

Summary

Signal	Path1

Signal Path Setup PASSED
Level and Gain PASSED

THD+N ♥ PASSED

Signal to Noise Ratio PASSED

Signal to Noise Ratio(A-Wt) SPASSED

Crosstalk, One Channel Undriven
PASSED

Stepped Frequency Sweep Stepped Frequency Sweep

Noise (RMS) SPASSED

IMD (SMPTE) SPASSED

Dynamic Range SPASSED

Sequence Result:



Signal Path1: Signal Path Setup

Output Connector: Analog Unbalanced

Channels: 2

Source Impedance: 50 ohm
Output EQ: None

Input Connector: Analog Balanced

Channels: 2

Termination: 200 kohm

Input Bandwidth: 22.0000 Hz - 20.0000 kHz

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: 2.034 Vrms dBrB: 2.034 Vrms dBrA Offset: 0.000 dB dBrB Offset: 0.000 dB dBSPL1: 10.00 mVrms dBSPL2: 10.00 mVrms 94.000 dBSPL dBSPL1 Calibrator Level: dBSPL2 Calibrator Level: 94.000 dBSPL dBm (Input Power): 600.0 ohm

W(watts) (Input Power):
• DCX

DCX is not detected.

11-24-2016 5:58 Page 2 of 31

4.000 ohm



Signal Path1: Verify Connections

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

RMS Level (2016-11-24 17:57:34.276)

Ch1 2.034 Vrms Ch2 2.036 Vrms

THD+N Ratio (2016-11-24 17:57:34.276)

Ch1 0.324015 % Ch2 0.320360 %

Frequency (2016-11-24 17:57:34.276)

Ch1 1.00000 kHz Ch2 1.00000 kHz

Signal Path1: Level and Gain

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

RMS Level (2016-11-24 17:57:36.366)

Ch1 2.034 Vrms Ch2 2.036 Vrms

Peak Level (2016-11-24 17:57:36.366)

Ch1 2.874 V Ch2 2.877 V

11-24-2016 5:58 Page 3 of 31



Signal Path1: THD+N

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

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 (2016-11-24 17:57:38.880)

Ch1 0.322465 %

Ch2 0.319856 %

THD+N Level (2016-11-24 17:57:38.880)

Ch1 6.541 mVrms

Ch2 6.494 mVrms

THD Ratio (2016-11-24 17:57:38.880)

Ch1 0.318002 %

Ch2 0.315115 %

THD Level (2016-11-24 17:57:38.880)

Ch1 6.468 mVrms

Ch2 6.415 mVrms

Noise Ratio (2016-11-24 17:57:38.880)

Ch1 0.054643 %

Ch2 0.055959 %

Noise Level (2016-11-24 17:57:38.880)

Ch1 1.111 mVrms

Ch2 1.139 mVrms

Distortion Product Ratio (2016-11-24 17:57:38.880)

H8 Channel F H2 H3 H4 H5 H6 H7 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 -74.90 -57.07 -100.87 -57.75 -88.76 -58.45 -95.44 -59.21 -92.08

1.000k 2.000k 3.000k 4.000k 5.000k 6.000k 7.000k 8.000k 9.000k 10.00k Ch2 -0.00 -73.96 -56.68 -103.63 -57.61 -88.39 -58.48 -93.89 -59.48 -89.91

Distortion Product Ratio Parameters

Frequency Unit: Hz
Ratio Unit: dB

Distortion Product Level (2016-11-24 17:57:38.880)

11-24-2016 5:58 Page 4 of 31



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 2.034 365.9 u 2.850 m 18.40 u 2.636 m 74.18 u 2.432 m 34.39 u 2.227 m 50.61 u

1.000k 2.000k 3.000k 4.000k 5.000k 6.000k 7.000k 8.000k 9.000k 10.00k Ch2 2.036 407.8 u 2.983 m 13.40 u 2.680 m 77.50 u 2.424 m 41.15 u 2.162 m 65.07 u

Distortion Product Level Parameters

Frequency Unit: Hz Level Unit: Vrms

Signal Path1: Signal to Noise Ratio

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

Low-pass Filter: 20 kHz
Weighting Filter: Signal Path

High-pass Filter: 20 Hz

Signal to Noise Ratio (2016-11-24 17:57:41.240)

