

Taboo mkiv TS EL84 300R 0dBu Hi gain BAL REPORT

Overall Result: **PASS**

SUMMARY:	RESULT
A01 Ampl, Phase, Gain	✓
A02 Ampl, Phase vs Freq	✓
A03 Gain vs Ampl	✓
A04 THD+N, THD, nth-HD 2 3 4 - THD+N minus 2nd and 3rd harmonics	✓
A05 THD+N vs Freq	✓
A06 THD+N vs Ampl	✓
A07 Noise, SNR	✓
A08 Crosstalk A to B	✓
A09 Crosstalk B to A	✓
A10 Crosstalk A to B vs Freq	✓
A11 Crosstalk B to A vs Freq	✓
A12 FFT 1000 Hz THD+N	✓
A13 FFT 50+7000Hz	✓
A14 FFT 600+1700 Hz	✓
A15 FFT 19+20 KHz	✓
A16 FFT residual noise	✓

KEY: ✓ = Test passes, ✗ = Test fails, OK = Test has run but has no limit checking, (✗) = Test has failed to run or has not completed, [✓] = Test passes but is not required, [✗] = Test fails but is not required, ? = Test is required but has not been run.
- = Test is not required.

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A01 Ampl, Phase, Gain: **PASSED**

Measured at 11/3/2022 2:24:03 PM

Generator Settings		
Channel A:	sine, 0 dBu at 1000 Hz	
Channel B:	sine, 0 dBu at 1000 Hz	

Signal Analyzer Readings		
RMS amplitude (Channel A)	0.001 dBu	< 3 dBu > -3 dBu
RMS amplitude (Channel B)	-0.002 dBu	< 3 dBu > -3 dBu
Inter-channel phase	-0.03 °	< 10 ° > -10 °

CTA Readings		
Gain (Channel A RMS)	0.001 dB	< 3 dB > -3 dB
Gain (Channel B RMS)	-0.002 dB	< 3 dB > -3 dB
Settings: Generator relative, 22 Hz - 22 kHz, unweighted RMS with 1/3rd octave band-pass filter at the generator frequency		

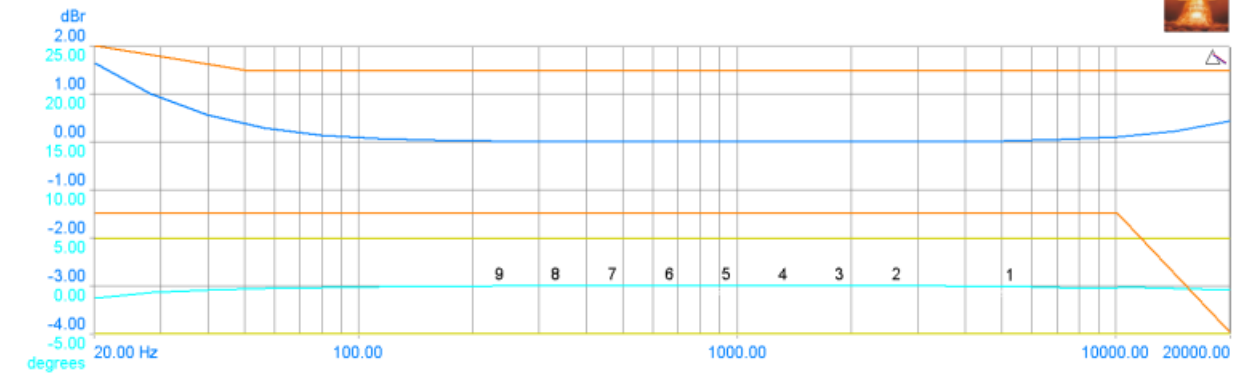
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A02 Ampl, Phase vs Freq: **PASSED**

Measured at 11/3/2022 2:38:40 PM

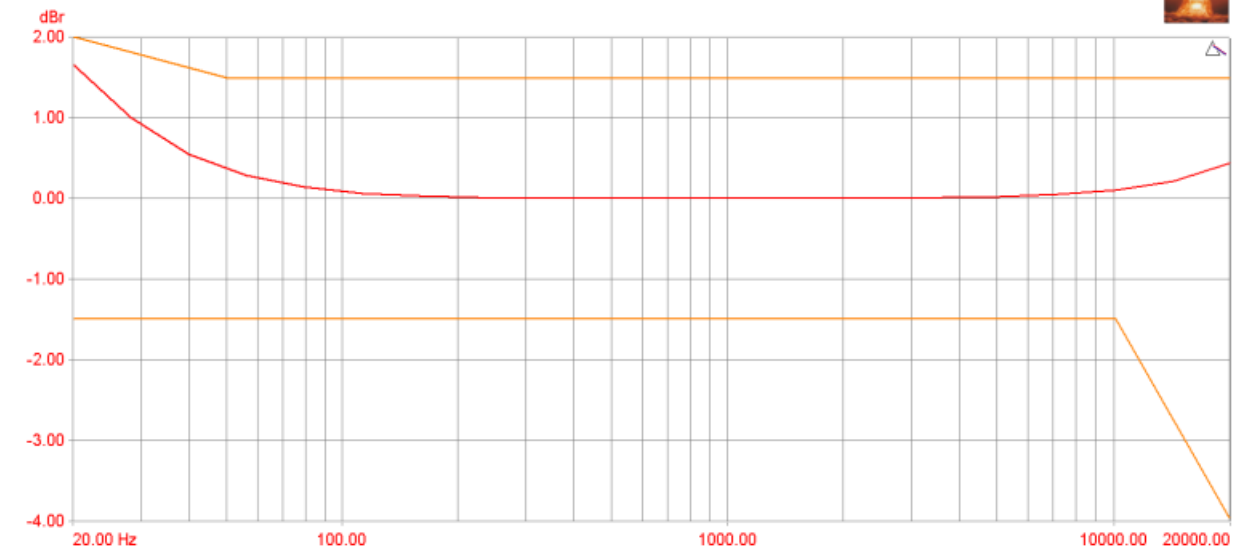
Generator Settings		
Channel A:	sine, -3 dBFS at 1000 Hz	
Channel B:	sine, -3 dBFS at 1000 Hz	

Frequency Response and Inter-channel Phase



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y	CommentLabel
1	Sweep of Ch A RMS ampli	21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1: Sweep timed out
2	Max limit: Sweep of Ch A RMS ampli	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2: Sweep timed out
3	Min limit: Sweep of Ch A RMS ampli	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3: Sweep timed out
4	Sweep of Phase	21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4: Sweep timed out
5	Max limit: Sweep of Phase	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5: Sweep timed out
6	Min limit: Sweep of Phase	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6: Sweep timed out
7							7: Sweep timed out
8							8: Sweep timed out
9							9: Sweep timed out

Frequency Response and Inter-channel Phase



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y
1	Sweep of Ch B RMS ampli	21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Max limit: Sweep of Ch B RMS ampli	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Min limit: Sweep of Ch B RMS ampli	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A03 Gain vs Ampl: PASSED

