

Equipment Report



Chord Electronics Ultima Pre 3 Preamplifier and Ultima 5 Power Amplifier

Solid-State Warmth from the UK

Rives Bird

Even on a “warm” day in the UK it can feel cold. The island is usually overcast and spitting rain, often coupled with significant wind. It’s the kind of cold that just blows right through you and as grandma used to say, “chills you to the bones.” I’ve often felt the same way about solid-state electronics, particularly amplifiers.

But not the new Ultima Pre 3 Preamplifier and Ultima 5 Power Amplifier from England’s venerable Chord Electronics. Not only do these electronics defy the stereotype of solid-state sound, but they are also visually stunning.

Before you turn on a piece of equipment for the first time, the product makes a visual impression. Some manufacturers forget this, with aesthetic design taking a backseat to performance. With the new Ultima line, Chord not only took the time and attention to create these beautiful pieces; it also made them look distinctly Chord. Each of its products have similar design elements that strengthen brand awareness just by the industrial design. The chassis is robust, yet elegant and uncluttered. Chord also thought about practical aspects, like how does one lift the unit and place it? Well, of course, it’s easily lifted with the sidebar handles. The units are designed to stack nicely, with posts that fit into indentations on the top of the adjacent piece of Chord gear. What I really liked about the design is the sculpted top coupled with the internal LED lighting. Through the vent holes the electronics are elegantly lit in a soft blue/teal tone that adds some intrigue as to what’s really in this piece of equipment.

But enough on the marvelous aesthetics, it’s about the sound, right? No, not really, it’s about the music. This is what Colin Pratt, Sales Director for Chord said. And while he admitted it may sound trite, it truly is what the company is about. Many of the employees are also musicians, and they feel that is important to deliver the best possible reproduction of sound. I have to agree with Colin. The equipment is really just a means to an end. If you don’t love music, why bother? Listen to podcasts on a pair of earbuds and be done.

Chord has come in with a solid-state amp and preamp that produce very matter-of-fact reproduction with just a hint of warmth in the lower octaves. They exhibited wonderful yet subtle details even at the beginning of listening. When you first start audition-

ing a change in the system, be it from a component, speaker, or even cable, it’s always interesting to note what stands out as a difference from what one is accustomed to hearing. There’s frequently a wow factor, like “I haven’t heard that before.” In this case, the wow was subtler, which is actually a good thing, as big wows can often have big detriments, too.

A Little “Chord”

Chord was started in 1989 by John Franks. Franks had an aviation-engineering background and used his experience to develop a switching power supply for early Chord electronics. One advantage was the ability to achieve higher power from a much smaller and more efficient package. Compare a switching power supply to a traditional toroidal power supply, and the weight

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Specs & Pricing

Ultima 5 Amplifier

Output Power: 350Wpc RMS per channel into 8 ohms

THD: 0.005%

Frequency response: 5Hz–100kHz (–1dB)

Gain: 30dB

Dimensions: 18cm x 48cm x 36cm (with included Integra Legs)

Dimensions: 15cm x 42cm x 36cm (with optional Side Blocks)

Weight: 22.4 kg

Price: \$14,600

Ultima Pre 3 Preamplifier

Frequency response: 10Hz–200kHz (±3dB)

THD: 0.002 % 20Hz–20kHz

Signal-to-noise ratio: –105dB on all inputs

Input impedance: 100k ohms

Output impedance: 560 ohms

Input maximum voltage: 10V RMS

Output maximum voltage: 17V RMS

Channel separation: 100dB

Dimensions: 13cm x 48cm x 34cm (with included Integra legs)

Dimensions: 10cm x 42cm x 34cm (with optional Side Blocks)

Weight: 12.7 kg

Price: \$8495

CHORD ELECTRONICS

The Pumphouse
Farleigh Ln, East Farleigh
Maidstone ME169NB
United Kingdom
chordelectronics.co.uk

THE SOUND ORGANISATION (U.S. distributor)

The Sound Organisation
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and size are often more than tripled to achieve the same output.

Chord originally made amplifiers for the professional audio world. Many were used in studios and live venues. The company's technology enabled the amplifiers to be lighter, more efficient, and cooler-running, making them highly appealing to professionals. Chord then turned its attention to the high-end market with the introduction of the SPM900 amplifier.

