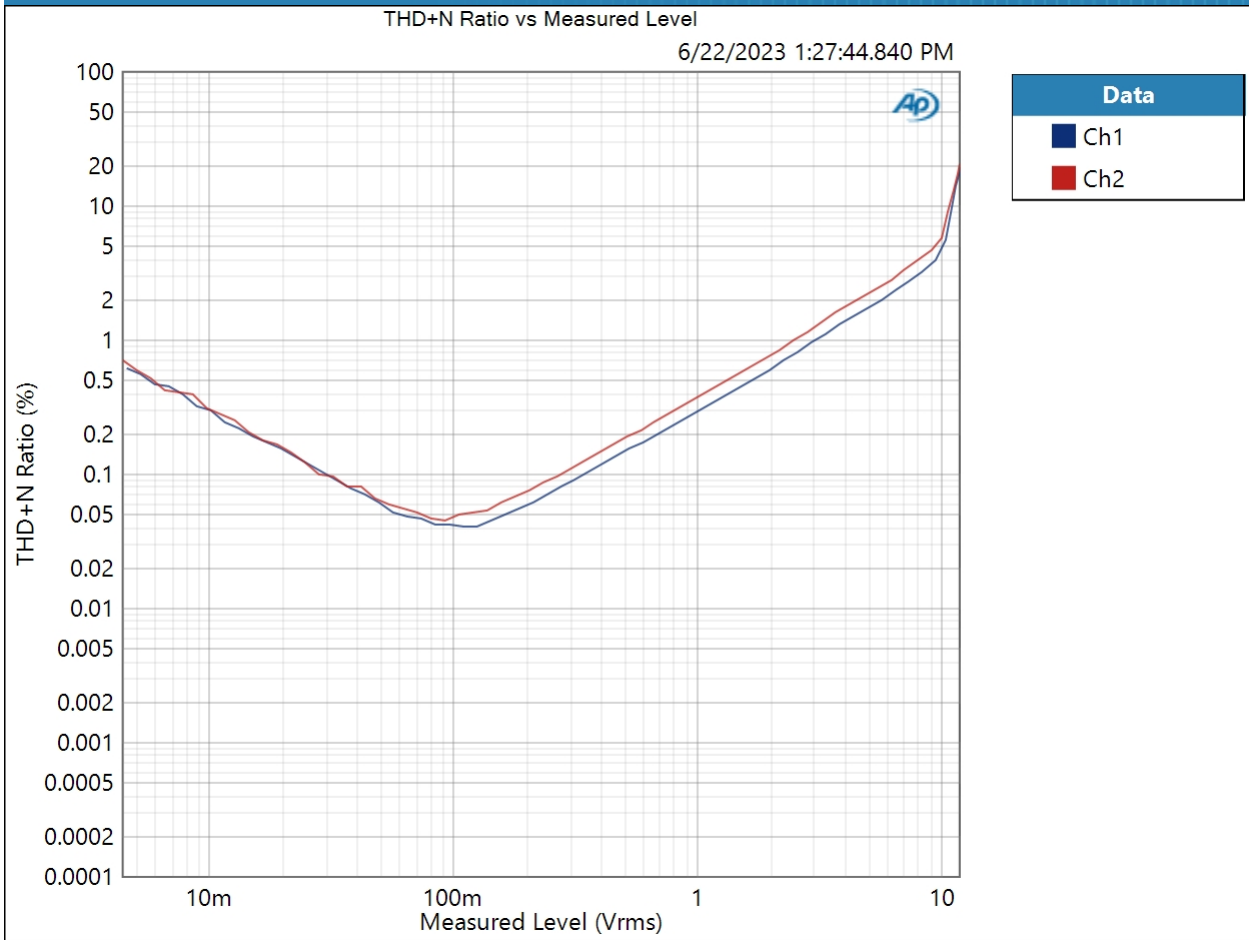
Ch1 -67.755 dB

Ch2 -67.877 dB

300 Ohm High Gain : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 64
Offset: 0.000 V
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 6/22/2023 1:27:44 PM

