



Prism Sound

ORPHEUS

MusicTech
CHOICE

The Orpheus brings mastering-grade D/A and A/D conversion technology to the project studio. **Mark Cousins** sounds it out.

KEY FEATURES

- 8 premium-quality AD/DA channels
- Concurrent operation of ADAT and switchable S/PDIF, AES3 ports
- 4 integrated mic preamps
- M/S matrix processing on mic inputs
- 2 instrument inputs
- Prism Sound Overkillers on analogue channels to control transient overloads
- Built-in sample rate conversion on S/PDIF inputs and outputs

ORPHEUS

Manufacturer **Prism Sound**

Price **£3,225**

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Web **www.prismsound.com**

Prism Sound might not be a familiar name to many projects studio owners, but in the world of professional mastering, the company's audiophile D/A and A/D converters have become an almost compulsory part of the signal path. All the more reason, therefore, to be excited by Orpheus – Prism Sound's attempt to produce a FireWire interface with the level of performance you'd expect from mastering-grade audio equipment rather than bargain-basement project studio recording. Indeed, following in the footsteps of Apogee's Ensemble, it seems that high-quality FireWire

interfacing is becoming an increasingly important part of the DAW market, but is the Orpheus really that worthy of its £3,225 price tag?

Prism break

Looking first at the inputs and outputs on offer, it's easy to draw many comparisons with the aforementioned Apogee Ensemble. Like the Ensemble, there are eight analogue inputs split between four mic preamps (two of which also have high-impedance unbalanced instrument inputs) and four line inputs. One possible omission, though, is an insert path on the first two inputs, as found on the Ensemble.

THE ORPHEUS OFFERS LEVELS OF CLARITY AND TRANSIENT DETAIL RARELY HEARD OUTSIDE A MASTERING FACILITY.

Analogue outputs are provided in the form of eight balanced line outputs, with an assignable level control operated from the front panel of the unit. Digital inputs and outputs are available on RCA and TOSLink connectors, although it is also possible to access the AES3 protocol (in two-channel format) using the supplied converter leads and toggling a setting in the control software.

Away from the basic input and output path, the Orpheus reveals part of its professional approach in the shape of several additional features. The Overkiller circuit – much like Apogee's SoftLimit – provides a transparent soft limiter ahead of the A/D conversion to avoid any transients overloading the inputs. There's also a switchable 80Hz high-pass filter on the mic preamps, as well as a built-in M/S decoding matrix

for anyone exploring the art of middle-and-side recording, plus an RIAA de-emphasis filter for direct connection to a deck. Another interesting and important feature is the two-channel sample rate converter on the S/PDIF inputs or output (although not together), enabling audio to be streamed in or out of the Orpheus at a rate appropriate for the required end format.

Geek mythology

The Orpheus works with both Mac and PC, which should bring a smile to those PC users who have lusted after the Mac-only Ensemble. We tested the Orpheus on an iMac running OSX 10.5 and Logic Pro 8.0.2. Interestingly, although the Orpheus will work with 10.4.11, it is suggested that you install a FireWire audio patch from Apple (available on the Orpheus installation disc) before you install the Orpheus software. It's also worth noting that you can cascade multiple units, potentially utilising six units working at 44.1kHz/48kHz sample rates.

As you'd expect, the now-compulsory control panel software provides control over the primary functions and settings of the unit. Each output can have its own low-latency mix configured; once set up, the unit can even run in standalone mode to perform the same mix without a computer connected. Having the option to 'gang' the outputs to the main level control is useful, especially for anyone using the Orpheus in a 5.1 setup. Overall, though, the mixing software could be more intuitive, with aspects such as the headphone monitoring taking some time to configure correctly.

Sound of the gods

As we've come to expect from Prism Sound, the Orpheus delivers exceptionally good audio performance across the board – from the low noise



The control panel software provides control over the primary functions and settings. Each output can have its own low-latency mix configured.

and distortion of the preamps to the all-important converters. Although we couldn't directly compare the Orpheus against Prism Sound's ADA-8, the D/A and A/D conversion had everything you'd expect from a mastering-grade converter: neatly defined transients, plenty of depth and an absolute neutrality that tends to immediately identify problems in the source material. If anything, the Orpheus had slightly less 'sound' than our memory of the Apogee Ensemble, as well as being distinctly less 'fizzy' than our studio's existing A/D converter, making it an ideal choice for those wanting to preserve the integrity of the signal (and their listening experience) at both the input and output stages.

Software integration, although perfectly workable, possibly lacks the finesse and integration of the Apogee Ensemble coupled with Logic. For example, settings on the Ensemble (preamp gain and so on) are saved and recalled directly within the Logic project, while Orpheus users have to be content saving and loading the recall settings from the Orpheus control panel.

With other DAWs, of course, the Ensemble's integration isn't as seamless, making the Orpheus much more comparable. It would also have been good to see a little more control

from the front panel – hands-on control of the mic gains, for example – although it was nice to see dedicated controls for the two headphones.

Are we converted?

Given the range of audiophile preamps and outboard available nowadays – not to mention the DSP muscle and ultra-low latency of most computers – we always felt that the humble FireWire audio interface was increasingly looking like the weak link in the system. Ultimately, if you're the type of recording enthusiast who's going to spend several thousands of pounds on the various components of a project studio, you're not going to be entirely happy routing your signals via a low-cost, 'affordable' converter. The Orpheus therefore, establishes an important no-compromise solution, enabling Native DAWs to achieve the level of audio excellence you'd expect from a dedicated mastering workstation.

Despite the elegance and functionality of some of the competition, the Orpheus is the hands-down winner in terms of sound quality, defining a new gold standard in the FireWire audio interface market as well as bringing the work of Prism Sound to a much wider audience than just professional studios and mastering facilities. **MTM**

MEASURING UP

If you're a Logic Pro user, it might be hard to resist the integration offered by Apogee's clear alliance with Apple, with the Apogee Ensemble offering many of the features included in the Orpheus as well as a control panel that's directly embedded into Logic itself. For PC users, though, there are fewer choices in the FireWire market, with only RME's Fireface 800 (£850) coming anywhere near the conversion quality of the Orpheus (although the Fireface does offer one of the highest input/output counts of any FireWire interface thanks to its use of the FireWire 800 protocol). Features such as M/S decoding and real-time sample rate conversion certainly mark the Orpheus out from the competition, but it's arguably the accuracy, depth and neutrality of the converters that will be the real draw for many users, with little to outperform it.

SUMMARY

WHY BUY

- The finest-sounding FireWire interface on the market
- Mastering-grade A/D and D/A conversion
- PC-compatible

WALK ON BY

- No inserts on mic inputs
- ADAT monitoring could be improved
- Software control panel could be more intuitive

VERDICT

Easily the finest-sounding FireWire interface we've heard, the Orpheus offers levels of clarity and transient detail rarely heard outside a mastering facility. It's a significant investment, but for those seeking the ultimate in audio fidelity, it's a real winner.



METHOD SPOT

As well as outputting via the S/PDIF or AES3 digital connectors using undithered 16-bit and 24-bit resolutions, the Orpheus can also render a noise-shaped 16-bit signal using Prism's Sound's proprietary SNS dithering technology. Three modes are provided: SNS1 for programme material already demonstrating a high noise floor; SNS2 for 'everyday' applications; and SNS3, which uses optimised noise shaping for low-noise source material.

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