

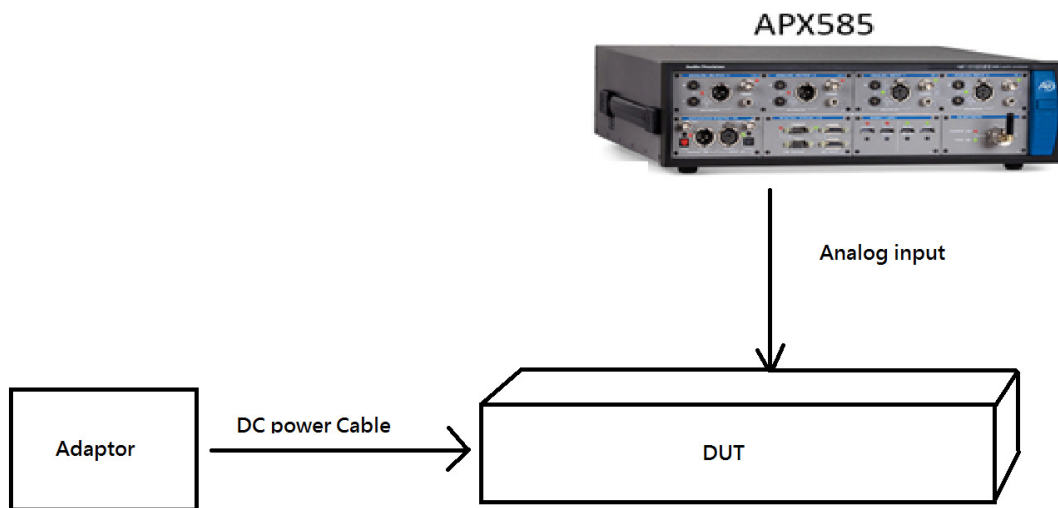
BFX-UA300

Hardware Unit Test Report

MIC for KARAOKE Test

Hardware version	FW version	Sample No.
V115	NA	PCB S/N: YUX07VA

1. Audio Test Setup



2. Test Condition

Use Audio precision send 1 KHz tone, the sample rate is 48 KHz and the input signal level following below table.

Test Condition	TLV320ADC3100 Gain Setting			Input Level (dBv)
	Mixer Gain (dB)	PGA Gain (dB)	ADC Gain (dB)	
1	0	10	20	-38
2	0	10	0	-15

3. Result and Picture

	ADC Gain	Specification (dB)		Test Result (dB)	Figure	Pass / Fail
		Min.	Max.			
Signal-to-noise ratio (SNR)	20	TBD		53.713	Fig. 1	?
	0	TBD		80.681	Fig. 2	Pass
Dynamic range (DNR)	20	TBD		59.859	Fig. 3	?
	0	TBD		82.646	Fig. 4	Pass
Total harmonic distortion (THD+N)	20		<1%	0.216709 %	Fig. 5	Pass
	0		<1%	0.010352 %	Fig. 6	Pass

