

# 192 I/O

## World-Class, 24-Bit/192 kHz Multi-Channel Audio Interface

**M | W**  
Mac OS | Windows

### FEATURES

- 50 possible inputs and outputs
- Supports up to 16 simultaneous channels of high-definition I/O
- Extremely flexible analog and digital I/O
- Card option bay for analog or digital I/O expansion with 192 AD, 192 DA, or 192 Digital cards
- World-class 24-bit/192 kHz A/D & D/A conversion
- Comes with a wide range of digital I/O, including 8 channels of AES/EBU I/O, 8 channels of TDIF I/O, 16 channels of ADAT I/O and 2 additional channels of AES/EBU or S/PDIF I/O
- Word (1x) and Slave Clock (256x) input/output
- Switchable, real-time sample rate conversion on digital inputs on the 192 Digital card allows easy streaming of digital signals at any sample rate
- Soft-Clip Limiter allows higher levels to disk for punchier, hotter recordings
- Expansion Port allows for direct connection of another 192 I/O or 96 I/O
- Legacy Peripheral port allows for connection of 888/24, 882/20, 1622, or 24-Bit ADAT Bridge I/Os\*

The new Pro Tools® | HD system offers professionals a comprehensive and completely flexible solution for music, post production, broadcast and multi-media applications. At the helm of this new Pro Tools system is 192 I/O™ — a high-definition, 24-bit/192 kHz, multi-channel audio interface specifically designed to embody the increased fidelity and dynamic range of the Pro Tools | HD environment.

192 I/O is, simply put, the best sounding audio interface ever offered by Digidesign®, rivaling interfaces costing more than twice its price. In addition to support for up to 16 channels of analog and digital input and output, 192 I/O features a wide range of analog and digital I/O options to choose from, including 8 channels of high-definition, pristine quality analog I/O, 8 channels of AES/EBU, eight channels of TDIF, 16 channels of ADAT and 2 additional channels of AES/EBU or S/PDIF digital I/O.

Along with its outstanding sonic specs, 192 I/O features the most flexible architecture ever offered in a Digidesign audio interface. The 192 I/O's expansion bay allows you to expand I/O options with one of three available expansion cards. Whether you want more analog inputs or outputs, or more digital I/O, 192 I/O is flexible enough to be custom tailored according to your needs.

### NEW HIGHER SAMPLE RATE SUPPORT

In designing the Pro Tools | HD environment, we didn't just stop at supporting up to 96 kHz sample rates — we decided to go all the way and support up to an astonishing 192 kHz. As the flagship audio interface for Pro Tools | HD, 192 I/O supports 192, 176.4, 96, 88.2, 48, and 44.1 kHz sample rates.

With 192 I/O, it's not only easier than ever to work with the latest standards in the world of professional audio production — you're also

well equipped for the emergence of future standards. The new, higher sample rates and 24-bit resolution you get with 192 I/O mean you're able to capture every nuance of sound with the utmost clarity and precision.

### WORLD-CLASS AUDIO PERFORMANCE

There are good reasons why 192 I/O is the flagship audio interface for the Pro Tools | HD environment. The fact is, there are few audio interfaces on the market that can compete with 192 I/O. With dynamic range at -120 dB (A-weighted), 192 I/O's sonic performance measures up to the highest quality audio interfaces available — at less than half the price.

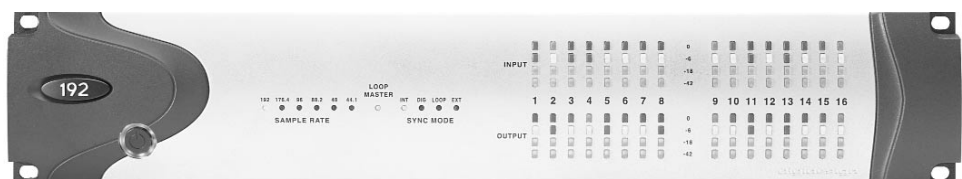
192 I/O also features a built-in Soft-Clip Limiter circuit, which begins limiting the audio signal once it reaches -4 dBFS. Designed to prevent momentary overloads, the Soft-Clip Limiter may also be used to achieve an analog tape saturation effect.

### MORE DIGITAL I/O OPTIONS

The diversity of I/O options that come standard with 192 I/O is nothing short of amazing. With eight channels of AES/EBU, TDIF, and ADAT digital I/O on a single digital card, 192 I/O allows Pro Tools to easily integrate with any digital device in the studio. Don't forget that 192 I/O also includes an additional 8 channels of ADAT I/O as well as 2 more channels of AES/EBU and S/PDIF digital I/O on the main enclosure of the interface itself, increasing your digital I/O options far beyond those of any audio interface on the market. Word Clock I/O is also featured on the rear of the unit to keep your interfaces in tight synchronization with one another.

What's more, the digital inputs on the Digital I/O card can utilize the on-board sample-rate converter chips for hardware-based sample-rate conversion, allowing you to stream digital signals — at any sample rate — into your Pro Tools session. For example, one can stream audio from a TDIF-compatible device operating at 48 kHz sample rate right into a 192 kHz Pro Tools session in real-time for further live mixing or processing.

