

Black On Black

Noel Keywood enjoys the darkness of iFi's iPhono3 Black Label phono preamplifier.

It's surprising just how twiddly LP can get and this little pre-amp has plenty of twiddle-ability to suit. I'm alluding here to Decca and Columbia EQ settings. iFi's new iPhono 3 Black Label phono stage (£999) has both, plus a lot more twiddle factor to suit pickup cartridges. Plus a dark sound.

As a physical package the little iFi borders on physically peculiar, but stays in keeping with the company's design idiom of a very small case with plenty of facilities. At heart it offers broad compatibility with moving magnet (MM) and moving coil (MC) cartridges – ultra low noise with MC I found – and unusual pre-1980s equalisation curves.

Most LPs conform to equalisation specified by the Radio Industries Association of America or RIAA. But Decca (UK) had their own equalisation curve that was also used by Deutsche Grammophon (Germany), and Columbia (USA) had a different take on things. For collectors who want sonic authenticity, the iPhono 3 is perhaps a must, Decca and Deutsche Grammophon being known for the quality of their classical releases in particular. However, Decca also put out quite a lot of early British Blues onto LP in the 1960s – so I dug out some treasured oldies whose oblong Decca label is burnt into my brain, after youthful nights peering at it as the music played. I admit to only having used RIAA with these discs; would the iFi tell me I was missing out in those dark nights? I'll say more about this later.

Whilst a small three-way toggle switch selects between these differing equalisations (EQs) and is easily accessible, iFi also includes other variants on the underside – and these are not easily accessible, being pre-set by miniature in-line DIP switches that are best set with a small jewellers' screwdriver.

I'm not convinced these EQs are especially valuable. There is a warp filter to cut out subsonics, but unfortunately it is an IEC warp filter – and they aren't very clever. This filter reduces loudspeaker cone flap with warped records alright – but it audibly lightens bass too. Nowadays it is easy enough to design and implement a high-pass filter better than this one dreamt up long ago. So the iPhono 3 has a warp filter, but not a good one.

There is also another little tweak called enhanced RIAA that, I recall, has something to do with correcting cutting lathes. iFi bill it as a default setting in the iPhono3, so they prefer it, but I find this little tweak, when it occasionally appears, makes little subjective difference. It slightly raises treble above 10kHz but whether you like this will depend upon your cartridge and its

stylus. The deeply analytical Shibata and SLC (super line contact) tips I use don't benefit since they are forthright up top in any case, throwing out information without any need of assistance from twiddled EQ. Cooking conical styli in budget cartridges will be subtly livened up however, so how useful eRIAA is will depend much upon the cartridge being used. It's all good fun and there if you like it.

As you can see from our pictures, there are myriads of settings that can be made on the underside DIP switches. I'll break them down for easy understanding. There are normal and high gain values for both MM and MC cartridges. The 'high gains' are for low output types. The use of low (normal) gain is preferred because it reduces the possibility of overload, but the amplifier's volume control will have to be wound up a little to compensate. Because the iPhono3 overloads at a low 6V out – 10V being common nowadays – there is not a lot of leeway here, but overload in real



life is not an issue; music peaks from LP rarely get close to causing overload I've found from measurement.

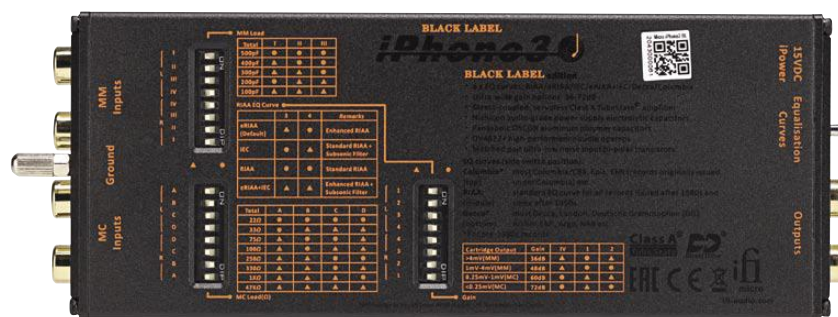
In addition to the left and right channel gain setting DIP switches, there are also plenty of DIP switches to set cartridge loading. Again, no big issues here, so much as fine tweaks. The 100pF - 500pF capacitance options for MM are a tad historical. Long ago MMs sounded warm and adding capacitance could correct this, raising the mid-band/lowering upper treble, but nowadays most MMs are best left alone, since they are not warm sounding anymore (due to more efficient generators).

