gamma2 spdif 44K SE 160dBFS scale 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	√
A05 THD+N vs Freq	√
A06 THD+N vs Ampl	√
A07 Noise, DNR	√
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	√
A17 FFT -90 dBFS	OK
A17a FFT -120 dBFS	OK
A18 FFT -90 dBFS 16 bit	OK
A19 FFT imaging	OK
A20 FFT inferred jitter	OK

KEY: √ = Test passes, X = Test fails, OK = Test has run but has no limit checking, (X) = Test has failed to run or has not completed,
[√] = Test passes but is not required, [X] = 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 6/21/2021 3:17:07 PM

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

Signal Analyzer Readings		
RMS amplitude (Channel A)	2.573 dBu	< 24 dBu > -20 dBu
RMS amplitude (Channel B)	2.584 dBu	< 24 dBu > -20 dBu
Inter-channel phase	0.00 °	< 10 ° > -10 °

CTA Readings		
Gain (Channel A RMS)	-0.002 dB	< 20 dB > -40 dB
Gain (Channel B RMS)	0.010 dB	< 20 dB > -40 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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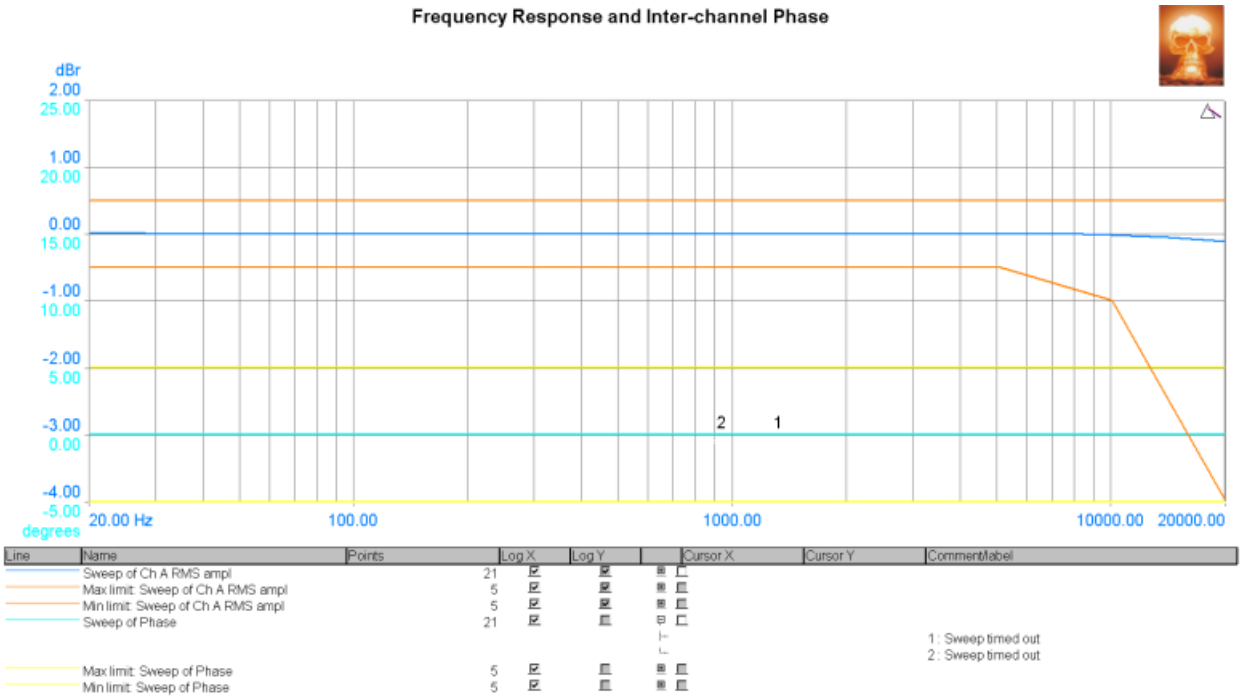
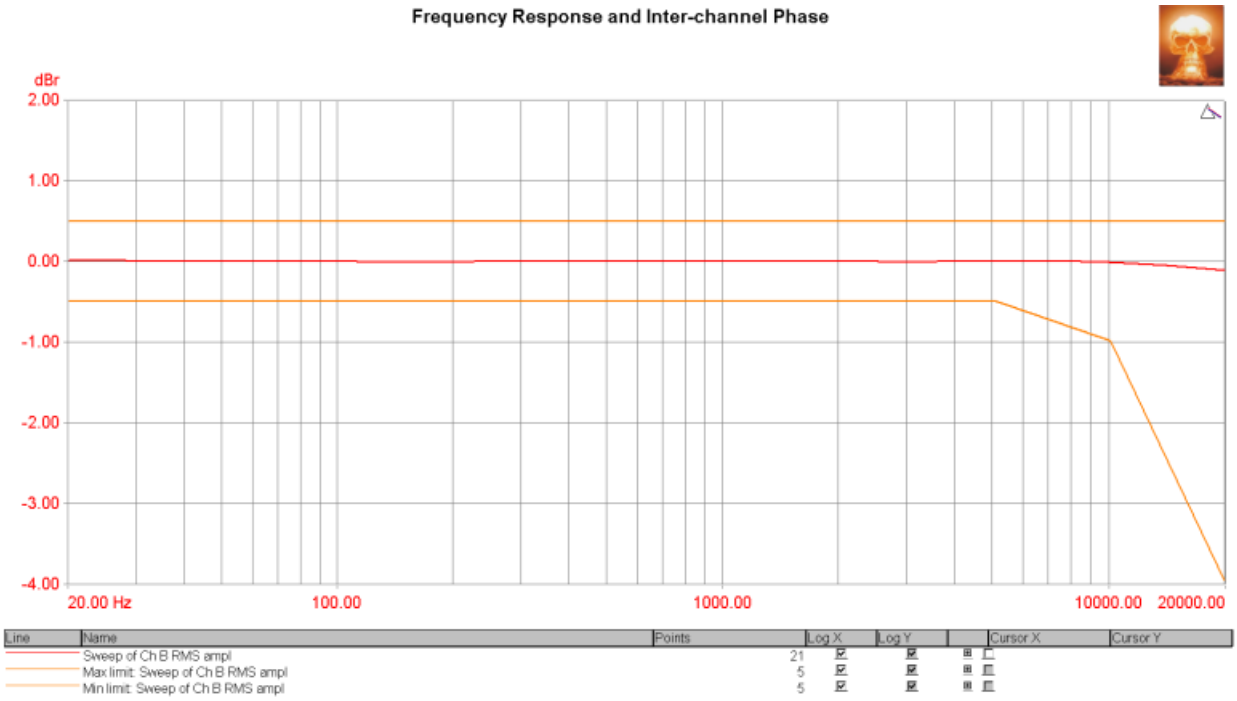
A02 Ampl, Phase vs Freq: PASSED

