

# Kronzilla SXI

KR Audio's Kronzilla amplifiers employ the mother of all dual-triode vacuum tubes, its home-grown T-1610. This SXI integrated model is a 50W single-ended Class A design  
 Review: **John Bamford** Lab: **Paul Miller**

Appearing as if from the film set of a 1950s sci-fi movie, it's one of KR Audio's startlingly retro-looking Kronzilla tube amplifiers, sporting the biggest pair of triodes you'll ever have clapped eyes on. There's no trickery – those valves really *are* a foot tall. When I saw it for the first time at close quarters in the Ed's media room I thought: 'I'll keep my distance when he fires up that beast...'

I needn't have been quite so paranoid. Sure, the Kronzilla 'monster valves' radiate substantial heat once the amplifier has been powered up for a few minutes, but there's nothing flaky about the design or build quality of KR Audio's amplifiers. They are beautifully engineered. The company is based in Prague, founded by electronics engineer Dr Ricardo Kron who set up a manufacturing facility for audio vacuum tubes in 1992. Oh yes: KR Audio makes its own valves in-house. How many valve amplifier manufacturers can claim *that*?

It's a boutique firm of only a dozen or so people – skilled artisans who blow the glass and hand-craft the tubes – so audiophiles around the world with a KR Audio amplifier at the heart of their systems are members of a pretty exclusive owners' club.

## KEEPING GOING

Ricardo Kron died in 2002 when only in his 60s. His widow, Dr Eunice Kron – an American who'd spent a lifetime working as a vet – chose to preserve her husband's legacy and keep the Czechoslovakian firm going. Says Eunice: 'When my husband passed away our engineers and craftspeople naturally expected me to hand them envelopes containing severance cheques. At my age I should really be retired. Instead, I'm running a highly specialised high-end audio company. It's been quite a learning curve...'

She adds: 'My husband was an engineer all his life, he loved music, and was a

practicing musician. He played the violin every day. He hated transmitter tubes being used for audio. He considered their application to be incorrect for achieving high fidelity sound reproduction.'

Such is the transparency of KR Audio's Kronzilla amplifiers that at least of couple of German recording studios use Kronzillas for critical evaluation in mastering suites. 'When my husband built the first Kronzilla back in the early 1990s I remember us travelling to Stuttgart to visit a recording studio with a sample. The German engineers there were flabbergasted by its precision. "How can this be?" they quizzed my husband. "Czechoslovakia [now the Czech Republic] has absolutely no track record in high-end audio engineering."

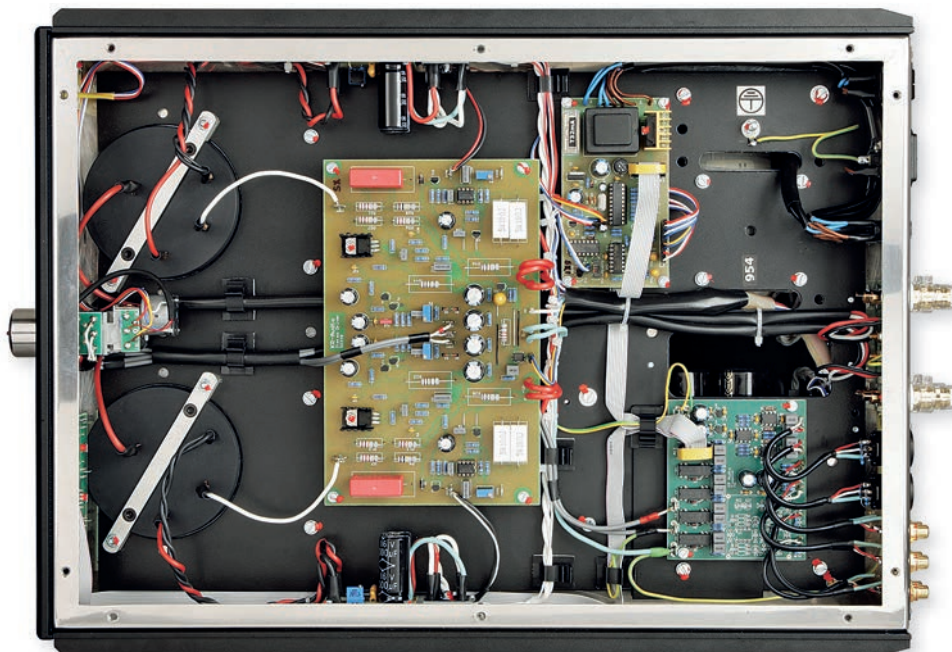
'My husband replied, sternly: "Well, this might be true, however Czechoslovakia has an extensive history in making vacuum tubes and has expertise in all manner of chemical and mechanical engineering disciplines. Why shouldn't we be able to make a world-class audio amplifier?'"

