

Cavalli Liquid Gold X Bal 300R TESTS 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, (X) = Test has failed to run or has not completed, [N] = 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.

[Back to top](#)

A01 Ampl, Phase, Gain: PASSED

Measured at 3/9/2020 10:05:41 AM

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)	0.154 dBu	< 3 dBu > -3 dBu
RMS amplitude (Channel B)	-0.163 dBu	< 3 dBu > -3 dBu
Inter-channel phase	-0.02 °	< 10 ° > -10 °

CTA Readings		
Gain (Channel A RMS)	0.154 dB	< 3 dB > -3 dB
Gain (Channel B RMS)	-0.164 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		

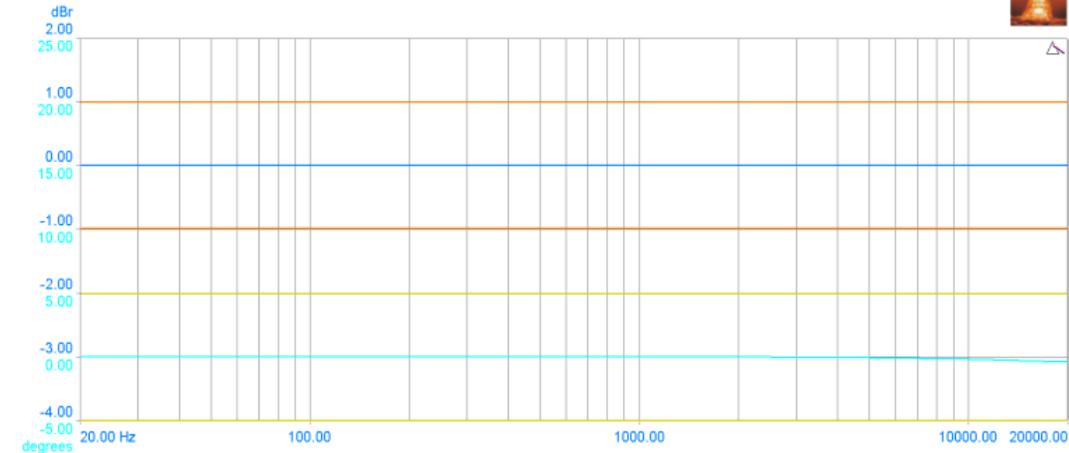
[Back to top](#)

A02 Ampl, Phase vs Freq: PASSED

Measured at 3/9/2020 10:05:44 AM

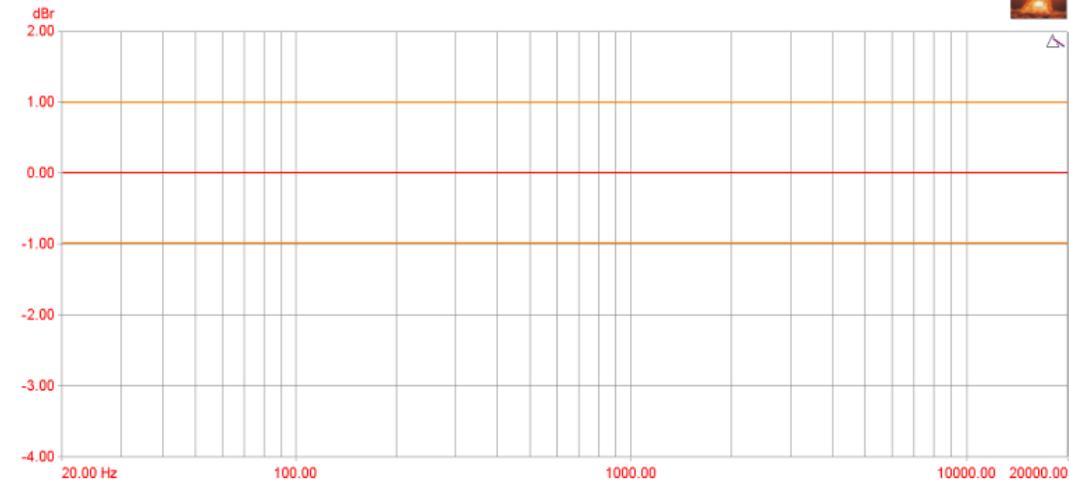
Generator Settings	
Channel A:	sine, -3 dBFS at 1000 Hz
Channel B:	sine, -3 dBFS at 1000 Hz

Frequency Response and Inter-channel Phase



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y
	Sweep of Ch A RMS ampl	21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Max limit: Sweep of Ch A RMS ampl	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Min limit: Sweep of Ch A RMS ampl	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Sweep of Phase	21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Max limit: Sweep of Phase	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Min limit: Sweep of Phase	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Frequency Response and Inter-channel Phase



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

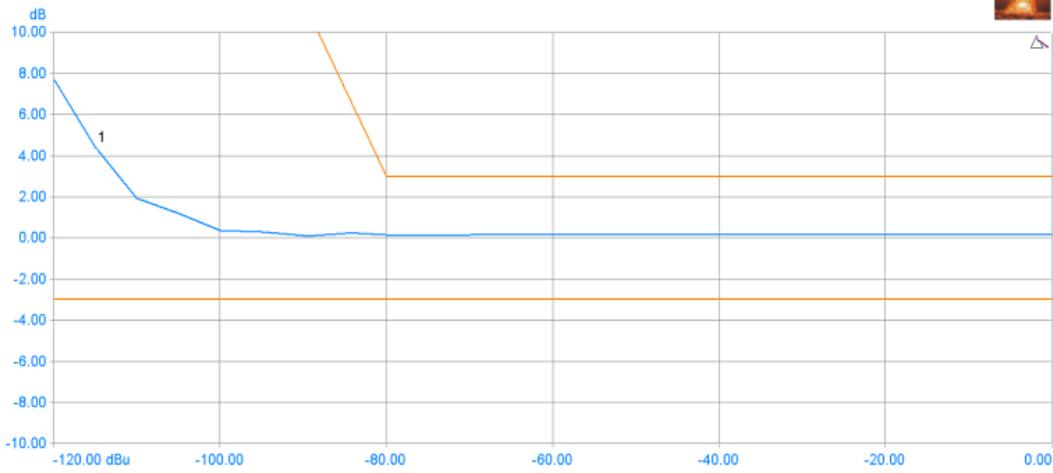
[Back to top](#)

