Schiit Amp APx555 Standard Test Suite: Ragnarok 2

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

8 Ohm High Gain	
Level and Gain	PASSED
DC Level	PASSED
Signal Analyzer	PASSED
Frequency Response	PASSED
Signal to Noise Ratio	PASSED
THD+N	PASSED
Crosstalk, One Channel Undriven	PASSED
Stepped Level Sweep	PASSED
4 Ohm High Gain	
Level and Gain	PASSED
DC Level	PASSED
Signal Analyzer	PASSED
Frequency Response	PASSED
Signal to Noise Ratio	PASSED
THD+N	PASSED
Crosstalk, One Channel Undriven	PASSED
Stepped Level Sweep	PASSED
32 Ohm Mid Gain	
Level and Gain	PASSED
DC Level	PASSED
Signal Analyzer	PASSED
Frequency Response	PASSED
Signal to Noise Ratio	PASSED
THD+N	PASSED
Crosstalk, One Channel Undriven	PASSED
Stepped Level Sweep	PASSED
32 Ohm Low	
Level and Gain	PASSED
DC Level	PASSED
Signal Analyzer	PASSED
Frequency Response	PASSED
Signal to Noise Ratio	PASSED
THD+N	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
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:	5.0.0.105.133644

8 Ohm High Gain : Signal Path Setup

Output Connector:	Analog Balanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Configuration:	Normal (Differential)
Source Impedance:	40 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Balanced
Channels:	2
Termination:	200 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	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

8 Ohm High Gain : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 mVrms
Frequency:	1.00000 kHz

RMS Level (6/13/2019 12:02:08.287 PM)

Ch1 2.004 Vrms
Ch2 2.005 Vrms

8 Ohm High Gain : DC Level

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

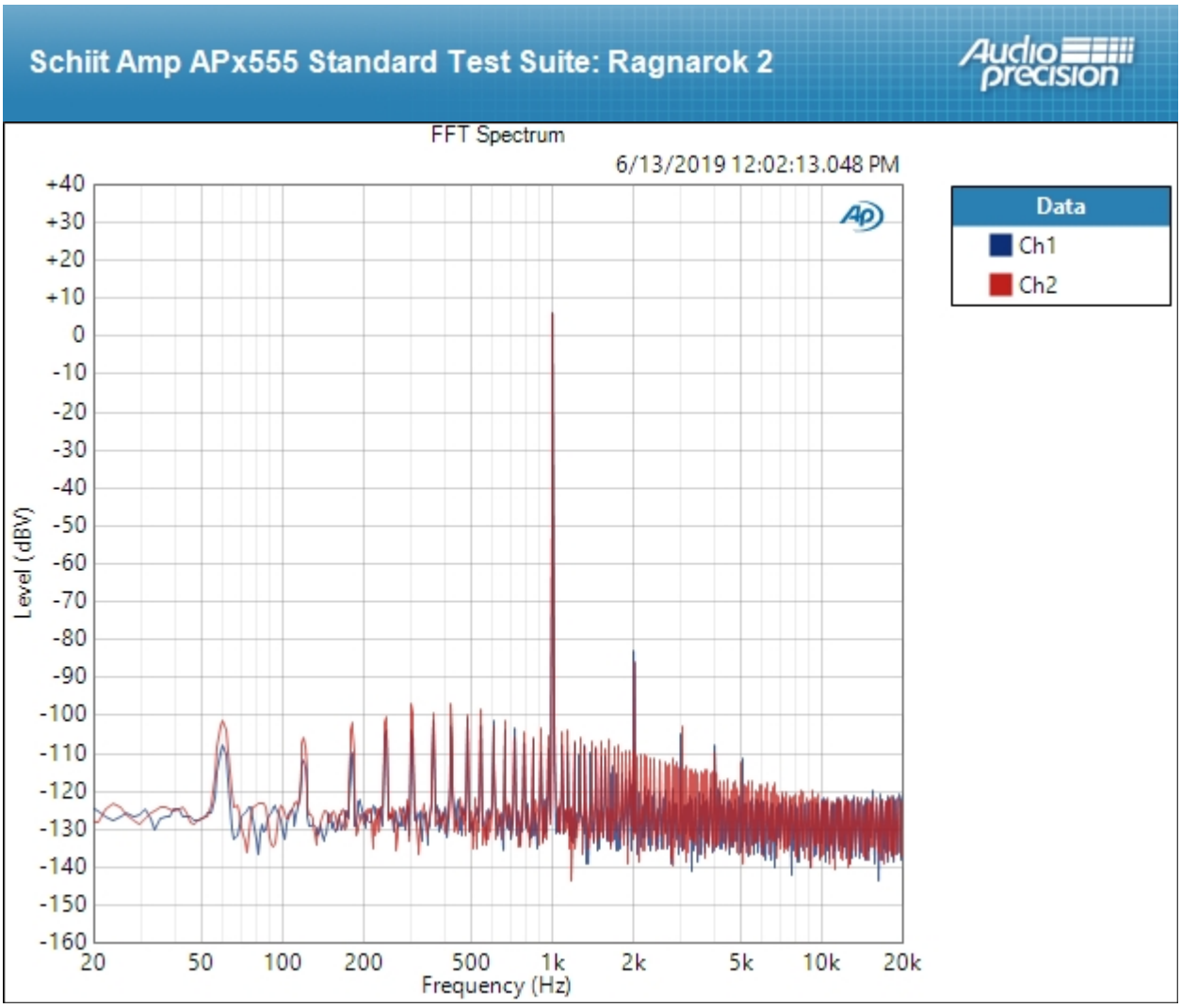
DC Level (6/13/2019 12:02:09.397 PM)

Ch1 -1.039 mV
Ch2 -155.6 uV

8 Ohm High Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	6/13/2019 12:02:13 PM
Acquisition Type:	Auto
Trigger:	Free Run
Delay Time:	250.0 ms
Input Bandwidth:	Use Signal Path
FFT Length:	32K
Averaging:	Power
Averages:	3
Window:	AP-Equiripple
Record Acquisition:	False
Recording Type:	Multiple Mono PCM (.wav)

FFT Spectrum (6/13/2019 12:02:13.048 PM)

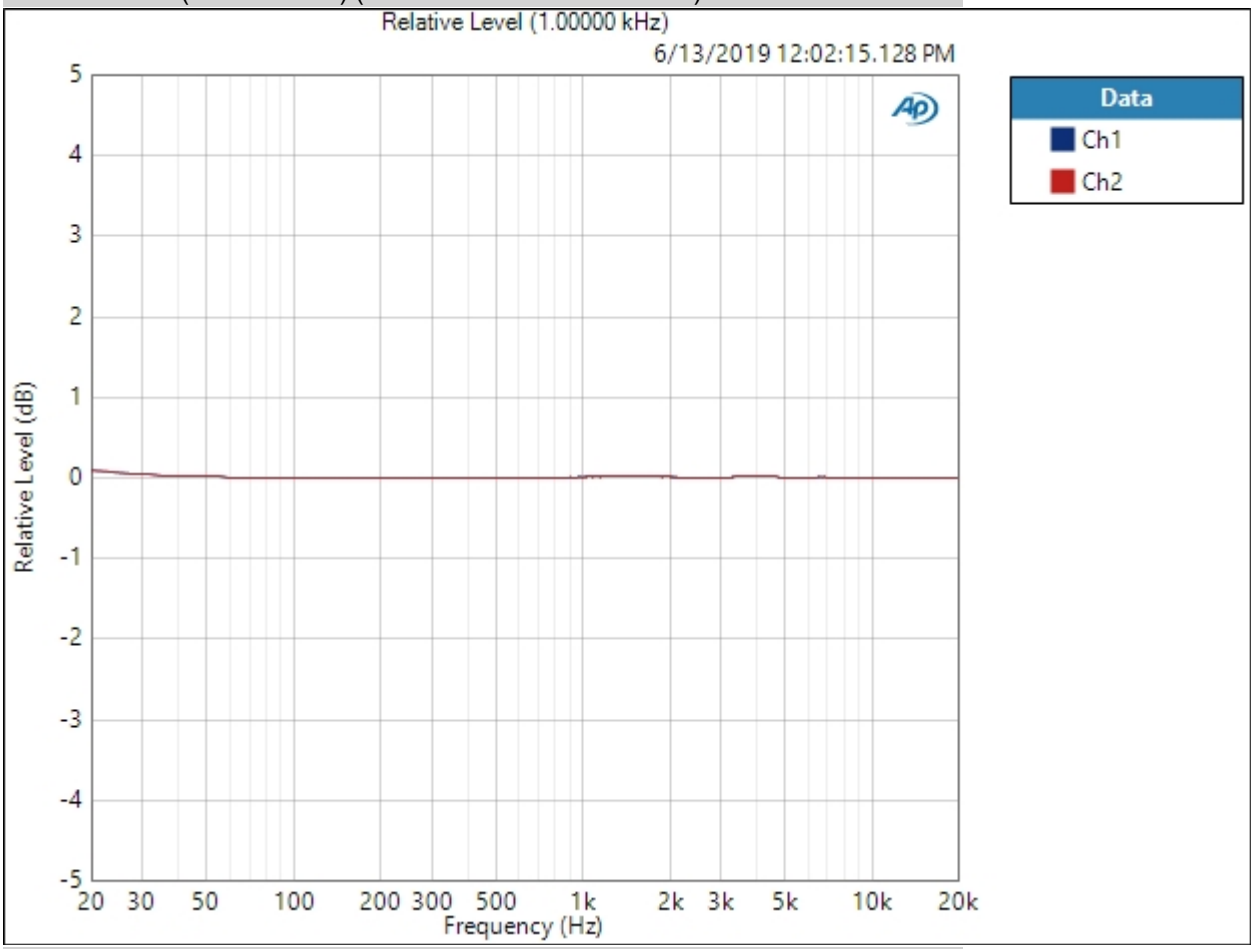


Result: PASSED

8 Ohm High Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	71.00 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	6/13/2019 12:02:15 PM

