Schiit Amp APx555 Standard Test Suite: Magni 3

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@schiit.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
32 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
32 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:	11571
Calibration Date:	5/8/2018
APx Version:	4.6.0.255.130221

300 Ohm Low Gain : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Source Impedance:	20 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dBSPL1:	10.00 mVrms
dBSPL2:	10.00 mVrms
dBSPL1 Calibrator Level:	94.000 dBSPL
dBSPL2 Calibrator Level:	94.000 dBSPL
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 : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz

RMS Level (12/12/2018 12:33:42.745 PM)

Ch1 1.003 Vrms
Ch2 1.002 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

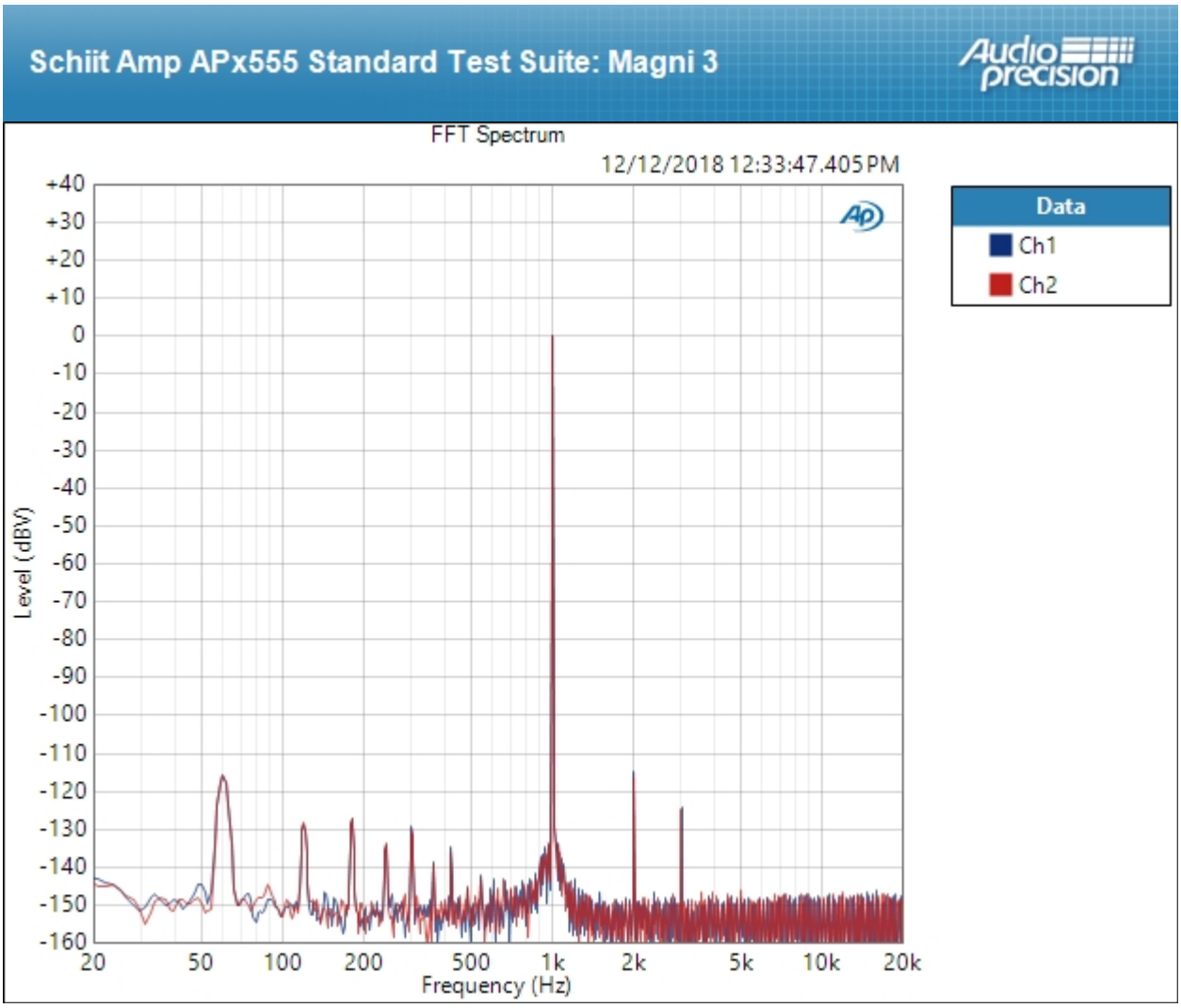
DC Level (12/12/2018 12:33:43.805 PM)

Ch1 1.033 mV
Ch2 1.144 mV

300 Ohm Low Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	12/12/2018 12:33:47 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 (12/12/2018 12:33:47.405 PM)

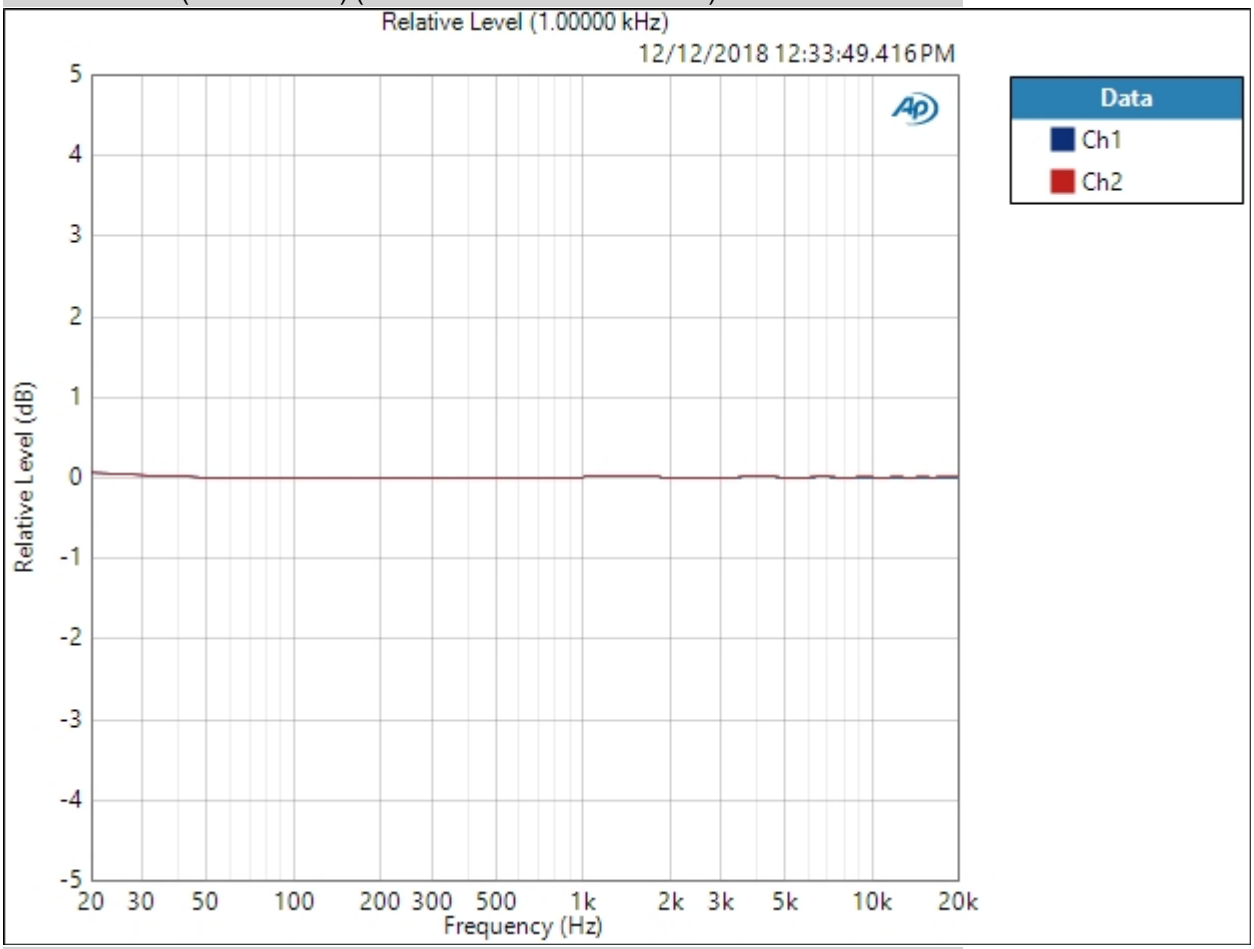


Result: PASSED

300 Ohm Low Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	700.0 mVrms
DC Offset:	0.000 V
EQ:	None
Pre-Sweep:	100.0 ms
Sweep:	350.0 ms
Extend Acquisition By:	50.00 ms
Secondary Source:	None
Measured 1	12/12/2018 12:33:49 PM

Relative Level (1.00000 kHz) (12/12/2018 12:33:49.416 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) (12/12/2018 12:33:49.416 PM)

Ch1 ±0.038 dB

Ch2 ±0.038 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 Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (12/12/2018 12:33:51.322 PM)

Ch1 118.510 dB

Ch2 118.504 dB

300 Ohm Low Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Measured Frequency

THD+N Ratio (12/12/2018 12:33:53.632 PM)

Ch1	0.000311 %
Ch2	0.000295 %

THD Ratio (12/12/2018 12:33:53.632 PM)

Ch1	0.000196 %
Ch2	0.000176 %

Noise Ratio (12/12/2018 12:33:53.632 PM)

Ch1	0.000242 %
Ch2	0.000240 %

Distortion Product Ratio (12/12/2018 12:33:53.632 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	9.001k	10.00k
Ch1	-0.00	-114.66	-124.47	-140.58	-144.42	-146.81	-147.19	-146.94	-144.67	-146.55
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.001k	10.00k
Ch2	-0.00	-115.78	-124.07	-142.84	-144.87	-141.48	-145.53	-146.11	-144.79	-144.29

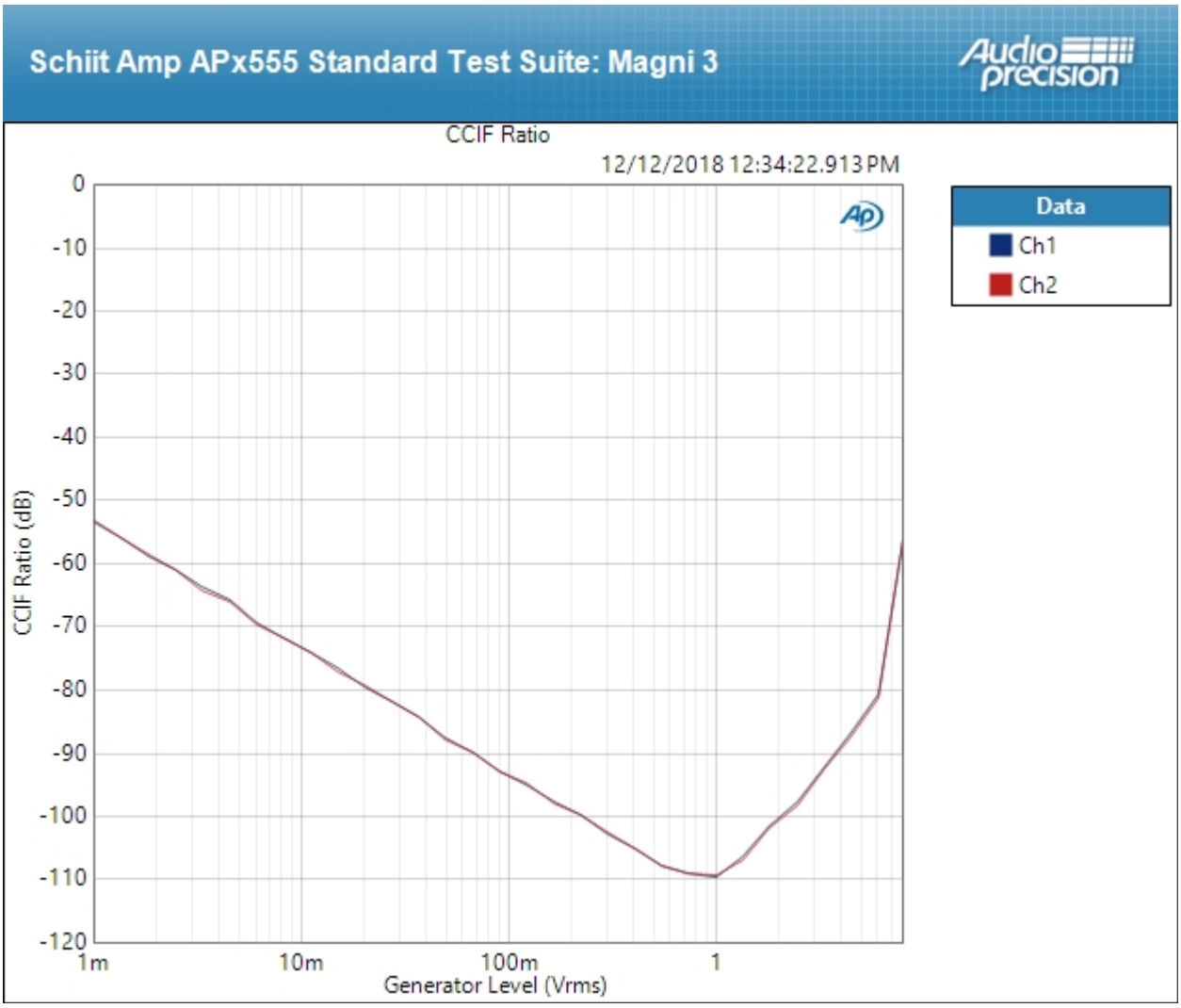
Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

300 Ohm Low Gain : IMD Level Sweep (CCIF)

IMD Type:	CCIF
Waveform:	IMD
Generator Level:	8.000 Vrms
DC Offset:	0.000 V
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	12/12/2018 12:34:22 PM

CCIF Ratio (12/12/2018 12:34:22.913 PM)

