

Super Nova!

NovaFidelity's X40 could just be the perfect front-end for your system, says Jon Myles.



Just a few months ago I took rather a shine to Cocktail Audio's X30 – a one box system combining hard disk storage with a UPnP computer connection, CD player and ripper, radio, and a 50 Watt Class D amplifier – all for just £799. To add to its abilities there was also the capability of digitising your LPs and saving them to the hard disk.

No, it wasn't perfect – but, as I said at the time, you'd be hard pressed to assemble a series of separates that came anywhere close to the X30's flexibility and sound quality at the price.

The model is still available and remains a bit of a bargain. But the engineers behind the concept haven't been resting on their laurels.

For now they've unveiled the X40 – which ups the ante in a number of significant ways. The company says it listened to feedback from its customers who asked for higher-end stance with the same

functionality of the X30.

So the X40 features CD playback/ripping/storage, UPnP streaming from computer, internet and FM radio, as well as USB, line level and phono inputs (all recordable to the hard disk).

It loses the amplifier section but gets an upgraded power supply and – crucially – utilises the highly-acclaimed ESS Sabre32 DAC which will handle PCM file sizes up to 32 bit/384kHz as well as DSD64/128 and DXD.

Oh, and the product is now branded as NovaFidelity (yep, just as written) – mainly to do with marketing reasons rather than any change in ownership.

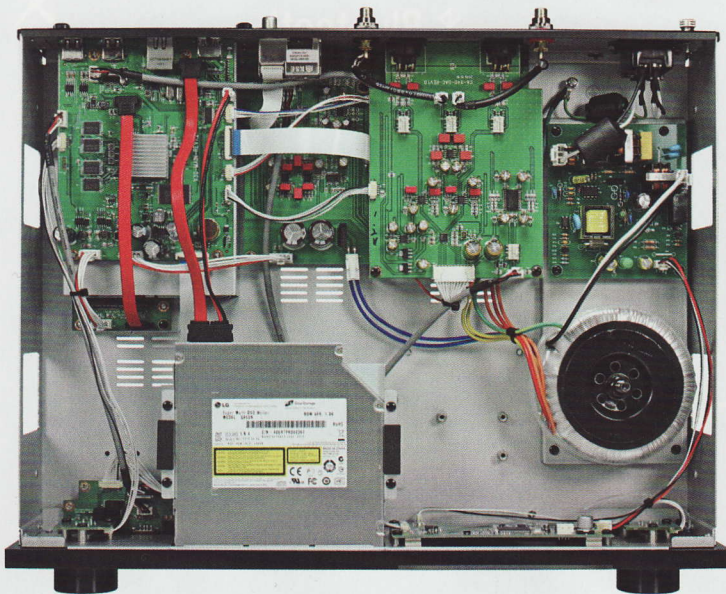
The X40 costs £1299 with 2Terabytes

of hard disk storage – but you can double that capacity for an extra £100 or specify more expensive SSD drives if preferred. It is around the size of a standard CD player, with a metal case and a 12mm thick aluminium front panel.

There you'll also find a slot-loading CD drive, TFT display panel, two rotary controls as well as headphone and USB drive sockets, plus an array of small push-button controllers which allow you to access the X40's various features.

Turn to the rear and the X40 is also handsomely equipped with both balanced and RCA analogue outputs, Toslink, Coaxial and AES/EBU digital outs, two USB host sockets for adding external storage plus a phono input (MM only) and an FM antenna socket.





The X40 has an upgraded power supply using a beefy toroidal transformer.

Connection to a network is via an Ethernet cable or – if required – an optional wireless adapter, while a remote control gives access to all the various features.

SET-UP AND OPERATION

Unpack the X40, put it in situ and operation is remarkably simple. The unit immediately locked on to our internet connection – giving access to web-based radio and meta-data when ripping CDs to the internal drive.

Slide in a silver disc, choose the ripping function from the front panel control and you immediately have the option to specify bit rate and file format. Ripping a standard CD in WAV took an average of 10 minutes – from inserting the disc, downloading album artwork and waiting for the entire operation to complete.

Once done, each album is displayed by its front cover which makes skipping through individual selections extremely easy. In addition, you can also create your own playlists.

