E-MU

1212m Digital Audio System

The E-MU® 1212M PCI Digital Audio System delivers everything you need to produce audio on a PC with professional results - 24-bit/192kHz converters (the same A/D converters used in Digidesign®'s flagship Pro Tools® HD 192 I/O interface), hardware-accelerated effects and mixing, and seamless compatibility with your favorite PC audio/sequencer software. Whether you are recording full-blown productions or running virtual instruments on a dedicated computer, the E-MU 1212M PCI Digital Audio System is the perfect solution for any application that only requires a couple channels of premium analog I/O (i.e. mastering, remixing and running virtual instruments).

The E-MU 1212M PCI features:

- **Mastering grade 24-bit/192kHz converters** - the same A/D converters used in Digidesign's flagship ProTools HD 192 I/O Interface delivering an amazing 120dB signal-to-noise ratio
- **Hardware-accelerated effects** - over 600 standalone and E-MU Power FX VST plug-in effects with no CPU overhead
- **PatchMix™ DSP zero-latency hardware mixing and monitoring** - with super-flexible patchbay - no external mixer needed
- **Comprehensive analog and digital I/O plus MIDI** - 12 inputs and 12 outputs, plus MIDI I/O
- **Compatibility with most popular audio/sequencer applications** - ultra-low latency 24-bit/192kHz ASIO 2.0 and Stereo WDM drivers
- **Modular design** allows you to customize your system - add a MicroDock to your 1212M for increased analog and digital connectivity and/or connect E-MU's Sync Daughtercard to your Digital Audio System for SMPTE, Word Clock and MTC sync
- **E-MU Production Tools Software Bundle** - includes Cakewalk SONAR LE, Steinberg Cubase LE and Wavelab Lite, Ableton Live Lite 4 for E-MU, IK Multimedia AmpliTube LE and T-RackS EQ, Minnetonka diskWelder BRONZE, SFX Machine LT, plus E-MU's Proteus X LE Desktop Sound Module - everything you need to create, record, edit, master and burn is in the box

I/O Configuration:

- Two 1/4" Balanced Inputs
- 24-bit/192kHz ADAT In/Out (switchable to S/PDIF)
- 24-bit/96kHz S/PDIF In/Out (switchable to AES/EBU)
- MIDI In/Out

Technical Specifications

General

- Sample Rates: 44.1, 48, 96, 192kHz from internal crystal or externally supplied clock (no sample rate conversion)
- Bit Depths: 24-bit I/O, 32-bit processing
- PCI Specification:
  - PCI 2.2 Compliant
  - Form Factor: Universal Keyed, Short PCI Card
  - 3.3V I/O, 5V Tolerant
  - PCI Bus-Mastering DMA subsystem reduces CPU usage
- E-MU E-DSP™ 32-bit DSP with 67-bit accumulator (double precision w/ 3 headroom bits)
- Hardware-accelerated, 32-channel mixing, and multi-effects processing
- Zero-latency direct hardware monitoring w/effects
- ASIO 2.0, WDM/MME/DirectSound Drivers
- EDI (E-MU Digital Interface) proprietary 64-channel audio link over CAT-5 cable
- Anti-Pop speaker protection minimizes noise during power on/off
- Ultra-low jitter, clock subsystem: < 1 ns in PLL mode (44.1kHz, Opt. S/PDIF Sync)

Analog Line Inputs (2)

- Type: servo-balanced, DC-coupled, low-noise input circuitry
- A/D converter: AK5394A
- Level (software selectable):
  - Professional: +4dBu nominal, 20dBu max (balanced)
  - Consumer: -10dBV nominal, 6dBV max (unbalanced)
- Frequency Response (20Hz - 20kHz): +/- .05dB
- Dynamic Range (1kHz, A-weighted): 120dB
- Signal-to-Noise Ratio (A-weighted): 120dB
- THD+N (1kHz at -1dBFS): -110dB (.0003%)
- Stereo Crosstalk (1kHz at -1dBFS): < -115dB

Analog Line Outputs (2)

- Type: Balanced, low-noise, 3-pole low-pass differential filter
- D/A converter: CS4398
- Level (software selectable):
  - Professional: +4dBu nominal, 20dBu max (balanced)
  - Consumer: -10dBV nominal, 6dBV max (unbalanced)
- Frequency Response (20Hz - 20kHz): + 0.0/-.35dB,
- Dynamic Range (1kHz, A-weighted): 120dB
- Signal-to-Noise Ratio (A-weighted): 120dB
- THD+N (1kHz at -1dBFS): -105dB (.0006%)
- Stereo Crosstalk (1kHz at -1dBFS): < -115dB

Digital I/O

- S/PDIF:
  - 2 in/2 out coaxial (transformer coupled)
  - 2 in/2 out optical (software switched at ADAT)
  - AES/EBU or S/PDIF format (software selectable)
- ADAT:

- 8 channels, 24-bit @ 44.1/48kHz
- 4 channels, 24-bit @ 96kHz (S-MUX compatible)
- 2 channels, 24-bit @ 192kHz
- MIDI:
  - 1 in, 1 out

Synchronization

- Internal crystal sync at 44.1, 48, 96, 192kHz
- External sample rate sync via
  - ADAT (44.1 - 192kHz)
  - S/PDIF (opt. or coax 44.1 - 96kHz)

Minimum System Requirements

- Intel® or AMD® processor - 1 GHz or faster
- Intel, AMD or 100% compatible motherboard & chipset
- Microsoft® Windows® XP (SP 2) or Windows XP x64
- 256MB System RAM
- 900MB of free hard disk space for full installation
- PCI 2.1 compliant slot for E-MU 1010 PCI card
- CD-ROM/CD-RW or DVD-ROM drive required for software installation
- XVGA Video (1024 X 768)