

# Marantz SA-KI/PM-KI Ruby

Marking brand ambassador Ken Ishiwata's 40 years with Marantz, this 'Ruby edition' SACD player and integrated amplifier aim high. How precious are they?

Review: **Andrew Everard** Lab: **Paul Miller**

**W**e've been here before: ten years ago Marantz celebrated Brand Ambassador Ken Ishiwata's 30-year tenure at the company with a KI-Pearl pairing of player and amplifier [*HFN* Aug '09]. So its only fitting that, now he's clocked up another decade, we should have these latest KI Ruby models, limited to 1000 units apiece (500 of each in gold, 500 in black), and selling at £3500 for each unit.

You can buy them separately if you really want, but the two are clearly designed to work together – it's assumed that most buyers will snap up both, and hopefully get two units with matching serial numbers. Both SACD/CD player/DAC and amplifier carry an engraved plaque on the rear with their edition numbers – odd numbers for black models, even for gold.

In addition each product comes with a certificate signed by Ishiwata, that signature also laser-etched atop the front panel along with a little inset 'ruby', which to some eyes may be just the slightest bit cheesy. I guess it's a matter of taste...

## NO EXCUSES

No such excuses need be made for the rest of their styling – but then Marantz has always given good casework – nor indeed for the engineering within. However, this Ruby pairing differs from past 'KI' models in being a 'ground up' design, rather than a breathed-on version of an obvious donor chassis like the SA/PM8006 [*HFN* Sept '18].

After all, that's how the KI-Signatures – and indeed the whole history of Ishiwata-tuned Special Edition Marantzes – originated. The first 'specials' appeared as a pragmatic solution to shifting stock of CD players with 14-bit DACs when consumers were hankering for the then-new 16-bit designs. Later the process developed into a 'what if...' exercise: what could be done if

one took an existing model, designed to a specific price-point, and threw some extra development and component cash at it to enhance performance.

So while the SA-KI Ruby and its partnering amp aren't 'hotted up' versions of standard Marantz hardware, like the standard SA/PM8006 they are examples of technology being trickled down from on high, in this case from the flagship SA-10 player and PM-10 amplifier [*HFN* Mar & Aug '17]. It's just that in the KI Ruby models the trickle doesn't have quite so far to go!

The SA-KI Ruby, in the manner of recent upmarket Marantz players, combines the functions of SACD/CD player and DAC, having both the company's dedicated SACDM-3 transport mechanism – in place of the do-it-all computer-type drives used in

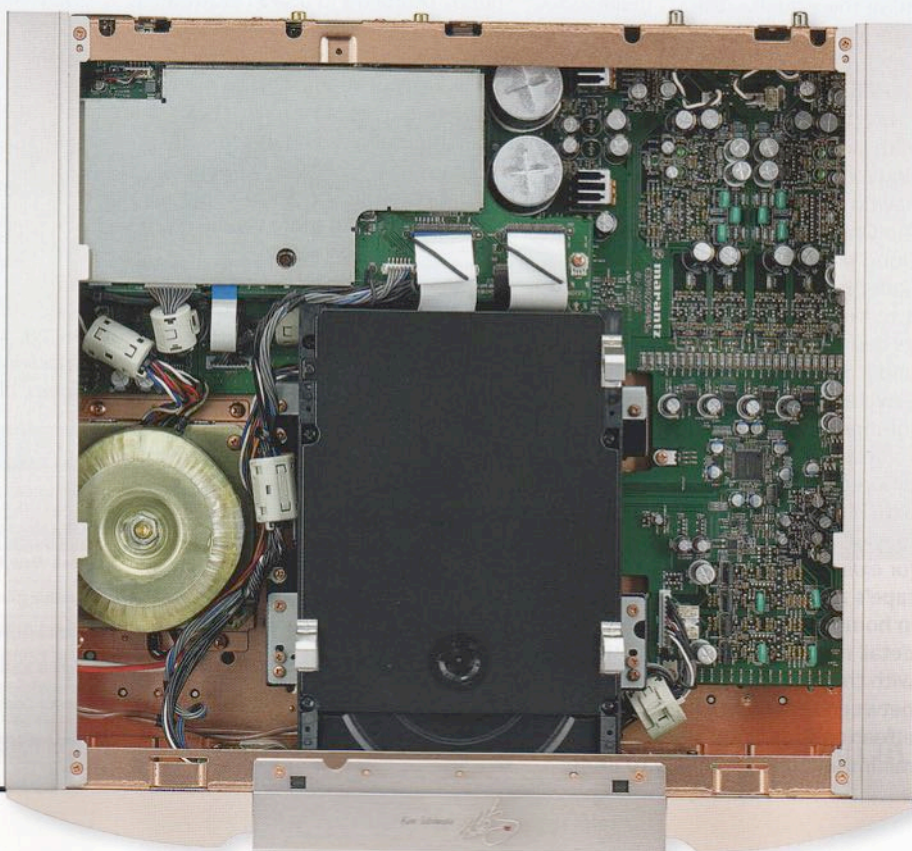
many modern players – and digital inputs on asynchronous USB Type B as well as S/PDIF. Along with CD/SACD discs, the transport can also play compilations burnt onto CD-ROM or DVD-ROM media.