THD+N Ratio vs Measured Level (6/22/2023 1:27:44.840 PM)



Result: PASSED

Preamp : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Source Impedance:	20 ohm
Auto Range:	Enabled
Output EQ:	None
Input 1:	Analog Unbalanced
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Input EQ:	None
Channels:	2
Termination:	100 kohm
Input 2:	None
Device Delay:	0.000 s
• References	
dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
Analog Input	
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dB SPL1:	10.00 mVrms
dB SPL2:	10.00 mVrms
dB SPL1 Calibrator Level:	94.000 dB SPL
dB SPL2 Calibrator Level:	94.000 dB SPL
dBm (Input Power):	600.0 ohm
W(watts) (Input Power):	8.000 ohm
• DCX	
DCX is not detected.	

Preamp : Level and Gain

Waveform: Sine
Generator Level: 1.900 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Low-pass Filter: Signal Path

RMS Level (6/22/2023 1:22:00.582 PM)

Ch1 2.032 Vrms
Ch2 2.027 Vrms

Preamp : DC Level

Waveform: Sine
Generator Level: 0.000 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Delay Time: 100.0 ms
Acquisition Time: 333.0 ms

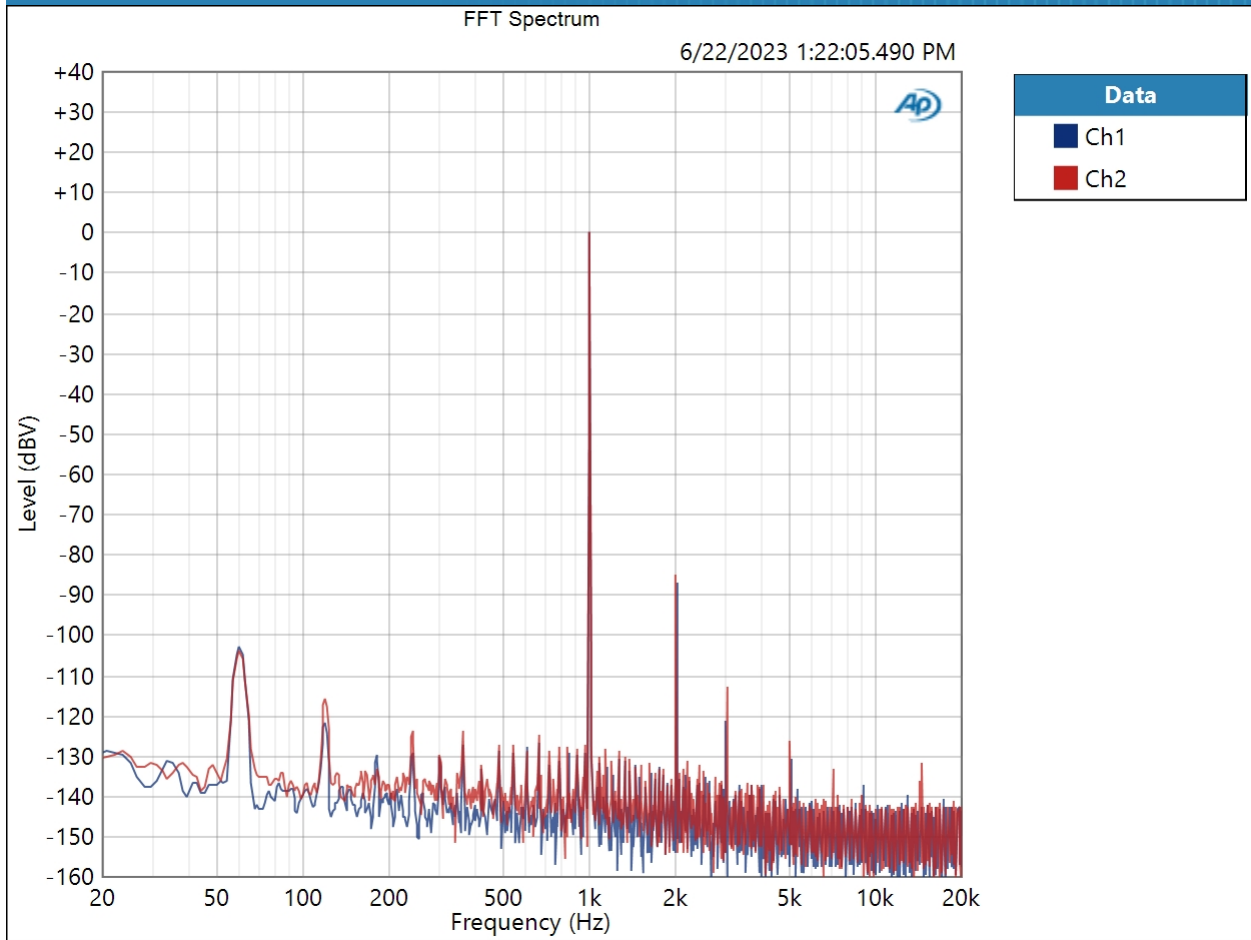
DC Level (6/22/2023 1:22:01.783 PM)

