

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 SS

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 SS

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 Low Gain Tube

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 Tube

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

32 Ohm Low Gain SS

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

32 Ohm High Gain SS

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

32 Ohm Low Gain Tube

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

32 Ohm High Gain Tube

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 SS

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 Tube

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: 11571

Calibration Date: 3/23/2021

APx Version: 6.0.2.600.149330

300 Ohm Low Gain SS : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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
High Performance Sine Analyzer:	Enabled
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.

• 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

300 Ohm Low Gain SS : Level and Gain

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.700 Vrms
 Frequency: 1.00000 kHz
 Low-pass Filter: Signal Path

RMS Level (8/23/2022 9:26:04.863 AM)

Ch1 2.007 Vrms
 Ch2 2.007 Vrms

300 Ohm Low Gain SS : 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

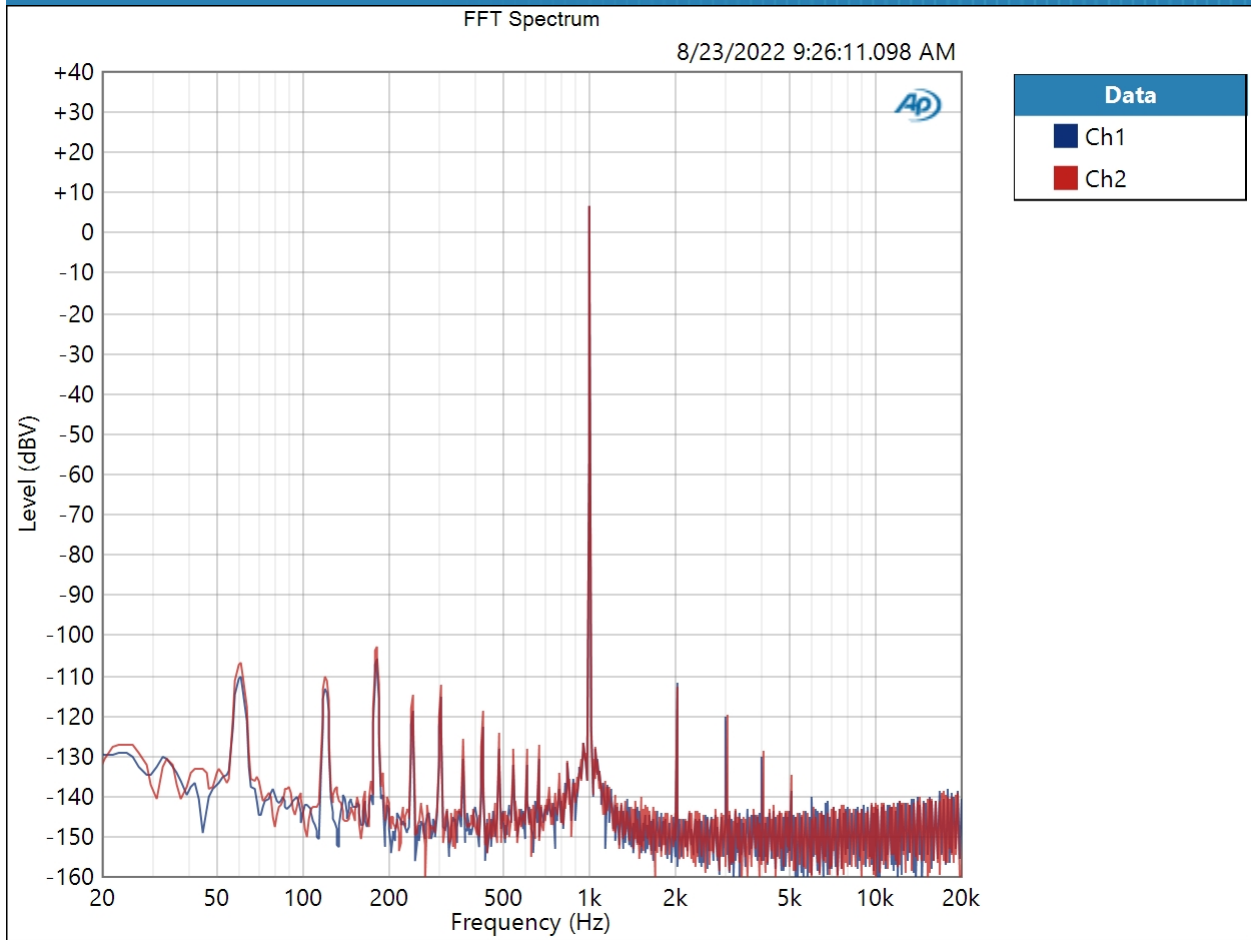
DC Level (8/23/2022 9:26:06.525 AM)

Ch1 -1.939 mV
 Ch2 -1.335 mV

300 Ohm Low Gain SS : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.700 Vrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:26:11 AM
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 (8/23/2022 9:26:11.098 AM)

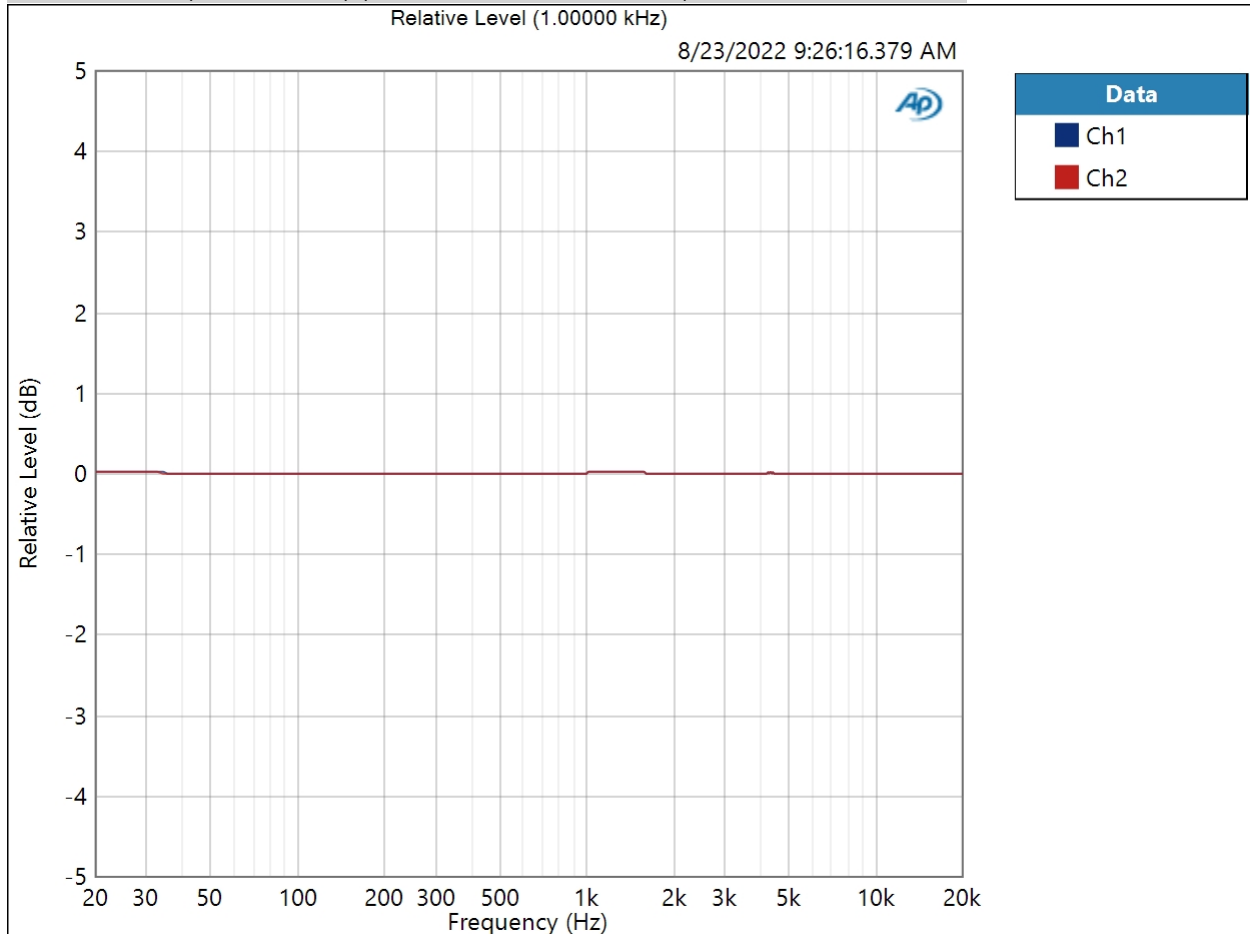


Result: PASSED

300 Ohm Low Gain SS : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 1.700 Vrms
 DC Offset: 0.000 V
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 1.000 s
 Secondary Source: None
 Measured 1 8/23/2022 9:26:16 AM

Relative Level (1.00000 kHz) (8/23/2022 9:26:16.379 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:26:16.379 AM)

Ch1 ± 0.011 dB

Ch2 ± 0.011 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

300 Ohm Low Gain SS : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.700 Vrms

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 (8/23/2022 9:26:19.473 AM)

Ch1 117.231 dB

Ch2 115.437 dB

300 Ohm Low Gain SS : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.700 Vrms
 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 (8/23/2022 9:26:23.277 AM)

Ch1 0.000397 %
 Ch2 0.000535 %

THD Ratio (8/23/2022 9:26:23.277 AM)

Ch1 0.000141 %
 Ch2 0.000131 %

Noise Ratio (8/23/2022 9:26:23.277 AM)

Ch1 0.000370 %
 Ch2 0.000519 %

Distortion Product Ratio (8/23/2022 9:26:23.277 AM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-117.89	-125.96	-135.10	-137.19	-150.86	-151.66	-143.46	-140.64	-142.99
Ch2	-0.00	-118.79	-125.63	-134.70	-143.37	-142.11	-145.37	-142.21	-143.58	-148.95

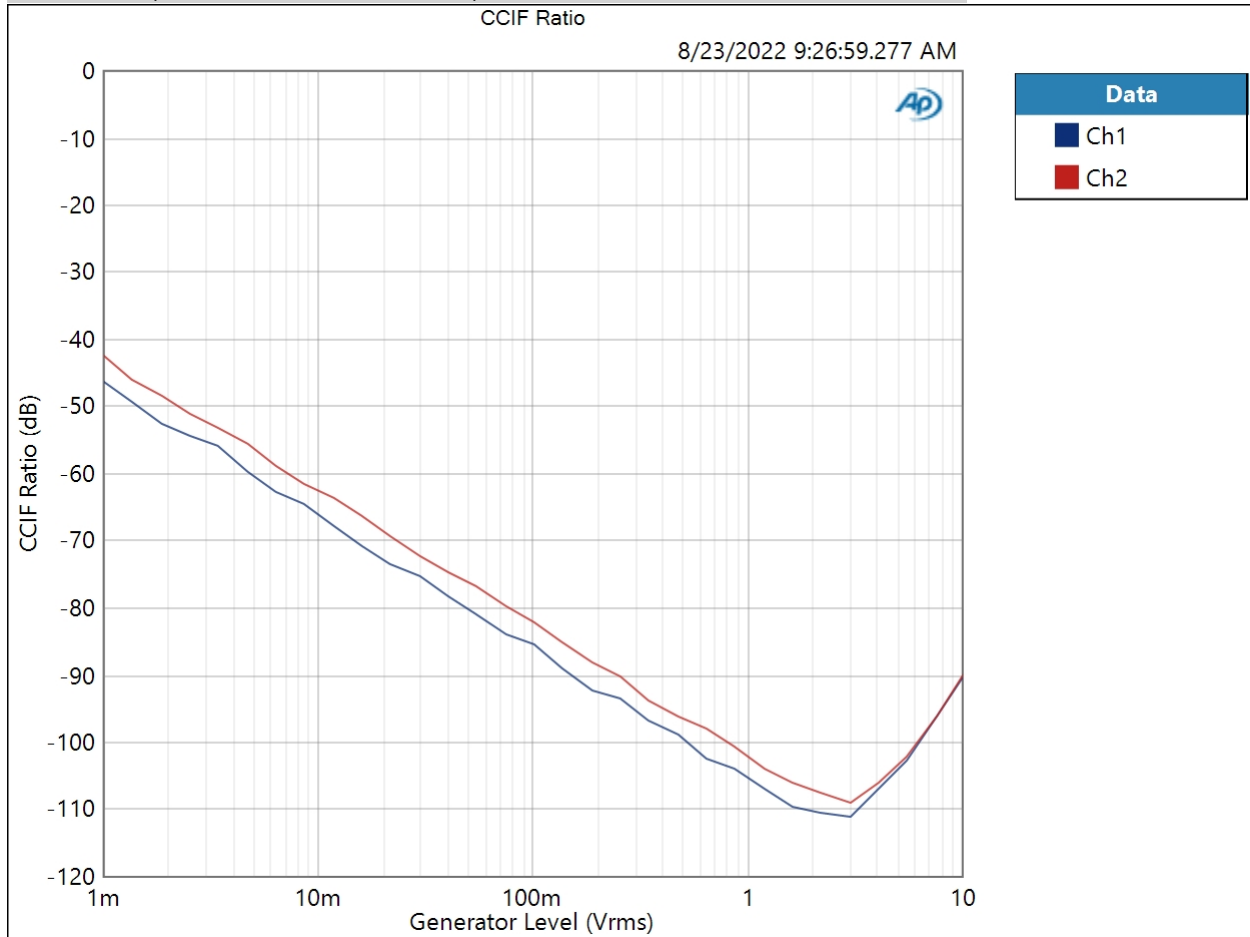
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

300 Ohm Low Gain SS : 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: 10.00 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 8/23/2022 9:26:59 AM

CCIF Ratio (8/23/2022 9:26:59.277 AM)



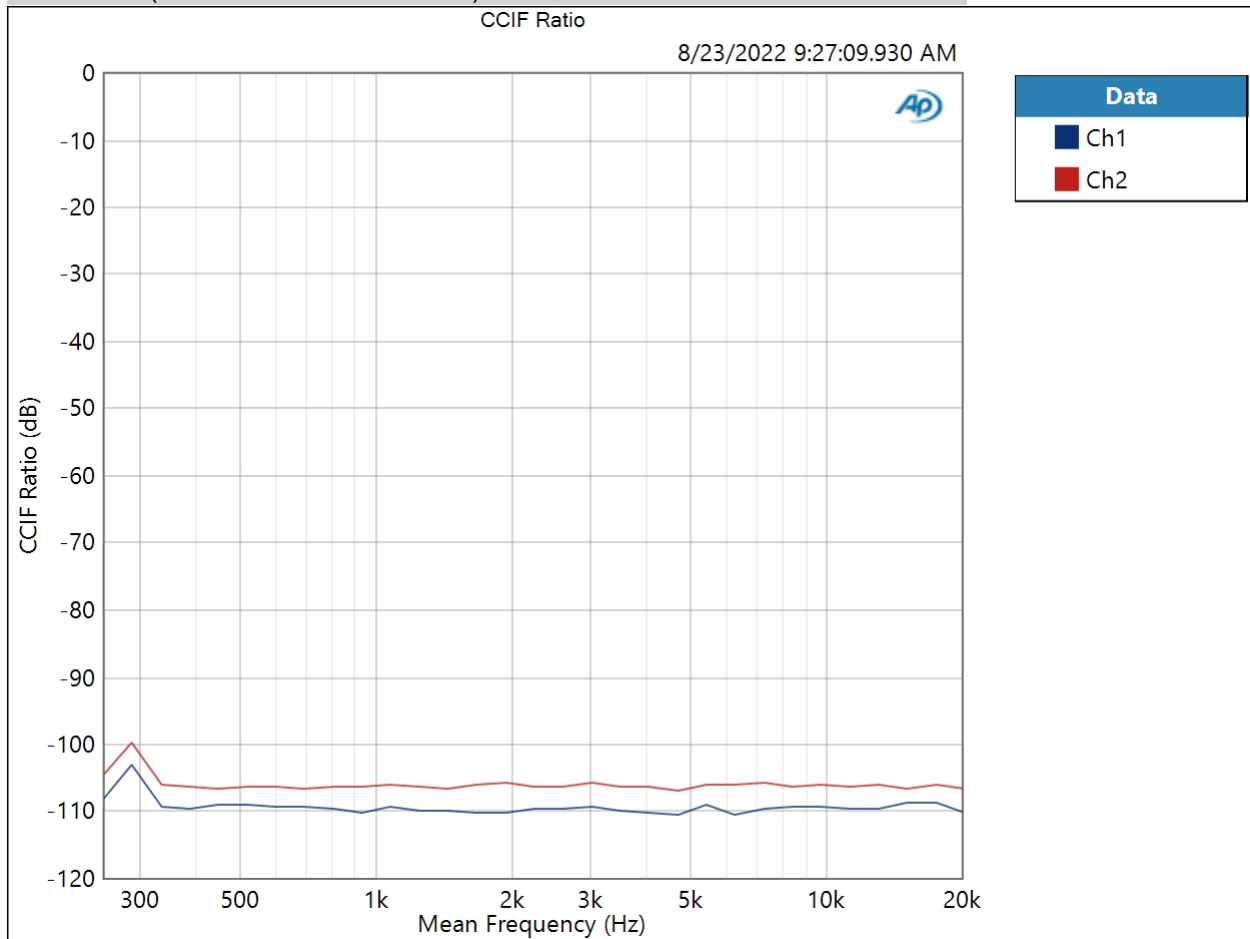
Result: PASSED

8/23/2022 9:55 AM

300 Ohm Low Gain SS : IMD Frequency Sweep (CCIF)

Generator Level: 1.700 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 8/23/2022 9:27:09 AM

CCIF Ratio (8/23/2022 9:27:09.930 AM)



Result:  PASSED

300 Ohm Low Gain SS : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.700 Vrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:27:12.269 AM)

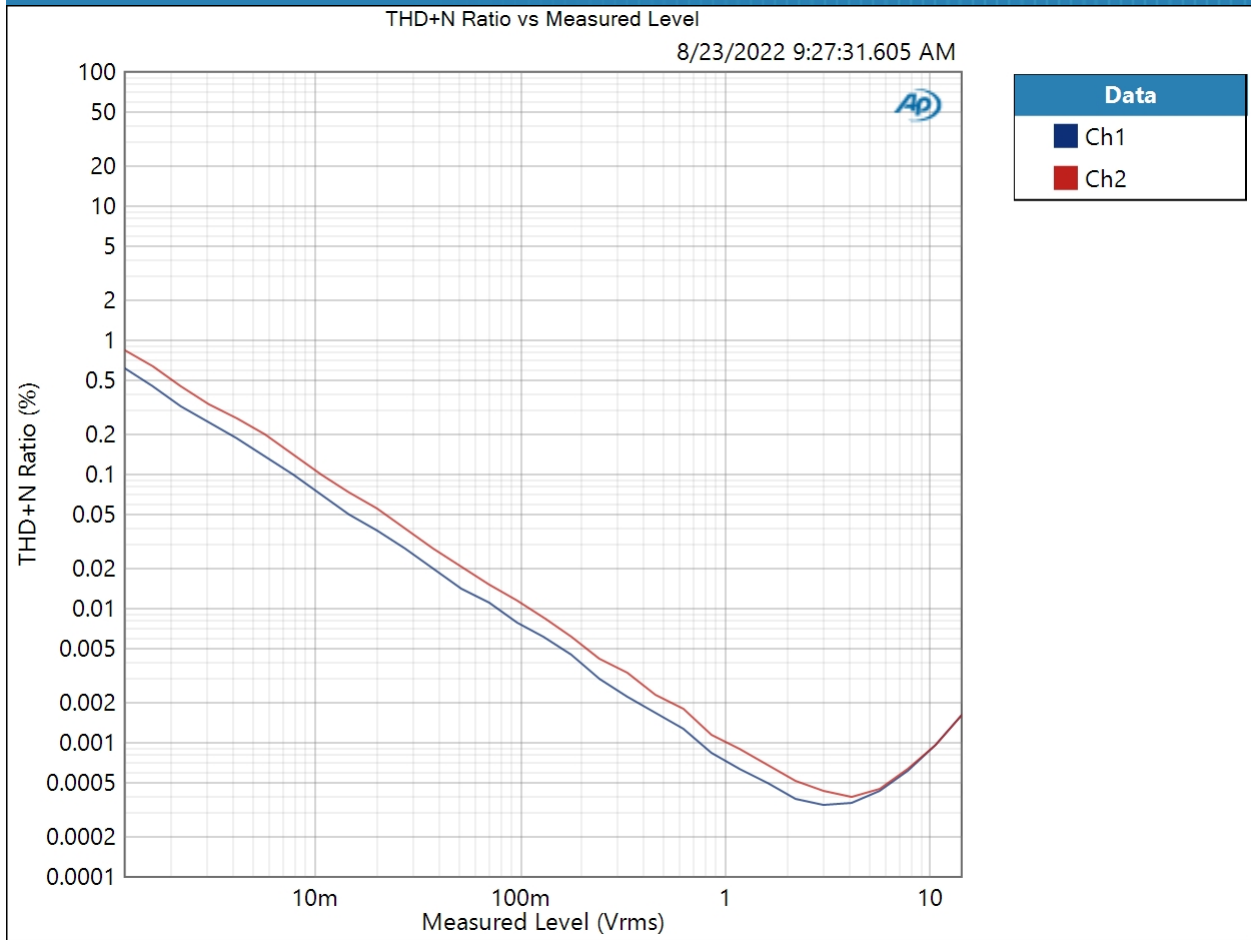
Ch1 -87.268 dB

Ch2 -88.110 dB

300 Ohm Low Gain SS : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 12.00 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:27:31 AM

THD+N Ratio vs Measured Level (8/23/2022 9:27:31.605 AM)



Result: PASSED

300 Ohm High Gain SS : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

300 Ohm High Gain SS : Level and Gain

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 320.0 mVrms
 Frequency: 1.00000 kHz
 Low-pass Filter: Signal Path

RMS Level (8/23/2022 9:27:54.335 AM)

Ch1 2.017 Vrms
 Ch2 2.018 Vrms

300 Ohm High Gain SS : 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

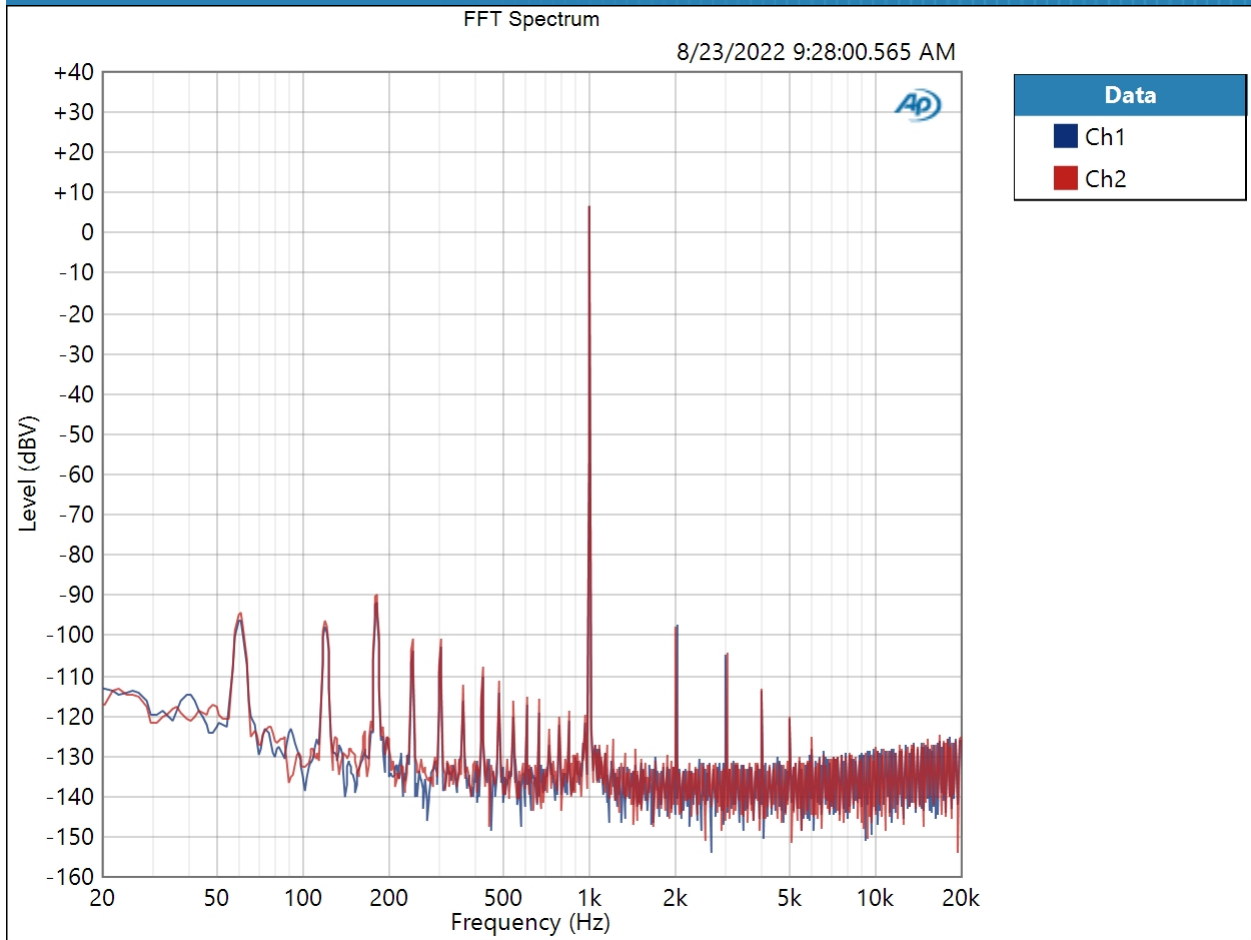
DC Level (8/23/2022 9:27:55.966 AM)

Ch1 -1.675 mV
 Ch2 -1.216 mV

300 Ohm High Gain SS : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 320.0 mVrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:28:00 AM
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 (8/23/2022 9:28:00.565 AM)