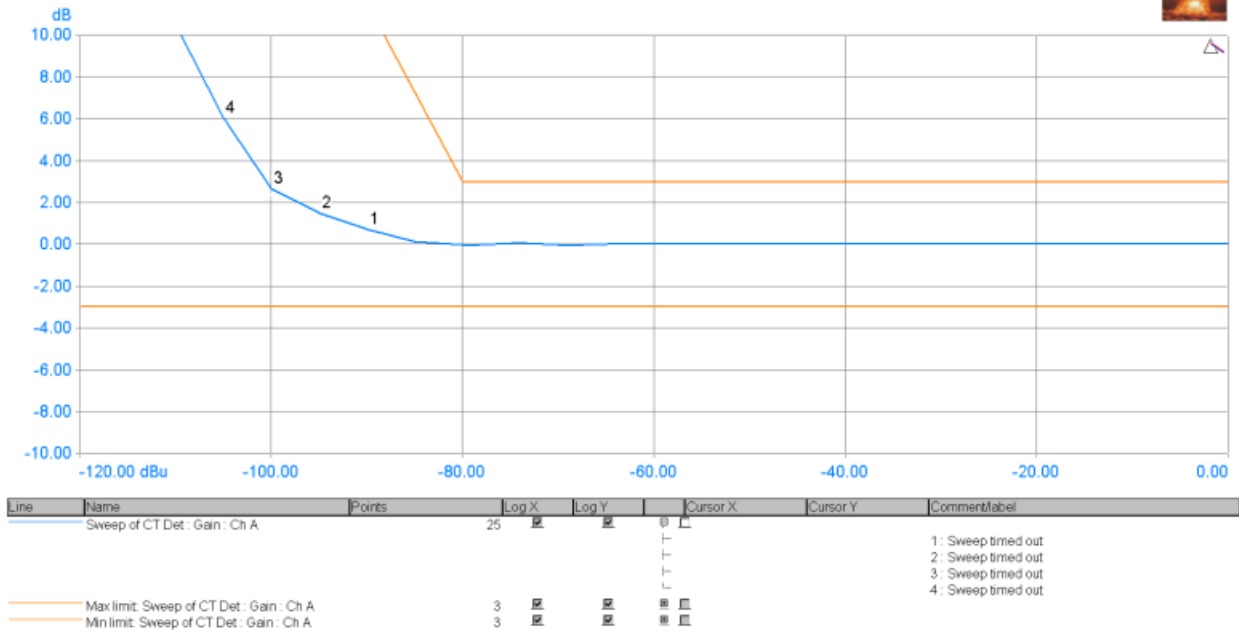
Measured at 11/3/2022 2:24:33 PM

Generator Settings

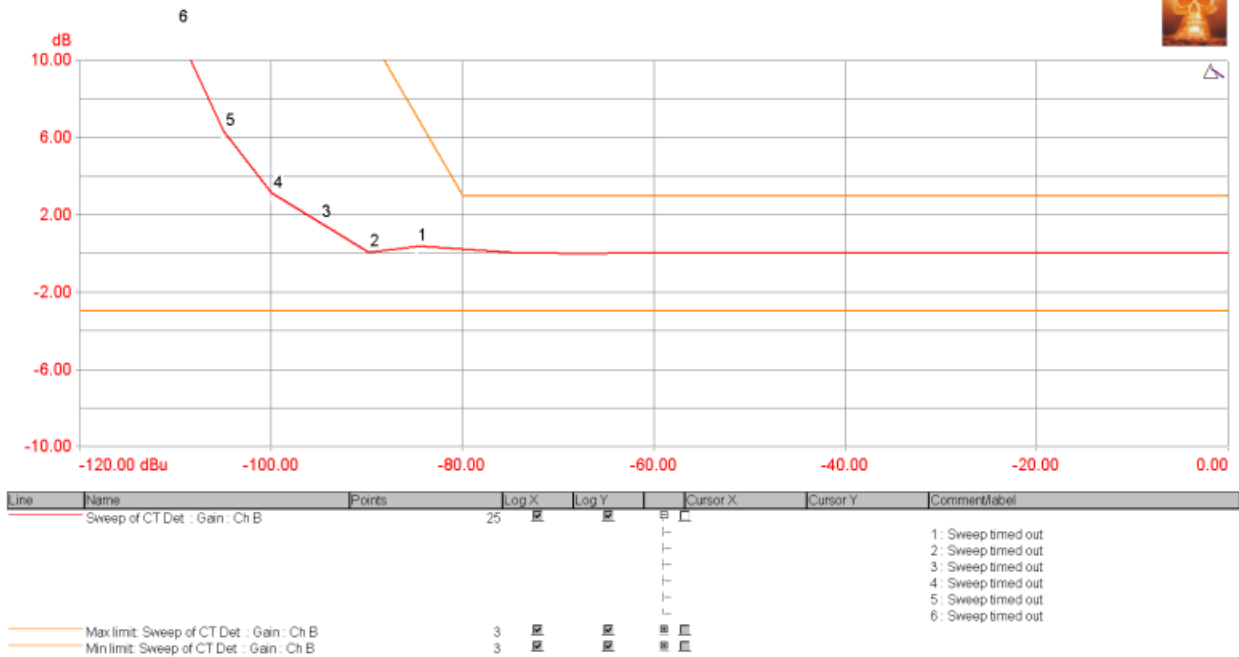
Channel A: sine, 0 dBu at 1000 Hz

Channel B: sine, 0 dBu at 1000 Hz

Gain vs Amplitude



Gain vs Amplitude



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A04 THD+N, THD, nth-HD 2 3 4 - THD+N minus 2nd and 3rd harmonics: PASSED

Measured at 11/3/2022 2:37:29 PM

Generator Settings		
Channel A:	sine, 0 dBu at 1000 Hz	
Channel B:	sine, 0 dBu at 1000 Hz	

Signal Analyzer Readings		
RMS amplitude (Channel A)	0.002 dBu	Not limit checked.
RMS amplitude (Channel B)	-0.002 dBu	Not limit checked.

CTA Readings		
THD+N - relative (Channel A RMS)	0.04861 %	<200 % >0 %
THD+N - relative (Channel B RMS)	0.05417 %	<200 % >0 %
Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS with 1/3rd octave band-reject filter at the input frequency		

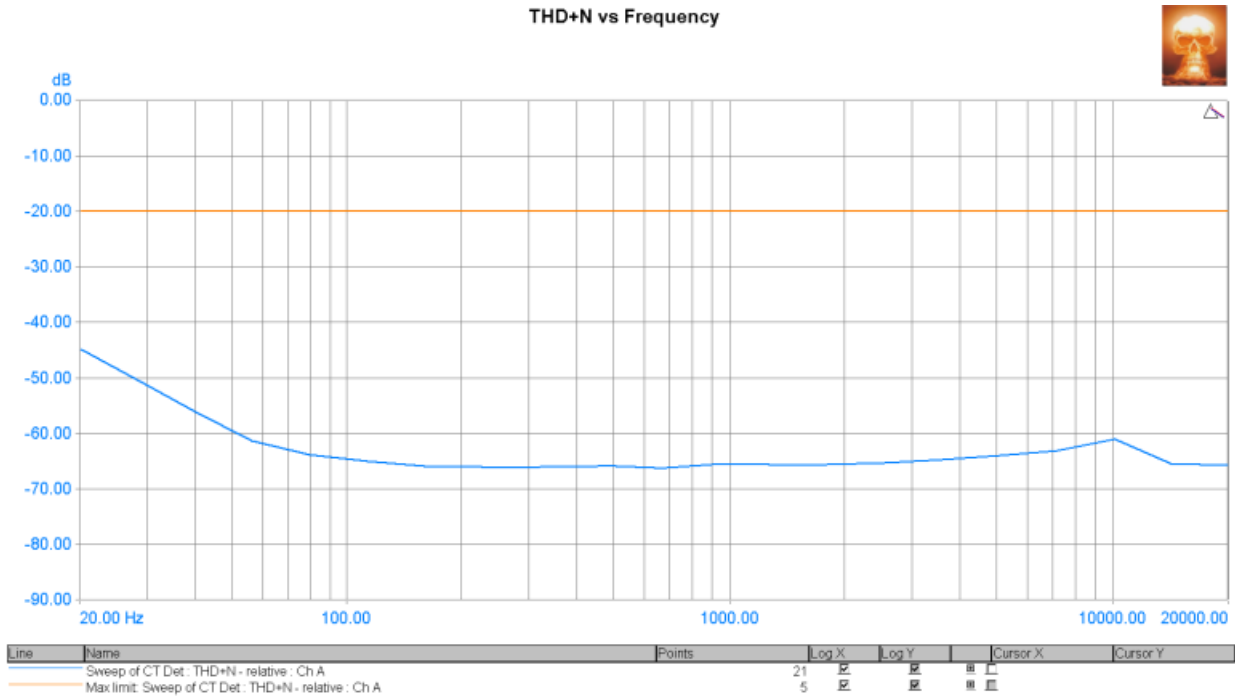
FFT Detector Readings		
THD (Channel A)	0.01582 %	<200 % >0 %
THD (Channel B)	0.02163 %	<200 % >0 %
FFTD 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-pass notch filters from the 2nd to 10th harmonics		
2nd Harmonic Distortion (Channel A)	0.01512 %	<200 % >0 %
2nd Harmonic Distortion (Channel B)	0.02102 %	<200 % >0 %
FFTD 2 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-pass notch filter at the 2nd harmonic		
3rd Harmonic Distortion (Channel A)	0.00452 %	<200 % >0 %
3rd Harmonic Distortion (Channel B)	0.00434 %	<200 % >0 %
FFTD 3 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-pass notch filter at the 3rd harmonic		
4th Harmonic Distortion (Channel A)	0.00022 %	Not limit checked.
4th Harmonic Distortion (Channel B)	0.00022 %	Not limit checked.
FFTD 4 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-pass notch filter at the 4th harmonic		
5th Harmonic Distortion (Channel A)	0.00057 %	Not limit checked.
5th Harmonic Distortion (Channel B)	0.00180 %	Not limit checked.
FFTD 5 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-pass notch filter at the 5th harmonic		
4+HD + N (Channel A)	0.04817 %	<0.06 % >0 %
4+HD + N (Channel B)	0.05024 %	<0.06 % >0 %
FFTD 6 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 3rd harmonic		
Hum (Channel A)	0.04416 %	<0.06 % >0 %
Hum (Channel B)	0.04828 %	<0.06 % >0 %
FFTD 7 Settings: Self relative, 22 Hz - 22 kHz, unweighted with window notch (14 bins) band-pass filter at 60 Hz		
Noise (residual) (Channel A)	0.04816 %	<0.06 % >0 %
Noise (residual) (Channel B)	0.05017 %	<0.06 % >0 %
FFTD 8 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 10th harmonic		

