

# Appendix B: Technical Info

## DS3232 Specifications

### Frequency Response

Mic Input to Digital Output (@ 96 kHz SR)  
+0, -0.1 dB, 20 Hz to 24 kHz

### Distortion (THD)

Mic Input to Digital Output (@ 96 kHz SR)  
THD: < 0.003%, -10 dBu input,  
mic pre gain at -3 dB FS output

### Dynamic Range

105.0 dB A-weighted (ADC) typical  
112.5 dB A-weighted (DAC) typical

### Noise Floor

Equivalent Input Noise (E.I.N.), 20 Hz to 20 kHz Bandwidth,  
150Ω source impedance  
-128.5 dBu @ +45 dB mic pre gain

Residual Output Noise:  
Digital Out: < -112.5 dB FS

### Converters

24-bit @ 96 kHz

### Round Trip Latency

Mic In to Return Out: < 5.0 ms @ 48 kHz SR  
< 2.2 ms @ 96 kHz SR

### Common Mode Rejection Ratio (CMRR)

Mic In: >75 dB @ 1 kHz, Gain @ maximum

### Crosstalk

Adjacent Inputs: < -90 dB @ 1 kHz, +22 dBu on adjacent  
input, 150Ω source impedance

### Input Gain Control Range

Mic In (PAD out): +15 dB to +70 dB (in 1 dB increments)  
Mic In (PAD in): -8 dB to + 47 dB (in 1 dB increments)

### Phantom Power

+48 VDC

### Maximum Input Levels

Mic Input (PAD out): +7 dBu, Gain @ 15 dB  
Mic Input (PAD in): +30 dBu, Gain @ -8 dB

### Input Impedance

Mic Input (PAD out): 1.5 kΩ, balanced  
Mic Input (PAD in): 3.1 kΩ, balanced

### Output Impedance

Returns Out: servo-balanced, 51 Ω per side, XLR outputs

### AC Power Requirements

Power Consumption: 80 watts  
Universal AC Power Supply:  
100 VAC – 240 VAC, 50-60 Hz  
Operating Temperature:  
0°C – 40°C (50°F – 104°F)

### Physical Dimensions and Weight

Height: 10.2 in/26.0 cm (6 RU)  
Width: 19.0 in/48.3 cm  
Depth: 9.0 in/23.0 cm  
Weight: 20.5 lb/9.3 kg

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## DS3232 Dimensions