In the early 90s switching power supplies in the high-end audio world were all but non-existent. Most that did exist at this time sounded horrible, to the point that many believed switching pow-

er supplies they would never be successful in the high-end market. If I think back to that era, I'm reminded of early CDs. They sounded pretty awful, too. But today Red Book CDs can sound fantastic. Take that to another level with hi-res music (which I use extensively now, both Tidal and Qobuz through Roon), and it just keeps getting better. No surprise that switching power supplies have followed a similar path. New devices have allowed switching frequencies to increase, and new circuit designs have minimized noise.

Franks found a way early on from his aviation experience to reduce and then isolate the switching noise to achieve a very musical and grain-free sound from an amplifier. At the same time, unlike a toroidal-based amplifier, the switching-supply amplifier was impervious to external AC line noise. At a number of trade shows Shunyata has done some very nice demonstrations of how AC line noise can be generated by various components and how it affects other components. It would be interesting to see how Chord's products fair in such a test; I expect better than most.

The Ultima 5 Amplifier

The \$14,600 Ultima 5 amplifier is a reimagining of the SPM line, which previously contained Chord's most successful and best-selling products. However, for Franks to be satisfied with replacing the SPM line, there would need to be almost a ground-up redesign, from cosmetics to circuit. Using what Chord had found to be successful, its engineers looked at every area they felt had any shortcom-

ings, which is the company's general design philosophy. Chord believes that the process of moving from source, through amplification, and ultimately to speakers is a process of degradation. The goal is to have the minimal degradation in sound quality, which is not the same as having things like low measured distortion. The question they ask themselves is where is the weak link? What is degrading the sound the most? How do we fix that?

Without going into all the details, I will share a few things that are pretty clever, focusing primarily on the amplification side. The first stage of the amplifier filters the incoming AC line and then goes to the switching supply. The AC filtering not only filters the incoming line, but also, very importantly filters any reflective noise that would otherwise be injected onto the AC line thereby affecting other audio components. Switching power supplies and other digital components have a reputation for creating line noise that adversely affect other sensitive audio components. Again, this is an area where Franks' background in aviation paid off. Interference in sensitive aviation electronics can be catastrophic for a plane (and passengers), so this is something taken very seriously in the aviation industry.

The power supply provides up to ±110V to the output transistors and ±125V on the auxiliary rails feeding the front end of the amplifier. According to Tom Vaughan, professional audio and production supervisor, the rails aren't locked to those voltages; this gives the power supply the ability to dynamically adjust the power delivered to either

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the positive or the negative rail according to the demand from the music through the amplifier. The switching for the supply is at 120kHz. Then the supply is fed into a bank of small capacitors. This is far more expensive than feeding into several larger capacitors, but as Tom explained the smaller capacitors can charge and release energy much more quickly than larger ones. This allows for much faster transients and dynamics, which reportedly also allows for details to be retained during very demanding passages.

The Ultima Pre 3

The \$8495 Ultima preamplifiers are, like the amplifiers, based on previous designs, specifically the CPA line. The Ultima Pre 3 replaced the CPA3000. There are a number of things I really like about this preamp. First, the aesthetic is excellent—bold and clean, without excessive buttons and lights that distract from the clean look. There is a center power button that matches the amplifier's power button along with just two knobs. The left knob is for volume and input selections, the right for balance and AV bypass mode. The input selection is clever in that there is a lighted ring around the left knob. If you press that knob, it goes to the next input and the ring changes color. Each input has its unique color. No numbers to clutter the front. Very nice, indeed. Coupled with the already mentioned soft LED lighting of the internal components it gives you a beautiful “wow” factor.

On the rear panel the input and output terminals are very simple: two balanced pairs of inputs, and three unbalanced inputs, one balanced AV bypass input, and a pair of balanced and unbalanced outputs. I like having both balanced and unbalanced outputs for flexibility with a variety of products. The AV bypass is balanced only. I do like the fact they have an AV bypass. In today's world of shared and sometimes limited spaces, a high-end

two-channel setup must also work double-duty for a home theater. So, bravo to Chord for including this feature.

The remote has some nice features in that you can directly access any of the inputs rather than scrolling through them. This is important if you are doing any type of AV integration with a sophisticated programmable remote that uses macros. Many manufacturers in the high-end world overlook this and force you to scroll through inputs via the remote; for me, that just doesn't cut it. So again, thank you Chord, for including features like this. My only possible complaint would be the remote itself. It's clearly an inexpensive, light-plastic OEM device with way more buttons (which are very small) than needed to operate the preamp. If the unit is going to be part of an AV integration with a more sophisticated remote, then this is of no concern. If not, however, I feel