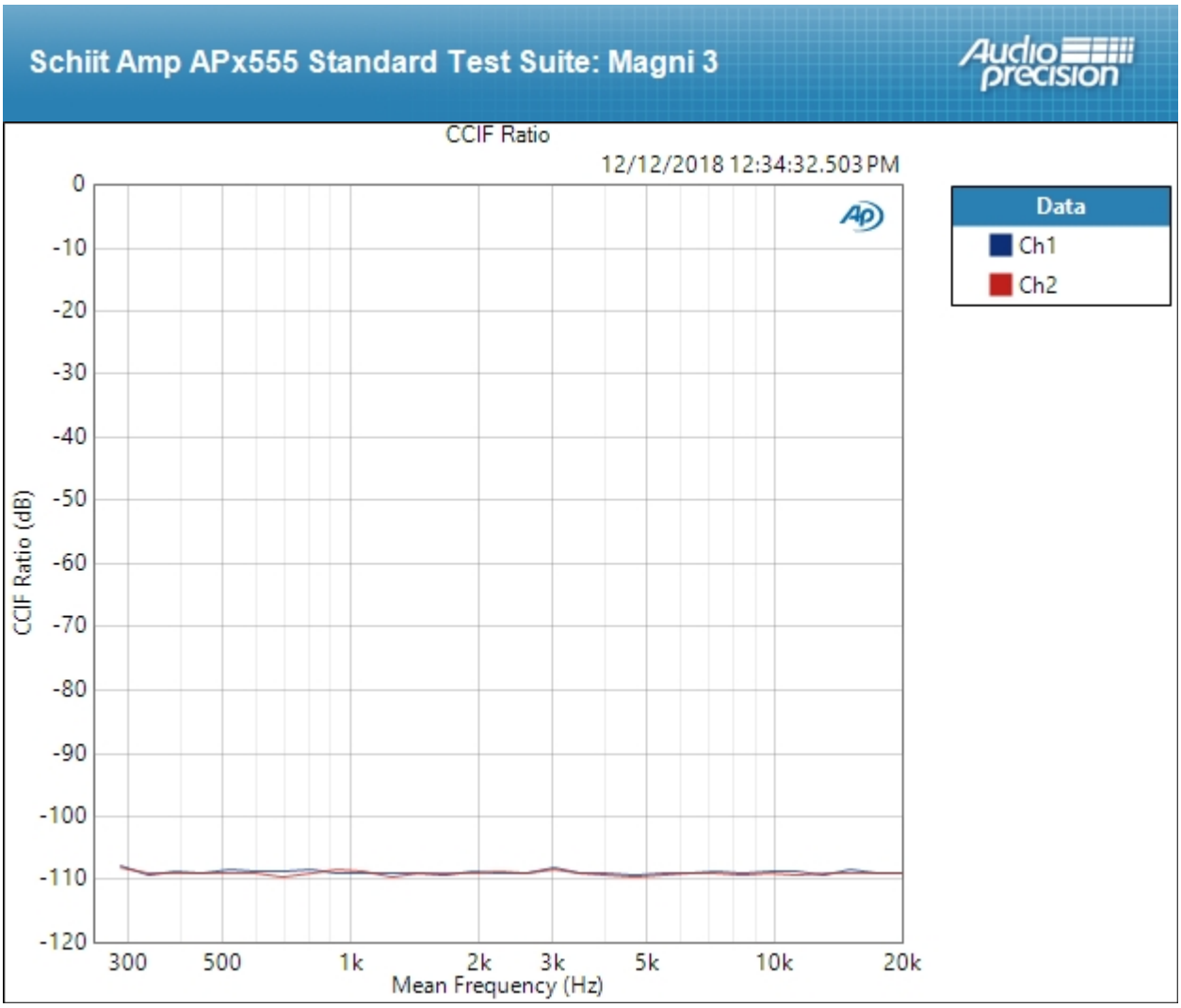


Result: PASSED

300 Ohm Low Gain : IMD Frequency Sweep (CCIF)

Generator Level:	700.0 mVrms
DC Offset:	0.000 V
Sweep Frequency:	Mean Frequency
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Frequency:	20.0000 kHz
Stop Frequency:	250.000 Hz
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:34:32 PM

CCIF Ratio (12/12/2018 12:34:32.503 PM)



Result: PASSED

300 Ohm Low Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	10.0000 kHz

Crosstalk (12/12/2018 12:34:33.753 PM)

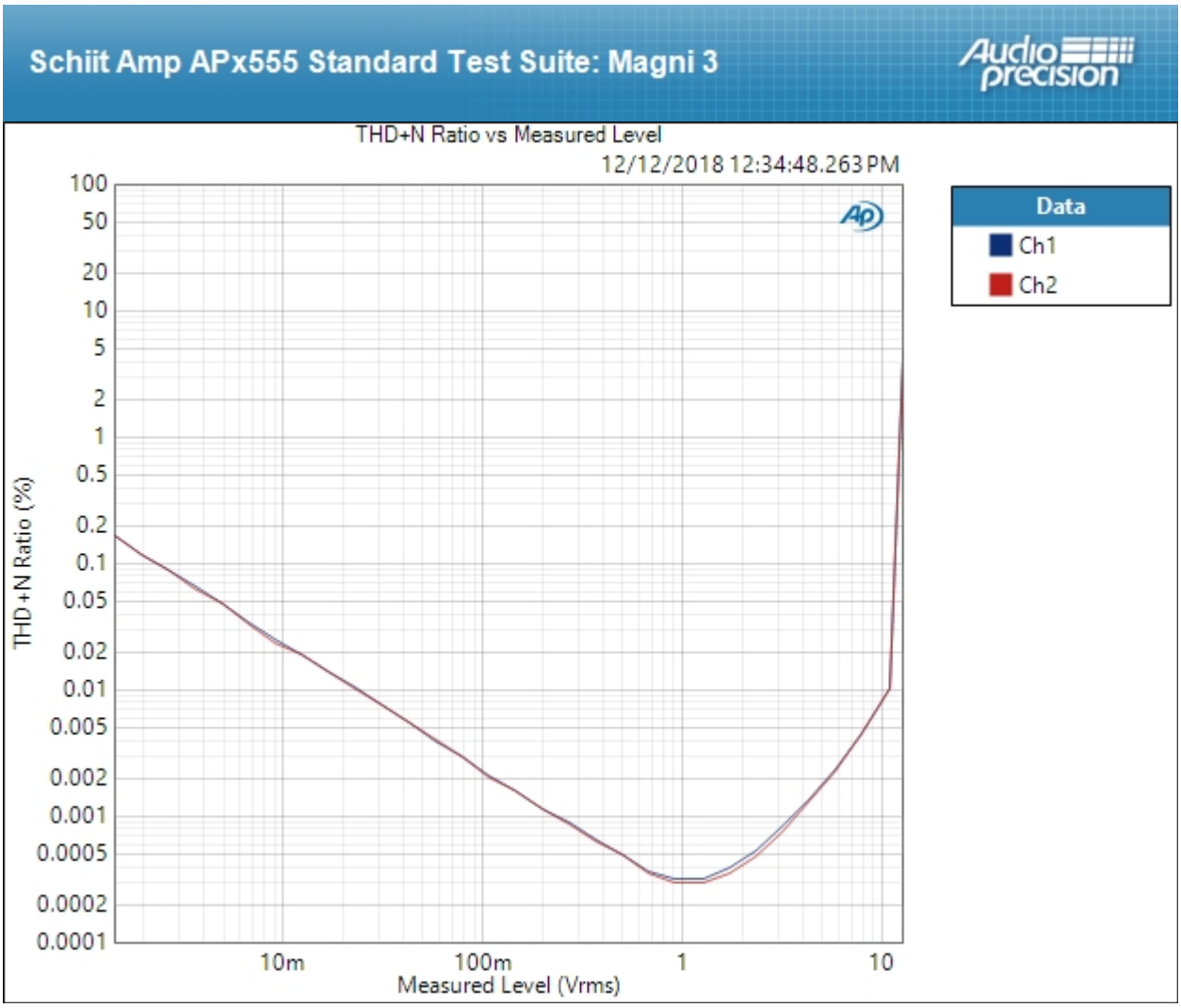
Ch1 -89.811 dB

Ch2 -89.509 dB

300 Ohm Low Gain : Stepped Level Sweep

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	100.0 mVrms
Frequency:	1.00000 kHz
Start Level:	1.000 mVrms
Stop Level:	10.00 Vrms
Step Type:	Logarithmic
Number of Points:	31
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Generator Frequency
Measured 1	12/12/2018 12:34:48 PM

THD+N Ratio vs Measured Level (12/12/2018 12:34:48.263 PM)



Result: PASSED

300 Ohm High Gain : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Source Impedance:	20 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dBSPL1:	10.00 mVrms
dBSPL2:	10.00 mVrms
dBSPL1 Calibrator Level:	94.000 dBSPL
dBSPL2 Calibrator Level:	94.000 dBSPL
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 High Gain : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz

RMS Level (12/12/2018 12:35:17.914 PM)

Ch1 1.001 Vrms
Ch2 1.002 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

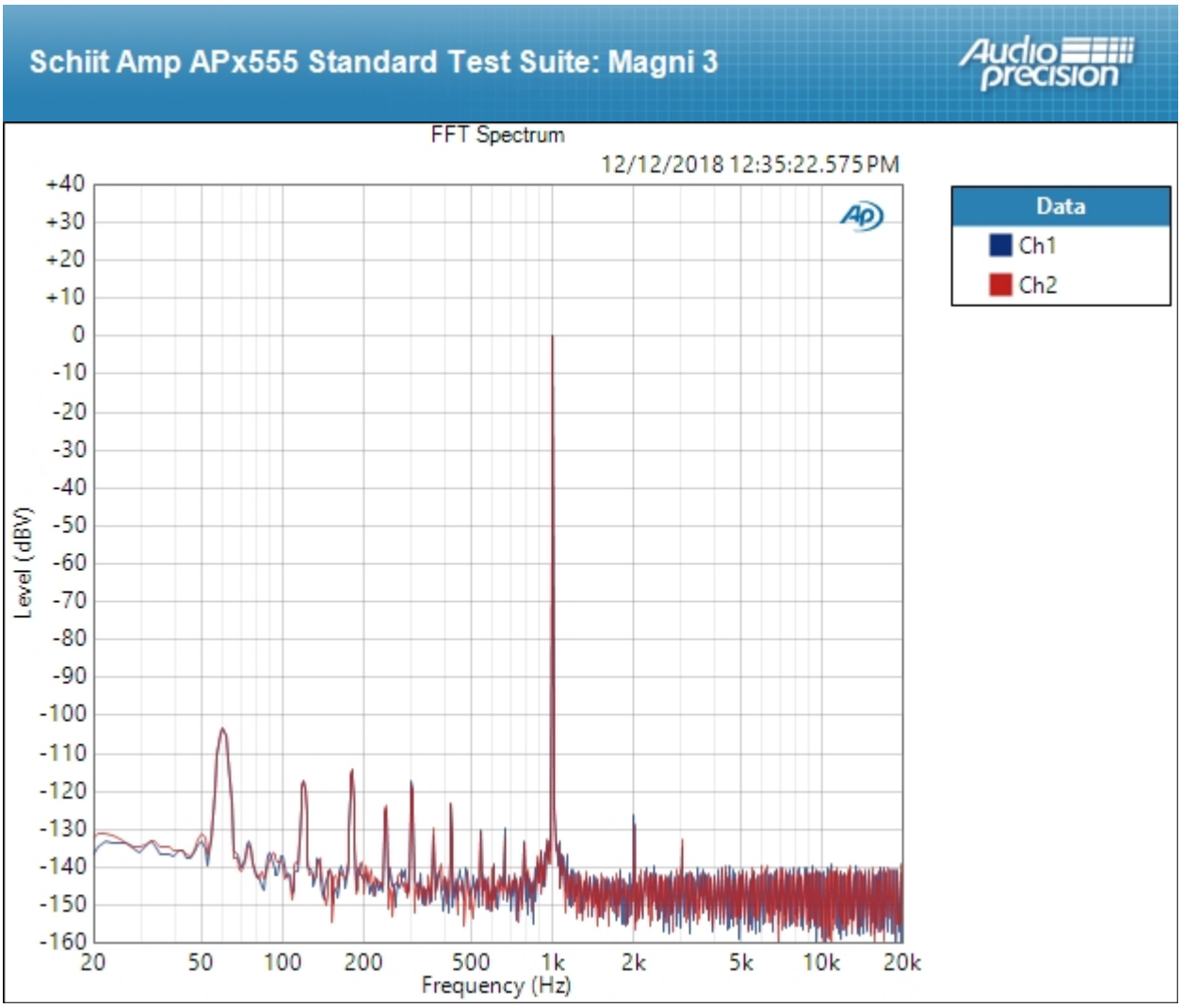
DC Level (12/12/2018 12:35:18.975 PM)

Ch1 6.743 mV
Ch2 8.124 mV

300 Ohm High Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	12/12/2018 12:35:22 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 (12/12/2018 12:35:22.575 PM)