As well as making a dozen types of valves for audio applications – individually

hand-crafted 2A3s, 300Bs, 845s, etc – KR Audio has several amplifiers in its portfolio, headlined by Kronzilla models that feature the firm's gigantic (and eye-wateringly expensive) T-1610 direct-heated dual triode developed some 20 years ago [see boxout]. The smallest Kronzilla amplifier is the £13,600 SDi35 35W integrated, with prices rising to £30k for the Kronzilla DX dual monoblocks in which each channel uses a pair of paralleled T-1610s.

The SXI integrated model featured here is a single-ended pure Class A design, with four line inputs; one of these is balanced (XLR). It's a hybrid amplifier, with a solid-state front end employing FETs to drive the '1610 valves, the latter offering a low input impedance due the cumulative effects of their parallel triode elements.

Replacement tubes cost over \$1000 each; however, the company assures a duty cycle lasting many thousands of hours since they are driven by a low grid current and are hugely under-stressed. The firm also claims its hand-crafted tubes are considerably more robust than mass-produced ones and says that Kronzillas sold



**RIGHT:** With the PSU and output coupling transformers encased in steel towers topside, Kronzilla's logic-controlled input selection, FET driver stage and volume are housed beneath



**LEFT:** Whopping dual-triode tubes are hand-crafted featuring polished brass bases and tinted glass. Chromed buttons switch inputs via relays. Volume control is motorised

that allows you to analyse low-end detail with forensic precision, together with an open midband and sparkling highs which emanate from a black background.

The renowned recording of the Oscar Peterson Trio's *We Get Requests* [JVC K2 remaster on the FIM label, LIM K2HD 032] sounded tremendous. The snare shuffles and hi-hat were described exquisitely by the Kronzilla while the bass was woody and satisfyingly full-bodied, the amp painting a wonderful sonic picture of the musicians' performance and the acoustic space they occupied.

In a different vein, the title track from Steely Dan's *Royal Scam* album sounded similarly fresh and 'open'. I was playing a rip of a 2008 Japanese SHM-CD [Universal UICY-93519]. The track's elements – the piano and percussion patterns, the charmingly cheesy electric organ motifs, parping muted brass embellishments and the song's female backing singers

– were all pulled out from the recording's rather murky production. The electric guitar positioned stage right, the sublime key to the piece, occupied its own space behind the plane of the speakers in what was a spacious sound image.

And with purist recordings the SXI delivered startlingly vivid images. Playing 'Revised Music for Low Budget Orchestra' by the Omnibus Wind Ensemble, from the Danish ensemble's *Music By Frank Zappa* album [Opus 3 CD 19423], revealed the Kronzilla's ability to recreate the sound of instruments devoid of colourful adornment. I was entranced.

The only listeners I can imagine not liking its precision and lucidity are lovers of SET valve amplifiers enchanted by the romance of a euphonic, rose-tinted rendition of musical events. Not that the Kronzilla is the first ever amplifier with a tube output stage to sound ballsy and agile, of course. The notion that the employment of triodes will assure a creamy and soothing sound is one of hi-fi's misnomers, as indeed is the view that all microprocessor-controlled solid-state amplifiers reproduce music in an antiseptic fashion. Hearing this Kronzilla playing BB King's 'Keep It Coming' from

in the 1990s are still going strong with their originally-fitted T-1610s.