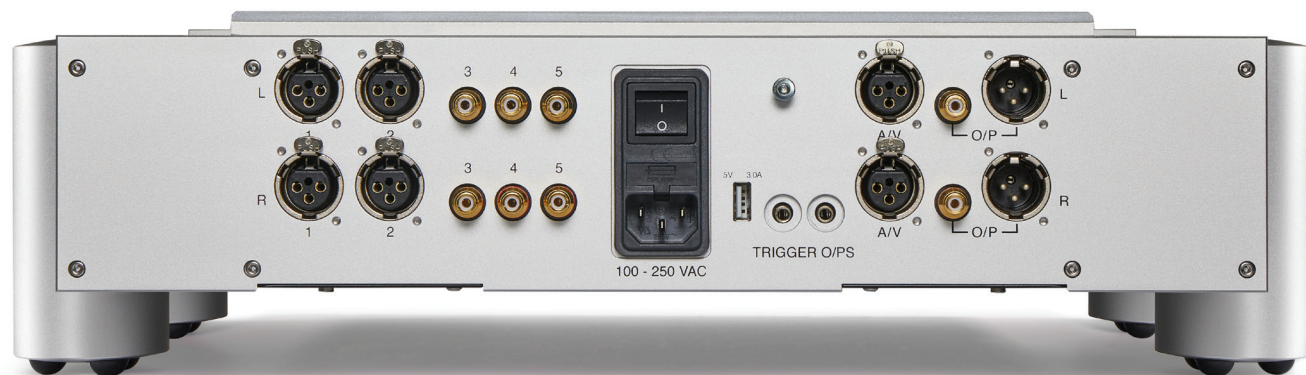
like the remote is far enough from the standards of the preamp and amp that it leaves something to be desired.

Initial listening

After several days, I began taking more time listening to the Chord system. I perused many types of music to see if there were initial areas it excelled in or areas where it may have fallen short. I reached several intriguing conclusions. The first that I mentioned was the bass. The power and articulation were very good, but the extension was exceptional. The best I had heard in my current system. This was true for all types of music. It didn't matter if I was playing Charlie Haden or electronic dance music; the bass was powerful and extended.

The top end also had great extension and definition. Cymbals had the right percussive strike followed by a natural decay of the ringing. The transient of the initial strike

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was particularly impressive, but the fact that the decay was presented very naturally created a wonderful sense of realism.

The midrange almost sounded enhanced—not enhanced like boosting that band on a graphic equalizer, but enhanced in that subtle details with fast transients seemed to push forward into the soundstage. This was particularly noticeable with complex music, where there was energy across the entire spectrum. What I suspect I was hearing is a more linear response with all transients, but my perception was heightened over the band where the human ear is very sensitive. Now, if this was the case, it's pretty impressive. Often these sorts of details are recessed and tend to get muddled by everything else that's playing. I'm speaking of details like someone snapping his fingers or a drummer tapping on the rim of a drum. Things that in many systems you might miss. Not in this case.

The last area of note was the soundstage. As most of you know, I typically use tube-based electronics, including amplifiers. Tubes have a tendency to throw a very deep soundstage. The Chord system, not to my surprise, had a soundstage that was not as deep as I was accustomed to, but it was definitely as wide. A noticeable improvement was the solidity of the central image. Locations of instruments and voices never moved unless they were intentionally recorded to move across the soundstage. Female jazz vocalists stayed right at the center and accompanying instruments were always anchored in place. Volume had no effect on this attribute, which in previous experiences had often not been the case.

Serious listening

During my initial listening, the one instrument that consistently impressed me was the piano. I play piano and know how it is supposed to sound. The hammer strikes the strings to create a rapid initial transient, followed by a natural harmonic decay that, even if only one note is struck, excites harmonics of several notes. Few systems get this right, particularly in piano concertos where the nuances of the piano are rarely conveyed while the symphony is playing. But with the Chord the piano maintained this character even when an accompanying orchestra was playing all out. Also worth noting is that the Chord did not waiver with the loudness with which the piano was being played. It maintained proper character and sounds linearly throughout the piano's dynamic range.