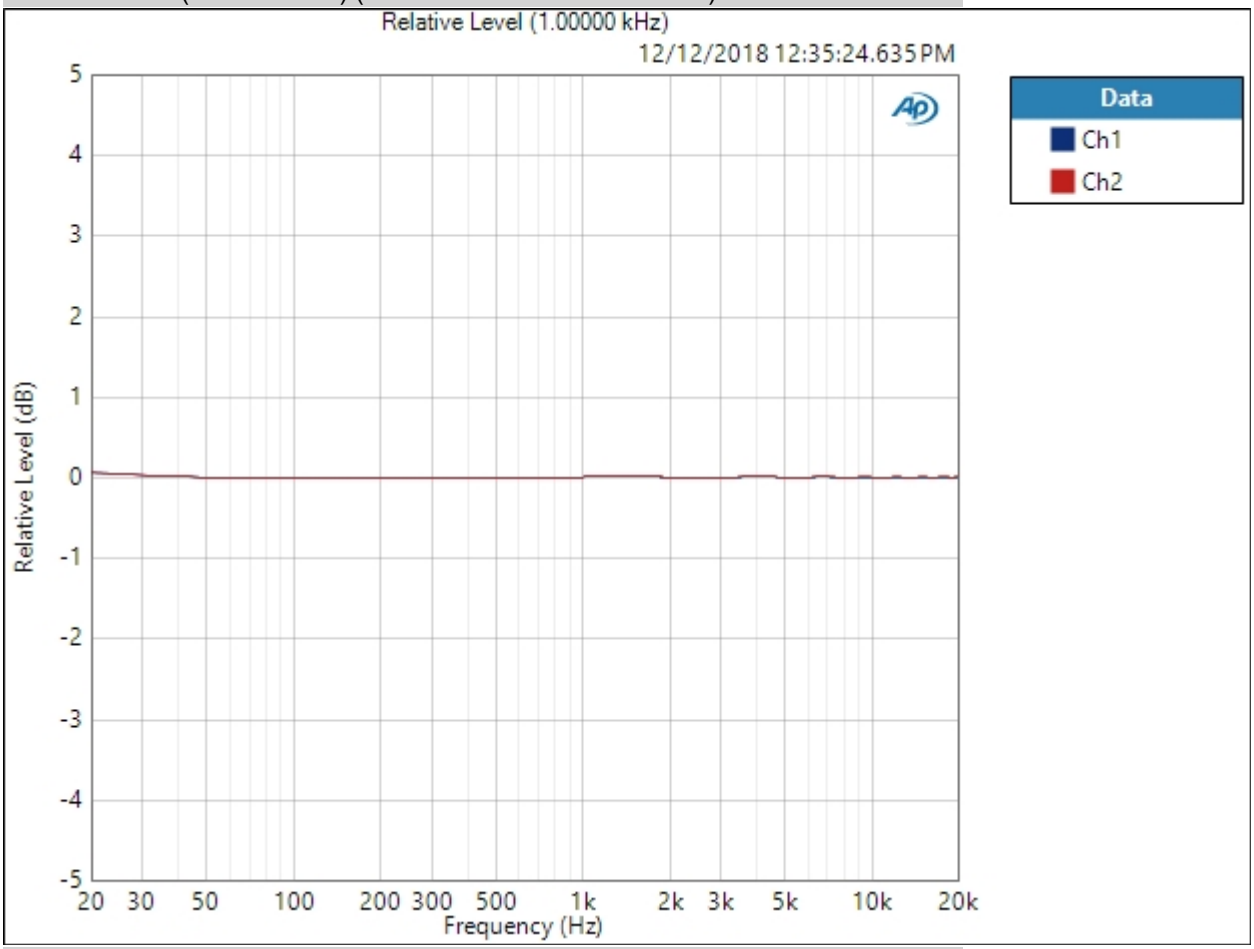


Result: PASSED

300 Ohm High Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	170.0 mVrms
DC Offset:	0.000 V
EQ:	None
Pre-Sweep:	100.0 ms
Sweep:	350.0 ms
Extend Acquisition By:	50.00 ms
Secondary Source:	None
Measured 1	12/12/2018 12:35:24 PM

Relative Level (1.00000 kHz) (12/12/2018 12:35:24.635 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) (12/12/2018 12:35:24.635 PM)

Ch1 ±0.037 dB

Ch2 ±0.037 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 Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (12/12/2018 12:35:26.575 PM)

Ch1 110.393 dB

Ch2 110.161 dB

300 Ohm High Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Measured Frequency

THD+N Ratio (12/12/2018 12:35:28.866 PM)

Ch1	0.016888 %
Ch2	0.017950 %

THD Ratio (12/12/2018 12:35:28.866 PM)

Ch1	0.000087 %
Ch2	0.000076 %

Noise Ratio (12/12/2018 12:35:28.866 PM)

Ch1	0.000829 %
Ch2	0.000828 %

Distortion Product Ratio (12/12/2018 12:35:28.866 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	9.001k	10.00k
Ch1	-0.00	-124.85	-129.25	-135.62	-139.63	-135.58	-138.97	-138.59	-135.47	-138.83
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.001k	10.00k
Ch2	-0.00	-127.40	-132.90	-135.49	-138.34	-134.66	-142.28	-134.87	-138.94	-138.72

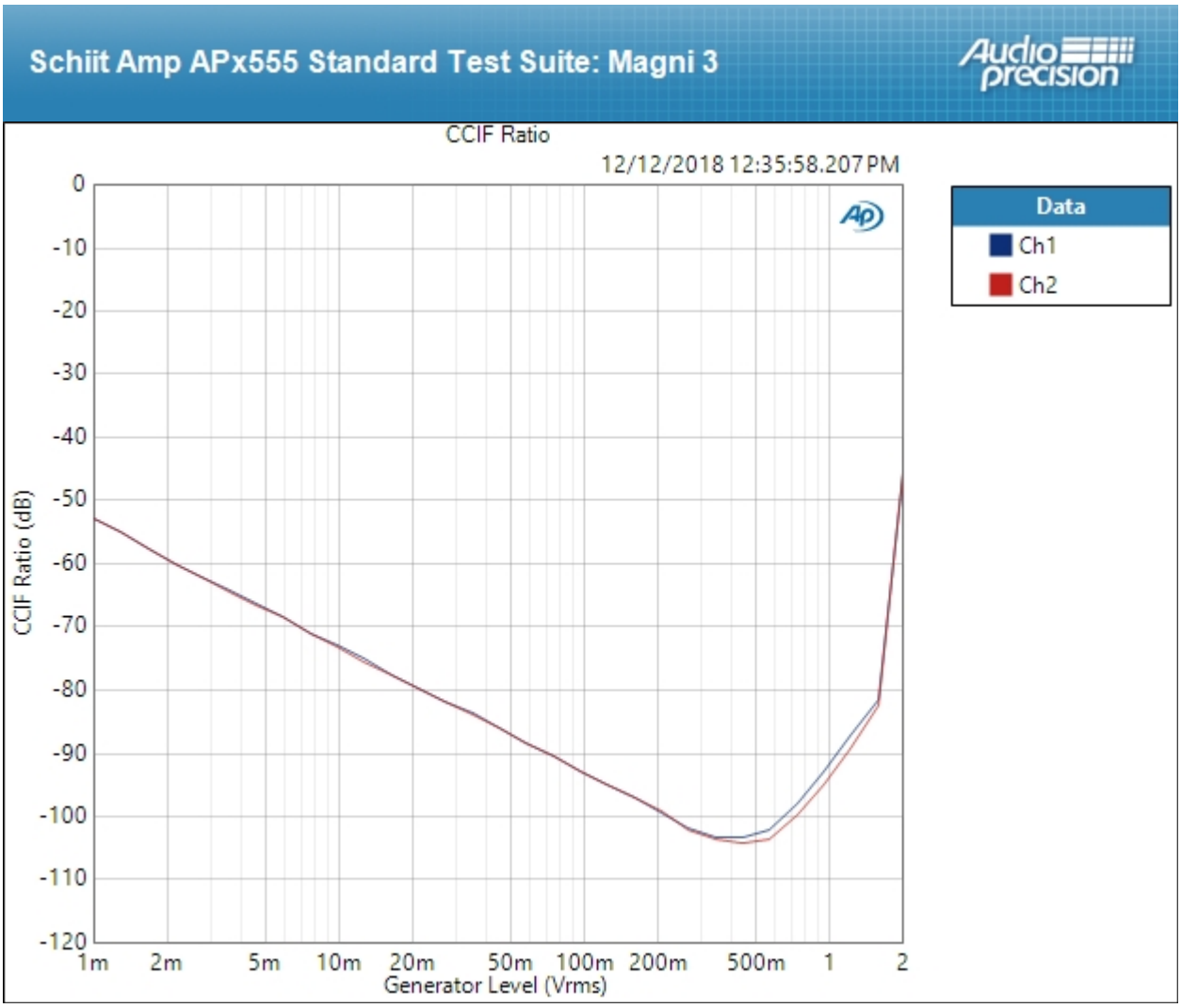
Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

300 Ohm High Gain : IMD Level Sweep (CCIF)

IMD Type:	CCIF
Waveform:	IMD
Generator Level:	2.000 Vrms
DC Offset:	0.000 V
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Level:	1.000 mVrms
Stop Level:	2.000 Vrms
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:35:58 PM

CCIF Ratio (12/12/2018 12:35:58.207 PM)

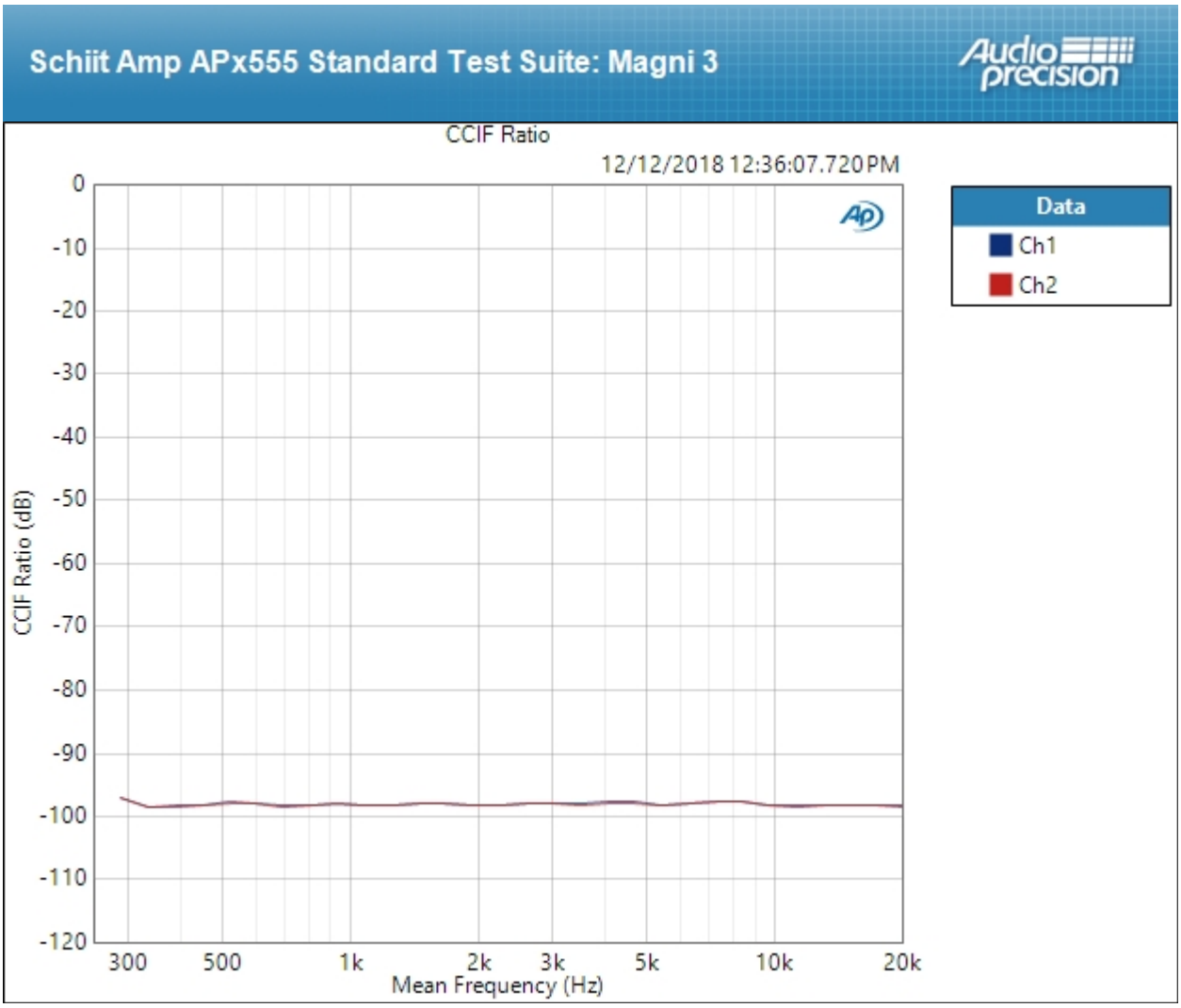


Result: PASSED

300 Ohm High Gain : IMD Frequency Sweep (CCIF)

Generator Level:	170.0 mVrms
DC Offset:	0.000 V
Sweep Frequency:	Mean Frequency
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Frequency:	20.0000 kHz
Stop Frequency:	250.000 Hz
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:36:07 PM

CCIF Ratio (12/12/2018 12:36:07.720 PM)



Result: PASSED

300 Ohm High Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	10.0000 kHz

Crosstalk (12/12/2018 12:36:08.980 PM)