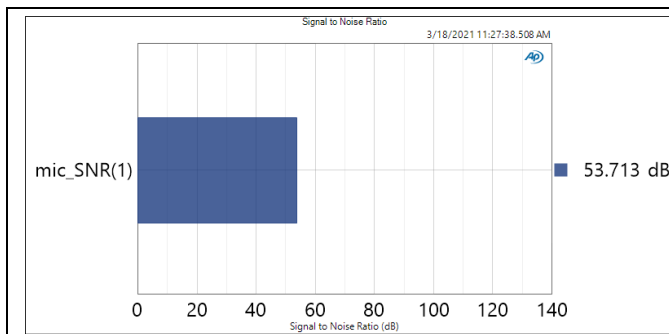


Fig. 1: SNR at ADC Gain 20dB

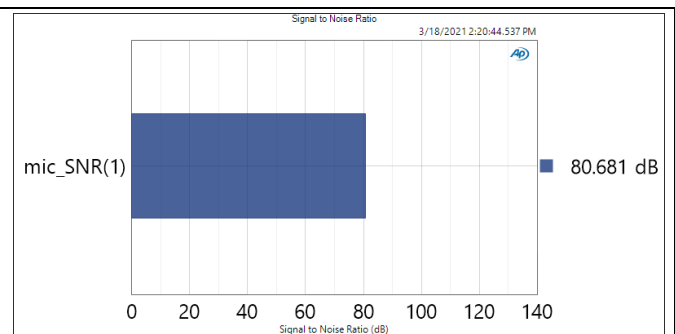


Fig. 2: SNR at ADC Gain 0dB

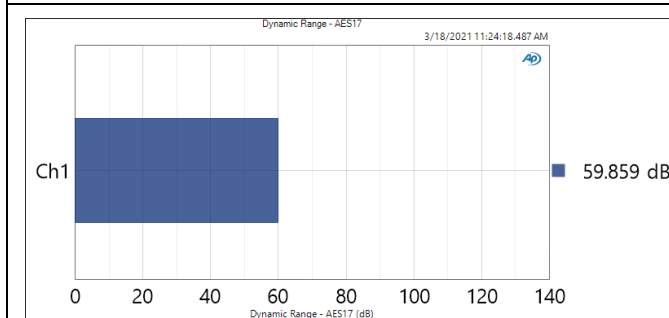


Fig. 3: DNR at ADC Gain 20dB

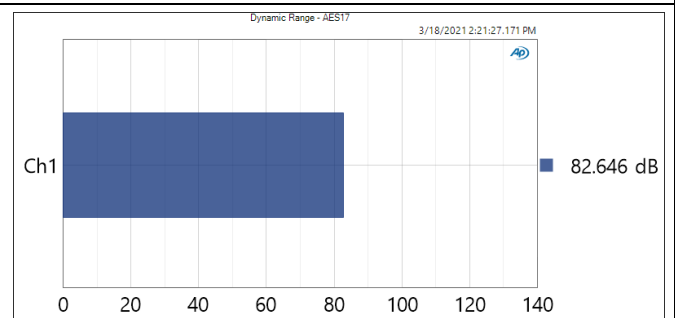


Fig. 4 DNR at ADC Gain 0dB

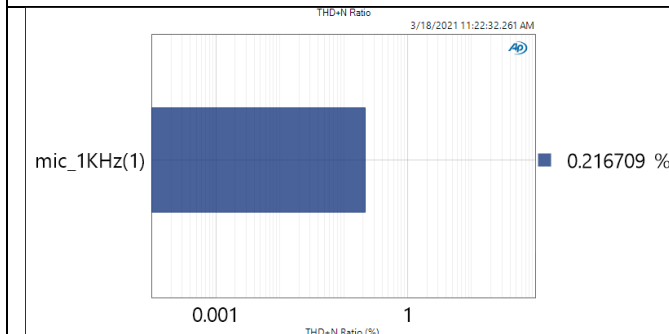


Fig. 5: THD+N at ADC Gain 20dB

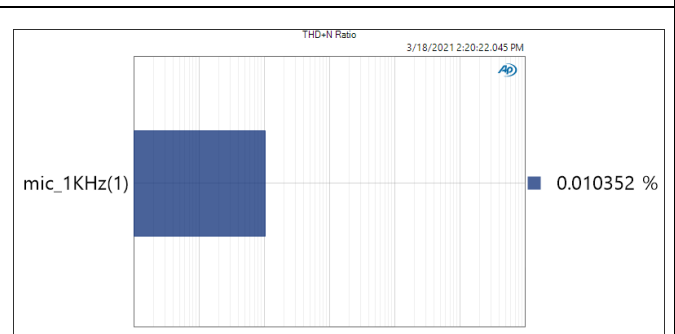


Fig. 6: THD+N at ADC Gain 0dB

4. Frequency response

Fig. 7 and Fig. 8 show 20Hz~20 KHz frequency response

Fig. 9 and Fig. 10 show THD+N ratio.

4.1 Result and Picture

	ADC Gain	Specification (dB)		Test Result (dB)	Figure	Pass / Fail
		Min.	Max.			
RMS Level	20			See Fig. 7	Fig. 7	Pass
	0			See Fig.8	Fig. 8	Pass
THD+N Ratio	20		<1%	<1	Fig. 9	Pass
	0		<1%	<1	Fig. 10	Pass