Ch1 69.772 dB Ch2 69.154 dB

Signal Path1: Signal to Noise Ratio(A-Wt)

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

Low-pass Filter: 20 kHz
Weighting Filter: A-wt.
High-pass Filter: 20 Hz

Signal to Noise Ratio (2016-11-24 17:57:43.441)

Ch1 72.237 dB Ch2 71.421 dB

11-24-2016 5:58 Page 5 of 31



Signal Path1: Crosstalk, One Channel Undriven

Waveform: Sine

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

Crosstalk (2016-11-24 17:57:47.523)

Ch1 -65.477 dB Ch2 -66.283 dB

11-24-2016 5:58 Page 6 of 31



Signal Path1: Stepped Frequency Sweep

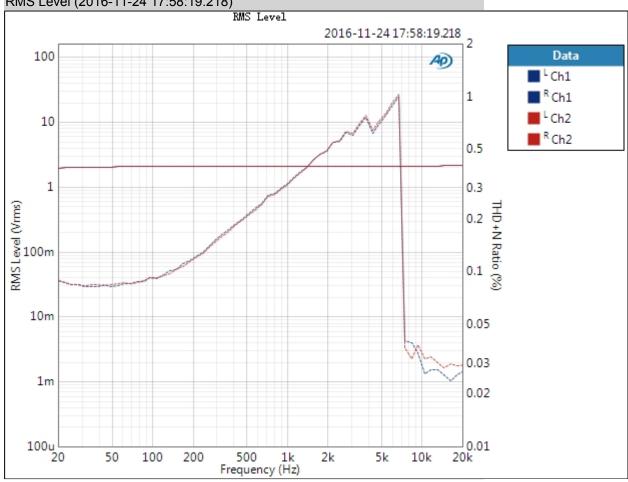
Generator Level: 220.0 mVrms DC Offset: 0.000 V EQ: None

Start Frequency: 20.0000 Hz 20.0000 kHz Stop Frequency: Step Type: Logarithmic

Number of Points: 63 Low-pass Filter: 20 kHz Weighting Filter: Signal Path High-pass Filter: 20 Hz Phase Ref Channel: Ch1

Measured 1 2016-11-24 17:58:19

RMS Level (2016-11-24 17:58:19.218)



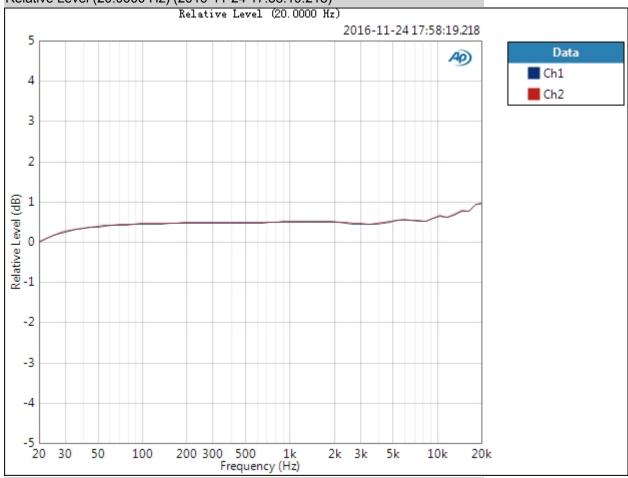
11-24-2016 5:58 Page 7 of 31



RMS Level Parameters

Result Failure Condition: Left Or Right

Relative Level (20.0000 Hz) (2016-11-24 17:58:19.218)



Relative Level (20.0000 Hz) Parameters

Mode: Normalized at Reference

Ref Frequency: 20.0000 Hz

Deviation (20.0000 Hz - 20.0000 kHz) (2016-11-24 17:58:19.218)