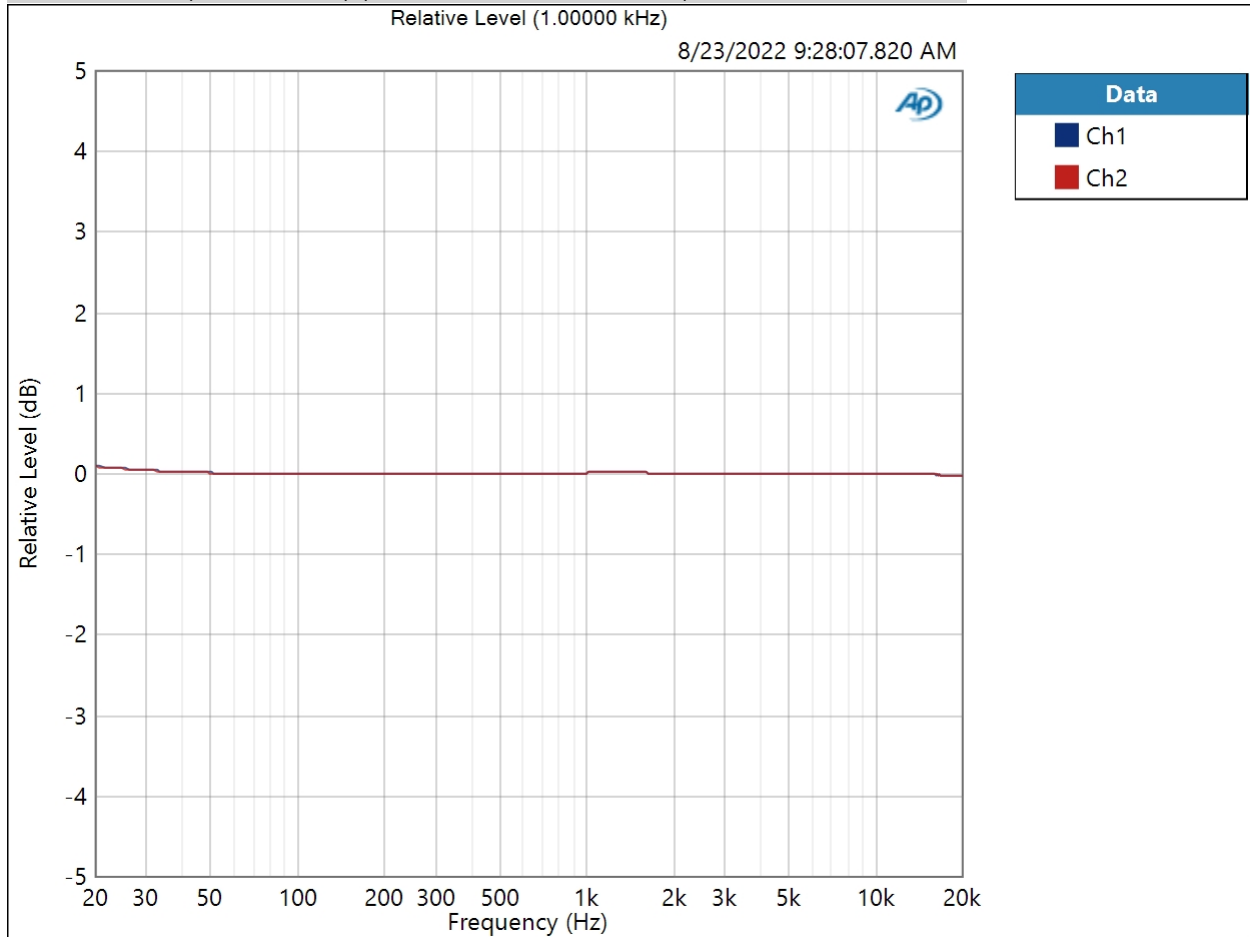


Result: PASSED

300 Ohm High Gain SS : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 320.0 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 8/23/2022 9:28:07 AM

Relative Level (1.00000 kHz) (8/23/2022 9:28:07.820 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:28:07.820 AM)

Ch1 ± 0.064 dB

Ch2 ± 0.063 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

300 Ohm High Gain SS : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 320.0 mVrms

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 (8/23/2022 9:28:10.893 AM)

Ch1 103.207 dB

Ch2 102.155 dB

300 Ohm High Gain SS : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 320.0 mVrms
 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 (8/23/2022 9:28:14.272 AM)

Ch1 0.002040 %
 Ch2 0.002427 %

THD Ratio (8/23/2022 9:28:14.272 AM)

Ch1 0.000741 %
 Ch2 0.000706 %

Noise Ratio (8/23/2022 9:28:14.272 AM)

Ch1 0.001898 %
 Ch2 0.002319 %

Distortion Product Ratio (8/23/2022 9:28:14.272 AM)

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	-103.52	-111.18	-120.08	-130.65	-131.74	-134.36	-134.73	-136.02	-129.39
Ch2	-0.00	-104.19	-110.43	-120.80	-124.33	-128.87	-132.61	-134.67	-134.07	-128.42

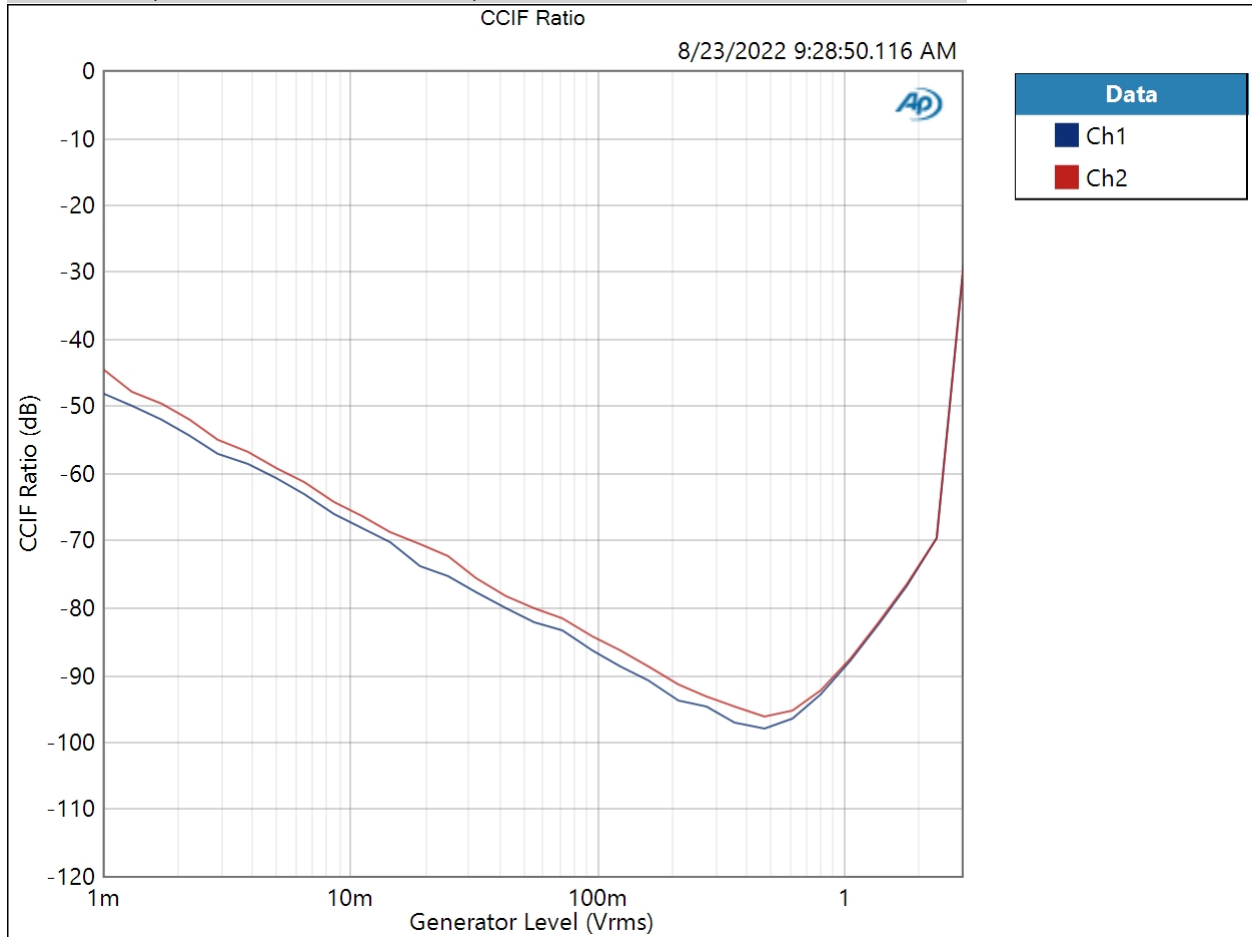
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

300 Ohm High Gain SS : 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 8/23/2022 9:28:50 AM

CCIF Ratio (8/23/2022 9:28:50.116 AM)



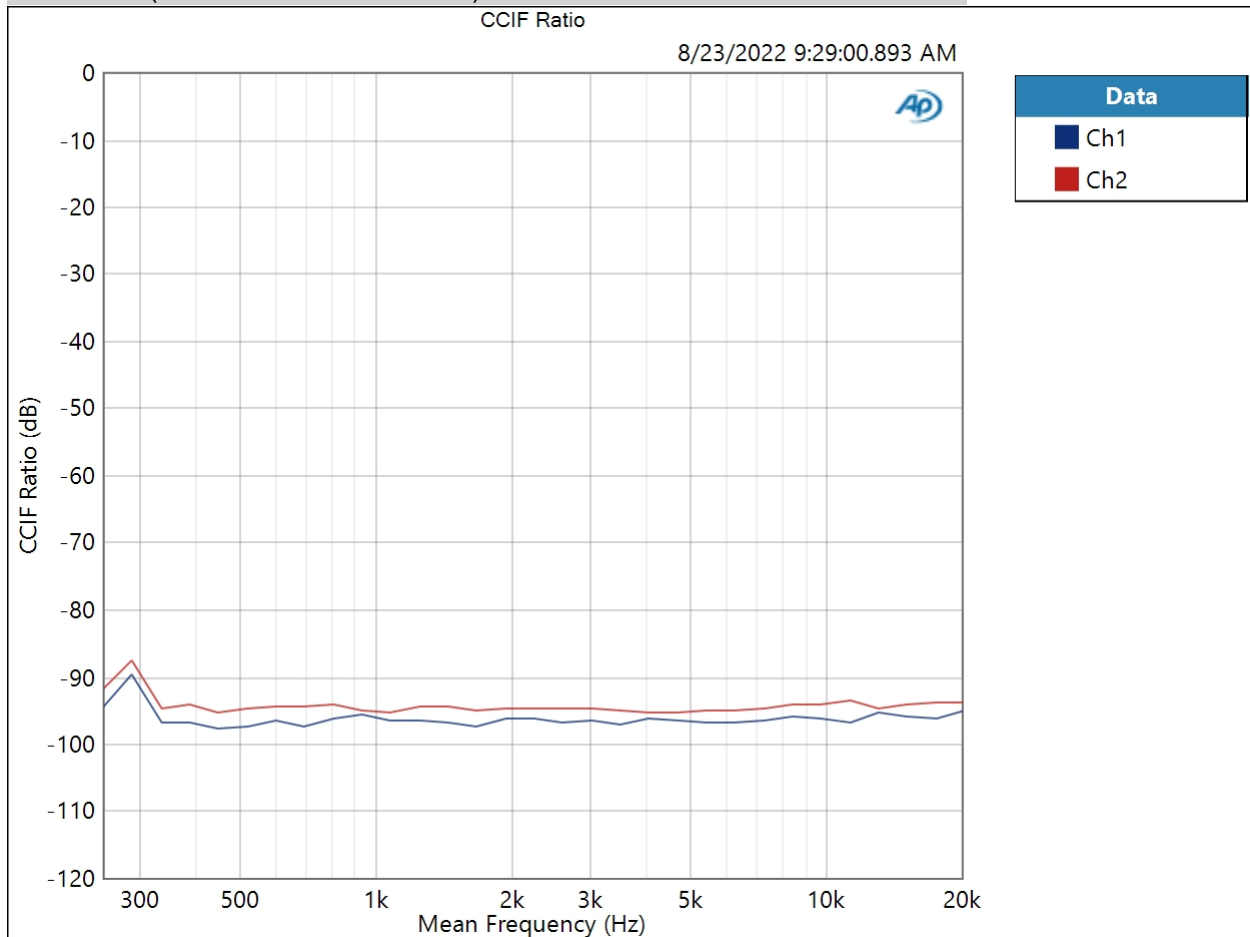
Result: PASSED

8/23/2022 9:55 AM

300 Ohm High Gain SS : IMD Frequency Sweep (CCIF)

Generator Level: 320.0 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 8/23/2022 9:29:00 AM

CCIF Ratio (8/23/2022 9:29:00.893 AM)



Result:  PASSED

300 Ohm High Gain SS : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 320.0 mVrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:29:03.232 AM)

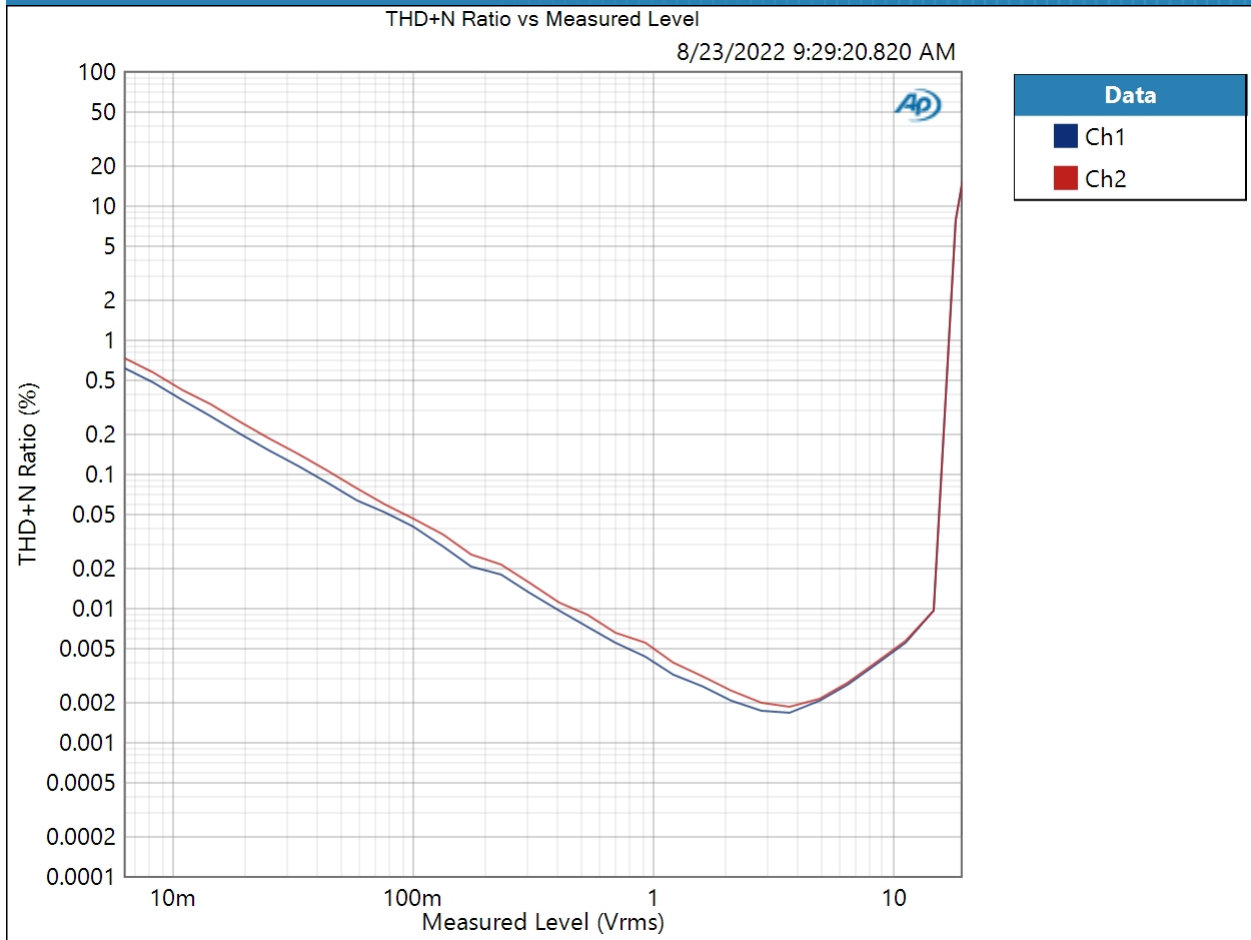
Ch1 -87.465 dB

Ch2 -88.116 dB

300 Ohm High Gain SS : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:29:20 AM

THD+N Ratio vs Measured Level (8/23/2022 9:29:20.820 AM)



Result: PASSED

300 Ohm Low Gain Tube : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

300 Ohm Low Gain Tube : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Generator Level:	1.800 Vrms
Frequency:	1.00000 kHz
Low-pass Filter:	Signal Path

RMS Level (8/23/2022 9:54:17.154 AM)

Ch1 2.026 Vrms
Ch2 2.026 Vrms

300 Ohm Low Gain Tube : 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

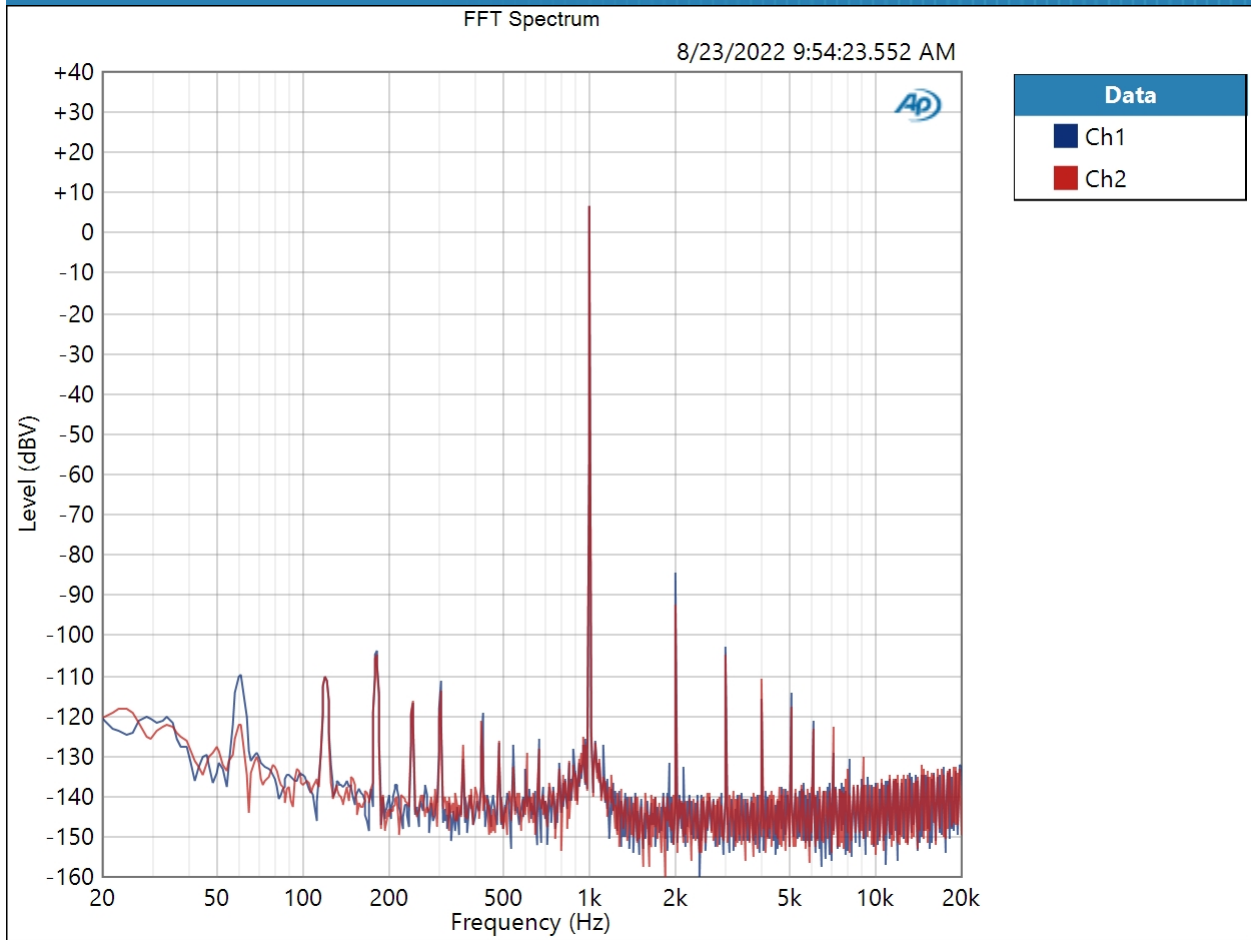
DC Level (8/23/2022 9:54:18.839 AM)

Ch1 -1.767 mV
Ch2 -1.189 mV

300 Ohm Low Gain Tube : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.800 Vrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:54:23 AM
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 (8/23/2022 9:54:23.552 AM)

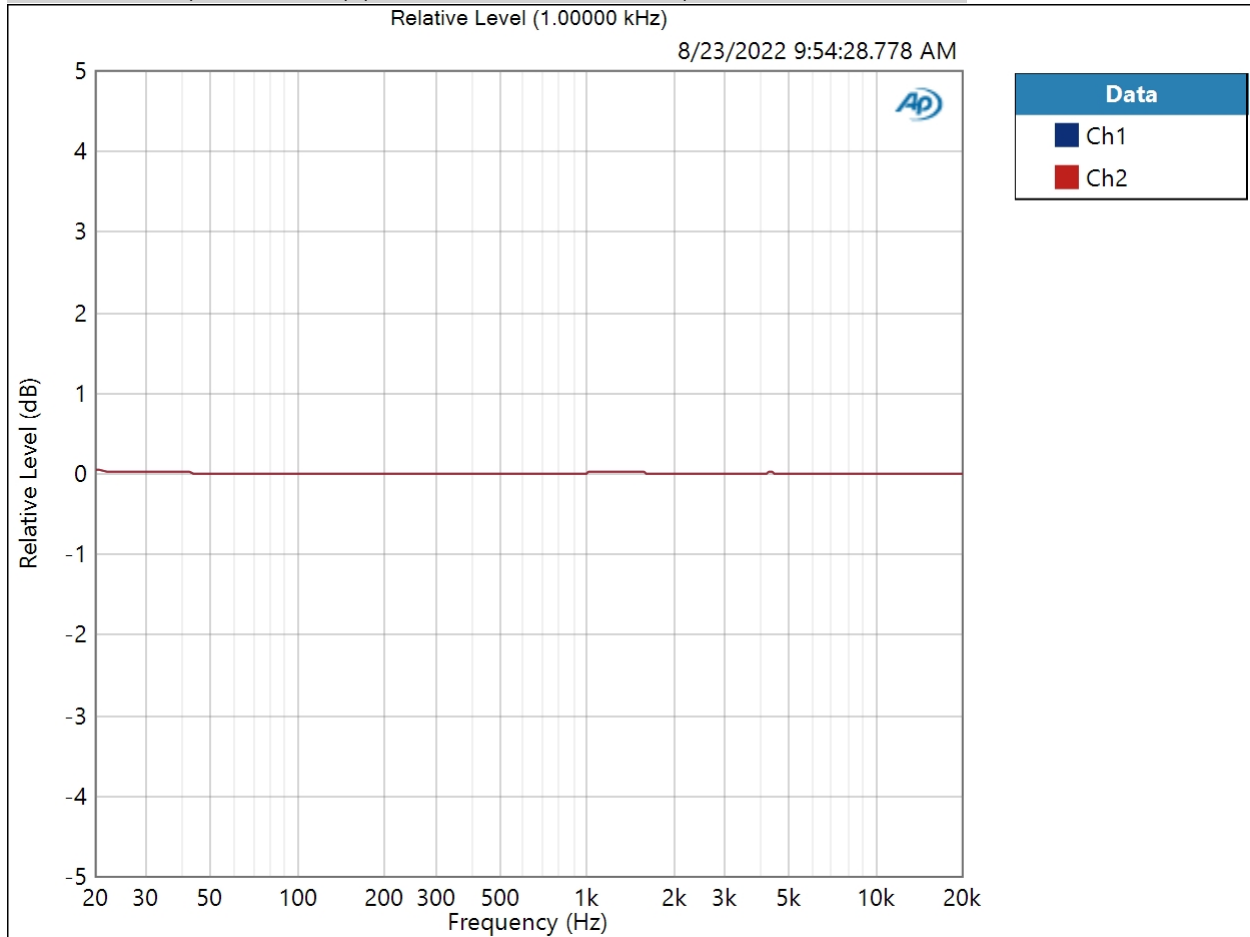


Result: PASSED

300 Ohm Low Gain Tube : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 1.800 Vrms
 DC Offset: 0.000 V
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 1.000 s
 Secondary Source: None
 Measured 1 8/23/2022 9:54:28 AM

Relative Level (1.00000 kHz) (8/23/2022 9:54:28.778 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:54:28.778 AM)

Ch1 ± 0.023 dB

Ch2 ± 0.023 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

300 Ohm Low Gain Tube : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.800 Vrms

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 (8/23/2022 9:54:31.765 AM)

Ch1 112.167 dB

Ch2 112.387 dB

300 Ohm Low Gain Tube : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.800 Vrms
 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 (8/23/2022 9:54:35.307 AM)

Ch1 0.002947 %
 Ch2 0.001218 %

THD Ratio (8/23/2022 9:54:35.307 AM)

Ch1 0.002896 %
 Ch2 0.001114 %

Noise Ratio (8/23/2022 9:54:35.307 AM)

Ch1 0.000531 %
 Ch2 0.000494 %

Distortion Product Ratio (8/23/2022 9:54:35.307 AM)

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	-90.84	-108.84	-121.57	-119.93	-126.73	-133.76	-132.35	-138.15	-137.12
Ch2	-0.00	-99.53	-110.00	-117.11	-126.80	-133.67	-130.43	-145.43	-135.09	-139.42