The X40 will also discover UPnP storage devices on a network for 24-bit/192kHz streaming playback as well as importing similar file sizes from its USB sockets.

SOUND QUALITY

We've said it before but it's worth repeating – the ESS Sabre32 DAC is one of the best around and brings a real air of resolution and quality to the X40.

Listening to a ripped copy of Eleanor McEvoy's 'Yola' and the detail and atmosphere is exceptional.

Here the leading edges of the guitar work shine through, while you can hear the slight catches in Ms McEvoy's voice between vocal lines.

Switch to James Blake's 'Limit To Your Love' and the low-end

"loading a DSD download of the San Francisco Symphony's 'Mahler No 1' onto the hard disk and the atmosphere, sheer strength of the orchestra and overall musical punch is eerie."

power comes across with ample strength. This is via a Sugden Sapphire FBA-800A amplifier and Tannoy's new DC10Ti loudspeakers (see reviews in this issue). That's a combined cost for loudspeakers and amplifier of over £10,000 – but the X40 doesn't come up short.

Indeed, it seems to revel in the combination. Loading a DSD download of the San Francisco Symphony's 'Mahler No 1' onto the hard disk and the atmosphere, sheer strength of the orchestra and overall musical punch is eerie.

Try something a little more

dense – such as the Jesus & Mary Chain's 'Psychocandy' (24/96) – and the X40 retains a sense of poise and detail that is admirable.

This album is a squall of sound – frightening feedback, deep bass and gloomy vocals – but the X40 manages to pick the various elements apart yet still convey it as a musical whole. It's an impressive performance.

Move on to recording from records to the hard disk and the MM input doesn't disappoint. Sample rate is 192kHz and the rips sound clean and clear. Clarity is good – although there isn't the outright definition you'll get from a well set-up turntable with moving coil cartridge.

But that's probably beside the point. The sheer convenience of being able to rip, store and access LPs on a unit such as this is an obvious benefit.

Listening to Kate Bush's '50 Words For Snow' taken from the LP and downloaded onto the hard disk shows a real presence to the piano with a timbral accuracy and life to the vocals.

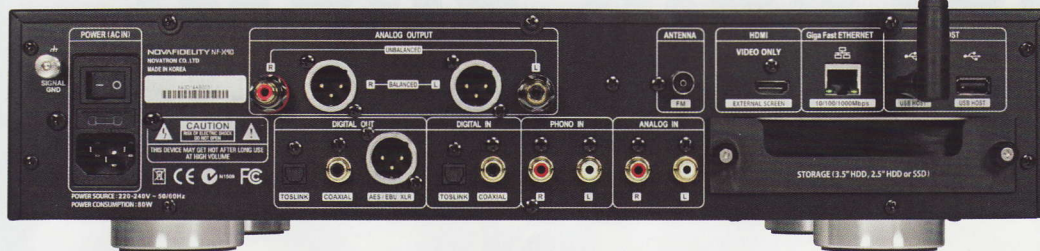
If there's one criticism to be made, it's the fact that the X40 doesn't come with a dedicated smartphone/tablet app for easy



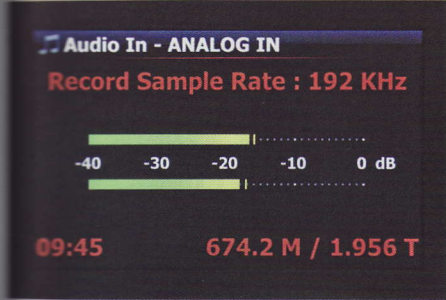
The TFT front panel display can show album artwork plus a variety of information on the track being played.

control. Instead there's a number of generic third-party iOS/Android apps as an alternative – but in practice

An optional wi-fi dongle (right) provides wireless connection if needed, while both balanced and unbalanced outputs are available.



NOEL SAYS -
The core value of this machine is its ESS Sabre32 DAC and resultant CD sound quality, which was excellent. All digital passes through the Sabre32 of course, so all benefits. Pity then that there was no Bluetooth to play music from mobile phone or portable. But it does have a super accurate digital phono stage - wow! NK



An analogue input allows for the recording of LPs to the hard disk at 192kHz.

none of them worked perfectly and I invariably defaulted to the remote or front panel controls for both reliability and ease of use. It's not a deal-breaker but it

would certainly add to the value and in this day and age seems a strange omission.