A03 Gain vs Ampl: **PASSED**

Measured at 3/9/2020 10:05:52 AM

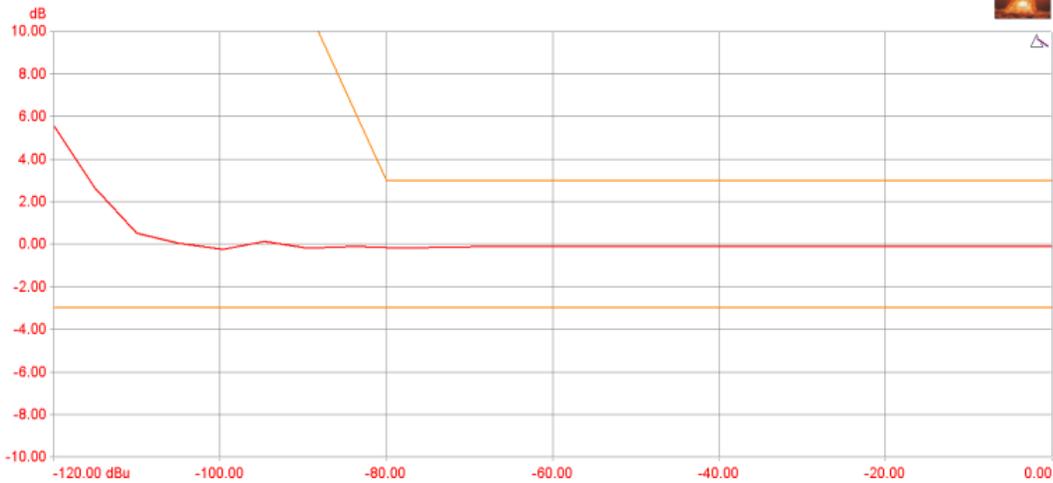
Generator Settings	
Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

Gain vs Amplitude



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y	Comment/Label
1	Sweep of CT Det.: Gain: Ch A	25	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
2	Max limit: Sweep of CT Det.: Gain: Ch A	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			1: Sweep timed out
3	Min limit: Sweep of CT Det.: Gain: Ch A	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			

Gain vs Amplitude



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y
1	Sweep of CT Det.: Gain: Ch B	25	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
2	Max limit: Sweep of CT Det.: Gain: Ch B	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
3	Min limit: Sweep of CT Det.: Gain: Ch B	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

[Back to top](#)

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

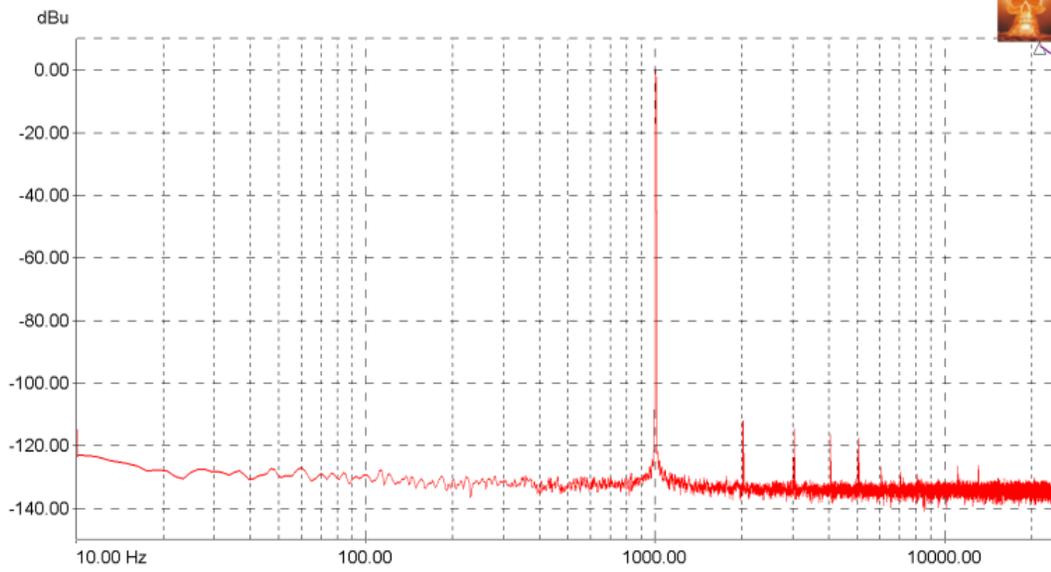
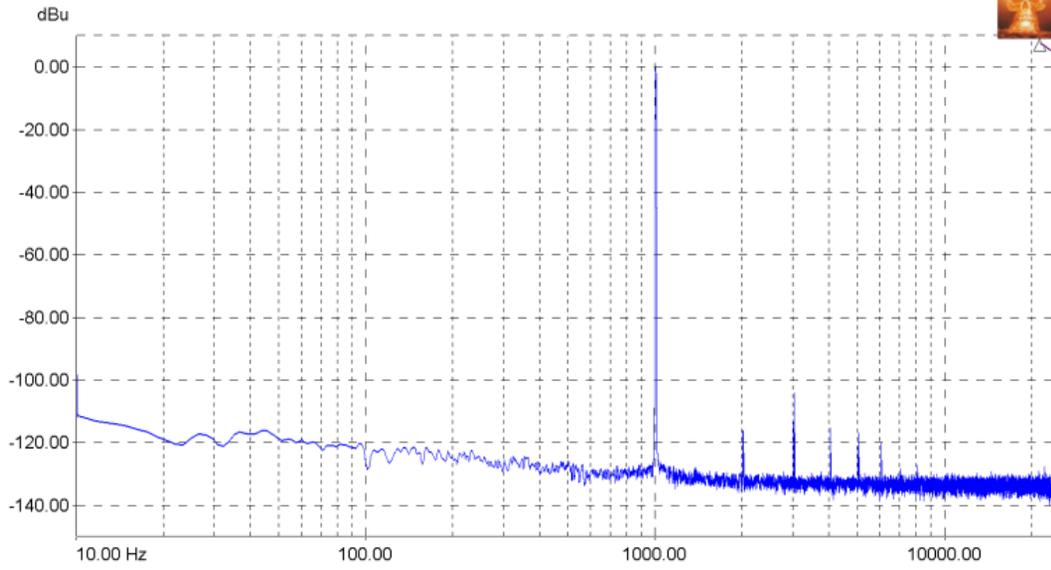
Measured at 3/9/2020 10:06:05 AM

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)	0.154 dBu	Not limit checked.
RMS amplitude (Channel B)	-0.163 dBu	Not limit checked.

