

Two Timer

Tony Bolton tries a phono stage with a difference; Chord's analogue-to-digital convertor totting, USB connecting Chordette Dual...

Chord Electronics have been based in Kent since they were founded by John Franks in 1989, and have built a reputation for making high quality audio equipment. The Chordette Dual phono stage under review here is the first to be reviewed of their new range of components.

The Chordette series includes a DAC, preamplifier, amplifier and headphone amp. Other products, including a Windows operated PC, form a range of eight units designed to make a modular hi-fi system which can be housed in a dedicated stand which is itself modular, allowing the system to grow as the users needs dictate. This new range shares the looks of the successful Choral range, but in smaller form, measuring a mere 160x70x40mm and weighing in at 400grams. Make it much smaller and it would make an attractive addition to a charm bracelet!

The body is milled from a solid billet of aluminium and is 4mm thick for the front and rear panels, rising to 10mm thick for the ends and base.

The finish is anodised and comes in either black or natural (silver). It houses a dual differential stage driving Texas Instruments op-amps. The RIAA equalisation is passive. Four levels of gain are offered, ranging in 5dB jumps from 60 to 75dB. These are accessed by a row of buttons on the right of the front panel. To the left of these are three impedance settings of 30, 100 and 5k Ohms. With all switches out the impedance is 47k Ohms and 50pF capacitance, but Chord told us the Dual is Moving Coil (MC) cartridges only. Another button gives the option of 200pF capacitance should your (MM!) cartridge require this. On the far right is a button for a rumble filter. This is a Rausch Slope device that uses an asymmetrical circuit to only respond to vertical modulation of the groove, thus removing unwanted deep noises without interfering with the music.

Power for all this comes into the unit at 12V DC fed from a small wall transformer. Inside there is a 500kHz DC to DC convertor which feeds

the power through various filters before it reaches the gain stage. Unusually at this price point there is also a USB output, driven by a 16bit A-to-D convertor, which will send a digital signal to your PC or Mac for recording and archiving purposes. An optical digital output is also provided so that, once connected to an outboard DAC, monitoring of the recording can take place. Recording is done at a sampling rate of either 44.1 or 48kHz in PCM digital audio format.

All the digital and analogue in and out sockets are spread across the back of the unit, and given the small size of the bodywork, a sensible amount of space is provided between each of the sockets so users of





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large bodied plugs on their interconnects will encounter no problems.

As a finishing touch, there is a domed window in the top right of the case, which is backlit in an attractive combination of red and blue LEDs. Whilst providing the novelty of a peek inside, it also serves as the 'power on' display.

In my experience all electronics benefit from a bedding in period, and the Chordette proved no exception, however the sound seemed to stabilise after a mere fifteen hours of use and after another ten hours seemed to be settled, so I sat down to do the serious listening. Signal came from my Ortofon Kontrapunkt a, mounted on a Clearaudio Master Solution turntable, and fed into a Leema Acoustics Tucana II amplifier and Chario Ursa Major loudspeakers.

Given the rather good spell of weather we're enjoying at the moment, Frederick Delius's 'In a Summer Garden' followed by 'Summer Night on the River' seemed a good starting point. Written in

1909 and 1911 respectively, these pieces are in the impressionist style and provided a wonderfully relaxing and contemplative tone picture of the delights of a British summer. I found myself putting my notepad to one side and getting immersed in the filigree detailing of the sound of the Halle Orchestra. The flow of the music seemed natural and unforced, contemplative where required, and exploding into the full orchestra from just the lead flute, then back again.

The soundstage was very wide, extending a good couple of feet beyond the speaker boundaries, with reasonable depth. The different instrumental groupings were well placed and defined, but avoided the trap of over emphasis, so that I felt that I was listening to a cohesive

group of musicians working together, rather than the collection of individuals loosely cooperating with each other, that can be heard through some phono stages.

Moving onto to a mono recording of Chris Barber and his Jazzband recorded live at the London Palladium in March 1961 and I found a spread of sound that filled the space between the speakers. Each musician had space around him, and the effect was so convincing that I actually checked the label to see if this was early dodgy stereo or genuine mono. The danceability of the beat from a good Trad Jazz band was very evident and I quite happily digressed into other recordings in the genre before returning to my playlist.





Next up was a recent charity shop find of Roy Orbison's 1964 LP 'Oh Pretty Woman'. Whilst not in the first flush of youth, after a trip through my record cleaning machine it seemed to be in quite reasonable condition, and again gave a good insight into the subtle complexities of some of Orbison's musical arrangements. Odd pops and bangs framed the sound at a couple of points, but were not too intrusive. However, I would have liked to have had a mono/stereo switch to tidy the sound up a little when playing such venerable pressings.