Ch1 ±0.472 dB Ch2 ±0.475 dB

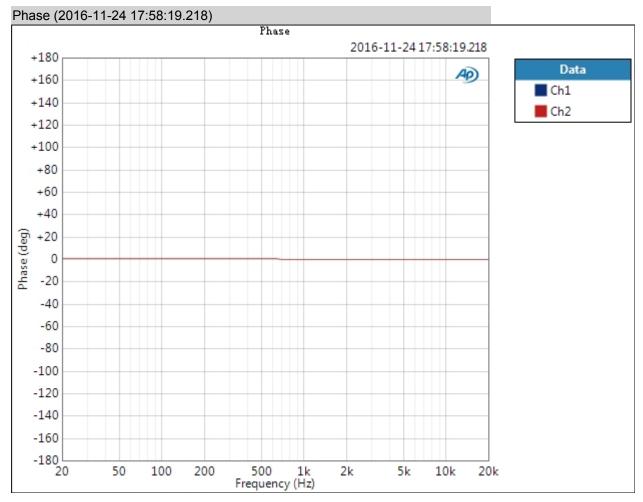
Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz

11-24-2016 5:58 Page 8 of 31



Max: 20.0000 kHz



Result: V PASSED

THD+N Ratio (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 9 of 31



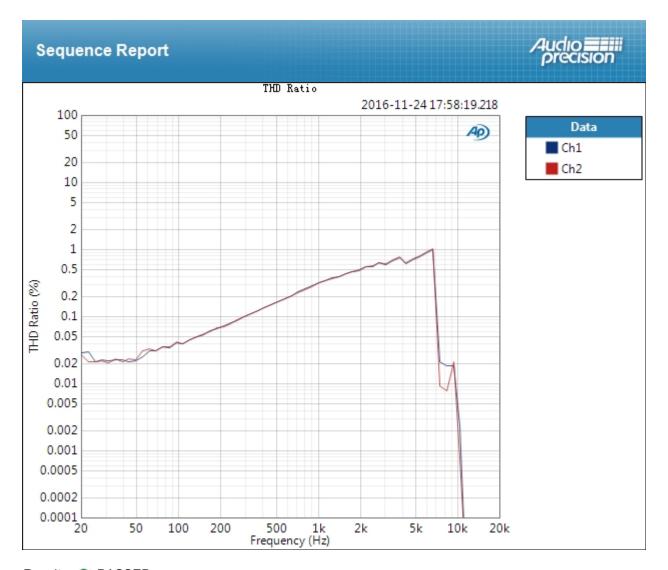
THD+N Level (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 10 of 31



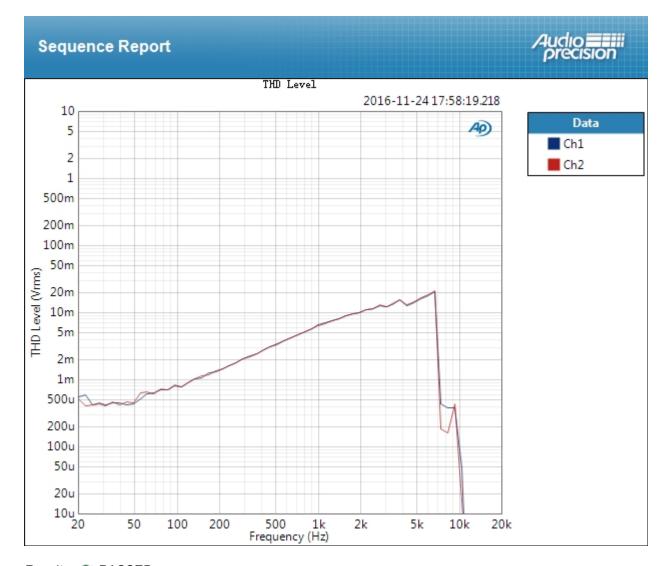
THD Ratio (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 11 of 31



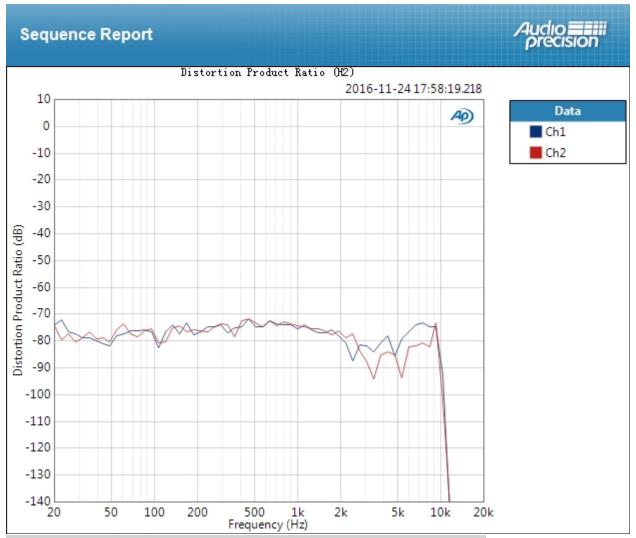
THD Level (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 12 of 31



