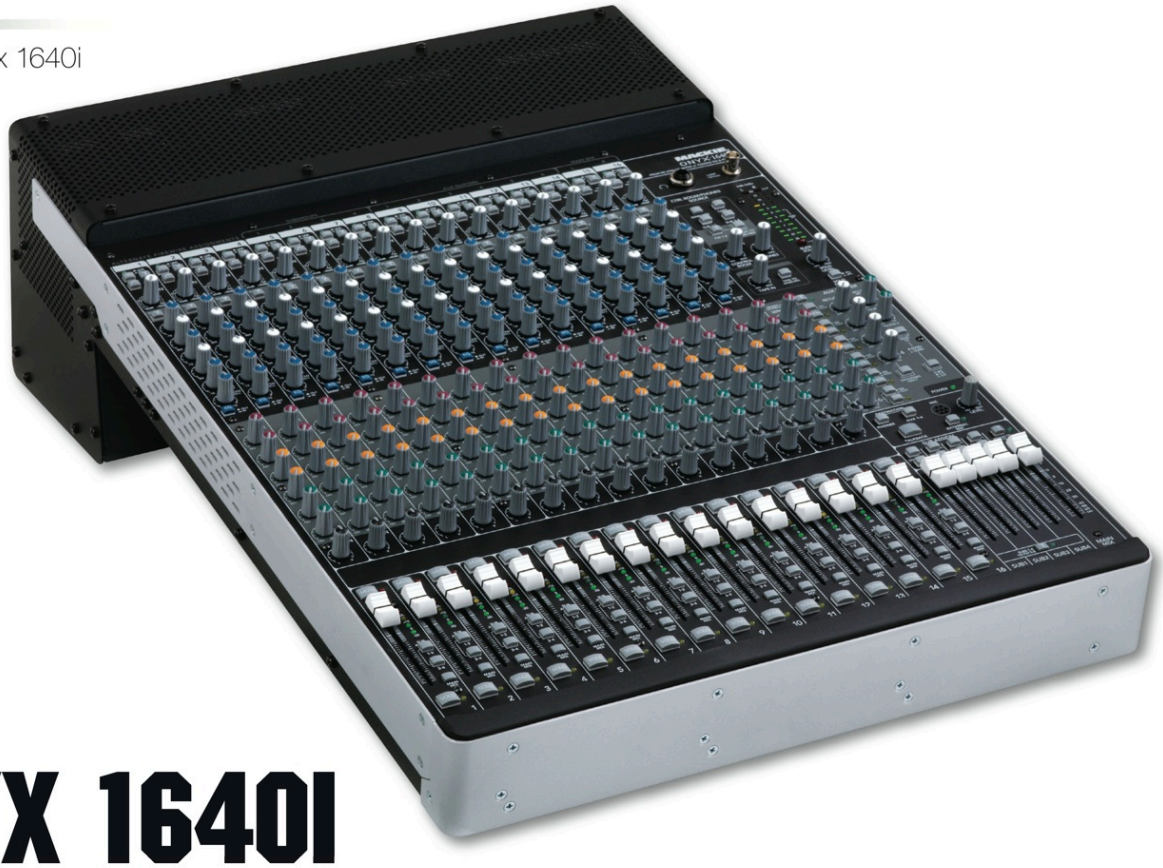


Mackie ONYX 1640I

Mackie's new 16-channel desk aims to combine modern-day computer connectivity with old-school hands-on usability. Mike Willox sees how well old and new marry up.

KEY FEATURES
- 16 channels of superb Onyx mic pres
- 16 x 16 FireWire
- 6 auxes
- 4 subgroups

ONYX 1640I

Manufacturer **Mackie**

Price **£1,649**

Contact **Mackie 01494 557398**

Web **www.mackie.com**

Today's mid-price mixing desk needs to offer more than just a load of analogue connectivity if it's going to compete with the flexibility of the DAW mixer and all the workflow options that come with it. It needs mic pres that are as good as those available in the plethora of excellent audio interfaces produced by long-established manufacturers that have previously set the bar in terms of build quality, noise floor and transparency. It also needs to cover every routing possibility without compromising the signal path, have sophisticated EQ options and, perhaps most importantly, have a footprint that will find itself a place in the increasingly smaller spaces that we make our music in these days.