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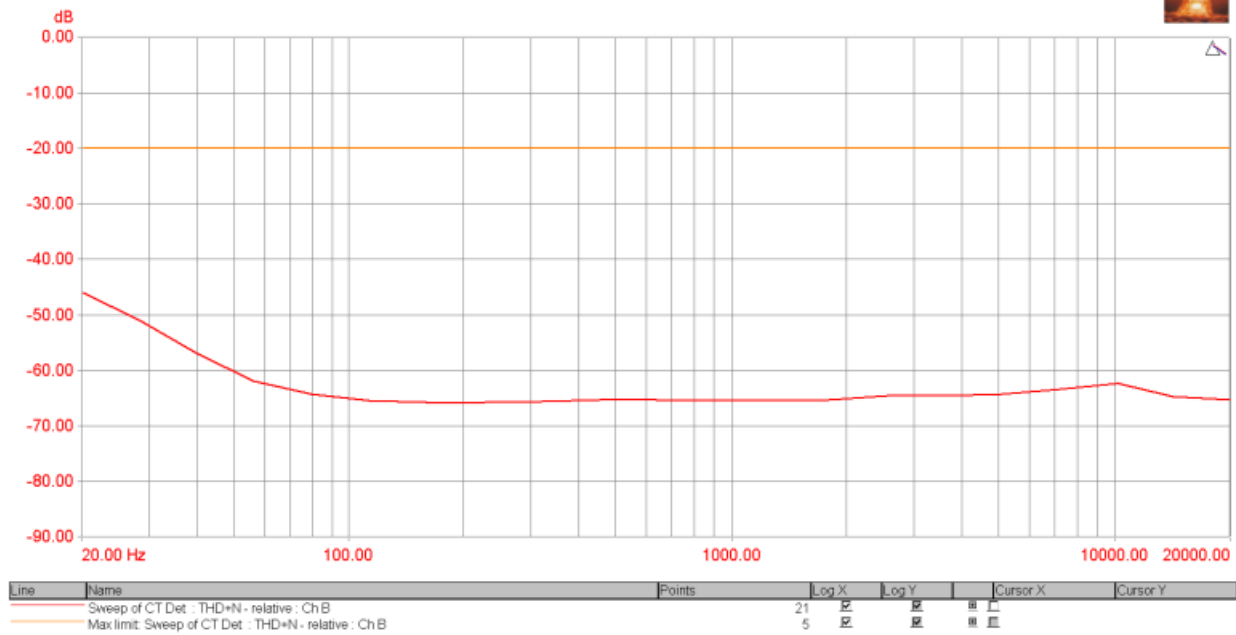
A05 THD+N vs Freq: PASSED

Measured at 11/3/2022 2:25:11 PM

Generator Settings	
Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz



THD+N vs Frequency

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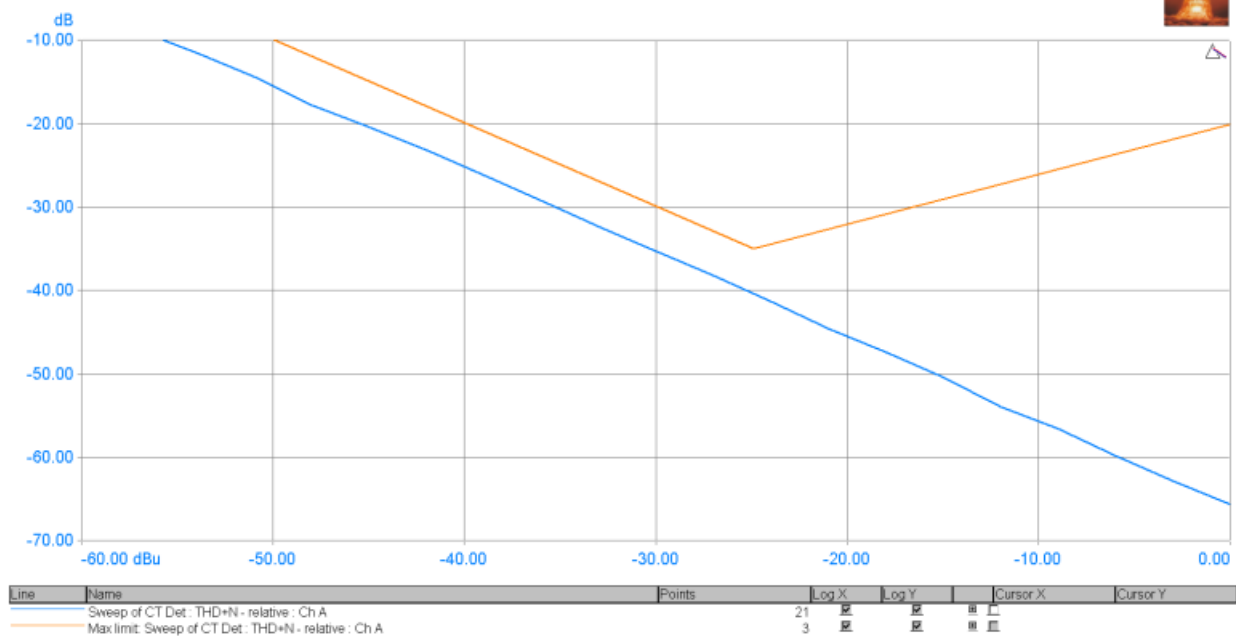
A06 THD+N vs Ampl: PASSED

