



Creek Evolution 100A Integrated Amplifier and RUBY DAC Module

The evolution of power

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I had the pleasure of discovering Creek's Evolution 50A integrated amplifier during a review of the Creek / Epos / QED system featured in Vol 16, No. 1 of Son & Image magazine. Belying its sober exterior, this British integrated amp showed a great respect for music and a degree of sophistication rare at the asking price. With an output of 55 watts into 8 ohms, the Evolution 50A playing into the Epos K1 speakers (88 dB efficiency) made wonderful music when listening at moderate volume, but could show its limits when pushed into high volume listening. Could this integrated be made more powerful without losing its best qualities? This is the challenge that Mike Creek, Creek Audio's founder, undertook in creating the Evolution 100A integrated amp.

COMBINING HIGH PERFORMANCE WITH HIGH EFFICIENCY

The task was entrusted to David Gamble, chief engineer at **Creek Audio**. Gamble started with the same transistor configuration as the Evo 50A, four Sanken STD03 Darlingtons per channel, but implemented in a Class G circuit topology. In the Evolution 100A, this circuit operates at a low voltage up to 25 watts into 8 ohms. When the demands of music exceed this power, the circuit instantaneously switches to a higher voltage level, increasing the power output beyond 100 watts into 8 ohms. Gamble also modified the output stage such that the Evolution 100A achieves a very high gain with exceptionally low distortion. The latter, according to Mike Creek, is five times lower than that of the 50A integrated. The end result is an extremely

powerful amplifier with very low output impedance and high current capacity, the desired characteristics for proper control of most speakers. As another advantage, the Class G circuit is considerably more efficient than Class A or A/B. So, less heat and more music!

SEEMINGLY SIMPLE...

The Evo 100A's exterior continues the form and refined aesthetics of the 50A and gains several interesting features. The changes are more apparent on the back of the unit, which now has dual terminals for bi-wiring or to feed two pairs of speakers. Even more interesting is the presence of a removable plate (replacing input 5) behind which is an installation port for the AMBIT module (FM-AM receiver) or the RUBY module (digital-to-analogue converter, Bluetooth, and FM receiver). With the addition of the RUBY module, the Evolution 100A is transformed into an all-in-one FM receiver/converter/amplifier. As for vinyl, Creek offers the Sequel Phono mk2 phono preamp, which is dealer-installed inside the unit on a dedicated connector located on the preamplifier board. The phono stage can be ordered for moving magnet cartridges (40dB MM) or for moving coil (48 and 54dB MC).

The Evolution 100A's power supply is robust, based on a 360-watt toroidal transformer. Multiple capacitors connected in parallel create a power supply with low inductance and ultra-low impedance. The preamplifier, amplifier and DAC sections are fed separately from individual windings on the transformer. The **Evolution 100A** dimensions are: 430 x 60 x 280 mm W/H/D and weight: 9 kg.



FLEXIBILITY AND CONTROL

Two rotary controls flank the Evo's front panel central display, with each control associated with four soft-touch buttons that expand the feature set. In amplifier mode, the left-hand control selects source, while in receiver mode it selects radio stations. The right-hand control adjusts the volume by one decibel increments and, with the four associated buttons, adjusts amplifier settings, including display illumination, balance and tone controls. For purists, the tone controls can be switched out of the amplifier's circuit. The display uses organic light-emitting diodes (OLED) that ensures good readability from the listening position. Control of the full set of features is mirrored on the remote control, including the control of digital inputs when the RUBY DAC module is installed.

ANALOGUE AND DIGITAL INPUTS

In its standard version, the device has five high-level line inputs on RCA plugs, with input 4 doubled to a pair of balanced inputs. When equipped with the RUBY DAC module, input 5 becomes the gateway for digital sources, providing four S/PDIF inputs (two optical Toslink, 24 bit/192 kHz and two coaxial, 24 bit/192 kHz), a USB input (Class 1, 24 bit/96 kHz) and a Bluetooth input based on the CSR Bluecore technology. The latter input receives audio content wirelessly from Bluetooth-equipped smartphones, tablets or computers. The RUBY DAC is built around the Wolfson WM8742 DAC chip which, in my experience, should ensure a good level of engagement with music.

