



# E-mu Systems 1616M

**MusicTech**  
**RECOMMENDED**  
★★★★★★★

E-mu has created an interesting CardBus alternative to FireWire and USB interfaces for laptop users. **George Shilling** slides it in.

### KEY FEATURES

- Mastering-grade 24-bit/192kHz converters
- Hardware-accelerated effects
- PatchMix DSP zero-latency hardware mixing and monitoring
- Ultra-portable MicroDock M offers 16 I/O plus MIDI
- XTC mic preamps with analogue soft limiter

**MEASURING UP**  
No competing CardBus interfaces are as well-featured at this price. Save £50 by buying the 1616 (no 'm'), which is similar, but has cheaper converters. Otherwise, Digigram's VX Pocket and RME's RPM+ CardBus are more expensive, while Echo's Indigo DJ is cheaper, but all suffer lower I/O counts and lack DSP.

**1616M**  
Manufacturer **E-mu Systems**  
Price **£350**  
Contact **E-mu Systems 0800 901 2168**  
Web **www.emu.com**  
Minimum system requirements  
**500MHz Pentium III/AMD K6 processor, Intel/AMD-compatible motherboard and chipset, Windows 2000 (SP4) or Windows XP (SP1), 256MB RAM, free CardBus-compliant slot (type 2)**

E-mu has been marketing PCMCIA interfaces for years, and the recent spate of USB and FireWire rivals seems only to have spurred the company on to better-quality and even more competitively priced CardBus devices. There are good technical reasons for preferring this type of interface: performance is closer to that of PCI interfaces than FireWire or USB, making it easier to compare the MIDI performance of the different device types; while the superiority of PCMCIA in both latency and jitter is obvious. The disadvantages include incompatibility with desktop machines and the often increased production costs. However, the price of E-mu's latest product is low enough to make it a worthy consideration and it offers plenty of inputs and outputs, as well as unusual features such as a turntable input and

onboard DSP. One particularly interesting feature of the 1616m is the deployment of the same converters that Digidesign uses in the HD 192 hardware for Pro Tools.

The Windows-only 1616m comprises the 02 interface card and a breakout box (MicroDock) that are coupled by RJ45 Ethernet-style connections, although a (rather short) proprietary cable is used. The card itself comes with a natty mobile phone-style pouch and features a 3.5mm headphone output. This can be used without the MicroDock attached for mixing, with the onboard DSP enabling some useful E-mu host-powered effects to take some strain off your computer.

### The ins and outs

The MicroDock is powered by a supplied in-line transformer, which got worryingly hot after prolonged connection to the mains. The smart rubber-footed box features a variety of inputs and outputs on both the front and rear and is brought to life using the Off/Volume knob accompanying the 6.3mm headphone output on the front. Gain knobs are provided for the two front-panel mic/instrument input combi-jacks, and these are accompanied by useful LED meters. Phantom power is available globally for the two mic inputs.

In comparative tests, the mic preamps proved to be detailed and neutral; there are very few bad mic preamps in competing devices

currently, but for the money these are better than you might expect. Also on the front are S/PDIF phonos and ADAT optical connections, the latter sensibly shuttered and able to operate as S/PDIF for stereo operation or S/MUX for high sample rates with reduced channel counts.

On the rear, the two stereo input pairs and three stereo output pairs use space-saving TRS jacks. The second pair of inputs utilise phono inputs for connecting a turntable through an RIAA preamp, making this box a useful DJ tool. The three stereo outputs also appear as stereo mini-jacks for easy connection to powered speakers, enabling a quick-and-easy 5.1 setup. To save space, a D-connector is used for the supplied breakout cable which splits into four 5-pin DIN sockets for connecting standard MIDI leads, providing two inputs and two outputs for 32-channel MIDI operation.

### Move over

Installing the software is a breeze as long as you noticed the instruction to cancel the standard Windows Found New Hardware Wizard. Following driver installation there is an extremely generous array of bundled software provided on a second CD, which includes lite versions of Cubase, Sonar, Ableton Live, E-mu's Proteus X soft sampler, plus effects such as T-RackS EQ and AmpliTube. Also installed is E-mu's Patchmix software for setting up and controlling the 1616m.

The 1616m represents fantastic value for money, with plenty of I/O, onboard DSP and great accompanying software. If you are set on using a Windows laptop for audio, this is surely the way to go. **MTM**

## SUMMARY

### WHY BUY

- Professional-grade 192kHz converters
- Bundled software
- Good mic preamps
- 192kHz ASIO 2 and stereo WDM drivers
- DSP-powered plug-ins
- Can be used without MicroDock

### WALK ON BY

- No Mac support
- Useless if/when you upgrade to a desktop PC
- Patchmix software could look cleaner
- DSP effects don't work above 48kHz
- No headphone monitoring of outputs other than the main pair with either headphone socket

## VERDICT

**Comprehensive I/O, truly professional converters, useful DSP effects, great bundled software and comparable in price to its FireWire rivals.**

★★★★★★★

**BUY THIS PRODUCT AT [WWW.MUSICTECHMAG.CO.UK/STORE](http://WWW.MUSICTECHMAG.CO.UK/STORE)**