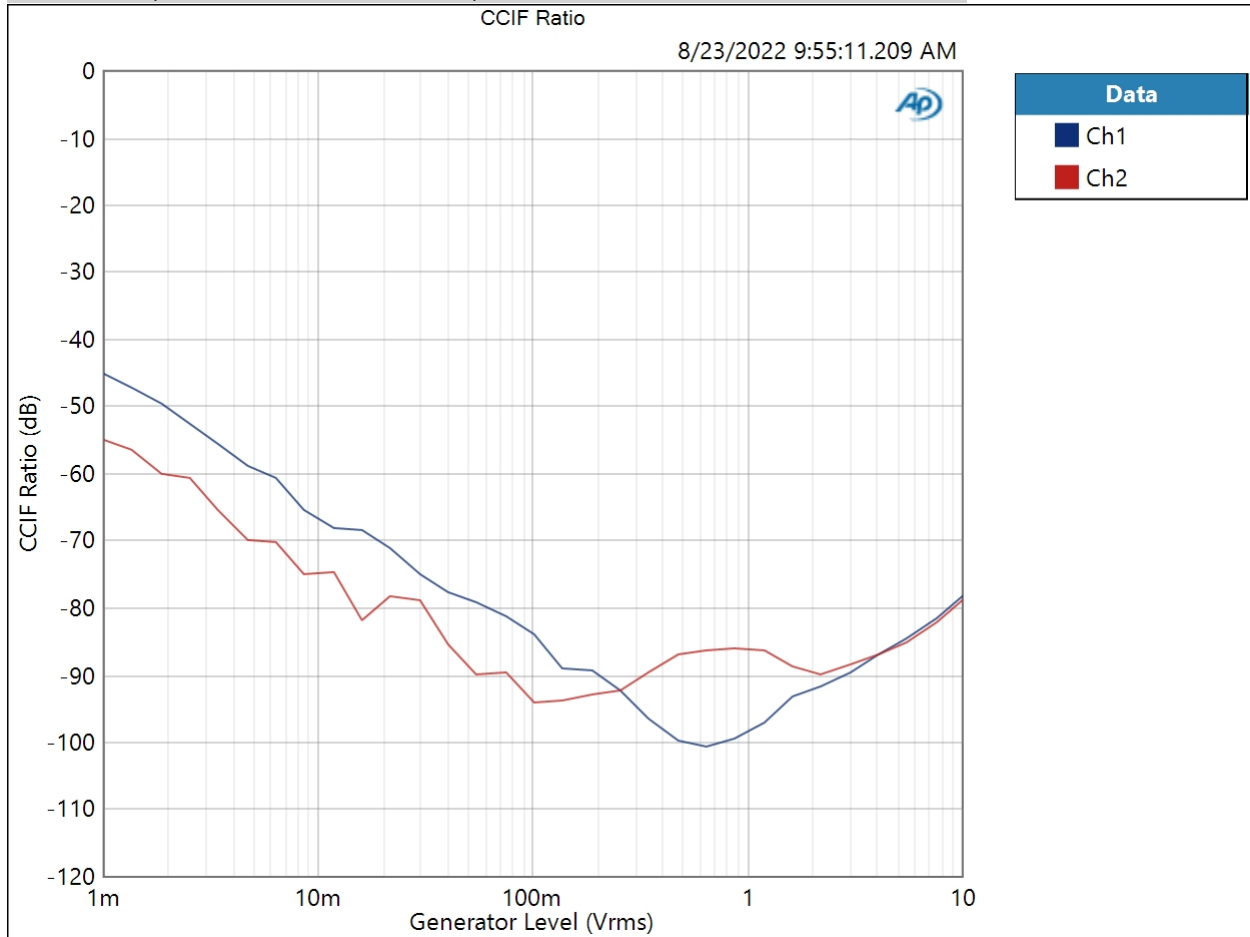
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

300 Ohm Low Gain Tube : 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: 10.00 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 8/23/2022 9:55:11 AM

CCIF Ratio (8/23/2022 9:55:11.209 AM)



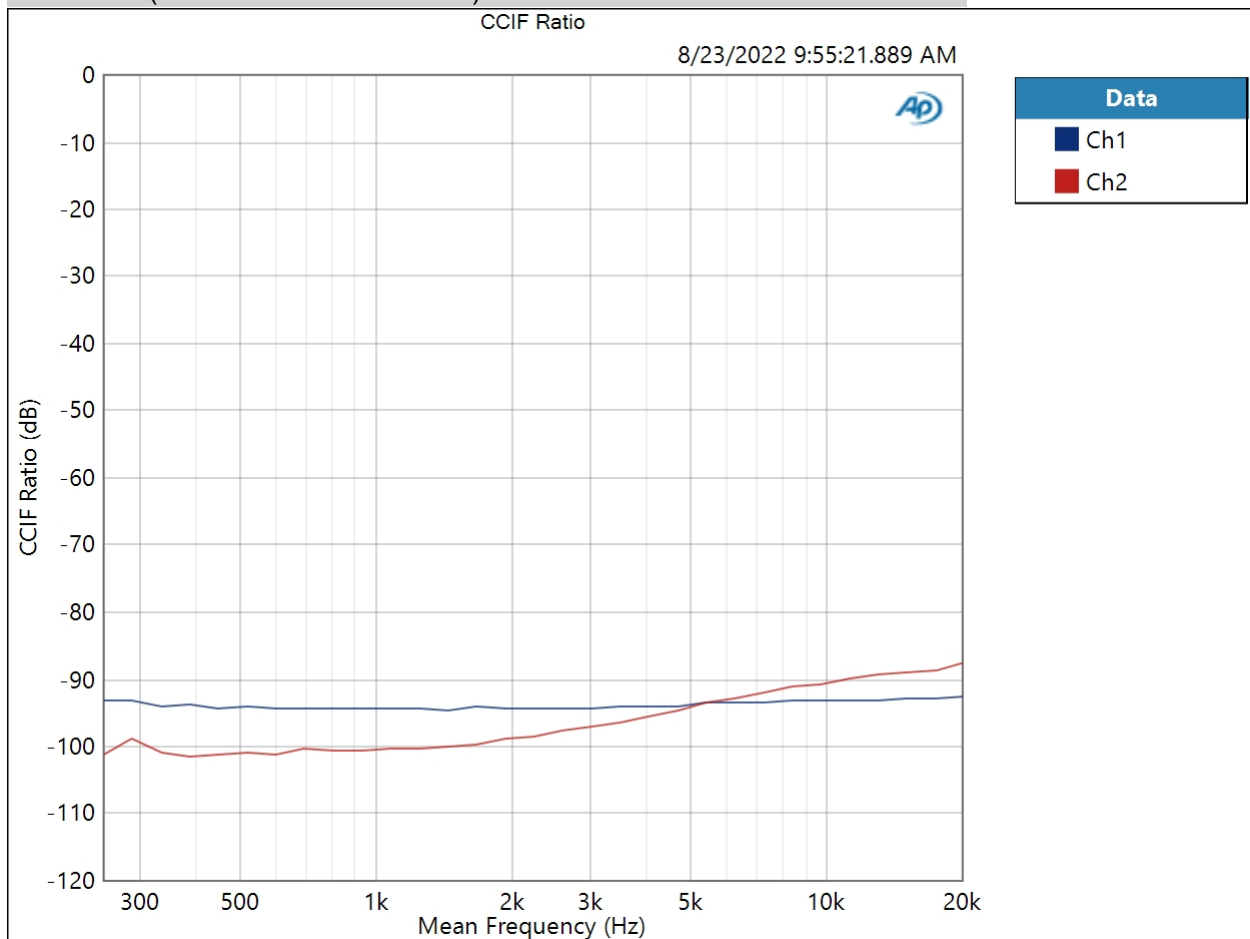
Result: PASSED

8/23/2022 9:55 AM

300 Ohm Low Gain Tube : IMD Frequency Sweep (CCIF)

Generator Level: 1.700 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 8/23/2022 9:55:21 AM

CCIF Ratio (8/23/2022 9:55:21.889 AM)



Result:  PASSED

300 Ohm Low Gain Tube : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.800 Vrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:55:24.261 AM)

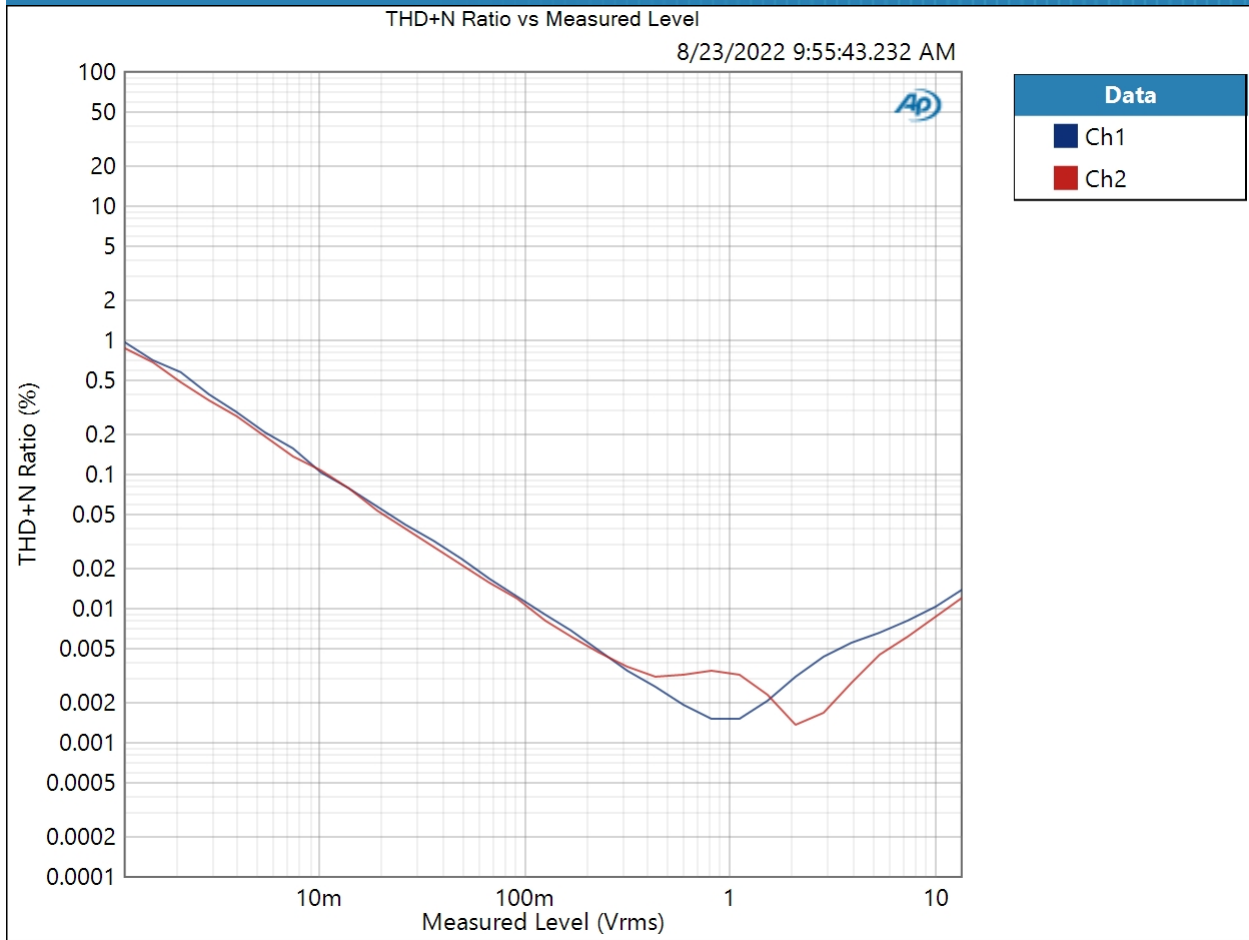
Ch1 -88.106 dB

Ch2 -88.648 dB

300 Ohm Low Gain Tube : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 12.00 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:55:43 AM

THD+N Ratio vs Measured Level (8/23/2022 9:55:43.232 AM)



Result: PASSED

300 Ohm High Gain Tube : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

300 Ohm High Gain Tube : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Generator Level:	340.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	Signal Path

RMS Level (8/23/2022 9:52:20.379 AM)

Ch1 2.039 Vrms
Ch2 2.040 Vrms

300 Ohm High Gain Tube : 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

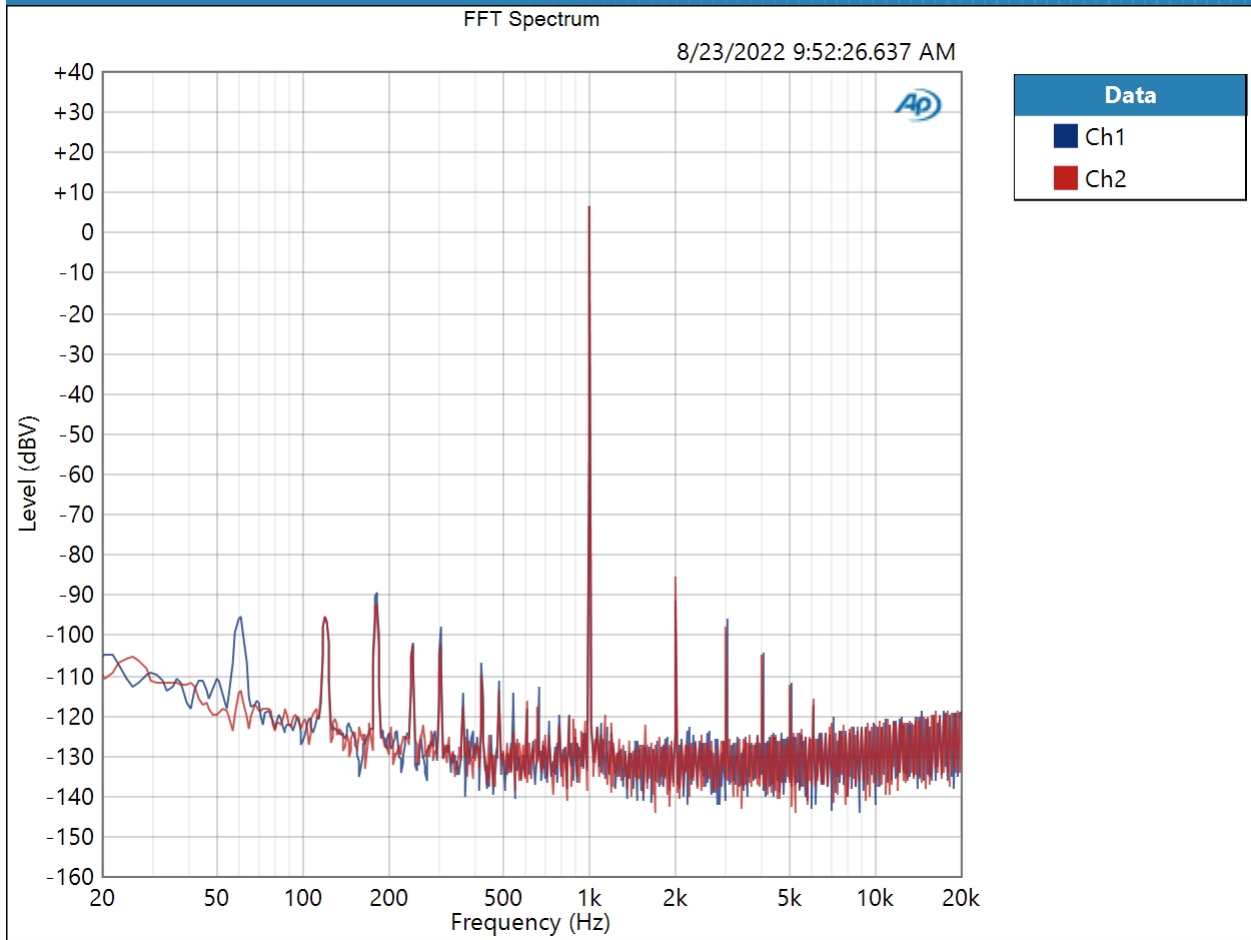
DC Level (8/23/2022 9:52:22.059 AM)

Ch1 -2.160 mV
Ch2 -1.714 mV

300 Ohm High Gain Tube : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 340.0 mVrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:52:26 AM
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 (8/23/2022 9:52:26.637 AM)

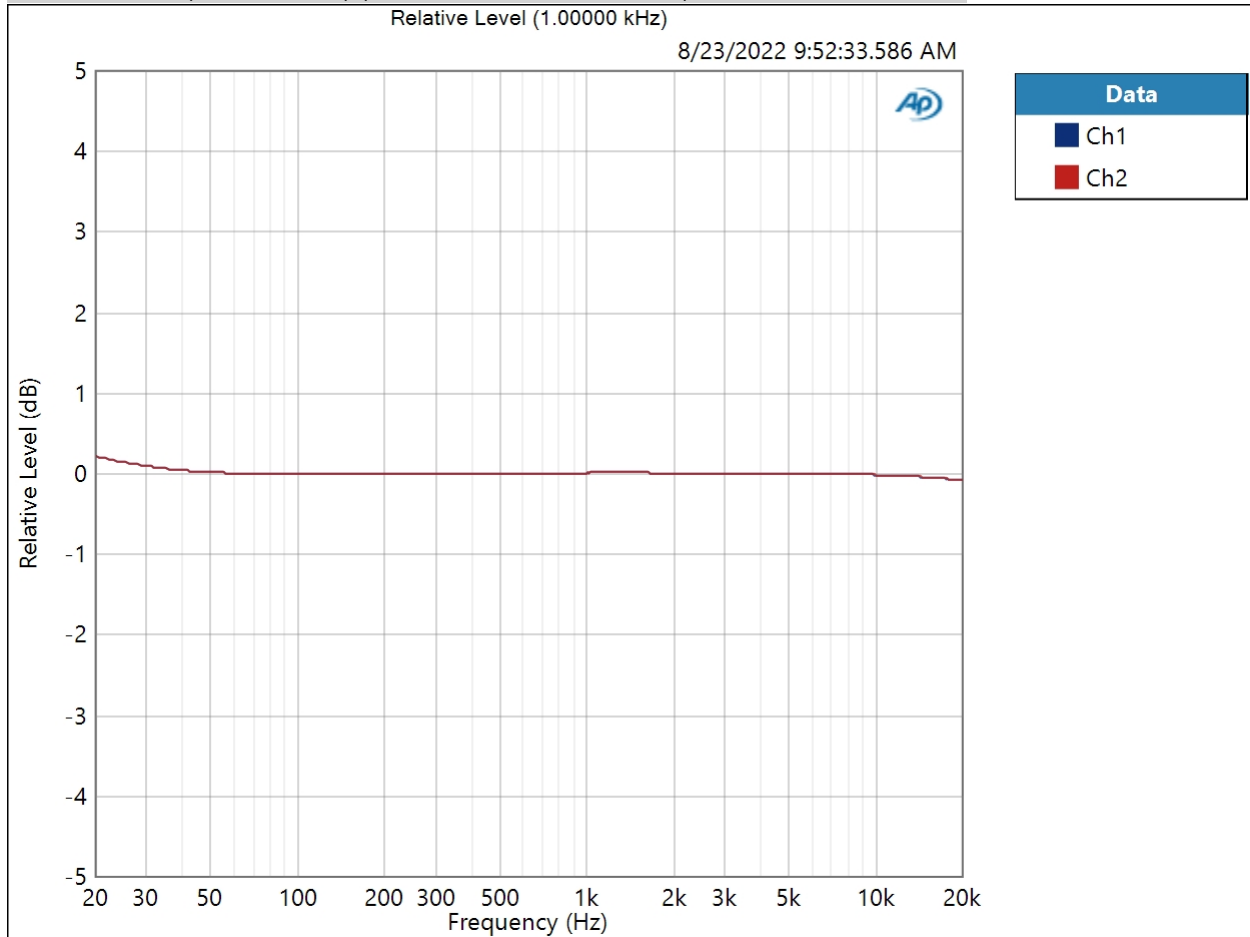


Result: PASSED

300 Ohm High Gain Tube : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 340.0 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 8/23/2022 9:52:33 AM

Relative Level (1.00000 kHz) (8/23/2022 9:52:33.586 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:52:33.586 AM)

Ch1 ± 0.154 dB

Ch2 ± 0.154 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

300 Ohm High Gain Tube : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 340.0 mVrms

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 (8/23/2022 9:52:36.636 AM)

Ch1 97.961 dB

Ch2 98.303 dB

300 Ohm High Gain Tube : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 340.0 mVrms
 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 (8/23/2022 9:52:39.849 AM)

Ch1 0.003221 %
 Ch2 0.003544 %

THD Ratio (8/23/2022 9:52:39.849 AM)

Ch1 0.001540 %
 Ch2 0.002604 %

Noise Ratio (8/23/2022 9:52:39.849 AM)

Ch1 0.002798 %
 Ch2 0.002334 %

Distortion Product Ratio (8/23/2022 9:52:39.849 AM)

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	-97.94	-102.28	-110.80	-117.52	-118.64	-126.42	-126.38	-125.02	-124.97
Ch2	-0.00	-92.04	-104.29	-111.24	-118.91	-121.53	-125.51	-125.81	-127.08	-128.25

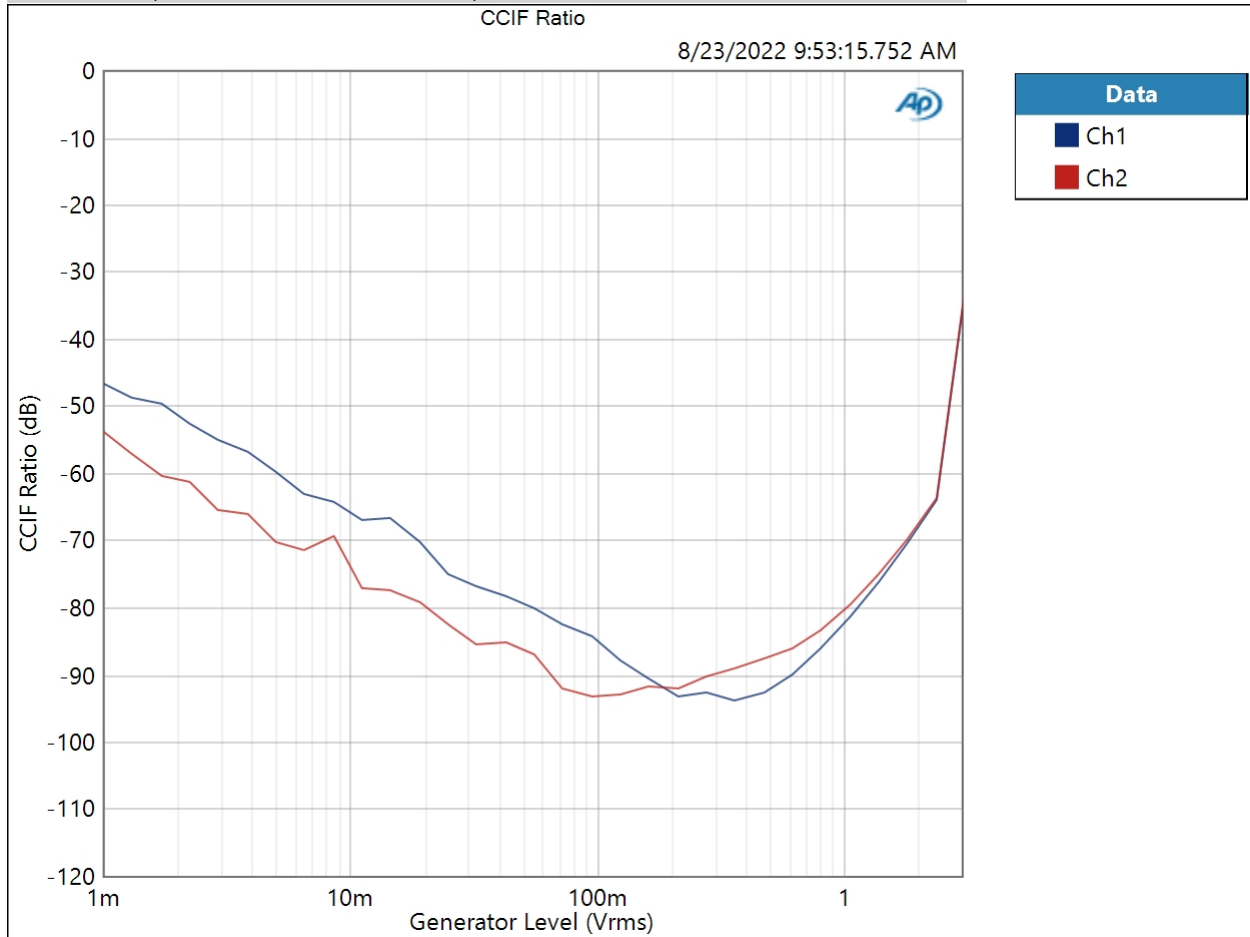
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

300 Ohm High Gain Tube : 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 8/23/2022 9:53:15 AM

CCIF Ratio (8/23/2022 9:53:15.752 AM)



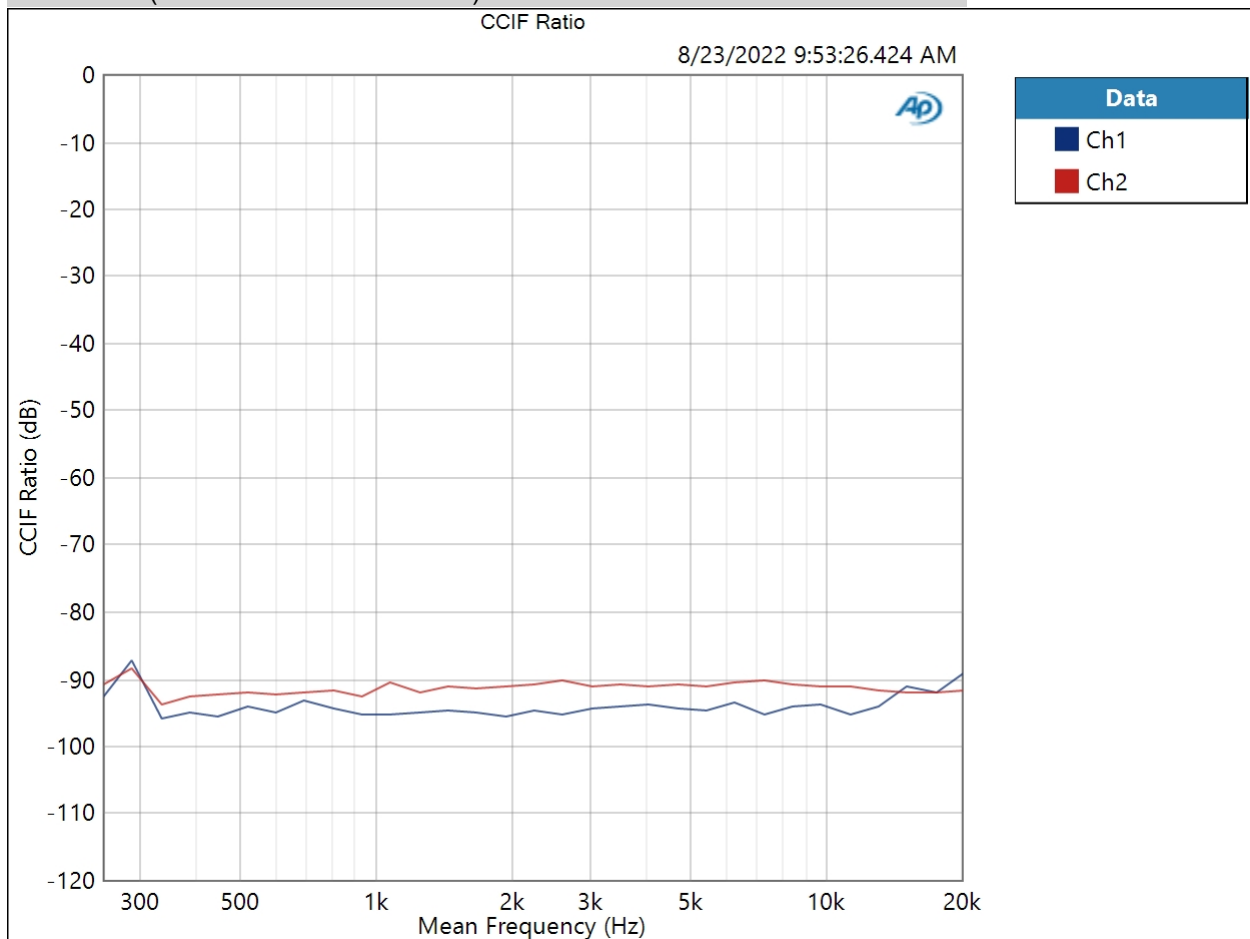
Result: PASSED

8/23/2022 9:55 AM

300 Ohm High Gain Tube : IMD Frequency Sweep (CCIF)

Generator Level: 340.0 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 8/23/2022 9:53:26 AM