Ch1 -0.990 mV
Ch2 -207.0 uV

Preamp : Signal Analyzer

Waveform: Sine
Generator Level: 0.950 Vrms
DC Offset: 0.000 V
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 6/22/2023 1:22:05 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 (6/22/2023 1:22:05.490 PM)

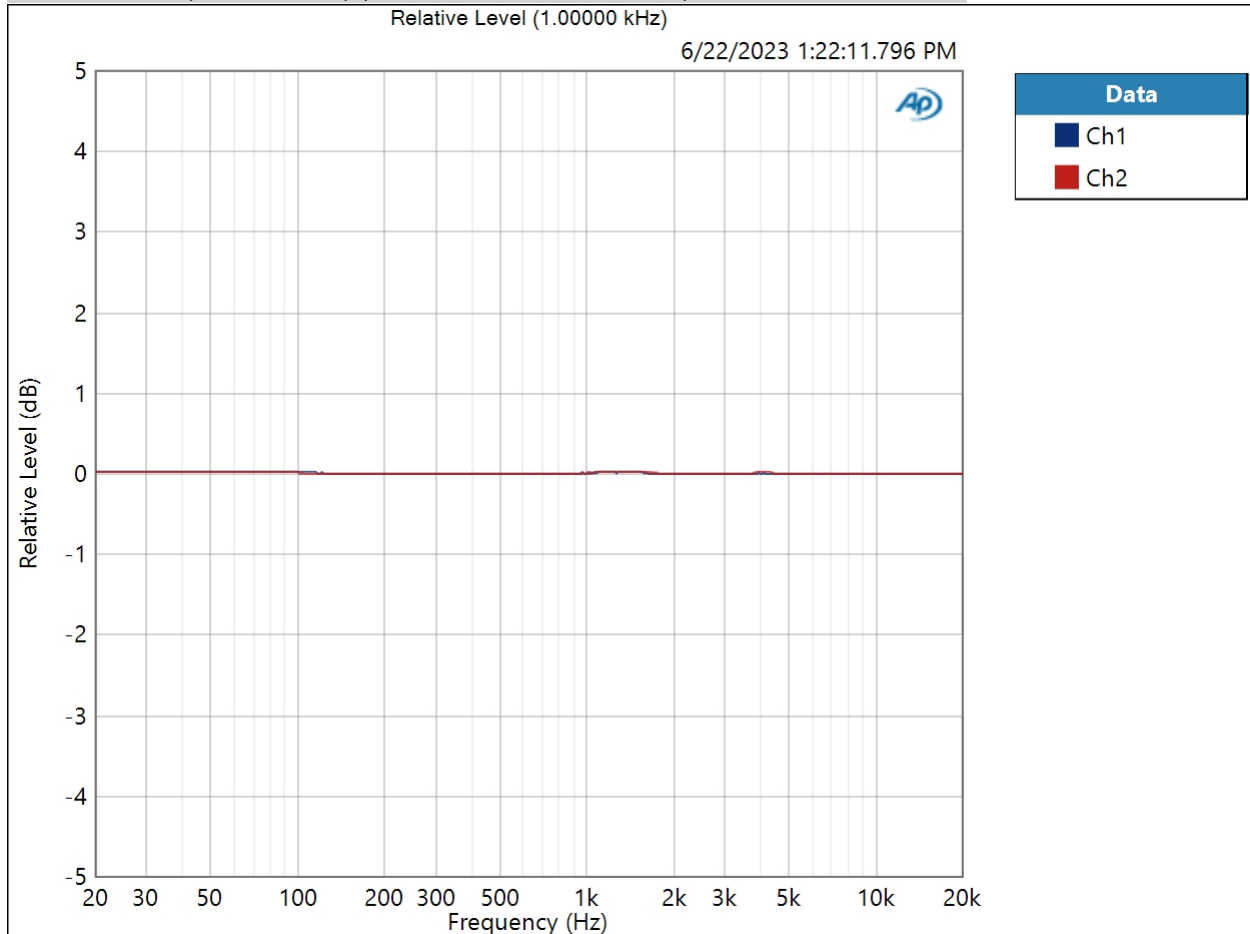


Result: PASSED

Preamp : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 0.950 Vrms
 DC Offset: 0.000 V
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 2.000 s
 Secondary Source: None
 Measured 1 6/22/2023 1:22:11 PM

Relative Level (1.00000 kHz) (6/22/2023 1:22:11.796 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) (6/22/2023 1:22:11.796 PM)

Ch1 ± 0.007 dB

Ch2 ± 0.007 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Preamp : Signal to Noise Ratio

Waveform: Sine

Generator Level: 1.950 Vrms

DC Offset: 0.000 V

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 (6/22/2023 1:22:13.933 PM)

Ch1 118.506 dB

Ch2 116.663 dB

Preamp : THD+N

Waveform: Sine
 Generator Level: 0.950 Vrms
 DC Offset: 0.000 V
 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 (6/22/2023 1:22:15.901 PM)

Ch1 0.004474 %
 Ch2 0.005792 %

THD Ratio (6/22/2023 1:22:15.901 PM)

Ch1 0.004396 %
 Ch2 0.005740 %

Noise Ratio (6/22/2023 1:22:15.901 PM)

Ch1 0.000906 %
 Ch2 0.000728 %

Distortion Product Ratio (6/22/2023 1:22:15.901 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	-87.14	-120.75	-138.92	-130.14	-134.52	-138.46	-137.14	-141.00	-138.81
Ch2	-0.00	-84.83	-112.42	-136.90	-125.48	-140.29	-132.96	-141.77	-132.96	-142.98

Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Preamp : IMD Level Sweep (CCIF)