Creek has also incorporated an FM receiver circuit in the RUBY DAC, the same one found in the AMBIT module. According to Creek, the sound quality is even better than the AMBIT module because the digital output of the receiver is fed to the RUBY digital-to-analogue converter. The FM circuit tunes in stations broadcasting between 76 and 108 MHz, depending on region (selected in the menu) and can store up to 100 radio station presets. The receiver sensitivity is specified as -3.5 dBuV with a signal to noise ratio greater than 40 dB.

OTHER FEATURES

If ever the 100 watts into 8 ohms and 170 watts into 4 ohms of the **Creek Evo 100A** are not enough or if you wish to bi-amp, a preamplifier output on the 100A lets you connect a second amplifier of your choice, or Creek's newly launched partnering 100P power amplifier.

For the headphone output, Creek Audio revised the circuit to accommodate the increasingly common low-impedances of modern headphones. In the Evo 100A, instead of feeding the headphone amplifier from the power amplifier section, Creek developed a dedicated amplifier located on the preamplifier board. This approach accommodates a wider range of headphone impedances.

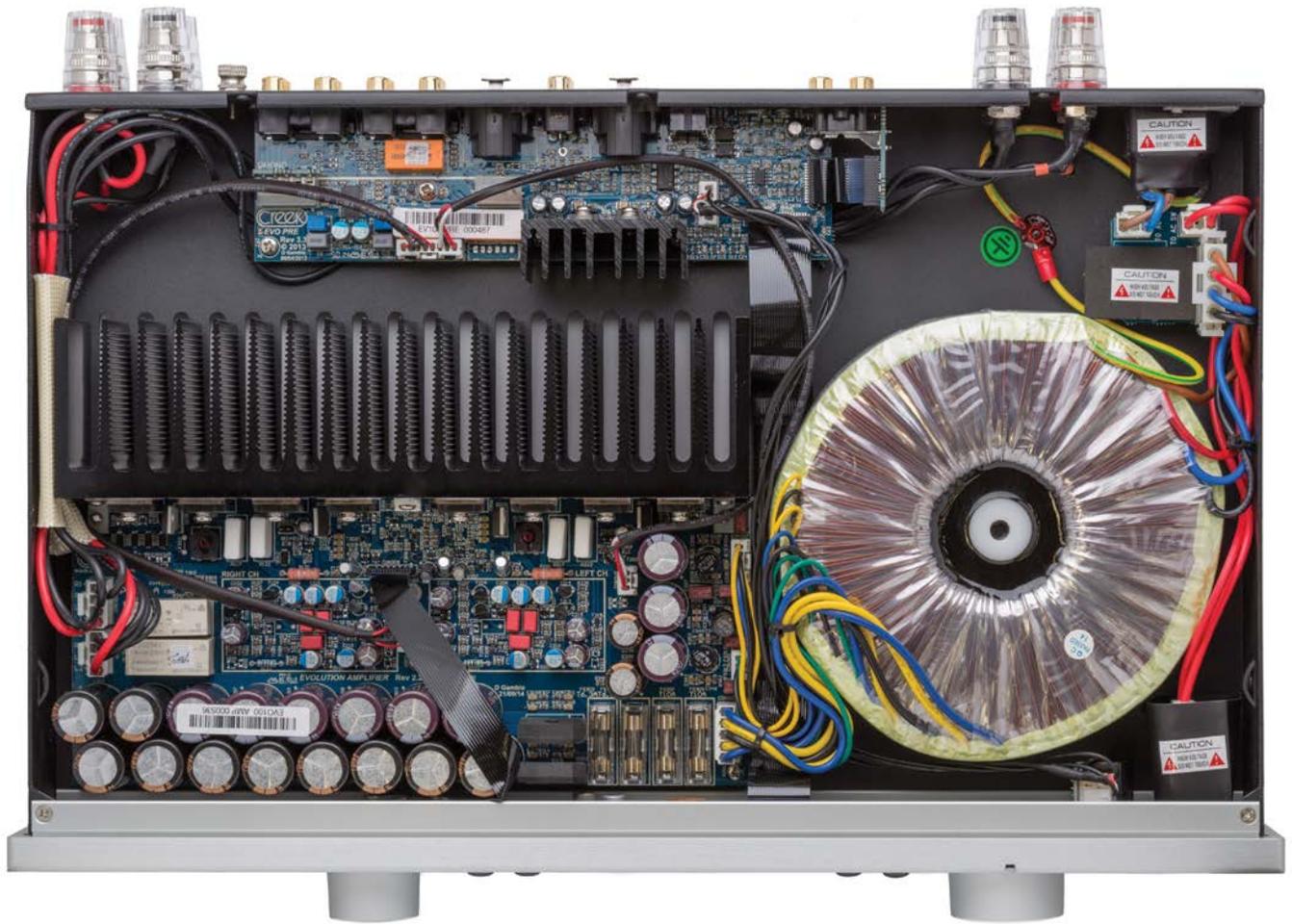
SET-UP

Our unit of the Evolution 100A came with the RUBY DAC module installed. As an alternative digital source, I opted for the natural partner, the Evolution 100CD player/converter recently reviewed in our magazine, so that I could compare the RUBY DAC with the DAC in the Evo 100CD. For speakers, the highly revealing Graham Audio LS5/9 allowed me to gain the full measure of the amplifier's capabilities. As for cables, I stayed with my known references, Bernard Brien's (Bis Audio) Vivat interconnects and speaker cables, and their AC20 power cables. Other sources used during the review were a Sony PS3 console for playing DVD and Blu-Ray discs and for streaming TV shows via Netflix. A MacBook Pro with the Audirvana software was used to evaluate the Evo 100A's Bluetooth and USB inputs.

LISTENING

The Evolution 100A wasted no time in showing its deftness with bass, but required a few days of break-in to shed a slight hardness in the upper mid-range. After run-in, the amplifier displayed a very smooth and open mid-range and I noted no change in its character over the six-week review period.

