PreSonus AudioBox 1818VSL Audio Interface

VERSION 9

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18 x 18 USB 2.0 interface with low-latency processing

$629 MSRP, $499.95 street

www.presonus.com

By Craig Anderton

PreSonus has been making audio interfaces for a long time; their FireBox served me well for many years with live gigs until I graduated to the FireStudio Mobile. However, their latest AudioBox line of interfaces—which opts for USB 2.0, and USB 3.0 compatibility, over FireWire—brings an entirely different twist to interfacing by combining hardware inputs and outputs with a virtual mixer application. Now, you might be thinking "I've seen interfaces with a mixer application, what's the big deal?" but as we'll see, this is more than just a routing applet.

The AudioBox series ships with Studio One Artist, an only somewhat "lighter" version of Studio One Pro. However, the AudioBox 1818VSL is not "keyed" to any particular program, so it integrates with any DAW for Mac or Windows.

For a one-minute overview of the AudioBox 1818VSL's highlights, check out the following HC Quick Take video.

OVERVIEW

Superficially, the single-rack space 1818VSL seems fairly standard—18 ins (2 mic/instrument and 6 mic/line ins with combo jacks, ADAT, and coaxial S/PDIF; see **Fig. 1**).

Fig. 1: The front panel has eight combo jacks for the mic, instrument, and line inputs (click to enlarge).

On the rear panel, you'll see 18 discrete, individually assignable outs. Eight of these are 1/4" TRS line outs, along with left and right 1/4" TRS main outs (**Fig. 2**).

Fig. 2: The eight analog outs and main outs are grouped together on the rear panel (click to enlarge).

There's also a stereo headphone out on the front panel, along with level controls for the main out and headphone out, and input level controls for the eight analog inputs (**Fig. 3**).

Fig. 3: In addition to the various level controls, note the main out LED meters on the right, and USB sync LED (click to enlarge).

Other I/O includes S/PDIF, 5-pin DIN MIDI I/O, and word clock sync out (but not word clock in; see **Fig. 4**). The ADAT I/O handles eight channels at 44.1/48kHz, or using the SMUX protocol, four channels at 88.2/96kHz.

Fig. 4: All the digital connections are grouped together on the rear panel, along with a jack for the AC adapter and an on/off switch (click to enlarge).

The case is metal; the jacks don't wobble when you plug into them, and the power supply is a global (100-240V, 50/60Hz) "line lump" type where simply substituting a different AC cord allows using the supply with any AC power source.

The eight mic inputs all drive preamps using PreSonus's XMAX design, with switchable phantom power available for two groups of preamps (inputs 1-4 or 5-8; blue indicator LEDs let you know when phantom power is enabled). These are true class A designs, are built around discrete components (not ICs), have 30V power supply rails for headroom, and sound wonderful. But don't take my word for it; search on "XMAX" in various online forums, and for a more objective take, check out the following graphs. (Oh, and lesson #1 when running tests: Remember to disable any Fat Channel or FX settings you had from a previous session. Not that I would do anything like that, of course. Because if I had, I would have gotten some really whacked specs. Not that I did.)

Fig. 5 shows the graphs for frequency response and noise level, which pretty much speak for themselves—essentially flat response down to 10Hz, and the noise levels at all frequencies is well below -110dB, and often, below -120dB.

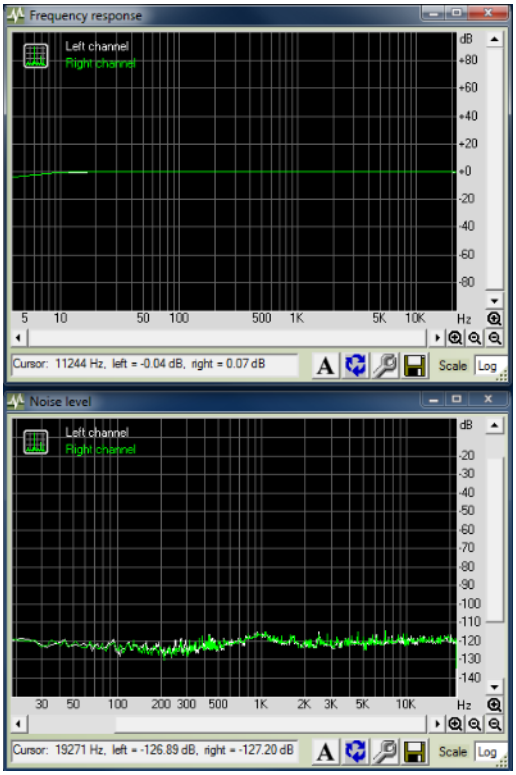

Fig. 5: Frequency response and noise (click to enlarge).