Measured at 6/21/2021 3:17:13 PM

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





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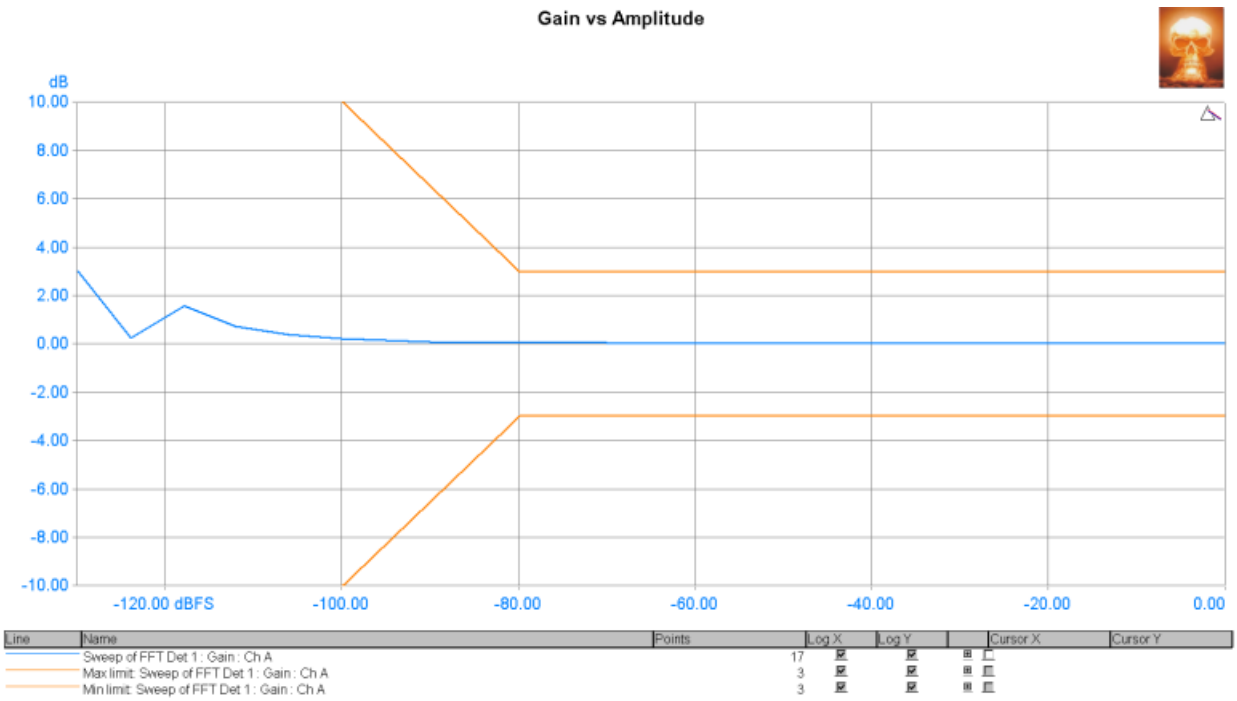
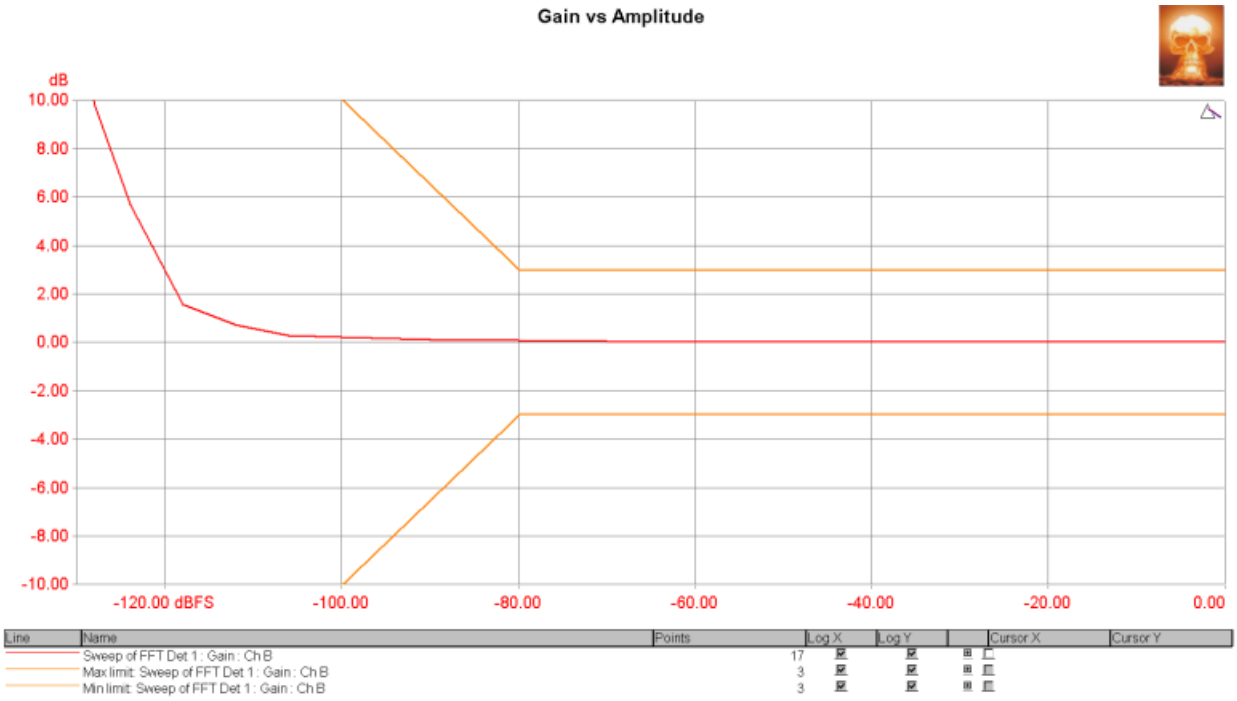
A03 Gain vs Ampl: PASSED

Measured at 6/21/2021 3:17:27 PM

Generator Settings	
Channel A:	sine, -6 dBFS at 1000 Hz
Channel B:	sine, -6 dBFS at 1000 Hz





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A04 THD+N, THD, nth-HD: PASSED

Measured at 6/21/2021 3:18:30 PM

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

CTA Readings		
THD+N - relative (Channel A RMS)	0.00337 %	< 200 % > 0 %
THD+N - relative (Channel B RMS)	0.00365 %	< 200 % > 0 %
Settings: Self relative, 22 Hz - 20kHz AES17, unweighted RMS with 1/12th octave band-reject filter at the generator frequency		

FFT Detector Readings		
THD (Channel A)	0.00326 %	< 200 % > 0 %
THD (Channel B)	0.00355 %	< 200 % > 0 %
FFTD 1 Settings: Self relative, 22 Hz - 20kHz AES17, unweighted with band-pass notch filters from the 2nd to 10th harmonics		
2nd Harmonic Distortion (Channel A)	0.00047 %	< 200 % > 0 %
2nd Harmonic Distortion (Channel B)	0.00046 %	< 200 % > 0 %
FFTD 2 Settings: Self relative, 22 Hz - 20kHz AES17, unweighted with band-pass notch filter at the 2nd harmonic		
3rd Harmonic Distortion (Channel A)	0.00295 %	< 200 % > 0 %
3rd Harmonic Distortion (Channel B)	0.00316 %	< 200 % > 0 %
FFTD 3 Settings: Self relative, 22 Hz - 20kHz AES17, unweighted with band-pass notch filter at the 3rd harmonic		
THD+N - relative (Channel A)	0.00327 %	< 200 % > 0 %
THD+N - relative (Channel B)	0.00356 %	< 200 % > 0 %
FFTD 4 Settings: Self relative, 22 Hz - 20kHz AES17, unweighted with window notch (14 bins) band-reject filter at the input frequency		

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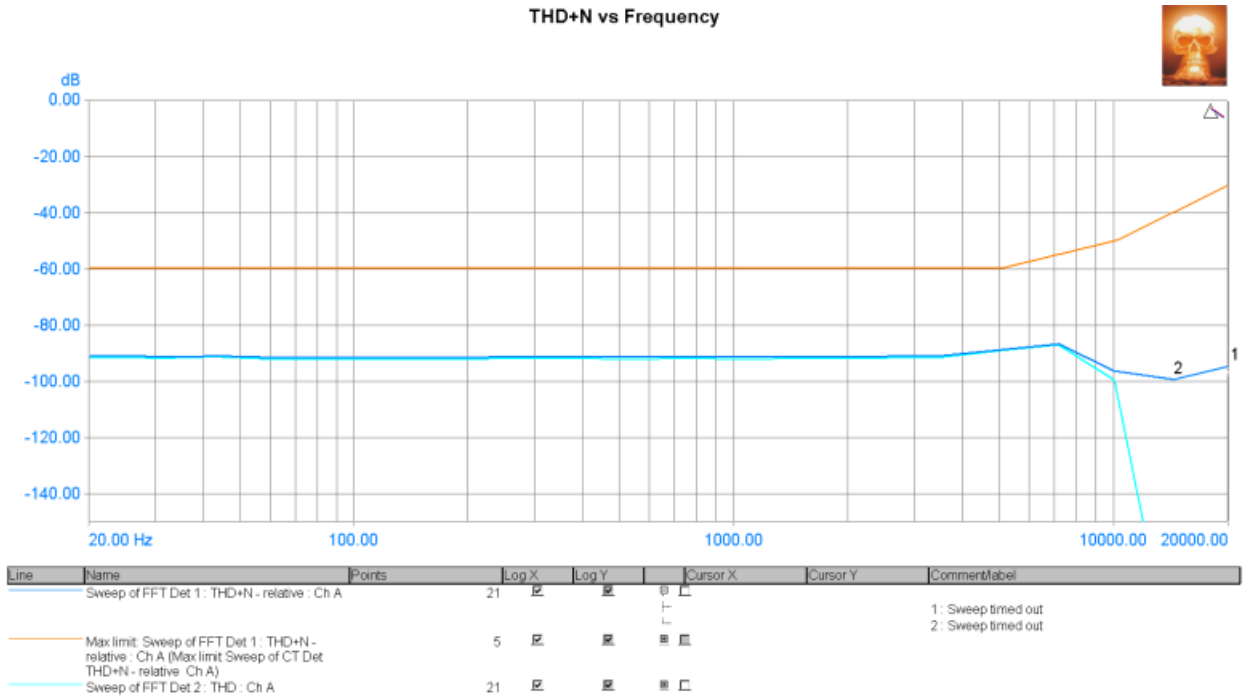
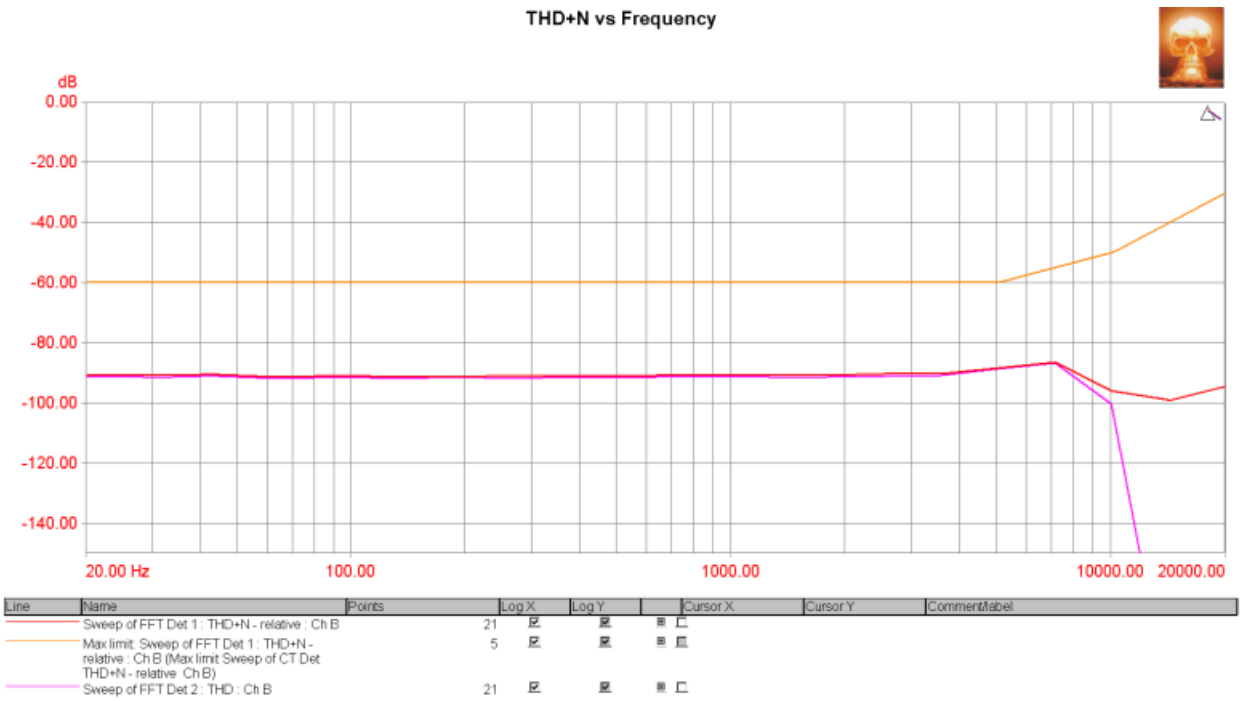
A05 THD+N vs Freq: PASSED

