



# Focusrite VRM Box £96 PC MAC

Mix on headphones with the sound of studio monitor speakers - that's the promise of this minimal audio interface

> The Virtual Reference Monitoring (VRM) headphone system first appeared as a feature of Focusrite's Saffire Pro 24 DSP interface. Its second outing comes in the form of the VRM Box, a device dedicated entirely to headphone monitoring. It's truly pocket-sized, being 7cm square and just over 2cm deep, and it uses USB-powered connectivity to deliver a headphone output on a 1/4" jack, running at 44.1 or 48kHz and 24-bit resolution. You also get an S/PDIF input that can handle sample rates from 32kHz to 192kHz. The idea is that you can feed a digital signal from your main audio interface into the VRM Box, so you can use your regular audio interface with VRM.

What is VRM? It's a technology that aims to make listening on headphones sound as if you're sat in front of a pair of speakers, thus sidestepping traditional problems associated with headphone monitoring, such as the mix sounding like it's 'inside your head', and the lack of crosstalk between left/right speakers/ears.

VRM's software control panel is where you select virtual rooms (bedroom, living room or professional studio) and speakers. There are 24 possible kit combinations. Some monitors - such as the Genelecs and KRKs - are named directly, while others are more cryptic, like the Japanese White Classic (Yamaha NS10s, of course). Most are nearfields and midfields, with oddities like computer desktop speakers, LCD TV and

Auratones thrown in for good measure. Disappointingly, there are no main room monitors (ie, the massive, mounted-in-the-wall type you find in high-end studios). And although the near/midfields are good examples of their type (eg, Adam S2.5A), there are no truly high-end offerings (PMC AML or Barefoot MicroMain 27, say). It's also worth noting that some options from the Saffire Pro 24 DSP's VRM are not available, such as selectable listening positions.

## Out in front

Room selection most impacts the overall sound, with speaker selection fine-tuning the tonality. The pro studio gives the flattest, most accurate frequency response, but it places the speakers further away. We found the bedroom the least acceptable space - way too boomy. All the rooms make the mix sound like it's out in front of you, though you can't adjust speaker angle or distance.

The room ambience is overly noticeable, and to our ears, VRM's early reflections are far phasier and more artificial than a typical room. We suspect this is exaggerated by the fact that VRM is equivalent to having your head locked in one position in front of the speakers. VRM also doesn't account for the frequency response of your headphones (we used Superlux HD668B, AKG K240 MkII, AKG K702 and Beyerdynamic DT100 'phones'). It's a shame VRM Box isn't sold with a set of cans that it's designed to work with.

On paper, VRM is the Holy Grail for bedroom producers. In reality, it offers a useful second perspective for assessing mix translation, but we wouldn't trust it for main mix work because of the overt colouration. We do worry that the less experienced may put too much faith in VRM and end up making questionable mix decisions. The VRM concept is a good one, however, and we do hope Focusrite can improve upon it.

As it stands, VRM Box offers a high-quality headphone output, with the VRM aspect being handy for second-checking mixes, though not suitable for use as a main mixing reference. **cm**

Web [www.focusrite.com](http://www.focusrite.com)  
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## Alternatively

**112dB Redline Monitor**  
**cm140 >> 9/10 >> \$99**

Takes the mix 'out of your head' without colouring the sound

**ToneBoosters Isonic**  
**N/A >> N/A >> €20**

Flexible, affordable, but VST-only

## Verdict

**For** Compact and convenient  
Includes some classic monitors  
Good quality DAC

**Against** 'Bedroom' sounds unpleasant  
Room colouration can be overbearing  
Too many low-end monitors/rooms  
No real top-flight monitors

The VRM Box hardware is neat, tidy and sounds great, although VRM itself doesn't entirely deliver on its promise

6/10

## Get a room

**VRM uses impulse responses of speakers combined with mathematically generated room models to create its aural illusion. Its three room options take into account not only the dimensions of the space but also differing loudspeaker positioning and acoustic differences such as furnishings.**

**If you select the Information button on the VRM console, you not only get the room size and speaker spacing, but also the reverb length. Here, you really notice how**

**room treatment affects things. For example, the studio is over 6m<sup>2</sup>, but its reverb time - 0.3 seconds - is shorter than that of the bedroom, which is just over 3m<sup>2</sup> and has an almost 0.4-second decay.**

**In use, we found that the studio sounded the least coloured and was more 'spacious' than the bedroom, even though its reverb is actually shorter. It's all interesting stuff, and useful in highlighting the advantages of a properly designed room.**