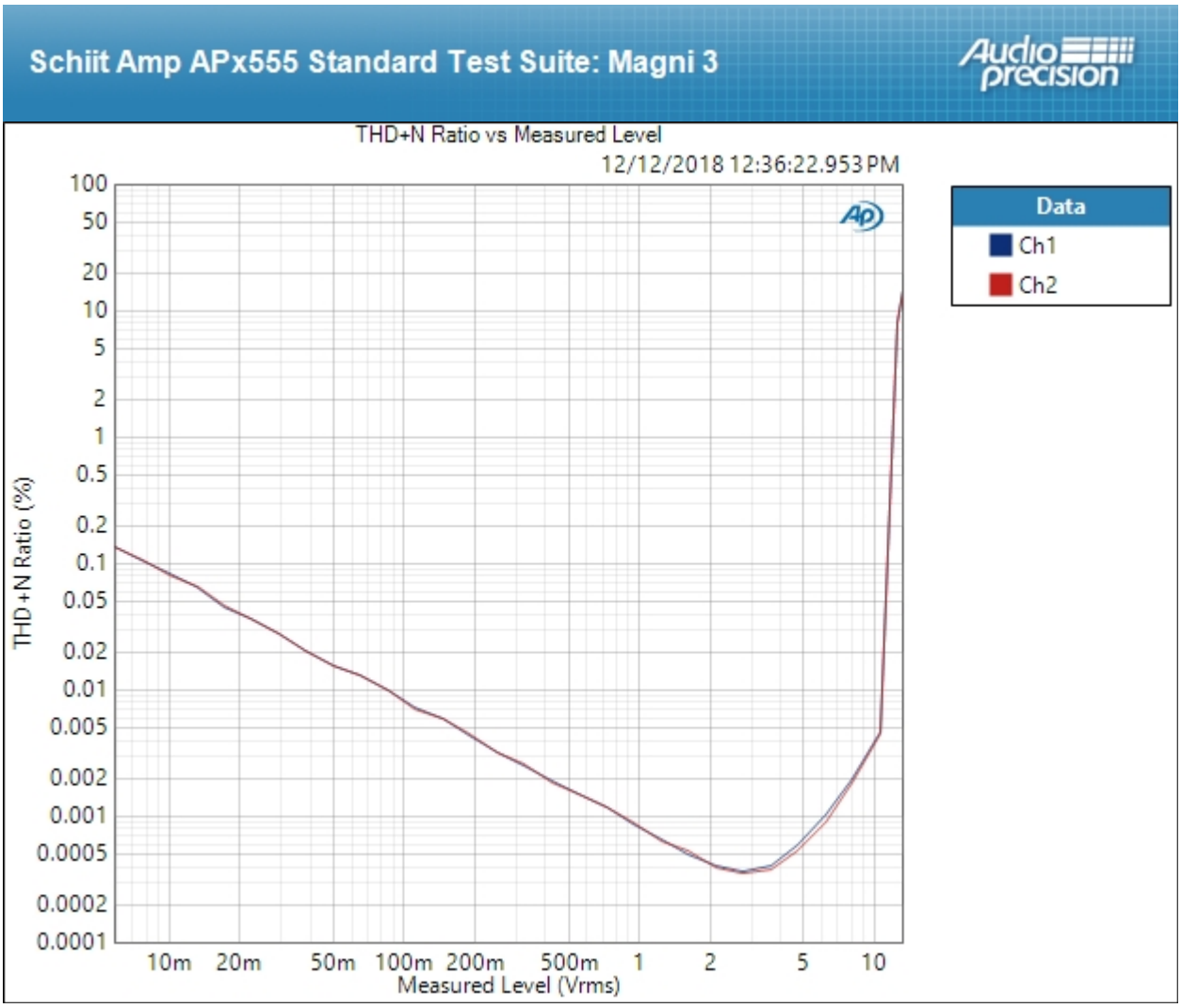
Ch1 -85.606 dB

Ch2 -83.634 dB

300 Ohm High Gain : Stepped Level Sweep

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	100.0 mVrms
Frequency:	1.00000 kHz
Start Level:	1.000 mVrms
Stop Level:	3.000 Vrms
Step Type:	Logarithmic
Number of Points:	31
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Generator Frequency
Measured 1	12/12/2018 12:36:22 PM

THD+N Ratio vs Measured Level (12/12/2018 12:36:22.953 PM)



Result: PASSED

32 Ohm Low Gain : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Source Impedance:	20 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dBSPL1:	10.00 mVrms
dBSPL2:	10.00 mVrms
dBSPL1 Calibrator Level:	94.000 dBSPL
dBSPL2 Calibrator Level:	94.000 dBSPL
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

32 Ohm Low Gain : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz

RMS Level (12/12/2018 12:37:03.878 PM)

Ch1	0.996 Vrms
Ch2	0.995 Vrms

32 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

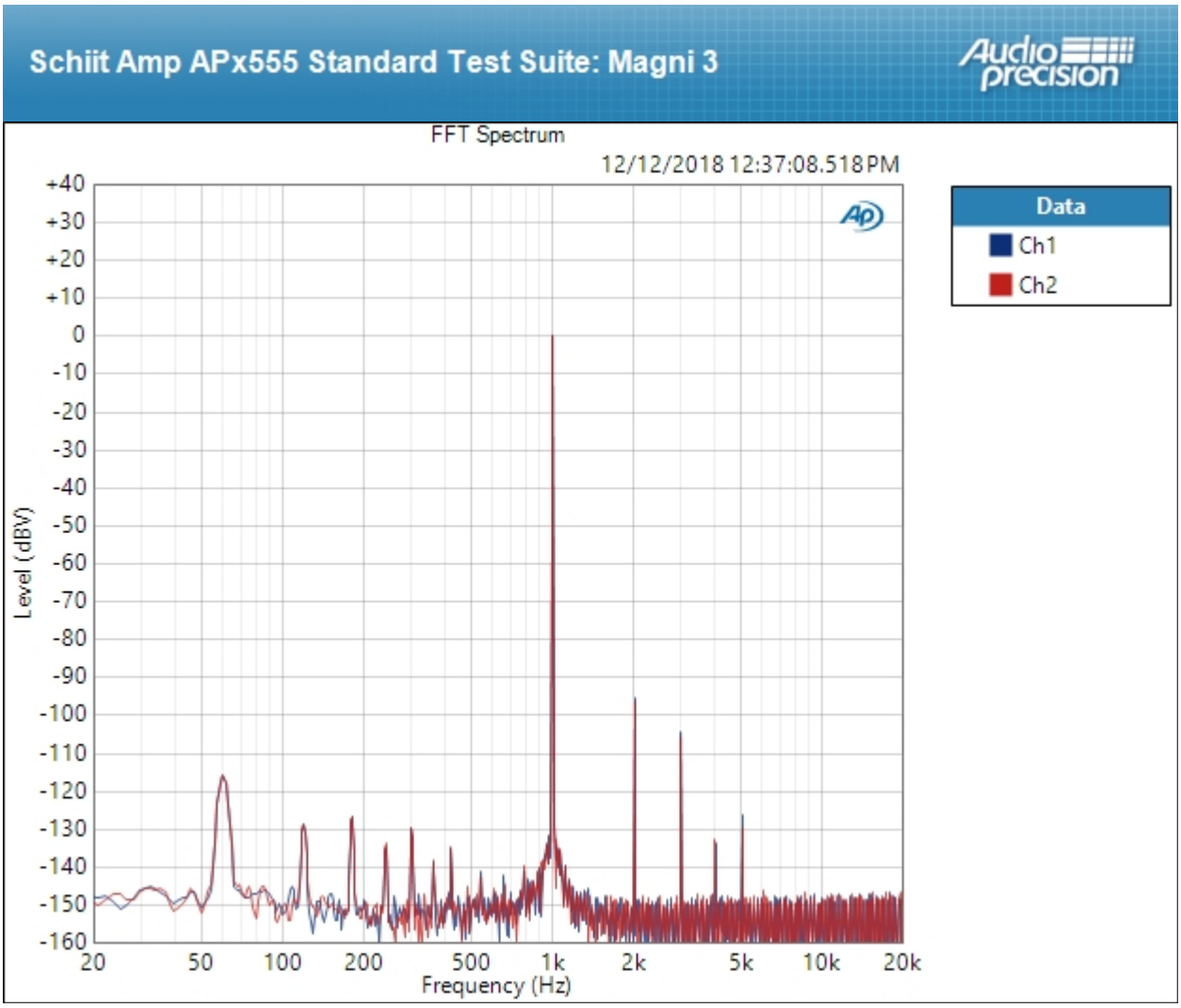
DC Level (12/12/2018 12:37:04.928 PM)

Ch1	-2.449 mV
Ch2	-3.434 mV

32 Ohm Low Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	12/12/2018 12:37:08 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 (12/12/2018 12:37:08.518 PM)

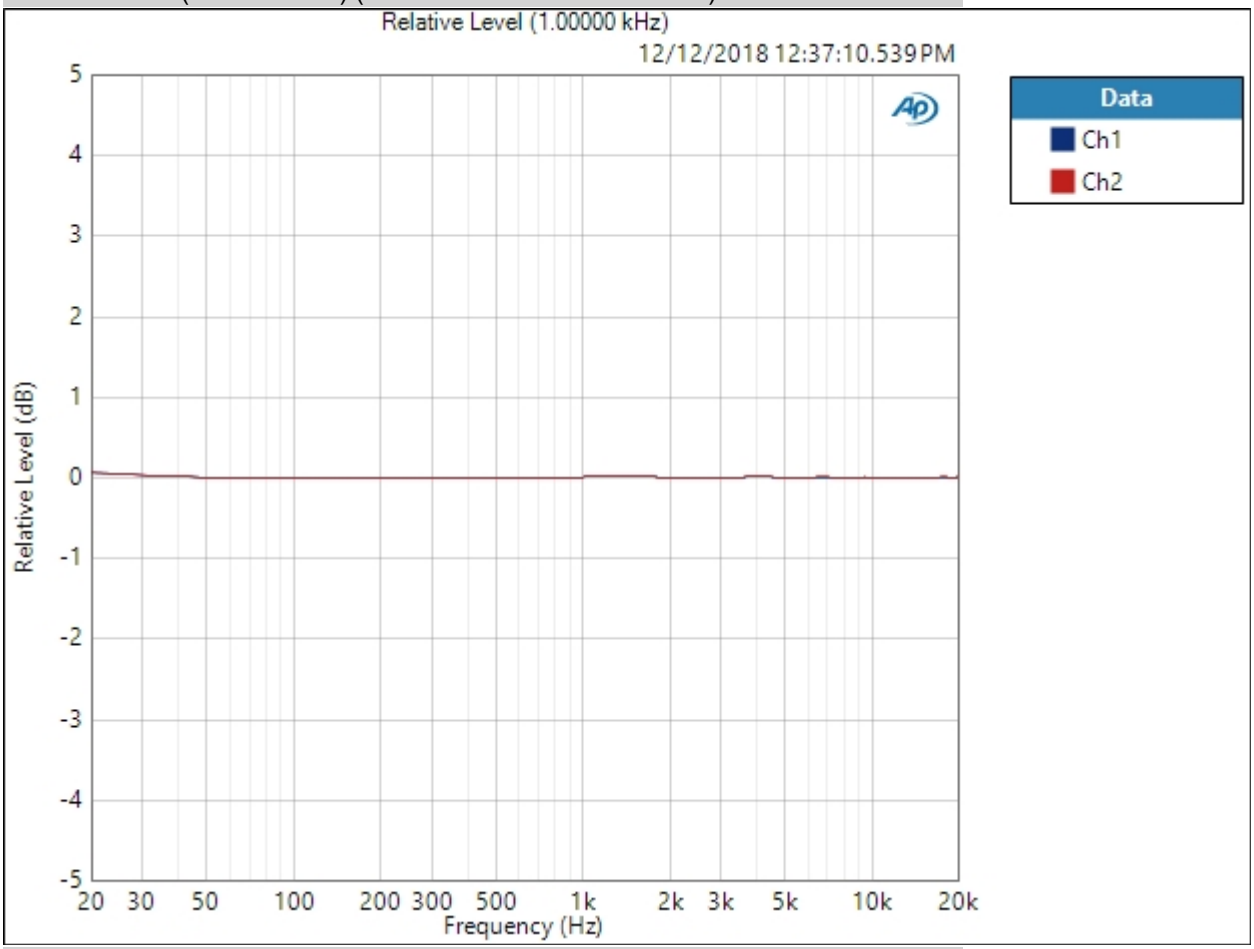


Result: PASSED

32 Ohm Low Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	700.0 mVrms
DC Offset:	0.000 V
EQ:	None
Pre-Sweep:	100.0 ms
Sweep:	350.0 ms
Extend Acquisition By:	50.00 ms
Secondary Source:	None
Measured 1	12/12/2018 12:37:10 PM

Relative Level (1.00000 kHz) (12/12/2018 12:37:10.539 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) (12/12/2018 12:37:10.539 PM)

Ch1 ±0.038 dB

Ch2 ±0.038 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm Low Gain : Signal to Noise Ratio

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (12/12/2018 12:37:12.440 PM)

Ch1 118.461 dB

Ch2 118.378 dB

32 Ohm Low Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Measured Frequency

THD+N Ratio (12/12/2018 12:37:14.771 PM)

Ch1 0.001829 %

Ch2 0.001708 %

THD Ratio (12/12/2018 12:37:14.771 PM)

Ch1 0.001811 %

Ch2 0.001691 %

Noise Ratio (12/12/2018 12:37:14.771 PM)

Ch1 0.000232 %

Ch2 0.000234 %

Distortion Product Ratio (12/12/2018 12:37:14.771 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	9.001k	10.00k
Ch1	-0.00	-95.36	-104.40	-133.34	-125.67	-142.16	-145.36	-141.43	-144.95	-147.66
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.001k	10.00k
Ch2	-0.00	-95.84	-106.01	-134.80	-129.25	-144.05	-140.32	-143.33	-146.16	-145.05