Measured at 6/21/2021 3:18:42 PM

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





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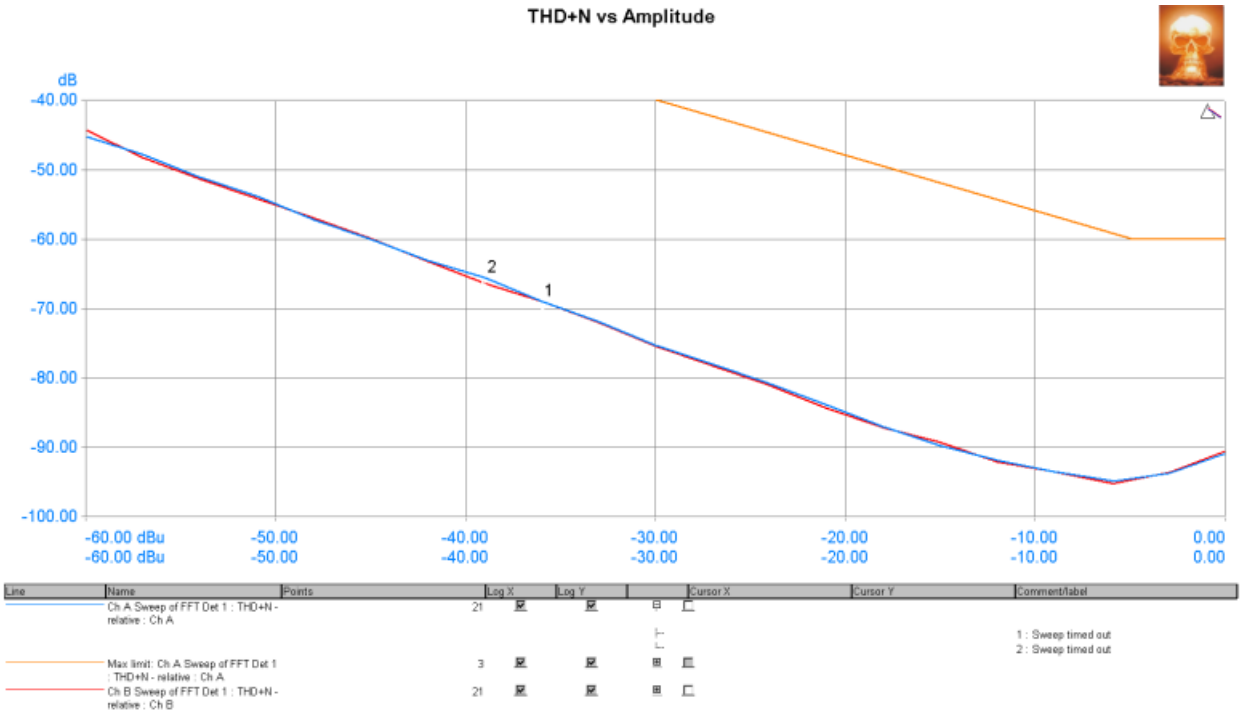
A06 THD+N vs Ampl: PASSED

Measured at 6/21/2021 3:19:47 PM

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



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A07 Noise, DNR: PASSED

Measured at 6/21/2021 3:20:34 PM

Generator Settings	
Channel A:	sine, -60 dBFS at 1000.488 Hz
Channel B:	sine, -60 dBFS at 1000.488 Hz

FFT Detector Readings		
THD+N - relative (Channel A)	-61.676 dB	Not limit checked.
THD+N - relative (Channel B)	-61.724 dB	Not limit checked.
FFTD 1 Settings: Self relative, 22 Hz - 20kHz AES17, unweighted with 1/3rd octave band-reject filter at the generator frequency		
Noise (residual) (Channel A)	-119.135 dBu	Not limit checked.
Noise (residual) (Channel B)	-119.340 dBu	Not limit checked.
FFTD 2 Settings: 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 10th harmonic		
DAC DNR Residual Async	121.702 dB	< 150 dB > 60 dB
DAC DNR Residual Async	121.918 dB	< 150 dB > 60 dB
FFTD 3 Settings: User: DAC SNR Residual Async		

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A08 Crosstalk A to B: PASSED

Measured at 6/21/2021 3:20:52 PM

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

CTA Readings		
Cross-talk (Channel B RMS)	-130.702 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 6/21/2021 3:21:00 PM

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

CTA Readings		
Cross-talk (Channel A RMS)	-125.146 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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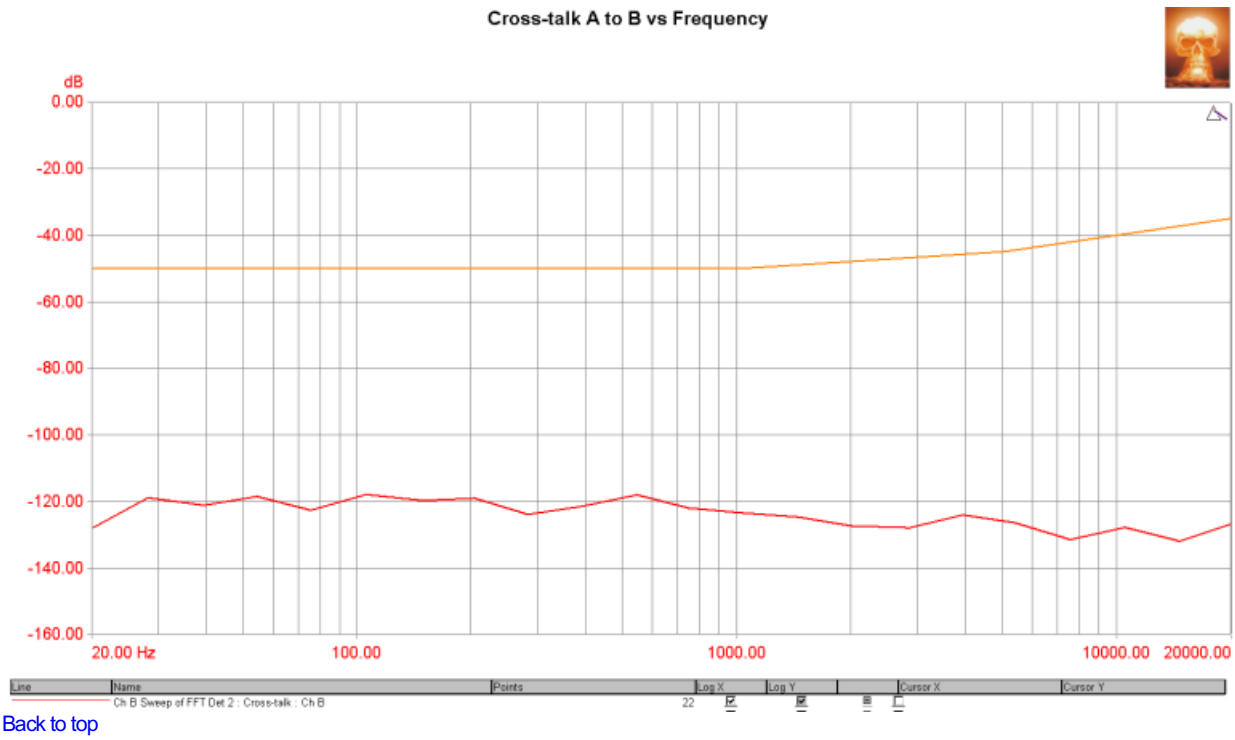
A10 Crosstalk A to B vs Freq: PASSED