CTA Readings		
THD+N - relative (Channel A RMS)	0.00169 %	< 200 % > 0 %
THD+N - relative (Channel B RMS)	0.00158 %	< 200 % > 0 %

Settings: Self relative, 22 Hz - 22 kHz, unweighted RMS with 1/3rd octave band-reject filter at the input frequency



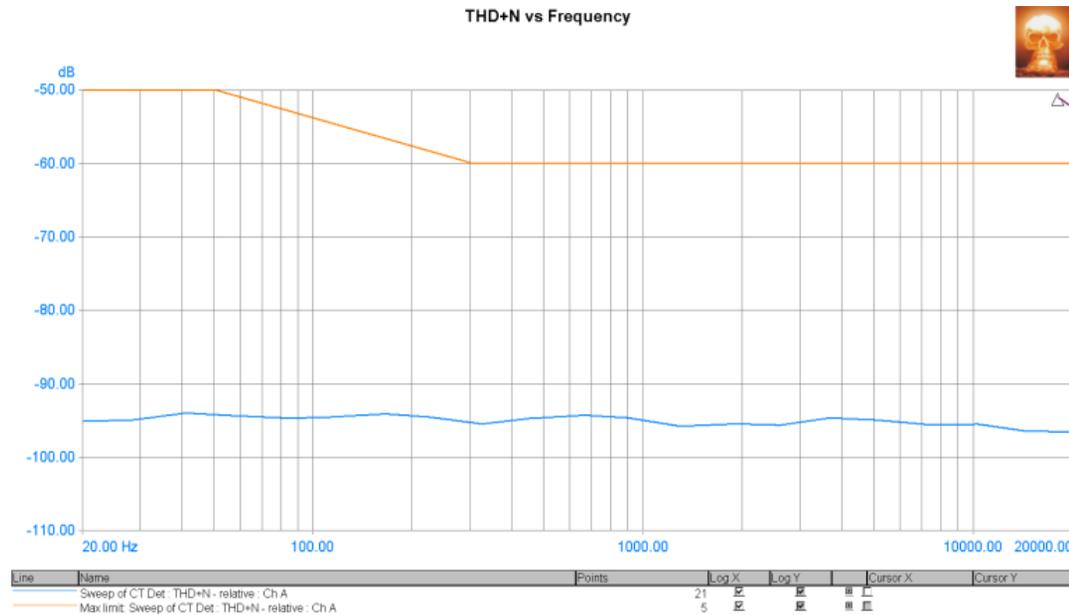
FFT Detector Readings		
THD (Channel A)	0.00068 %	< 200 % > 0 %
THD (Channel B)	0.00040 %	< 200 % > 0 %
FFTD 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-pass notch filters from the 2nd to 10th harmonics		
2nd Harmonic Distortion (Channel A)	0.00016 %	< 200 % > 0 %
2nd Harmonic Distortion (Channel B)	0.00026 %	< 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)	0.00060 %	< 200 % > 0 %
3rd Harmonic Distortion (Channel B)	0.00019 %	< 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)	0.00017 %	Not limit checked.
4th Harmonic Distortion (Channel B)	0.00016 %	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)	0.00015 %	Not limit checked.
5th Harmonic Distortion (Channel B)	0.00014 %	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)	0.00182 %	< 0.01 % > 0 %
4+HD + N (Channel B)	0.00161 %	< 0.01 % > 0 %
FFTD 6 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 3rd harmonic		
Hum (Channel A)	0.00024 %	< 0.017783 % > 0 %
Hum (Channel B)	0.00008 %	< 0.017783 % > 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)	0.00180 %	< 0.017783 % > 0 %
Noise (residual) (Channel B)	0.00159 %	< 0.017783 % > 0 %
FFTD 8 Settings: Self relative, 22 Hz - 22 kHz, unweighted with band-reject notch filters, fundamental to the 10th harmonic		

[Back to top](#)

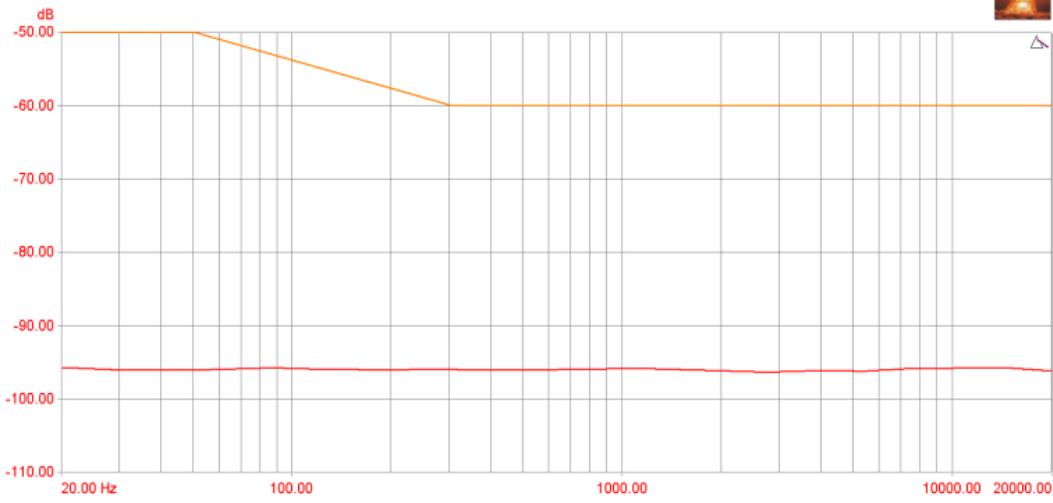
A05 THD+N vs Freq: PASSED

Measured at 3/9/2020 10:06:23 AM

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



THD+N vs Frequency



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y
—	Sweep of CT Det : THD+N - relative : Ch B	21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
—	Max limit: Sweep of CT Det : THD+N - relative : Ch B	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[Back to top](#)

