

Wes Audio Mimas

Digitally Controlled FET Compressor

Old and new worlds collide as this 1176 clone is treated to remote control via a VST 3/AAX plug-in.

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A couple of Wes Audio's products have already featured in the pages of *SOS*, including the Pultec-inspired LC-EQP (<http://sosm.ag/wes-lceqp>), and the Beta76, which is their updated take on a Urei 1176-style compressor (<http://sosm.ag/wes-b76>). Both received very positive reviews, full of praise for their sound and build quality, as well as attractive pricing. The latest offering from Radoslaw Wesolowski's drawing board is, like the Beta76, a FET-based compressor, but this time for the 500 series. It's rather more interesting than a straight port to this

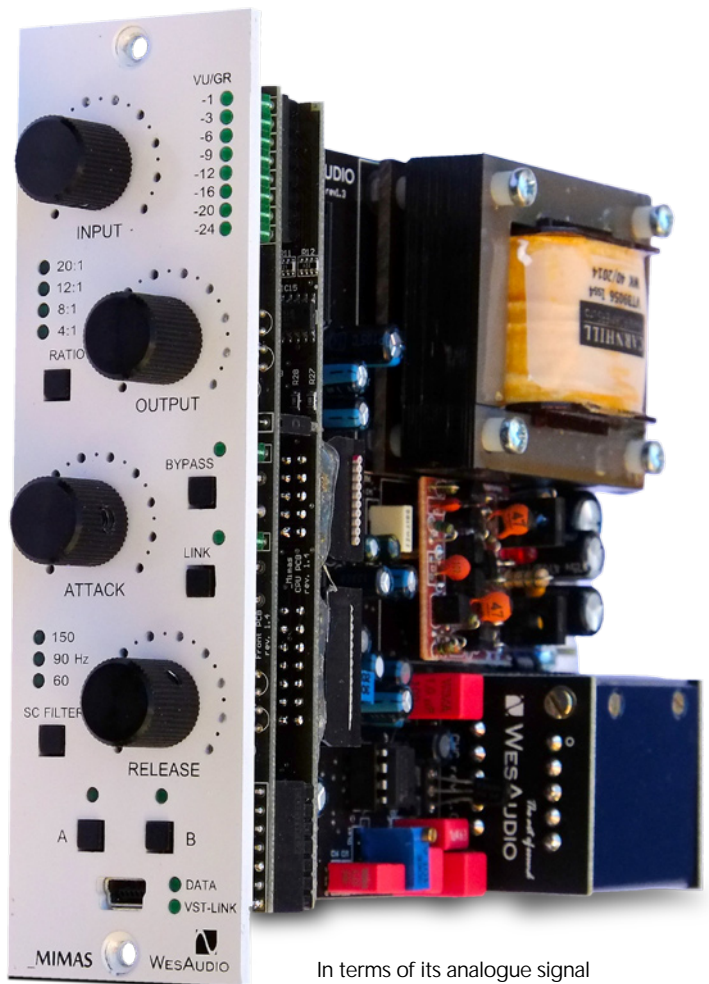
format, though, and a clue as to why comes from the umbrella description of an 'ng500' module.

The 'ng' acronym stands for 'new generation' and refers to an ability to be remote controlled from the user's DAW software (VST or AAX hosts only), as well as through the usual front-panel controls. The ng500-series modules, then, neatly combine the benefits of traditional analogue signal paths and circuitry — the sonic attractiveness of classic analogue signal processing — with all the convenience and workflow benefits associated with digital control, automation and recall.

The Mimas compressor is the first ng500-series module, though more products are planned, and Wes Audio are also soon to launch their own dedicated ng500-series rack/power supply. This will be able to host regular 500-series modules, but includes some additional features that will make the ng500 modules even easier and more convenient to use — more about that later.

Vive La Difference!

In essence, then, the Mimas is a remotely controllable 1176-style mono compressor with a fully analogue signal path and a set of familiar front-panel controls. However, by making a USB connection from the front panel to a computer, it can also be remote controlled from the DAW as if it were a conventional plug-in compressor (one instance only, of course!), using Wes Audio's proprietary 'GCon protocol'.



