

AUDIOBOX USB

<http://www.presonus.com/products/Detail.aspx?ProductId=53>

- 24-bit / 44.1, 48k USB audio recording interface
- 2 class A XMAX microphone / instrument preamplifiers
- 48V phantom power
- 2 balanced TRS outputs
- MIDI input/output
- Powered via USB

Microphone Preamp

Type	XLR Female Balanced
Frequency Response (± 3.0 dB)	14 Hz to 70 kHz
Input Impedance (Balanced)	1200 Ω
THD+N (unwtd, 1 kHz @ +4 dBu Output, Unity Gain)	< 0.008%
EIN (A-weighted, 55dB Gain, 150 Ω Input, 20Hz to 22 kHz)	-115 dBu
S/N Ratio (Unity Gain, Ref. = +4 dBu, 20Hz to 22 kHz)	> 95 dB
Common Mode Rejection Ratio (1 kHz, 55 dB Gain)	> 45 dB
Gain Control Range (± 1 dB)	0 dB to 35 dB
Max Input Level (Unity Gain, 1 kHz @ 0.5% THD+N)	-3 dBu
Phantom Power (± 2 VDC)	+48 VDC

Instrument Input

Type	1/4"
TRS Female Unbalanced Input Impedance	0.5 M Ω

Line Outputs

Type	1/4" TRS
Balanced Output Impedance	51 Ω

Headphone Output

Type	1/4" TRS Active Stereo
Maximum Output	60 mW/Ch @ 60 Ω Load
Frequency Response (± 1.0 dB)	20 Hz – 30 kHz

MIDI I/O

Type	Dual 5-pin Female DIN
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Digital Audio

ADC Dynamic Range (Awt'd, 48 kHz Sample Rate)	102 dB
DAC Dynamic Range (Awt'd, 48 kHz Sample Rate)	110 dB
Bit Depth	24
Reference Level for 0dBFS	+4 dBu
Internal Sample Frequency Selections (kHz)	44.1, 48

Power	USB Bus-powered
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EDIROL UA-4FX USB Audio/MIDI Interface

<http://www.edirol.net/products/en/UA-4FX/specs.html>

Number of Audio Record/Playback Channels	Record:1 pair of stereo Playback:1 pair of stereo Full duplex (Except 96 kHz)
Signal Processing	PC Interface 24 bits AD/DA Conversion24 bits (linear) Internal Processing32 bits (Effect processing)
Sampling Frequency	Digital Output 44.1/48/96 kHz Digital Input 44.1/48/96 kHz AD/DA Conversion 44.1/48/96 kHz * ADVANCE SWITCH = OFF: 44.1 kHz only
Frequency Response	96.0 kHz20 Hz to 40 kHz (+1 dB/-2 dB) 48.0 kHz20 Hz to 22 kHz (+1 dB/-1 dB) 44.1 kHz20 Hz to 20 kHz (+1 dB/-1 dB)
Nominal Input Level	Line Input Jacks-10 dBu MIC Input Jack (XLR)-45 to -12 dBu MIC Input Jack (except XLR)-45 dBu GUITAR Input Jack-30 dBu
Nominal Output Level	Line Output Jacks-10 dBu Residual Noise Level (input terminated with 1 k ohms, MAIN VOLUME: 0 dB, Monitor: OFF, IHF-A typ.) -105 dBu or less (SN ratio: 108 dB, typ.)
Interface	USB ; Digital Input/Output; Optical type conforms to IEC60958 consumer format: PCM/AC3
Effects	1. Mastering Noise Suppressor/Enhancer/Multi-band Compressor-Limiter 2. Listening Center Cancel/High Boost/Low Boost/Reverb 3. Performance Voice-change/Amp-Simulator and Distortion/Chorus/Delay 4. Tube-amp simulator Tube-Amp-Simulator/Multi-band Compressor-Limiter
Connectors	Line Input Jacks (L, R) (RCA phono type) MIC Input Jack (XLR type, balanced, phantom power +48 V) MIC Input Jack (Miniature phone type, plug-in powered) GUITAR/MIC Input Jack (1/4 inch phone type) Line Output Jacks (L, R) (RCA phono type) Headphones Jack (Stereo 1/4 inch phone type) Digital Input Connector (Optical type) Digital Output Connector (Optical type) MIDI Connectors (IN/OUT) USB Connector (USB Type B)
Power Supply	Supplied from the computer
Current Draw	360 mA