Measured at 11/3/2022 2:34:12 PM

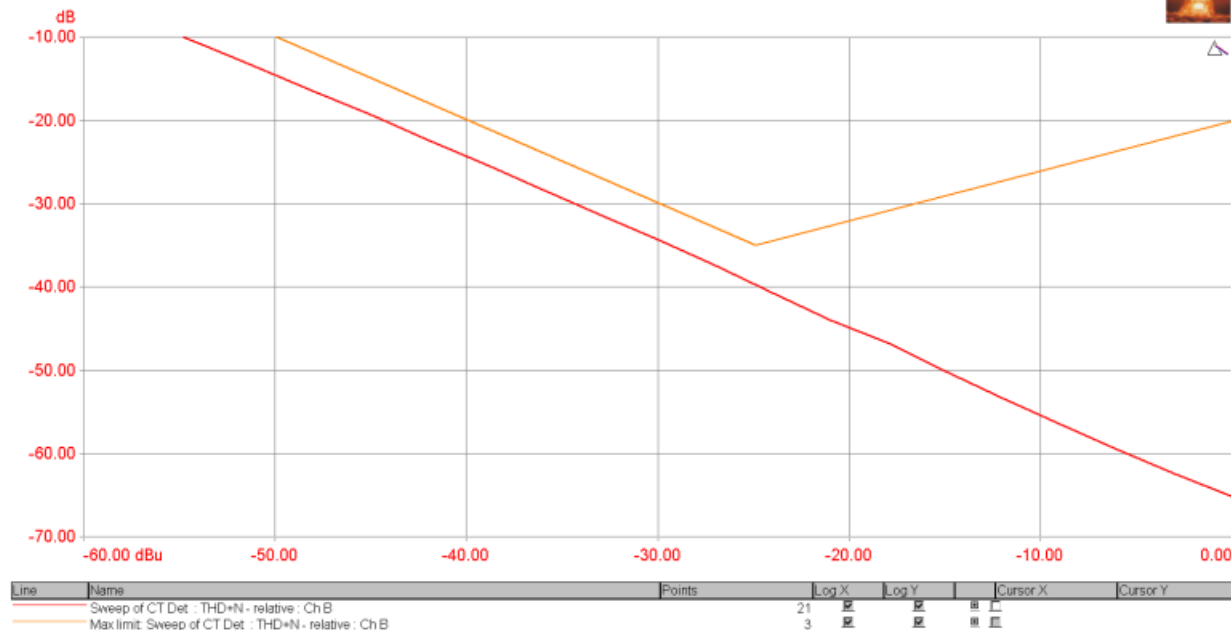
Generator Settings

Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

THD+N vs Amplitude



THD+N vs Amplitude



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A07 Noise, SNR: PASSED

Measured at 11/3/2022 2:25:29 PM

Generator Settings	
Channel A:	sine, -60 dBFS at 1000 Hz
Channel B:	sine, -60 dBFS at 1000 Hz

FFT Detector Readings		
Noise (unweighted) (Channel A)	-83.459 dBr	< 200 dBr > -200 dBr
Noise (unweighted) (Channel B)	-82.679 dBr	< 200 dBr > -200 dBr
FFTD 1 Settings: 22 Hz - 22 kHz, unweighted with window notch (14 bins) band-reject filter at the generator frequency		
SNR (Channel A)	-83.474 dBr	< 200 dBr > -200 dBr
SNR (Channel B)	-82.690 dBr	< 200 dBr > -200 dBr
FFTD 2 Settings: 22 Hz - 22 kHz, unweighted with 1/3rd octave band-reject filter at the generator frequency		

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A08 Crosstalk A to B: PASSED

Measured at 11/3/2022 2:25:32 PM

Generator Settings	
Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

CTA Readings		
Cross-talk (Channel B RMS)	-86.745 dB	< -45 dB
Settings: Channel relative, 22 Hz - 22 kHz, unweighted RMS with 1/24th octave band-pass filter at the opposite channel generator frequency		

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A09 Crosstalk B to A: PASSED

Measured at 11/3/2022 2:25:34 PM

Generator Settings	
Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

CTA Readings

Cross-talk (Channel ARMS)

-93.259 dB

< -45 dB

Settings: Channel relative, 22 Hz - 22 kHz, unweighted RMS with 1/24th octave band-pass filter at the opposite channel generator frequency

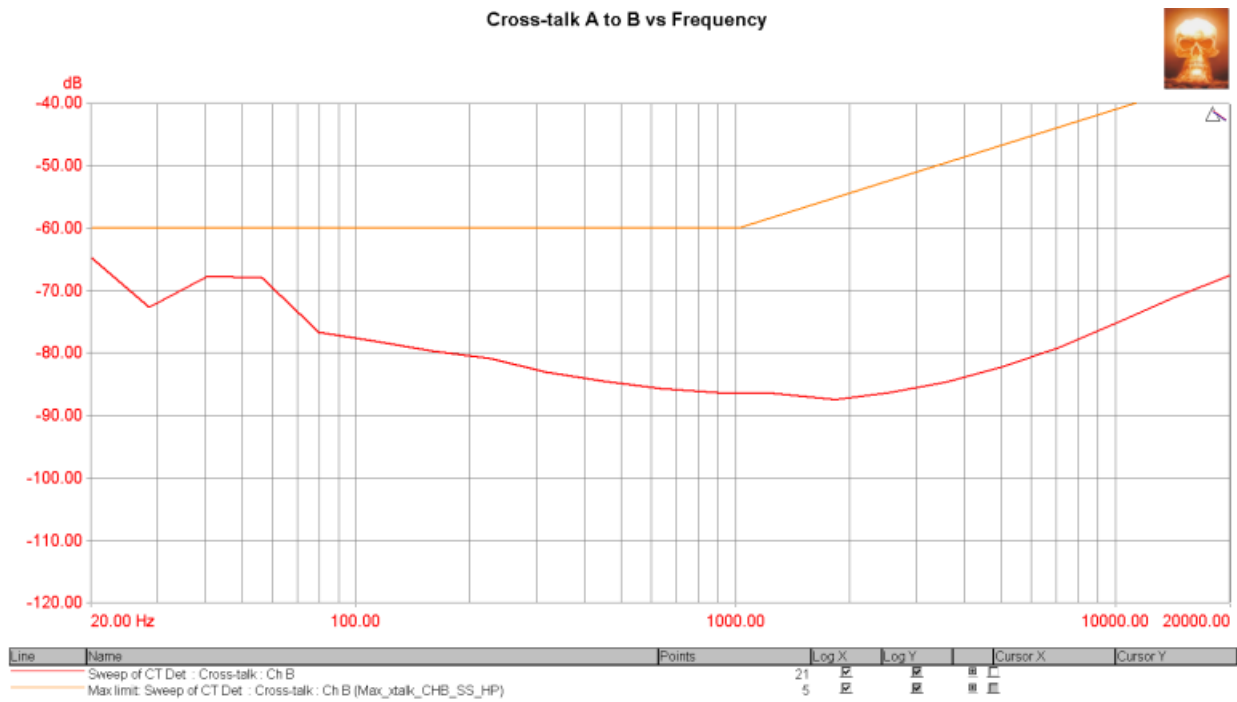
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A10 Crosstalk A to B vs Freq: PASSED