CCIF Ratio (8/23/2022 9:53:26.424 AM)



Result:  PASSED

300 Ohm High Gain Tube : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 340.0 mVrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:53:28.766 AM)

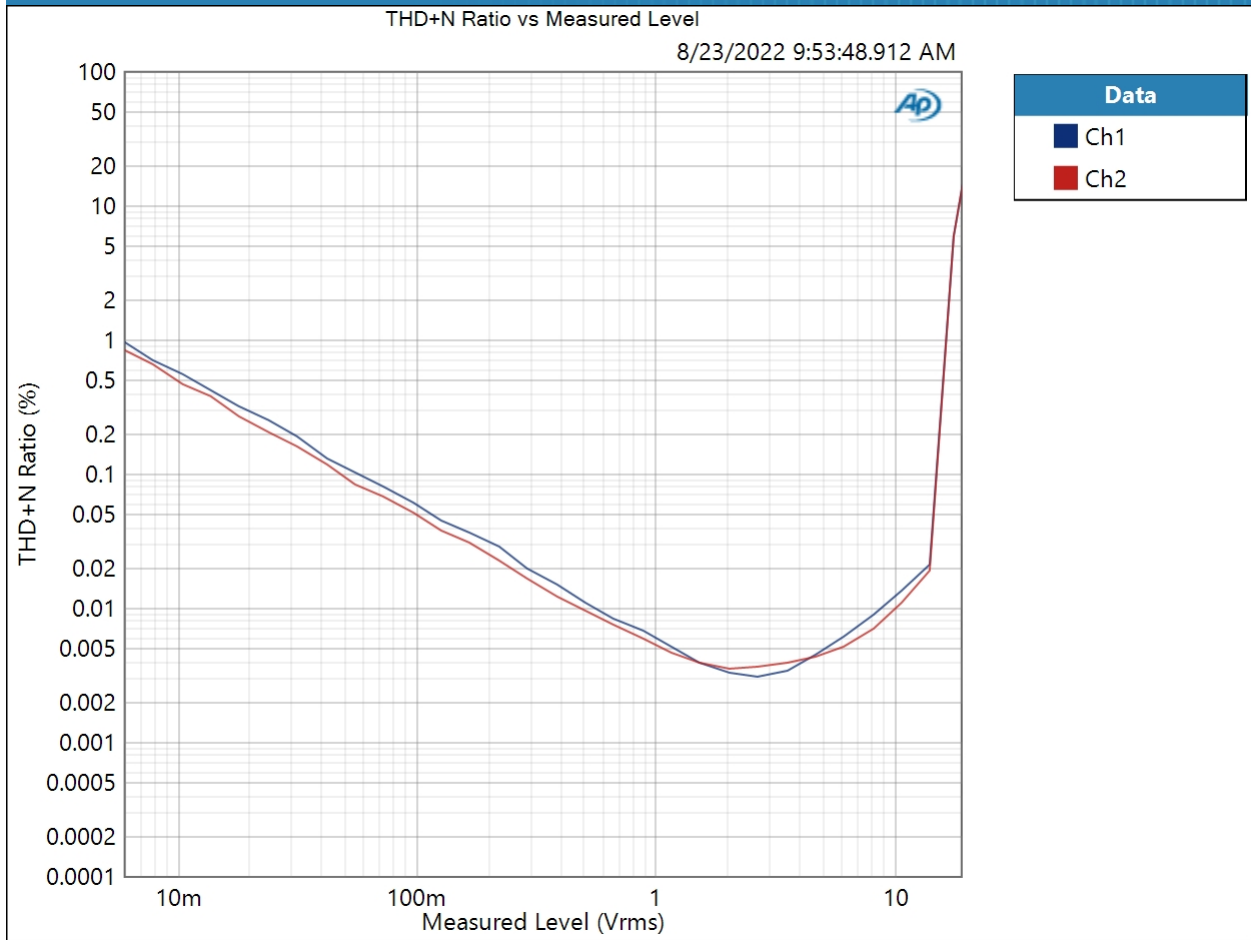
Ch1 -86.297 dB

Ch2 -87.545 dB

300 Ohm High Gain Tube : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:53:48 AM

THD+N Ratio vs Measured Level (8/23/2022 9:53:48.912 AM)



Result: PASSED

32 Ohm Low Gain SS : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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:	100 kohm
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

32 Ohm Low Gain SS : Level and Gain

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.700 Vrms
 Frequency: 1.00000 kHz
 Low-pass Filter: Signal Path

RMS Level (8/23/2022 9:33:03.941 AM)

Ch1 1.932 Vrms
 Ch2 1.932 Vrms

32 Ohm Low Gain SS : 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

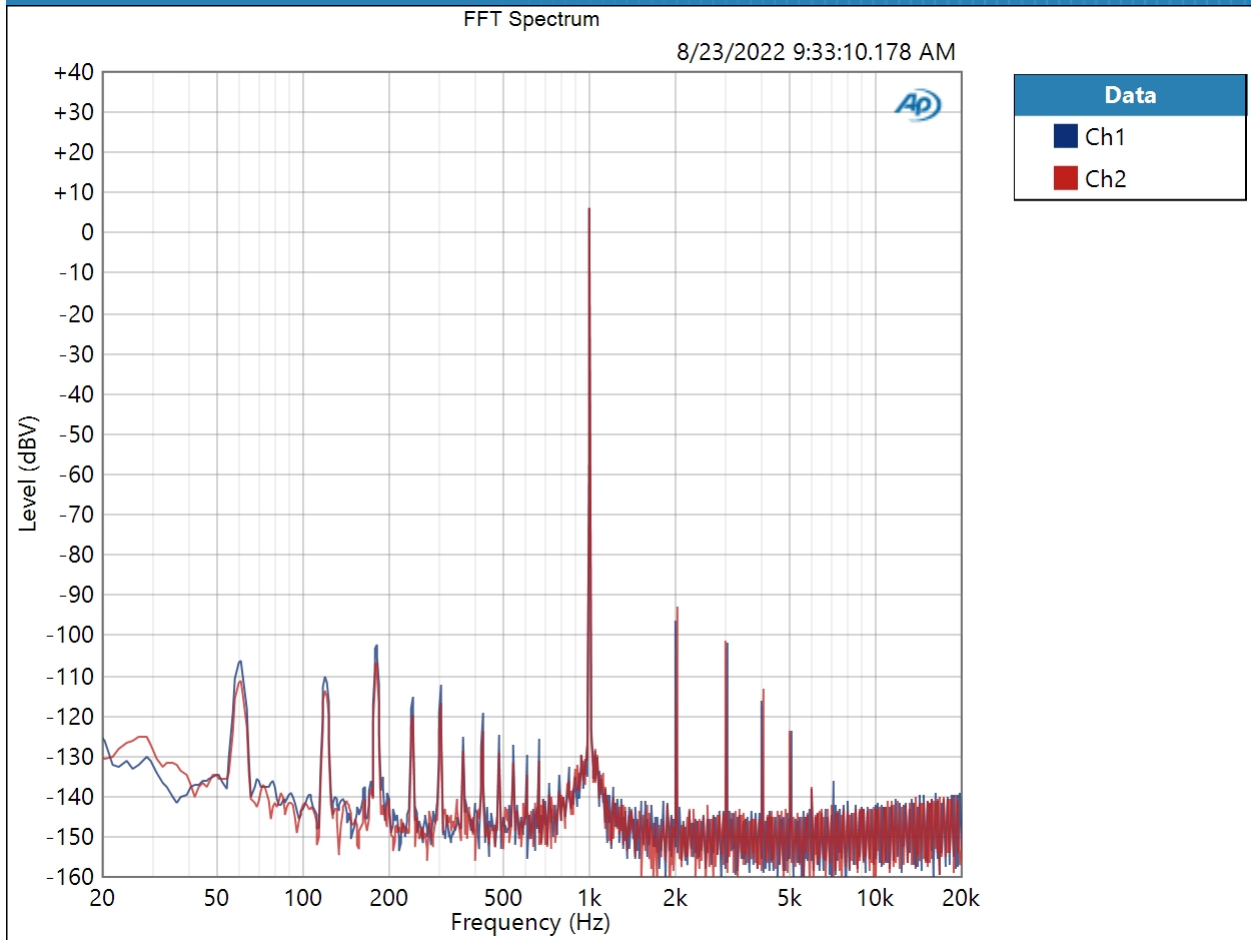
DC Level (8/23/2022 9:33:05.590 AM)

Ch1 -1.407 mV
 Ch2 -1.649 mV

32 Ohm Low Gain SS : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.700 Vrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:33:10 AM
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 (8/23/2022 9:33:10.178 AM)

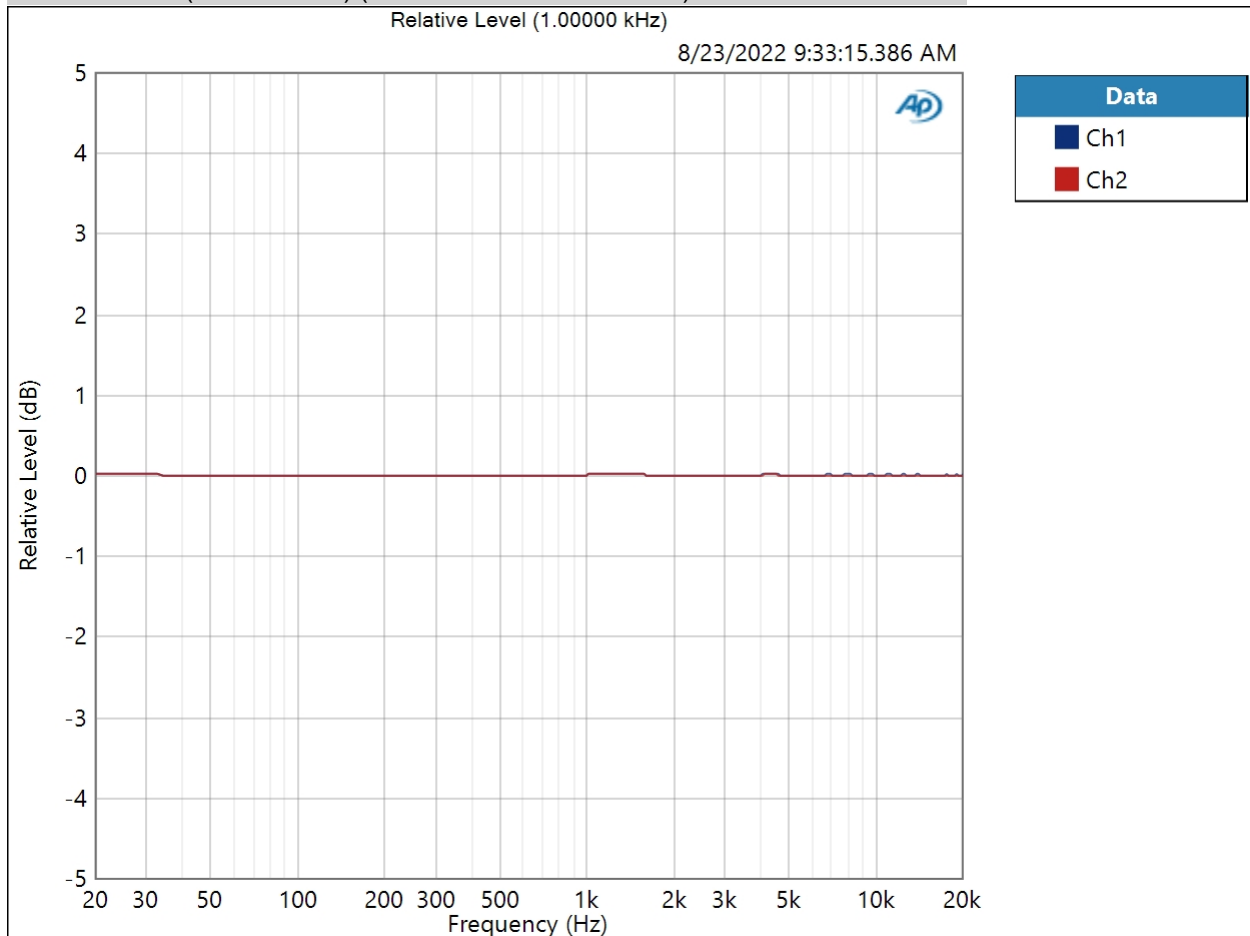


Result: PASSED

32 Ohm Low Gain SS : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 1.700 Vrms
 DC Offset: 0.000 V
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 1.000 s
 Secondary Source: None
 Measured 1 8/23/2022 9:33:15 AM

Relative Level (1.00000 kHz) (8/23/2022 9:33:15.386 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:33:15.386 AM)

Ch1 ± 0.010 dB

Ch2 ± 0.012 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm Low Gain SS : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.700 Vrms

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 (8/23/2022 9:33:18.315 AM)

Ch1 115.202 dB

Ch2 117.326 dB

32 Ohm Low Gain SS : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.700 Vrms
 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 (8/23/2022 9:33:21.480 AM)

Ch1 0.001057 %
 Ch2 0.001283 %

THD Ratio (8/23/2022 9:33:21.480 AM)

Ch1 0.000895 %
 Ch2 0.001227 %

Noise Ratio (8/23/2022 9:33:21.480 AM)

Ch1 0.000561 %
 Ch2 0.000368 %

Distortion Product Ratio (8/23/2022 9:33:21.480 AM)

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	-102.19	-107.26	-121.85	-129.77	-144.18	-141.51	-146.01	-142.98	-143.61
Ch2	-0.00	-98.83	-107.38	-118.85	-129.06	-142.61	-144.67	-147.60	-143.95	-140.00

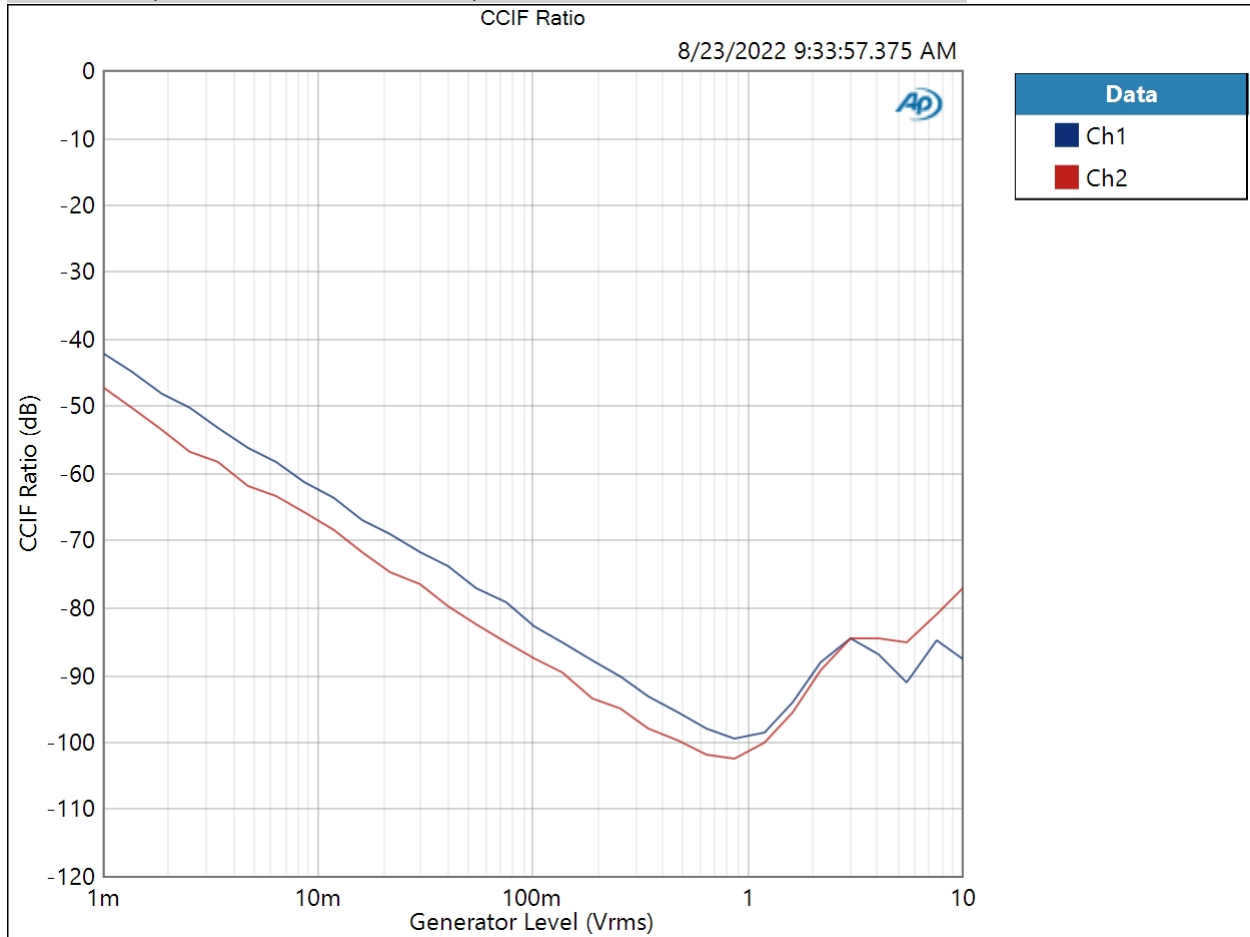
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

32 Ohm Low Gain SS : 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: 10.00 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 8/23/2022 9:33:57 AM

CCIF Ratio (8/23/2022 9:33:57.375 AM)



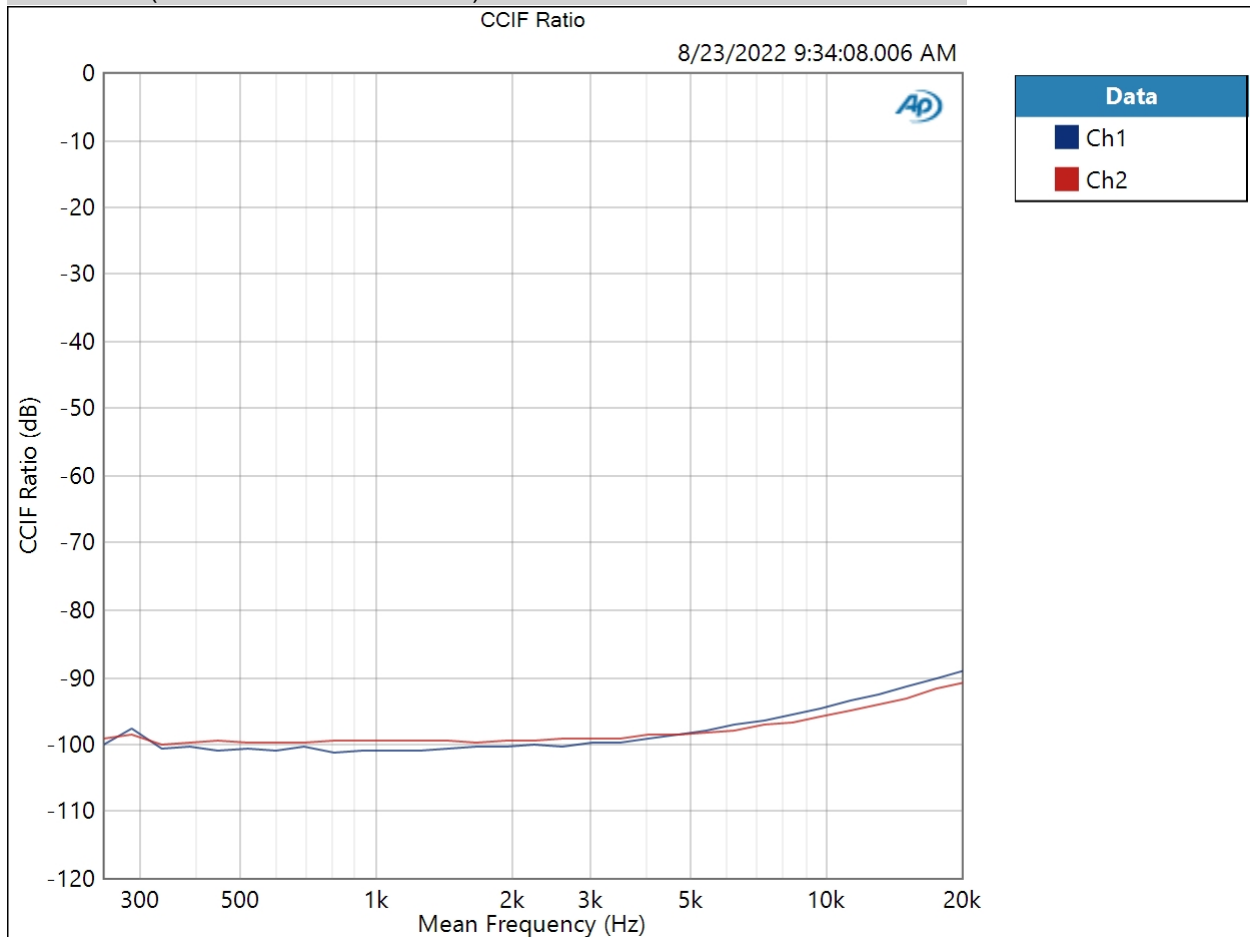
Result: PASSED

8/23/2022 9:55 AM

32 Ohm Low Gain SS : IMD Frequency Sweep (CCIF)

Generator Level: 1.700 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 8/23/2022 9:34:08 AM

CCIF Ratio (8/23/2022 9:34:08.006 AM)



Result:  PASSED

32 Ohm Low Gain SS : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.700 Vrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:34:10.378 AM)

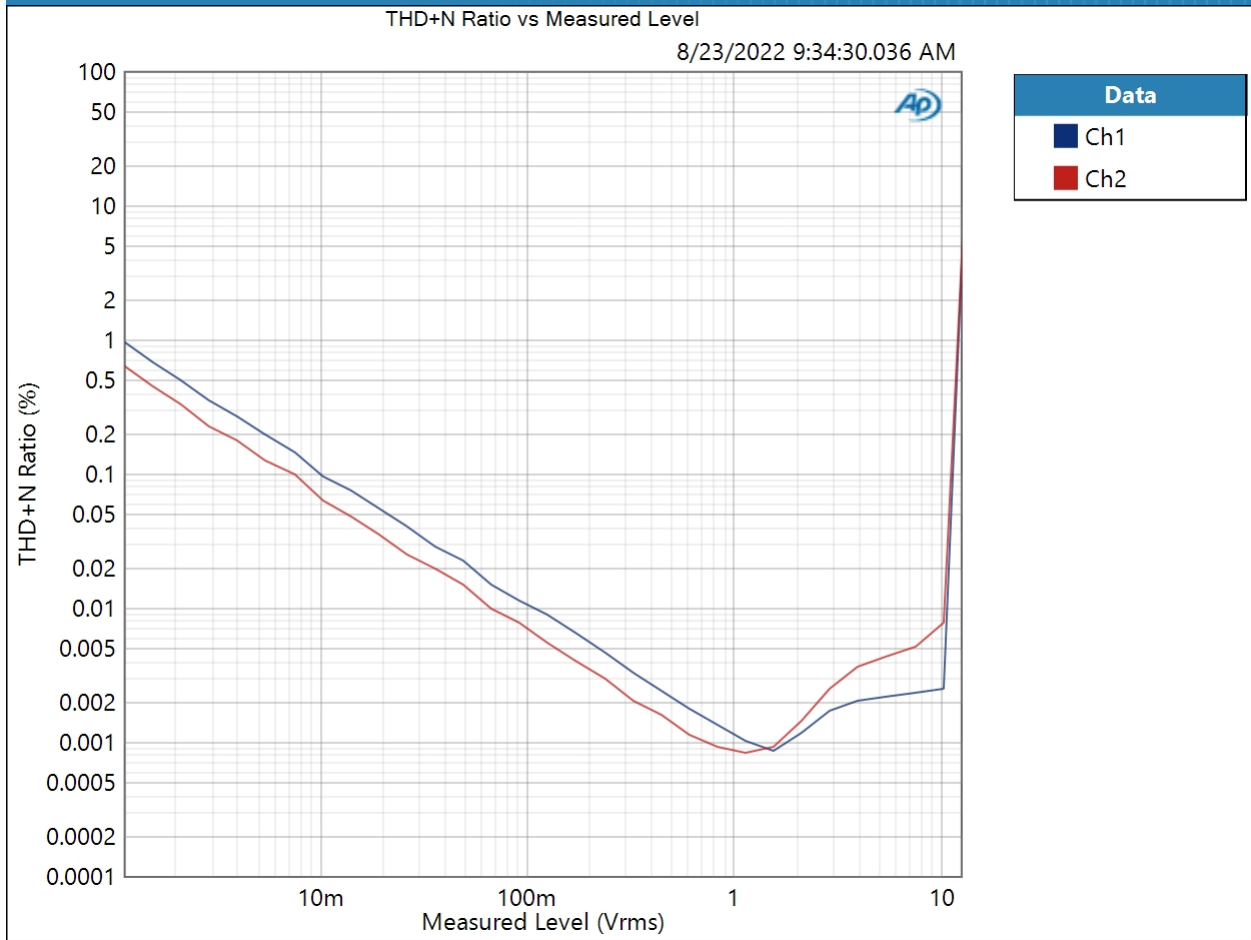
Ch1 73.079 dB

Ch2 72.117 dB

32 Ohm Low Gain SS : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 12.00 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:34:30 AM

THD+N Ratio vs Measured Level (8/23/2022 9:34:30.036 AM)



Result: PASSED

32 Ohm High Gain SS : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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:	100 kohm
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

32 Ohm High Gain SS : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Generator Level:	320.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	Signal Path

RMS Level (8/23/2022 9:30:10.654 AM)

