

MUSE RESEARCH

Receptor Trio and Qu4ttro

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Fig. 1. The Receptor Qu4ttro and Trio have the simplest front panel of any Receptor yet, and though the main unit features stereo audio outs, advanced I/O is accomplished via the included PreSonus AudioBox interface (top). It provides eight XLR combo mic/line ins (with hi-Z instrument ins on the first two channels), eight 1/4" balanced audio outs, coaxial S/PDIF, 8-channel ADAT lightpipe, MIDI, and the preferable headphone output—the Trio/Qu4ttro's headphone jack is bypassed when its internal audio outs are in use.



Snap Judgment



PROS Ample processing power and memory. Tight operation. Large hard drives, with SSD option available. Included PreSonus AudioBox interface. Standalone operation possible without monitor and mouse. Sounds can be tagged by category or user-defined labels for easy recall.



CONS Internal headphone output is silenced when internal audio outputs are connected. Remote control software can be a tad sluggish.

FOR SYNTH POWER USERS, THERE'S AN ALLURE (AND FOR SOME, A PRACTICAL need) to having software instruments available for live use. Hence, it's become commonplace to see the familiar glow of a laptop within the keyboard rigs of live acts from small-town hopefuls to megastars. Many of us in the keyboard community want the benefits of software with the familiarity and stability of hardware. Since 2004, Muse Research offered their own unique solution, the Receptor. The concept is simple and effective: take the heart and brain of a computer, optimize it for running software instruments and effects by getting the OS and non-musical tasks of a Mac or PC out of the way (Receptors run a streamlined build of Linux), and put it into a rack module with professional I/O, essential operating features on the front, facility for hooking up a monitor and mouse, and Ethernet for full visual editing from a connected computer. The latest editions of Receptor have beefed up the engine with multi-core technology and options to have fast Solid State Drives (SSD) installed. These latest Receptors promise to handle the most intensive plug-in demands. Let's see if they deliver.



Fig. 2. In Rack mode, you can select presets by tags (1) or drag plug-ins into the vertical rack in the center (2). For each plug-in in the rack, you can adjust the key range, four assignable parameters, mix effect sends, panning, and volume. Click the plug-in icon to bring up its own interface for deeper editing (3). Click the MIDI button to access MIDI zoning parameters (4). Insert effects have a simpler rack interface, with just input, pan, and volume. Add mix effects to your creation from the drop-down menus (5).

Trio and Qu4ttro

The new Receptor models come in two flavors: Trio and Qu4ttro (a stylization of “Quattro”), which operate identically. They both employ a quad-core Intel processor optimized for plug-in performance, and sport the simplest front panel we’ve seen on a Receptor (see Figure 1). It’s assumed that the bulk of the editing will take place via a connected monitor, mouse, and keyboard, or via a connected computer running the Receptor Remote software. Importantly, you can also connect a WiFi router directly to the back and control the Receptor from an iPad without needing a computer as intermediary, via any VNC (remote desktop) app.

While the onboard I/O is less robust than previous Receptor models, the Trio and Qu4ttro each ship with an included PreSonus AudioBox 1818VSL audio/MIDI interface. The Trio and Qu4ttro differ when it comes to processor speed (3.7GHz peak on the Trio, 3.9GHz peak on the Qu4ttro), base RAM (8GB in the Trio, 16GB in the Qu4ttro), and base hard drive (1TB for the

Trio, 2TB for the Qu4ttro, with an SSD optional). Either is capable of handling a wide variety of plug-in needs, from processor-intensive instruments such as Modartt Pianoteq to storage-intensive sample-playback instruments such as Synthogy Ivory II and large orchestral libraries.

Power up and Play

The Trio and Qu4ttro start up what’s called Play mode, with its immediate, “tone generator”-like operation. You can scroll through sounds like you would on a typical MIDI module, and also find and filter sounds according to convenient tags. These are both factory-programmed and user-definable and can reference sound categories or more application-based things such as “Wedding Gig Set 1.” It’s all up to you.

Since some plug-ins take more time than others to start, there’s also Live mode. This mode loads a bank of your chosen presets into RAM for quick and seamless preset changes. What’s more, the Receptors feature “patch remain,” so

sustained notes from one preset will continue to sound after you’ve changed to the next. This is one area where the Qu4ttro’s ample 16GB of RAM comes in handy. It’s also important to note that a “preset” (which, again, can be found via tags) on the Receptor can involve multiple plug-ins and associated multitimbral key zoning.

Rack Mode

Users of the original Receptor or Receptor 2 will notice a new graphical user interface when connecting a monitor or computer. The latest software defaults to Rack mode (see Figure 2), which is a view of the plug-ins stacked vertically, not unlike the standard view in Native Instruments Kontakt. If you prefer the legacy Receptor interface, you can change to Mixer mode, but Muse Research is going to focus all future software updates on Rack mode. The new user interface is quite easy to work with, and features its drag-and-drop approach to adding plug-ins is very fluid with almost no learning curve.