\* At 48 kHz or lower sample rate



# 192 I/O

## World-Class, 24-Bit/192 kHz Multi-Channel Audio Interface

### SPECIFICATIONS

#### A/D

Sample Rate: 44.1, 48, 88.2, 96, 176.4, 192 kHz  $\pm 10\%$

Dynamic Range:

120 dB (A-weighted)  
118 dB (unweighted)<sup>1,2</sup>

THD+N: 0.00035%  
(-109 dB); +21 dBu  
@ 997 Hz<sup>1</sup>

THD+N: 0.00035%  
(-109 dB); +21 dBu,  
20 Hz - 20 kHz<sup>1</sup>

Frequency Response:  
 $\pm 0.05$  dB @ +2 dBu,  
20 Hz - 20 kHz<sup>1,3</sup>

#### D/A

Sample Rate: 44.1, 48, 88.2, 96, 176.4, 192 kHz  $\pm 10\%$

Dynamic Range:

118 dB (A-weighted)  
115 dB (unweighted)<sup>1,4</sup>

THD+N: 0.00056%  
(-105 dB); -1 dBFS  
@ 997 Hz<sup>1</sup>

Frequency Response:  $\pm 0.05$  dB,  
-20 dBFS, 20 Hz - 20 kHz<sup>1,3</sup>

Sample Rate = 48 kHz,  
Noise BW = 22 Hz - 20 kHz  
unless otherwise noted,  
Tamb = +25 C

- 1 Measurement made using +4 dBu inputs or outputs
- 2 ADC measured with analog input at -38 dBu @ 997 Hz
- 3 Measured relative to level at 1 kHz
- 4 Measured with digital input at -60 dBFS @ 997 Hz

### THE ULTIMATE FLEXIBILITY

One of the most unique aspects of 192 I/O is the ability of the unit's I/O capacity to be expanded, allowing you to easily customize 192 I/O specifically, according to your needs. The unit itself comes stock with 8 channels of analog input, 8 channels of analog output, and multiple digital I/O options, including 8 channels of TDIF, 8 channels of AES/EBU, and 8 channels of ADAT I/O. Of the four card bays on 192 I/O, there is one vacant bay for adding more analog inputs, outputs or digital I/O. Expanding your I/O options simply means purchasing another I/O card rather than another audio interface.

To expand the analog I/O capacity of 192 I/O, you can add either a 192 AD card, providing 8 more channels of high-definition analog input, or the 192 DA card, which gives you 8 additional channels of analog output. 192 I/O can also be outfitted with the 192 Digital card, which adds 8 channels of AES/EBU, TDIF and ADAT I/O connections — all of which can utilize the real-time sample-rate converter chips for streaming digital signals with any sample rate into your Pro Tools session.

### CONNECTING INTERFACES

HD Core™ and HD Process™ cards support up to 32 channels of I/O using Digidesign audio interfaces. The new 16-channel 192 I/O and 96 I/O audio interfaces have been designed to allow for daisy chaining of interfaces to take full advantage of the expanded I/O count permitted with HD Core and HD Process cards.

The Expansion Port on the rear of 192 I/O allows you to use the supplied DigiLink cable to connect another 192 I/O or 96 I/O for 16 more channels of high-definition input and output. A Legacy Peripheral Port is also provided, enabling you to expand your I/O capacity at 44.1/48 kHz using the 888|24 I/O™, 888|20 I/O™, 1622 I/O™ or the 24-Bit ADAT Bridge I/O™.

### FASTER CONFIGURATION

The newest Pro Tools software supporting Pro Tools|HD systems incorporates a new auto-identification and auto-configuration scheme employed upon launch of Pro Tools software. This eliminates the need to manually declare which interface is being used with each HD Core or Process card, making installation, reconfiguration and system setup faster and easier than ever.

### MORE BANG FOR THE BUCK

The sonic performance of 192 I/O is nothing short of stunning. With I/O capacity and options like those of no other, 192 I/O is one of the most amazing and unique audio interfaces to ever hit the market. And, with a list price in the same range as the 888|24 I/O, Digidesign continues to raise the bar for bringing professionals the most innovative, powerful and flexible tools for audio production at the most competitive prices possible.

### SYSTEM REQUIREMENTS

Digidesign-approved Pro Tools TDM system

For the latest Digidesign product information and system requirements, visit [www.digidesign.com](http://www.digidesign.com).

For the latest Development Partner plug-in and software compatibility information, visit [www.digidevelopers.com](http://www.digidevelopers.com).



© 9/02. 192 I/O, 96 I/O, 888|24 I/O, 888|20 I/O, 1622 I/O, ADAT Bridge I/O, Avid, Digidesign, HD Core, HD Process and Pro Tools are trademarks or registered trademarks of Avid Technology, Inc., or its subsidiaries or divisions. Mac OS is a registered trademark of Apple Computer, Inc. Windows is a registered trademark of Microsoft Corp. All other trademarks contained herein are the property of their respective owners. All features and specifications subject to change without notice.

**U.S.A.**  
1.800.333.2137  
or 1.650.731.6300  
[www.digidesign.com](http://www.digidesign.com)  
[www.avid.com](http://www.avid.com)

**England**  
44.01753.658496  
**France**  
33.1.41.49.40.10  
**Germany**  
49.811.5520.555

**Benelux**  
31.0.73.687.2031  
**Italy**  
39.02.577897.1  
**Asia (Japan)**  
81.3.3505.7963

**Latin America (Miami)**  
1.305.971.4075  
**Pacific (Australia)**  
613.5428.7780

A division of **Avid**