Distortion Product Ratio (H2) (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 13 of 31



Distortion Product Ratio (H2) Parameters

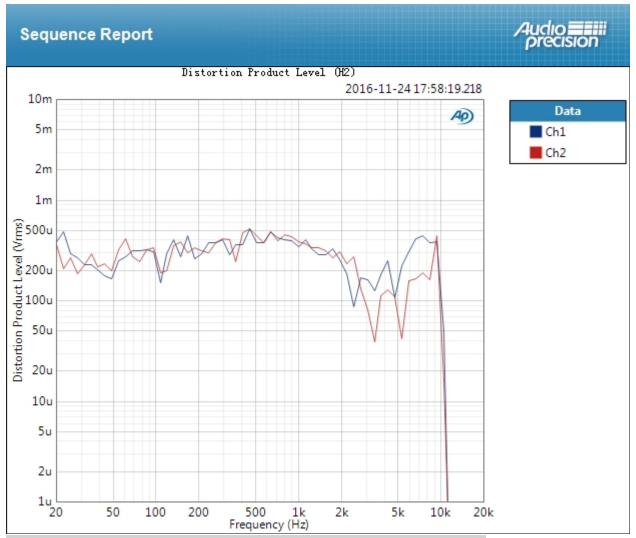
Harmonics: Single Harmonic

Harmonic Number: 2

Result: V PASSED

Distortion Product Level (H2) (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 14 of 31



Distortion Product Level (H2) Parameters

Harmonics: Single Harmonic

Harmonic Number: 2

Result: V PASSED

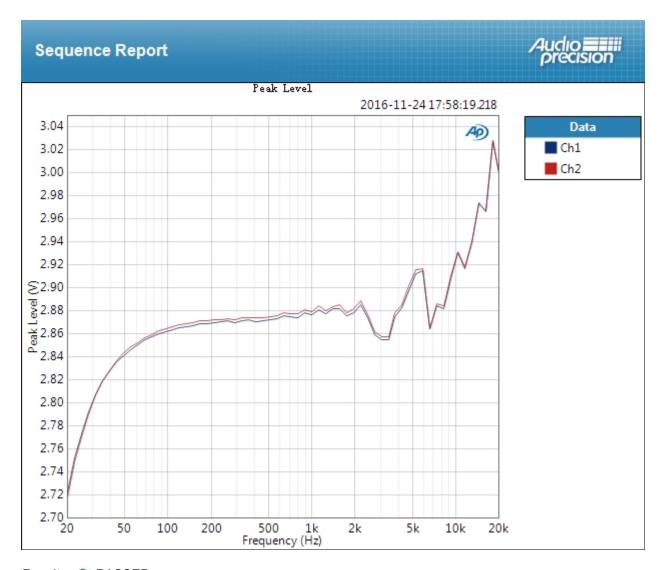
SINAD (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 15 of 31



Peak Level (2016-11-24 17:58:19.218)

11-24-2016 5:58 Page 16 of 31



Signal Path1: Noise (RMS)

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

Noise Level (2016-11-24 17:58:20.829)

Ch1 650.5 uVrms Ch2 712.6 uVrms

11-24-2016 5:58 Page 17 of 31



Signal Path1 : IMD (SMPTE)

IMD Type: SMPTE Waveform: IMD

Generator Level: 220.0 mVrms

DC Offset: 0.000 V

Frequency 1: 60.0000 Hz

Frequency 2: 7.00000 kHz

Frequency Ratio: 4:1

IMD Split: False

SMPTE Ratio (2016-11-24 17:58:22.724)