Relative Level (1.00000 kHz) (6/13/2019 12:02:15.128 PM)



Relative Level (1.00000 kHz) Parameters

Mode:	Normalized at Reference

Ref Frequency: 1.00000 kHz

Result: PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (6/13/2019 12:02:15.128 PM)

Ch1 ±0.049 dB

Ch2 ±0.049 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

8 Ohm High Gain : Signal to Noise Ratio

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	775.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (6/13/2019 12:02:17.088 PM)

Ch1 117.120 dB

Ch2 114.908 dB

8 Ohm High Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 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 (6/13/2019 12:02:19.398 PM)

Ch1	0.004022 %
Ch2	0.003597 %

THD Ratio (6/13/2019 12:02:19.398 PM)

Ch1	0.003491 %
Ch2	0.002559 %

Noise Ratio (6/13/2019 12:02:19.398 PM)

Ch1	0.001928 %
Ch2	0.002473 %

Distortion Product Ratio (6/13/2019 12:02:19.398 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-89.24	-108.05	-113.32	-118.31	-125.03	-124.63	-125.89	-124.91	-123.33
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-91.96	-111.83	-117.76	-114.90	-123.70	-120.44	-127.49	-122.74	-129.85

Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

8 Ohm High Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 mVrms
Frequency:	10.0000 kHz

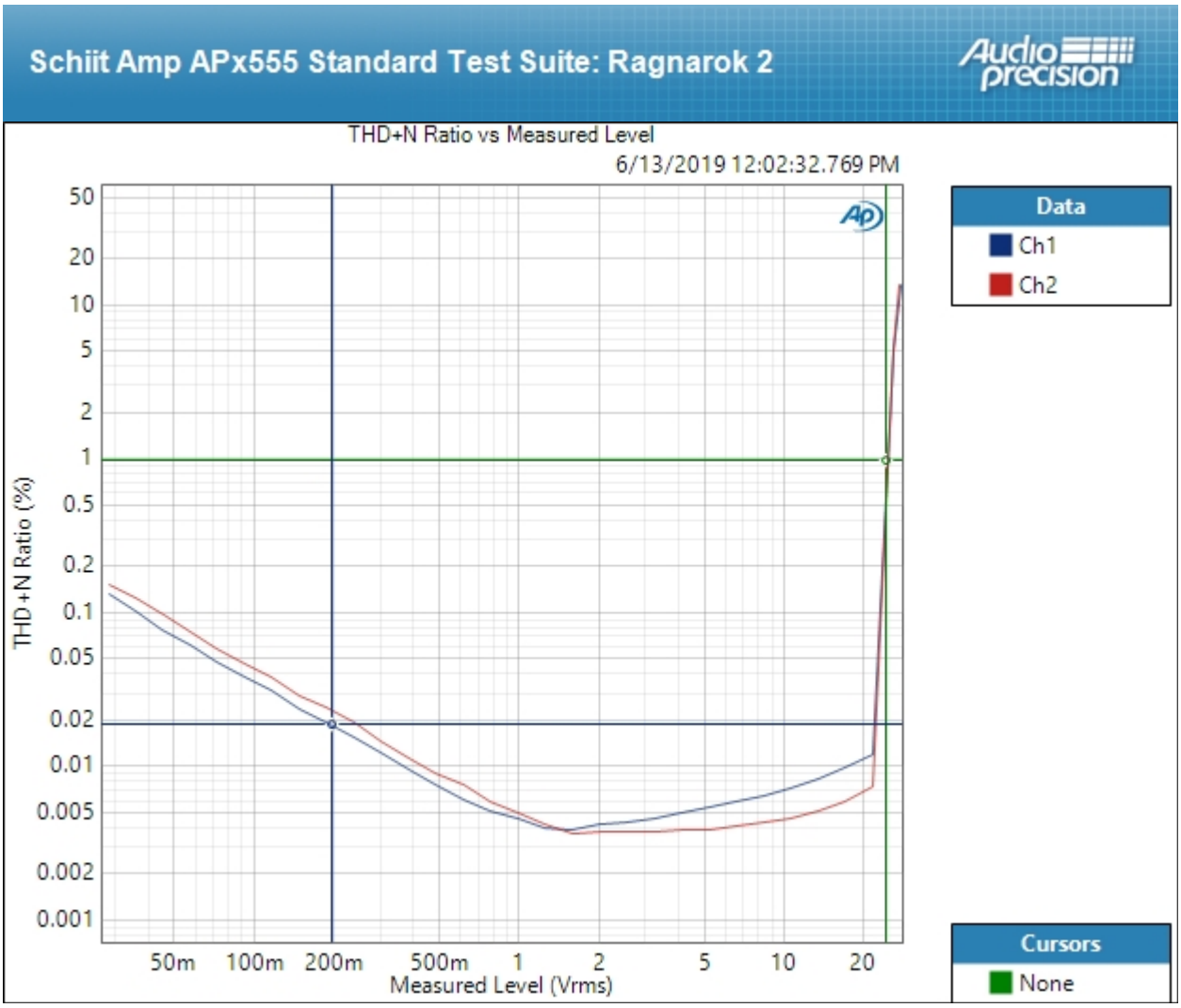
Crosstalk (6/13/2019 12:02:20.948 PM)

Ch1 97.330 dB
Ch2 89.407 dB

8 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:	1.200 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	6/13/2019 12:02:32 PM

THD+N Ratio vs Measured Level (6/13/2019 12:02:32.769 PM)



Result: PASSED

4 Ohm High Gain : Signal Path Setup

Output Connector:	Analog Balanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Configuration:	Normal (Differential)
Source Impedance:	40 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Balanced
Channels:	2
Termination:	200 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	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

4 Ohm High Gain : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 mVrms
Frequency:	1.00000 kHz

RMS Level (6/13/2019 12:03:26.268 PM)

Ch1 2.001 Vrms
Ch2 2.003 Vrms

4 Ohm High Gain : DC Level

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

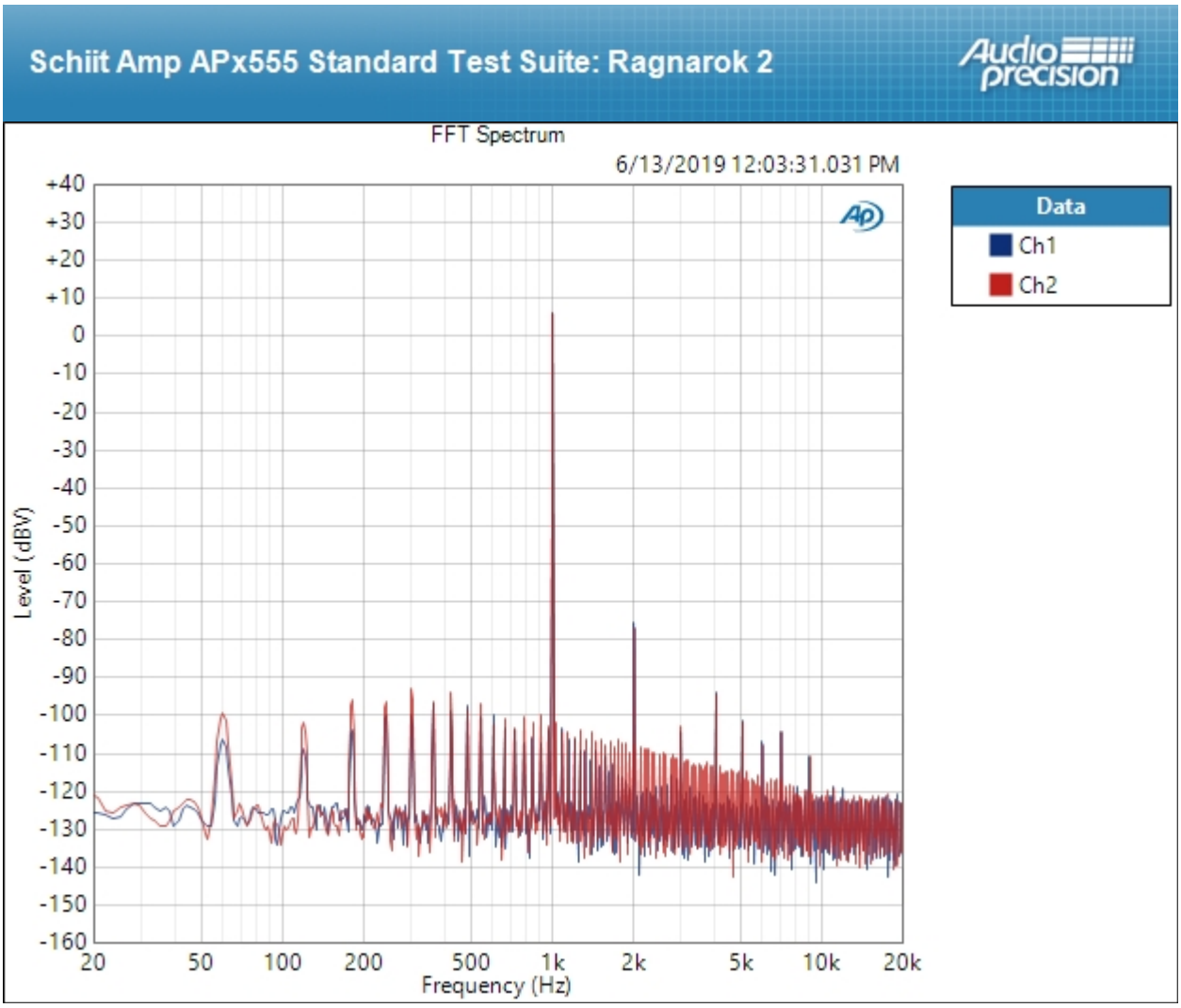
DC Level (6/13/2019 12:03:27.371 PM)