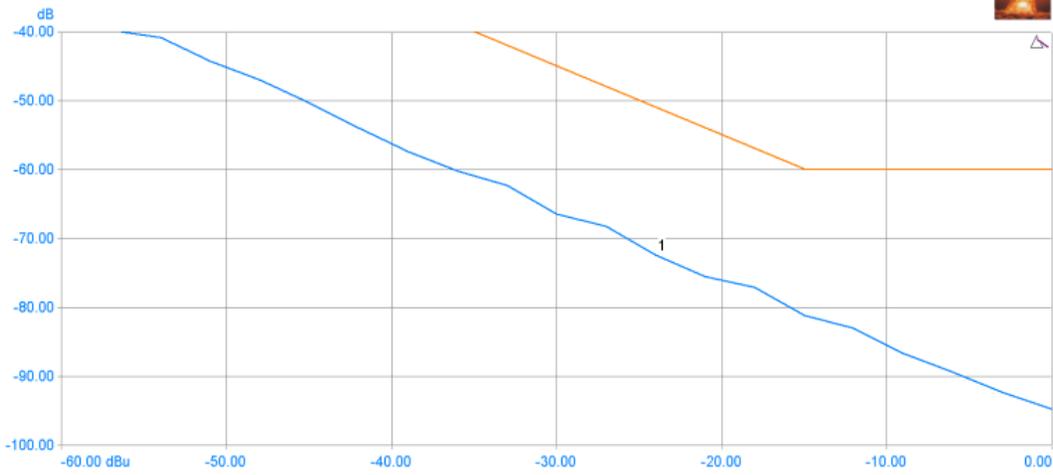
A06 THD+N vs Ampl: PASSED

Measured at 3/9/2020 10:06:40 AM

Generator Settings

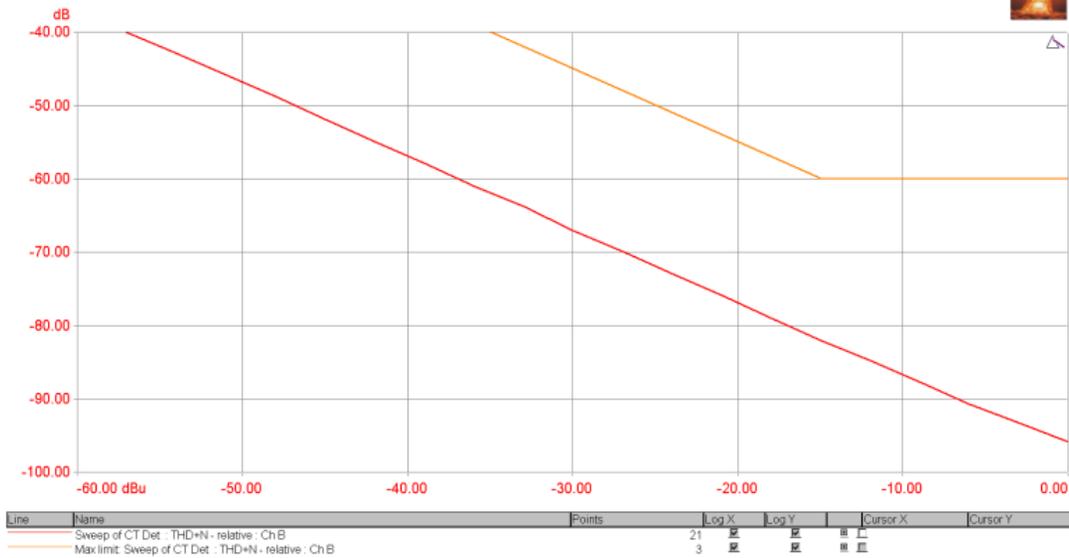
Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

THD+N vs Amplitude



Line	Name	Points	Log X	Log Y	Cursor X	Cursor Y	Comment/Label
—	Sweep of CT Det : THD+N - relative : Ch A	21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
—	Max limit: Sweep of CT Det : THD+N - relative : Ch A	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1: Sweep timed out

THD+N vs Amplitude



[Back to top](#)

A07 Noise, SNR: PASSED

Measured at 3/9/2020 10:06:59 AM

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)	-114.040 dBr	< 200 dBr > -200 dBr
Noise (unweighted) (Channel B)	-115.111 dBr	< 200 dBr > -200 dBr
FFT 1 Settings: 22 Hz - 22 kHz, unweighted with window notch (14 bins) band-reject filter at the generator frequency		
SNR (Channel A)	-114.232 dBr	< 200 dBr > -200 dBr
SNR (Channel B)	-115.272 dBr	< 200 dBr > -200 dBr
FFT 2 Settings: 22 Hz - 22 kHz, unweighted with 1/3rd octave band-reject filter at the generator frequency		

[Back to top](#)

A08 Crosstalk A to B: PASSED

Measured at 3/9/2020 10:07:02 AM

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)	-87.781 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		

[Back to top](#)

A09 Crosstalk B to A: PASSED

Measured at 3/9/2020 10:07:04 AM

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

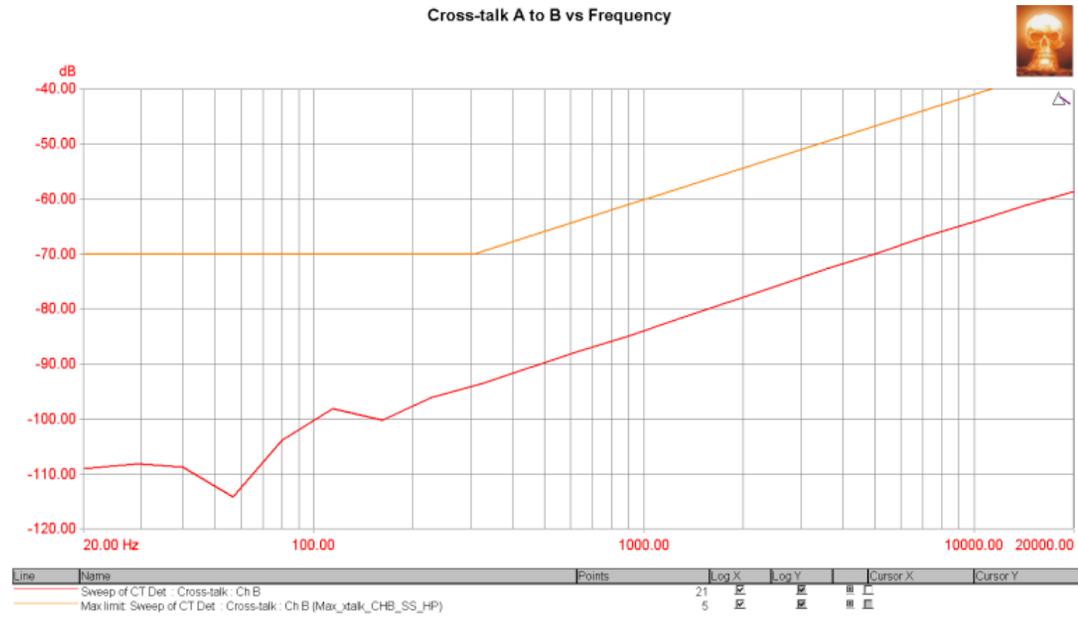
CTA Readings		
Cross-talk (Channel A RMS)	-88.838 dB	< -45 dB
Settings: Channel relative, 22 Hz - 22 kHz, unweighted RMS with 1/24th octave band-pass filter at the opposite channel generator frequency		