Measured at 6/21/2021 3:21:03 PM

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



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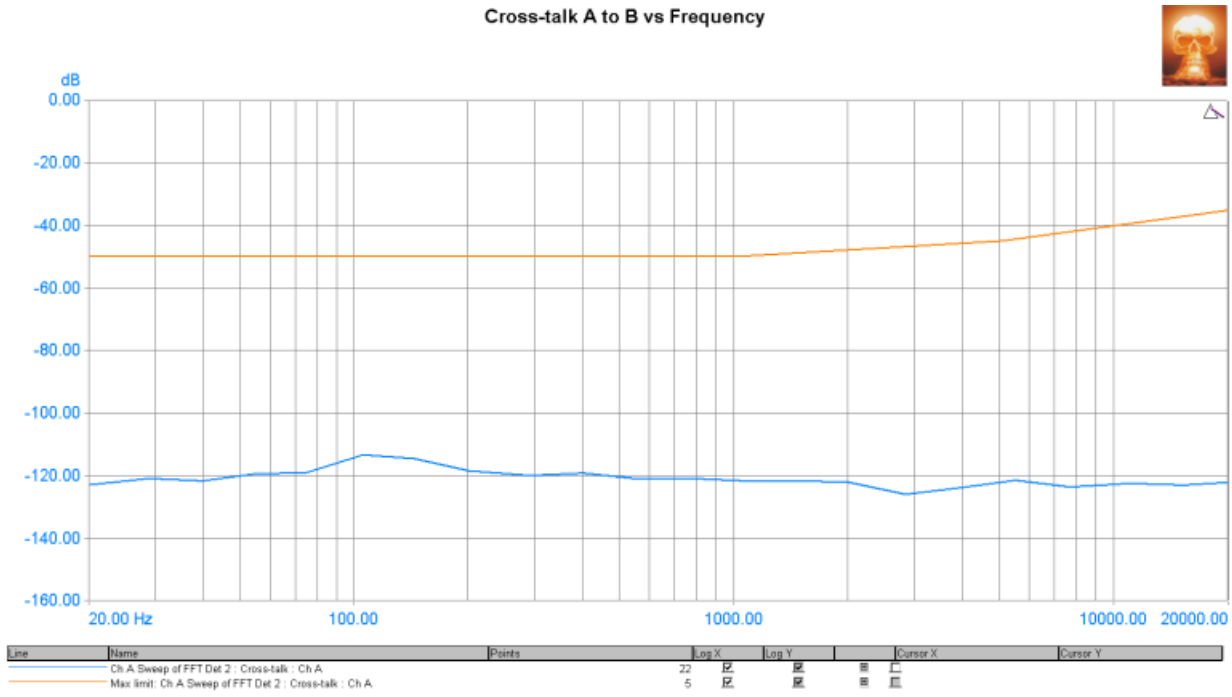
A11 Crosstalk B to A vs Freq: PASSED

Measured at 6/21/2021 3:21:57 PM

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



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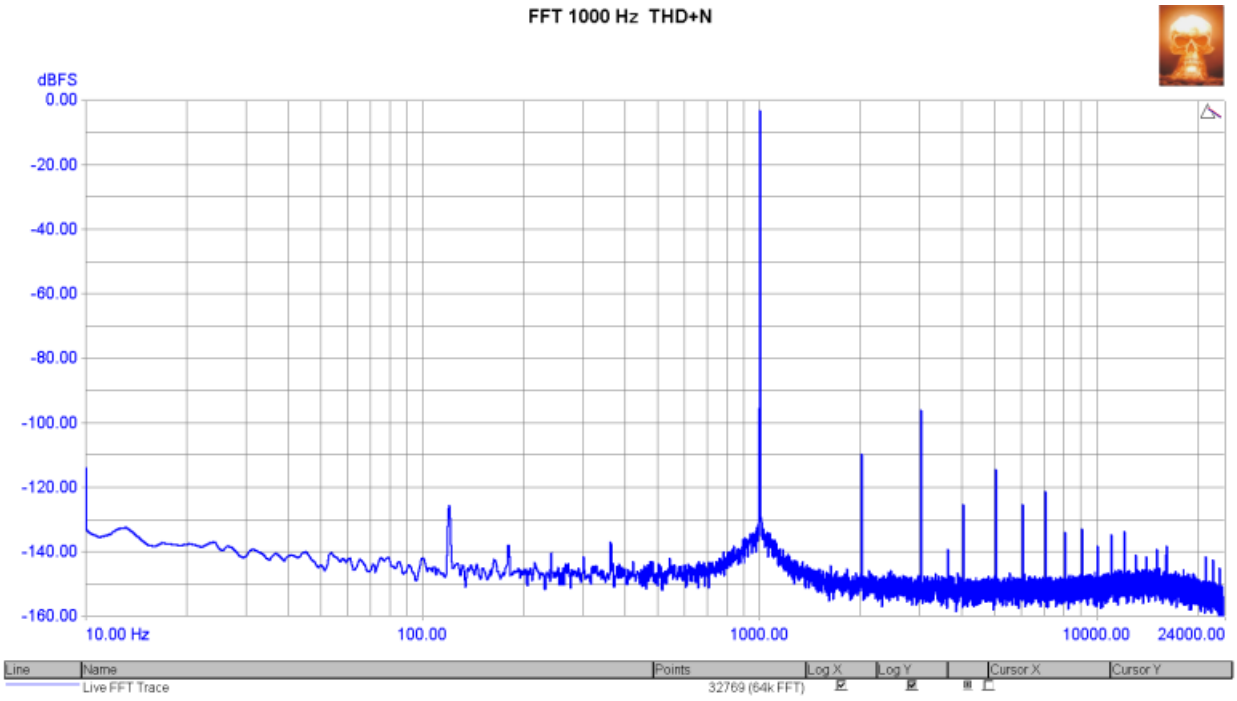
A12 FFT 1000 Hz THD+N: PASSED

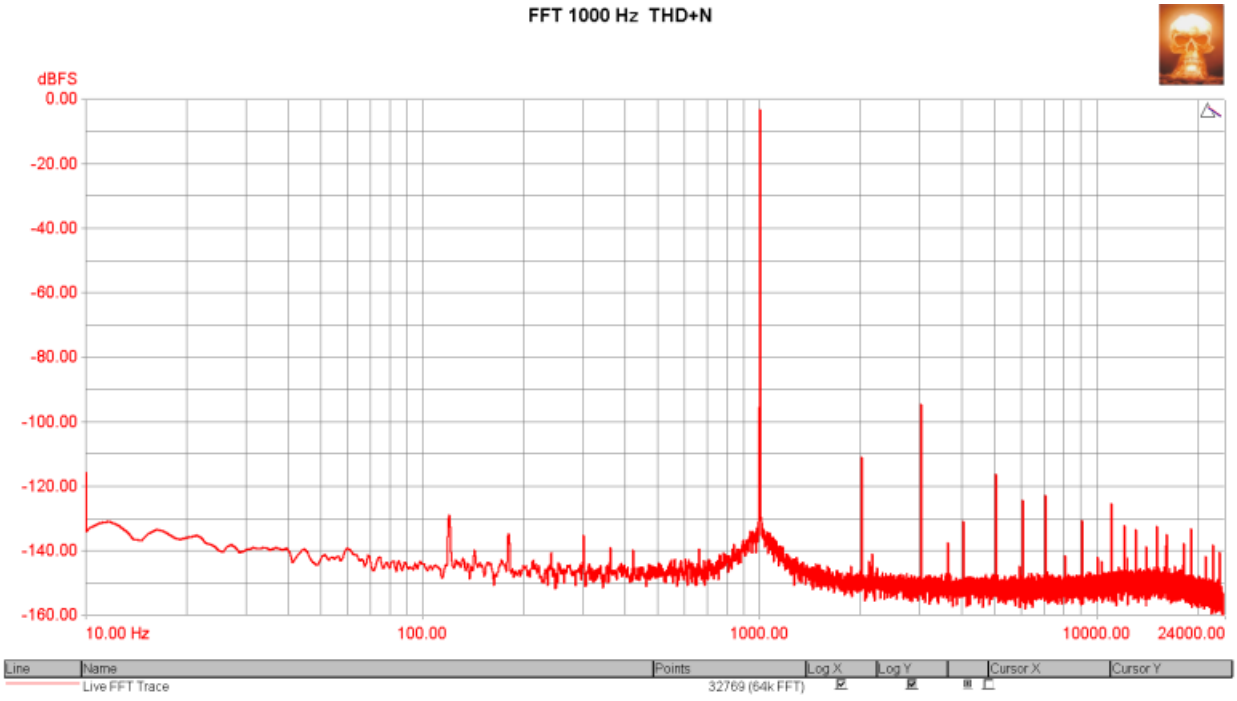
Measured at 6/21/2021 3:22:49 PM

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

Signal Analyzer Readings		
RMS amplitude (Selected : Ch A)	-0.428 dBu	Not limit checked.
RMS amplitude (Non-selected : Ch A)	-0.417 dBu	Not limit checked.

CTA Readings		
THD+N - relative (Selected : Ch A RMS)	0.00235 %	< 0.075 % > 0.00000001 %
THD+N - relative (Non-selected : Ch A RMS)	0.00276 %	< 0.075 % > 0.00000001 %
Settings: Self relative, 22 Hz - 20kHz AES17, unweighted RMS with 1/3rd octave band-reject filter at the input frequency		





FFT Detector Readings		
THD+N - relative (Channel A)	0.00229 %	Not limit checked.
THD+N - relative (Channel B)	0.00264 %	Not limit checked.
FFTD 1 Settings: Self relative, 22 Hz - 20kHz AES17, unweighted with window notch (14 bins) band-reject filter at the input frequency		