Ch1 -0.913 mV
Ch2 -129.2 uV

4 Ohm High Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	6/13/2019 12:03:31 PM
Acquisition Type:	Auto
Trigger:	Free Run
Delay Time:	250.0 ms
Input Bandwidth:	Use Signal Path
FFT Length:	32K
Averaging:	Power
Averages:	3
Window:	AP-Equiripple
Record Acquisition:	False
Recording Type:	Multiple Mono PCM (.wav)

FFT Spectrum (6/13/2019 12:03:31.031 PM)

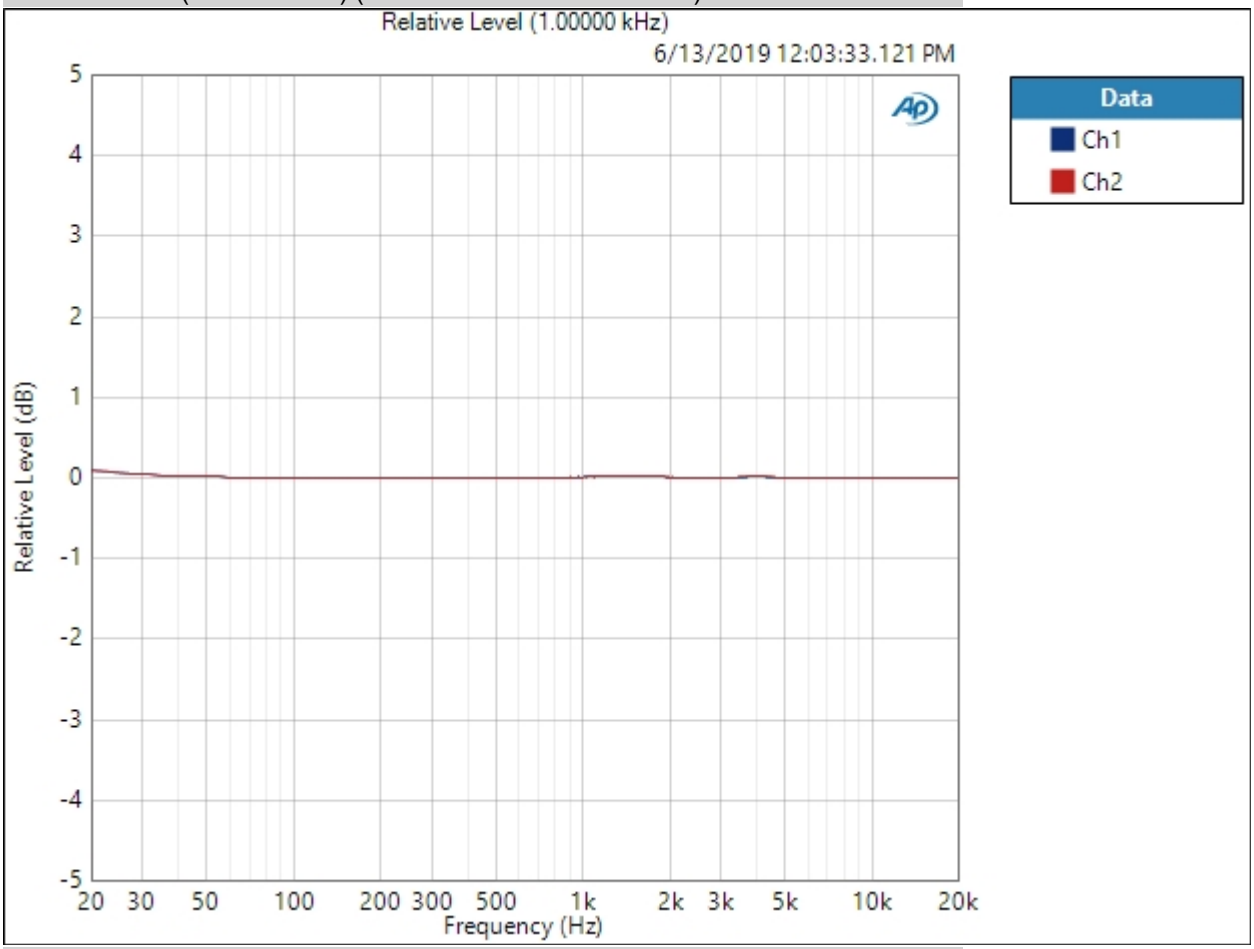


Result: PASSED

4 Ohm High Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	71.00 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	6/13/2019 12:03:33 PM

Relative Level (1.00000 kHz) (6/13/2019 12:03:33.121 PM)



Relative Level (1.00000 kHz) Parameters

Mode:	Normalized at Reference

Ref Frequency: 1.00000 kHz

Result: PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (6/13/2019 12:03:33.121 PM)

Ch1 ±0.052 dB

Ch2 ±0.050 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

4 Ohm High 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 (6/13/2019 12:03:35.081 PM)

Ch1 115.948 dB

Ch2 113.892 dB

4 Ohm High Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 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 (6/13/2019 12:03:37.411 PM)

Ch1 0.008572 %

Ch2 0.007851 %

THD Ratio (6/13/2019 12:03:37.411 PM)

Ch1 0.008260 %

Ch2 0.007230 %

Noise Ratio (6/13/2019 12:03:37.411 PM)

Ch1 0.002311 %

Ch2 0.003068 %

Distortion Product Ratio (6/13/2019 12:03:37.411 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-81.79	-103.14	-101.18	-103.47	-113.42	-108.25	-123.54	-116.56	-124.68
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-82.96	-103.71	-101.38	-104.56	-115.91	-109.96	-130.01	-119.81	-124.30

Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

4 Ohm High Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	71.00 mVrms
Frequency:	10.0000 kHz

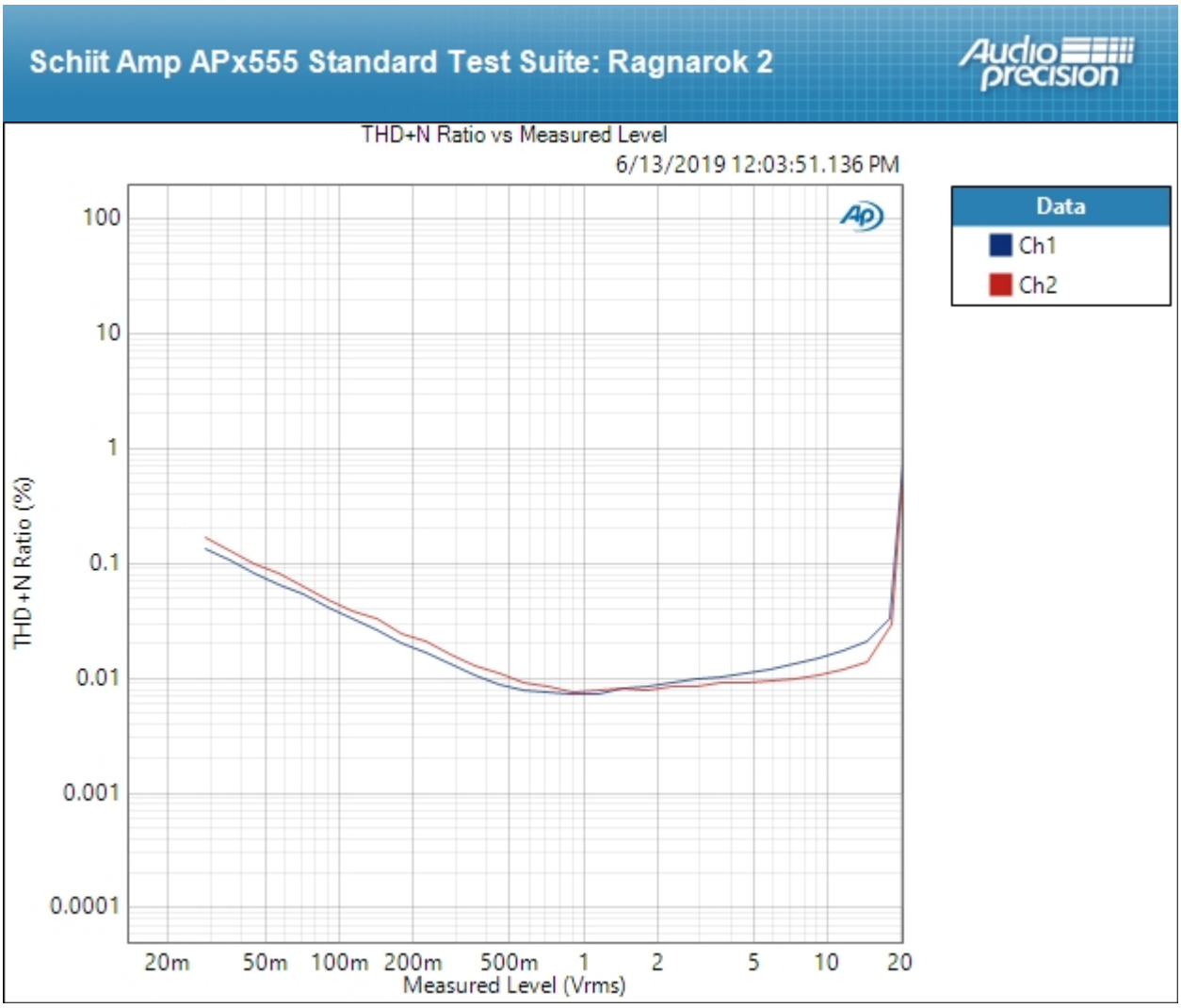
Crosstalk (6/13/2019 12:03:40.266 PM)