Aside from the chromed volume rotary placed centre front of the Kronzilla's chassis, with a small red LED built into it so you can see the approximate volume position from a distance (a nice touch since it helps avoid giving your loudspeakers any unwelcome surprises), a row of buttons switch the inputs via relays. The volume control is a motorised potentiometer, the amp being supplied with a nicely formed aluminium handset

featuring, simply, volume up/down, input up/down and power on/off keys [see p41].

### VIVID SOUNDS

Fire the Kronzilla up and a front panel LED glows red for approximately five seconds before changing to green, signalling the amp is ready to go...

Yes, it may look old-fashioned, but there's nothing antiquated about the amp's capabilities. It sounds vivid and

dynamically light-footed, with a powerful and tightly-controlled bass

**'The amp allows you to analyse low-end detail with forensic precision'**

## THE 12IN TRIODE

KR Audio's mammoth T-1610 dual-triode is a sight to behold. Measuring 310x91.5mm, with its four 25mm connector pins each the thickness of a pencil, it's effectively two 805 triodes in one giant valve – hence the 1610 nomenclature. 'A prominent audio company approached us one day saying it wanted a substitute for the Western Electric 308B, the tooling for which had been long destroyed,' recalls Eunice Kron. 'It had only ever been made in small quantities and working samples today are extremely rare and very expensive. My husband offered to make something better. As an experiment he took the glass envelope of a three-element 242 tube as a base and placed inside it a triode – essentially the elements of two 300Bs. And so our '1610 was born.'



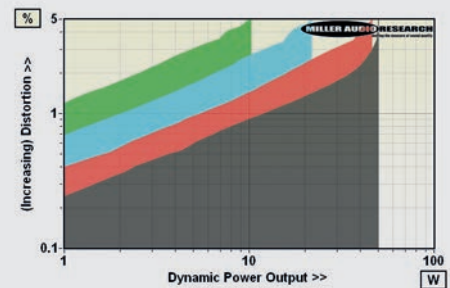


# LAB REPORT

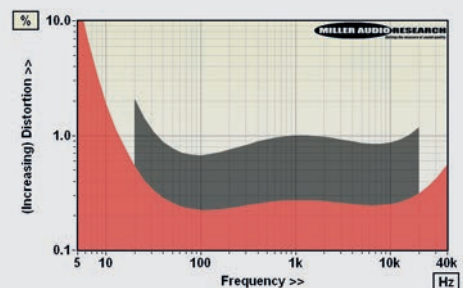
## KRONZILLA SXI

In many respects the Kronzilla SXI is obviously not your 'average' tube amp but when it comes to power output, or more specifically distortion versus power output, it most certainly is. Kronzilla rates its SXI at 2x50W, a figure it achieves via its 8ohm tap into an 8ohm load providing a THD of 4% is acceptable. An output of 2x45W is possible at 2-3% THD and so on, down to 1.3% at 20W, 0.95% at 10W and 0.25% at 1W/8ohm. All these figures are at midband frequencies, a performance that holds up impressively well beyond 20kHz [see Graph 2, below] but that necessarily deteriorates at very low bass frequencies. Even here, there's sufficient iron in those heavyweight transformers to hold distortion to just 2% at 10W output at a low 20Hz while the complement is predominantly an innocuous second harmonic.