Ch1 1.941 Vrms
Ch2 1.941 Vrms

32 Ohm High Gain SS : 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

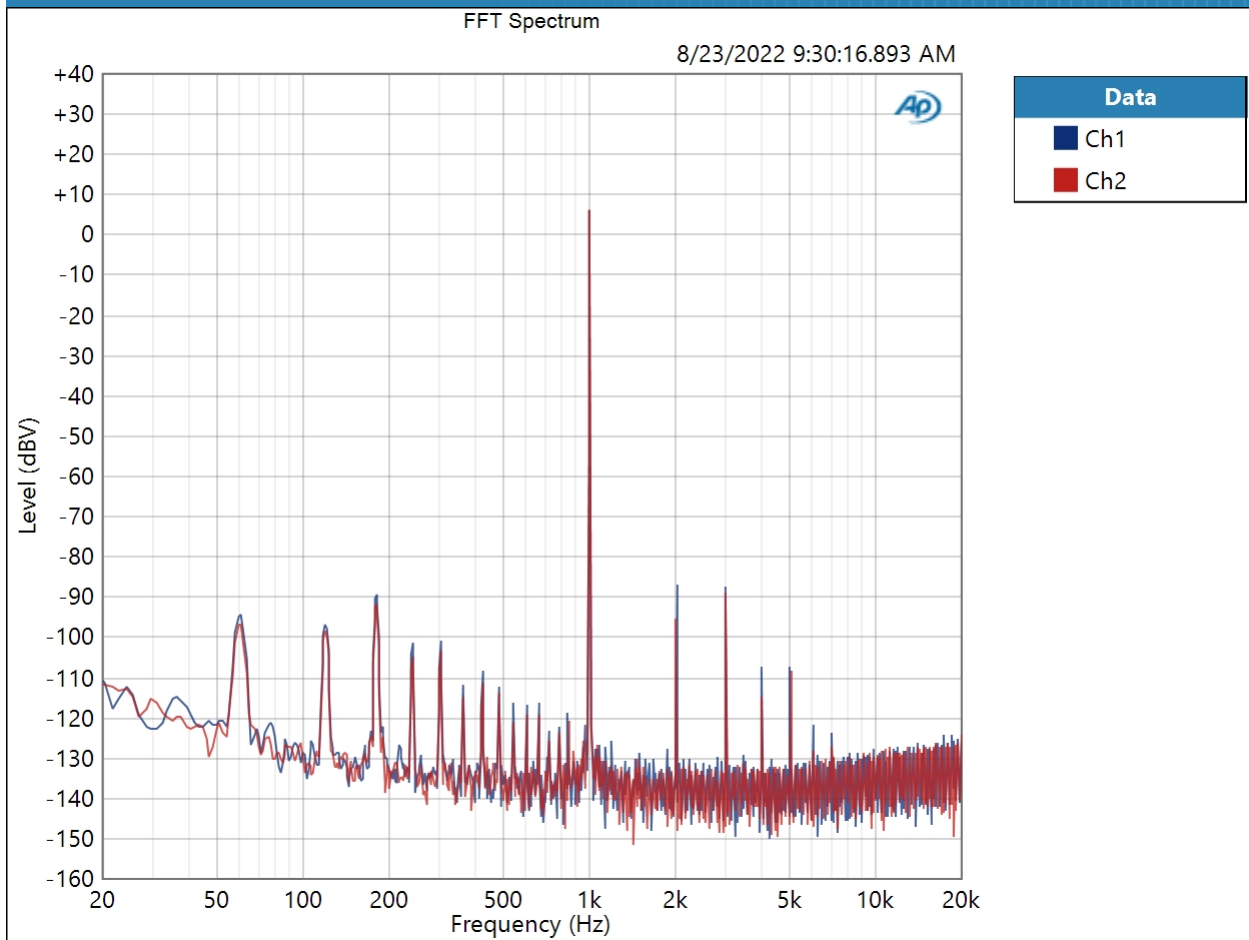
DC Level (8/23/2022 9:30:12.306 AM)

Ch1 -1.335 mV
Ch2 -1.647 mV

32 Ohm High Gain SS : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 320.0 mVrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:30:16 AM
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 (8/23/2022 9:30:16.893 AM)

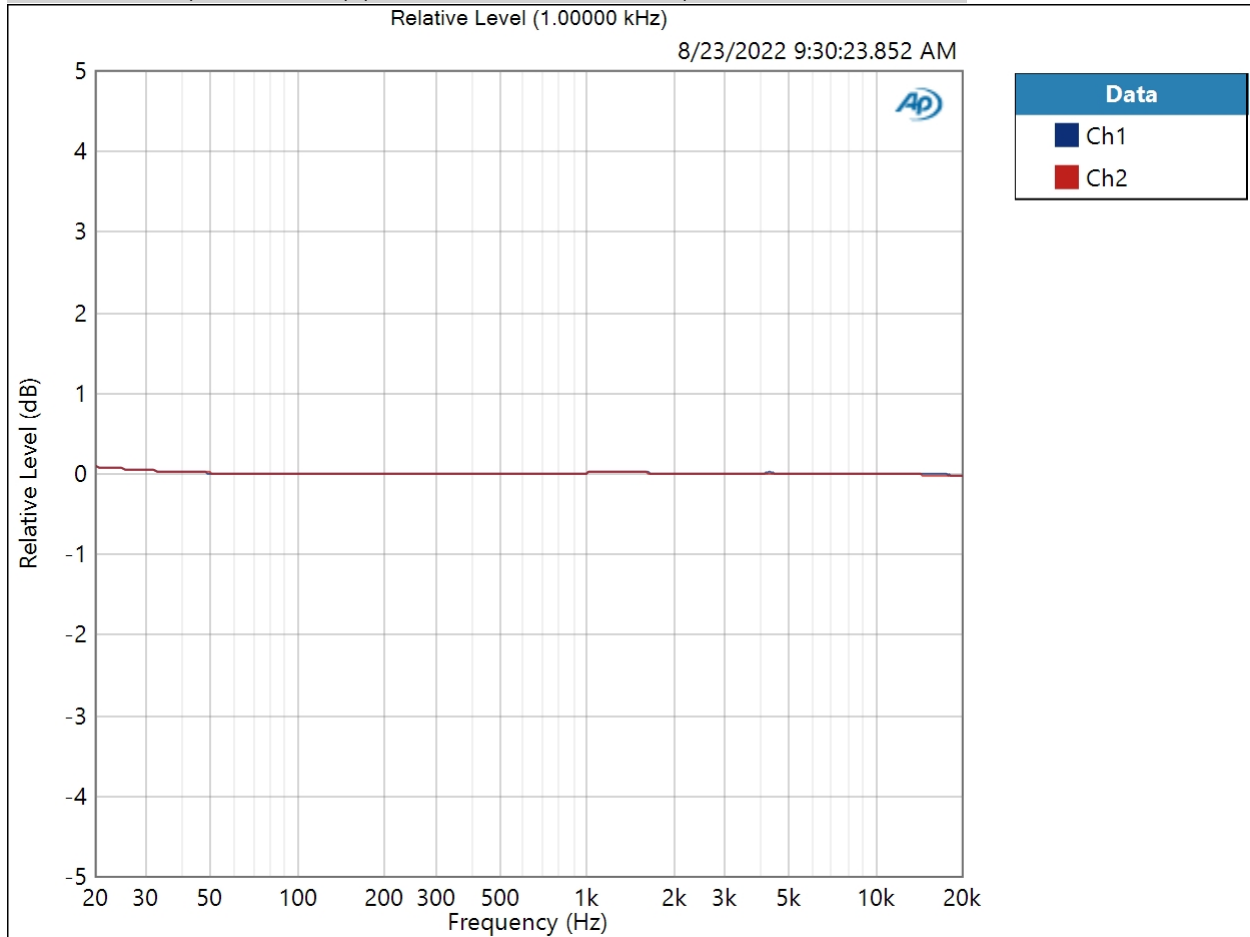


Result: PASSED

32 Ohm High Gain SS : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 320.0 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 8/23/2022 9:30:23 AM

Relative Level (1.00000 kHz) (8/23/2022 9:30:23.852 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:30:23.852 AM)

Ch1 ± 0.060 dB

Ch2 ± 0.066 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm High Gain SS : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 320.0 mVrms

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 (8/23/2022 9:30:26.822 AM)

Ch1 102.122 dB

Ch2 103.236 dB

32 Ohm High Gain SS : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 320.0 mVrms
 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 (8/23/2022 9:30:30.699 AM)

Ch1 0.003993 %
 Ch2 0.002795 %

THD Ratio (8/23/2022 9:30:30.699 AM)

Ch1 0.003196 %
 Ch2 0.002035 %

Noise Ratio (8/23/2022 9:30:30.699 AM)

Ch1 0.002388 %
 Ch2 0.001870 %

Distortion Product Ratio (8/23/2022 9:30:30.699 AM)

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	-92.87	-93.08	-112.56	-113.02	-127.22	-125.75	-133.95	-129.66	-134.92
Ch2	-0.00	-101.41	-94.76	-119.78	-113.41	-128.54	-132.01	-130.10	-133.61	-129.69

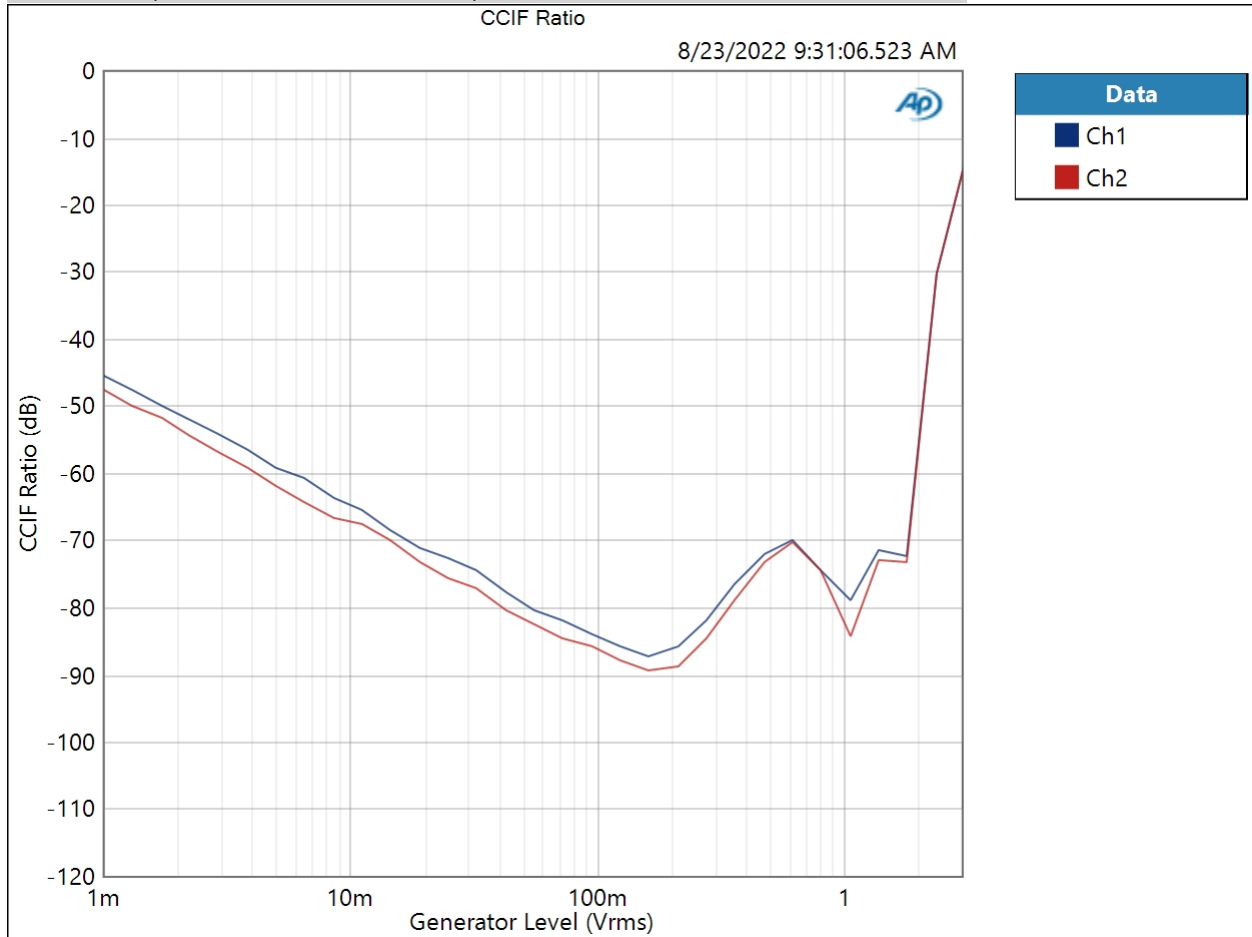
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

32 Ohm High Gain SS : 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 8/23/2022 9:31:06 AM

CCIF Ratio (8/23/2022 9:31:06.523 AM)



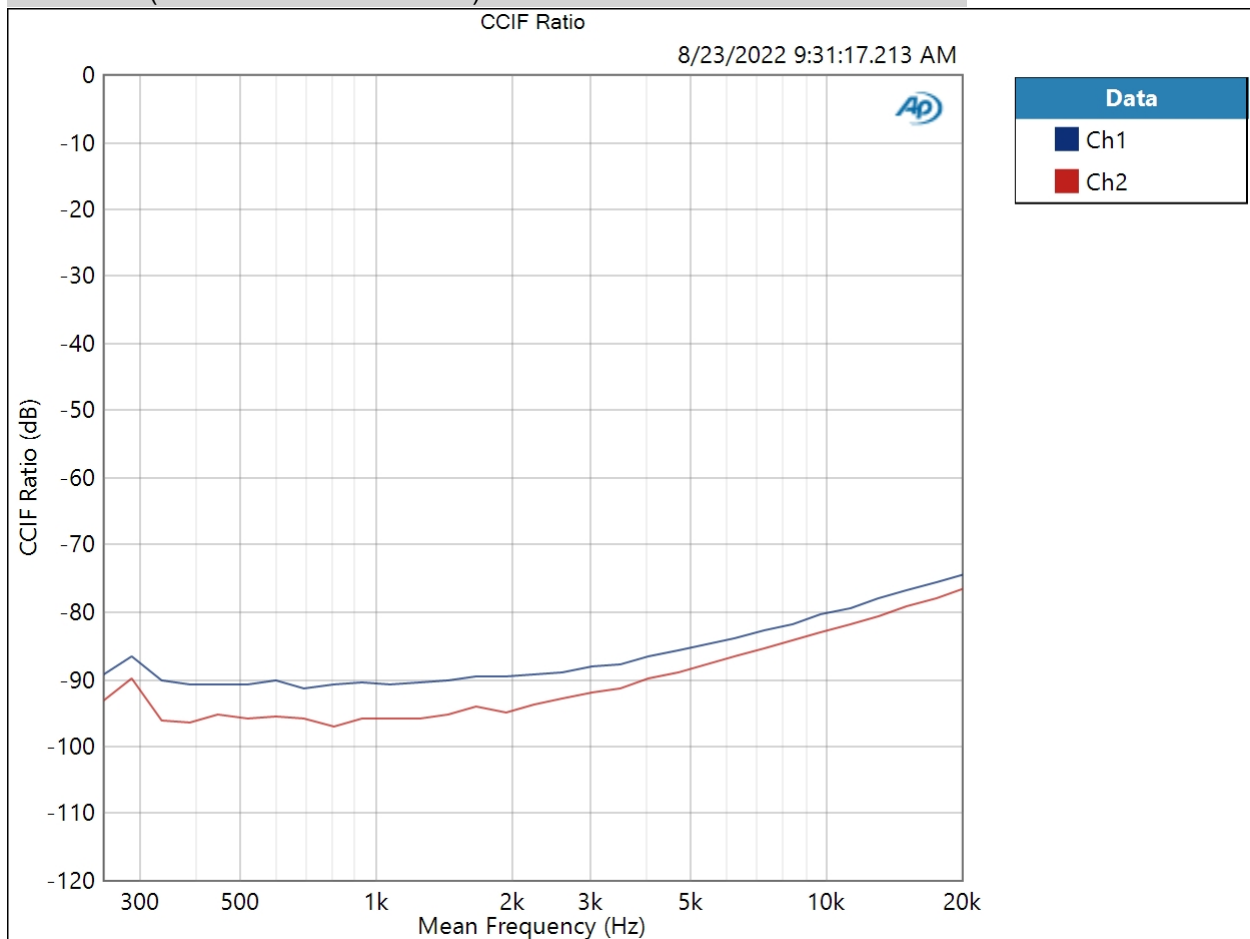
Result: PASSED

8/23/2022 9:55 AM

32 Ohm High Gain SS : IMD Frequency Sweep (CCIF)

Generator Level: 320.0 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 8/23/2022 9:31:17 AM

CCIF Ratio (8/23/2022 9:31:17.213 AM)



Result:  PASSED

32 Ohm High Gain SS : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 320.0 mVrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:31:19.573 AM)

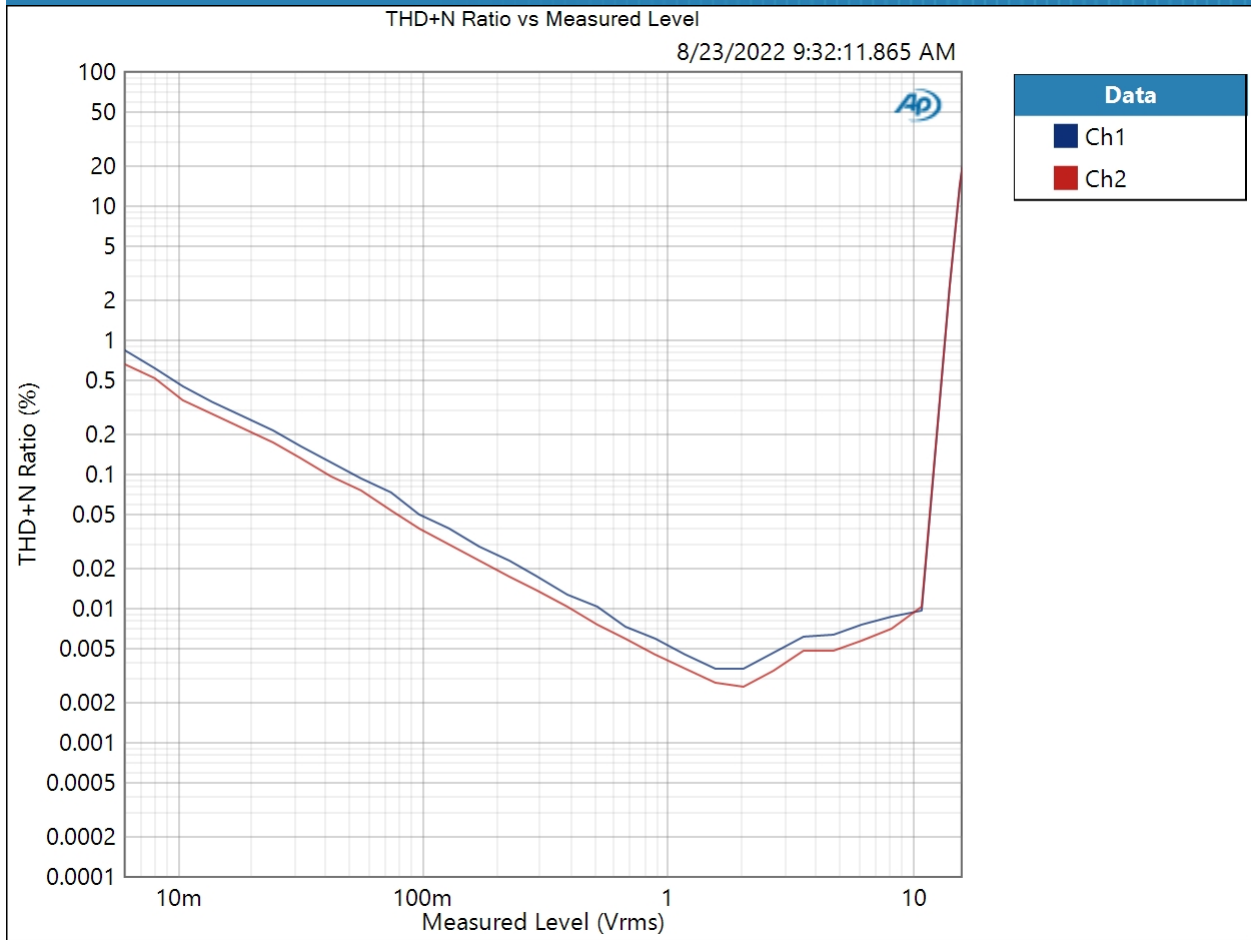
Ch1 71.925 dB

Ch2 73.162 dB

32 Ohm High Gain SS : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:32:11 AM

THD+N Ratio vs Measured Level (8/23/2022 9:32:11.865 AM)



Result: PASSED

32 Ohm Low Gain Tube : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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:	100 kohm
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

32 Ohm Low Gain Tube : Level and Gain

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.800 Vrms
 Frequency: 1.00000 kHz
 Low-pass Filter: Signal Path

RMS Level (8/23/2022 9:47:48.141 AM)

Ch1 1.952 Vrms
 Ch2 1.948 Vrms

32 Ohm Low Gain Tube : 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

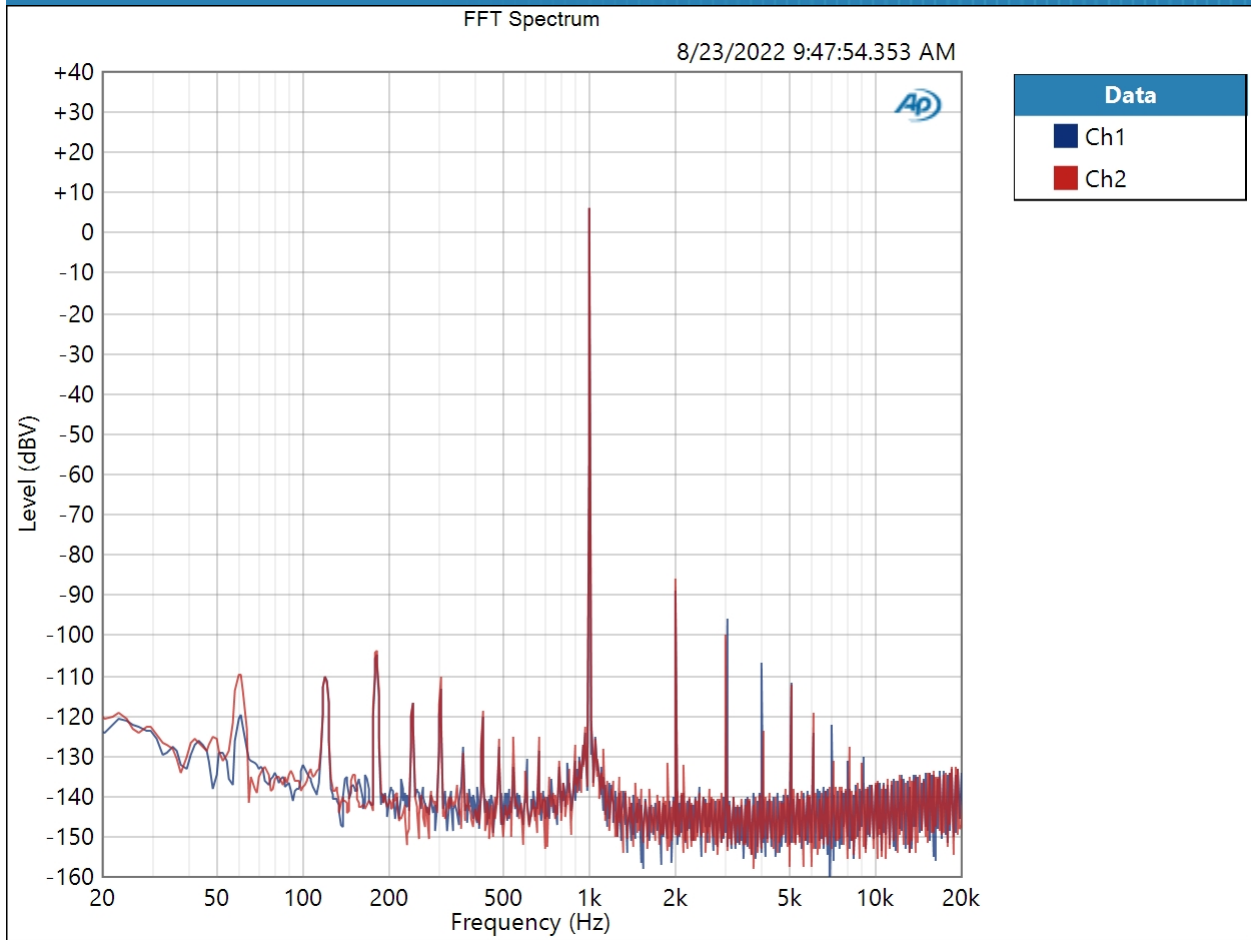
DC Level (8/23/2022 9:47:49.803 AM)

Ch1 -1.394 mV
 Ch2 -1.758 mV

32 Ohm Low Gain Tube : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.800 Vrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:47:54 AM
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 (8/23/2022 9:47:54.353 AM)