That apart, though, the X40 is one of the most fully-featured, thoroughly musical and satisfying components out there at the moment.

CONCLUSION

The X30 impressed us – but the X40 takes things to another level. Chiefly this is down to an upgraded power supply and the use of the Sabre32 DAC – which brings a new level of resolution and clarity to the sound.

As a front end for a superb system there's little to match the X40. Hard disk storage, a decent MM

phono input, UPnP capability and an FM/ internet radio module are all on-board.

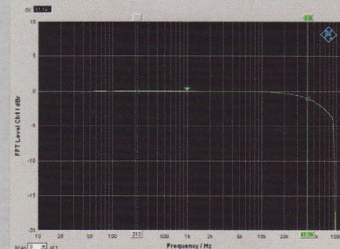
Also factor in the fact that you can store high-resolution tracks on the hard disk as well as DSD files and things look even more impressive.

Most importantly, though, it sounds superb and is easily capable of being matched with amplifiers and loudspeakers costing a lot more than its asking price. Which, all in all, makes it a bit of a bargain.

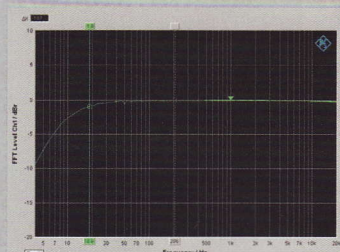
MEASURED PERFORMANCE

The S/PDIF digital audio electrical input accepted up to 24/192 PCM code, giving a flat audio response out to 20kHz through the analogue outputs, and a slow roll off thereafter up to the 96kHz sampling limit; the -1dB point was 41.3kHz.

FREQUENCY RESPONSE, 192k



PHONO RESPONSE



The S/PDIF optical input worked up to 176.4kHz sample rate, but not 192kHz – a disappointment. But the Sabre runs to 192kHz so the optical input receiver limits performance here.

Dynamic range of the Sabre32 measured a very high 120dB - impressive.

The phono stage runs through an ADC and back out through a DAC, from phono inputs to the analogue outputs, 1mV input giving 141/282mV respectively to the phono and XLR outputs, so this signal path has a gain of x141/x282 (43/49dB), as expected for MM preamps that typically have x100-x200 gain. Input overload was very low at 15mV, however; budget Ortofon cartridges like the 2M Red deliver 35mV on peaks, so occasional overload is possible, but for the most part 15mV will just do. Noise measured -69dB down, a low value below that of intrinsic MM cartridge (thermal) noise, and equalisation was superbly accurate – likely digital – complete with warp filter that gives -7dB attenuation at 5Hz; see our analysis. So the phono input is surprisingly neat in most areas, if

lacking overload headroom.

The VHF/FM tuner had perfectly flat frequency response to 13.5kHz, again appearing to have digitally applied 75µS de-emphasis it was so flat. A notch exists to remove pilot tone at 19kHz. Noise was that of a typical budget VHF/FM tuner, measuring -62dB at full quieting, a condition that existed with a weak 0.3mV from the aerial and above – a very good result. The IHF stereo sensitivity value measured 55µV, another good figure.

The ESS Sabre32 DAC gave very good results from the X40 as hoped; it has been well implemented and this product measured well all round as a result. NK

Frequency response (-1dB)	24/192	2Hz-41.3kHz
Distortion (24bit)	0dB	0.0009
-60dB		0.02
Separation (1kHz)		110dB
Noise (IEC A)		-119dB
Dynamic range		120dB
Output (XLR/phono)		4.6/2.1V

NOVAFIDELITY X40
£1299 (WITH 2TB HARD DISK)



OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT
Exceptional-sounding CD ripper/storage system with MM input and internet/FM radio.

FOR
- ESS Sabre32 DAC
- Superb sound
- MM phono input
- Hard disk storage

AGAINST
- No dedicated app
- Nothing else at the price

Sygnifi
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