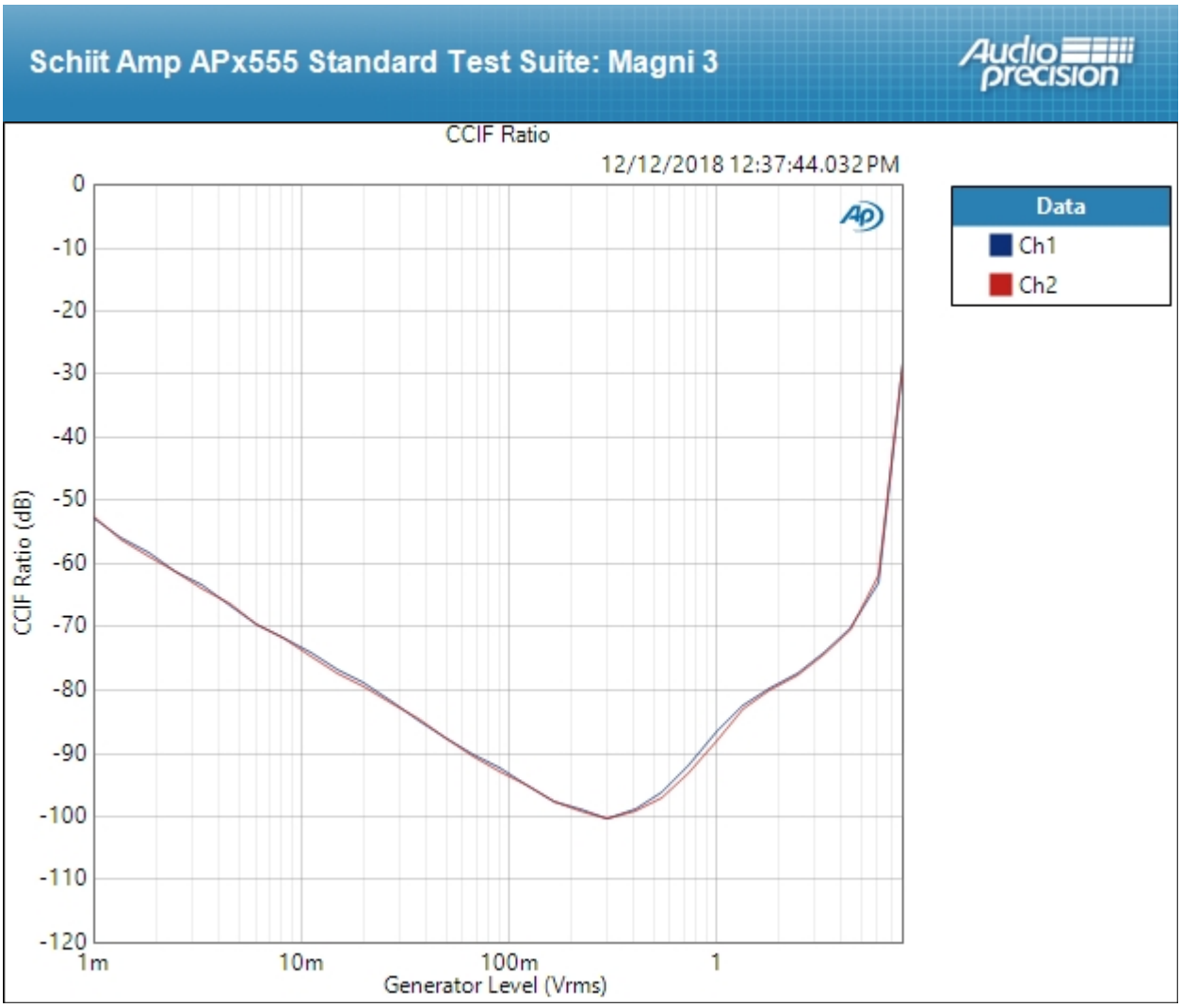
Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

32 Ohm Low Gain : IMD Level Sweep (CCIF)

IMD Type:	CCIF
Waveform:	IMD
Generator Level:	8.000 Vrms
DC Offset:	0.000 V
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	12/12/2018 12:37:44 PM

CCIF Ratio (12/12/2018 12:37:44.032 PM)

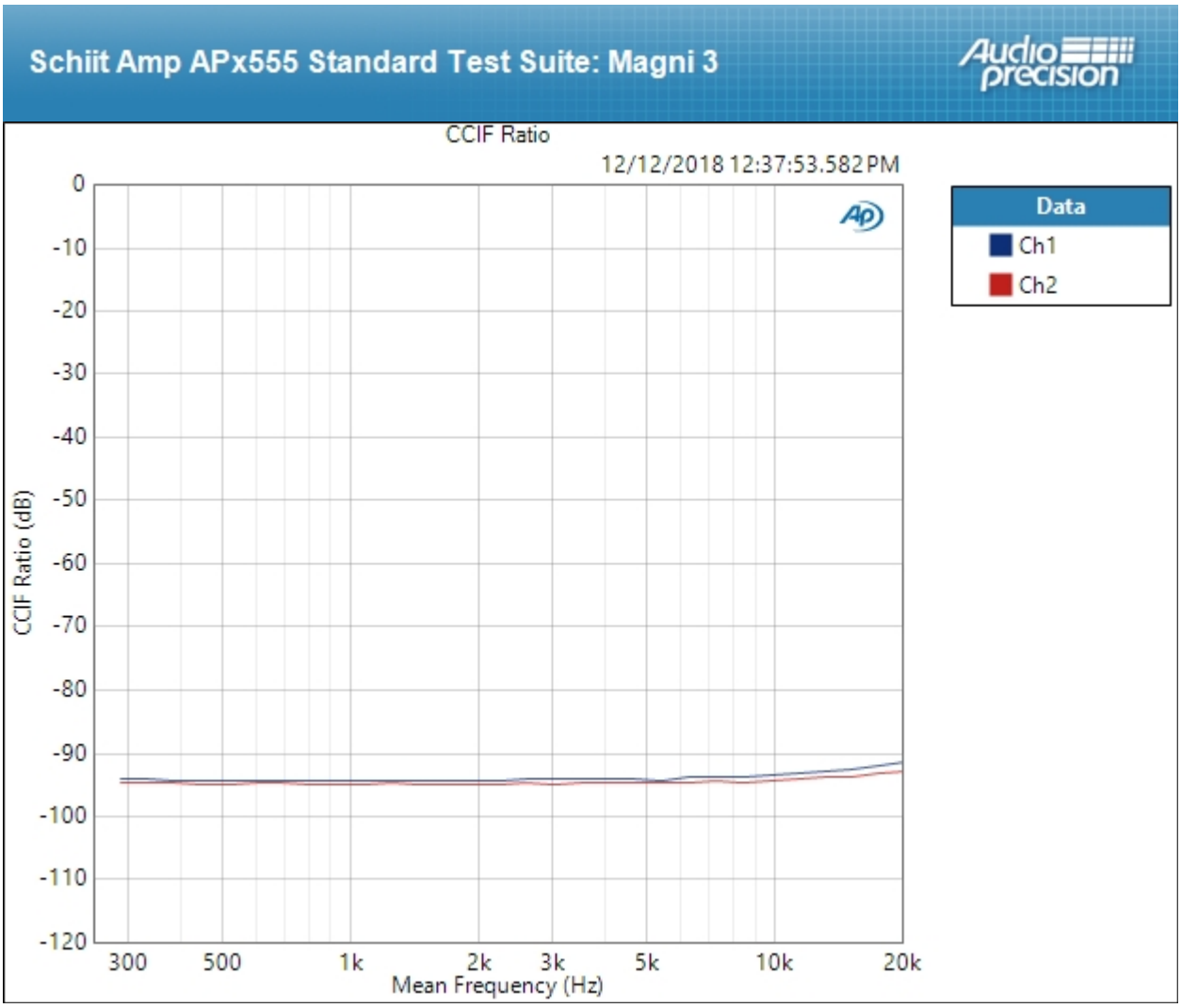


Result: PASSED

32 Ohm Low Gain : IMD Frequency Sweep (CCIF)

Generator Level:	700.0 mVrms
DC Offset:	0.000 V
Sweep Frequency:	Mean Frequency
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Frequency:	20.0000 kHz
Stop Frequency:	250.000 Hz
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:37:53 PM

CCIF Ratio (12/12/2018 12:37:53.582 PM)



Result: PASSED

32 Ohm Low Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	10.0000 kHz

Crosstalk (12/12/2018 12:37:54.852 PM)

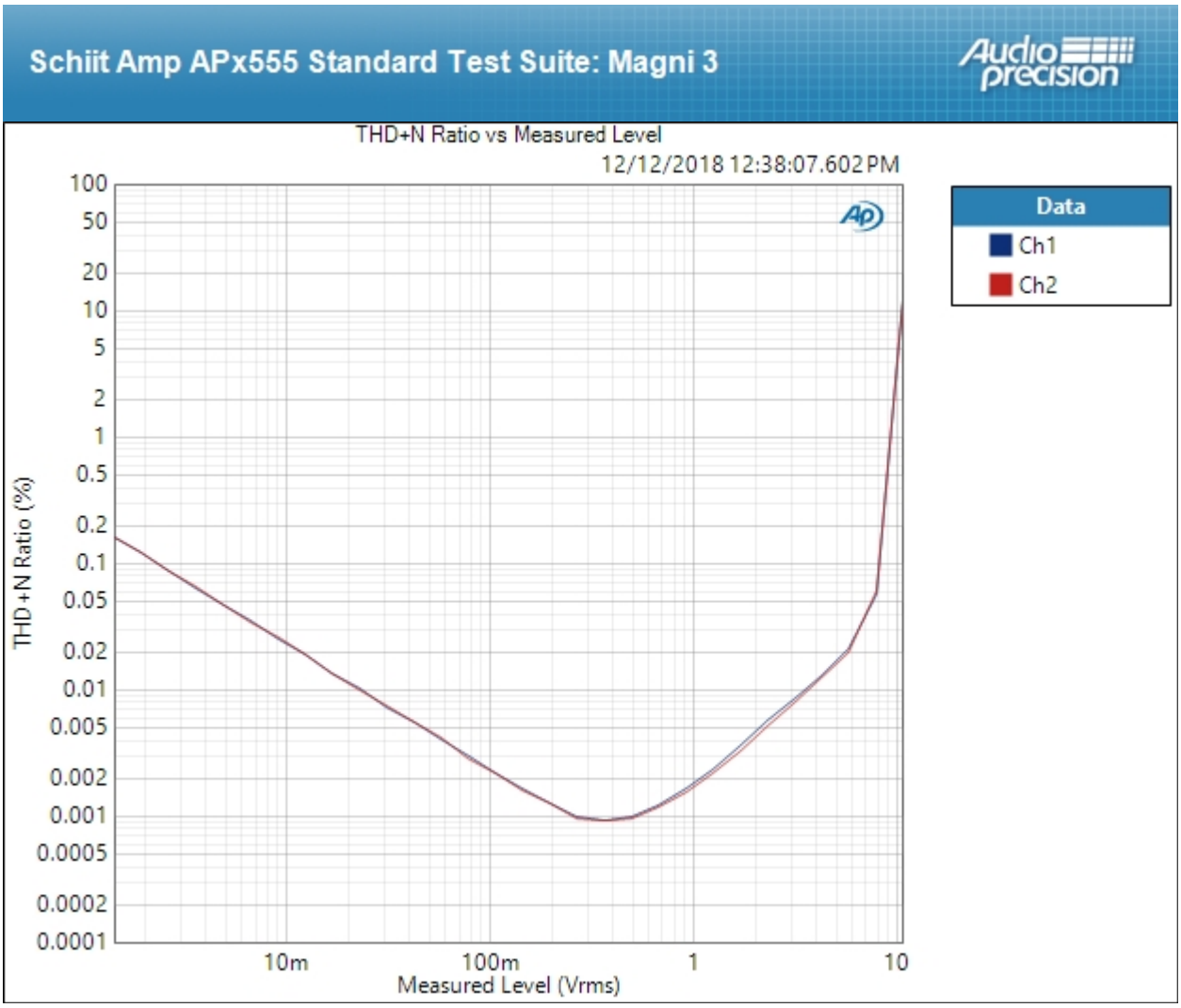
Ch1 -79.893 dB

Ch2 -78.745 dB

32 Ohm Low Gain : Stepped Level Sweep

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	100.0 mVrms
Frequency:	1.00000 kHz
Start Level:	1.000 mVrms
Stop Level:	10.00 Vrms
Step Type:	Logarithmic
Number of Points:	31
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Generator Frequency
Measured 1	12/12/2018 12:38:07 PM

THD+N Ratio vs Measured Level (12/12/2018 12:38:07.602 PM)



Result: PASSED

32 Ohm High Gain : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Source Impedance:	20 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dBSPL1:	10.00 mVrms
dBSPL2:	10.00 mVrms
dBSPL1 Calibrator Level:	94.000 dBSPL
dBSPL2 Calibrator Level:	94.000 dBSPL
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

32 Ohm High Gain : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz

RMS Level (12/12/2018 12:38:33.987 PM)

Ch1	0.992 Vrms
Ch2	0.993 Vrms

32 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

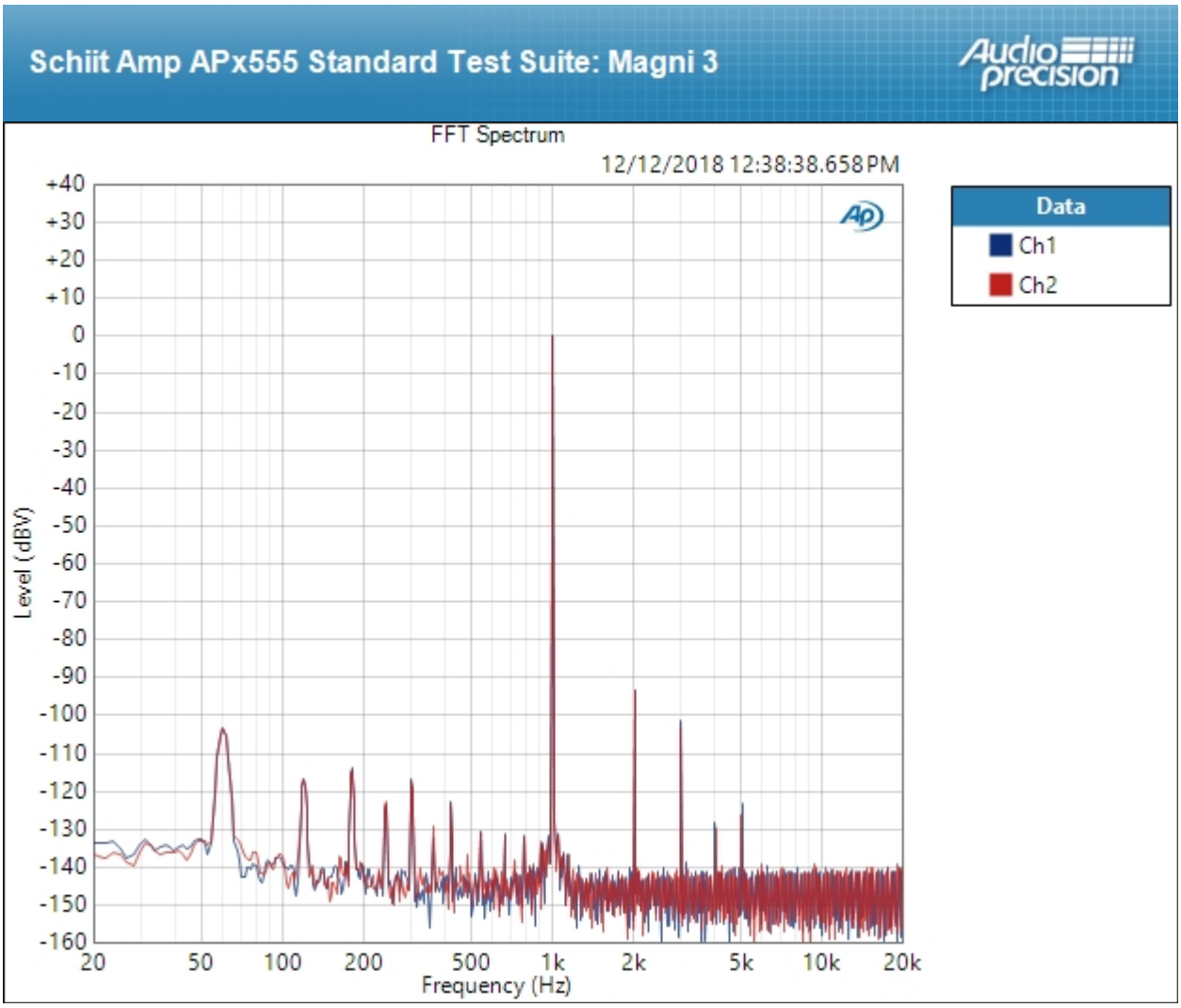
DC Level (12/12/2018 12:38:35.058 PM)