Now let's look at total harmonic distortion and intermodulation distortion in **Fig. 6**.

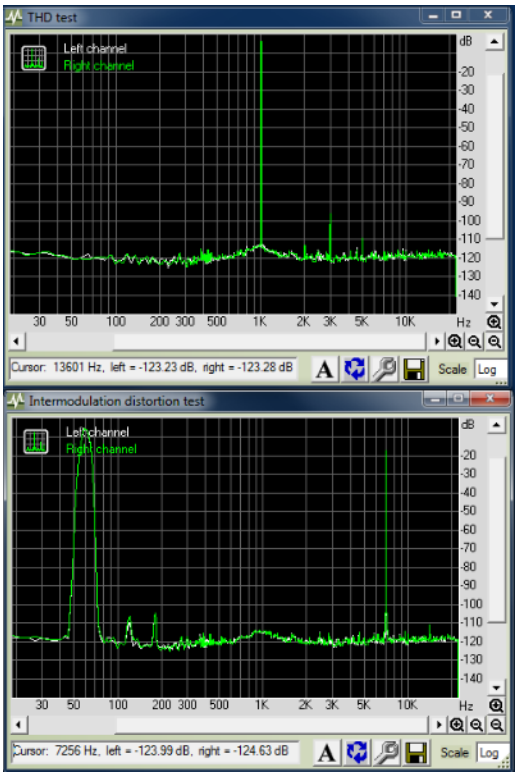

Fig. 6: THD and IM distortion (click to enlarge).

Note the 2kHz distortion product sitting at under -110dB, and the third harmonic around -100dB. The fifth harmonic distortion is down around -110dB, and everything else is pretty much insignificant. For the intermodulation distortion, you can see distortion products at 120Hz and 180Hz that are well below -100dB, and not much else aside from a high-frequency distortion production below -110dB.

Finally, let's look at THD levels and crosstalk (**Fig. 7**). THD levels simply indicate how much more distortion you get at lower levels (this is digital, after all).

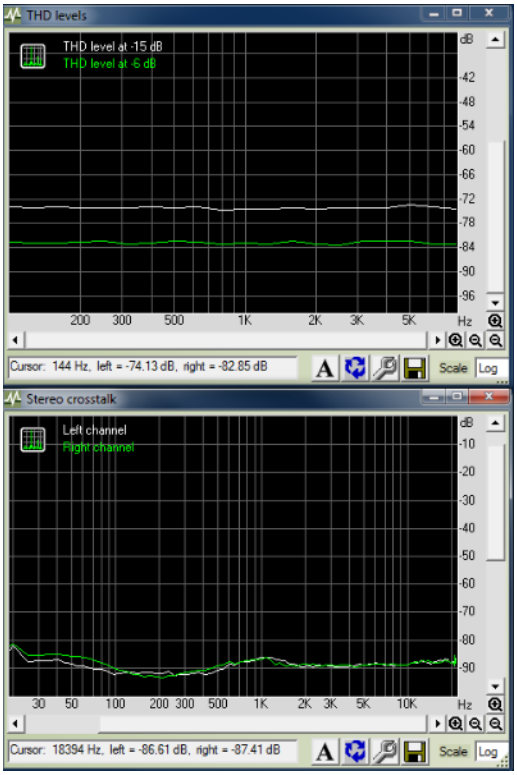

Fig. 7: THD levels and crosstalk (click to enlarge).

With levels at -6dB, the THD sits at around -84dB, and lowering the levels to -15dB keeps the THD below -72dB. Crosstalk is outstanding, pretty much below -85dB at all frequencies. This is rare for interfaces I've tested, which usually have a bit of a rise at higher frequencies, sometimes hitting -70dB or even higher.