In terms of its analogue signal processing, the Mimas borrows heavily from the 19-inch rackmounting Beta 76, but the circuitry isn't entirely identical. One reason for that is that the 500-series system provides different power-rail voltages, and another is the requirement for the front-panel controls to be remotely controllable. However, the basic analogue signal path comprises Carnhill input and output transformers, with an NE5534 op amp input buffer feeding the FET gain-reduction element in the classic 1176 arrangement. The output stage employs a custom 'DOA' (discrete op amp) to drive the output transformer.

Instead of conventional potentiometers for the front-panel controls, rotary encoders generate local control signals which are fed to a CPU, along with external control data via the USB port. The CPU, in turn, sends the appropriate control signals to a pair of THAT VCA chips to adjust the input and output levels, and to digital potentiometers to adjust the attack and release parameters. Buttons on the front panel request the CPU to activate digital switches to change the ratio, side-chain filter, bypass, stereo-linking, and other settings. When connected to a DAW, the appropriate control signals can also be generated by the plug-in interface and sent to the hardware via the USB connection — and the system is

Wes Audio Mimas £804

PROS

- Excellent-quality 1176-style compressor with side-chain filters and the famous all-buttons-in mode.
- Fully remote-controllable over USB from a VST 3/AAX plug-in.
- Supports programming of real-time automation from the hardware controls.
- Incorporates additional rear connector to integrate control features with a promised matching rack system.

CONS

- None.

SUMMARY

This first enhanced 500-series module from Wes Audio is both convenient and impressive: it provides an updated version of the classic 1176 compressor, but with full remote-control facilities via a VST 3/AAX plug-in.

bidirectional, so hardware control changes are reflected on the plug-in, and vice-versa.

Compared with the functionality of the Beta76, the Mimas module also gains a few features, mostly as a benefit of its USB connectivity. For example, an internal D-A is provided within the Mimas module specifically to convert an audio signal dispatched from the DAW over the USB connection — this can be used to feed the hardware's analogue side-chain circuitry, for external ducking and triggering functions.

When it comes to DAW automation, all of the hardware module's controls are touch-sensitive encoders that can send the appropriate data back to the DAW over the USB connection. Parameter automation can also be programmed from the virtual controls in the DAW plug-in. It's also possible to change the function of the hardware's gain-reduction meter from the plug-in, to monitor the input, output or gain-reduction levels (the display also being viewable on the plug-in itself).

Some other features have also been included, in anticipation of the planned ng500-series rack unit that I alluded to

above. This new rack, called the Titan, should be available in the New Year, and will accommodate up to 10 remote-controllable ng500-series modules. Unlike a conventional 500-series rack, it will allow all of the fitted ng500 modules to be individually controlled via just one USB or Ethernet link back to the computer. To facilitate this fully integrated control system, an additional connector is provided on the back of the Mimas module to provide internal access to each module's USB control port.

While this secondary connector doesn't impede the installation of ng500-series modules in most standard 500-series racks, it can apparently foul against the back-plane fixing screws in one or two specific rack designs — more details are available on Wes Audio's web site. For that reason, the Mimas and any future ng500-series modules can be ordered with or without the additional ng500 connector, as you prefer. (With the additional connector omitted, each module can only be remote controlled via its individual front-panel USB port, of course.) The company also plan to release an iPad app to control Mimas modules in both

Alternatives

French company **Audio Touch** were first to release a plug-in-controlled analogue compressor: their 19-inch rackmount **C-Buss** is a stereo VCA design. **Wes Audio**, though, are the first to launch a plug-in-controlled 500-series compressor. Others, including fellow Poles **IGS Audio**, are developing similar products, with different sorts of processors and effects available from the likes of **Moog** and **Bettermaker**. So there could be more alternatives before very long!

studio and live-sound applications, although there's no release date for that as yet.