[Back to top](#)

A10 Crosstalk A to B vs Freq: PASSED

Measured at 3/9/2020 10:07:07 AM

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

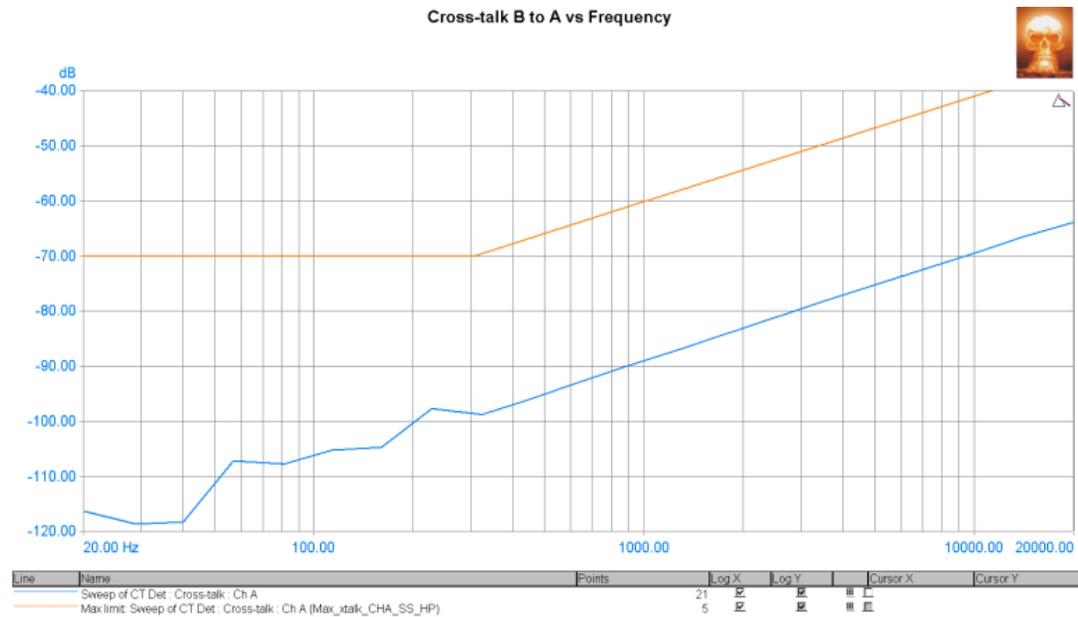


[Back to top](#)

A11 Crosstalk B to A vs Freq: PASSED

Measured at 3/9/2020 10:07:14 AM

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



[Back to top](#)

A12 FFT 1000 Hz THD+N: PASSED

Measured at 3/9/2020 10:07:20 AM

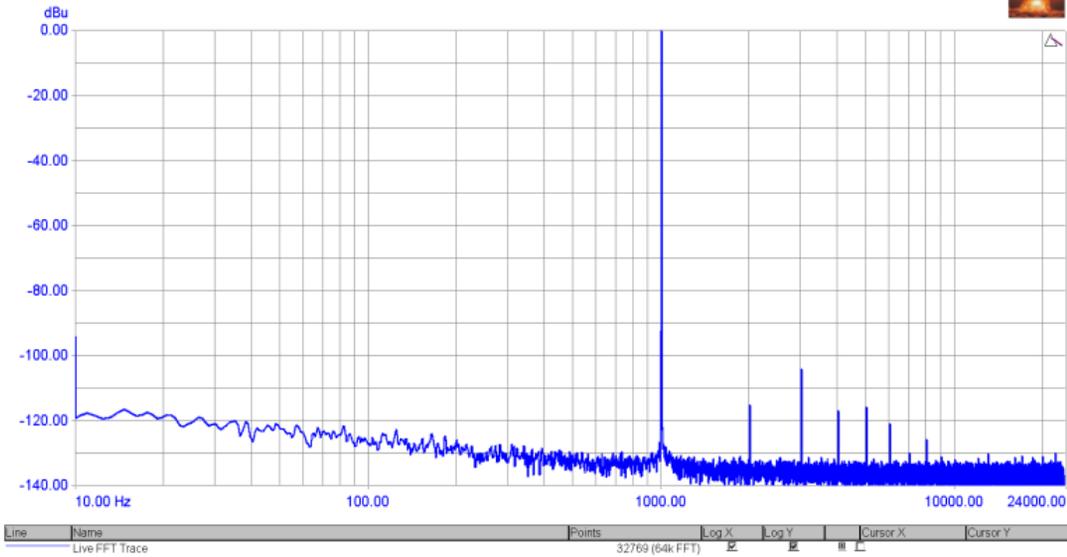
Generator Settings	
Channel A:	sine, 0 dBu at 1000 Hz
Channel B:	sine, 0 dBu at 1000 Hz

Signal Analyzer Readings		
RMS amplitude (Selected : Ch A)	0.155 dBu	Not limit checked.
RMS amplitude (Non-selected : Ch A)	-0.162 dBu	Not limit checked.

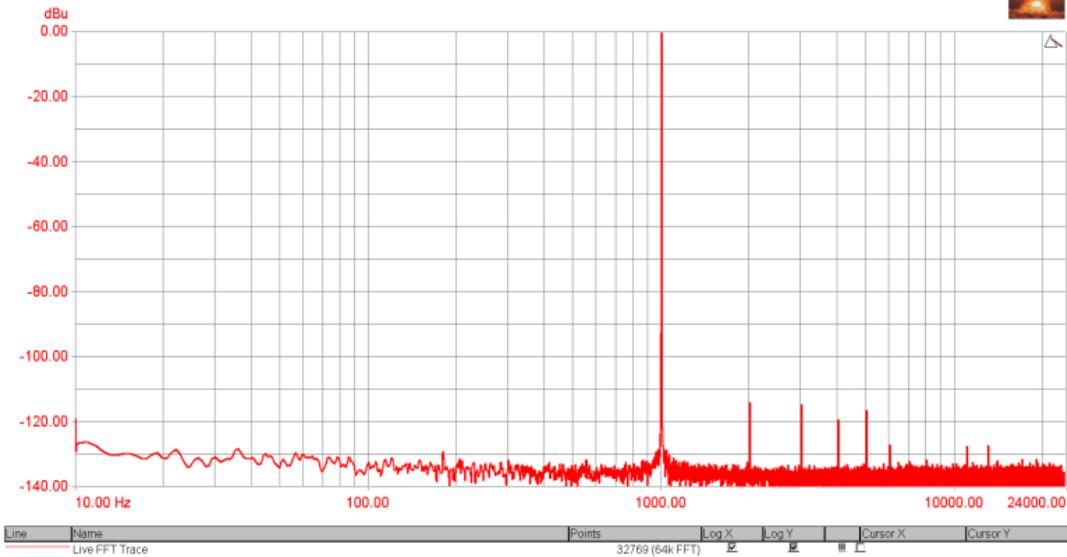
CTA Readings		
THD+N - relative (Selected : Ch A RMS)	0.00200 %	< 0.1 % > 0 %
THD+N - relative (Non-selected : Ch A RMS)	0.00153 %	< 0.1 % > 0 %