Ch1 96.215 dB
Ch2 85.166 dB

4 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:	1.000 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	6/13/2019 12:03:51 PM

THD+N Ratio vs Measured Level (6/13/2019 12:03:51.136 PM)



Result: PASSED

32 Ohm Mid Gain : Signal Path Setup

Output Connector:	Analog Balanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Configuration:	Normal (Differential)
Source Impedance:	40 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Balanced
Channels:	2
Termination:	200 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	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 Mid Gain : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	236.0 mVrms
Frequency:	1.00000 kHz

RMS Level (6/13/2019 12:04:45.407 PM)

Ch1 2.011 Vrms
Ch2 2.015 Vrms

32 Ohm Mid Gain : DC Level

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

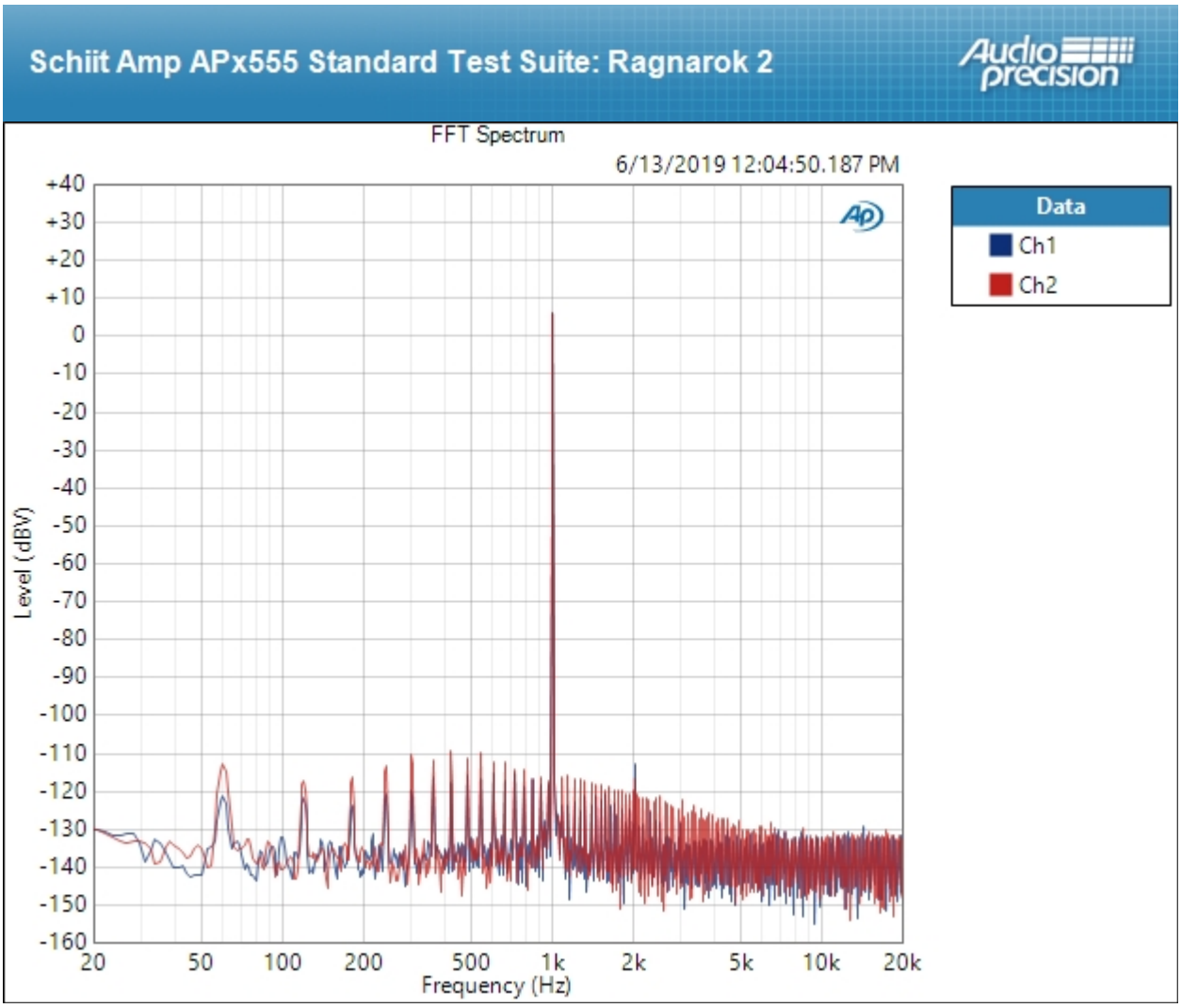
DC Level (6/13/2019 12:04:46.517 PM)

Ch1 3.867 mV
Ch2 850.0 uV

32 Ohm Mid Gain : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	236.0 mVrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	6/13/2019 12:04:50 PM
Acquisition Type:	Auto
Trigger:	Free Run
Delay Time:	250.0 ms
Input Bandwidth:	Use Signal Path
FFT Length:	32K
Averaging:	Power
Averages:	3
Window:	AP-Equiripple
Record Acquisition:	False
Recording Type:	Multiple Mono PCM (.wav)

FFT Spectrum (6/13/2019 12:04:50.187 PM)