Ch1	8.466 mV
Ch2	11.46 mV

32 Ohm High Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	12/12/2018 12:38:38 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 (12/12/2018 12:38:38.658 PM)

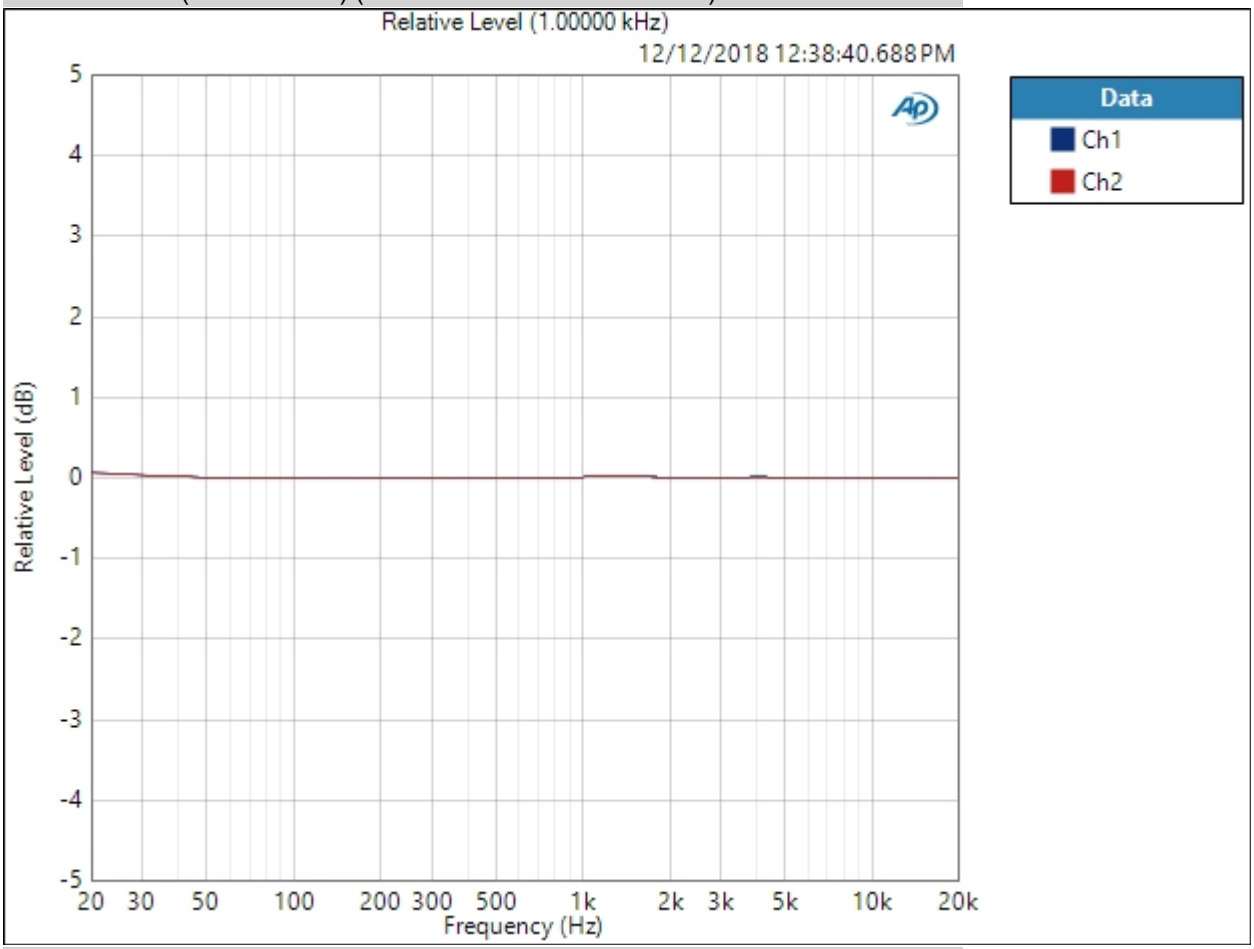


Result: PASSED

32 Ohm High Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	170.0 mVrms
DC Offset:	0.000 V
EQ:	None
Pre-Sweep:	100.0 ms
Sweep:	350.0 ms
Extend Acquisition By:	50.00 ms
Secondary Source:	None
Measured 1	12/12/2018 12:38:40 PM

Relative Level (1.00000 kHz) (12/12/2018 12:38:40.688 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) (12/12/2018 12:38:40.688 PM)

Ch1 ±0.037 dB

Ch2 ±0.037 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm High Gain : Signal to Noise Ratio

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (12/12/2018 12:38:42.608 PM)

Ch1 110.325 dB

Ch2 110.195 dB

32 Ohm High Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Measured Frequency

THD+N Ratio (12/12/2018 12:38:44.920 PM)

Ch1 0.005769 %

Ch2 0.005246 %

THD Ratio (12/12/2018 12:38:44.920 PM)

Ch1 0.002369 %

Ch2 0.002343 %

Noise Ratio (12/12/2018 12:38:44.920 PM)

Ch1 0.000837 %

Ch2 0.000817 %

Distortion Product Ratio (12/12/2018 12:38:44.920 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	9.001k	10.00k
Ch1	-0.00	-93.10	-101.52	-127.98	-121.80	-137.79	-137.63	-139.47	-135.75	-136.64
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.001k	10.00k
Ch2	-0.00	-93.00	-103.30	-130.12	-127.12	-138.39	-139.53	-135.48	-133.75	-138.22

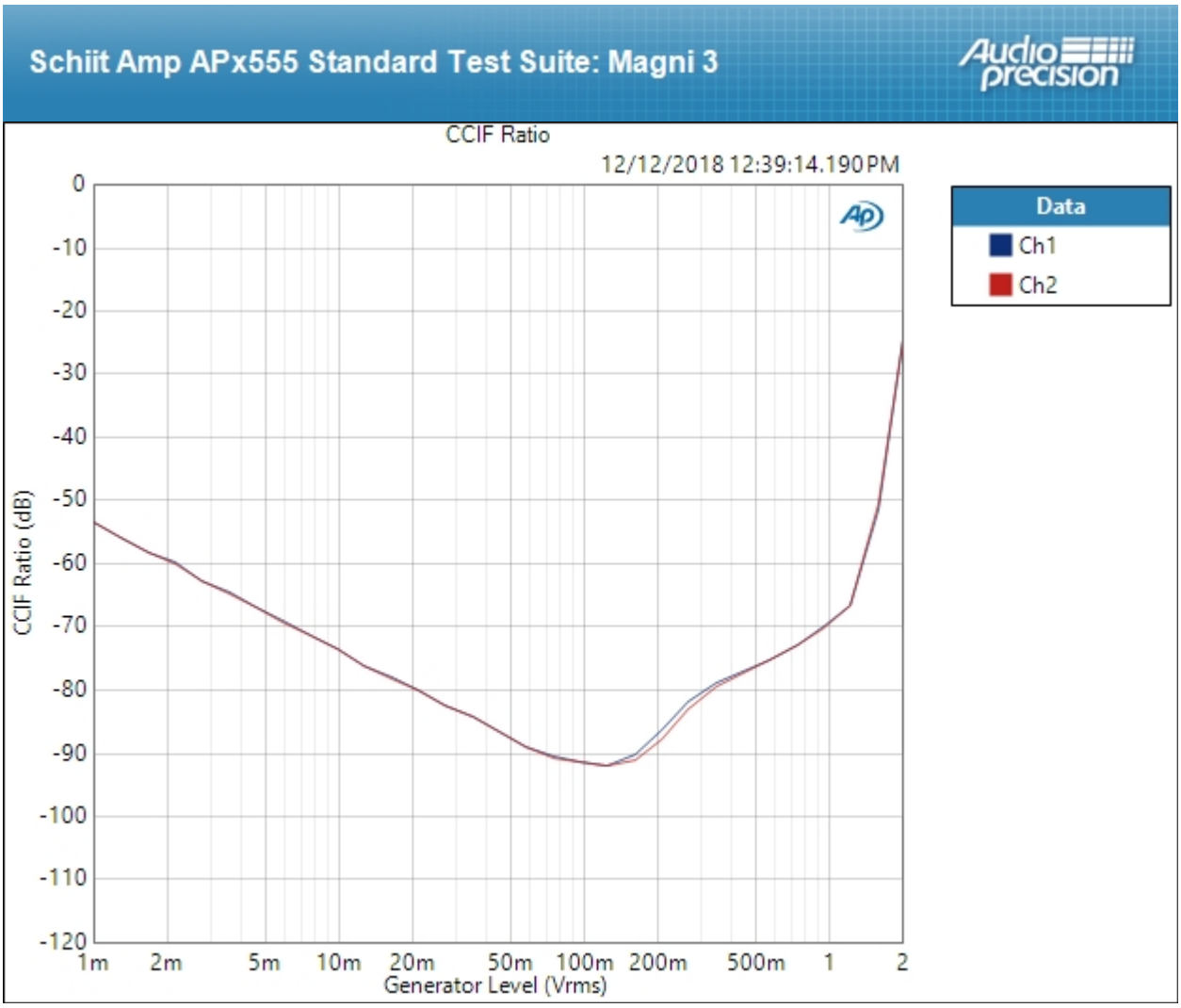
Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

32 Ohm High Gain : IMD Level Sweep (CCIF)

IMD Type:	CCIF
Waveform:	IMD
Generator Level:	2.000 Vrms
DC Offset:	0.000 V
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Level:	1.000 mVrms
Stop Level:	2.000 Vrms
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:39:14 PM

CCIF Ratio (12/12/2018 12:39:14.190 PM)

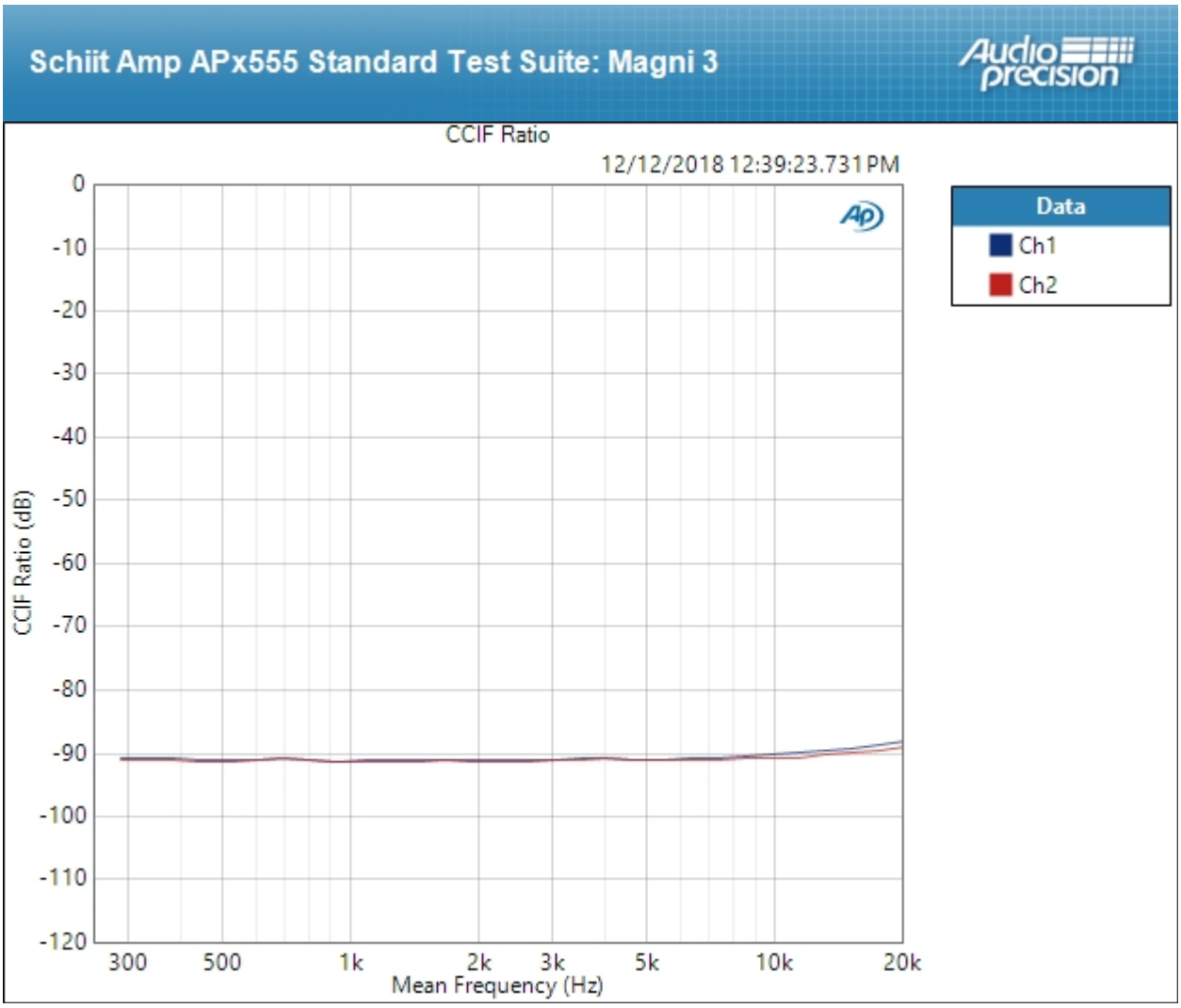


Result: PASSED

32 Ohm High Gain : IMD Frequency Sweep (CCIF)

Generator Level:	170.0 mVrms
DC Offset:	0.000 V
Sweep Frequency:	Mean Frequency
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Frequency:	20.0000 kHz
Stop Frequency:	250.000 Hz
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:39:23 PM

