# **Technical Specifications**

#### Microphone Preamp

Type

XLR Female, Class A XMAX

Maximum Input level (unity gain)

+9 dBu ±1.0 dB

Gain Control Range

43 dB (+12 to +55 dB)

Frequency Response to Analog Outputs

20 Hz to 20 kHz, +0.5/-1.5 dB

Frequency Response to USB (Direct)

20 Hz to 20 kHz, +0.5/- 1.5 dB

S/N Ratio to Outputs (+4 dBu)

94 dB

THD+N (min. gain, A-wtd)

< 0.01%

Input Impedance

1 kO

EIN (+55 dB gain, 150Ω input, 20 Hz-22 kHz, A-wtd)

Mono Channels: < 128 dBu

Common Mode Rejection Ratio (1 kHz, +55 dB gain)

65 dB

Phantom Power

+48V, ±3V, Global

Note: All Channel Inputs sum through Mic preamp

#### Instrument Inputs

Type

1/4" TS Female, Unbalanced, Hi-Z

Maximum Input Level (min. gain, 1 kHz@0.5% THD+N)

+9 dBu ±1.0 dB

Gain Control Range

43 dB, ±1 dB (+12 to +55 dB)

Frequency Response to Analog Outputs

20 Hz to 20 kHz, +0.5/-1.5 dB

Frequency Response to USB (Direct)

20 Hz to 20 kHz, +0.5/-1.5 dB

Dynamic Range (min. gain, A-wtd)

> 105 dB

Dynamic Range (mid. Gain, unwtd)

> 108 dB

THD+N (1 kHz, -1 dBFS, A-wtd)

< 0.01%

THD+N (1 kHz, -1 dBFS, unwtd)

< 0.01%

Input Impedance

> 1 MΩ

Note: All Channel Inputs sum through Mic preamp

# Line Inputs

Type

1/4" TRS Female, Balanced

Maximum Input Level (min. gain, 1 kHz@0.5% THD+N)

+26 dBu ±1.0 dB

Gain Control Range

Mono Channels: 40 dB, ±1 dB (-5 to +35 dB)

Stereo Channels: 0 dB or +10 dB (+10 dB Boost)

Frequency Response to Analog Outputs

20 Hz to 20 kHz, +0.5/-1.5 dB

Frequency Response to USB (Direct)

20 Hz to 20 kHz, +0.5/-1.5 dB

S/N Ratio to Analog Outputs (+4 dBu)

85 dB

THD+N (1 kHz, -1 dBFS, A-wtd)

< 0.01%

Input Impedance (Balanced)

Note: All Channel Inputs sum through Mic preamp

# Main, Control Room, Monitor, and FX Outputs

Type (Main Outputs)

XLR Male, Impedance Balanced

Type (Control Room, Monitor, FX Outputs)

1/4" TRS Female, Balanced

Rated Output Level (Main Outputs)

+24 dBu, ±1.0 dB

Rated Outputs Level (Control Room, Monitor, FX Outputs)

+18 dBu

10 kΩ

Frequency Response

20 Hz to 20 kHz, +0.5/-1.5 dB

Dynamic Range (A-wtd)

> 108 dB

THD+N (Bandwidth 20 Hz - 20 kHz, -1 dBFS, unwtd)

< 0.01%

Output Impedance

100 Ω

### **Headphone Output**

Type

1/4" TRS Female, Stereo, Unbalanced

Maximum Output Level

150 mW/channel @ 60  $\Omega$ 

Frequency Response

20 Hz to 20 kHz, +0.5/-1.5 dB

Dynamic Range (A-wtd)

> 103 dB

THD+N (Bandwidth 20 Hz - 20 kHz, -1 dBFS, unwtd)

< 0.01%

#### System Crosstalk

Input to Output (Ref = +4dBu, 20 Hz to 20 kHz, unwtd)

-90 dBu

Adjacent Channels (Ref = +4 dBu, 20 Hz to 20 kHz, unwtd)

-85 dBu

## Signal Level LED

Signal

-30 dBFS (pre-EQ)

Clip

-3.0 dB before clip (pre- or post-EQ)

#### **Channel EQ**

Low Cut

100 Hz, -18 dB/Octave

High Shelving

±15 dB @ 10 kHz

Mid Peaking (Mono Channels)

±15 dB @ 140 Hz to 3.5 kHz (variable)

Mid Peaking (Stereo Channels)

±15 dB @ 2.5 kHz

Mid-Band Q

Boost: 1.0, Cut: 2.5

Low Shelving

±15 dB @ 100 Hz

# **Digital Audio**

Host Interface

**USB 2.0** 

ADC Dynamic Range (Component)

114 dB

ADC Dynamic Range (Measured: A-wtd, 48 kHz)

105 dB

DAC Dynamic Range (Component)

114 dB

DAC Dynamic Range (Measured: A-wtd, 48 kHz)

105 dB

Signal-to-Noise (a-weighted) -96 dB

Bit Depth 24-bit

Internally Supported Sample Rates 44.1, 48, 88.2, 96 kHz

Jitter < 80 ps RMS (20 Hz – 20 kHz)

Jitter Attenuation > 60 dB (1 ns in => 1 ps out)

**SD Recorder** 

Supported Media Format FAT16 formatted SD™ card, FAT32 formatted SDHC™ card

Media Storage Capacity SD card: 2 GB; SDHC card: 32 GB

Recording File Format Stereo WAV

Playback File Formats Stereo WAV, MP3 (96-320 kbs, 32 / 44.1 / 48 kHz)

Sampling Rate (WAV) 44.1 kHz

Bit Depth Recording: 24-bit

Playback: 16- or 24-bit

Power/Environmental

Connector IEC

Input Voltage Range 90 to 240 VAC

Recommended Ambient Operating Temperature 0° to 40° Celsius / 32° to 104° Fahrenheit

**Physical** 

Height 3.5" (89 mm)

Width (Chassis only) 18.9" (480 mm)

Depth 15.6" (397 mm)

Weight 14.1 lbs (6.4 kg)

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