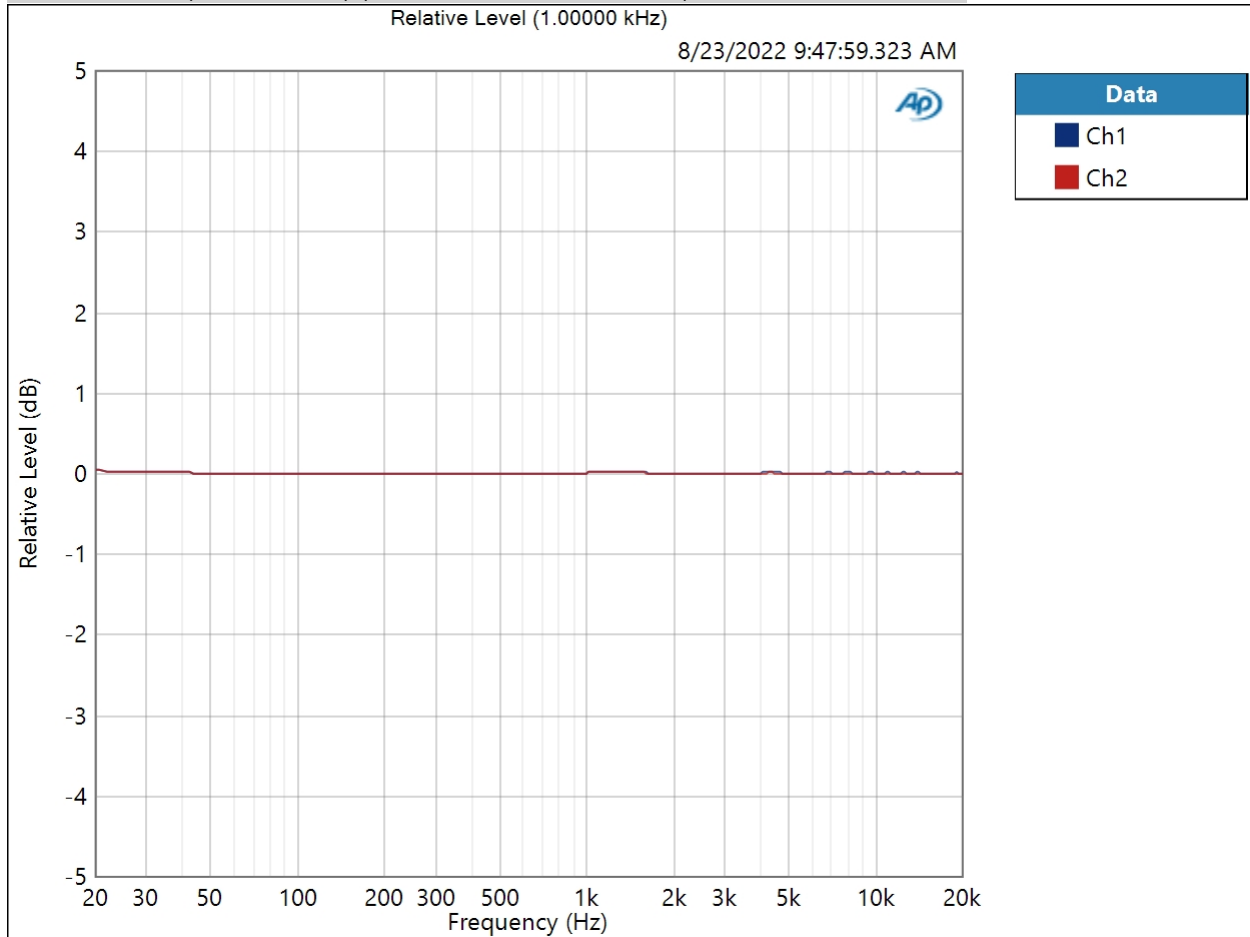


Result: PASSED

32 Ohm Low Gain Tube : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 1.800 Vrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 8/23/2022 9:47:59 AM

Relative Level (1.00000 kHz) (8/23/2022 9:47:59.323 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:47:59.323 AM)

Ch1 ± 0.021 dB

Ch2 ± 0.024 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm Low Gain Tube : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.800 Vrms

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 (8/23/2022 9:48:02.299 AM)

Ch1 112.294 dB

Ch2 111.959 dB

32 Ohm Low Gain Tube : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.800 Vrms
 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 (8/23/2022 9:48:06.713 AM)

Ch1 0.002388 %
 Ch2 0.002648 %

THD Ratio (8/23/2022 9:48:06.713 AM)

Ch1 0.002367 %
 Ch2 0.002583 %

Noise Ratio (8/23/2022 9:48:06.713 AM)

Ch1 0.000494 %
 Ch2 0.000573 %

Distortion Product Ratio (8/23/2022 9:48:06.713 AM)

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	-93.43	-100.04	-112.72	-117.93	-130.52	-128.48	-142.37	-138.49	-139.01
Ch2	-0.00	-91.96	-105.50	-130.81	-117.71	-124.63	-133.88	-131.05	-131.66	-140.45

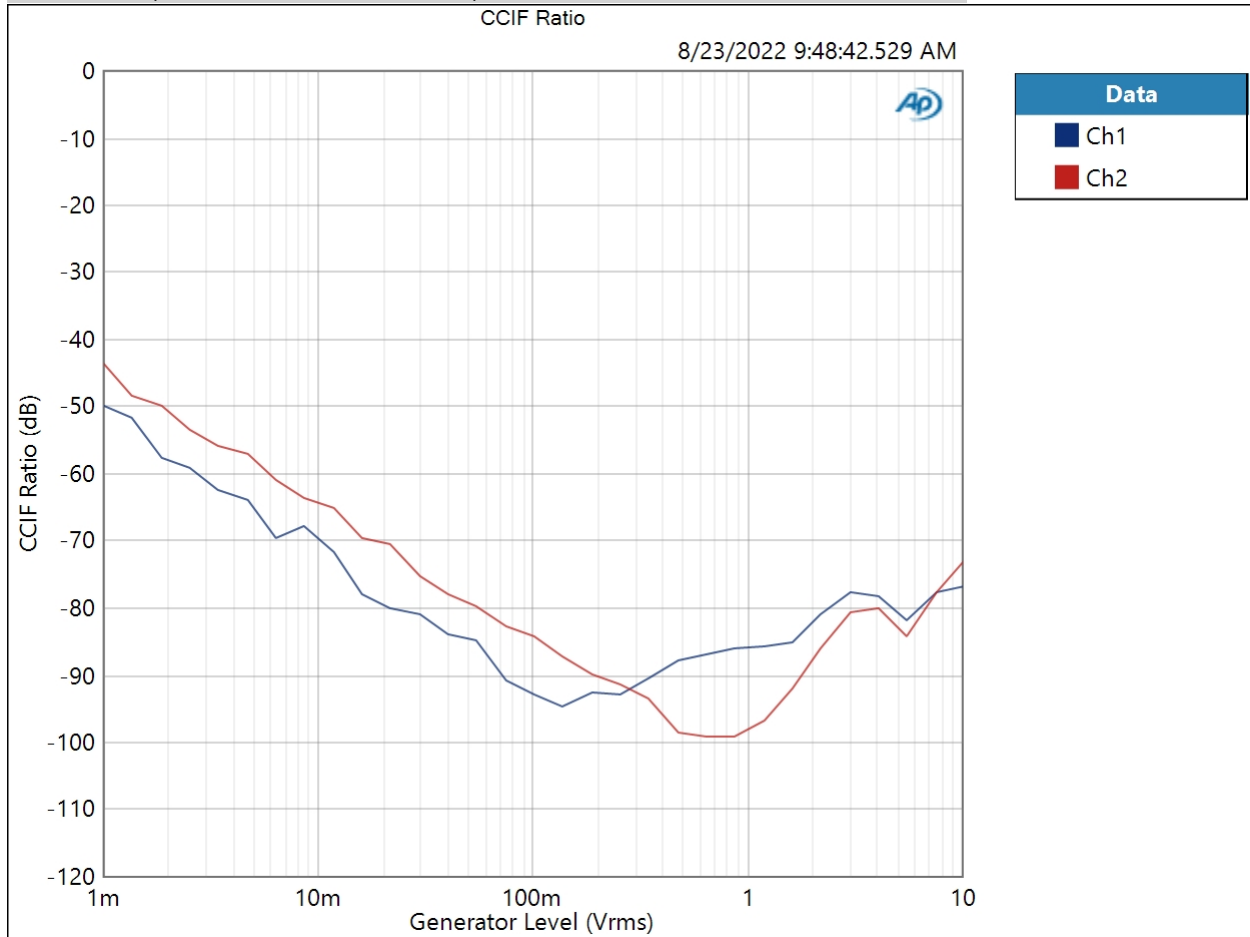
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

32 Ohm Low Gain Tube : 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: 10.00 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 8/23/2022 9:48:42 AM

CCIF Ratio (8/23/2022 9:48:42.529 AM)



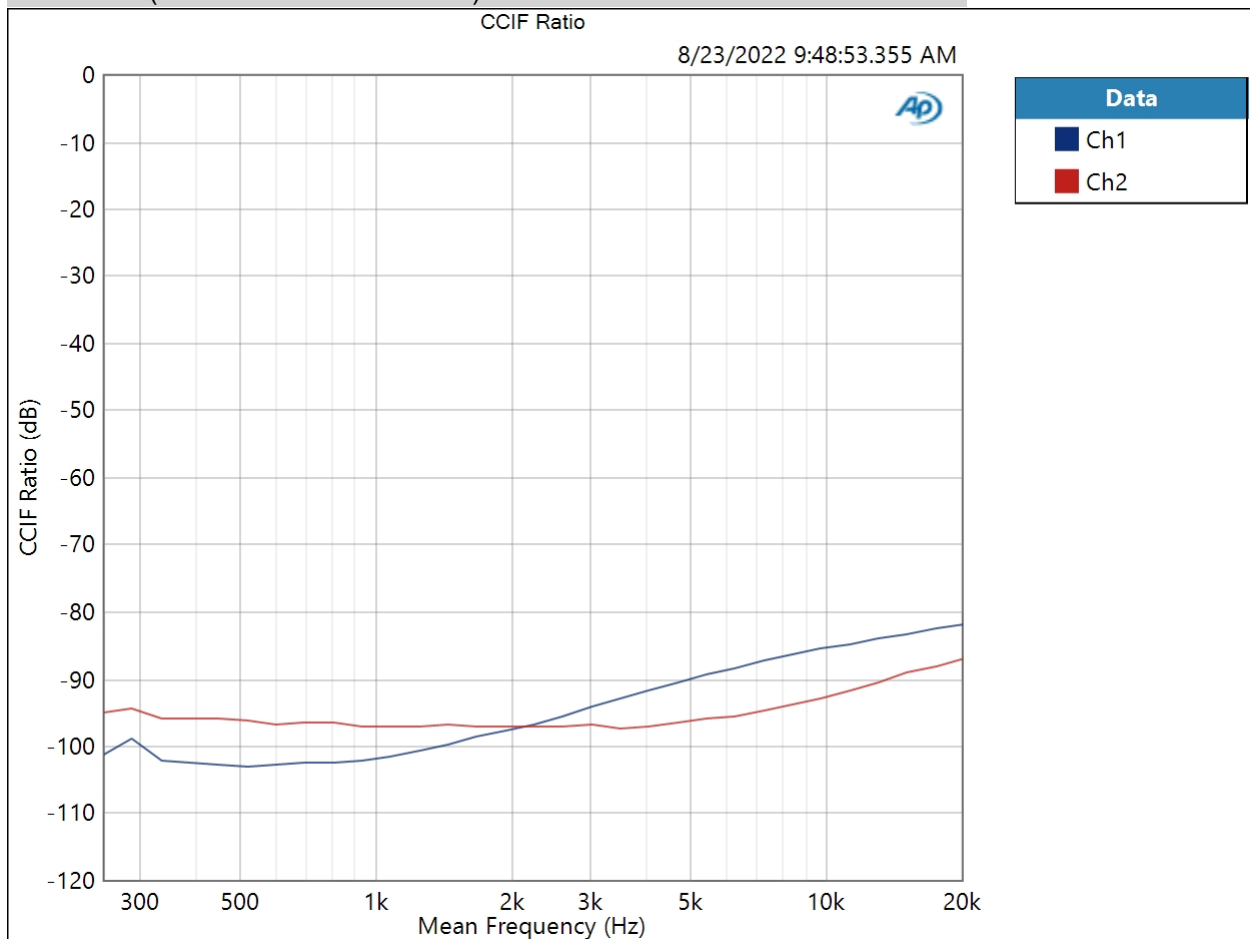
Result: PASSED

8/23/2022 9:55 AM

32 Ohm Low Gain Tube : IMD Frequency Sweep (CCIF)

Generator Level: 1.700 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 8/23/2022 9:48:53 AM

CCIF Ratio (8/23/2022 9:48:53.355 AM)



Result:  PASSED

32 Ohm Low Gain Tube : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.800 Vrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:48:55.727 AM)

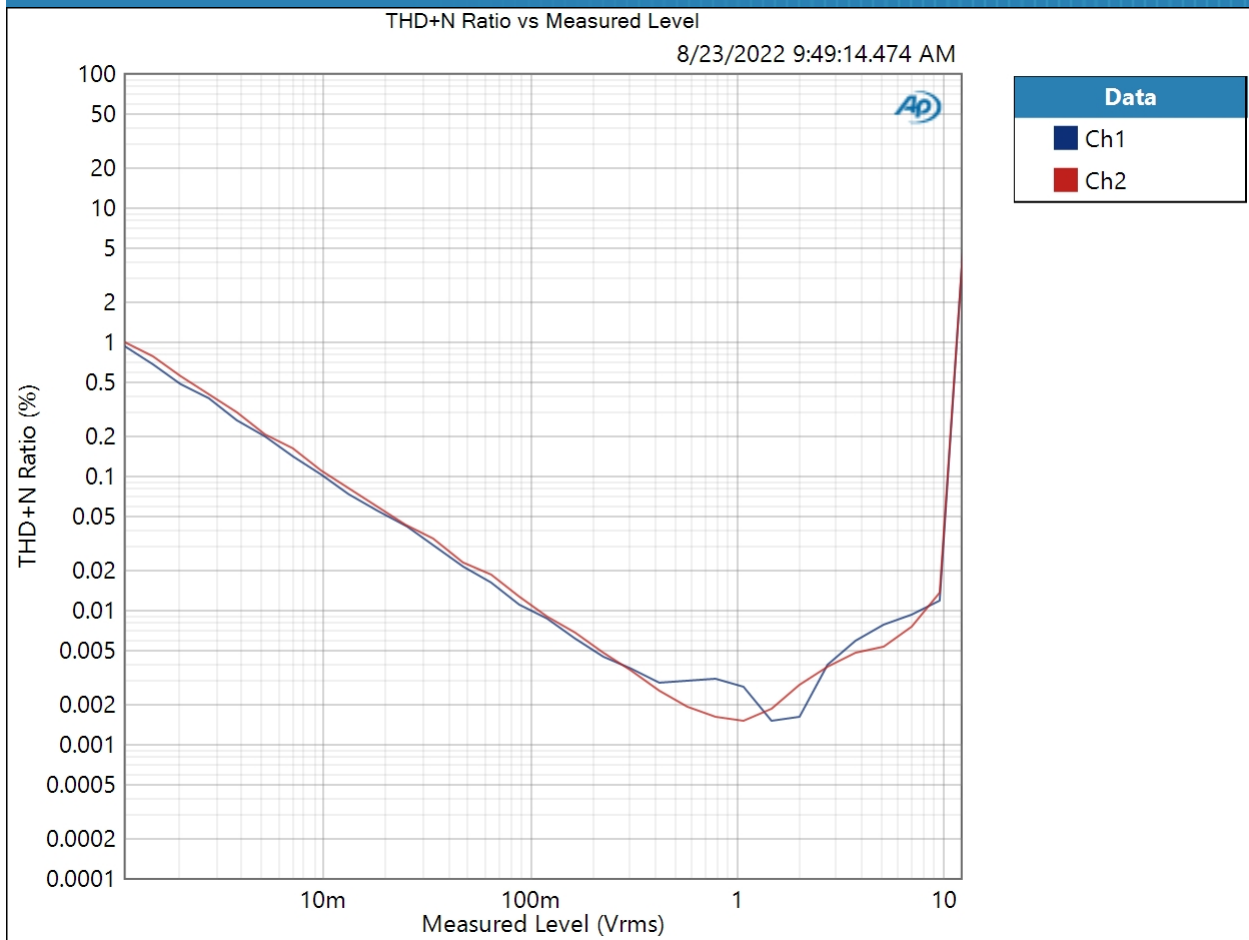
Ch1 72.005 dB

Ch2 72.083 dB

32 Ohm Low Gain Tube : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 12.00 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:49:14 AM

THD+N Ratio vs Measured Level (8/23/2022 9:49:14.474 AM)



Result: PASSED

32 Ohm High Gain Tube : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

32 Ohm High Gain Tube : Level and Gain

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 340.0 mVrms
 Frequency: 1.00000 kHz
 Low-pass Filter: Signal Path

RMS Level (8/23/2022 9:49:45.931 AM)

Ch1 1.950 Vrms
 Ch2 1.946 Vrms

32 Ohm High Gain Tube : 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

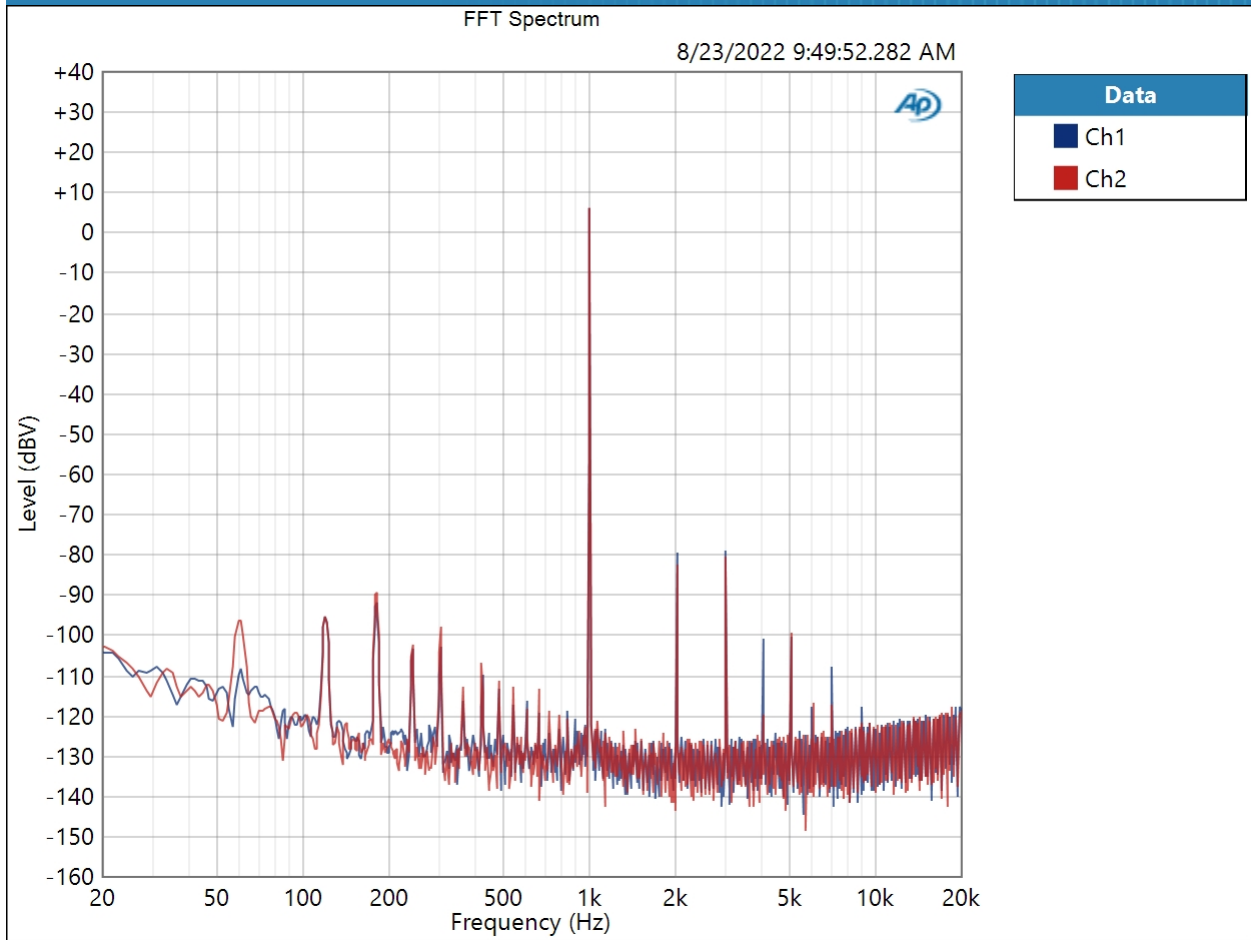
DC Level (8/23/2022 9:49:47.720 AM)

Ch1 -1.477 mV
 Ch2 -1.922 mV

32 Ohm High Gain Tube : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 340.0 mVrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1: 8/23/2022 9:49:52 AM
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 (8/23/2022 9:49:52.282 AM)

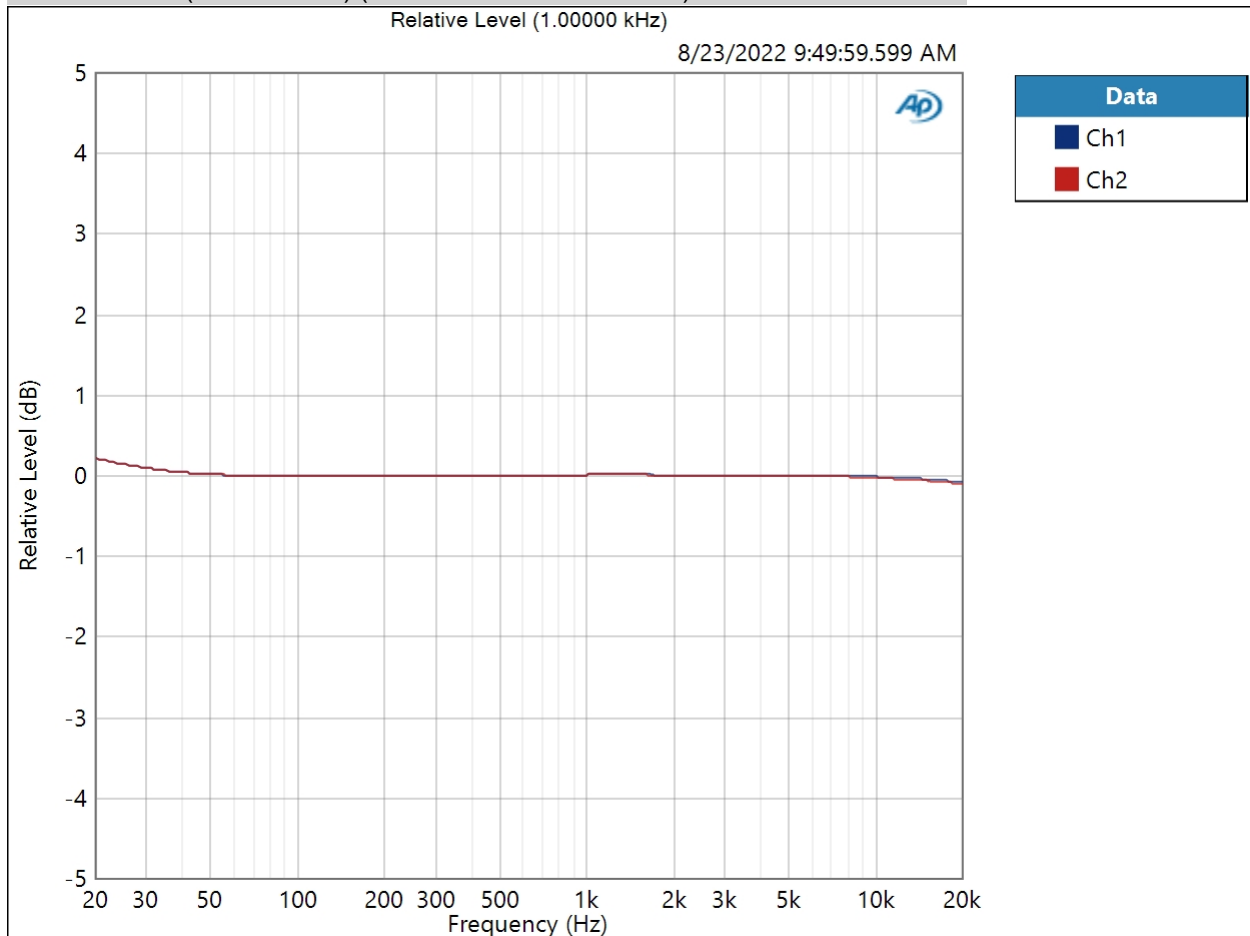


Result: PASSED

32 Ohm High Gain Tube : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 340.0 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 8/23/2022 9:49:59 AM

Relative Level (1.00000 kHz) (8/23/2022 9:49:59.599 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:49:59.599 AM)

Ch1 ± 0.155 dB

Ch2 ± 0.164 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm High Gain Tube : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 340.0 mVrms

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 (8/23/2022 9:50:02.574 AM)

Ch1 98.216 dB

Ch2 97.872 dB

32 Ohm High Gain Tube : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 340.0 mVrms
 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 (8/23/2022 9:50:05.954 AM)

Ch1 0.008150 %
 Ch2 0.006830 %

THD Ratio (8/23/2022 9:50:05.954 AM)

Ch1 0.007793 %
 Ch2 0.006177 %

Noise Ratio (8/23/2022 9:50:05.954 AM)

Ch1 0.002381 %
 Ch2 0.002932 %

Distortion Product Ratio (8/23/2022 9:50:05.954 AM)

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	-85.59	-84.89	-106.25	-105.67	-121.13	-111.65	-122.53	-120.75	-129.48
Ch2	-0.00	-88.24	-86.43	-124.23	-104.89	-120.40	-124.83	-127.66	-124.57	-125.02

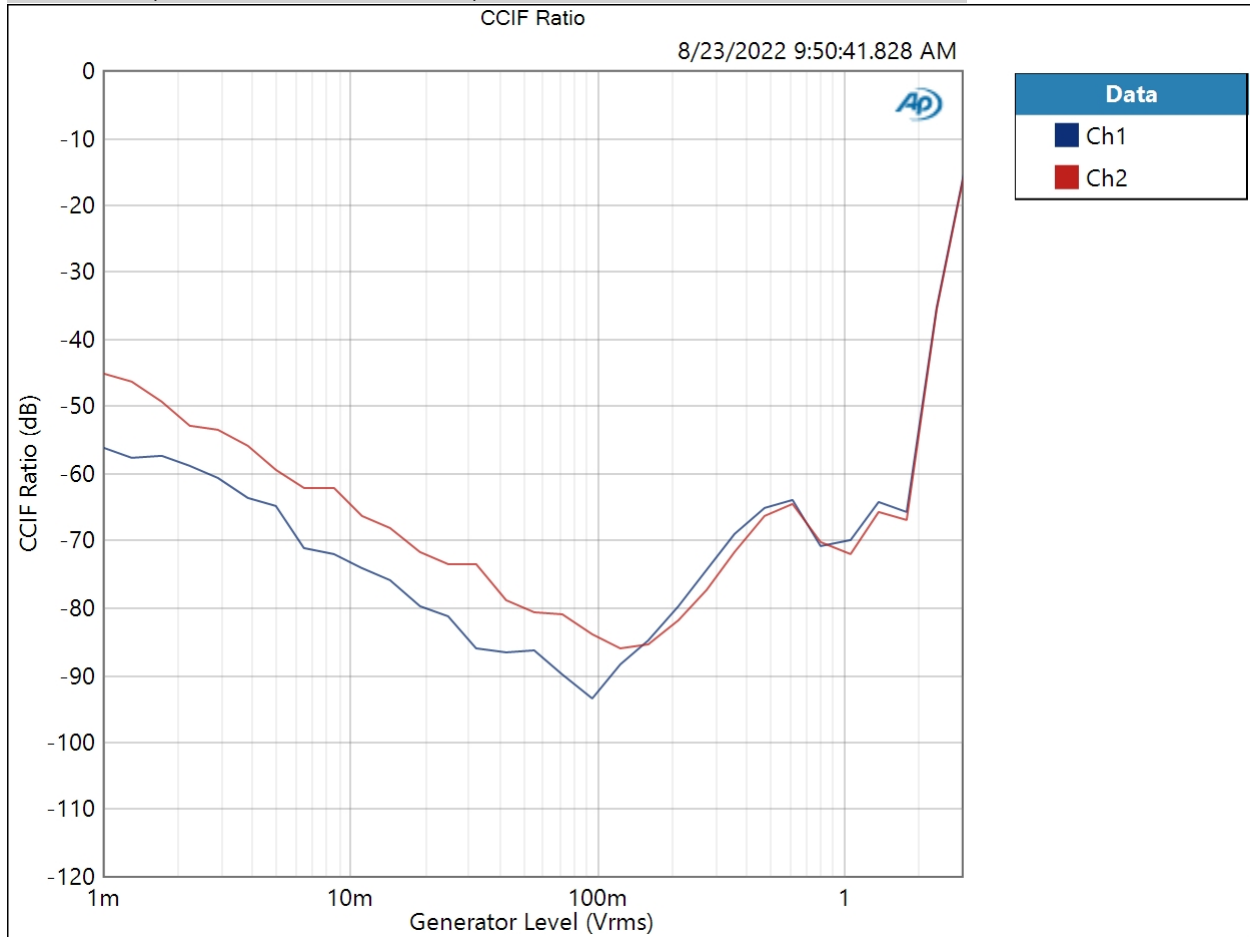
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