Ch1 -44.184 dB Ch2 -43.999 dB

SMPTE Distortion Product Ratio (2016-11-24 17:58:22.724)

d2 d3 Channel f1 d5 d4 d3 d2 f2 d4 d5 7.000k 7.120k 7.180k 60.00 6.760k 6.820k 6.880k 6.940k 7.060k 7.240k Ch1 11.91 -47.64 -81.15 -46.15 -82.62 0.00 -87.67 -45.86 -86.08 -47.04 60.00 6.760k 6.820k 6.880k 6.940k 7.000k 7.060k 7.120k 7.180k 7.240k Ch2 11.91 -47.51 -87.26 -46.20 -81.11 0.00 -77.59 -45.77 -81.33 -47.06

SMPTE Distortion Product Ratio Parameters

Frequency Unit: Hz Ratio Unit: dB

11-24-2016 5:58 Page 18 of 31



Signal Path1: Acoustic Response

Generator Level: 220.0 mVrms

DC Offset: 0.000 V EQ: None

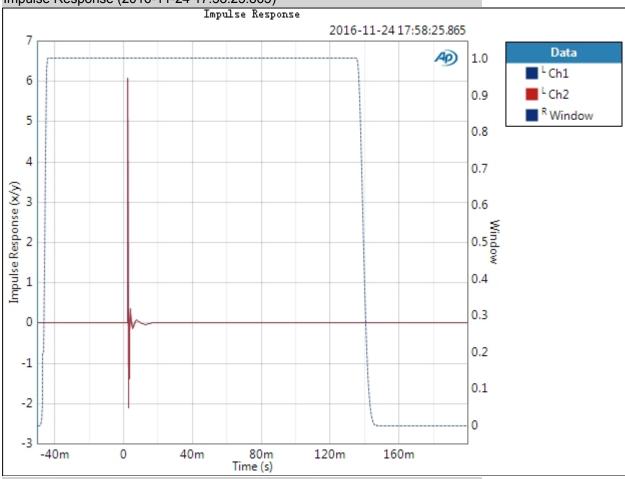
Start Frequency: 20.0000 Hz
Stop Frequency: 20.0000 kHz
Sweep: 350.0 ms
Pre-Sweep: 0.000 s
Extend Acquisition By: 50.00 ms

Averages: 1

Secondary Source: None

Measured 1 2016-11-24 17:58:25

Impulse Response (2016-11-24 17:58:25.865)



Impulse Response Parameters

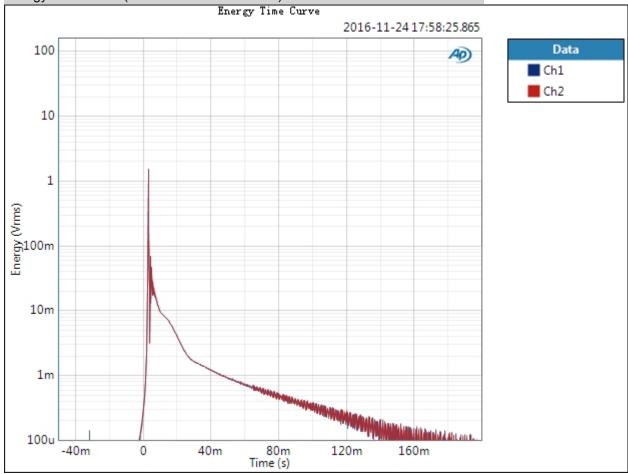
11-24-2016 5:58 Page 19 of 31



Window End: 400.0 ms
Taper Type: AP-Equiripple
Time Window: Track Peak
Taper Start: 10.000 %
Taper End: 10.000 %