The obvious first step in this development is the deeper integration of audio I/O converters fitted as standard via one of the digital protocols – such as FireWire or USB – where they were previously available only as cards (that you'd insert by unscrewing a plate at the back of your device) and had to be purchased separately.

Mackie's new Onyx 1640i does just that, by combining the already established Onyx 1640 with an internal FireWire card that offers much more functionality than the previous optional card for the 1640 (which only allowed you to send the inputs pre-EQ to your DAW and return only as a stereo pair). With the 1640i's full 16 x 16 FireWire capability you can now do true tape-style mixdowns back into your DAW and utilise the plug-ins within it.

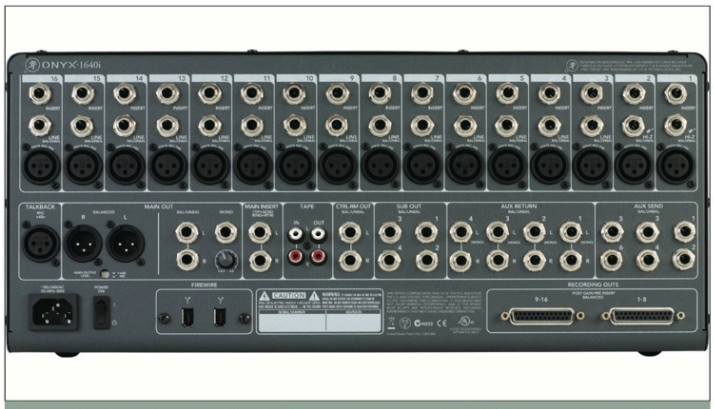
THE ONYX 1640I COMBINES THE ALREADY ESTABLISHED ONYX 1640 WITH AN INTERNAL FIREWIRE CARD.

Built for the road

Sporting the familiar Mackie livery, the flagship 1640i is a compact and well-built desk that offers Mackie's FlexiPod option of fixing the separate unit that houses all of the desk's inputs and outputs either at the back, on top (using an optional bracket) or on a standard 19-inch rack (rack ears for the unit are included). The connectivity options provide pretty much everything that you're likely to need, whether you're recording straight to disk on the road, setting up complicated monitoring for a gig or capturing that magic moment in a band writing session.

FireWire is Mackie's chosen protocol over USB on the basis that it's more robust when dealing with audio and a couple of DB25 female sockets in addition to the two FireWire slots provide balanced direct outputs for channels 1–16 to any Tascam DTRS-compatible device. Insert, balanced/unbalanced line and XLR sockets are available on all 16 channel inputs, with channels 1 and 2 also doubling as DI boxes for the direct connection of guitars and basses.

Main output options are well served with XLR and 1/4-inch sockets as well as a mono output with its own level trim control. There's a pair of Main Insert



All ins and outs – and there are plenty of them – are housed on the FlexiPod, a separate unit which can be mounted behind or on top of the main body or separately in a standard 19-inch rack.

sockets (left and right), Control Room Out and Tape In and Out (via phono sockets). The four subgroup outputs, six aux sends and four stereo aux returns are all 1/4-inch jack sockets and there's a female XLR socket for an external, phantom-powered talkback mic. The versatile talkback options are also available from the onboard mic, which can be routed to the main mix, subgroups, tape or FireWire 1–2. There's a standard BNC 12V 0.5A lamp socket and the transformer's built-in, so there's no expensive box to replace when that little bit of flex inevitably breaks.

mic pres around at this price point. Each channel also boasts phantom powering, low cut, four-band Perkins EQ – with sweepable hi and lo mids, but no Q control – and six aux sends. Each channel can be routed to the main mix or the four subgroups, but there's no phase-reverse switch. We think this is a bit of an oversight, because, realistically, if you're going to set up to 16 mics up in a room, the chances are you'll get *something* phasing…

The comprehensive aux section – all of which can be pre- or post-fader – features some nice touches, one of which is being able to send aux 3 to either subgroup 1–2 or 3–4 instead of the main mix. This facility enables you to ensure, for example, that any reverb level on a drum group follows any fader changes made in the submix, instead of leaving you wondering why, when you pull down the drum group fader, you're left with the sound of distant drums in your main mix.