32 Ohm High Gain Tube : 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 8/23/2022 9:50:41 AM

CCIF Ratio (8/23/2022 9:50:41.828 AM)



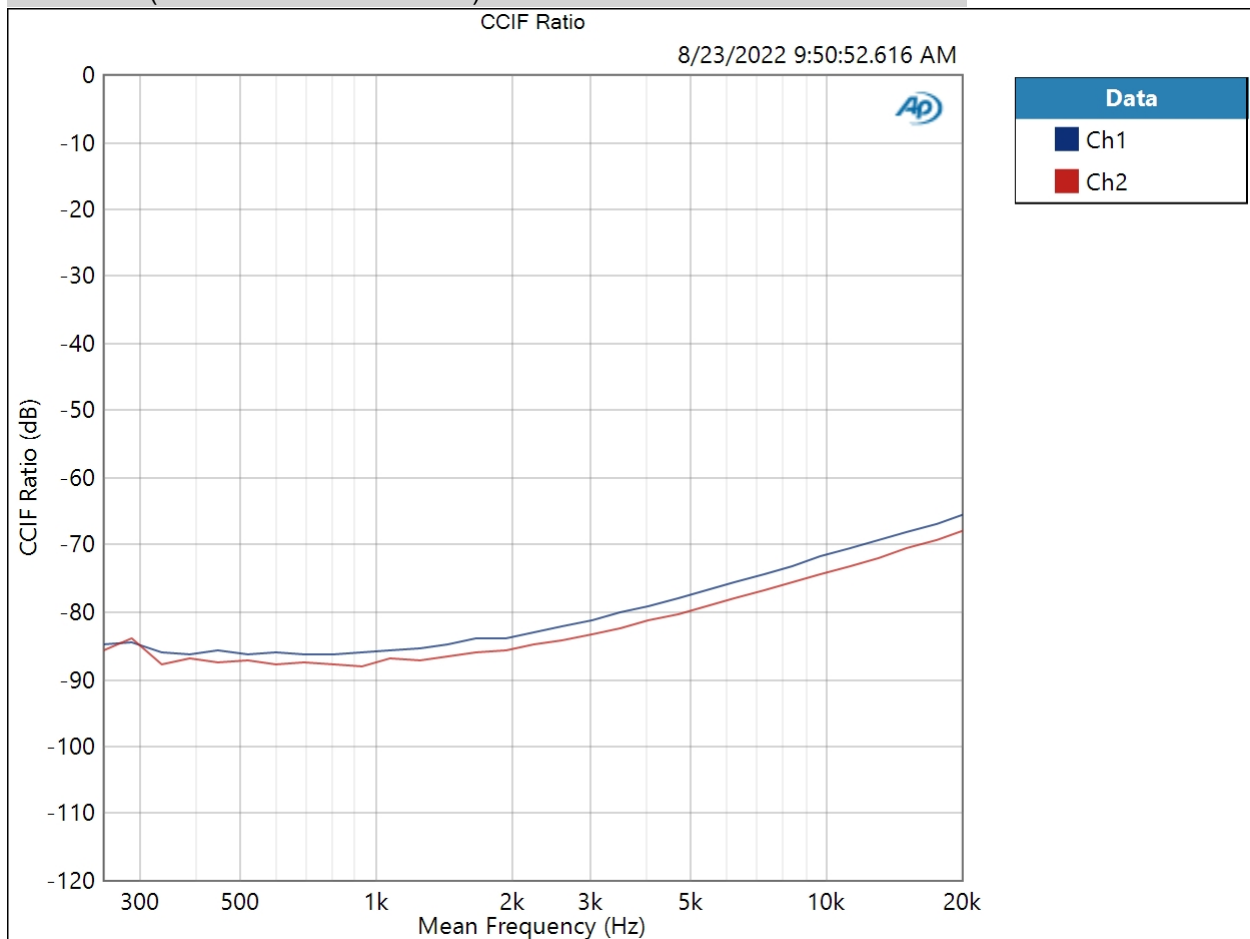
Result: PASSED

8/23/2022 9:55 AM

32 Ohm High Gain Tube : IMD Frequency Sweep (CCIF)

Generator Level: 340.0 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 8/23/2022 9:50:52 AM

CCIF Ratio (8/23/2022 9:50:52.616 AM)



Result:  PASSED

32 Ohm High Gain Tube : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 340.0 mVrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:50:54.970 AM)

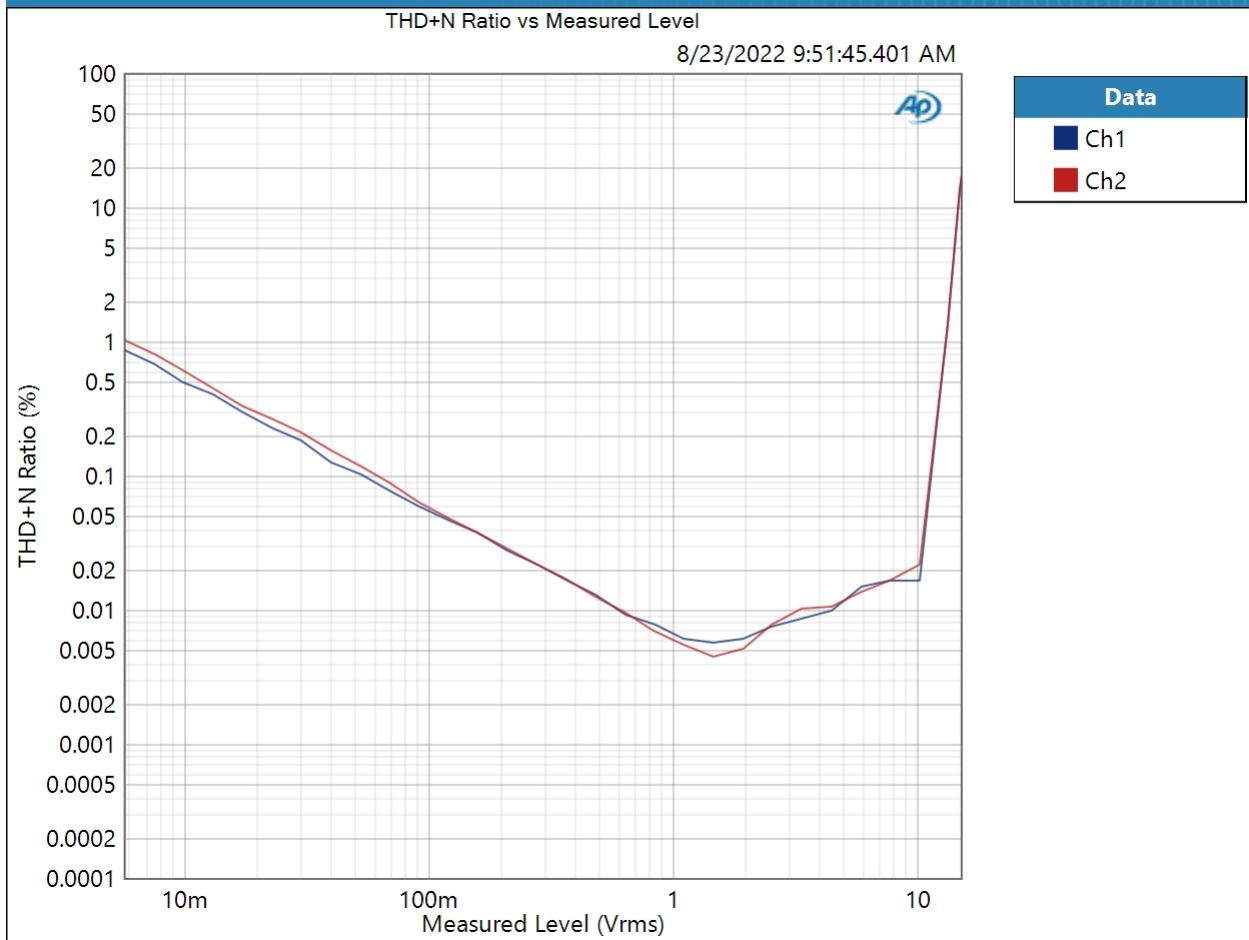
Ch1 73.754 dB

Ch2 72.288 dB

32 Ohm High Gain Tube : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 4.000 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:51:45 AM

THD+N Ratio vs Measured Level (8/23/2022 9:51:45.401 AM)



Result: PASSED

Preamp SS : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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:	100 kohm
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

Preamp SS : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Generator Level:	1.700 Vrms
Frequency:	1.00000 kHz
Low-pass Filter:	Signal Path

RMS Level (8/23/2022 9:35:32.352 AM)

Ch1 2.011 Vrms
Ch2 2.012 Vrms

Preamp SS : 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

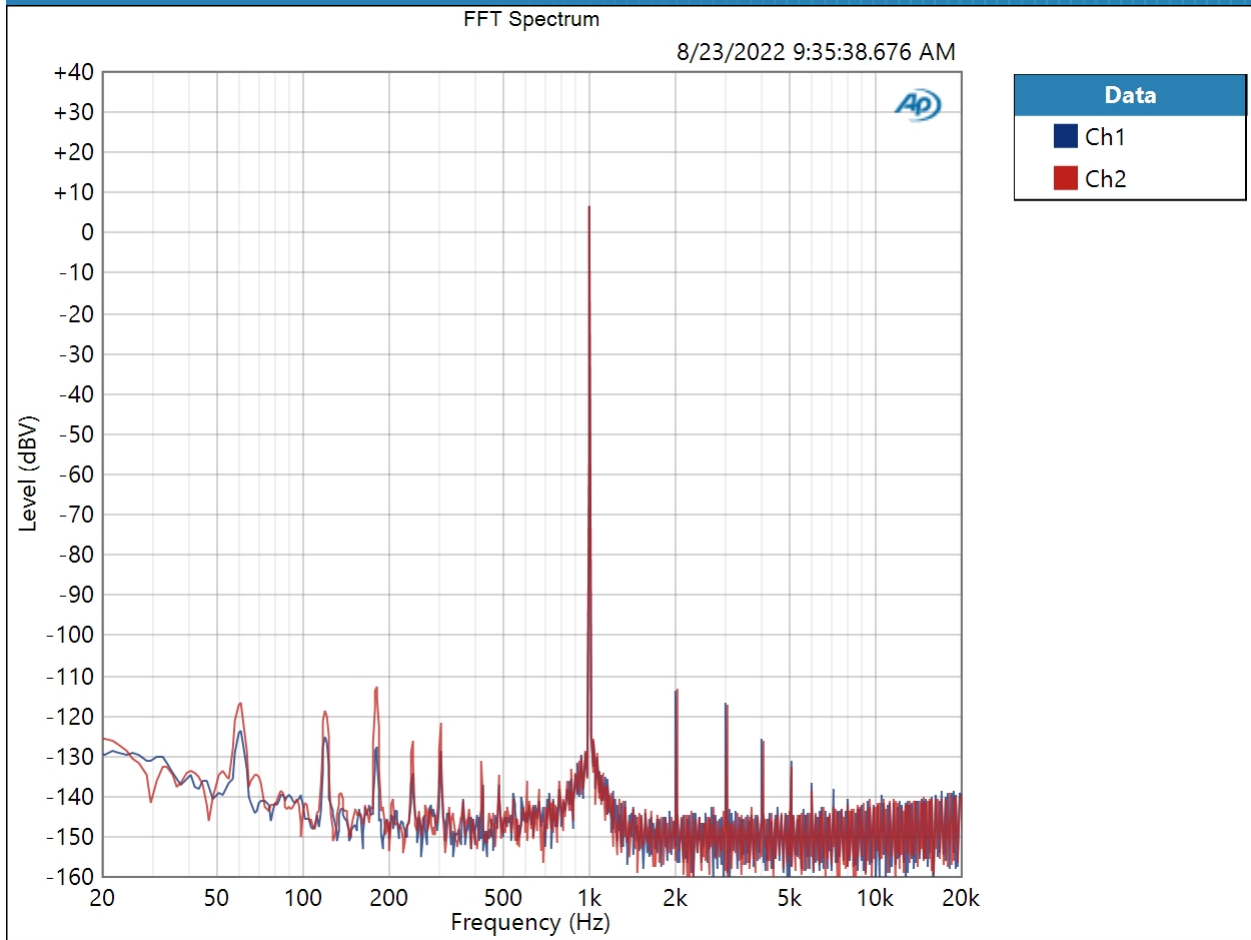
DC Level (8/23/2022 9:35:34.066 AM)

Ch1 -1.020 mV
Ch2 -1.482 mV

Preamp SS : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.700 Vrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:35:38 AM
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 (8/23/2022 9:35:38.676 AM)

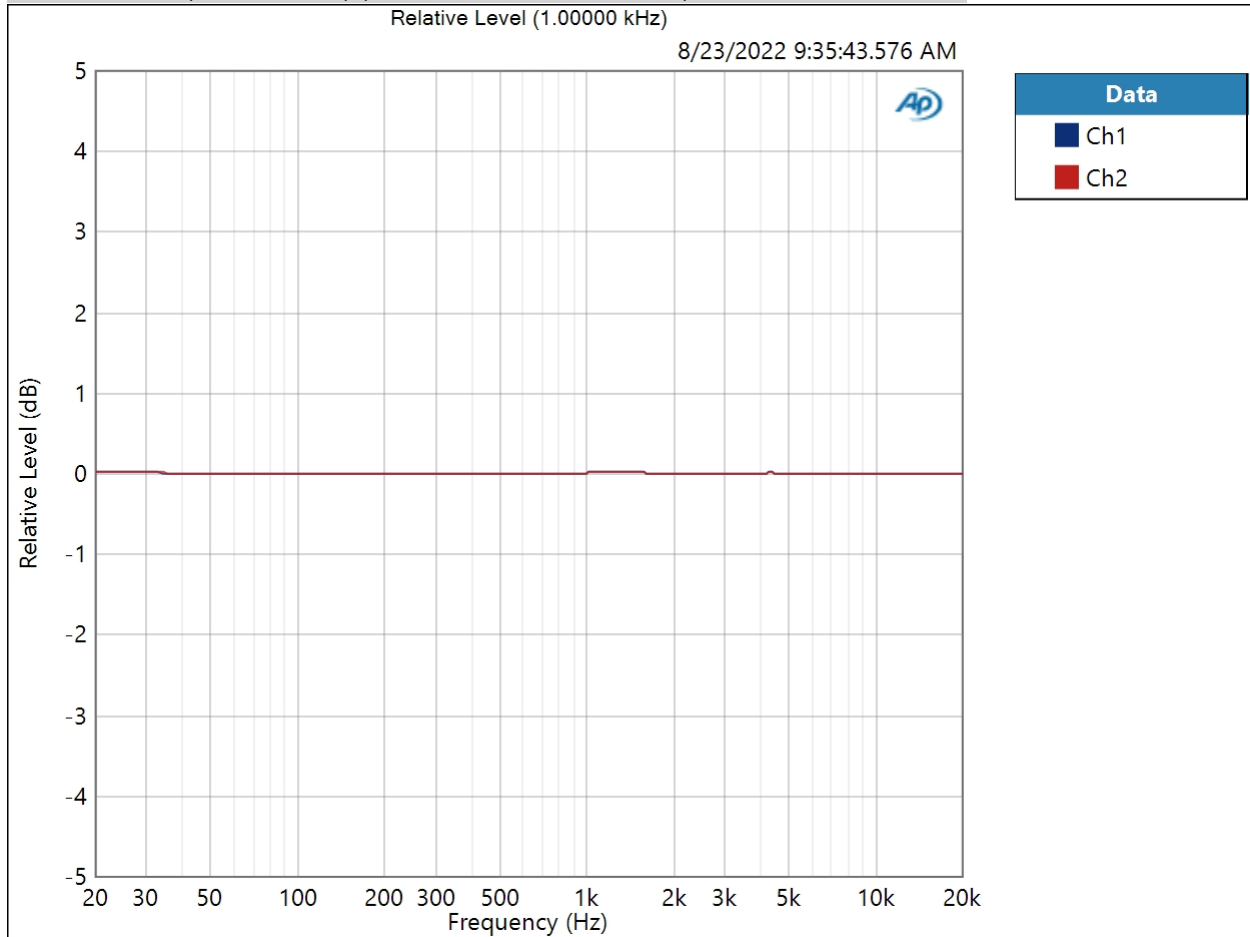


Result:  PASSED

Preamp SS : Frequency Response

Start Frequency: 20.0000 Hz
 Stop Frequency: 20.0000 kHz
 Generator Level: 1.700 Vrms
 DC Offset: 0.000 V
 EQ: None
 Pre-Sweep: 100.0 ms
 Sweep: 350.0 ms
 Extend Acquisition By: 1.000 s
 Secondary Source: None
 Measured 1 8/23/2022 9:35:43 AM

Relative Level (1.00000 kHz) (8/23/2022 9:35:43.576 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:35:43.576 AM)

Ch1 ± 0.011 dB

Ch2 ± 0.011 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Preamp SS : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.700 Vrms

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 (8/23/2022 9:35:46.592 AM)

Ch1 119.160 dB

Ch2 118.863 dB

Preamp SS : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.700 Vrms
 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 (8/23/2022 9:35:50.041 AM)

Ch1 0.000228 %
 Ch2 0.000267 %

THD Ratio (8/23/2022 9:35:50.041 AM)

Ch1 0.000130 %
 Ch2 0.000134 %

Noise Ratio (8/23/2022 9:35:50.041 AM)

Ch1 0.000184 %
 Ch2 0.000230 %

Distortion Product Ratio (8/23/2022 9:35:50.041 AM)

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	-120.08	-122.85	-130.92	-134.63	-140.99	-143.10	-144.32	-145.48	-145.49
Ch2	-0.00	-119.34	-123.39	-130.93	-140.25	-141.84	-144.10	-140.30	-145.93	-145.08

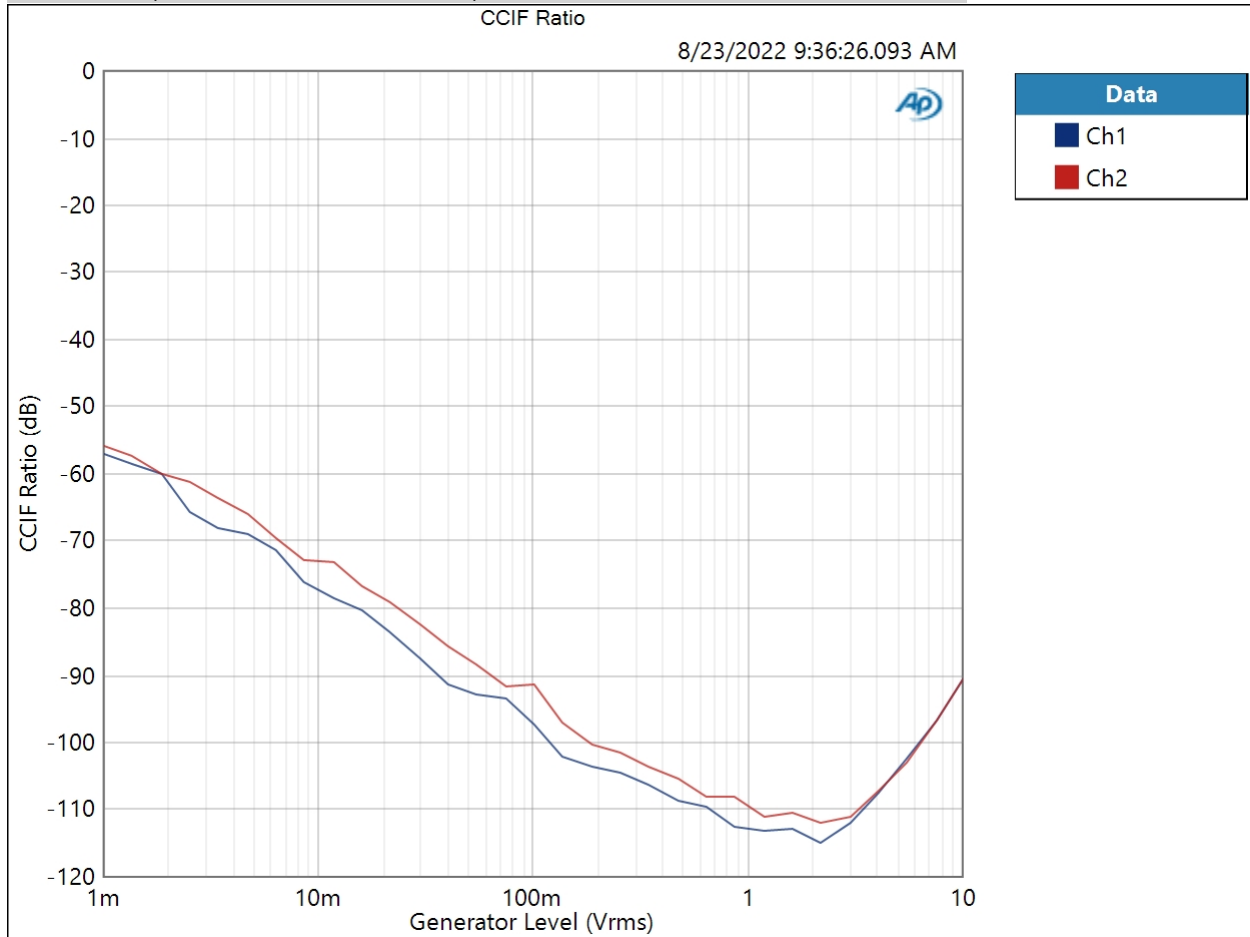
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Preamp SS : 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: 10.00 Vrms
Step Type: Logarithmic
Number of Points: 31
Mode: d2+d3
Measured 1 8/23/2022 9:36:26 AM

CCIF Ratio (8/23/2022 9:36:26.093 AM)



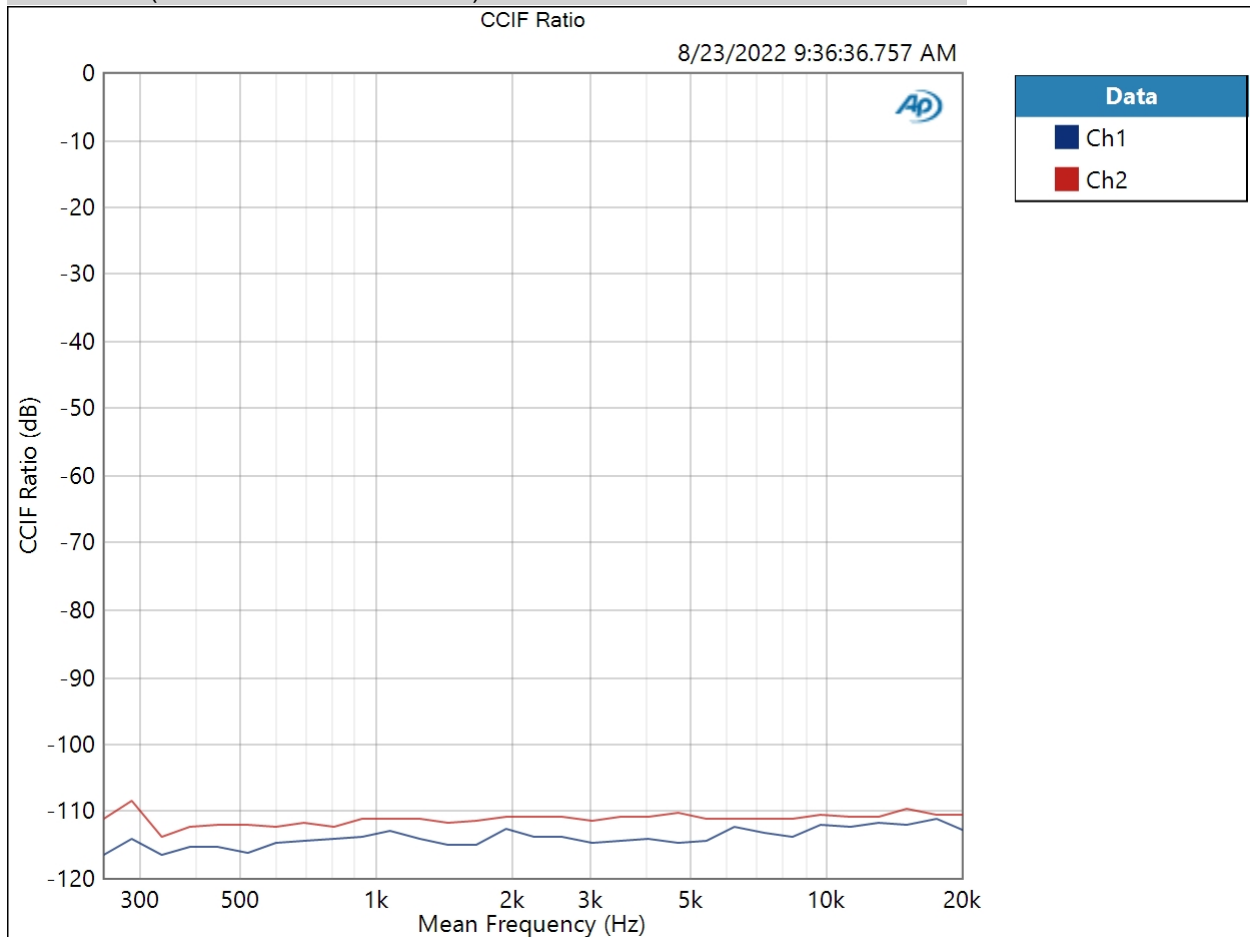
Result: PASSED

8/23/2022 9:55 AM

Preamp SS : IMD Frequency Sweep (CCIF)

Generator Level: 1.700 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 8/23/2022 9:36:36 AM