Result: V PASSED





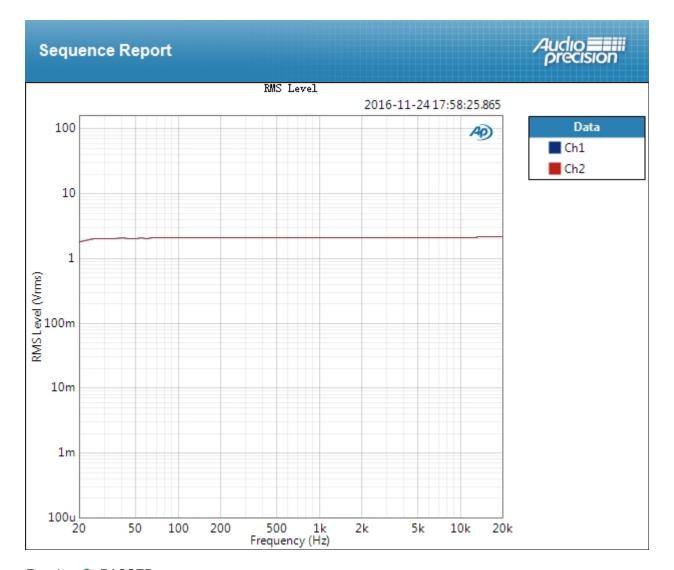
Energy Time Curve Parameters

Window End: 400.0 ms

Result: V PASSED

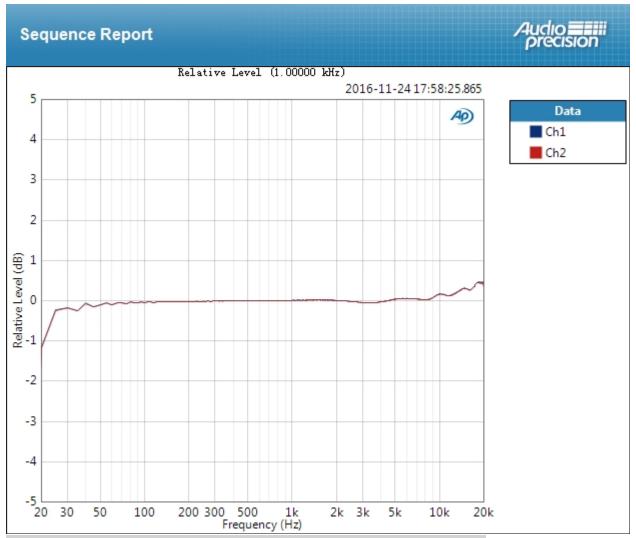
RMS Level (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 20 of 31



Relative Level (1.00000 kHz) (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 21 of 31



Relative Level (1.00000 kHz) Parameters

Mode: Normalized at Reference

Ref Frequency: 1.00000 kHz

Deviation (20.0000 Hz - 20.0000 kHz) (2016-11-24 17:58:25.865)

Ch1 ±0.856 dB Ch2 ±0.859 dB

Deviation (20.0000 Hz - 20.0000 kHz) Parameters

Min: 20.0000 Hz Max: 20.0000 kHz

Smoothing: None

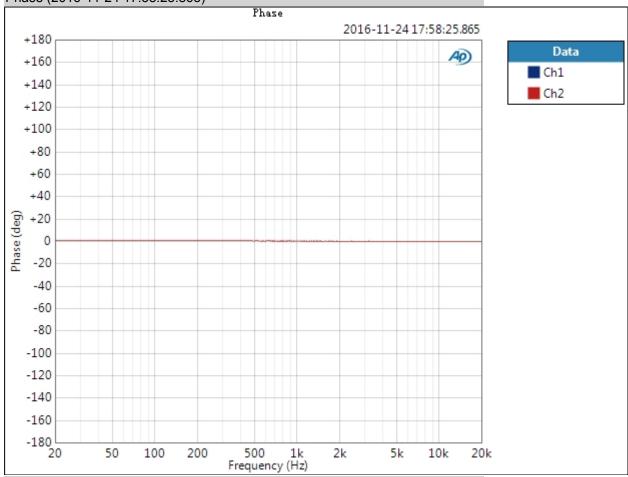
Delay (2016-11-24 17:58:25.865)

Ch1 2.451 ms Ch2 2.451 ms

11-24-2016 5:58 Page 22 of 31



Phase (2016-11-24 17:58:25.865)