So the bottom line is that if you're among the people who think that XMAX preamps are an outstanding bargain, you now have the numbers to back you up. Although the specs aren't quite as good as, say, the latest generation Mbox Pro, considering the price differential: The Mbox Pro streets for $1,000 and has four mic pres, while the 1818VSL streets for half the price and has twice as many mic pres. 'Nuff said.

Okay, so that's the hardware. But the review doesn't end here, because upon installation, you don't just get drivers, but the AudioBox VSL application . . . and that's where it gets really interesting.

MIXER MEETS INTERFACE

What makes the 1818VSL unique is that it's not just an audio interface, but an audio interface crossed with a StudioLive series mixer—and once you open the AudioBox VSL software, the connection becomes obvious (**Fig. 8**).

Fig. 8: This overview screen shows a portion of the mixer. Scrolling would reveal the mixer's other input channels. Note the effects above each of the strips (click to enlarge).

Far from being a simple routing applet, the mixer application is a full-blown "soft" mixer with a Fat Channel for all analog and digital inputs, as well as all analog outs (but not digital outs, which can be addressed by your DAW). So, as shown in **Fig. 9**, every channel has phase reverse, high pass filter, noise gate, compressor+limiter, and three-band semi-parametric EQ (the upper and lower bands can each function optionally as shelving EQ, and the mid band has a two-position Q switch).

Fig. 9: The Fat Channel processors (click to enlarge).

Furthermore, the four stereo outs have two additional slots for effects (delay, stereo delay, or reverb, with 30 presets). When the outs are providing cue mixes, you can indeed say "yes" when the singer wants to hear reverb in the phones, the guitar player demands EQ, and the bass player prefers compression. What's more, 50 Fat Channel presets are included for drag-and-drop into channels, but you can create your own, too. In fact there's a browser (Fig. 10) for the Fat Channel presets, mixer settings snapshots (described later) and aux bus effects.

Fig. 10: The browser offers drag-and-drop preset selection (click to enlarge).

Also note it's convenient that you can mirror the Main mix on the S/PDIF outs, and record the Main mix in your DAW.

APPLICATIONS

The monitoring application given above is obvious, but there's more. First, there's *no* perceptible latency when using effects. This isn't because of extensive DSP in the interface—the price proves that—but a clever sharing of resources between the 1818VSL and your computer (conceptually like Line 6's ToneDirect monitoring). Second, you can record into your DAW with any of the Fat Channel effects. While some people prefer not to record with effects, being able to engage limiting as a "safety valve" is enough by itself to justify using them. Besides, if the effects *do* sound "just right," you might as well record with them and not concern yourself with having to re-create the setup later (although the software does let you save and recall "scenes," which are snapshots of the entire mixer).

As you can apply these effects to the audio outs, the 1818VSL is a good fit for those using laptops live. Laptops have enough issues with CPU as is, so being able to use Fat Channel effects for incoming signals, as well as on the outs, means you don't have to bring external processors, mixers, or stress out your computer. There's even a free iPad app for wireless remote control of the AudioBox VSL application, so you don't need to be near the interface to make on-the-fly changes.

CONCLUSIONS

The crystal-clear documentation deserves extra credit for telling how to actually *use* the interface in the real world, and there are also several helpful tutorials. It's above and beyond the call of duty, but in a way, that describes the 1818VSL itself. The mixer application is essentially a virtual version of the StudioLive, the mic pres are astounding at this price point, the Fat Channel is versatile, there's plenty of I/O, and it's well-suited for live as well as studio applications. Sure, there are lots of interfaces in the world—but there's nothing quite like the AudioBox 1818VSL.

Craig Anderton is Editor in Chief of Harmony Central *and Executive Editor of* Electronic Musician *magazine. He has played on, mixed, or produced over 20 major label releases (as well as mastered over a hundred tracks for various musicians), and written over a thousand articles for magazines like* Guitar Player, Keyboard, Sound on Sound *(UK), and* Sound + Recording *(Germany). He has also lectured on technology and the arts in 38 states, 10 countries, and three languages.*

COMMENTS (1)

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