CCIF Ratio (8/23/2022 9:36:36.757 AM)



Result:  PASSED

Preamp SS : Crosstalk, One Channel Undriven

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.700 Vrms
Frequency: 10.0000 kHz

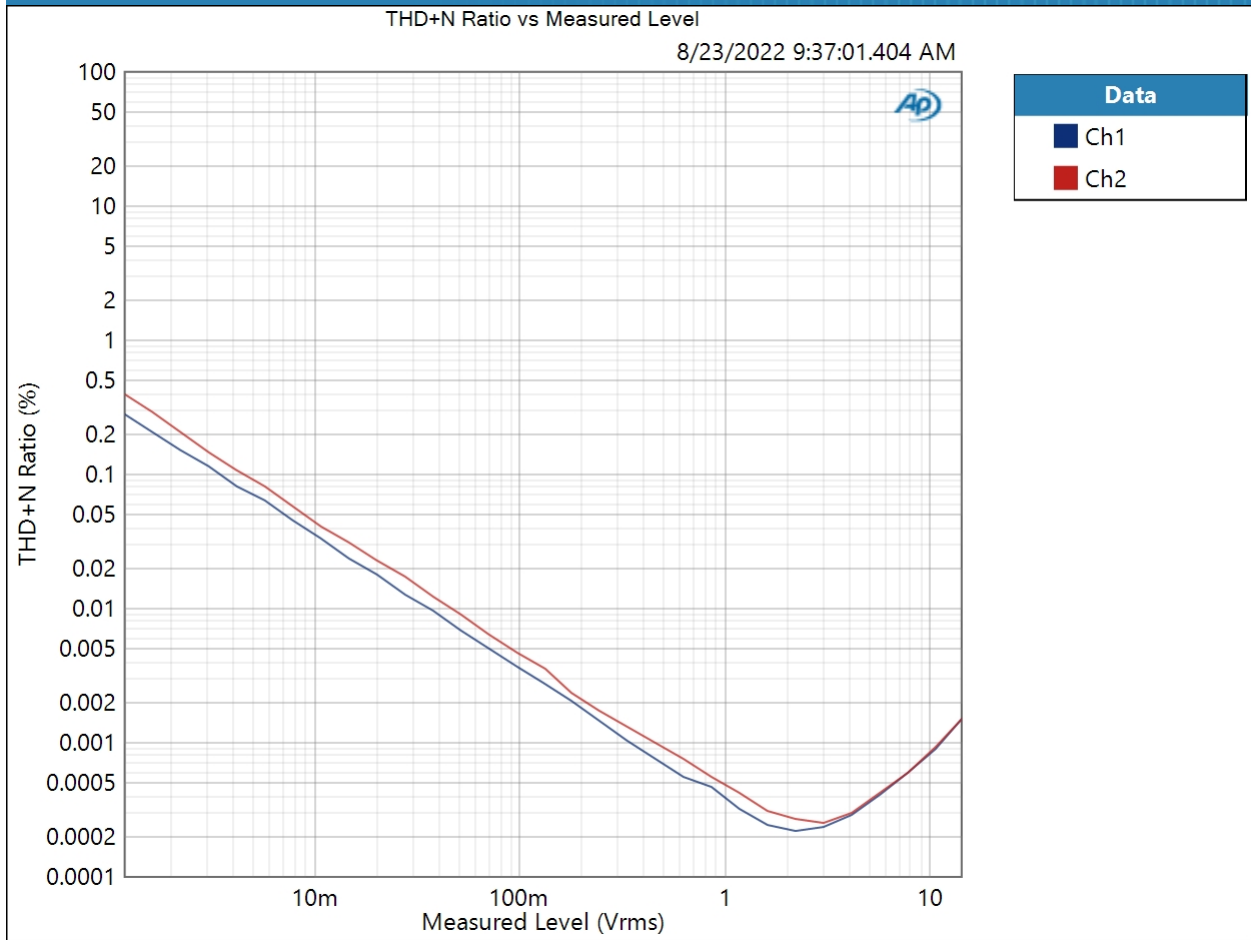
Crosstalk (8/23/2022 9:36:39.128 AM)

Ch1 96.481 dB
Ch2 99.675 dB

Preamp SS : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 12.00 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:37:01 AM

THD+N Ratio vs Measured Level (8/23/2022 9:37:01.404 AM)



Result: PASSED

Preamp Tube : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Source Impedance:	20 ohm, 20 ohm
AG52 Generator Option:	Installed
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:	100 kohm
High Performance Sine Analyzer:	Enabled
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.

• Clocks

8/23/2022 9:55 AM

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

Preamp Tube : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Precision Tune:	Disabled
Generator Level:	1.800 Vrms
Frequency:	1.00000 kHz
Low-pass Filter:	Signal Path

RMS Level (8/23/2022 9:41:01.801 AM)

Ch1 2.029 Vrms
Ch2 2.031 Vrms

Preamp Tube : 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

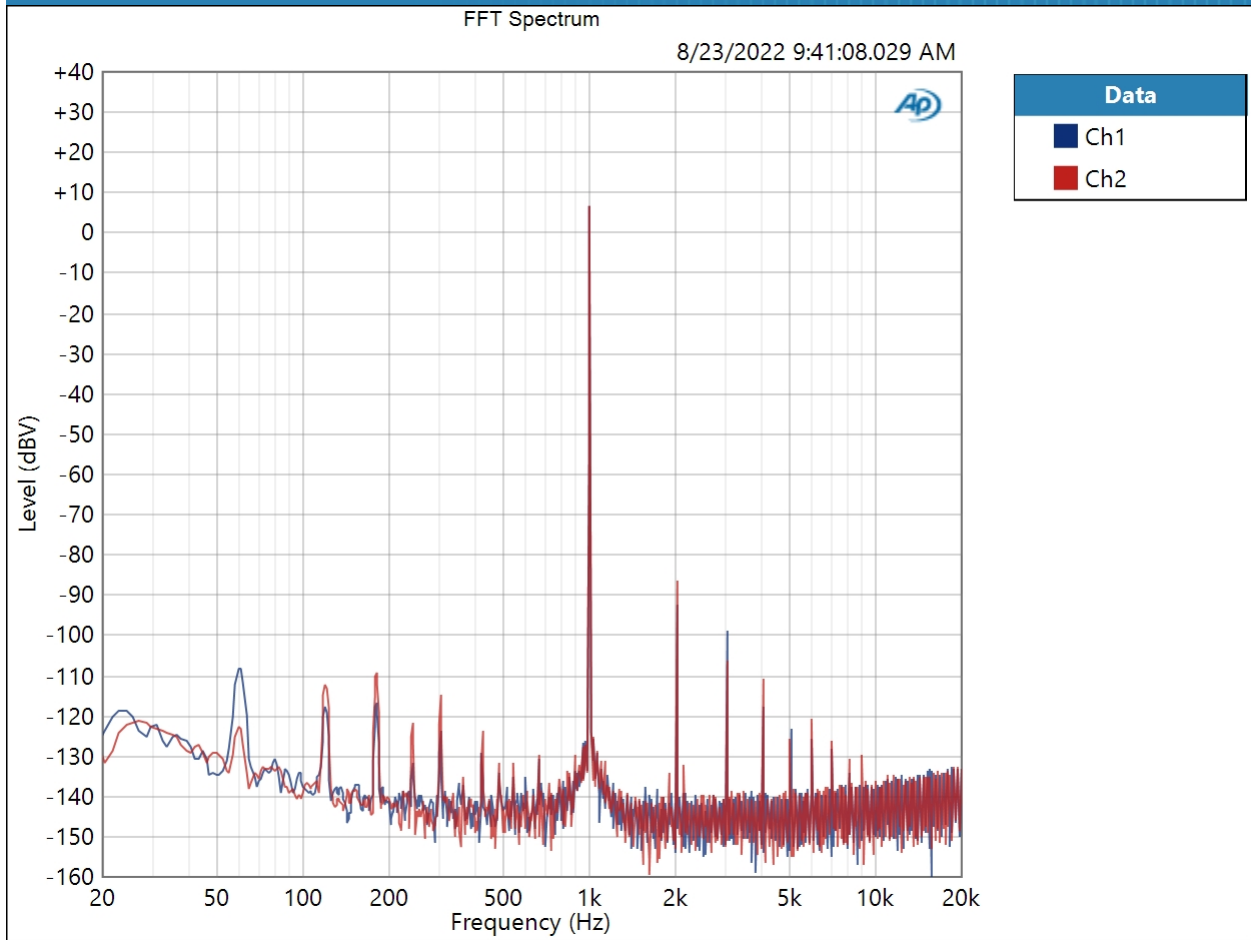
DC Level (8/23/2022 9:41:03.431 AM)

Ch1 -766.9 uV
Ch2 -1.008 mV

Preamp Tube : Signal Analyzer

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Generator Level: 1.800 Vrms
Frequency: 1.00000 kHz
Secondary Source: None
Measured 1 8/23/2022 9:41:08 AM
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 (8/23/2022 9:41:08.029 AM)

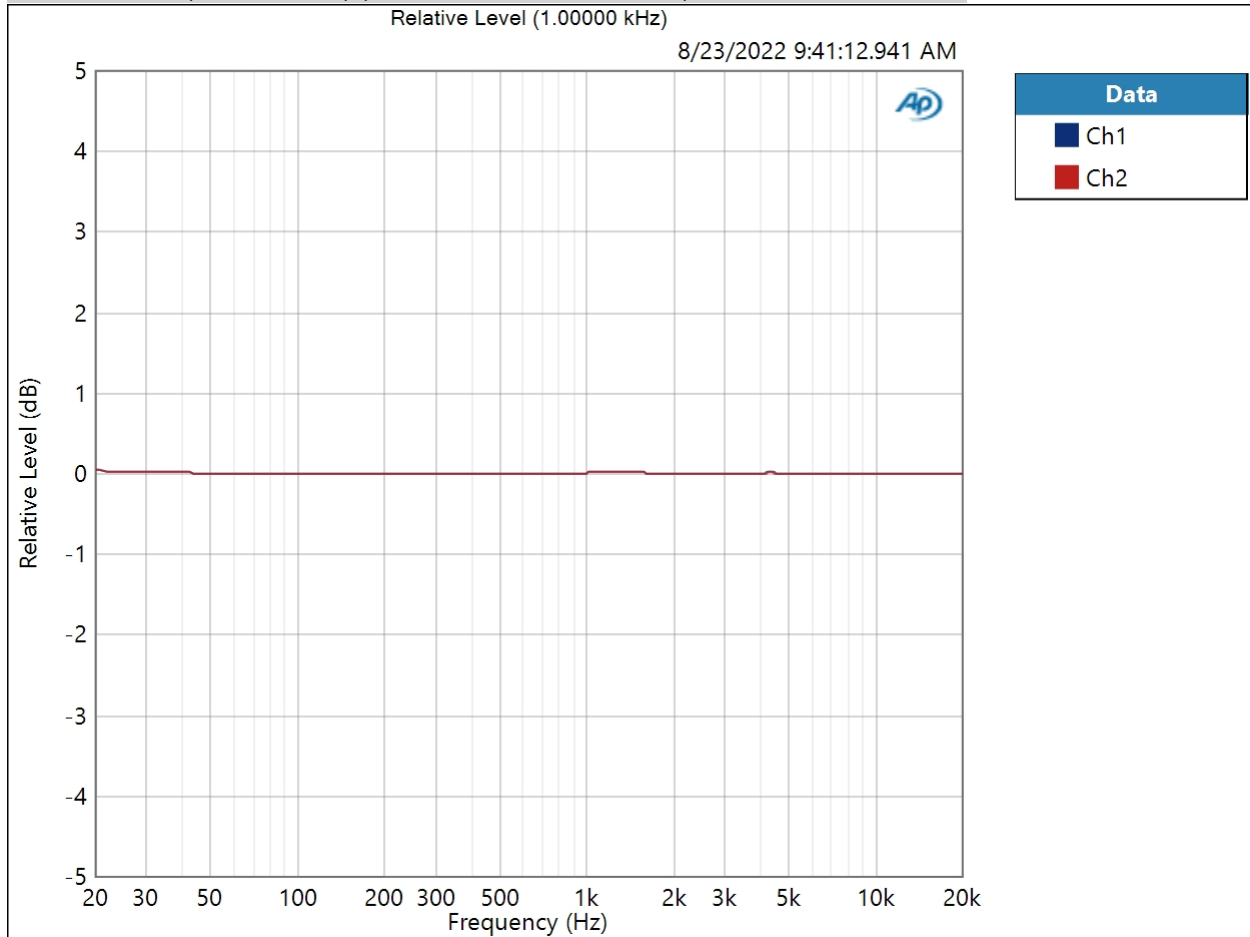


Result: PASSED

Preamp Tube : Frequency Response

Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Generator Level: 1.800 Vrms
DC Offset: 0.000 V
EQ: None
Pre-Sweep: 100.0 ms
Sweep: 350.0 ms
Extend Acquisition By: 1.000 s
Secondary Source: None
Measured 1 8/23/2022 9:41:12 AM

Relative Level (1.00000 kHz) (8/23/2022 9:41:12.941 AM)



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Result:  PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (8/23/2022 9:41:12.941 AM)

Ch1 ± 0.023 dB

Ch2 ± 0.023 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

Preamp Tube : Signal to Noise Ratio

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.800 Vrms

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 (8/23/2022 9:41:16.063 AM)

Ch1 113.199 dB

Ch2 112.964 dB

Preamp Tube : THD+N

Waveform: Sine
 Generator Mode: High Performance Sine Generator
 Precision Tune: Disabled
 Generator Level: 1.800 Vrms
 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 (8/23/2022 9:41:19.583 AM)

Ch1 0.001354 %
 Ch2 0.002419 %

THD Ratio (8/23/2022 9:41:19.583 AM)

Ch1 0.001287 %
 Ch2 0.002383 %

Noise Ratio (8/23/2022 9:41:19.583 AM)

Ch1 0.000415 %
 Ch2 0.000400 %

Distortion Product Ratio (8/23/2022 9:41:19.583 AM)

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	-98.82	-104.68	-137.48	-130.69	-131.36	-132.07	-138.48	-139.10	-134.81
Ch2	-0.00	-92.53	-112.14	-116.71	-130.35	-126.13	-132.98	-130.50	-134.59	-134.07

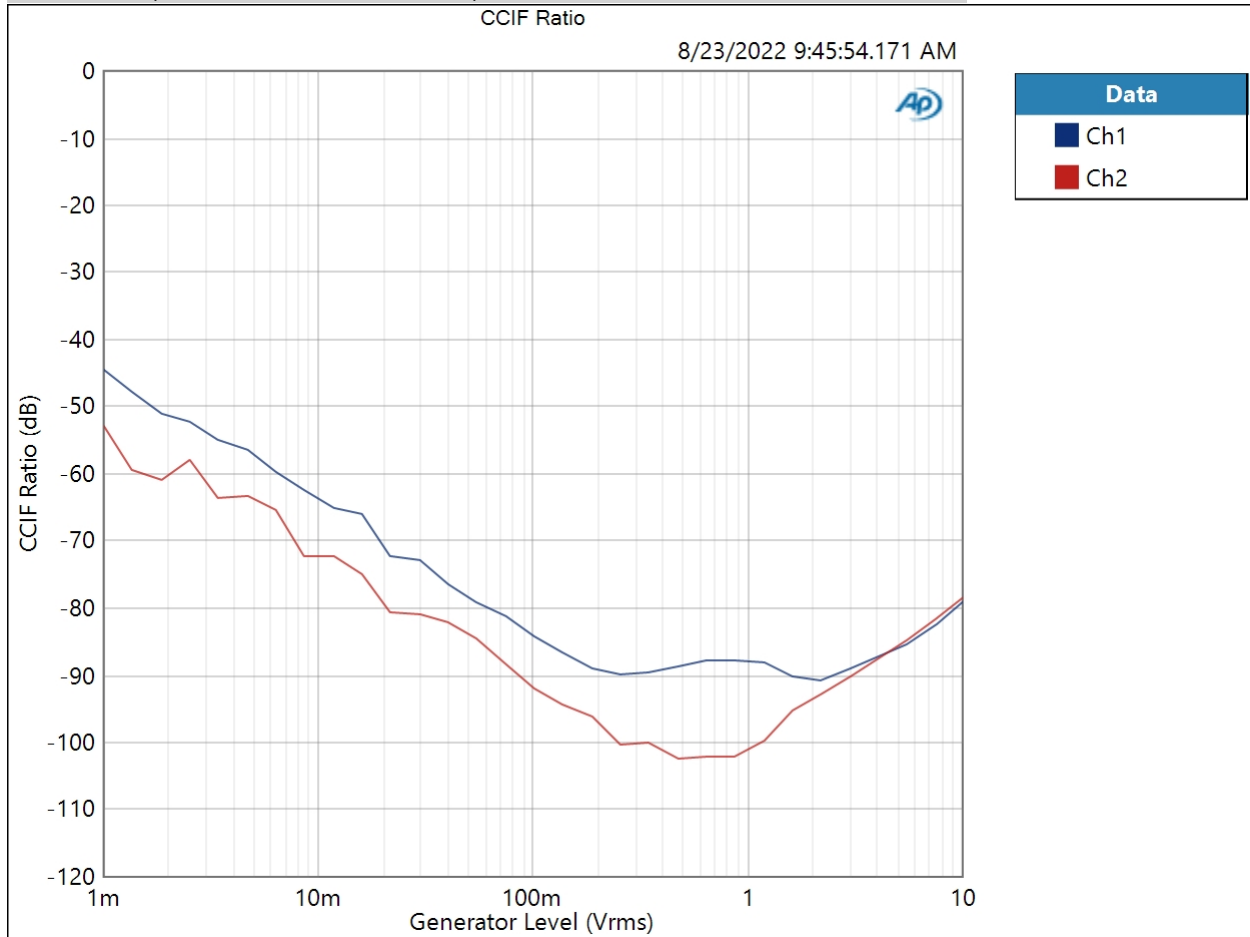
Distortion Product Ratio Parameters

Frequency Unit: Hz
 Ratio Unit: dB
 Channel: Ch1

Preamp Tube : 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: 10.00 Vrms
 Step Type: Logarithmic
 Number of Points: 31
 Mode: d2+d3
 Measured 1 8/23/2022 9:45:54 AM

CCIF Ratio (8/23/2022 9:45:54.171 AM)



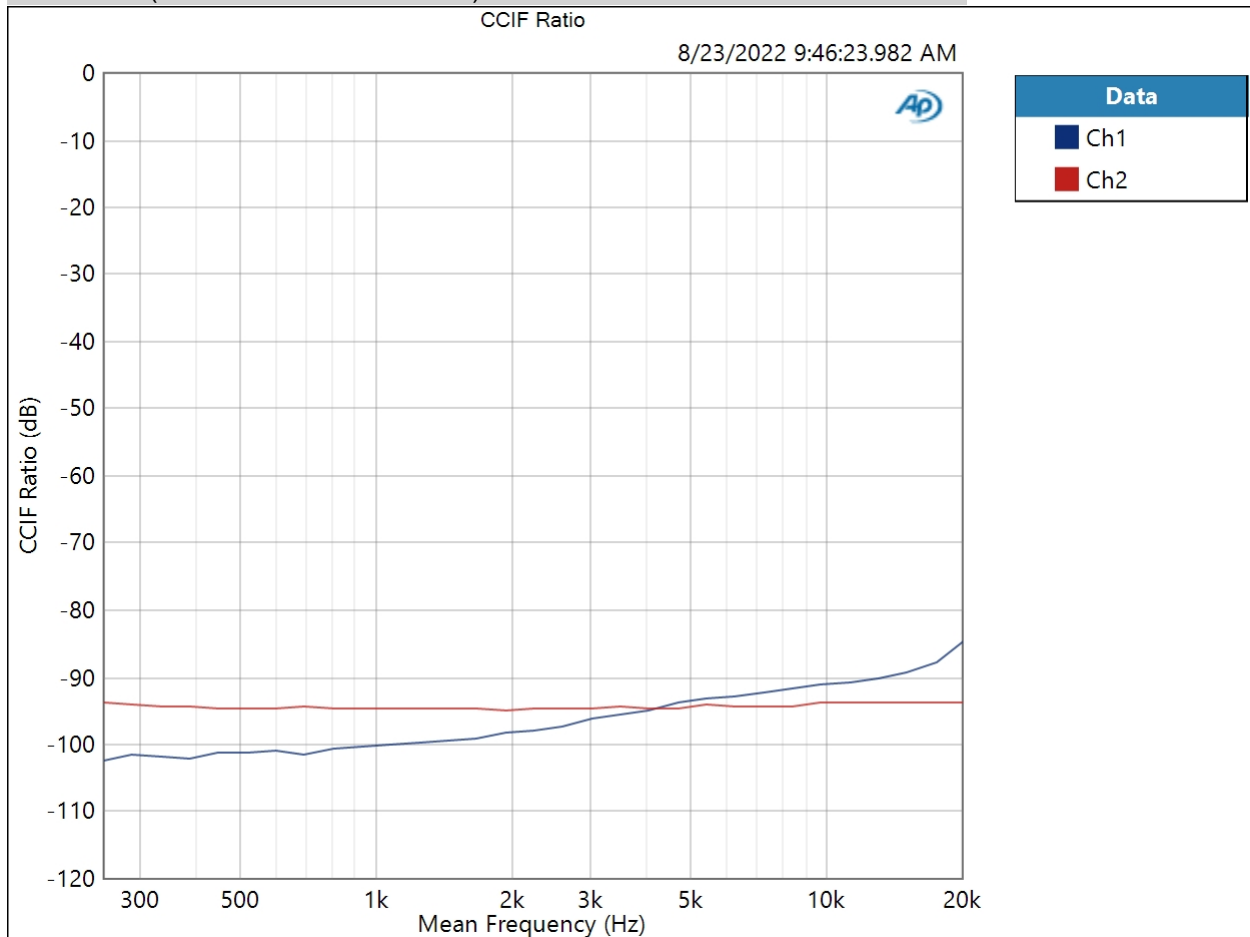
Result: PASSED

8/23/2022 9:55 AM

Preamp Tube : IMD Frequency Sweep (CCIF)

Generator Level: 1.800 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 8/23/2022 9:46:23 AM

CCIF Ratio (8/23/2022 9:46:23.982 AM)



Result:  PASSED

Preamp Tube : Crosstalk, One Channel Undriven

Waveform: Sine

Generator Mode: High Performance Sine Generator

Precision Tune: Disabled

Generator Level: 1.800 Vrms

Frequency: 10.0000 kHz

Crosstalk (8/23/2022 9:42:08.487 AM)

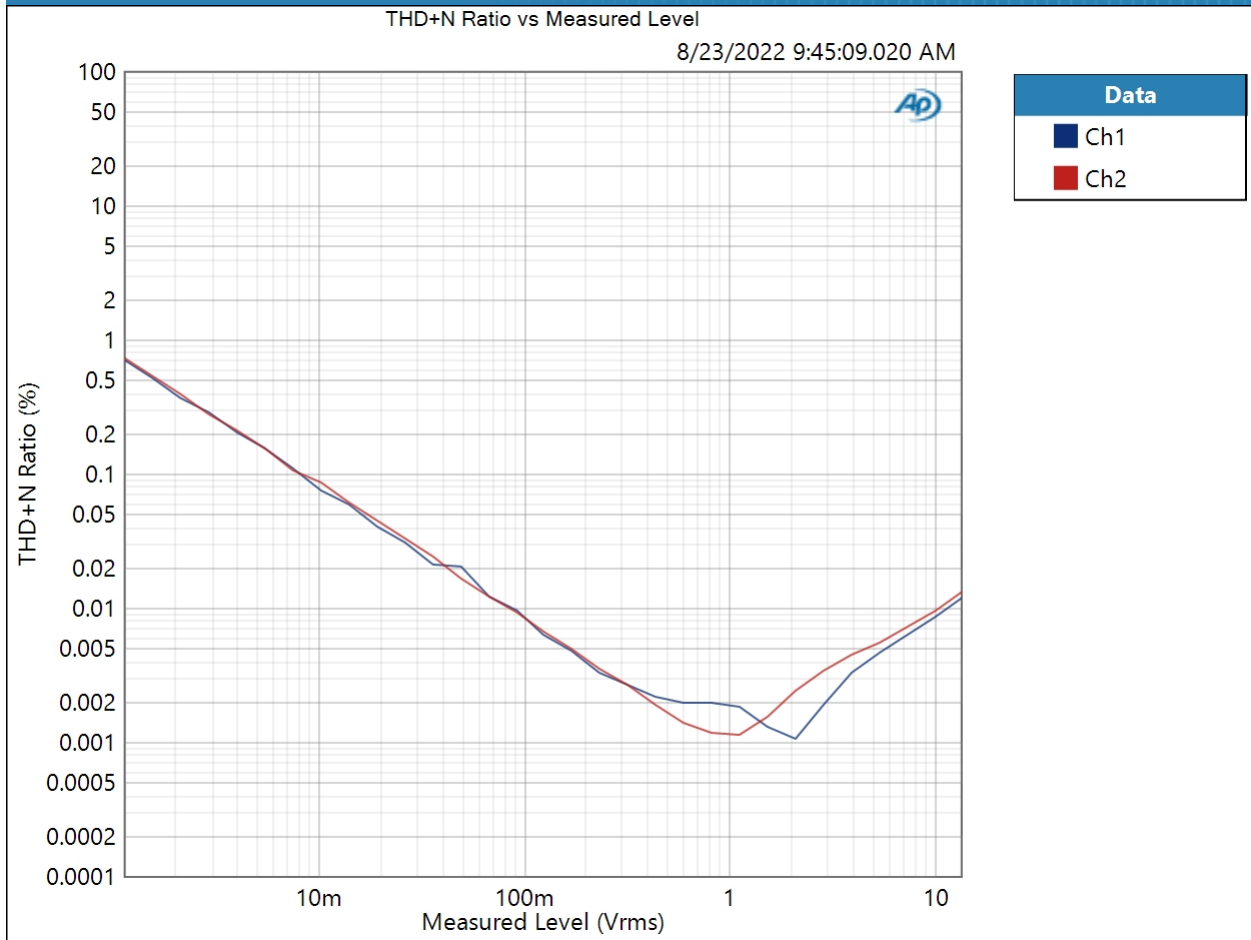
Ch1 91.059 dB

Ch2 94.041 dB

Preamp Tube : Stepped Level Sweep

Waveform: Sine
Generator Mode: High Performance Sine Generator
Precision Tune: Disabled
Frequency: 1.00000 kHz
Start Level: 1.000 mVrms
Stop Level: 12.00 Vrms
Step Type: Logarithmic
Number of Points: 31
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 8/23/2022 9:45:09 AM

THD+N Ratio vs Measured Level (8/23/2022 9:45:09.020 AM)



Result: PASSED