Hardware Controls

The Mimas front panel is quite distinctive, being entirely white with crisp, black control labels. Four black rotary controls are arrayed in a zig-zag pattern, presumably to allow more space for your fingers to access them, and these are interspersed with six small black button controls. All settings are indicated by LEDs, with rings of white lights around the rotary encoders, and green lights associated with the buttons. An eight-LED bar-graph meter at the top of the panel normally indicates the gain reduction, but »

» can be switched (only from the plug-in) to show input or output levels instead.

Input and output levels are adjusted using the top two rotary encoders, while the lower two adjust the attack and release time constants. There are no parameter values marked on the front panel at all, but the attack control ranges from 20 to 800 ms, and the release control from 50 to 1100 ms. In both cases, the fastest option is with the control turned fully clockwise and all the associated lights illuminated. It's worth noting that, although most compressors have the fast end of the attack and release controls at the counter-clockwise end, the Urei 1176 and its clones all work the opposite way around — the Mimas module copies this arrangement, with exactly the same parameter range. The compression threshold is fixed, so the amount of compression is adjusted by increasing the input level, effectively forcing more signal above a static threshold.

A classic operating condition of the original 1176 is the 'all buttons in' mode, and that option is reflected faithfully. A button cycles through the four standard compression ratios (4:1, 8:1, 12:1, and 20:1), followed by the 'all buttons in' mode indicated by all four ratio LEDs being lit simultaneously. It's worth noting that the all-buttons-in mode affects more than just the ratio — you can find out more on Universal Audio's web site (<http://sosm.ag/ua-1176-allbuttonsin>).

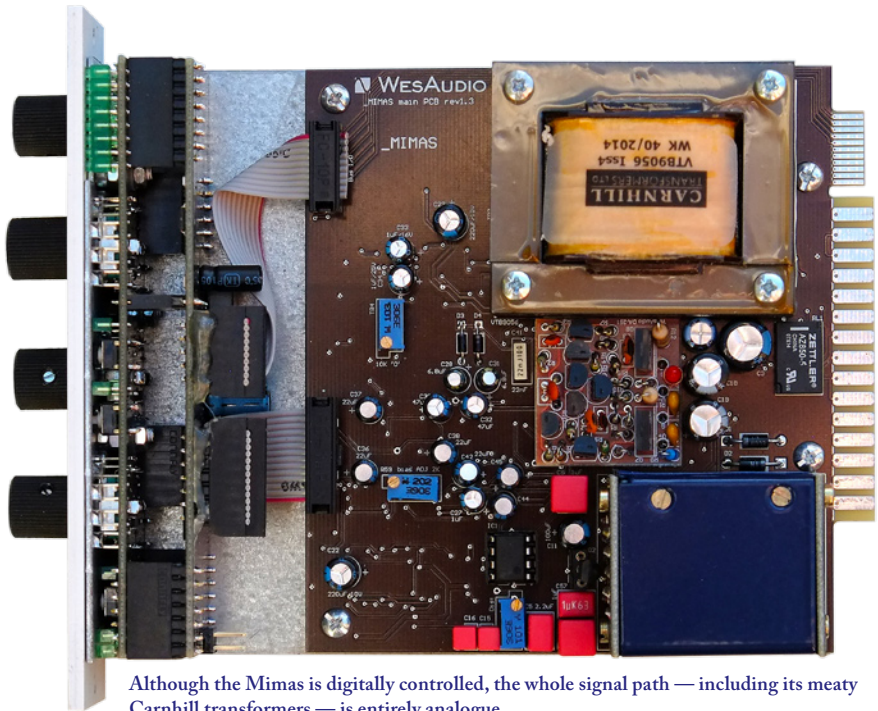
A useful addition to the original 1176 design is a high-pass side-chain filter, controlled by a button, with options of Off, 60, 90, or 150 Hz. These filters reduce the compressor's sensitivity to low frequencies, which is very useful indeed. Further buttons enact a relay-activated true-bypass mode, and a stereo-link facility, which will maintain stable imaging when working with a second Mimas module to process a stereo signal.

Because of the digital control aspects of the Mimas, Wes Audio has been able to include an A/B memory facility, allowing two different control settings to be set up, and subsequently selected, via the A and B buttons at the bottom of the module.