IMD Type: CCIF

Mean Frequency: 12.5000 kHz

Diff Frequency: 80.0000 Hz

IMD Split: False

Start Level: 1.000 mVrms

Stop Level: 8.000 Vrms

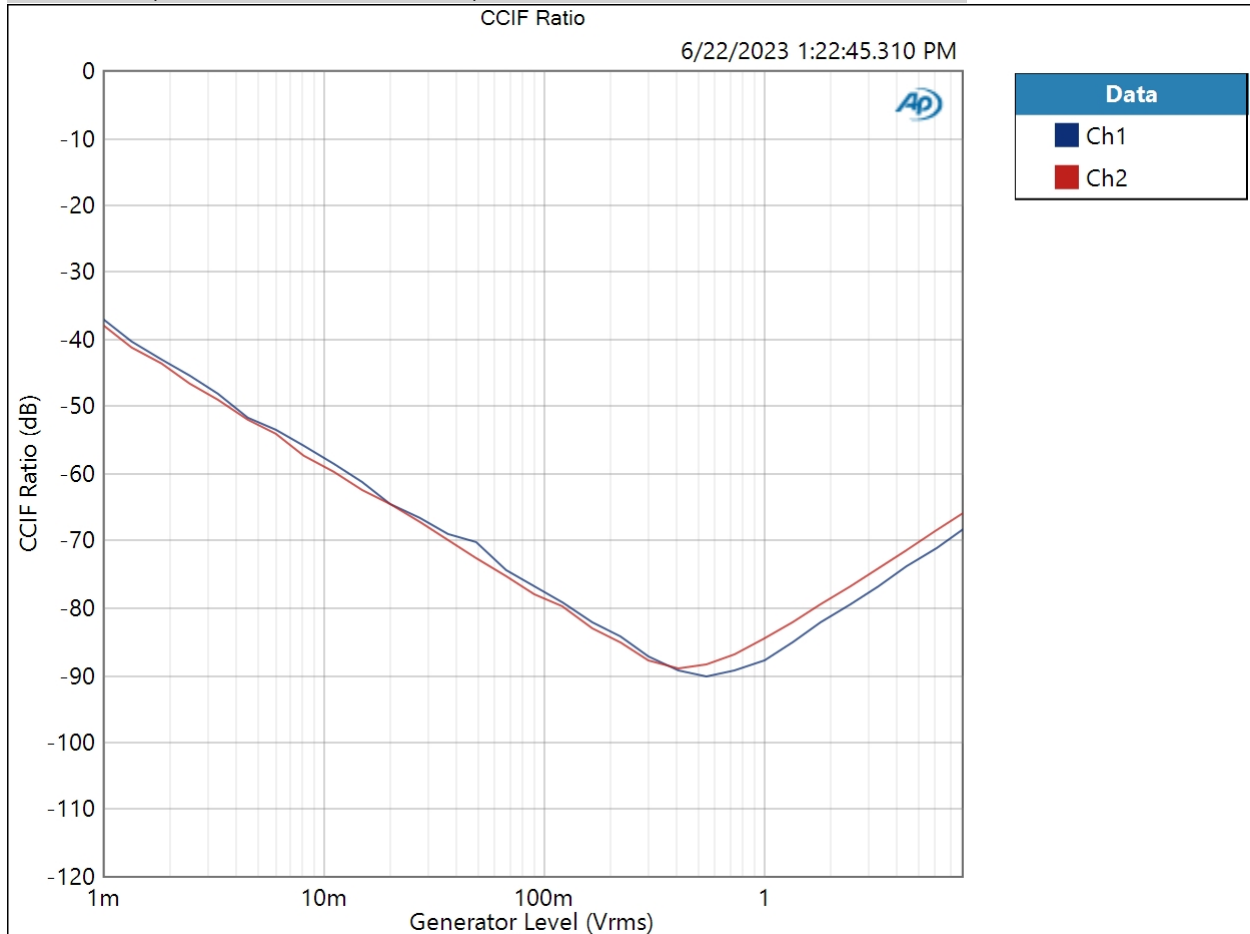
Step Type: Logarithmic

Number of Points: 31

Mode: d2+d3

Measured 1 6/22/2023 1:22:45 PM

CCIF Ratio (6/22/2023 1:22:45.310 PM)