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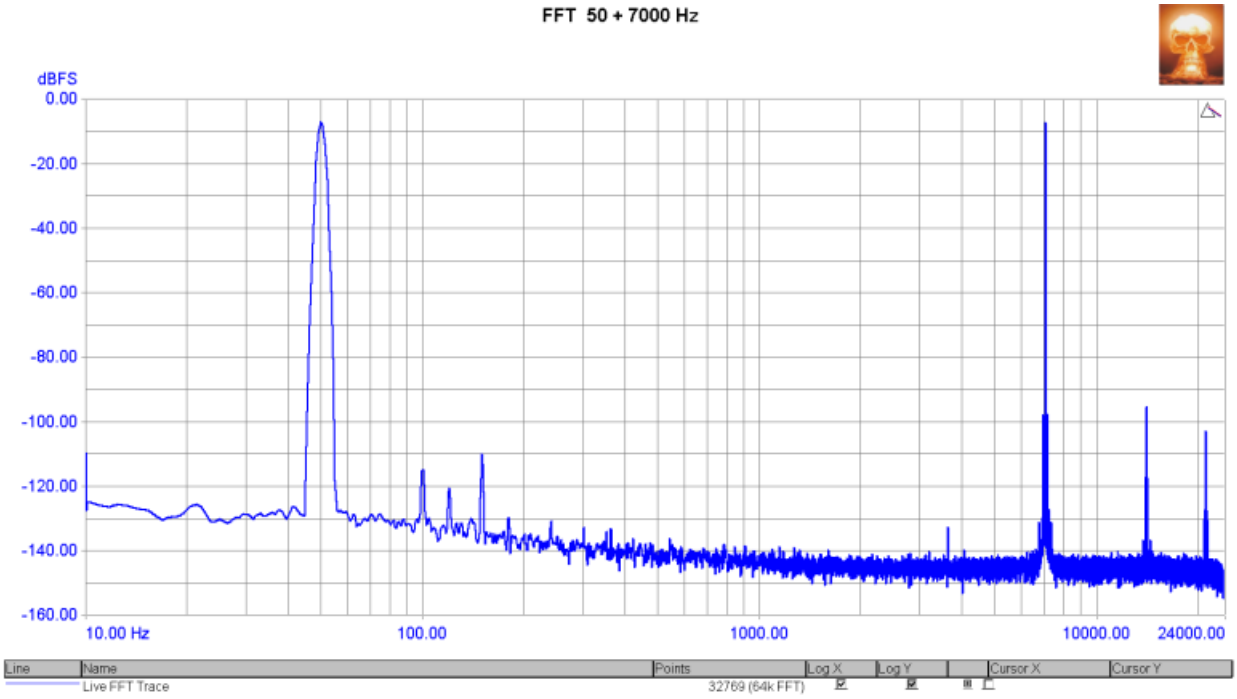
A13 FFT 50+7000Hz: PASSED

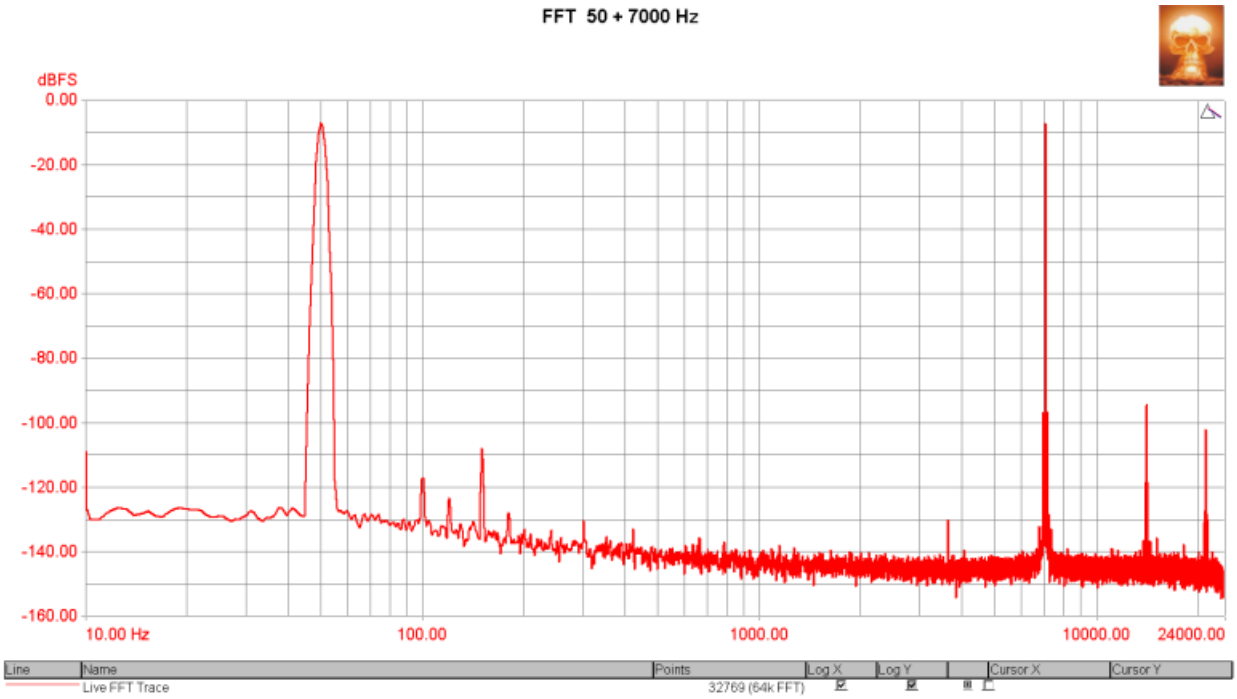
Measured at 6/21/2021 3:24:11 PM

Generator Settings	
Channel A:	Twin-tone, -7 dBFS at 50 Hz and 1 amplitude ratio at 7000Hz
Channel B:	Twin-tone, -7 dBFS at 50 Hz and 1 amplitude ratio at 7000Hz

Signal Analyzer Readings		
RMS amplitude (Channel A)	-1.427 dBu	Not limit checked.
RMS amplitude (Channel B)	-1.415 dBu	Not limit checked.

CTA Readings		
IMD SMPTE-DIN (Channel A RMS)	0.00280 %	< 0.05 % > 0 %
IMD SMPTE-DIN (Channel B RMS)	0.00326 %	< 0.05 % > 0 %
Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS using SMPTE-DIN IMD demodulation.		





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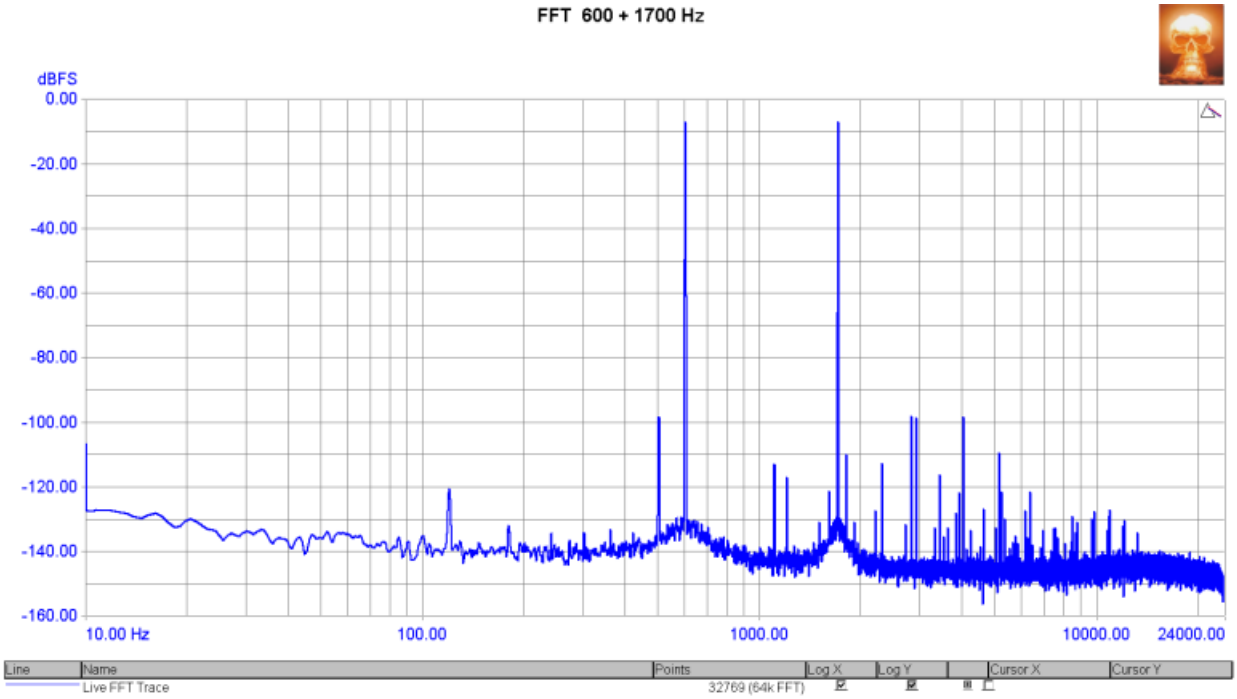
A14 FFT 600+1700 Hz: PASSED