Phase Parameters

Mode: Relative to Ch1

Result: V PASSED

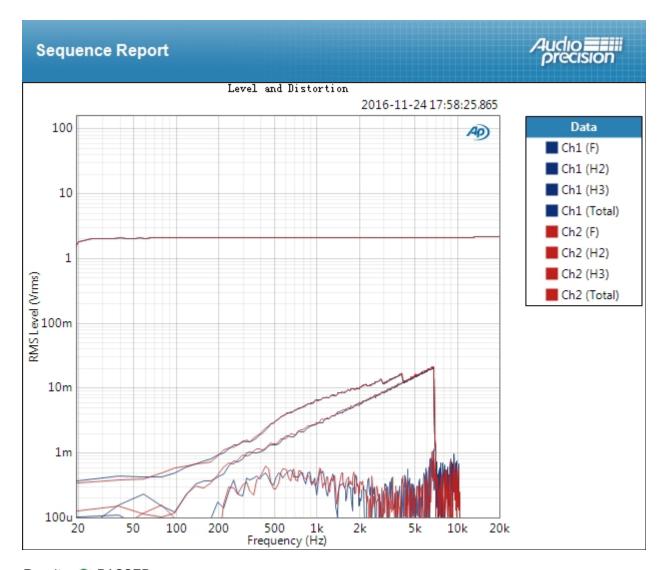
Group Delay (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 23 of 31



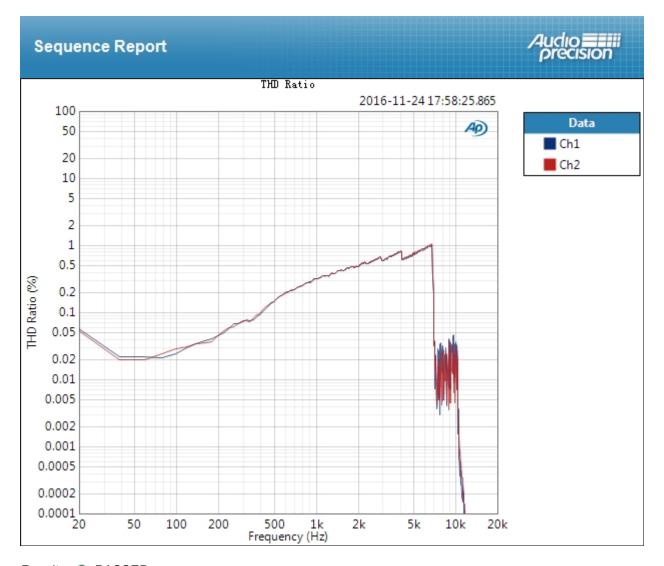
Level and Distortion (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 24 of 31



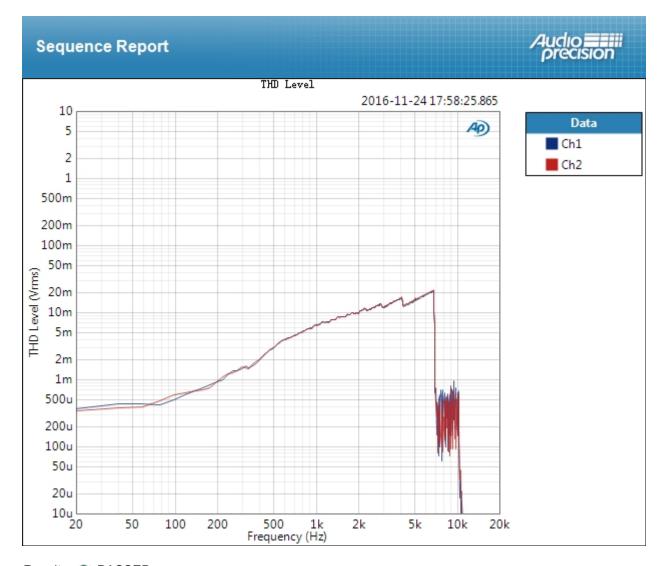
THD Ratio (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 25 of 31