Measured at 11/3/2022 2:25:38 PM

Generator Settings

Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz



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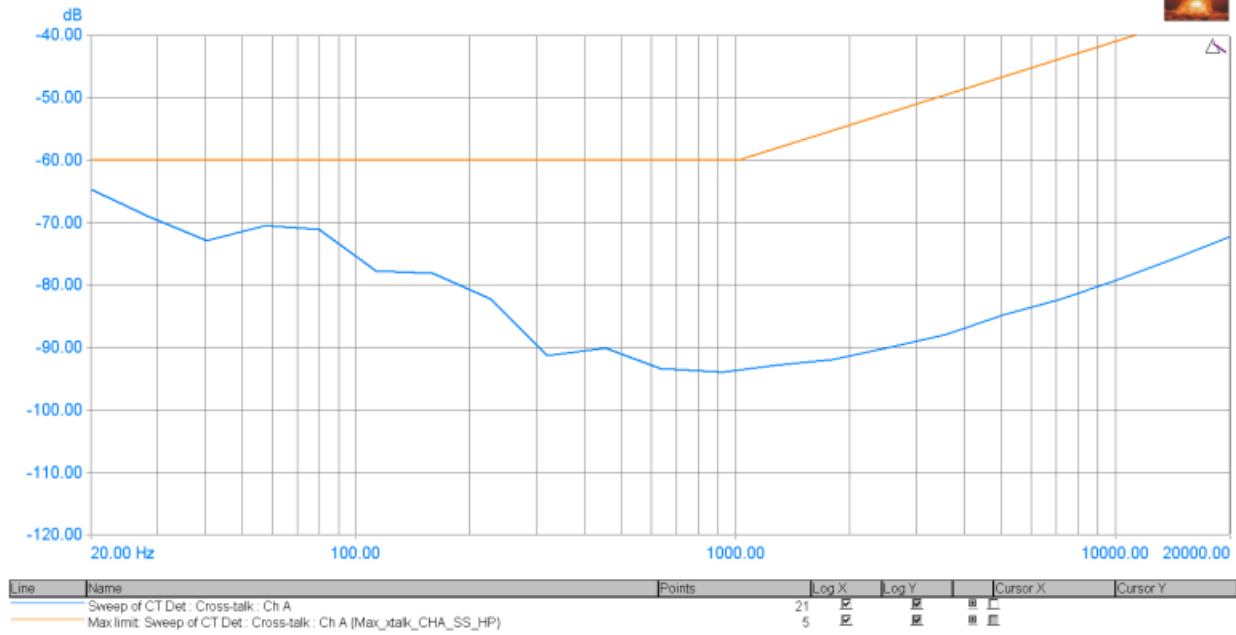
A11 Crosstalk B to A vs Freq: PASSED

Measured at 11/3/2022 2:25:45 PM

Generator Settings

Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

Cross-talk B to A vs Frequency

[Back to top](#)**A12 FFT 1000 Hz THD+N: PASSED**

Measured at 11/3/2022 2:25:52 PM

Generator Settings

Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

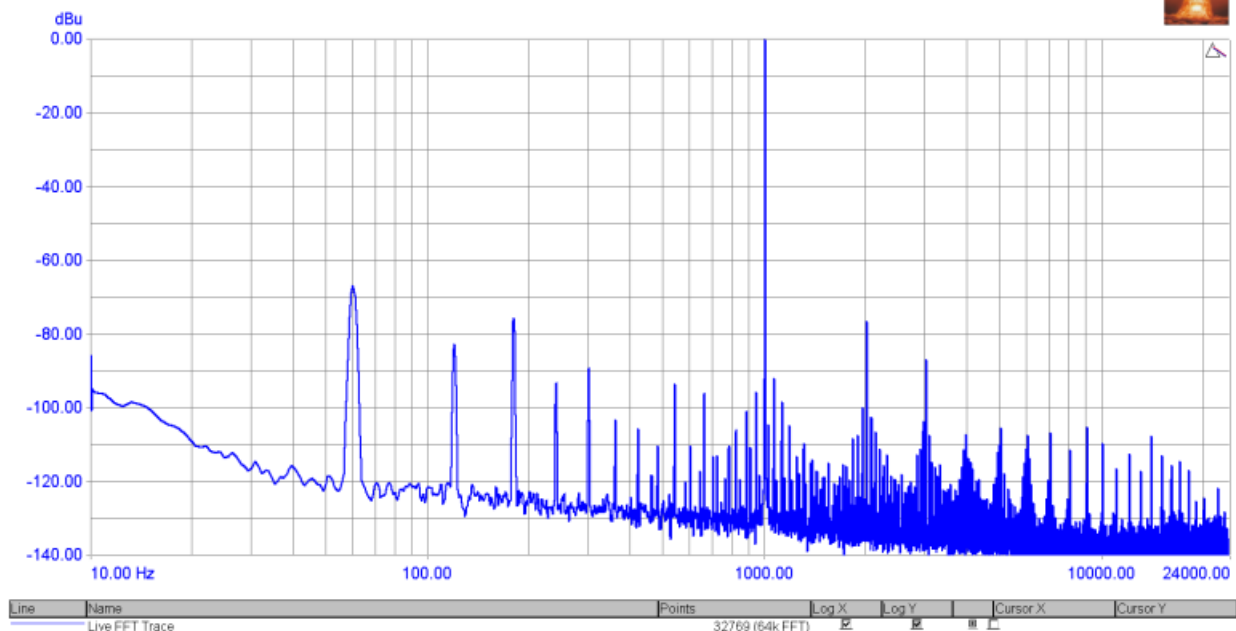
Signal Analyzer Readings

RMS amplitude (Selected : Ch A)	0.001 dBu	Not limit checked.
RMS amplitude (Non-selected : Ch A)	-0.003 dBu	Not limit checked.

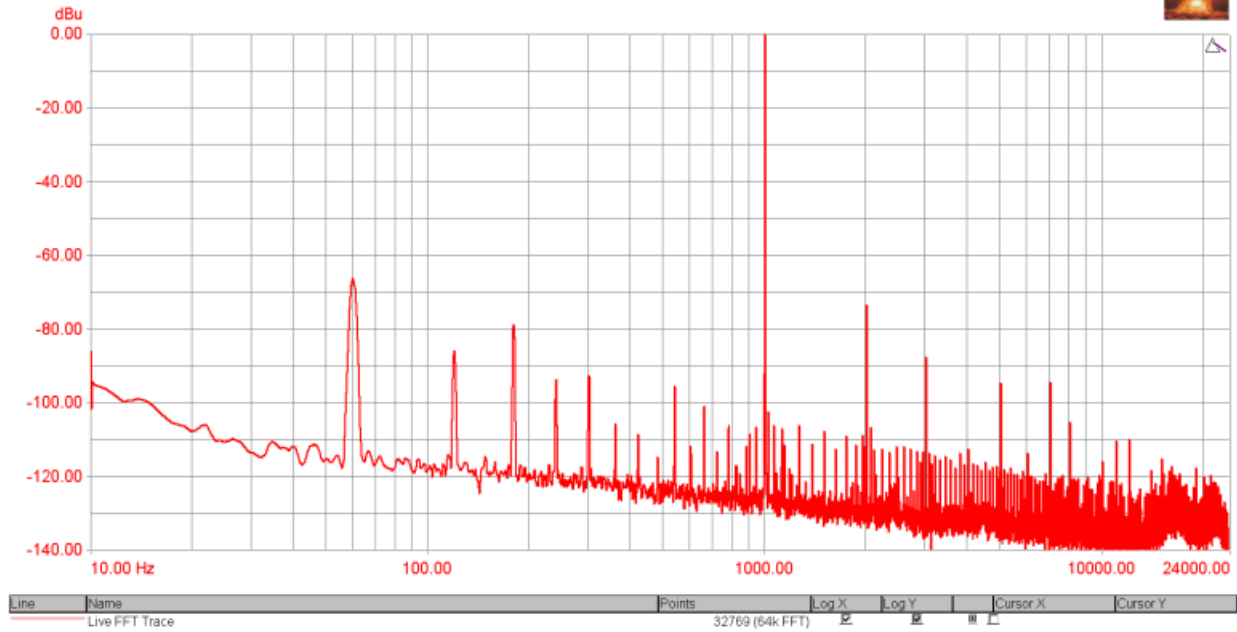
CTA Readings

THD+N - relative (Selected : Ch ARMS)	0.05069 %	< 5 %
THD+N - relative (Non-selected : Ch ARMS)	0.05374 %	< 5 %
Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS with 1/3rd octave band-reject filter at the input frequency		