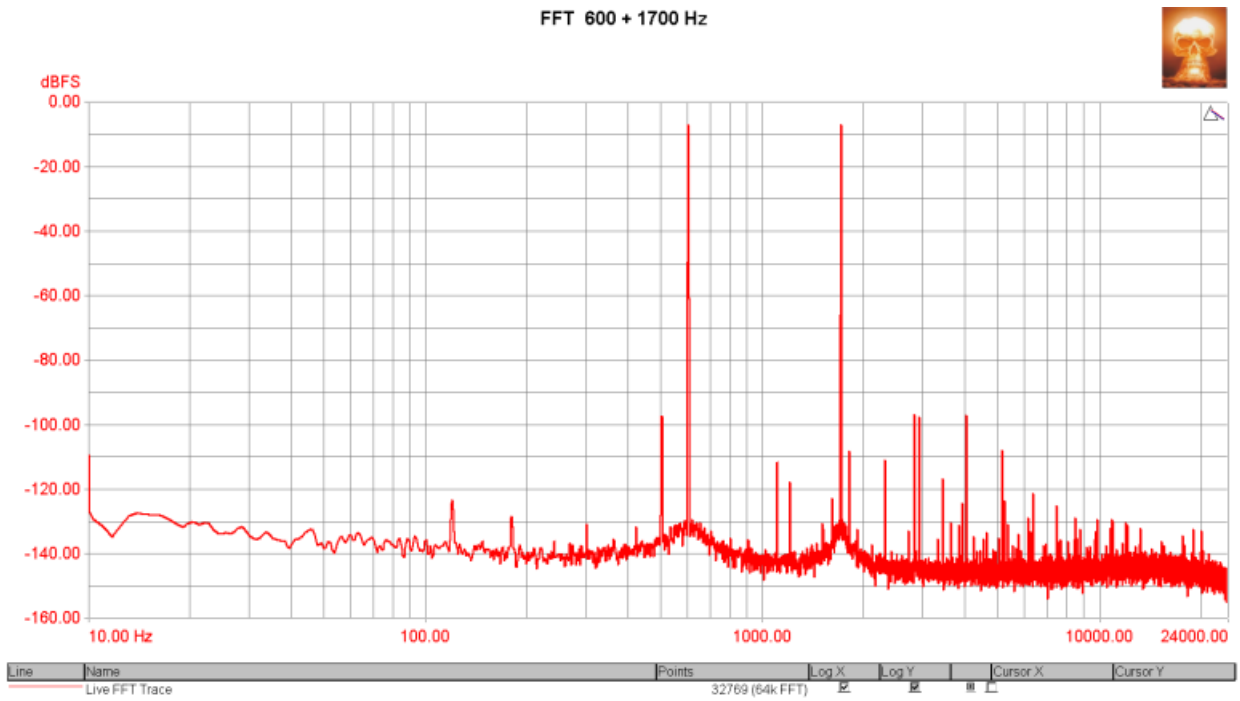
Measured at 6/21/2021 3:24:33 PM

Generator Settings	
Channel A:	Twin-tone, -7 dBFS at 600 Hz and 1 amplitude ratio at 1700Hz
Channel B:	Twin-tone, -7 dBFS at 600 Hz and 1 amplitude ratio at 1700Hz

Signal Analyzer Readings		
RMS amplitude (Channel A)	-1.428 dBu	Not limit checked.
RMS amplitude (Channel B)	-1.420 dBu	Not limit checked.

CTA Readings		
IMD SMPTE-DIN (Channel A RMS)	0.01284 %	< 0.02 % > 0 %
IMD SMPTE-DIN (Channel B RMS)	0.01289 %	< 0.02 % > 0 %
Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS using SMPTE-DIN IMD demodulation.		





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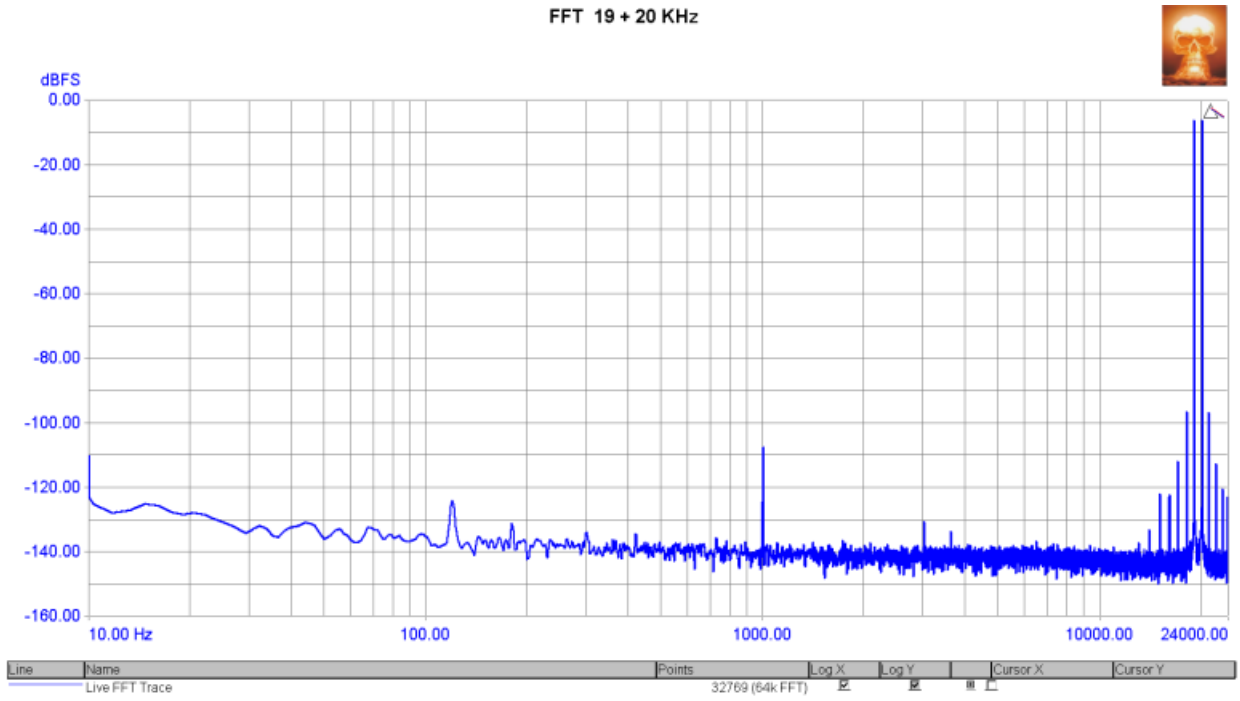
A15 FFT 19+20 KHz: PASSED

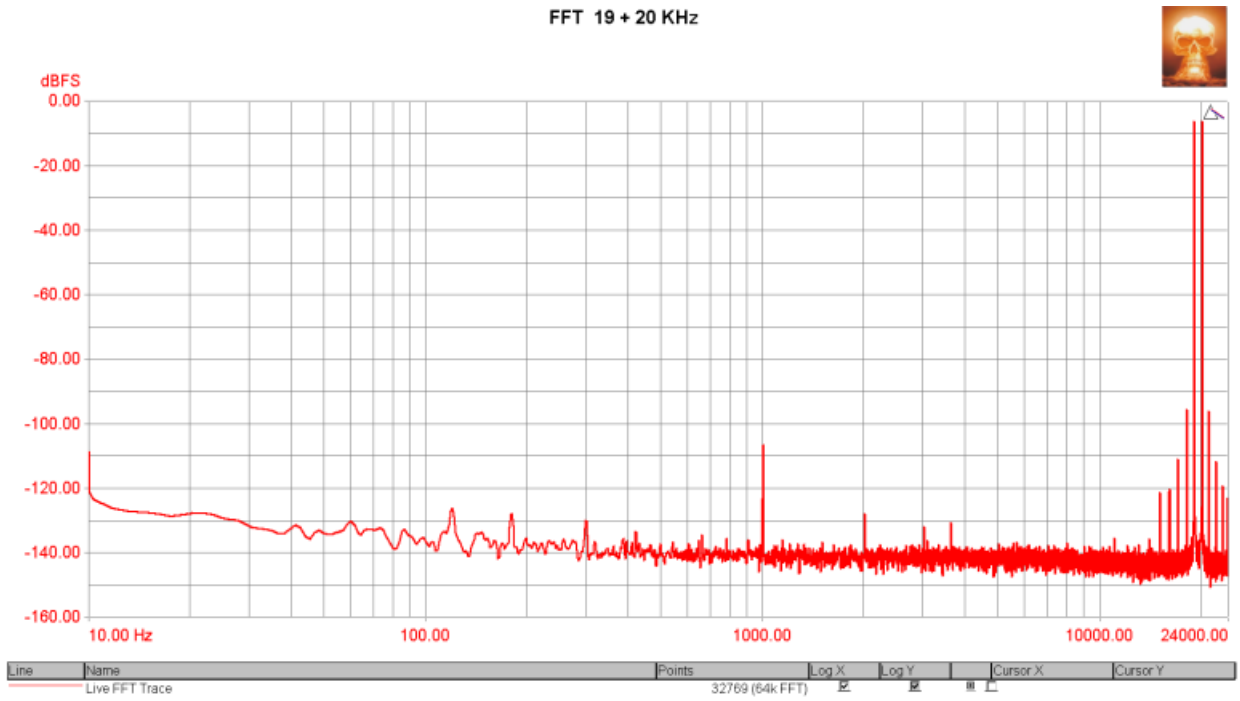
Measured at 6/21/2021 3:24:56 PM

Generator Settings	
Channel A:	Twin-tone, -6.03 dBFS at 19000 Hz and 0 dB offset at 1000 Hz offset
Channel B:	Twin-tone, -6.03 dBFS at 19000 Hz and 0 dB offset at 1000 Hz offset

Signal Analyzer Readings		
RMS amplitude (Channel A)	-0.588 dBu	Not limit checked.
RMS amplitude (Channel B)	-0.539 dBu	Not limit checked.