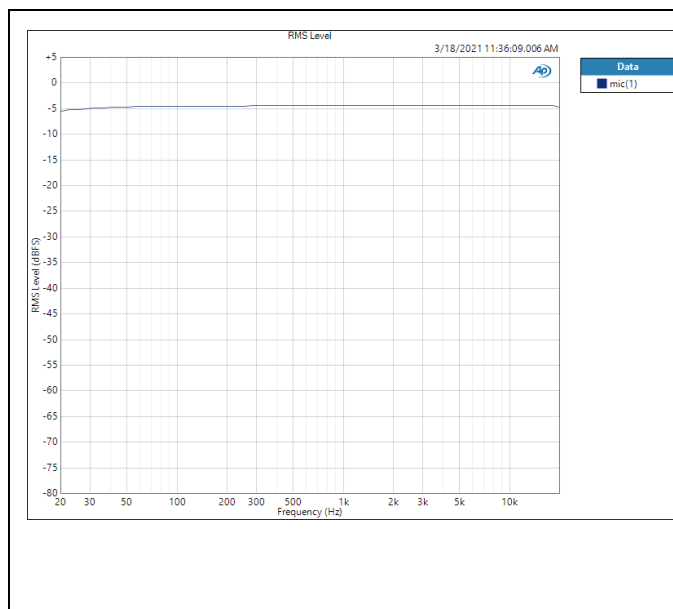


Fig. 7: RMS Level at ADC Gain 20dB

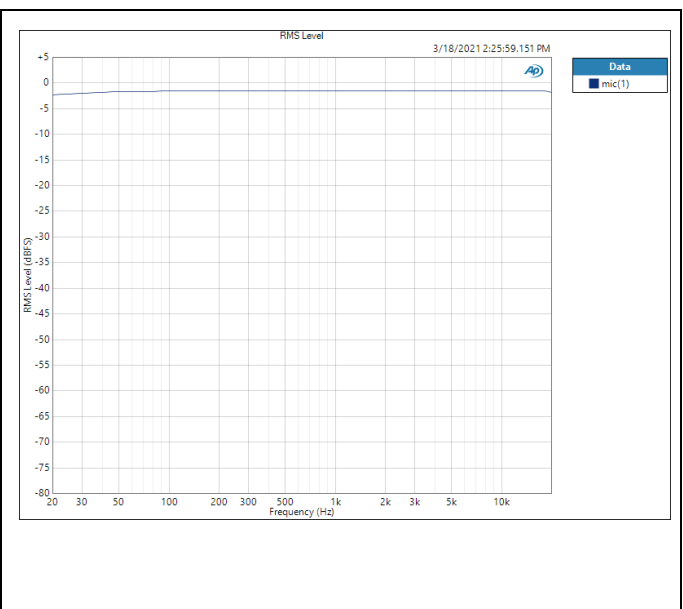


Fig. 8: RMS Level at ADC Gain 0dB

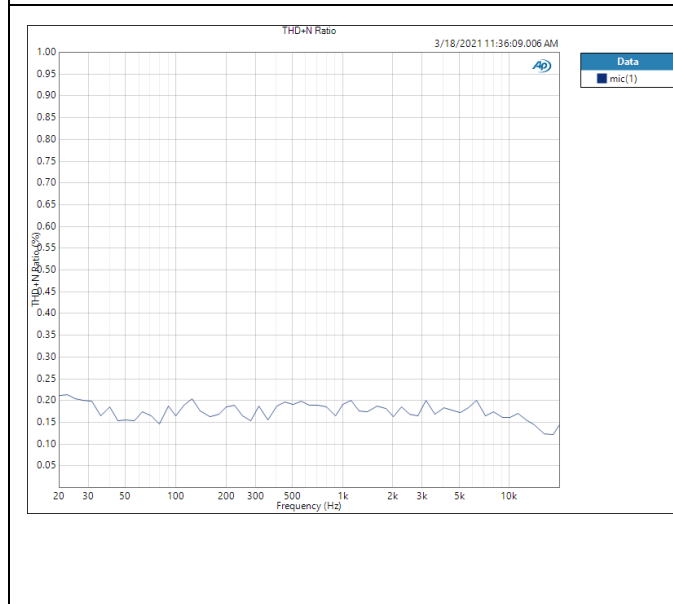


Fig. 9: THD+N ratio at ADC Gain 20dB

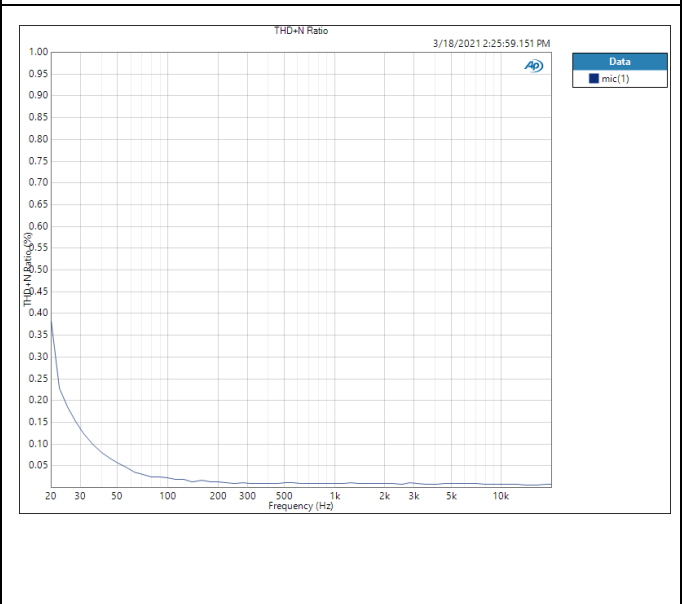


Fig. 10: THD+N ratio at ADC Gain 0dB