FFT 1000 Hz THD+N



FFT 1000 Hz THD+N



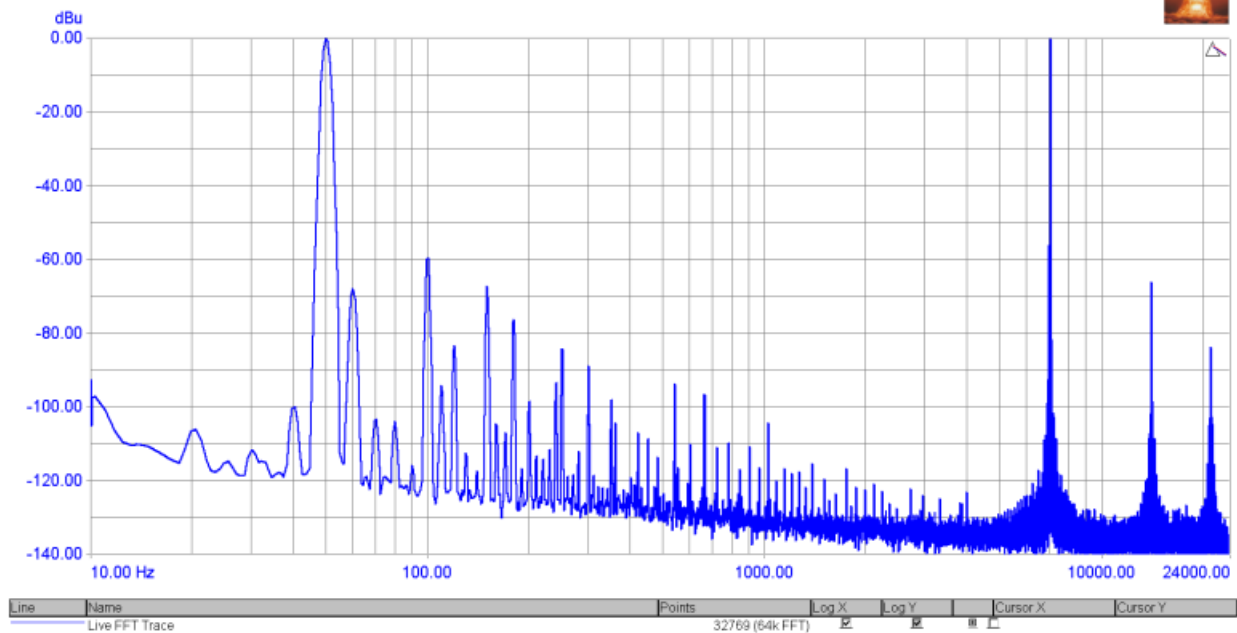
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A13 FFT 50+7000Hz: PASSED

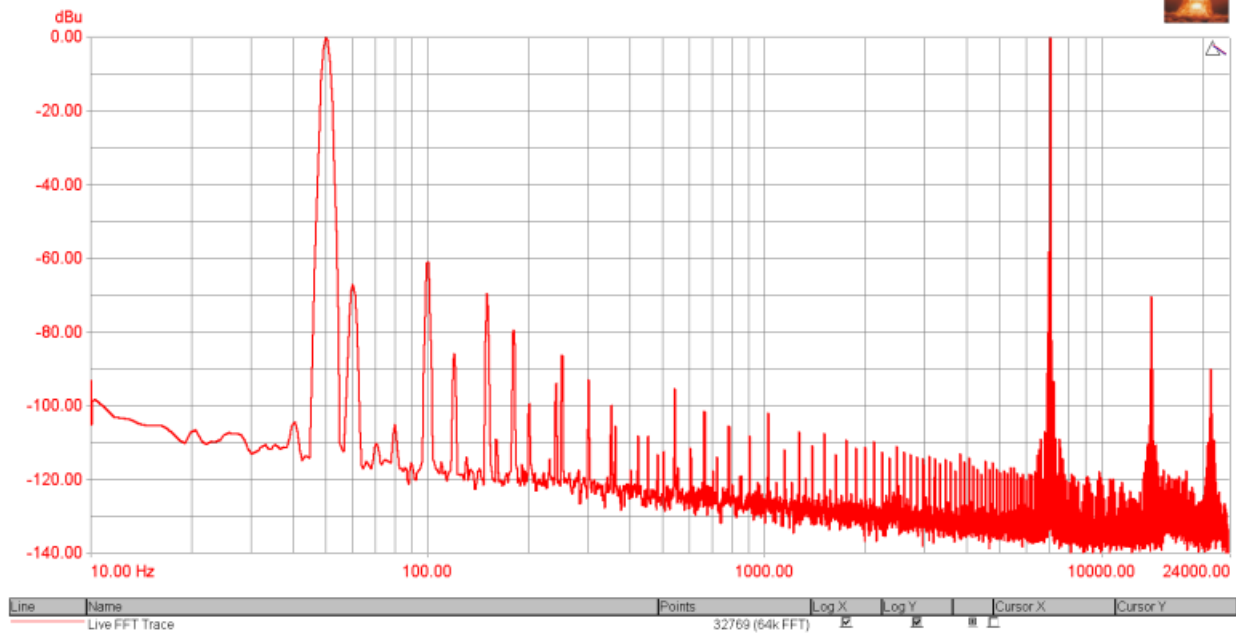
Measured at 11/3/2022 2:26:15 PM

Generator Settings			
Channel A:	Twin-tone, 0 dBu at 50 Hz and 1 amplitude ratio at 7000Hz		
Channel B:	Twin-tone, 0 dBu at 50 Hz and 1 amplitude ratio at 7000Hz		
Signal Analyzer Readings			
RMS amplitude (Channel A)	3.222 dBu		Not limit checked.
RMS amplitude (Channel B)	3.217 dBu		Not limit checked.

FFT 50 + 7000 Hz



FFT 50 + 7000 Hz



FFT Detector Readings

IMD SMPTE-DIN (Channel A)	0.11421 %	≤ 7 %
IMD SMPTE-DIN (Channel B)	0.09264 %	≤ 7 %
FFTD 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with intermodulation notch band reject		

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A14 FFT 600+1700 Hz: PASSED

Measured at 11/3/2022 2:26:38 PM

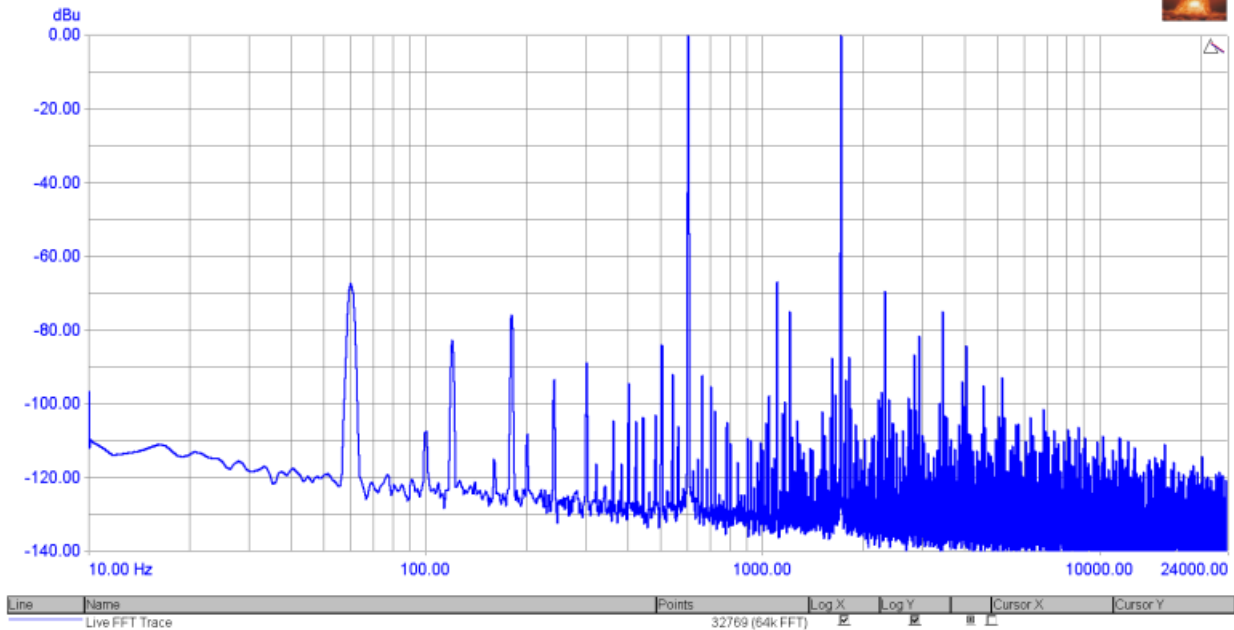
Generator Settings

Channel A:	Twin-tone, 0 dBu at 600 Hz and 1 amplitude ratio at 1700Hz
Channel B:	Twin-tone, 0 dBu at 600 Hz and 1 amplitude ratio at 1700Hz