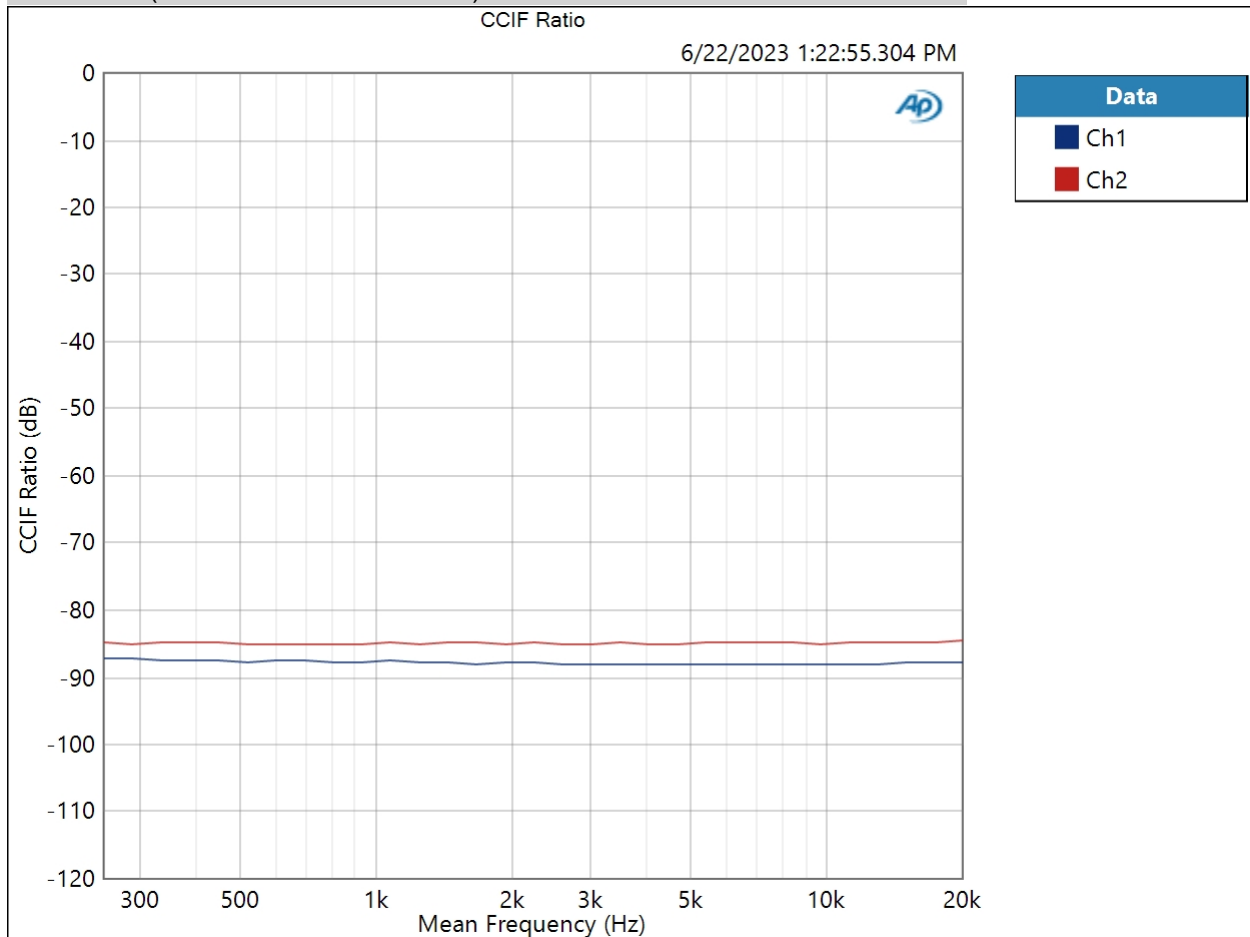
Result: PASSED

6/22/2023 1:27 PM

Preamp : IMD Frequency Sweep (CCIF)

Generator Level: 0.950 Vrms
DC Offset: 0.000 V
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 6/22/2023 1:22:55 PM

CCIF Ratio (6/22/2023 1:22:55.304 PM)



Result:  PASSED

Preamp : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: 0.905 Vrms

DC Offset: 0.000 V

Frequency: 10.0000 kHz

Crosstalk (6/22/2023 1:22:57.512 PM)