With MC loading the picture is different. The standard load value is 100 Ohms, ten times the generator resistance of 10 Ohms (a rule of thumb to minimise losses) and the iPhono3 has this value. But some MCs (e.g. Clearaudio) need at least 300 Ohms and the iPhono3 covers this too, with settings up to 1000 Ohms, plus a 47k option on MC. It also goes the other way – down to 22 Ohms and this invokes other issues, offering better damping at the possible expense of tracking. But whilst I can see differences under test I'm unsure I can hear any great differences in use. So again, it's all there if you want to twiddle!

Size wise the iPhono3 measures 170mm long, 64mm wide and 25mm deep. Weight on our scales was 254gm. It can stand on its side next to a turntable to take up just 25mm of shelf space. The package includes an iPowerX super-silent switch-mode wall-wart style power supply that



The 'front' of the case – or is it the back? Outputs and a small three-way toggle switch to select standard RIAA, Decca or Columbia playback EQs.



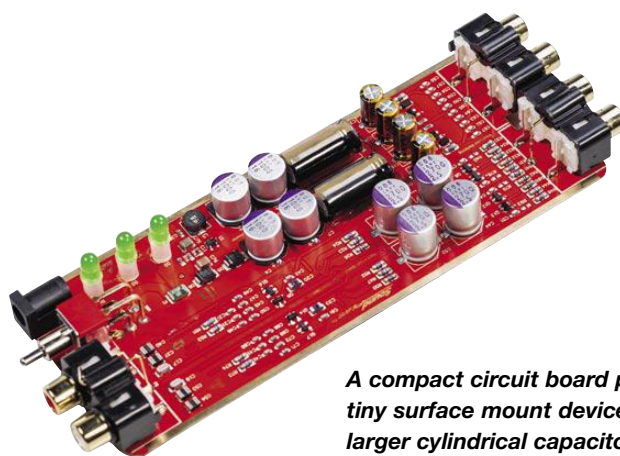
Arrays of tiny slide switches, known as DIP switches, set gain, MM input loading and MC input loading, through various permutations shown in the charts. Also selected here are eRIAA and IEC equalisations, both variants of RIAA. Note black text on black background!

delivers 15V (1.5A) through a cable 2m long. iFi claim very low noise from this unit and you definitely can identify it amongst all the others, with illuminated iFi legend. It works from 100V-240V, 50/60Hz.

On usability, I note only that all the DIP switch settings need careful

Technica VM750 SH MM cartridge with Shibata tip, as well as an Audio Technica OC9X SH MC also with Shibata tip. Downstream was a Creek Evolution 100A amplifier driving Martin Logan ESL-X hybrid electrostatic loudspeakers.

I ran through modern LPs first,



A compact circuit board populated with tiny surface mount devices (SMDs), plus larger cylindrical capacitors of audiophile quality iFi say.

studying; this is not the easiest phono stage to set up – or change. It is also awkward in layout, with inputs and outputs at opposite ends, and the power plug on what is effectively the front, since it carries the EQ switch. The earth terminal is miserably small too, but because the unit floats electrically there may be no need to use it (depending upon the earthing arrangements in your system). I did not need it. However, some hum floated in when placed on a shelf below the Creek's mains transformer, but re-positioning cured this.

SOUND QUALITY

The iPhono3 was connected up to our Timestep Evo modified Technics SL-1210 Mk2 turntable, fitted with SME309 arm and Audio

all RIAA, and got a fine result from a wide range played with our Audio Technica M750 SH via MM input. Quite obvious was good stage depth, a nice sense of silence and a big bodied sound more reminiscent of valves than transistors. There was no hint of the flat, papery quality that taints many phono stages. Only point to note here is that 'standard gain' (38dB) is very low: I had to crank volume up on our Creek almost to maximum.

Swapping to MC and our Audio Technica OC9X SH there was even more depth and solidity in the sound, bringing scale to the chorus behind Hugh Masekela's 'Nelson Mandela', from his Hope LP. It's a live recording – very well made – and iPhono3 conveyed the male singers with



The separate iPowerX low-noise switch-mode power supply, complete with accessories. It lights up to show an iFi logo, making it clearly identifiable. iFi claim this is a special audio grade power supply, free of the noise and with better regulation than a typical, cheap wall wart. It delivers 15V d.c. and is fully floating (no earth).

gusto, making them sound big bodied behind Masekela's wailing trumpet. For this performance the iPhono3 shot right up my personal preference scale, where 10 is our Icon Audio PS3 MkII valve phono stage with input transformers for MC. The iPhono barged up to 9 pretty fast! Not only did it have stage depth and an organic quality that made humans sound human, but there was no hiss – none. I have never heard an MC preamp so quiet, even with full volume applied.