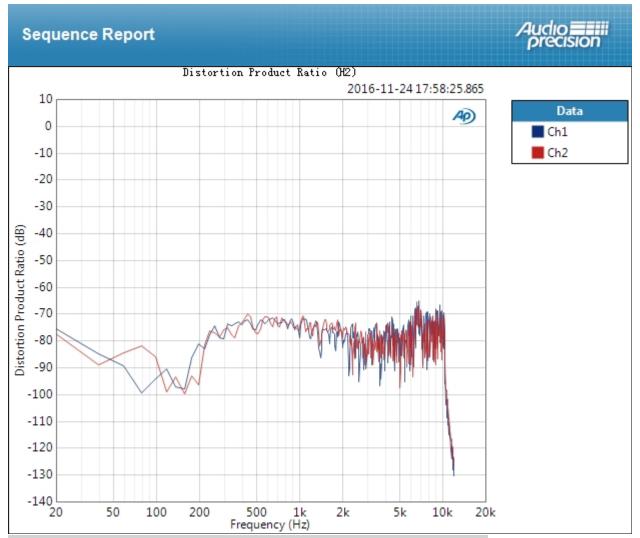
THD Level (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 26 of 31



Distortion Product Ratio (H2) (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 27 of 31



Distortion Product Ratio (H2) Parameters

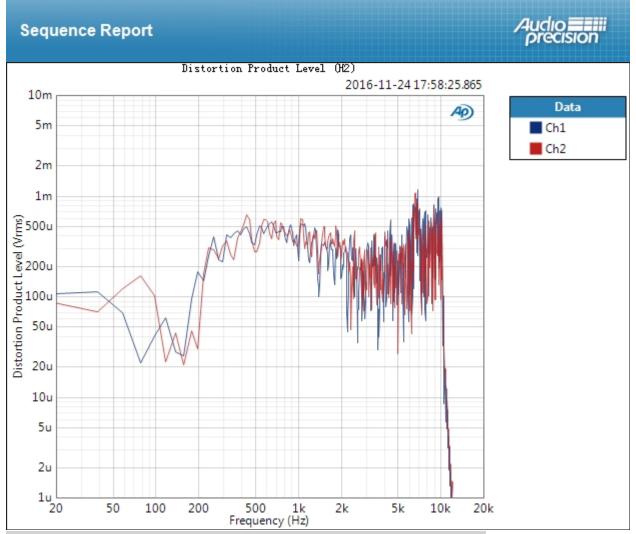
Harmonics: Single Harmonic

Harmonic Number: 2

Result: V PASSED

Distortion Product Level (H2) (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 28 of 31



Distortion Product Level (H2) Parameters

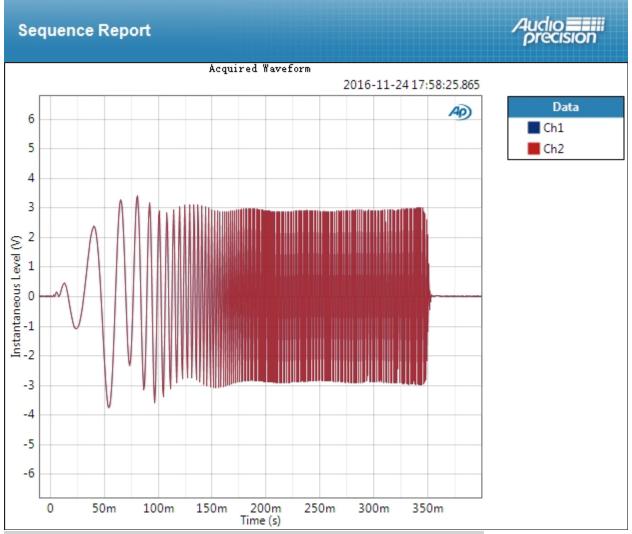
Harmonics: Single Harmonic

Harmonic Number: 2

Result: V PASSED

Acquired Waveform (2016-11-24 17:58:25.865)

11-24-2016 5:58 Page 29 of 31



Acquired Waveform Parameters

Interpolated:

Result: V PASSED

Page 30 of 31 11-24-2016 5:58



Signal Path1 : Dynamic Range Waveform: Sine

Generator Level: 220.0 uVrms

DC Offset: 0.000 V

Frequency: 1.00000 kHz

Low-pass Filter: 20 kHz
Weighting Filter: A-wt.
High-pass Filter: 20 Hz

Notch Tuning Mode: Fixed Frequency
Notch Frequency: 1.00000 kHz

THD+N Level (2016-11-24 17:58:29.196)

Ch1 -72.917 dBrA Ch2 -71.930 dBrA

11-24-2016 5:58 Page 31 of 31