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



[Back to top](#)

A13 FFT 50+7000Hz: PASSED

Measured at 3/9/2020 10:07:43 AM

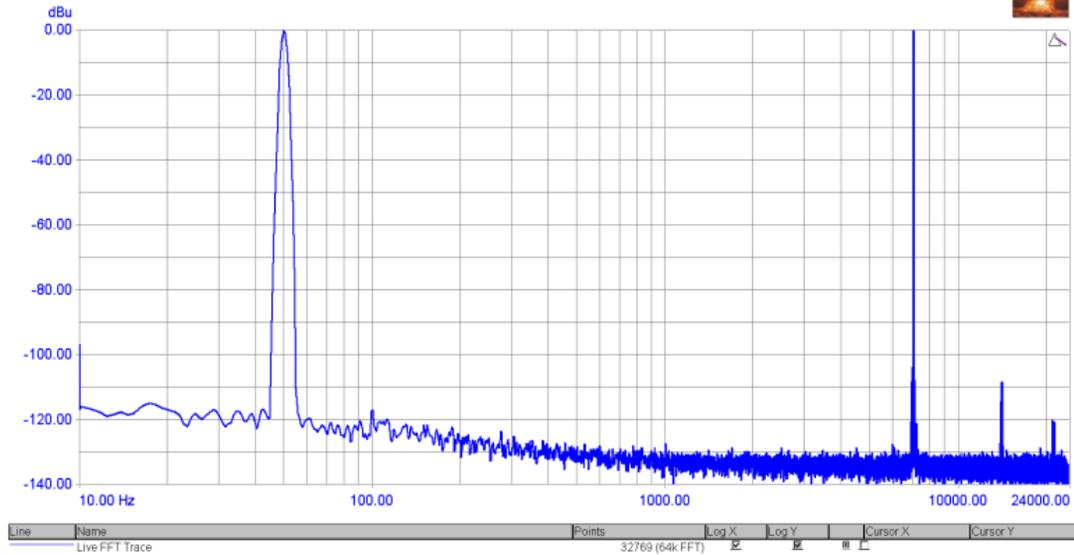
Generator Settings

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

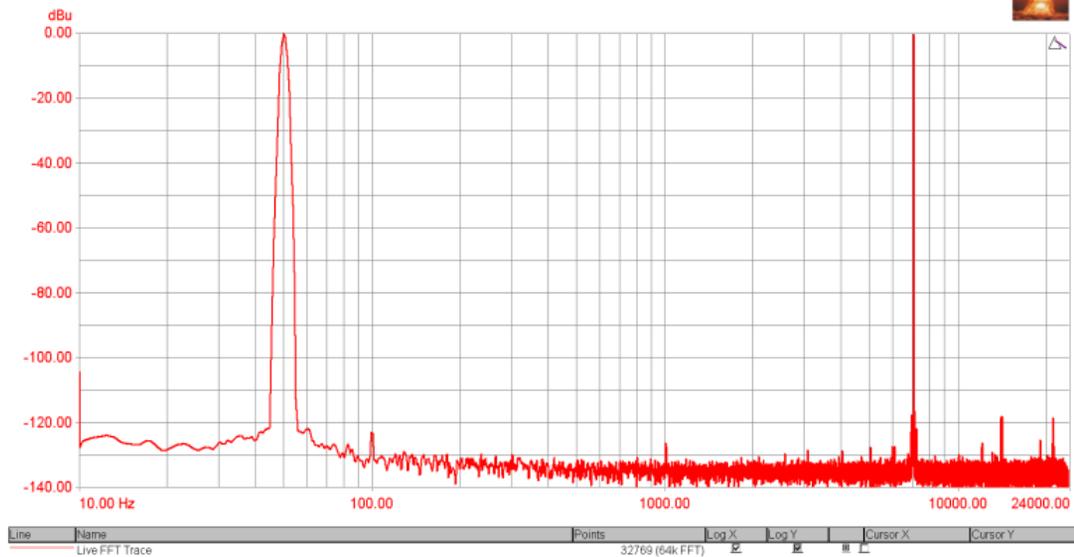
Signal Analyzer Readings

RMS amplitude (Channel A)	3.167 dBu	Not limit checked.
RMS amplitude (Channel B)	2.850 dBu	Not limit checked.

FFT 50 + 7000 Hz



FFT 50 + 7000 Hz



FFT Detector Readings

IMD SMPTE-DIN (Channel A)	0.00136 %	< 0.2 % > 0 %
IMD SMPTE-DIN (Channel B)	0.00116 %	< 0.2 % > 0 %
FFT 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with intermodulation notch band reject		

[Back to top](#)