CTA Readings		
IMD CCIF (Channel A RMS)	0.00074 %	< 0.1 %
IMD CCIF (Channel B RMS)	0.00078 %	< 0.1 %
Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS with 1/24th octave band-pass filter at the intermodulation difference frequency		





FFT Detector Readings		
IMD CCIF (Channel A)	0.00060 %	< 0.1 %
IMD CCIF (Channel B)	0.00066 %	< 0.1 %
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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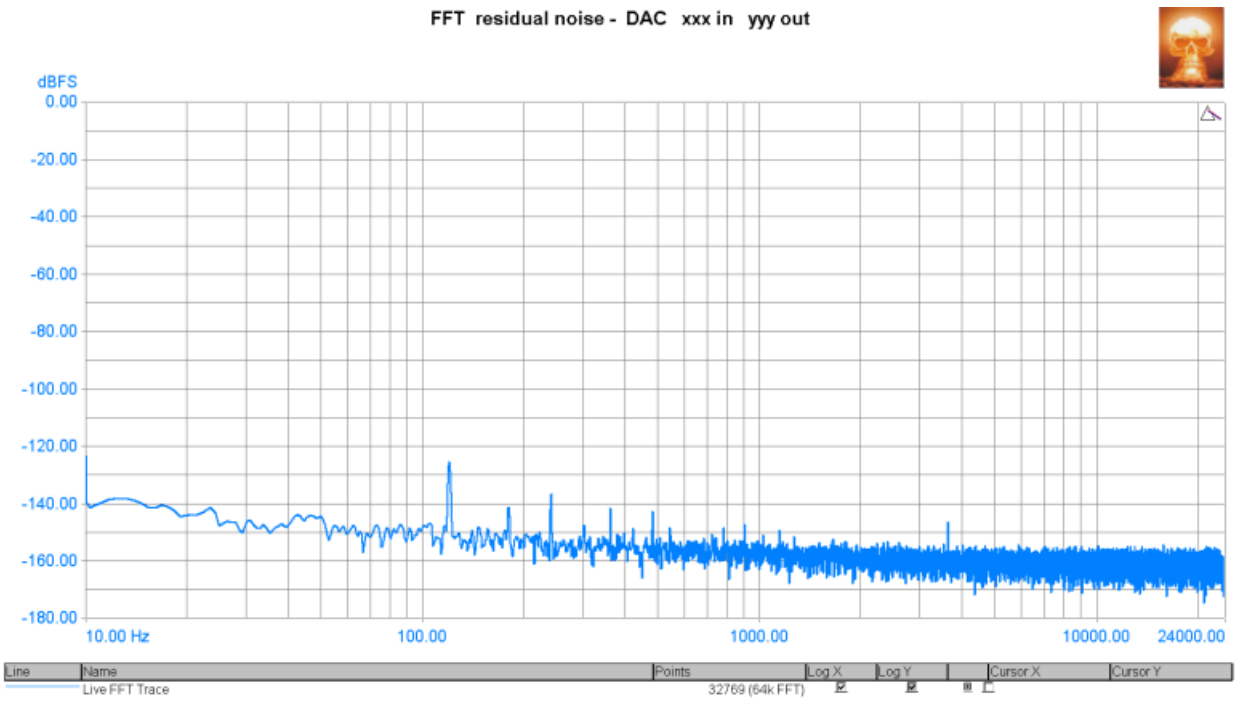
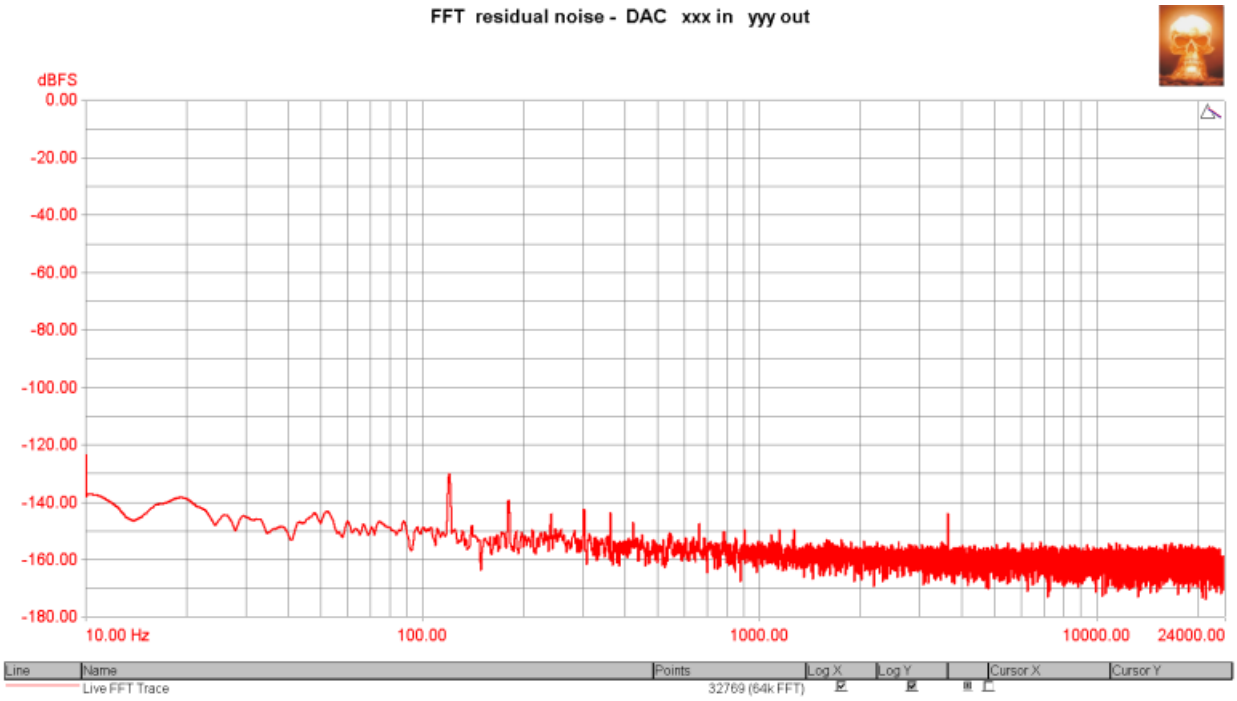
A16 FFT residual noise: PASSED

Measured at 6/21/2021 3:25:17 PM

Generator Settings	
Channel A:	Off
Channel B:	Off

Signal Analyzer Readings		
RMS amplitude (Channel A)	-104.386 dBu	Not limit checked.
RMS amplitude (Channel B)	-104.416 dBu	Not limit checked.





FFT Detector Readings		
Noise (residual) (Channel A)	-117.945 dBFS	< -60 dBFS > -150 dBFS
Noise (residual) (Channel B)	-118.439 dBFS	< -60 dBFS > -150 dBFS
FFTD 1 Settings: 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 10th harmonic		

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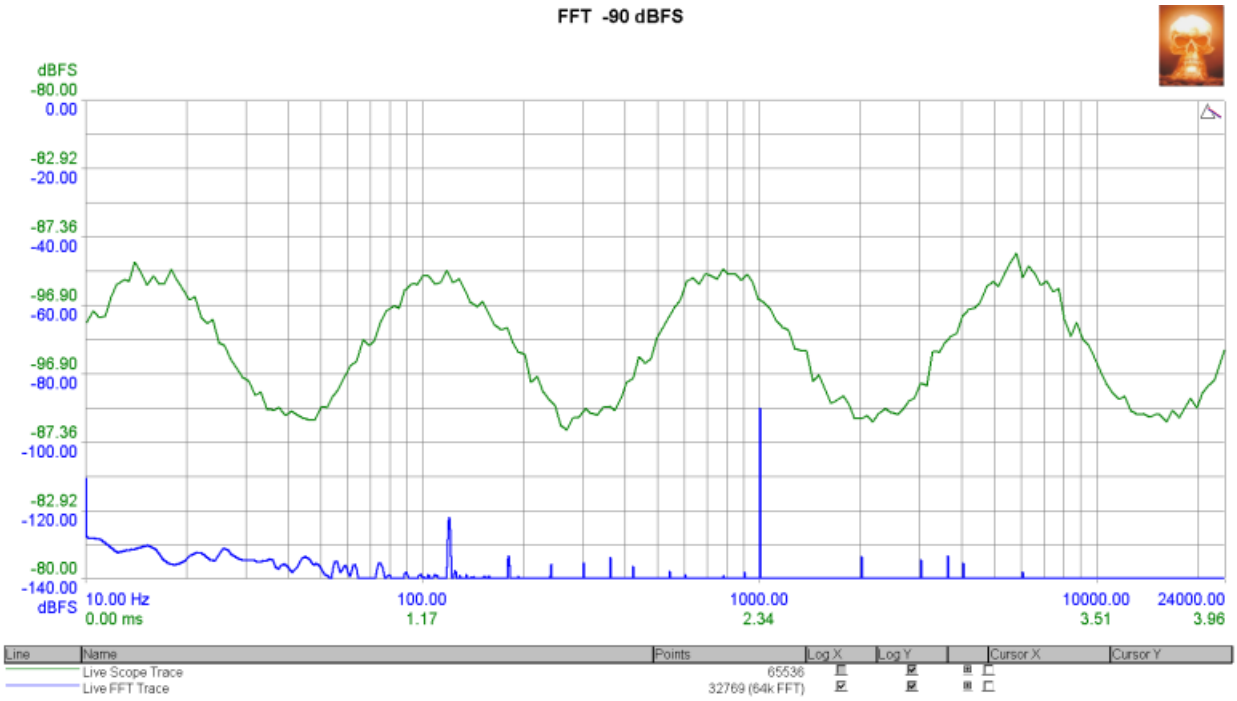
A17 FFT -90 dBFS: Not limit checked.

Measured at 6/21/2021 3:27:19 PM

Generator Settings	
Channel A:	sine, -90 dBFS at 1000 Hz
Channel B:	sine, -90 dBFS at 1000 Hz

Signal Analyzer Readings		
RMS amplitude (Selected : Ch A)	-87.134 dBu	Not limit checked.