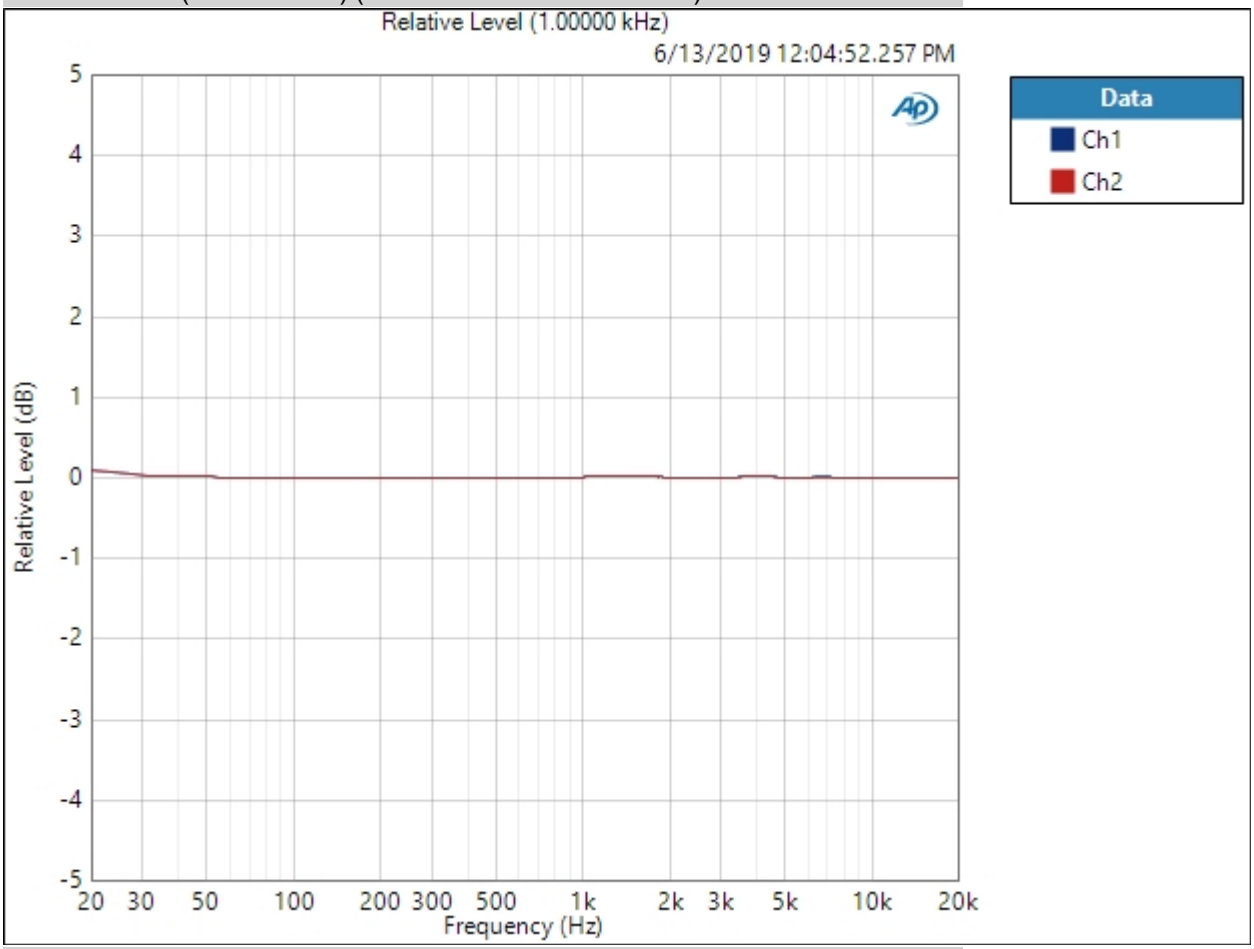


Result: PASSED

32 Ohm Mid Gain : Frequency Response

Start Frequency:	20.0000 Hz
Stop Frequency:	20.0000 kHz
Generator Level:	236.0 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	6/13/2019 12:04:52 PM

Relative Level (1.00000 kHz) (6/13/2019 12:04:52.257 PM)



Relative Level (1.00000 kHz) Parameters

Mode:	Normalized at Reference

Ref Frequency: 1.00000 kHz

Result: PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (6/13/2019 12:04:52.257 PM)

Ch1 ±0.043 dB

Ch2 ±0.045 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm Mid Gain : Signal to Noise Ratio

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	236.0 mVrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (6/13/2019 12:04:54.194 PM)

Ch1 106.568 dB

Ch2 104.299 dB

32 Ohm Mid Gain : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	236.0 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 (6/13/2019 12:04:56.484 PM)

Ch1 0.006447 %

Ch2 0.007243 %

THD Ratio (6/13/2019 12:04:56.484 PM)

Ch1 0.000149 %

Ch2 0.000119 %

Noise Ratio (6/13/2019 12:04:56.484 PM)

Ch1 0.000535 %

Ch2 0.000690 %

Distortion Product Ratio (6/13/2019 12:04:56.484 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-118.14	-129.37	-131.85	-134.78	-136.98	-139.51	-136.04	-131.52	-134.01
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-123.04	-126.00	-136.04	-135.96	-129.44	-136.26	-132.72	-137.80	-140.42

Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

32 Ohm Mid Gain : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	236.0 mVrms
Frequency:	10.0000 kHz

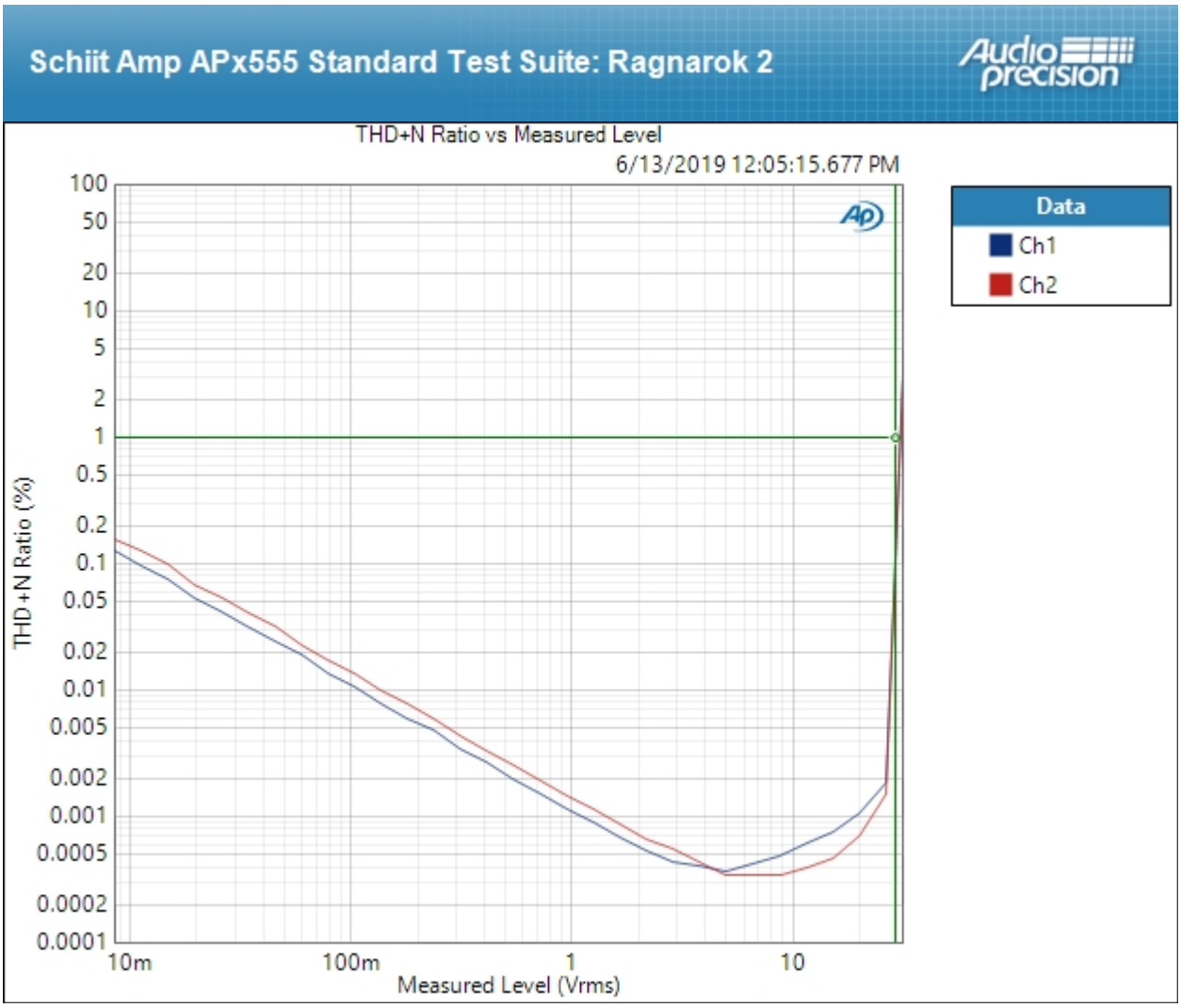
Crosstalk (6/13/2019 12:05:01.384 PM)

Ch1 111.750 dB
Ch2 112.485 dB

32 Ohm Mid 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:	4.000 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	6/13/2019 12:05:15 PM

THD+N Ratio vs Measured Level (6/13/2019 12:05:15.677 PM)



Result: PASSED

32 Ohm Low : Signal Path Setup

Output Connector:	Analog Balanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Configuration:	Normal (Differential)
Source Impedance:	40 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Balanced
Channels:	2
Termination:	200 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	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 : Level and Gain

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	1.700 Vrms
Frequency:	1.00000 kHz

RMS Level (6/13/2019 11:59:05.459 AM)