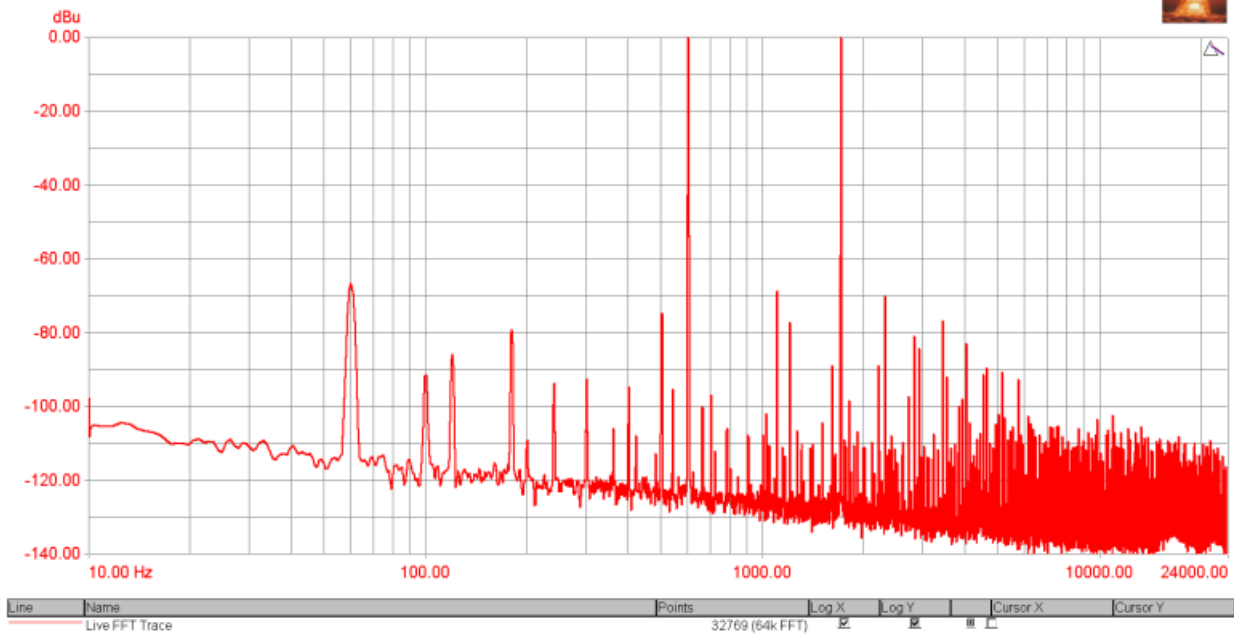
Signal Analyzer Readings

RMS amplitude (Channel A)	2.995 dBu	Not limit checked.
RMS amplitude (Channel B)	2.993 dBu	Not limit checked.

FFT 600 + 1700 Hz



FFT 600 + 1700 Hz



FFT Detector Readings

IMD SMPTE-DIN (Channel A)	0.04100 %	<7% >0%
IMD SMPTE-DIN (Channel B)	0.03521 %	<7% >0%

FFTD 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with intermodulation notch band reject

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A15 FFT 19+20 KHz: PASSED

Measured at 11/3/2022 2:27:00 PM

Generator Settings

Channel A:	Twin-tone, -16 dBu at 19000 Hz and 1 amplitude ratio at 1000 Hz offset
Channel B:	Twin-tone, -16 dBu at 19000 Hz and 1 amplitude ratio at 1000 Hz offset

Signal Analyzer Readings

RMS amplitude (Channel A)	-12.547 dBu	Not limit checked.
RMS amplitude (Channel B)	-12.592 dBu	Not limit checked.

CTA Readings

IMD CCIF (Channel A RMS)

0.03195 %

< 1 %

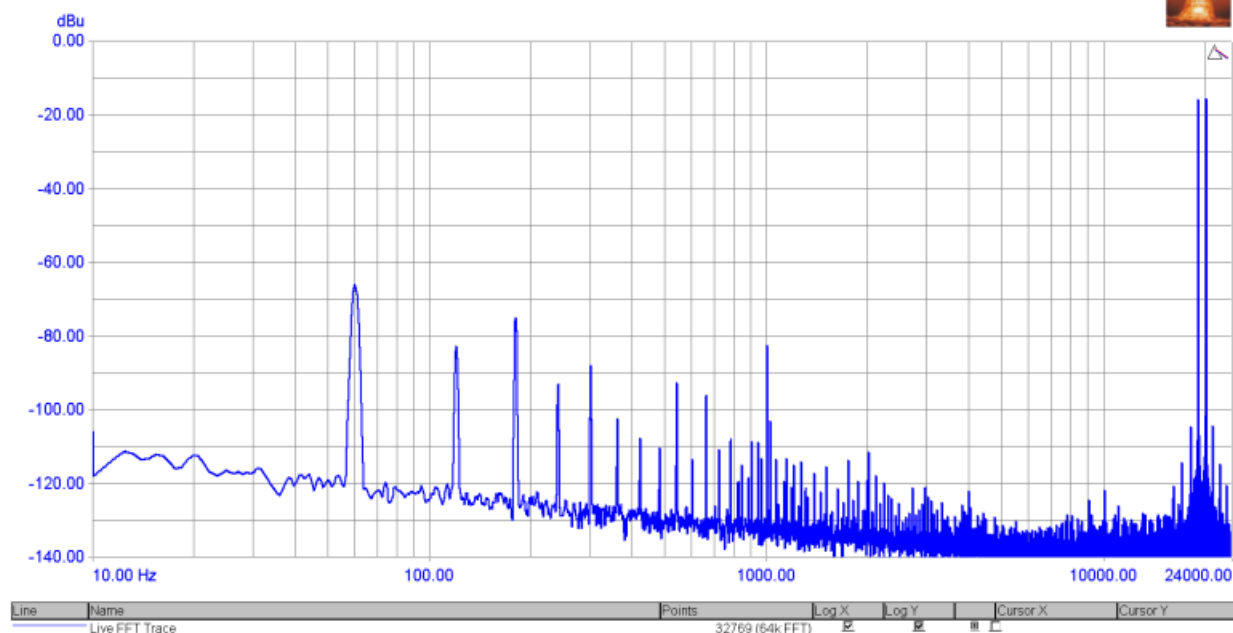
IMD CCIF (Channel B RMS)