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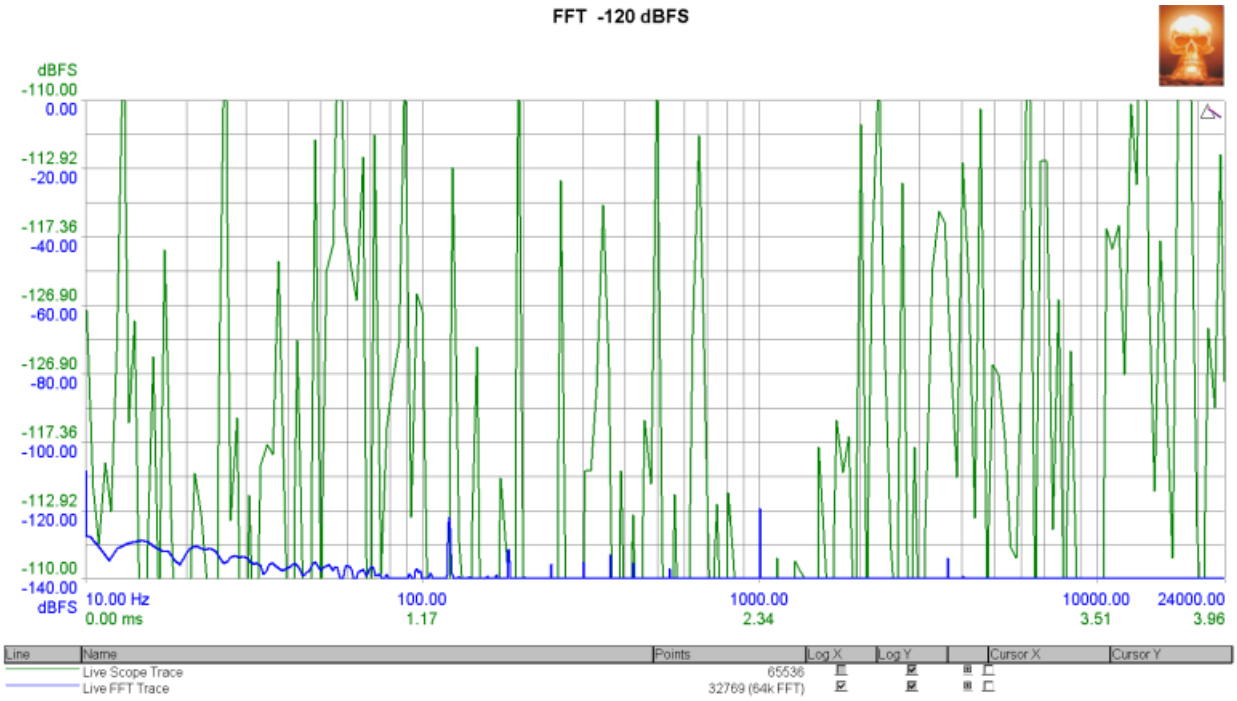
A17a FFT -120 dBFS: Not limit checked.

Measured at 6/21/2021 3:27:33 PM

Generator Settings	
Channel A:	sine, -120 dBFS at 1000 Hz
Channel B:	sine, -120 dBFS at 1000 Hz

Signal Analyzer Readings		
RMS amplitude (Selected : Ch A)	-104.717 dBu	Not limit checked.



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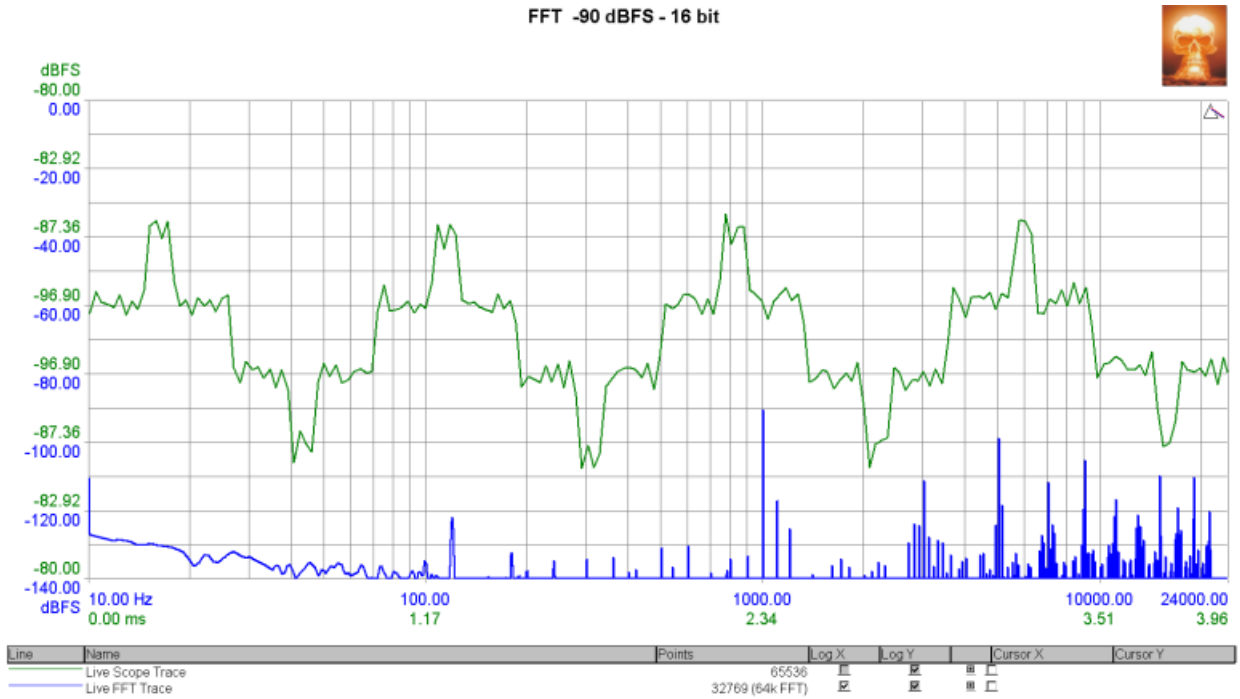
A18 FFT -90 dBFS 16 bit: Not limit checked.

Measured at 6/21/2021 3:27:47 PM

Generator Settings	
Channel A:	sine, -90 dBFS at 1000 Hz
Channel B:	sine, -90 dBFS at 1000 Hz

Signal Analyzer Readings		
RMS amplitude (Selected : Ch A)	-87.008 dBu	Not limit checked.



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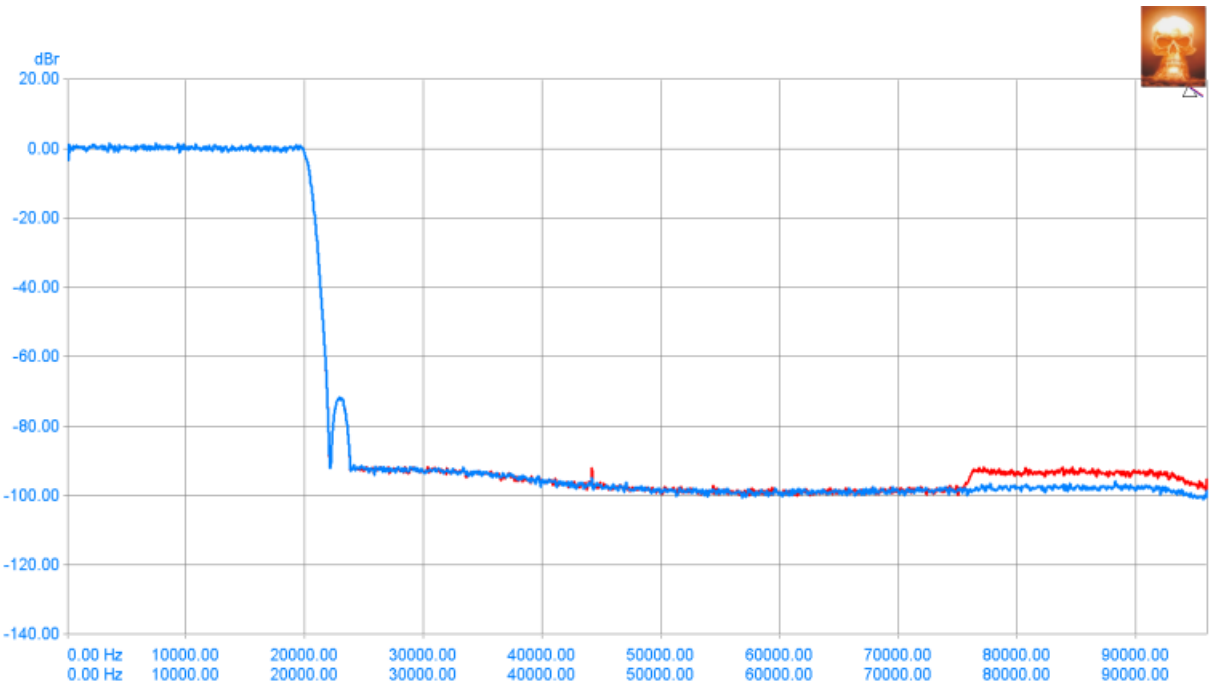
A19 FFT imaging: Not limit checked.

Measured at 6/21/2021 3:28:04 PM

Generator Settings	
Channel A:	white noise, -6 dBFS
Channel B:	white noise, -6 dBFS (inverted)



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A20 FFT inferred jitter: Not limit checked.

Measured at 6/21/2021 3:29:01 PM

Generator Settings	
Channel A:	sine, -6 dBFS at 11025 Hz
Channel B:	sine, -6 dBFS at 11025 Hz (inverted)