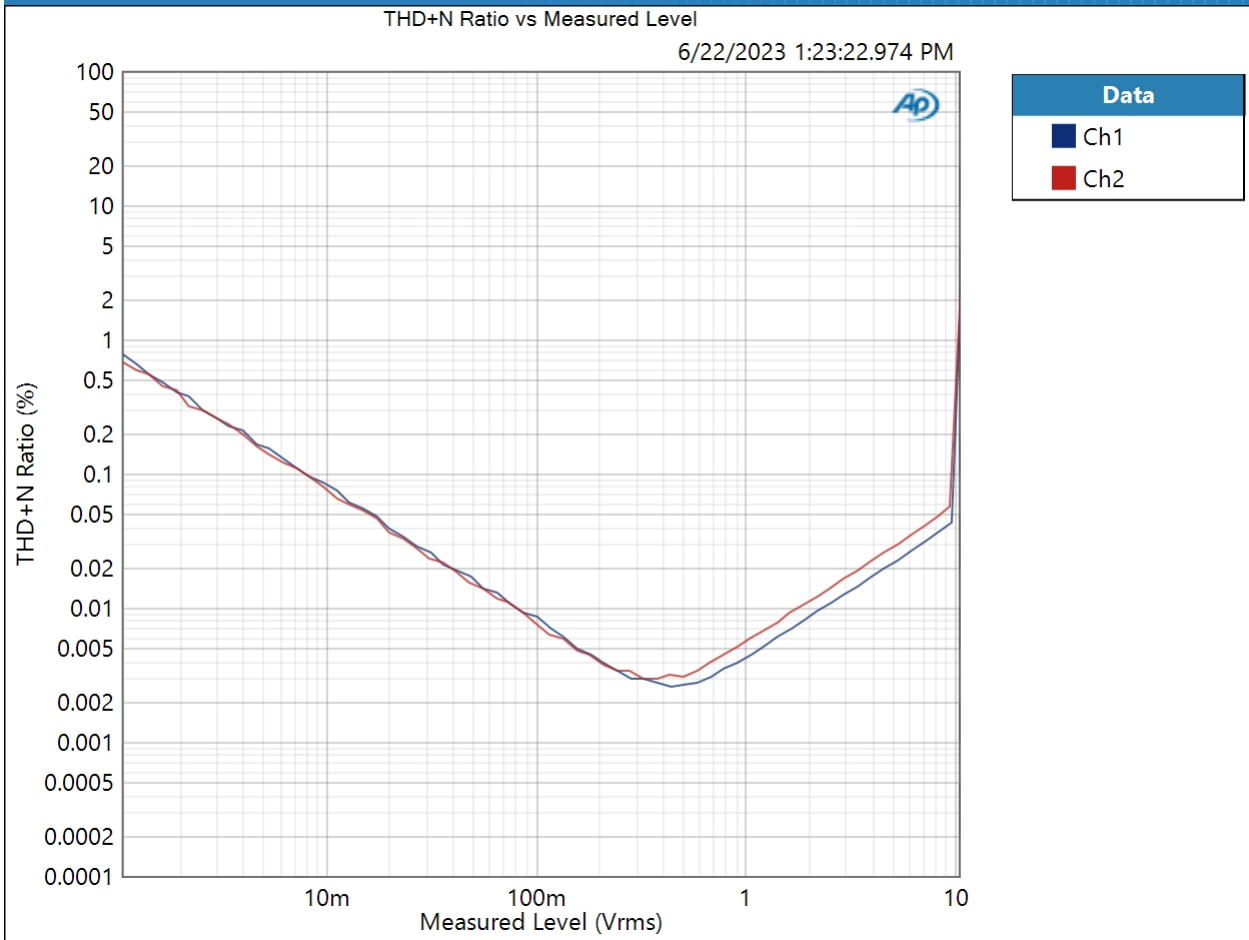
Ch1 -104.882 dB

Ch2 -100.891 dB

Preamp : Stepped Level Sweep

Waveform: Sine
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 10.00 Vrms
Step Type: Logarithmic
Number of Points: 64
Offset: 0.000 V
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 6/22/2023 1:23:22 PM

THD+N Ratio vs Measured Level (6/22/2023 1:23:22.974 PM)



Result: PASSED