Sometimes a single album is all you need to gauge the musical capabilities of an audio component. That was the case here with Antonio Vivaldi's *La Stravaganza*, interpre-



ted by Rachel Podger and l'Arte dei Suonatori. Captivating from the first notes, I experienced forty-eight minutes of aural therapy thanks to the Evolution 100A. When music reproduction is at this level of quality, it's easy to think of nothing else but the music. But duty compels, so let's dissect things a bit.

Every time I attend a concert of the Arion Baroque Ensemble and hear the double-bassist lean into his instrument, it's an object lesson in the distance that separates live and recorded music. So it was with great joy that I heard the Evolution 100A render this instrument with a degree of power and passion that brought me squarely into the concert hall. This is where the Class G amplification shows its mettle, displaying no hesitation in deploying its reserves to convey force and impact when required.

Up in the treble region, violins are well defined, pleasing to the ear and easy to follow. There remains a touch of dryness that I do not hear at concerts, but in all honesty, I have never heard a violin recording accurately reproduce what I hear at the concert, regardless of the quality of the audio system. Does recording a violin change the sound forever, despite the quality of the microphones? A question for another time, perhaps.

Returning to the **Evolution 100A** and Vivaldi, despite its power, this amplifier also knows how to maintain subtlety. I say that because it clearly lays out Rachel Podger's clever and delicious playing. The penultimate "Concerto in D major" (Opus 4, No. 11) on this album is sensational through the Evolution 100A, the amplifier showing its versatility by capturing the beauty and sensitivity of

the "Largo" and transmitting perfectly the dynamism and urgency of the "Allegro assai".

With respect to the six criteria that I like to use to measure an amplifier's capabilities, how did the Evolution 100A fare?