Ch1 3.356 Vrms
Ch2 3.363 Vrms

32 Ohm Low : DC Level

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

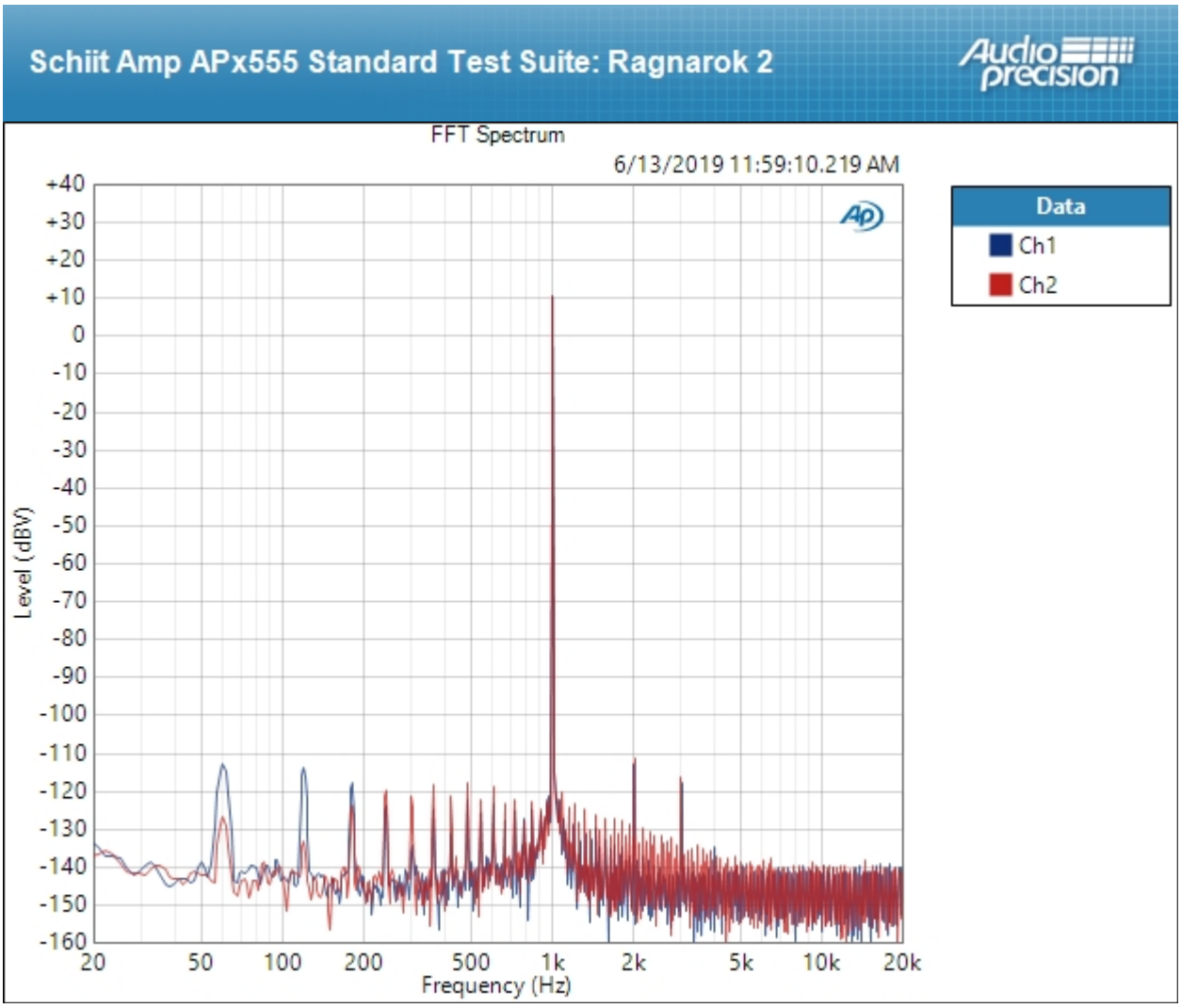
DC Level (6/13/2019 11:59:06.559 AM)

Ch1 -299.2 uV
Ch2 110.3 uV

32 Ohm Low : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	1.700 Vrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	6/13/2019 11:59:10 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 (6/13/2019 11:59:10.219 AM)

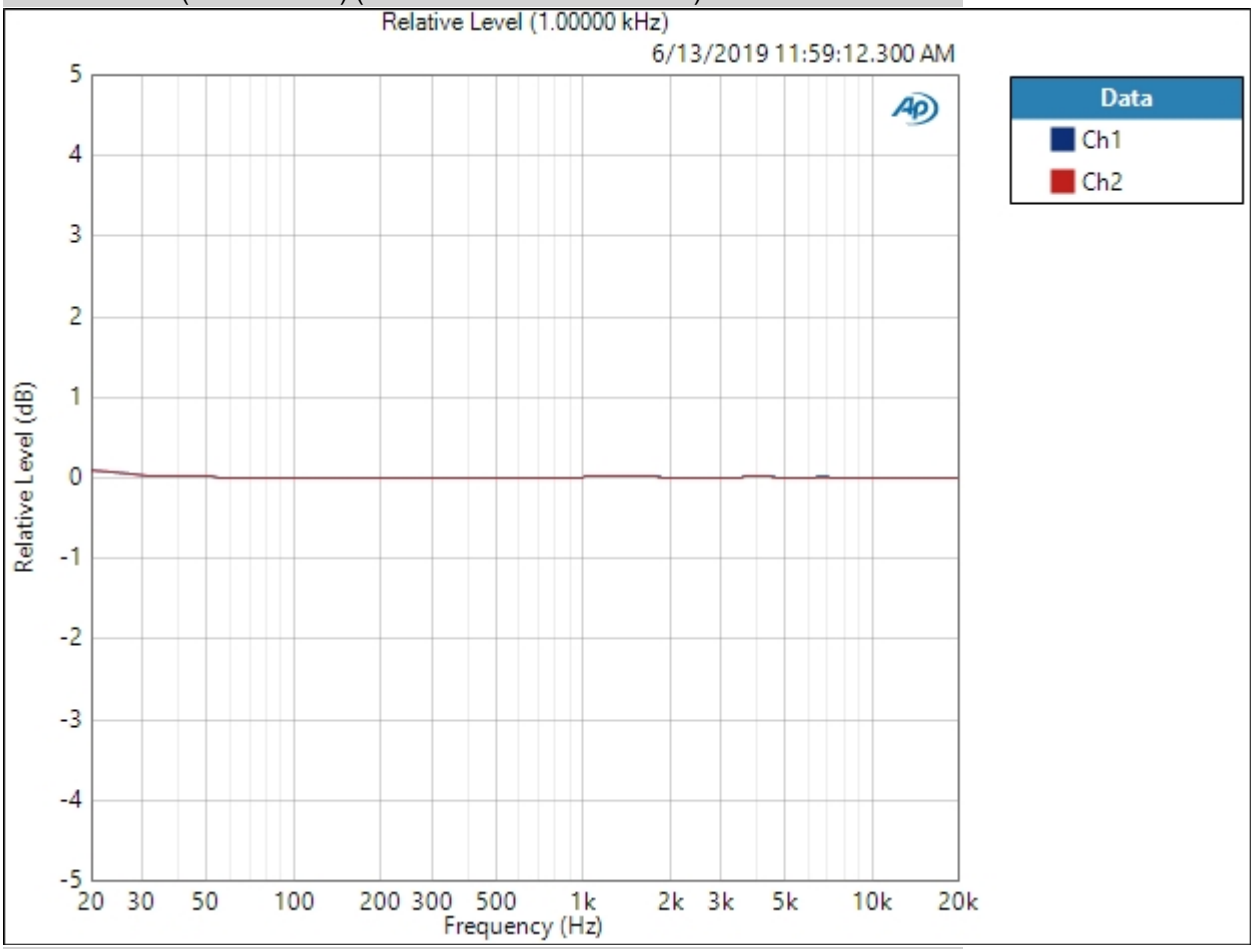


Result: PASSED

32 Ohm Low : 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:	50.00 ms
Secondary Source:	None
Measured 1	6/13/2019 11:59:12 AM

Relative Level (1.00000 kHz) (6/13/2019 11:59:12.300 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) (6/13/2019 11:59:12.300 AM)

Ch1 ±0.041 dB

Ch2 ±0.043 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

Max: 20.0000 kHz

32 Ohm Low : Signal to Noise Ratio

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	1.700 Vrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (6/13/2019 11:59:14.242 AM)

Ch1 121.366 dB

Ch2 118.774 dB

32 Ohm Low : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	1.700 Vrms
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 (6/13/2019 11:59:16.533 AM)

Ch1	0.001619 %
Ch2	0.001424 %

THD Ratio (6/13/2019 11:59:16.533 AM)

Ch1	0.000082 %
Ch2	0.000102 %

Noise Ratio (6/13/2019 11:59:16.533 AM)

Ch1	0.000156 %
Ch2	0.000152 %

Distortion Product Ratio (6/13/2019 11:59:16.533 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	-123.36	-127.37	-141.28	-147.91	-145.42	-147.07	-146.76	-150.27	-146.44
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-121.32	-125.67	-152.93	-150.09	-150.27	-152.94	-151.13	-149.48	-147.00

Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

32 Ohm Low : Crosstalk, One Channel Undriven

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	140.0 mVrms
Frequency:	10.0000 kHz