Coming more up to date with Primal Scream's 1991 LP 'Screamadelica' (yes, it is that old!) and I was presented with relentlessly driving rhythms underlying what I had come to recognise as the Chordette's inherent attention to the detail of sounds. I felt that I had a private window looking into the studio. The combination of real instruments and sampled sounds was laid out for cerebral analysis and then delivered to the ears as a comprehensive package. The punch of the lower bass was satisfying, although not the deepest that I've heard, but solid enough to be convincing. More to the point, it seemed to stop and start very quickly, giving the music steady propulsion forwards.

Throughout this, I had the USB output connected to my MacBook, recording proceedings. Unfortunately the only DAC that I have is a Cambridge Audio DACMagic 3 which automatically upsamples its output to 24bit/192kHz, so I couldn't give an opinion of the non-upsampled output of the Chordette. Suffice to say that when replayed from the hard drive, the sound was very good and detailed, and a fair facsimile of what went in. The only caveat that I would have, seemed to be digital recording's relentless ability to put surface noise ahead of the music even though the reverse seemed to be the case when listening directly to the phono stage. But given a decent condition record then the quality of copies was

certainly of an acceptable standard.

Given this unit's price point it was inevitable that I would compare it with some of the equipment left from the recent phono stage group test. Closest in musical delivery was the Roksan Caspian DX2 (£869) which gave a somewhat richer and fuller bodied rendition, but without quite so much of the minutiae of detail that came from the Chord. I could use a wine analogy and say that the Roksan was more of a full bodied heavy claret, versus the slightly lighter, and spicier Merlot flavour of the Chordette. This could well make the Chordette less fussy about the partnering system since it seemed to possess enough weight to beef up a thin sounding setup, but not be so fulsome as to leave the listener with audio indigestion in a richer sounding environment.

Overall I found it a very convincing reproducer of music

across a wide range of genres; it seemed to show little or no favouritism to a particular type of music. The detailing of sound suited quiet pieces but large orchestral and dance music sounds were handled well and would satisfy most listeners needs for musical information. Good recordings sang, whilst poorer ones were shown in the best available light, but with a seemingly honest description of where the sound was lacking. Poor condition records were replayed satisfactorily, but again, there was honesty about the condition of the groove walls, although more as a passing comment than the focus of the listener's attention.

CONCLUSION

In all a very creditable performance and one which will, I am sure, win the Chordette Dual many friends. The connectivity to computers, which allows for both archiving, and copying of favourite records to be played in the car or loaded onto your iPod, gives the Chordette that little extra that makes it stand out from the crowd. It seemed well made, and bristled with Chord DNA. An essential audition if you're in the market for a well specified sub £1,000 phono stage, and have archiving tendencies!

MEASURED PERFORMANCE

Frequency response of the Chordette Dual measured 12Hz-20kHz (-1dB).

Our response analysis shows a small treble lift and plateau low frequency roll down, so on balance the sound will have a lighter balance than some. Output is within 1dB limits from 12Hz all the way up to 20kHz however, so the Chordette Dual is fundamentally accurate.

Switching in the Rumble filter attenuates low frequencies below 250Hz; it provides phase cancellation of out-of-phase low frequency signals (i.e. rumble), an idea of little application now because turntables do not rumble any more, except Garrard 401s, and then the best solution is a new bearing + idler wheel, not a filter!

Maximum gain was a useful x3830 (72dB), against a claimed 75dB. This is just enough for normal moving coil cartridges with high-ish output, like Ortofons. It can be attenuated down to x1100 (61dB). With an output overload of 10V, at full gain input overload occurred at 2.6mV and Chord have aligned this with the digital overload ceiling via USB (0dB). Using less gain increases the overload ceiling to a maximum of 9mV (60dB gain setting), and this is too low for most MM cartridges, hence Chord's stipulation that the Dual is for MCs only. With an

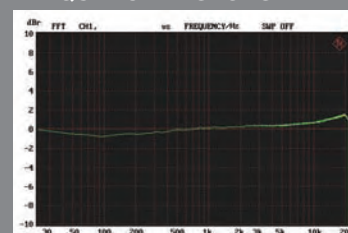
easy to provide low gain option it could have suited MMs too.

Our digital analyser, working from the optical output, showed a clean result all round, frequency response being identical to the analogue output and low distortion all the way down to -50dB, below which the signal disappeared into noise that set the lower resolution limit.

The Chordette Dual is purposed for moving coil cartridges Chord told us and offers an interesting way of getting high quality analogue into a computer from an external source. NK

Frequency response	12Hz-20kHz
Separation	68dB
Noise (e.i.n. A wtd)	0.1µV
Distortion	0.001%
Gain	61, 67, 69, 72dB
Overload	10V out
Overload (digital)	2.5mV in

FREQUENCY RESPONSE



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FOR

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- variable gain settings.
- USB input & A-D convertor.

AGAINST

- no mono/stereo switch
- MC only