Immediate engagement with music

The experience described above with Rachel Podger and l'Arte dei Suonatori was repeated with essentially every disc listened to during the review, the amplifier expertly drawing me into the music. Every time I started listening to a single test track, I inevitably continued through the rest of the album. This is a very good indicator of the musical talent of an audio component, and one that is not that common. On this criterion, the Evolution 100A passes with flying colours.

Depth of the musical experience

I continue the listening with Geoffrey Foucault and *Horse Latitudes*, his ode to mythical American landscapes. With ease, the Evo 100A evokes the landscapes so dear to the singer. From the haunting loneliness of the road to the ecstasy of first love, I join the artist in his imaginary journeys. On the extract "Goners Most", Foucault pulls out all the stops and I succumb to every one of his guitar hooks. It is a moving experience.

In his *Bloodline* album, Alan Wilder leads the listener into his dark world mixing electronic music, voice and soundtracks. Here, the definition, clarity and punch of the Evo 100A render the malevolent mood of this record

flawlessly. It is cinematic and without confusion. When Alan Wilder proclaims, 'Can I put my hands on you?' in the track "Faith Healer," the sense of menace couldn't be any clearer. In its depth of musical experience, the Evolution 100A takes me a little further than my reference amplifier.

Listening Ease

Slightly clearer and more open than my reference amplifier, with the refinement of its little brother, the Evo 50A, the Evo 100A shows no edginess or confusion that can make listening tiresome. The "Faith Healer" track on the *Bloodline* album can become quite gruelling if the amplifier cannot unravel the dense production. No problem here with the **Creek Evo 100A**, which even managed to get me interested in the rap lyrics in this album. That's never happened before! In listening ease, the Evo 100A gets a high mark.

Ability to play at low volume and maintain interest

Although the term 'New Age' tends to evoke music that can border on the monotonous, there are composers that stand out, such as Deuter. Take for example his *Mystic Voyage* album. This transcendent music is normally extremely effective for deep relaxation. If the system is up to the task, listening to this album procures a sense of detachment from the physical world. I settle in and queue up the album at low volume. Thanks to its excellent definition, the Evolution 100A effectively transmits the spirituality of this music, and I sink into a space of well-being. With interest and feeling quite Zen, I'm ready for the next challenges.

Ability to play at high volume without effort

In "Words of Wonder" (*Main Offender* album), Keith Richards tries his hand at reggae and delivers a raw, punchy and superbly recorded track. This is a great torture test, because the drum and bass in this track can really drain an amplifier's reserves. If the amp is not able to instantly replenish its reserves, the track loses its impact and interest. Here, the Evolution 100A passes the test with flying colours. Bass thunders as it should, while the rim shots hit with great impact and definition. I raise the volume a few notches and listening becomes visceral and exhilarating; another few notches on the volume and the amplifier follows the music with disarming ease. My ears will fail before this amplifier reaches its limits. I never heard it stumble, it has an uncanny ability to maintain its control and reserves while preserving the subtleties so important to the mid-range and treble. Convinced? Definitely!

Realistic representation of musical scale

If you have never attended a show by Edgar Bori, his live recording *Le Sort de l'Ombre* is a good introduction to his art. Played through the Evolution 100A, I renew contact with Bori's intelligence and poetry, presented here in an acoustic that strongly reminds me of the Gesu concert hall in Montreal. The ambiance of the hall is there, instruments filling the acoustic space that surrounds me in my listening room. Curious, I check the CD booklet to read

that the recording was made at the Gesu hall! Nice work from the **Evolution 100A**. I continue listening immersed in "Grande Vallée" and end the session in beauty with "Cyrano". As realistic as anyone could wish for, the Evolution 100A does a great job of getting out of the way of the music.