THE 1640I COULD EASILY FIND ITSELF AT THE HEART OF A BUDGET STUDIO AS WELL AS BEING USED IN LIVE SITUATIONS.

Considering the build quality and connectivity of the 1640i it's reasonably light, weighing in at 15.9kg, although you'd want it in a case on the road as our review machine arrived with a bent fader placed perilously close to the edge of the chassis.

Versatile routing

All mixer channels (either pre or post the four-band Perkins EQ), subgroups, aux sends and the master out L/R can be routed by FireWire to your DAW up to a maximum of 16 instances, so if you want to send submixes you'll decrease the number of individual mixer channels you can send to your DAW. The returns from the DAW default to the 16 input channels with no other routing option available, although this is no great loss as we can't see why you'd want to do anything else with them.

All of the input channels feature the excellent Onyx mic preamp, which is incredibly quiet and is one of the better

Scores on the DAWs

Although there's no built-in FX unit on the 1640i – and, in fairness, it's hard to see where Mackie could have put the controls for it, given the amount of knobs and buttons they've managed to squeeze onto this rack-friendly mixer already – you can still harness the processing power of your DAW's plug-ins. A single switch assigns aux sends 1–6 to FireWire outputs 9–14, enabling you to use up to six mono in/stereo out processors, the performance of which will depend on the power of your computer hardware. Bear in mind that this will remove the FireWire output of input channels 9–14.

Mackie has provided support for all the major DAWs (although you'll need an optional driver if you're using Digidesign's Pro Tools M-Powered software) and with the combination of the Onyx mic pres and sampling rates available between 44.1kHz and 96kHz at 24-bit, the overall sound of the 1640i is very clean – it's ideal for any form of track laying, live recording, mixing or monitoring. Although there are other desks out there that offer more functionality than the Onyx – such as using the desk as a MIDI controller for a hands-on DAW experience or total recall of onboard processors – they all cost a little bit more money.

Having said that, though, we had no problems getting our Mac to see the Onyx after a simple FireWire cable connection, so it's truly a plug-and-play device and the Mackie Onyx 1640i certainly has the sound quality and a lot of the features that you'd want from a mixing desk and a soundcard. For this reason, it could easily find itself at the heart of a budget studio as well as being used in live situations. MTM

MEASURING UP

Just below the 1640i's price is the Yamaha N12 (£1,300), which boasts onboard digital FX, a compressor on every channel and surround monitoring, but has only eight mic pres and far fewer routing possibilities. The PreSonus Studio Live 16.4.2 (£2,195) is a bit of a jump in price but possibly worth it in terms of functionality, with two built-in FX processors, a FAT channel (including gate, limiter, compressor and phase reverse that's totally recallable), 32 ins and 18 outs. The Allen & Heath ZED-R16 FireWire Recording Mixer doubles as a MIDI controller for your DAW and can hook up two ADAT machines, making it a great archiving desk, but it has only four auxes (two pre, two post).

SUMMARY

WHY BUY

- Very clean sound
- Good FireWire implementation
- Versatile chassis and FlexiPod for fitting into different environments
- Good routing possibilities
- Doubles as a mixer and soundcard

WALK ON BY

- No built-in FX
- Lacks some functionality
- No facility for muting subgroups
- No phase-reverse option

VERDICT

A well-designed, clean-sounding mixer with a built-in soundcard and 16 quality mic pres that's great for tracking and for recording gigs, but lacks some of the functionality required to make it the central piece of kit in more demanding studios.

★★★★★★★★★★

METHOD SPOT

Each channel of the Onyx 1640i can send a FireWire output to your computer or DAW. The FireWire output can be tapped either before (pre) or after (post) the channel EQ. If you want the mixer EQ to affect the FireWire recording, then set this switch to post: this is useful if you want the musicality of the Perkins EQ to go to tape. If you don't want to record the EQ (and deal with this later in your DAW) then set the switch to pre.