The mini-USB port at the very bottom of the faceplate provides the connection to your computer, and this has two associated LEDs. One indicates successful connection with a host computer, while the other shows data activity over the connection.

Easy As ABC

Installation files for both Windows (7 and later, 32- or 64-bit versions) and Mac (OS



Although the Mimas is digitally controlled, the whole signal path — including its meaty Carnhill transformers — is entirely analogue.

10.8 or later), and both VST 3 and AAX plug-in formats are available on the Wes Audio web site. They include a firmware updater and USB driver, which can activate automatically if desired. Officially, Wes Audio currently only support Pro Tools 10.3.5 and higher, Cubase 5 and higher, and Nuendo 4 and higher. In practice, though, any DAW host that's compatible with VST3 or AAX will work perfectly well. AU hosts are not supported directly, though users of such DAWs (Logic for example) could try a VST 3 wrapper plug-in, such as DDMF's Metaplugin — this is not something I tested during the course of this review. I had no trouble installing the appropriate drivers and plug-in formats on a Windows 7 64-bit computer and used Mimas successfully with both Cockos Reaper and Adobe Audition, for example.

The plug-in control interface looks very similar to the hardware, but there are a few differences, starting with an extra black button above the gain reduction meter. This switches the meter (in both the plug-in and the hardware) to show input or output levels instead of the amount of gain reduction. Another difference is that the hardware memory A/B buttons are absent, replaced with tab buttons at the top of the plug-in panel, as well as the usual VST 3/AAX preset library functions. There are three instant memory options on the plug-in (A, B and C), as well as undo and redo buttons. The latter remember the last 20 parameter changes, but the undo/redo memory is cleared if one of the A/B/C setup stores is recalled. In fact, the software A/B/C memories are entirely separate from the hardware A/B

ones, disabling the latter when the USB interface is operational, and reinstating them when disconnected.

The plug-in is available in both mono and stereo forms, the latter having dual gain-reduction bar-graph meters and a single set of ganged controls. However, it must be remembered that this is only a remote controller: actual stereo compression requires two Mimas modules! If you do have two modules, the Titan rack will also have electronically switchable links to allow these to function as one stereo compressor. Where more than one unit is connected to the computer, each has a unique ID and the relevant one can be selected to the right of the plug-in's virtual hardware display.

When using the Mimas hardware with the plug-in, it's important to be careful about the order in which the controller plug-in and the related external audio send/return loop insert are set up in the DAW channel. The controller plug-in should be placed before the audio send/return insert which routes the channel's audio to and from the hardware unit. This specific ordering is required to minimise the effect of the inherent audio interface latency when recording or replaying automation data to the Mimas module. It's also important from the point of view of audio latency when sending DAW audio to the hardware module's side-chain over the USB connection.

FET Accomplished?

During the test period, I deliberately got to know the Mimas compressor first as



The VST/AAX plug-in can send automation to and receive it from the hardware via USB, with both reflecting the change in settings.

a straightforward 500-series module, and I found that it worked very well, delivering all the expected characteristics I associate with a 1176-style FET compressor: fast, precise, musical, and powerful. Although the audio path is necessarily augmented with THAT VCAs instead of simple input and output potentiometers, they don't appear to have any significant impact on the audio quality, and all the controls felt as if they were working directly instead of remotely through a CPU, too. In short, then, as an analogue outboard compressor, this is already very nice, and the A/B facility makes it more useful than most.

Plugging in the USB cable and installing the control plug-in in a DAW also worked without any obvious problems, with accurate bidirectional control and full setup and automation recall within a project. With some DAWs and interfaces, minor timing adjustments may be required to cope with the converter latency, but I didn't notice any problems in my setup with an RME AIO card.

The bottom line, then, is that the Mimas sounds great, works well as a 500-series compressor module in its own right, and really does allow analogue signal processing with the benefits of plug-in control. Given all the digital bells and whistles, it's also very competitively priced in the world

of 1176 clones. Someday, all new analogue hardware might work this way! **////**

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