While acoustic instruments, solo or small ensemble, were reproduced with exceptional realism, the area where the Chord really shone was large symphonic works. I love going to the symphony where I sit in the front row of the mezzanine. The orchestra blends wonderfully there and the instruments still all have their space. This is the soundstage representation I felt I was getting when listening with the Chord. It makes sense, as most of the time the microphones are above the stage and out a bit. The sound the Chord electronics reproduced was incredibly realistic; even with my smaller speakers the music was full and captivating. I listened to Liszt *Hungarian* Rhapsody No. 2 and Enesco *Roumanian* Rhapsody No. 1 from Stowkowski's *Rhapsodies* on Living Stereo, as well as most of the album *Mephisto & Co.* (Eiji Oue with the Minnesota Orchestra) from Reference Recordings. All these albums are wonderfully recorded and display tremendous contrast from soft passages to dynamic crescendos. What consistently impressed me was that individual instruments, like oboe or bassoon, were never lost no matter how dynamic the passage became. Strings remained constant and did

not seem to drift backwards as percussion increased. This kind of stability reminded me of characteristics I had heard with far more expensive Class A solid-state amplifiers.

Moving on to smaller ensembles, I found that chamber music was superb, as well. The textures of each instrument were well defined and delineated. The sound of the cello never imposed on a neighboring violin nor did a piano overtake the distinct sounds of other instruments. This separation and independence of each instrument was becoming an undeniable theme with the Chord; even more impressive was that these characteristics were unchanged by volume changes.

Listening to jazz was a very similar experience to chamber music, though quite a bit more dynamic. I still found instrument placement, character, and independence from other instruments stayed rock-solid. Jazz with female vocals was also true to life; once again, no matter the volume of the music, the size of the instruments, ensemble, and soundstage remained the same. I've had experiences when the volume is turned up and the size of the instruments and singer also expand in an unnatural way. This was not the case with the Chord.

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Jennifer Warnes' "The Panther" on *The Well* album was a treat—not just her vocals but also the subtleties at the beginning of the cut. The light chimes and brush strokes from the drums, while quiet, were accurately conveyed and in character with everything else in the space. In other words, they were not overly emphasized nor recessed.

On other genres, such as a well-recorded Dead Can Dance album, the Chord never disappointed. Many mixes such as "Yulunga" have very low bass coupled with subtle details, and those details remained intact no matter what else was going on around them. I'd have to say that this was about the most stable preamp/amp combination I have had in this system. Musicality, detail, and stability were consistent throughout my time with the Chord duo.

I've been wowed by a component or pair of speakers as I previously mentioned. However, after significant listening to whatever that new component or speaker might produce in the way of a large "wow" factor, I've often found flaws that over time demonstrate a lack of performance in one or more areas. It took a long time to find any music that I wasn't really thrilled about on the Chord, but it ultimately turned out to be 80s rock. The answer is quite simple as to why. Eighties rock is typically highly compressed. It seemed to be engineered to have a playable dynamic range at loud volumes on any system. That was fine for me growing up in the 80s, but now I want to hear the various dynamics of different instruments at more modest volumes and not all compressed so that they all have the same range and level. In many cases increasing the volume of a system gives an increased perception in the dynamic range and in a way compensates for that compression. But this is not the case with the Chord. The compressed music sounds equally compressed at all volumes. This makes sense to me because everything else remained so incredibly unaltered at different volume levels. Why should this be any different? Thus, I cannot fault Chord. It was presenting the recording as it was recorded—exactly what it should be doing.

I also came to realize that the Chord was providing immense detail without exaggeration. If you've ever heard a system and thought something like "Wow, that acoustic guitar has so much

"I realized that the Chord was providing immense detail without exaggeration."

detail," but then also realized that the detail was coming at the expense of the guitar sounding like it was three times its actual size, the Chord was the opposite. It was providing that kind of detail, but the guitar, or any other instrument for that matter, was correctly proportioned. This remained true whether it was a solo instrument or an ensemble. Each instrument would have the character and detail it should but remain in proportion to all other instruments in the ensemble at all practical volume levels.

Conclusion:

The Chord Ultima Pre 3 and Ultima 5 is a fantastic combination both in sound and design and build quality. I suspect that the Ultima 5 would shine even brighter with speakers more difficult to drive than mine. The Ultima 5 was un-

flappable at any volume level and with any kind of music no matter how dynamic or complex.

This combination of the Ultima Pre 3 and the Ultima 5 is not lush or polite sounding. An impressive characteristic I found was the solidity of the central image and the realism of acoustical instruments. Nearly all types of music play extremely well with the Chord, but large symphonic works were particularly rewarding. The Chord equipment is revealing and uncompromising. You get what is on the recording: compressed recordings sound compressed; and highly detailed or even enhanced recordings will be revealed.

I would characterize the Chord combination as musical while being unapologetically linear and detailed throughout all volume intensities. If you are in the market for an amp and preamp in this price range, and particularly if you have difficult speakers to drive, the Chord combo should definitely be on the list for an audition. **tas**