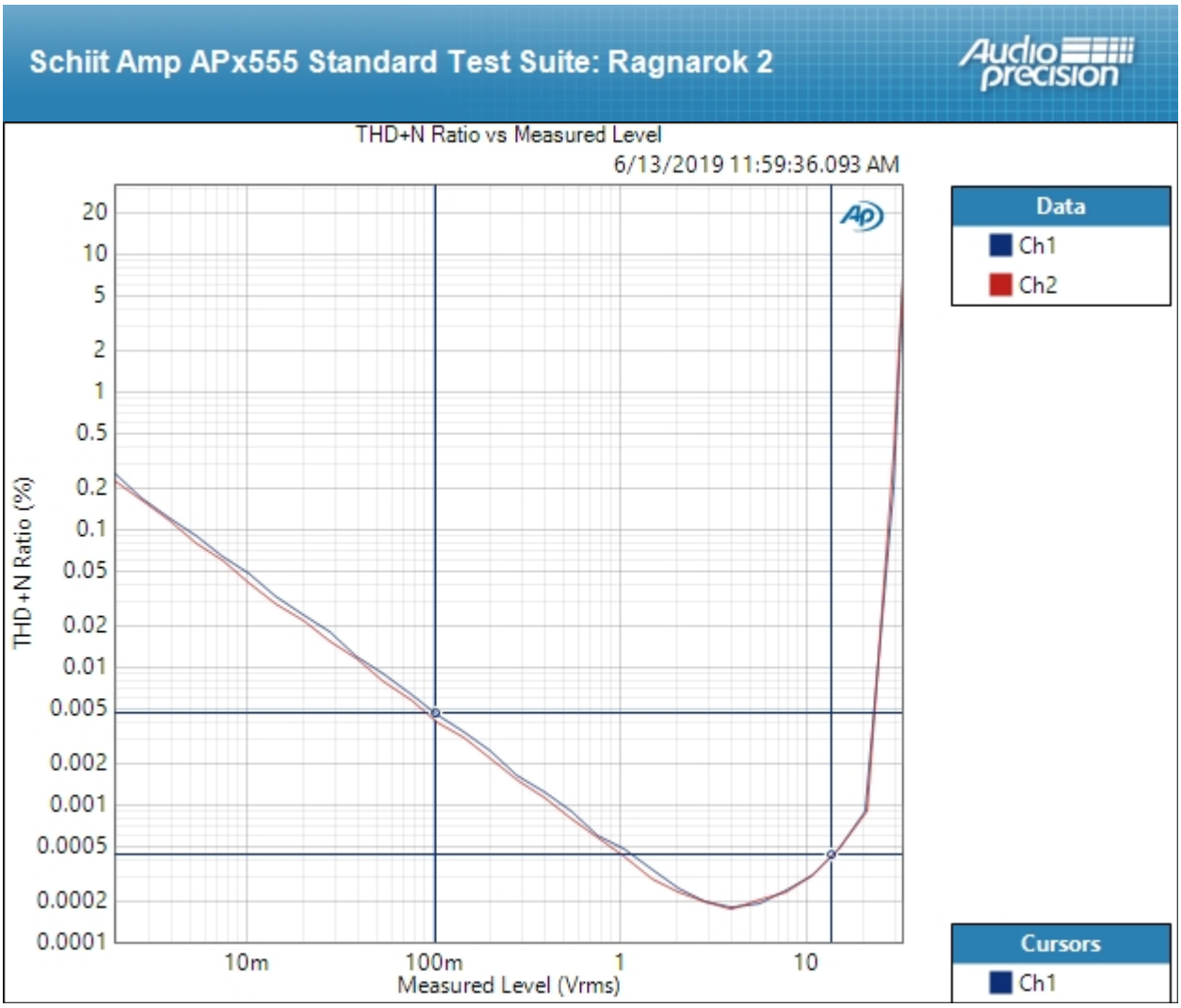
Crosstalk (6/13/2019 11:59:21.483 AM)

Ch1 103.715 dB
Ch2 99.156 dB

32 Ohm Low : 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:	20.00 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	6/13/2019 11:59:36 AM

THD+N Ratio vs Measured Level (6/13/2019 11:59:36.093 AM)



Result: PASSED

Preamp : Signal Path Setup

Output Connector:	Analog Balanced
Channels:	2
Generator Mode:	High Performance Sine Generator
Configuration:	Normal (Differential)
Source Impedance:	40 ohm
AG52 Generator Option:	Installed
Output EQ:	None
Input Connector:	Analog Balanced
Channels:	2
Termination:	200 kohm
High Performance Sine Analyzer:	Enabled
Input Bandwidth:	AC (<10 Hz) - 22.4k (48 kHz SR)
Device Delay:	0.000 s
Input EQ:	None

• References

dBr G:	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:	1.700 Vrms
Frequency:	1.00000 kHz

RMS Level (6/13/2019 12:00:14.588 PM)

Ch1 3.374 Vrms
Ch2 3.374 Vrms

Preamp : DC Level

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

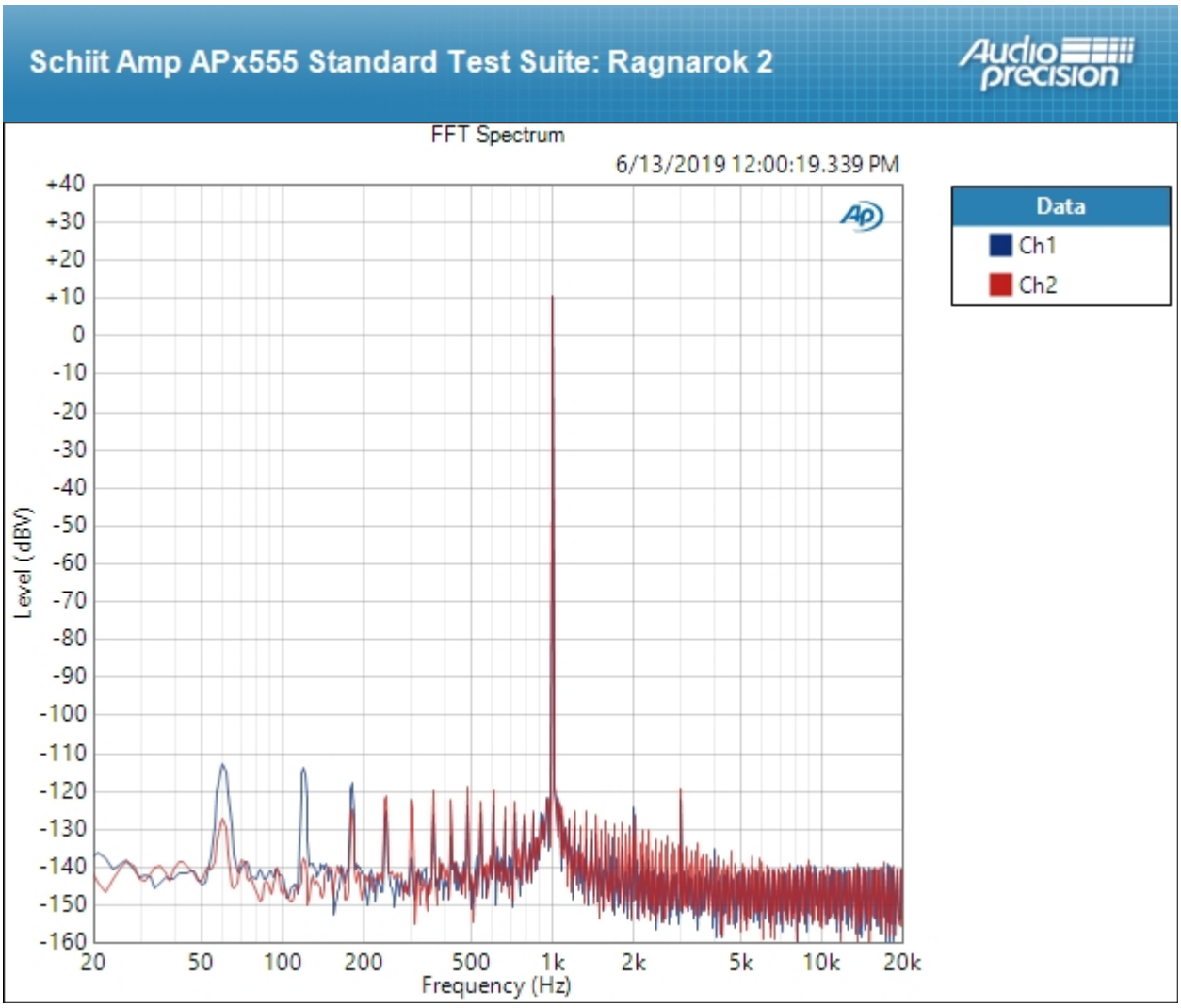
DC Level (6/13/2019 12:00:15.689 PM)

Ch1 -645.3 uV
Ch2 82.32 uV

Preamp : Signal Analyzer

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	1.700 Vrms
Frequency:	1.00000 kHz
Secondary Source:	None
Measured 1	6/13/2019 12:00:19 PM
Acquisition Type:	Auto
Trigger:	Free Run
Delay Time:	250.0 ms
Input Bandwidth:	Use Signal Path
FFT Length:	32K
Averaging:	Power
Averages:	3
Window:	AP-Equiripple
Record Acquisition:	False
Recording Type:	Multiple Mono PCM (.wav)

FFT Spectrum (6/13/2019 12:00:19.339 PM)