THE RUBY DAC

I began my listening to the RUBY DAC by feeding it from a Sony Playstation 3 using a Wireworld Supernova 7 optical cable, spending many evenings binge-watching on Netflix. Despite the low bit-rate of the soundtracks, the RUBY DAC did a fine job of rendering dialogue, music and sound effects with vivacity and a surprisingly open sound stage. To evaluate it when fed with CD quality music, I used Creek's Evo 100CD player as a CD transport by connecting its optical output to the RUBY DAC, again with the Wireworld Supernova 7 cable. Returning to the *Bloodline* album, the RUBY DAC shows enthusiasm and vivacity, but misses the depth of musical experience provided by the Evolution 100CD's DAC section. Listening with the RUBY DAC never fails to engage though, despite not quite reaching the listening ease of the Evolution 100CD converter; the RUBY is a small step down in refinement and control. Returning to more soothing music, once again Antonio Vivaldi's *La Stravaganza*, the RUBY DAC effectively conveys Rachel Podger and l'Arte dei Suonatori's enthusiasm and makes an honest job of the largos and adagios, those times when we can feel our breath slowing down to avoid breaking the spell of the moment. As for its ability to stretch time, those instants when musical seconds turn into minutes, the **RUBY DAC** doesn't go as far as the Evo 100CD. Overall, the presentation remains clear and vivid, making good music at low or moderate listening volumes. The presentation hardens up a little at high volume, where violins take on a touch of acidity, the RUBY showing its lesser control. But give this DAC any music that deals in beauty and sensitivity, such as Rachel Podger channelling Vivaldi's genius in the "Largo" from the "Concerto in D major" (Opus 4, No. 11), and the result is total subjugation.

In Bluetooth mode and USB mode

From the MacBookPro running the Audirvana software, I queue up once again *Vivaldi's Concerto in D Major*. Surprisingly, listening at high volume is easier than the previous test, as the violins have lost some of their stridency. But then I remember that the Bluetooth transmission protocol is lossy, transmitting less information than the CD format. So there is a smoothing effect which can make it easier to listen to music, but with a loss of information.

Continuing with the "Largo", the presentation is very clean, a feature that I associate with the Audirvana software. However, listening remains on the cerebral side, the goosebumps remaining discrete. I continue with Deuter and *Mystic Voyage*. Here, the quality of the sound is amazing; in fact, it is one of the best implementations of Bluetooth that I've heard. Although listening is again more cerebral than visceral, the music does its work. I end the session at peace, with the feeling of having returned from a long trip.



Ready to go, it's time once again for the infectious dub of Pitch Black, and the track "Data Diviner" from the Electronomicon album. I note the ease of listening that seems to characterize the Bluetooth mode, but the music lacks a bit of its rhythmic drive. So, what will happen if we move to USB mode, with the MacBook as source?

Ah, there's the drive that was missing, thanks to all those small details that lend so much life and interest to the beats that can otherwise seem repetitive and unimaginative. Listening continues, reminding me again of just how far replay of music from a computer has evolved in recent years. The Audirvana software does an outstanding job and the RUBY DAC delivers the goods.

VERDICT

Power and delicacy are difficult characteristics to combine in an amplifier, but Creek Audio has done it well in the **Evolution 100A**. The amp retains the subtlety and the ability to convey emotion which give so much charm to the 50A, the 100A's sibling. I would venture that it goes even further in these aspects than the 50A. In my listening sessions, I never felt that power was at the expense

of delicacy, or vice versa. The ability to convey power and impact when the music requires it, without losing subtlety, is a rare talent. The **Creek Evolution Integrated Amplifier 100A** is easy to recommend.

The RUBY DAC module is a bundle of energy that never leaves the music aside. Its enthusiasm can overflow when listening at high volume, but respect its limits and it will reward you with hours of engaging listening, and this from various digital sources. It maintains its character via Bluetooth and USB modes, substantially raising the Bluetooth mode to a level that pleasantly surprised me. If you're thinking of acquiring one of Creek Audio's integrated amplifiers and you don't already have a digital-to-analogue converter, the RUBY DAC is a very attractive option.

Creek Evolution 100A: \$2,799 (CDN)
RUBY DAC Module: \$799 (CDN)
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