0.02842 %

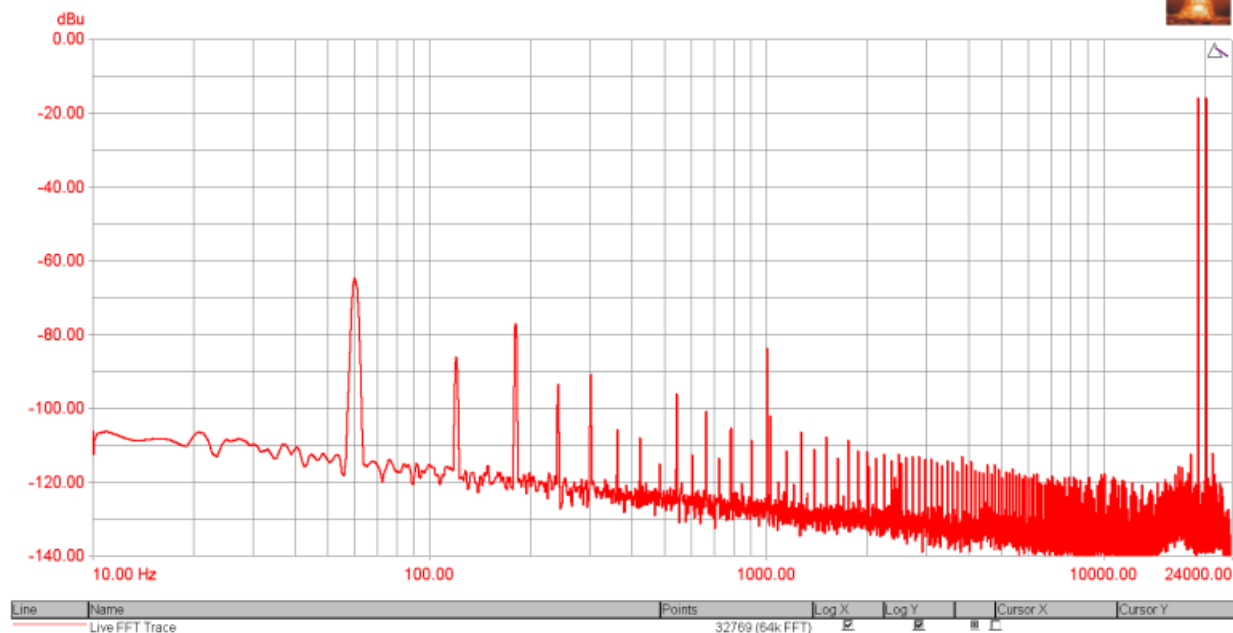
< 1 %

Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS with 1/24th octave band-pass filter at the intermodulation difference frequency

FFT 19 + 20 KHz



FFT 19 + 20 KHz



FFT Detector Readings

IMD CCIF (Channel A)

0.03193 %

< 1 %

IMD CCIF (Channel B)

0.02806 %

< 1 %

FFTD 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with window notch (14 bins) band-pass filter at the intermodulation difference frequency

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A16 FFT residual noise: PASSED

Measured at 11/3/2022 2:30:39 PM

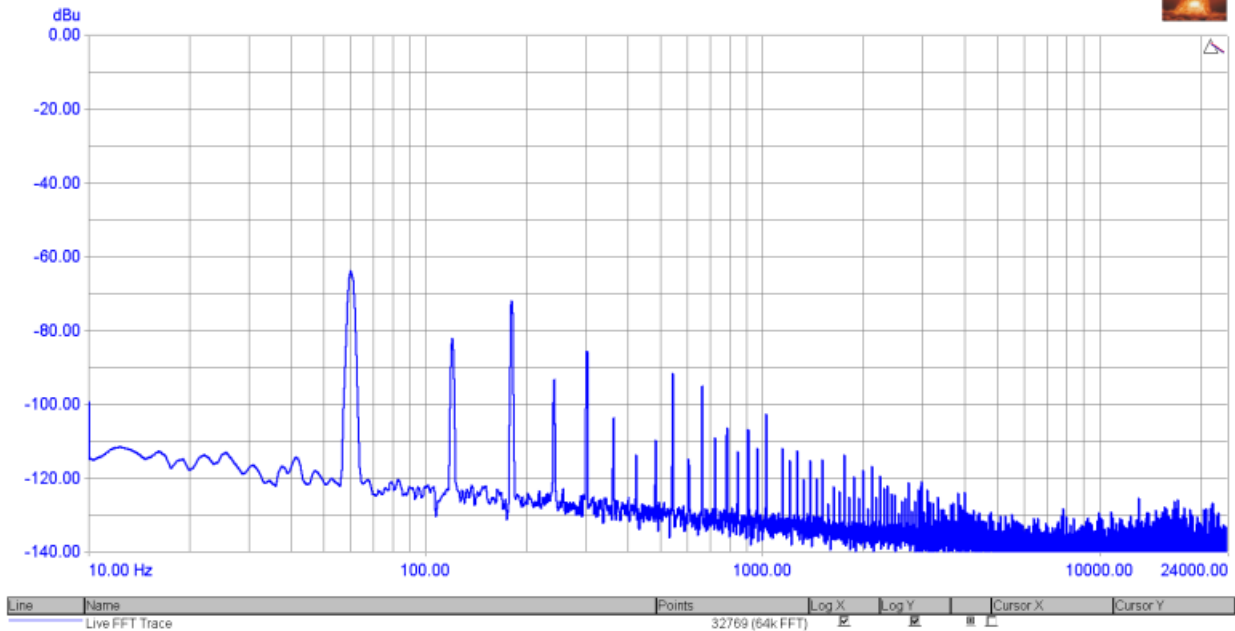
Generator Settings

Channel A:	Off
Channel B:	Off

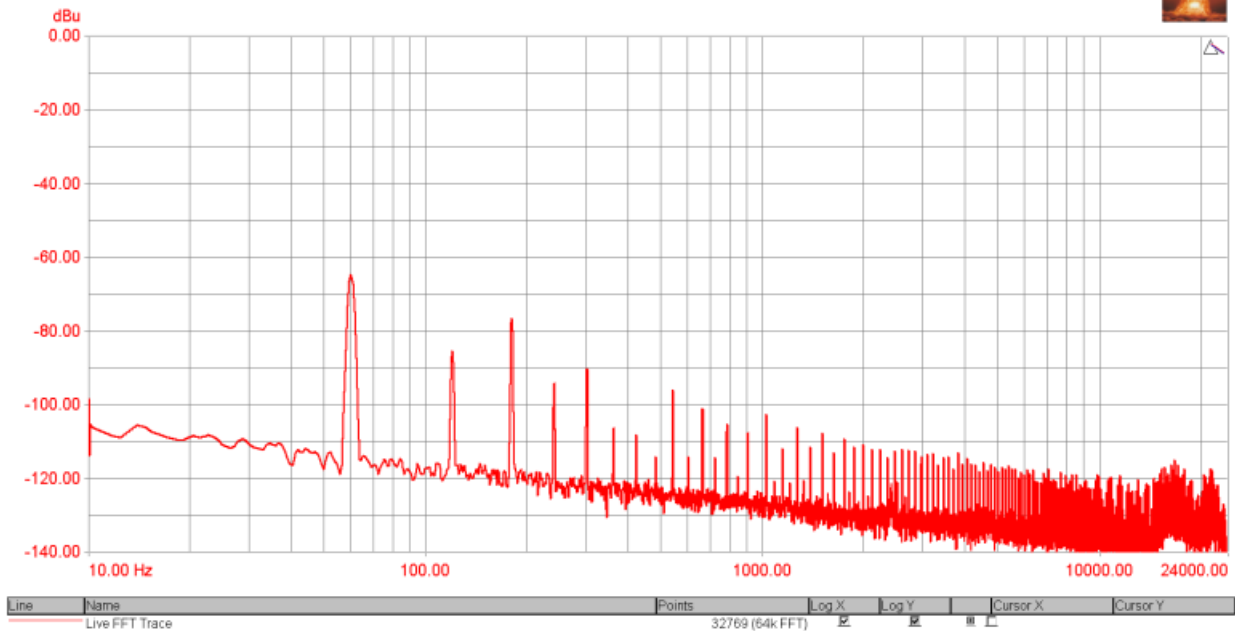
Signal Analyzer Readings

RMS amplitude (Channel A)	-63.169 dBu	Not limit checked.
RMS amplitude (Channel B)	-64.371 dBu	Not limit checked.

FFT residual noise



FFT residual noise



FFT Detector Readings

Noise (residual) (Channel A)	-91.233 dBu	< -60 dBu > -140 dBu
Noise (residual) (Channel B)	-88.423 dBu	< -60 dBu > -140 dBu

FFTD 1 Settings: 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 10th harmonic