CCIF Ratio (12/12/2018 12:39:23.731 PM)



Result: PASSED

32 Ohm High Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	170.0 mVrms
Frequency:	10.0000 kHz

Crosstalk (12/12/2018 12:39:24.981 PM)

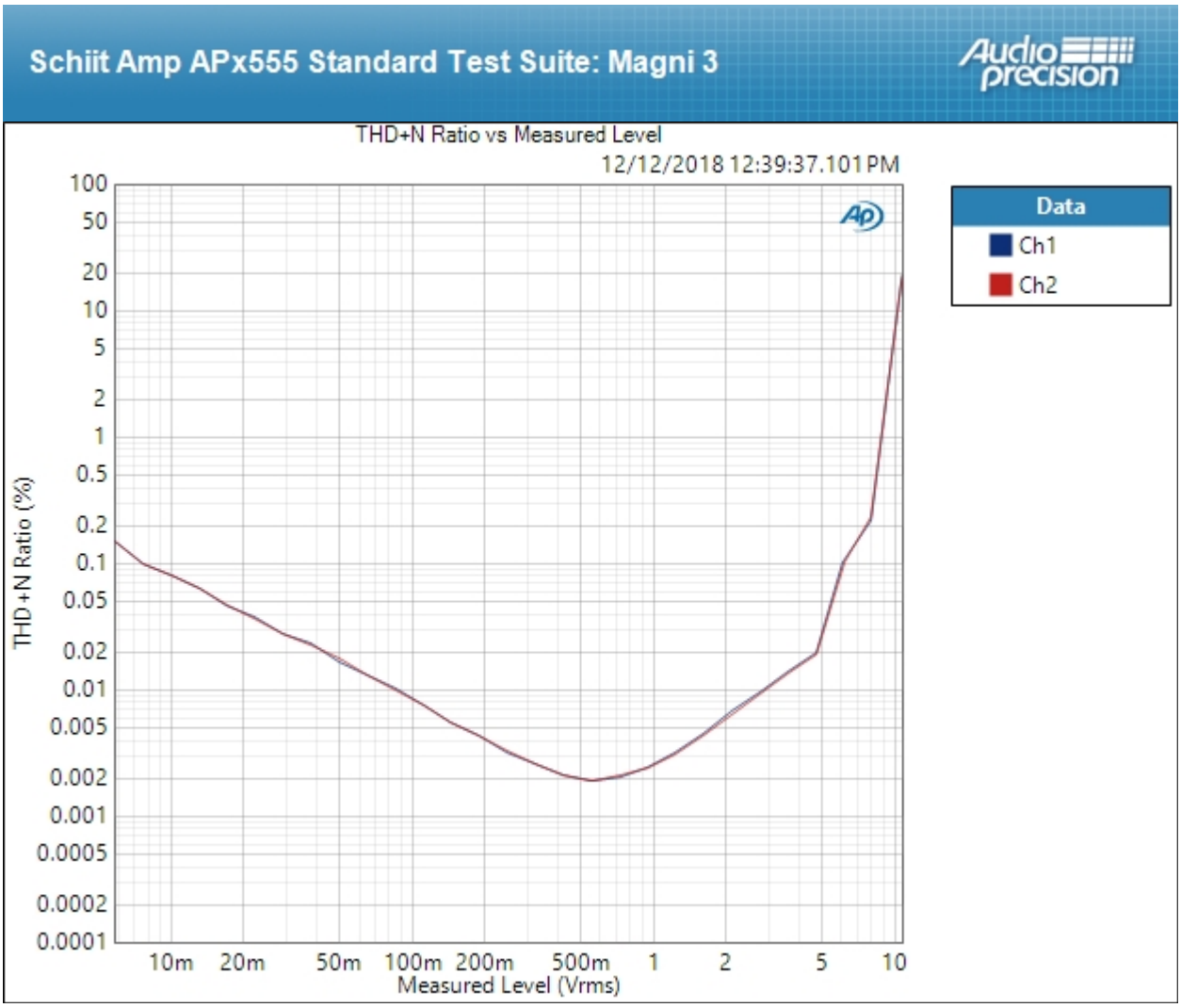
Ch1 -82.080 dB

Ch2 -75.878 dB

32 Ohm High Gain : Stepped Level Sweep

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	100.0 mVrms
Frequency:	1.00000 kHz
Start Level:	1.000 mVrms
Stop Level:	3.000 Vrms
Step Type:	Logarithmic
Number of Points:	31
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Generator Frequency
Measured 1	12/12/2018 12:39:37 PM

THD+N Ratio vs Measured Level (12/12/2018 12:39:37.101 PM)



Result: PASSED

Preamp : Signal Path Setup

Output Connector:	Analog Unbalanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Source Impedance:	20 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Unbalanced
Channels:	2
Termination:	100 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	100.0 mVrms
dBm (Output Power):	600.0 ohm
W(watts) (Output Power):	8.000 ohm
Shared Frequency Reference:	1.00000 kHz
dBrA:	1.000 Vrms
dBrB:	1.000 Vrms
dBrA Offset:	0.000 dB
dBrB Offset:	0.000 dB
dBSPL1:	10.00 mVrms
dBSPL2:	10.00 mVrms
dBSPL1 Calibrator Level:	94.000 dBSPL
dBSPL2 Calibrator Level:	94.000 dBSPL
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

Preamp : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz

RMS Level (12/12/2018 12:39:58.114 PM)

Ch1 1.004 Vrms
Ch2 1.003 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

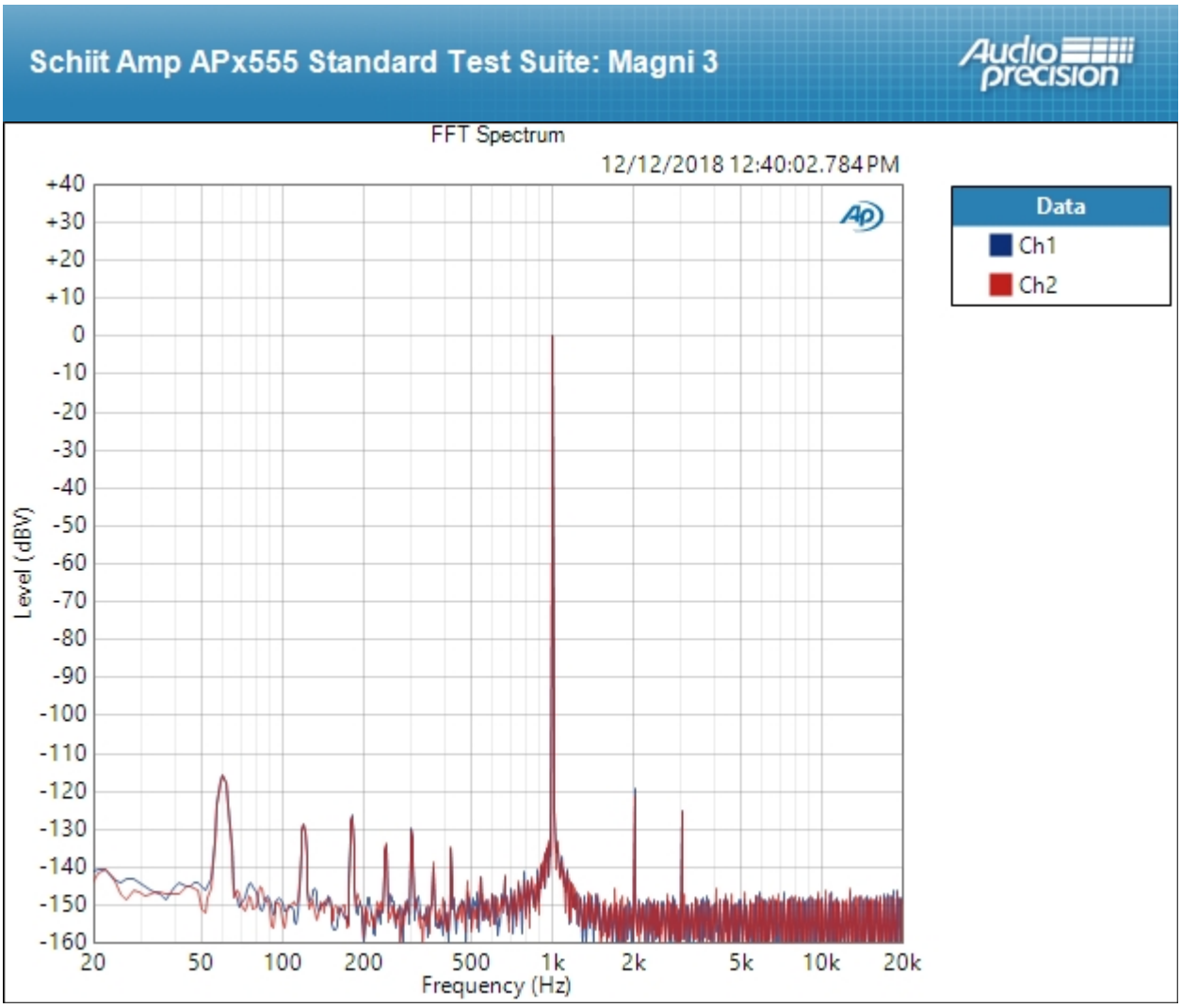
DC Level (12/12/2018 12:39:59.184 PM)

Ch1 -7.124 mV
Ch2 -9.747 mV

Preamp : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	12/12/2018 12:40:02 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 (12/12/2018 12:40:02.784 PM)

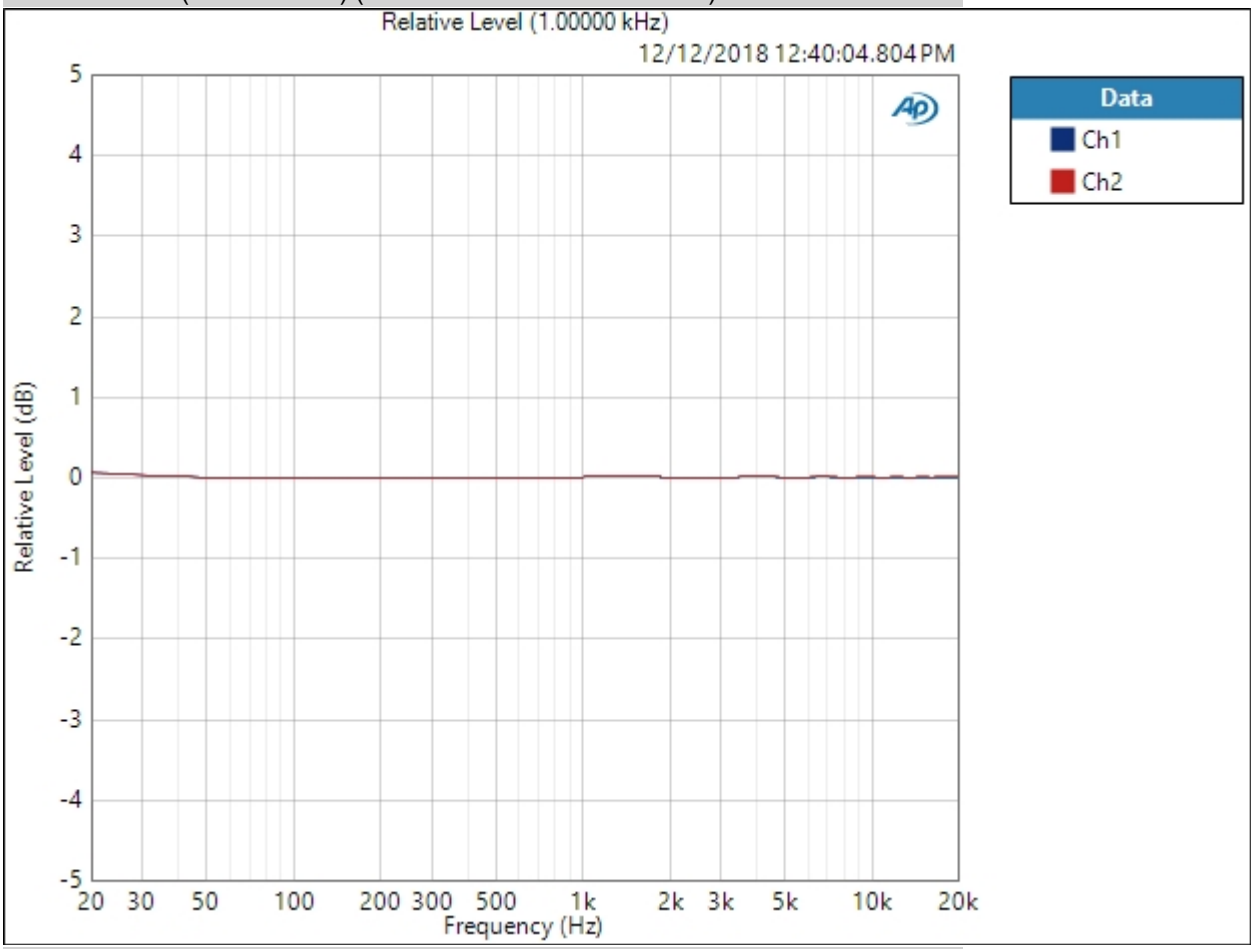


Result: PASSED

Preamp : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	700.0 mVrms
DC Offset:	0.000 V
EQ:	None
Pre-Sweep:	100.0 ms
Sweep:	350.0 ms
Extend Acquisition By:	50.00 ms
Secondary Source:	None
Measured 1	12/12/2018 12:40:04 PM