A14 FFT 600+1700 Hz: PASSED

Measured at 3/9/2020 10:08:06 AM

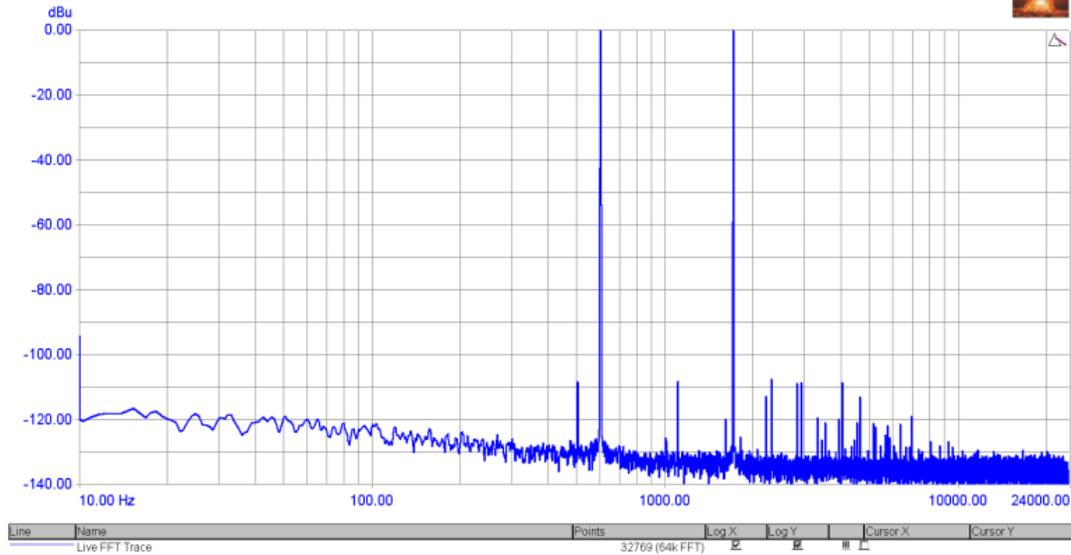
Generator Settings

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

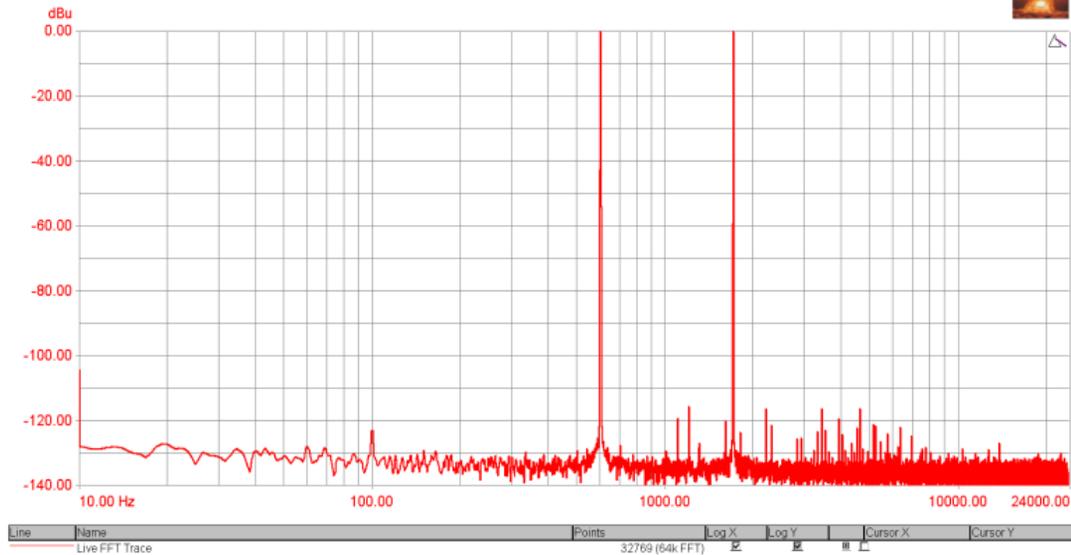
Signal Analyzer Readings

RMS amplitude (Channel A)	3.151 dBu	Not limit checked.
RMS amplitude (Channel B)	2.853 dBu	Not limit checked.

FFT 600 + 1700 Hz



FFT 600 + 1700 Hz



FFT Detector Readings

IMD SMPTE-DIN (Channel A)	0.00061 %	< 0.2 % > 0 %
IMD SMPTE-DIN (Channel B)	0.00046 %	< 0.2 % > 0 %
FFTD 1 Settings: Self relative, 22 Hz - 22 kHz, unweighted with intermodulation notch band reject		

[Back to top](#)

A15 FFT 19+20 KHz: PASSED

Measured at 3/9/2020 10:08:28 AM

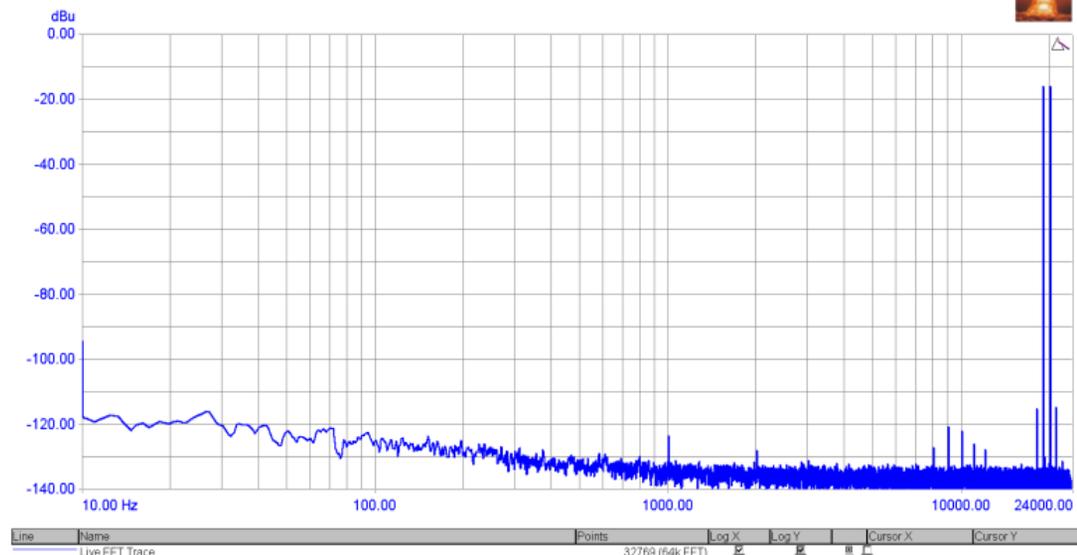
Generator Settings	
Channel A:	Twin-tone, -16 dBu at 19000 Hz and 1 amplitude ratio at 1000 Hz offset
Channel B:	Twin-tone, -16 dBu at 19000 Hz and 1 amplitude ratio at 1000 Hz offset

Signal Analyzer Readings		
RMS amplitude (Channel A)	-12.817 dBu	Not limit checked.
RMS amplitude (Channel B)	-13.141 dBu	Not limit checked.