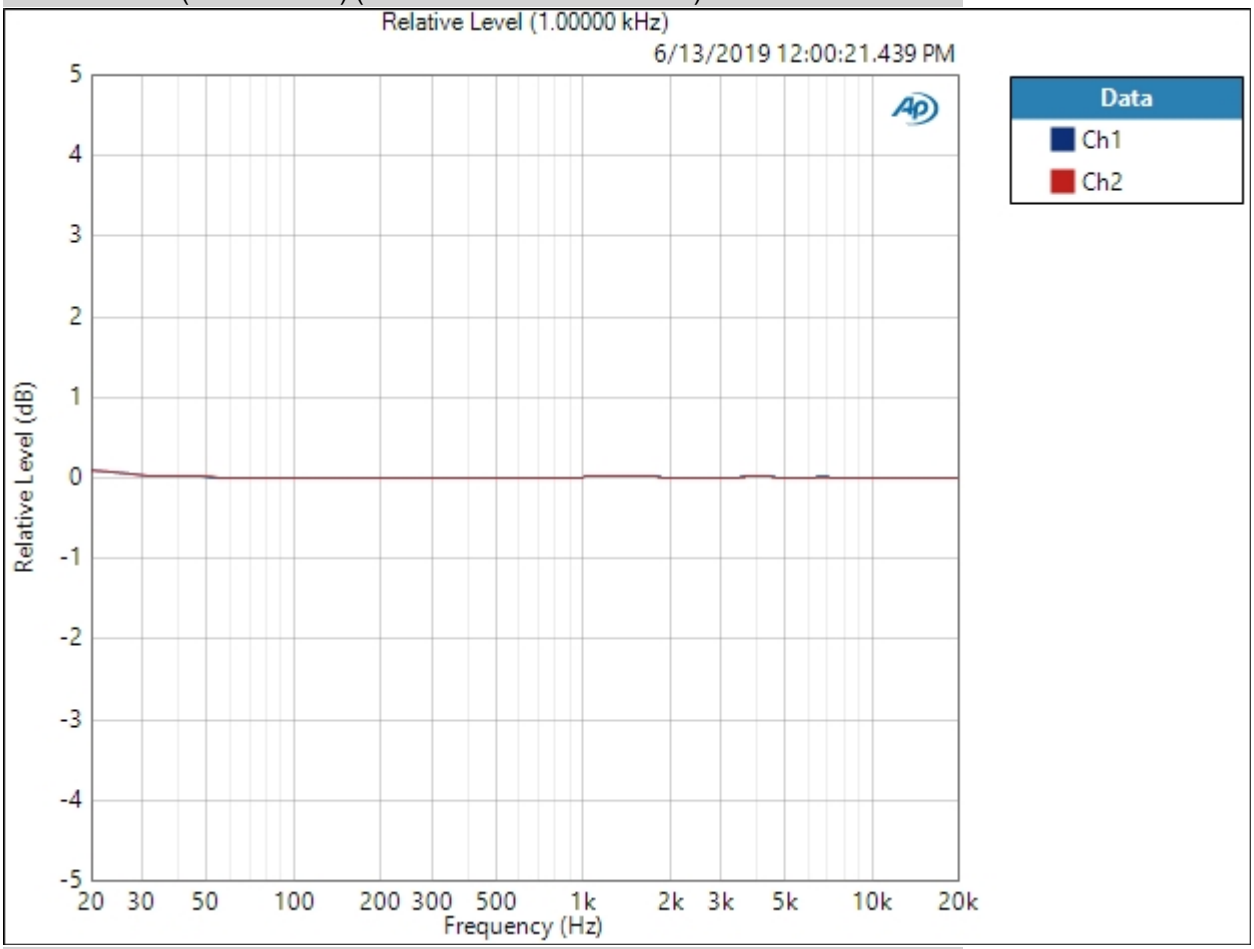


Result: PASSED

Preamp : 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:	50.00 ms
Secondary Source:	None
Measured 1	6/13/2019 12:00:21 PM

Relative Level (1.00000 kHz) (6/13/2019 12:00:21.439 PM)



Relative Level (1.00000 kHz) Parameters

Mode:	Normalized at Reference

Ref Frequency: 1.00000 kHz

Result: PASSED

Deviation (20.0000 Hz - 20.0000 kHz) (6/13/2019 12:00:21.439 PM)

Ch1 ±0.041 dB

Ch2 ±0.043 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:	1.700 Vrms
Frequency:	1.00000 kHz
Low-pass Filter:	20 kHz
Weighting Filter:	A-wt.
High-pass Filter:	20 Hz

Signal to Noise Ratio (6/13/2019 12:00:23.389 PM)

Ch1 121.184 dB

Ch2 118.745 dB

Preamp : THD+N

Waveform:	Sine
Generator Mode:	High Performance Sine Generator
Generator Level:	1.700 Vrms
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 (6/13/2019 12:00:25.459 PM)

Ch1 0.000163 %

Ch2 0.000152 %

THD Ratio (6/13/2019 12:00:25.459 PM)

Ch1 0.000035 %

Ch2 0.000035 %

Noise Ratio (6/13/2019 12:00:25.459 PM)

Ch1 0.000159 %

Ch2 0.000146 %

Distortion Product Ratio (6/13/2019 12:00:25.459 PM)

Channel	F	H2	H3	H4	H5	H6	H7	H8	H9	H10
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch1	-0.00	-134.75	-132.23	-144.36	-144.71	-147.01	-149.41	-149.95	-152.79	-147.13
	1.000k	2.000k	3.000k	4.000k	5.000k	6.000k	7.000k	8.000k	9.000k	10.00k
Ch2	-0.00	-135.47	-132.51	-150.68	-144.89	-147.61	-148.25	-145.18	-152.25	-148.46

Distortion Product Ratio Parameters

Frequency Unit:	Hz
Ratio Unit:	dB

Preamp : Crosstalk, One Channel Undriven

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

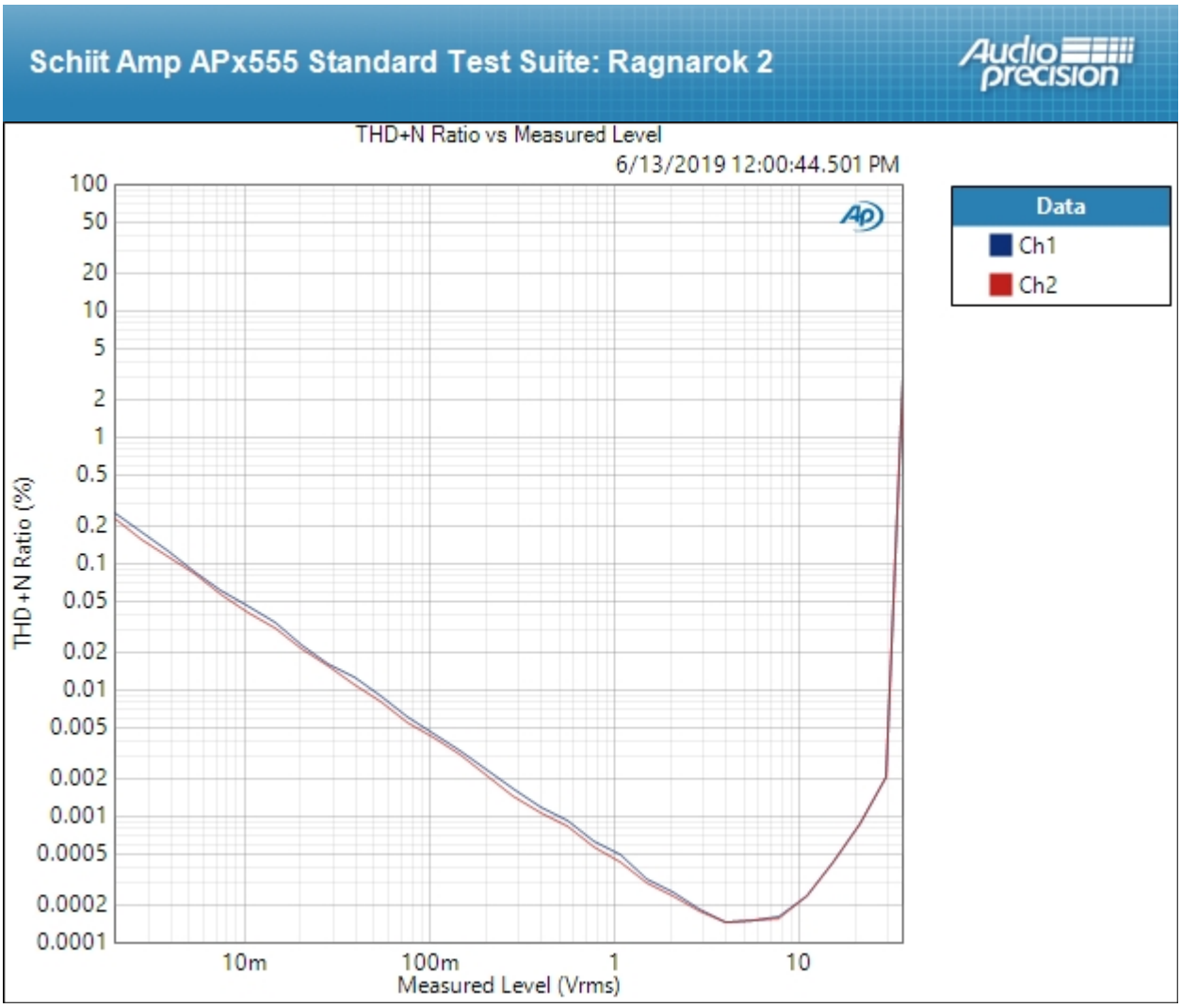
Crosstalk (6/13/2019 12:00:29.881 PM)

Ch1 123.926 dB
Ch2 121.666 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:	20.00 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	6/13/2019 12:00:44 PM

THD+N Ratio vs Measured Level (6/13/2019 12:00:44.501 PM)



Result: PASSED