Link.USB TAPCO

<http://www.tapcworld.com/products/linkusb/specs.html>

Frequency Response	
<i>Any Input to Monitor Output:</i>	+0, -0.5 dB, 22 Hz to 22 kHz @ 48 kHz SR
<i>Any Input to Phones Output:</i>	+0, -3 dB, 30 Hz to 22 kHz @ 48 kHz SR (600Ω load)
Distortion	
THD + Noise (1 kHz, -1 dBFS @ 48 kHz SR)	
<i>Mic Input to Monitor Output:</i>	< 0.005%
Dynamic Range	
<i>Mic Input to Monitor Output (48 kHz SR, A-weighted):</i>	100 dB
Input Impedance	
<i>Mic Input:</i>	3 kΩ
<i>Line Input:</i>	20 kΩ balanced, 20 kΩ unbalanced
<i>Instr Input:</i>	1 MΩ
Output Impedance	
<i>Monitor Output:</i>	200Ω
<i>Headphone Output:</i>	< 1Ω
Crosstalk	
<i>Monitor Output (1 kHz, Left to Right)</i>	-70 dB
<i>Headphone Output (1 kHz, Left to Right)</i>	-80 dB
Maximum Input Level	
<i>Mic In (XLR):</i>	-2.2 dBu
<i>Line In:</i>	+4.5 dBu
<i>Instr In:</i>	+5.4 dBu
Maximum Output Level	
<i>Monitor Output:</i>	+4.2 dBu
<i>Headphone Output:</i>	18 mW into 600Ω
A/D and D/A Conversion	
	24 bit, 44.1 / 48 / 88.2 / 96 kHz

E-MU's Tracker Pre USB 2.0

<http://www.emu.com/products/product.asp?product=17511&nav=technicalSpecifications>

Technical Specifications

General

- Sample Rates: 44.1, 48, 88.2, 96, 176.4, 192kHz from internal crystal (no sample rate conversion)*
- Bit Depth: 24-bit I/O, 32-bit processing
- USB 2.0 Hi-Speed
 - Full 24-bit resolution at all sample rates
 - Stereo in, stereo out at all sample rates
- Zero-latency direct hardware monitoring (disabled at 176.4-192kHz)
- Windows drivers: ASIO2 and WDM
- Macintosh driver: Apple CoreAudio
- Anti-Pop speaker protection minimizes noise during power on/off
- Ultra-low jitter clock subsystem: < 100ps RMS
- USB Bus or AC powered via optional Universal Power Supply

Combo Preamplifiers (2)

- Type: E-MU® CurrentMorph™ combo mic preamp and Hi-Z/line input
- A/D converter: AK5385
- Max Level: +6.4dBV bal/unbal (+6.9 dBu)
 - Hi-Z/line balanced input: +6.9dBV bal/unbal (+9.1dBu)
 - Microphone Preamplifier: +6.4dBV bal/unbal (+8.6dBu)
- Frequency Response (min gain, 20Hz-20kHz): +0.0/-0.03dB
- Dynamic Range (A-weighted, 1kHz, min gain): 112dB
- Signal-to-Noise Ratio (A-weighted, min gain): 112dB
- THD+N (1kHz at -1dBFS, min gain): -102dB (.0007%)
- EIN (20Hz-20kHz, 150ohm, unweighted): -127dBu
- Input Impedance
 - Hi-Z/line balanced input: 1Mohm
 - Microphone Preamplifier: 1.5Kohms

Analog Line Outputs (2)

- Type: balanced, AC-coupled, 2-pole low-pass differential filter
- D/A converter: CS4392
- Max Level: 6.6 dBV (unbalanced)
- Frequency Response (20Hz - 20kHz): 0.00/-0.08dB
- Dynamic Range (1kHz, A-weighted): 112dB
- Signal-to-Noise Ratio (A-weighted): 112dB
- THD+N (1kHz at -1dBFS): -99dB (.0011%)
- Stereo Crosstalk (1kHz at -1dBFS): <-111dB

Headphone Amplifier

- ⦿ Type: Class-A power amplifier
- ⦿ D/A converter: CS4392 (shared with Line Out)
- ⦿ Gain Range: 60dB
- ⦿ Maximum Output Power: 22mW
- ⦿ Output Impedance: 22ohms
- ⦿ Frequency Response (20Hz-20kHz): +0.02/-0.07dB
- ⦿ Dynamic Range (A-weighted): 112dB
- ⦿ Signal-to-Noise Ratio (A-weighted): 112dB
- ⦿ THD+N (1kHz, max gain): 300ohm load: -99dB (.0011%)
- ⦿ Stereo Crosstalk (1kHz at -1dBFS, 300 ohm load): <-90dB

Synchronization

- ⦿ Internal crystal sync at 44.1, 48, 88.2, 96, 176.4, 192kHz*