



Pro Tools | Carbon

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About Pro Tools | Carbon



Built to capture brilliance

For artists, bands, and producers, Pro Tools | Carbon is a new breed of audio interface—built to capture brilliance. It's a hybrid audio production system that features incredible sound quality and combines the power of your native CPU with onboard HDX DSP acceleration. So you can push your computer to the limit when you mix and record through AAX DSP plugins with near-zero latency monitoring. All at the touch of a button. All in Pro Tools.

Target personas and positioning

Music creators (artists, bands, engineers, producers)

For artists, bands, producers, and engineers, Pro Tools | Carbon is the most inspiring audio interface we've ever made. This new hybrid audio production system works intelligently together with Pro Tools, putting power at your fingertips to record with AAX DSP plugins and monitor performances in real time—without any audible delay. Pristine converters, double resolution clocking, and our most transparent mic preamp design yet ensure that every detail of every performance is captured with the utmost clarity. With plenty of headroom to fully optimize your mix. And with 25 x 34 simultaneous ins and outs, including four headphone outs to handle cue mixes, you have all the connections you need to capture the best performances, from solo artists to an entire band.

Core messages

Create without constraint

With HDX DSP acceleration under its hood, Carbon has the power to keep pace with your imagination. Intelligently integrated with Pro Tools, it lets you push your CPU to the limit when working with virtual instruments and mixing. Then tap into turbocharged performance at the touch of a button to record through AAX DSP plugins in real time—with near-zero latency monitoring. Without ever leaving Pro Tools. So, say goodbye to third-party apps and put all your focus on the music you're making—not what you're making it with.

Sonically exceptional

Every aspect of Carbon is engineered in pursuit of sonic excellence. Superior audio conversion. Double resolution clocking. And our most transparent preamp design ever. All details have been meticulously considered, so that every nuance of every performance is captured with the greatest depth, dimension, and clarity. All you have to do is press record.

Connect the whole band

With 25 x 34 simultaneous I/O, Carbon is ready to record any session—from a solo artists to full bands. Eight pristine preamps, four headphone outputs, and 16 channels of ADAT I/O open up creative possibilities for miking, cue mixing, and expansion. Plus, its super-fast, high-bandwidth Ethernet connection not only preserves the highest possible sound quality from input to output, it's designed to support future workflow enhancements too.

Key features and benefits

Pro Tools integration
Get intelligent Pro Tools integration with the Hybrid Engine The Hybrid Engine maximizes the performance of Pro Tools by using your native CPU and HDX DSP processing at the same time. When you put a track in DSP mode, Carbon accelerates real-time AAX DSP plugins while your CPU plays back the rest of your mix. And because every AAX DSP plugin has a native counterpart, you can move seamlessly between worlds at the touch of a button. Record with HDX DSP power for near-zero latency monitoring. And work natively with the same plugins. Even without Carbon connected.
Go beyond limits with AAX DSP AAX is the only plugin architecture with true hybrid capability. It's designed to deliver the same sound quality in both native and HDX DSP domains. That means you can disconnect Carbon and take your mix on the road or collaborate with others who don't have the interface. And with unmatched dynamic range and the ability for 64-bit float double precision processing, AAX plugins deliver cleaner sound with more headroom.
Create and shape sounds with premium plugins included In addition to the 115 AAX plugins that come with Pro Tools—including the Avid Complete Plugin Bundle, HEAT, and UVI Falcon—Carbon comes with a collection of premium plugins and sounds to get you started. Produce with virtual instruments from Arturia, UVI and Native Instruments. And dial in polished sounds with premium AAX DSP dynamics, EQs, and amp simulations from McDSP and Plugin Alliance. And when you're ready to take your sound further, there are thousands of AAX plugins and over 250 more AAX DSP plugins available.
Performance
Get epic performance with HDX DSP acceleration With a custom-designed FPGA and eight HDX DSPs at its core, Carbon is a powerhouse. The FPGA routes audio lightning fast—one sample at a time—with virtually no latency, while the HDX DSPs handle real-time plugin processing, performing an amazing 22.4 billion operations per second. So, no matter how big your session gets, or how many plugins you use, you can always record with sub-1 ms latency monitoring. And it frees up your CPU cores for virtual instruments and more creative mixing.
Sound
Capture every detail with pristine converters The best sound quality begins with exceptional audio converters. We went the extra mile designing ours with four ADCs per channel, providing a remarkable 126 dB dynamic range. From input, to the HDX DSPs, and into Pro Tools, the entire gain structure works at uniform 32-bit precision, providing more headroom without any signal degradation. The result? You can capture clean, natural sounding audio. Every time you record.
Let performances shine with transparent mic preamps With a padless design, incredible 126 dB dynamic range, and support for 32-bit/192 kHz audio conversion, Carbon features the most pristine preamps we've ever made. Capture performances without coloration. Bypass any preamp to use your own outboard gear. And with Variable Z built in, you can adjust input impedance to optimize or alter the tone of any microphone or instrument—from dynamic and ribbon mics, to guitar and bass.
Get double resolution clocking Precision clocking is crucial for distortionless, artifact-free audio. That's why we designed a double resolution implementation of the patented JetPLL™ jitter elimination technology that runs twice as fast as typical JetPLL-based clocks for better sound and separation. And it's twice as accurate, with extraordinarily low jitter, ensuring high-fidelity capture and playback.

I/O

Connect all the gear you need

Carbon comes loaded with a full complement of analog and digital I/O at your disposal. With the ability to run 25 x 34 simultaneous ins and outs—including eight mic pres and four headphone outputs—you can record any ensemble, from a solo musician to an entire band.

- 8 mic preamps with Variable Z (impedance) on inputs 5–8
- 2 Variable Z instrument inputs
- Stereo monitor outputs
- 8 x 8 line I/O
- 4 headphone outputs
- 16 channels ADAT I/O
- Word Clock I/O
- Footswitch
- 2 Ethernet ports

The future is Ethernet

Carbon connects to your computer over Ethernet. Based on AVB, our version of this high-bandwidth, low-latency connection streams audio to your host system at 32-bit float precision—the first in the industry. That means you'll always have plenty of headroom throughout the system to optimize the sound quality and dynamics of your mix. And it primes Carbon for additional enhancements in the future.

Operation

Thermal design. Quietly cool.

A high-performance audio interface generates a lot of heat. That's why we innovated a thermal design that quietly keeps Carbon cool—even when stacked with other gear in your rack. A single axial fan gently pushes air from the front of the interface to the back, modulating its speed to dissipate heat. Plus, it's super quiet, so it can stay in the same room with you as you record.

Trademark usage

Please attribute the following trademark notation on the first instance of the name in body copy for outbound deliverables:

- Pro Tools | Carbon™
- Pro Tools®

The third-party JetPLL™ trademark needs to be attributed on the first mention of the name in all deliverables ([see additional usage rules](#)).