Across a broad range of LPs the iPhono3 maintained its sense of sonic poise, with no top end sharpness, a wonderfully clear midband and an almost honey sweet analogue quality. There was no forced detail, just great natural insight, bringing Jackie Leven's big voice out fully in front of me, singing Young Male Suicide Blessed by Invisible Woman, where echoes enveloping the invisible woman ran eerily deep. The next track, Some Ancient Misty Morning, had a firm bass line and captured Jackie's

plaintive tones.

Now on to Decca. My use of Decca equalisation was, I admit, fun but inconclusive. For this it meant ferreting through the record collection to find Blues Breakers (1963 Wikipedia, 1966 on my disc), featuring John Mayall with Eric

Clapton. The quality was so shaky I could not really form any conclusion here. It was with The World of Blues Power (1966) and the wonderfully atmospheric recording of Peter Green's Out of Reach, of excellent quality, that switching in Decca moved vocals and guitar back a bit, slightly softening the sound. I could say there was "less shout" but quite frankly I don't mind at all hearing Peter Green moved toward me. So I won't wave my arms about here and declare Decca EQ a "must have" – but perhaps those sheltering old classical recordings a little less – er – fundamental than my early British Blues, will be delighted at the difference it makes. This is an issue for buffs.

CONCLUSION

On mechanical layout and ease of setting the iPhono3 Black Label is not the greatest. iFi even use black text on a black background that required a spotlight and magnifying glass to interpret. The range of input settings is a good one though.

MEASURED PERFORMANCE

Frequency response with RIAA equalisation – that normally used – was flat, as our MM response analysis shows. There is however slight plateau lift at low frequencies, just enough to ensure some weight in the sound. The MC response was also flat, even at full gain (72dB) where some stages run out of puff.

Switching in eRIAA (enhanced RIAA) raised treble above 10kHz slightly and will change little subjectively.

The IEC warp filter is true IEC, cutting bass strongly below 100Hz, the

reason this filter is rarely used since subjectively it is obvious.

The Columbia and Decca equalisation curves are very different to RIAA and should be used only with old LPs that need such EQ.

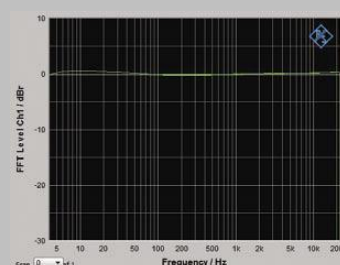
Gain values were as quoted, the maximum being a massive x3660 or 71.3dB for low output moving coil (MC) cartridges. However, with a low-ish output swing of 6V from iPhono 3 this gave an input overload value of just 1.6mV. Best to use the conventional gain value of 60dB (x1000) for MC where overload is then 6mV.

MM similarly has a normal gain (36dB, x63) and a high gain setting (48dB, x250) and the former is best used for highest overload ceiling.

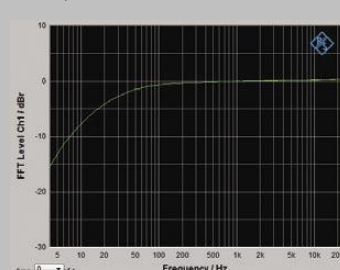
Noise (equivalent input noise, or e.i.n.) measured 0.04µV which is extremely low, making this a super-quiet preamplifier suitable for the lowest output MC cartridges.

Very low noise, but also low overload margins, so gain is best set low. NK

FREQUENCY RESPONSE RIAA



FREQUENCY RESPONSE IEC



Frequency response	20Hz-20kHz
Separation	68dB
Noise (e.i.n.)	0.04µV
Distortion	0.1%
Gain (MM, MC)	48dB / 72dB
Overload	6V out



The back of the case, or perhaps the front. Separate MM and MC phono socket inputs plus a tiny earth terminal barely able to clamp a large earth tag.

iFi IPHONO 3 BLACK LABEL £999



OUTSTANDING - amongst the best

VALUE - keenly priced

VERDICT

Superb sound quality distinguishes this phono preamplifier. Mechanically a tad awkward.

FOR

- spacious, dynamic sound
- no hiss
- adjustability

AGAINST

- fiddly DIP switches
- obscure case graphics
- mechanically awkward

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