Fig. 3. Should you want to bring the Receptor Trio or Qu4ttro to the gig without the PreSonus interface, stereo line ins and outs, USB, and five-pin MIDI input let you use it as you would any hardware sound module.

PreSonus AudioBox

Receptor Trio and Qu4ttro both ship with a PreSonus AudioBox 1818VSL USB audio interface. The 1818VSL features digital mixing capabilities similar to those of the popular StudioLive mixers (including “Fat Channels” with dynamics, EQ, reverb, and delay). It’s a capable and full-featured interface in its own right, and when considered part of the Receptor, makes for an impressive system. It’s not every day that one finds a hardware synth containing eight audio inputs with mic preamps and phantom power. With the AudioBox connected, the Qu4ttro can do some things we’ve not seen before in a hardware sound module. One could connect microphones and/or instruments to the inputs for effects processing, while simultaneously running plug-in instruments, and sending each to a different output.

Part of the Trio/Qu4ttro’s appeal is the idea of bringing a single piece of hardware to do the heavy lifting of running virtual instruments at the gig. If bringing an *extra* piece of hardware (the PreSonus) isn’t your cup of tea, you can of course leave it at home and just use the Receptors’ onboard stereo line-level audio I/O (see Figure 3). That said, it’s nice to have options, and the PreSonus offers lots of I/O power and flexibility to spare. Plus, the PreSonus is perfectly at home as an audio/MIDI interface for your computer, and comes with Studio One Artist Edition DAW software. If you already own an 1818VSL, or don’t need more than the Receptor’s onboard I/O, you can purchase the Trio or Qu4ttro on its own by contacting Muse directly. At this time, the AudioBox 1818VSL is the only supported audio interface that integrates directly with the Trio or Qu4ttro.

32/64-bit Operation

The Qu4ttro/Trio are capable of running both 32-bit and 64-bit plugins simultaneously using a feature called Intellibrige. This feature runs any 32-bit plug-ins in a 4GB block of memory while the 64-bit plug-ins occupy whatever memory remains available. In the legacy Mixer mode,

which is 32-bit, one can still access the UniWire functionality, which allows Receptor’s plug-ins to be used within your computer DAW. It would seem that the sun is setting on UniWire, as the AudioBox provides such ample I/O, but if it’s a feature you use regularly, it’s still kicking—if only in 32-bit mode.

Gig Test: MIDI Layer Mixing

The Trio and Qu4ttro allow quick layering of multiple plug-ins, including multiple instances of the same plug-in. You can have up to 16 synths/effects in one preset. That’s not to say that they have to be strictly “layered”; each plug-in can easily be assigned to any MIDI channel and the key range is easily assigned to create flexible multi-zone splits.

I tested multiple plug-ins active within a preset, each on a different MIDI channel. I controlled my Qu4ttro review unit with a Casio Privia PX-5S, which has sliders that can be set to any MIDI control number on any channel. The idea was to use the PX’s sliders as a real-time mixer in order to bring the volumes of the Qu4ttro’s various plug-ins in or out as needed, without the need to change the overall preset on the Qu4ttro. Configuration was relatively simple: I set the PX’s sliders to send MIDI CC 7 (volume), each on a different channel that corresponded to the receive channels of each of the Qu4ttro’s plug-ins. The MIDI editing section of the Qu4ttro lets you access a Learn mode. By moving the appropriate slider, the Qu4ttro sensed the transmitted controller and employed it for each sound. By default, MIDI CC 7 was also set to control the overall volume of the preset, so at first, all sliders were controlling all plug-ins at once (which wasn’t desirable). By simply “unlearning” the overall preset volume on the Qu4ttro, the problem was solved and individual layers then responded as desired.

Conclusions

The Receptor Qu4ttro and Trio are immensely powerful musical tools. With some commit-

ment from the user, it’s quite possible to solve nearly all of your synthesis and effects needs in one box. However, to maximize their potential, you do need to go beyond “one box” by adding the included PreSonus AudioBox, and a monitor, mouse, and keyboard (or Receptor Remote software) for deep preset construction. Add all of these, plus your MIDI controller of choice, and you’ve got an ever-expandable palette of sounds at your fingertips. Once your sonic creations are set, you can leave the peripherals at home (even the AudioBox if you just need simple stereo audio I/O) and you have a low-profile synth hosting powerhouse tucked into your live rig. While they may look simpler than previous Receptors on the outside, the Qu4ttro and Trio are incredibly deep instruments. 🎵

Bottom Line

The latest Receptor remains the standard for musicians who want the power of software instruments in road-worthy hardware, without the complications of a mainstream computer OS.

Trio: \$2,599 (with 1TB hard drive)
Qu4ttro: \$3,099 (with 2TB hard drive)

Hard drive options: add \$449 (256 GB SSD) | add \$1,099 (512 GB SSD)
museresearch.com



First look at the Muse Receptor Qu4ttro.

keyboardmag.com/september2014