Relative Level (1.00000 kHz) (12/12/2018 12:40:04.804 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) (12/12/2018 12:40:04.804 PM)

Ch1 ±0.038 dB

Ch2 ±0.038 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 Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (12/12/2018 12:40:06.730 PM)

Ch1 118.520 dB

Ch2 118.468 dB

Preamp : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Measured Frequency

THD+N Ratio (12/12/2018 12:40:09.070 PM)

Ch1	0.000269 %
Ch2	0.000260 %

THD Ratio (12/12/2018 12:40:09.070 PM)

Ch1	0.000125 %
Ch2	0.000106 %

Noise Ratio (12/12/2018 12:40:09.070 PM)

Ch1	0.000239 %
Ch2	0.000241 %

Distortion Product Ratio (12/12/2018 12:40:09.070 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	9.001k	10.00k
Ch1	-0.00	-119.13	-125.26	-147.01	-148.16	-148.79	-145.03	-145.08	-145.00	-142.08
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.001k	10.00k
Ch2	-0.00	-121.18	-125.12	-146.34	-144.36	-145.20	-146.50	-145.77	-141.93	-142.95

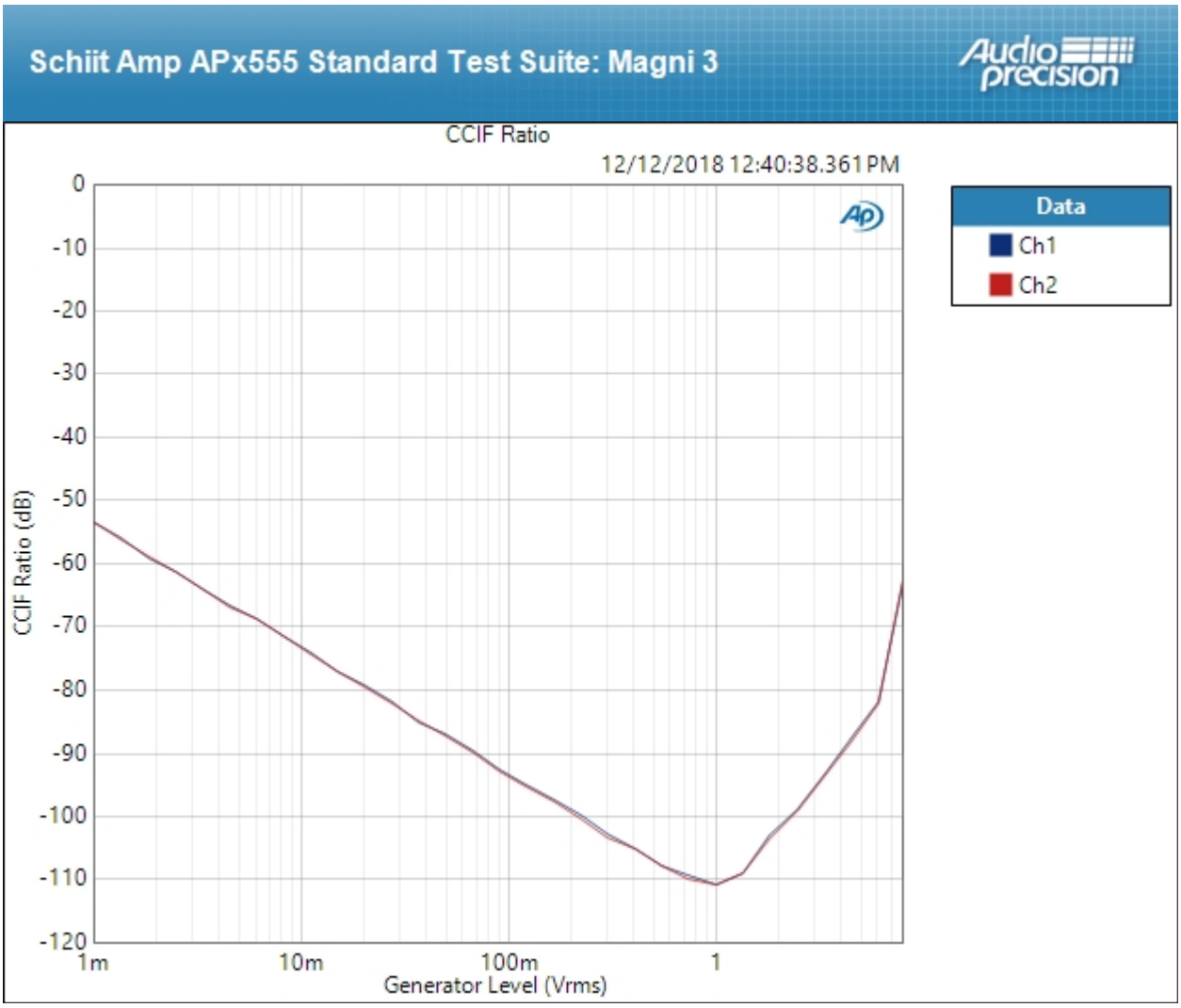
Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

Preamp : IMD Level Sweep (CCIF)

IMD Type:	CCIF
Waveform:	IMD
Generator Level:	8.000 Vrms
DC Offset:	0.000 V
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	12/12/2018 12:40:38 PM

CCIF Ratio (12/12/2018 12:40:38.361 PM)

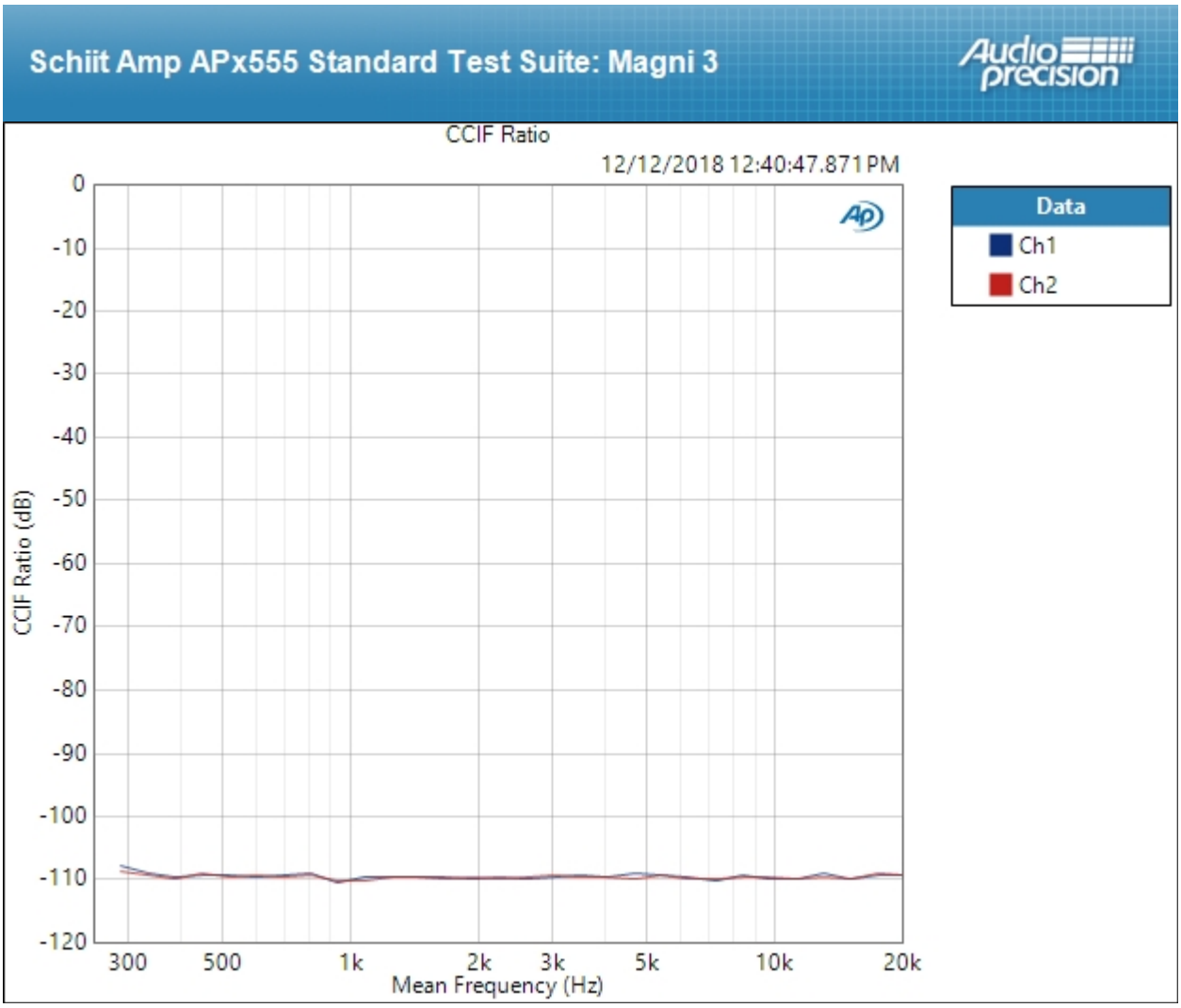


Result: PASSED

Preamp : IMD Frequency Sweep (CCIF)

Generator Level:	700.0 mVrms
DC Offset:	0.000 V
Sweep Frequency:	Mean Frequency
Mean Frequency:	12.5000 kHz
Diff Frequency:	80.0000 Hz
IMD Split:	False
Start Frequency:	20.0000 kHz
Stop Frequency:	250.000 Hz
Step Type:	Logarithmic
Number of Points:	31
Mode:	d2+d3
Measured 1	12/12/2018 12:40:47 PM

CCIF Ratio (12/12/2018 12:40:47.871 PM)



Result: PASSED

Preamp : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	700.0 mVrms
Frequency:	10.0000 kHz

Crosstalk (12/12/2018 12:40:49.111 PM)

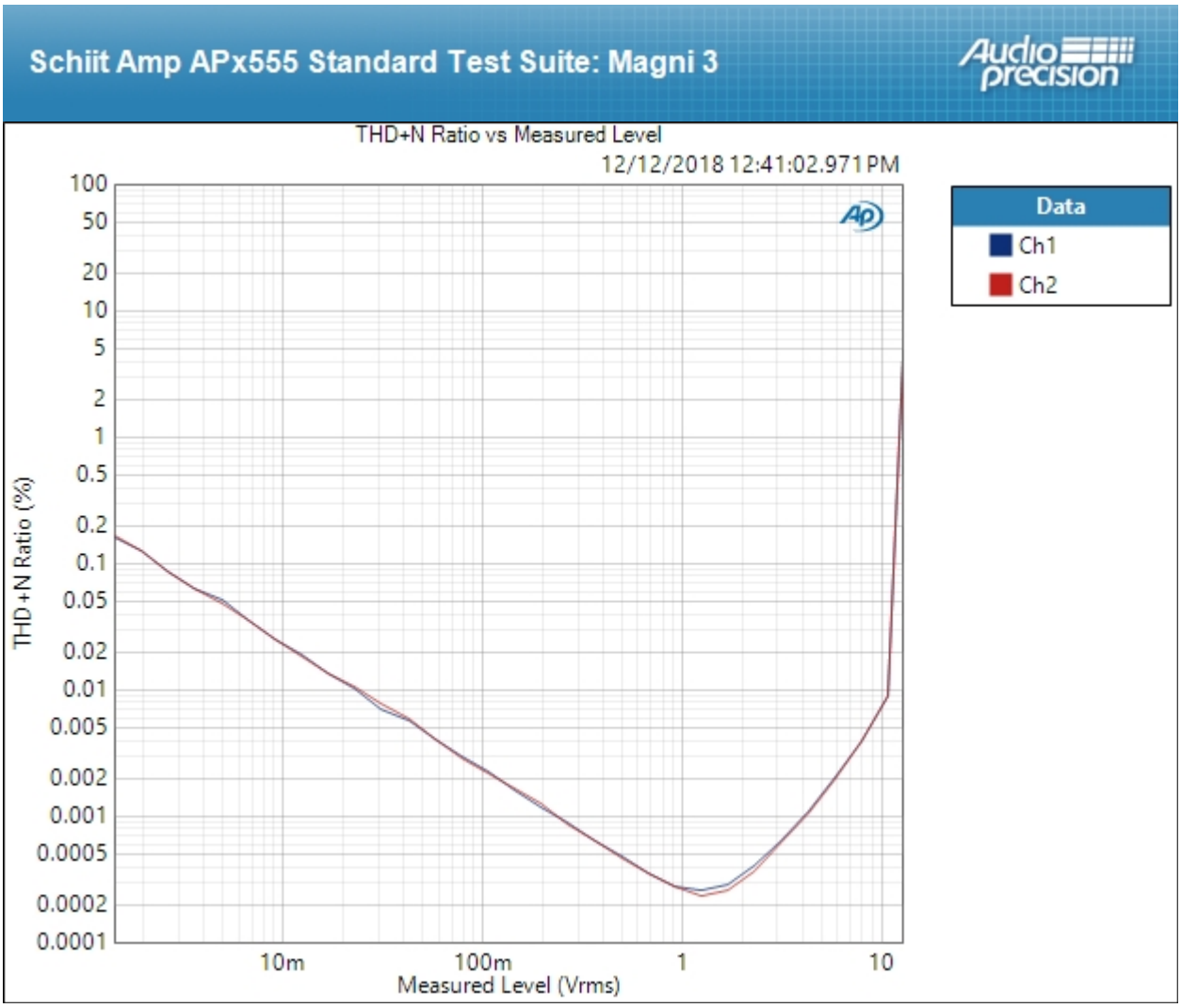
Ch1 -92.002 dB

Ch2 -92.599 dB

Preamp : Stepped Level Sweep

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	100.0 mVrms
Frequency:	1.00000 kHz
Start Level:	1.000 mVrms
Stop Level:	10.00 Vrms
Step Type:	Logarithmic
Number of Points:	31
Low-pass Filter:	20 kHz
Weighting Filter:	Signal Path
High-pass Filter:	20 Hz
Notch Tuning Mode:	Generator Frequency
Measured 1	12/12/2018 12:41:02 PM

THD+N Ratio vs Measured Level (12/12/2018 12:41:02.971 PM)



Result: PASSED