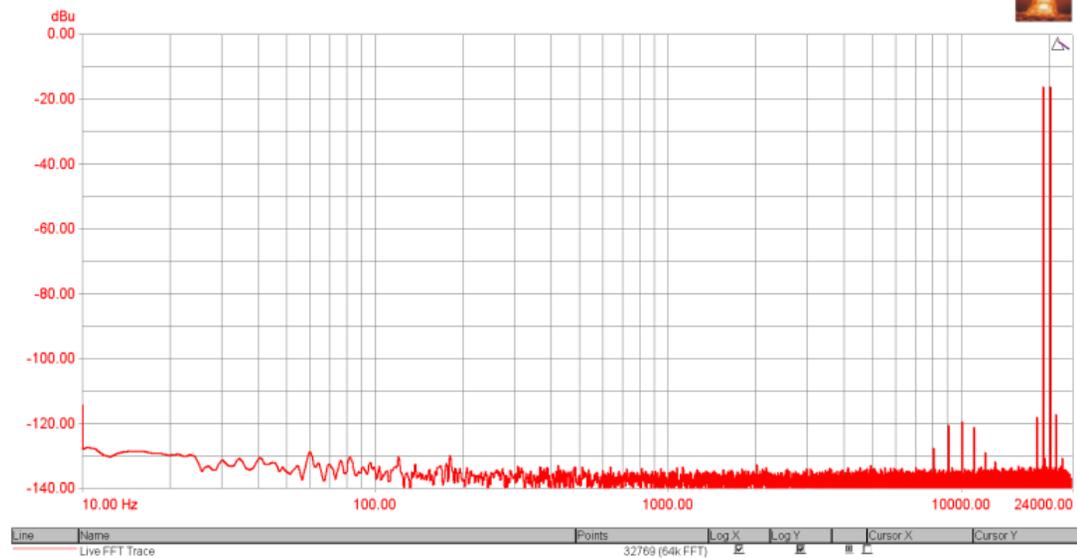
CTA Readings		
IMD CCIF (Channel A RMS)	0.00049 %	< 0.1 %
IMD CCIF (Channel B RMS)	0.00031 %	< 0.1 %

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)	0.00034 %	< 0.1 %
IMD CCIF (Channel B)	0.00016 %	< 0.1 %

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

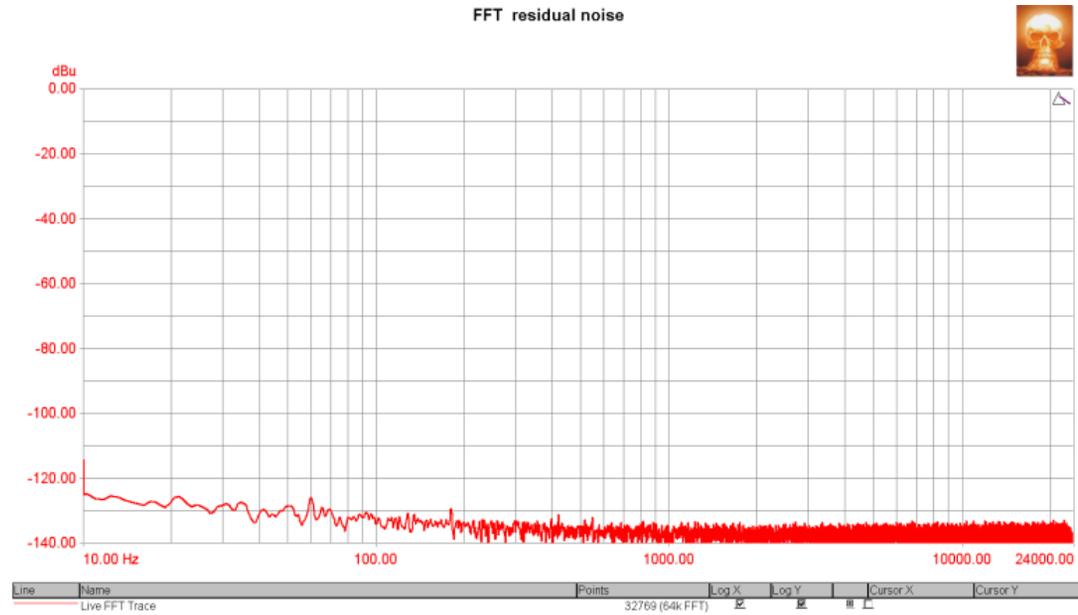
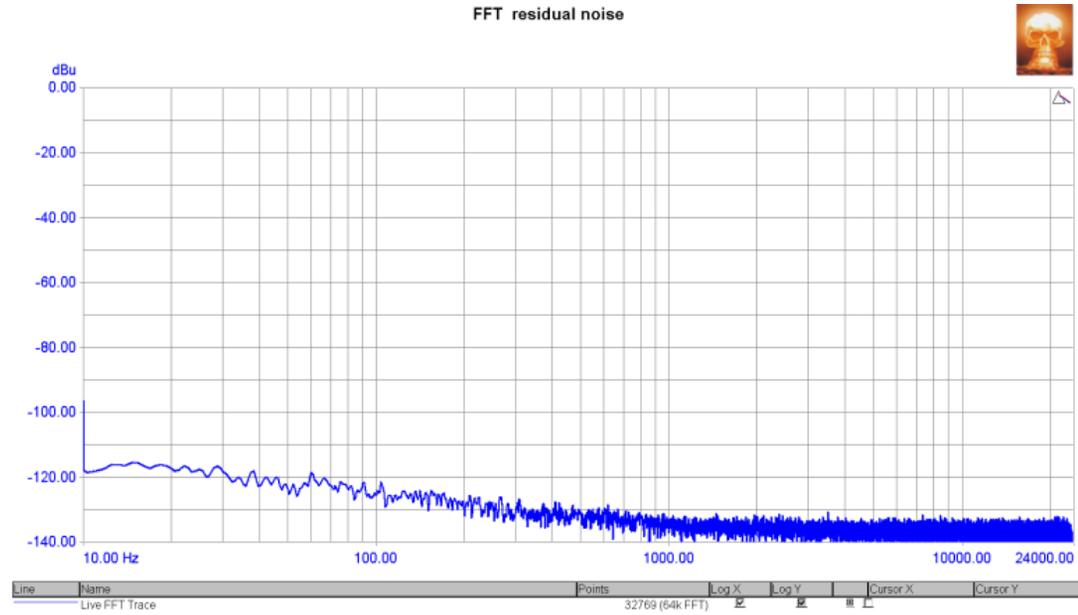
[Back to top](#)

A16 FFT residual noise: PASSED

Measured at 3/9/2020 10:08:54 AM

Generator Settings	
Channel A:	Off
Channel B:	Off

Signal Analyzer Readings		
RMS amplitude (Channel A)	-94.734 dBu	Not limit checked.
RMS amplitude (Channel B)	-96.091 dBu	Not limit checked.



FFT Detector Readings		
Noise (residual) (Channel A)	-94.878 dBu	< -80 dBu > -140 dBu
Noise (residual) (Channel B)	-96.551 dBu	< -80 dBu > -140 dBu

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