Frequency response will be influenced by the modest 1.2ohm output impedance but this is very consistent from 20Hz right up to the transformer resonance at a high 80kHz (also very well-damped at 2.8ohm). Into 8ohm, the system response is flat from 10Hz up to 1kHz where there's a broad presence boost of up to +0.75dB from 2kHz-10kHz followed by a high treble roll-off amounting to -2.2dB/20kHz and -26dB/100kHz. The tube matching is superb so it's perhaps ironic that the volume control has a relatively poor 1dB channel balance error at 1W/8ohm (re. 500mV). Noise is very low for a 'big' tube amp and mainly at 100Hz rather than a protracted spray of 50Hz harmonics. An A-wtd S/N of 87dB (re. 0dBW) is impressive. Readers may view a comprehensive QC Suite test report for Kronzilla's SXI by navigating to [www.hifinews.co.uk](http://www.hifinews.co.uk) and clicking on the red 'download' button. PM



ABOVE: Dynamic power versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (cyan) and 1ohm (green) speaker loads up to 5% THD



ABOVE: Distortion versus frequency at 10W/8ohm (20Hz-20kHz, black) and 1W/8ohm (5Hz-40kHz, red)

## HI-FI NEWS SPECIFICATIONS

|                                      |                           |
|--------------------------------------|---------------------------|
| Power output (<3% THD, 8/4ohm)       | 45W / 45W                 |
| Dynamic power (<5% THD, 8/4/2/1ohm)  | 50W / 50W / 22W / 10W     |
| Output impedance (20Hz-20kHz)        | 0.070-0.083ohm            |
| Freq. response (20Hz-20kHz/100kHz)   | +0.75dB to -2.2dB/-25.5dB |
| Input sensitivity (for 0dBW/50W)     | 131mV / 1000mV (balanced) |
| A-wtd S/N ratio (re. 0dBW/50W)       | 87.1dB / 104.1dB          |
| Distortion (20Hz-20kHz re. 10W/8ohm) | 0.67-2.1%                 |
| Power consumption (Idle/Rated o/p)   | 475W/460W (1W standby)    |
| Dimensions (WHD) / Weight            | 385x415x550mm / 50kg      |



ABOVE: Four line inputs are provided, three single-ended on RCA and one balanced set on XLR. Eight and 4ohm transformer output taps are selected behind a fixed plate, feeding substantial binding posts. Input and volume are adjustable via remote

*Deuces Wild* [MCA MCAD-11711] showcased its impressive low-end 'grip' and vivid HF, the pumping bass and snappy percussion delivered with great exactitude. One should never judge a book by its cover.

### SCARILY SIMILAR...

I'm as much of a sucker as anyone for a relaxed, easy-going sound that invites you listen for hours without fatigue – but have you *heard* what a violin and/or trumpet sounds like at reasonably close quarters? When did you last stand close to a drum kit and experience the crash of a cymbal? There's nothing polite, 'smooth' or polished about the *real* sound of instruments.

Hook up this SXI to a pair of serious floorstanders and you'll likely be blown away. In PM's media room we listened to it via his classic B&W 802s and the mighty Avalon Compás floorstanders [see p28]. We were both taken aback by the amp's refined presentation. Neither of us expected it to sound anything like as controlled, dynamic, squeaky clean and transparent to source recordings as his pair of mono'd Devialet D-Premiers, that's

for sure. Nevertheless, these two wildly different designs shared some important traits, allowing the loudspeakers to develop a fabulously deep and wide soundstage, brimming with loads of detail and all underpinned by tightly-controlled pulsating bass information.

Without going crazy with the volume control, the SXI's music-making seems quite effortless and even if it is driven beyond its means there's no obvious 'hard' clip. Frankly, the Kronzilla SXI is a staggeringly capable amplifier, and one that provides a clear window through which to judge the fidelity of all recordings. ☺

## HI-FI NEWS VERDICT

It's difficult to imagine a more anachronistic looking amplifier, albeit one with modern standards of fit and finish. Yet there's nothing old-fashioned about the sound character of the Kronzilla SXI. If you don't mind the cost of running a Class A SET amplifier (it draws 475W at idle!) and the heat it generates, you're bound to be enthralled by its unquestionably fabulous high-end music making ability.

Sound Quality: 88%