The USB input can handle files up to PCM/DXD 384kHz/32-bit and DSD256/

11.2MHz, with all inputs upsampled and finally converted to DSD prior to D-to-A conversion. This technique, used in the top-end SA-10 player, is the result of Ishiwata's enthusiasm for all things DSD and the work of

his colleague Rainer Finck, who has been involved with single-bit technology ever since he was part of the original Philips Bitstream team in the very early '90s. A 1-bit DAC offers the promise of monotonic conversion and requires little more than a low-pass filter at the output. This custom-

*'The 1-bit DAC is the result of KI's enthusiasm for all things DSD'*



**RIGHT:** The KI-SA Ruby's SACDM-3 transport plays SACDs, CDs, and CD/DVD-ROM discs. A toroidal transformer [left] feeds linear PSU's for all circuits, including digital upsampling, conversion and the HDAM-SA2 output [top right]





designed 1-bit approach is dubbed 'Marantz Musical Mastering', and offers the user a choice of filter settings in the initial processing stage [see Lab Report, p51].

### PREMIUM PHONO

The analogue output stage and separate headphone amp both use Marantz's familiar HDAM (Hyper-Dynamic Amplifier Module) discrete op-amps, now in SA2 guise, while a substantial toroidal and PSU (with multiple regulation) powers the player [see inside shot, p46].

The PM-KI Ruby amp uses an in-house phono section, dubbed 'Marantz Musical Premium Phono' EQ and, like the MMM technology in the player, is designed to simplify the signal path as much as possible in the search for improved fidelity. The two-

stage circuit, with part-active/part-passive RIAA eq, employs a low noise input stage combining Marantz HDAMs with J-FETs. The built-in head amp allows the use of MC cartridges as well as MMs.

This phono stage design is drawn from the PM-10 amp, and the same thinking informs the rest of the PM-KI Ruby where the preamp stage uses HDAM-SA3s, and where the Class D power amplifier stage [see PM's boxout, below] is an 'unbalanced' version of the PM-10's bridged design, delivering a quoted 100W/8ohm. Separate PSUs are used for the pre and power sections, with the former having its own toroidal transformer. There's also a newly-designed volume control boasting improved linearity and channel

**ABOVE:** SA-KI Ruby [top] hosts standard track access controls while the PM-KI Ruby [below] has volume and input selection. Both include extras that are enabled by remote [see p51]

balance, while the speaker terminals are machined from high-purity copper.

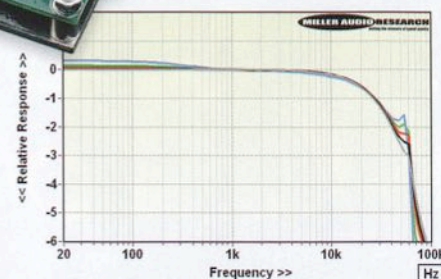
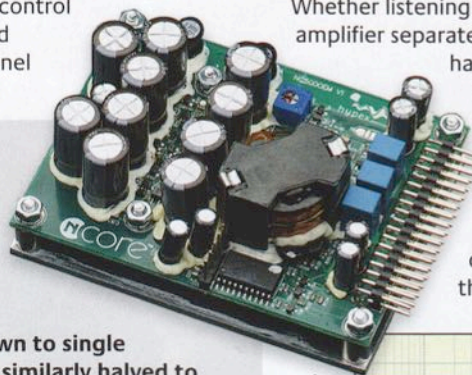
Both units are built to the usual high Marantz standards, with double-layer copper-plated chassis, solid aluminium front panels and 5mm aluminium lids, all for electrical and mechanical isolation. A system remote supplied with each unit can control the two together [see p51].

### KEN'S CHARACTER

Whether listening to the player and amplifier separately or as a system, it's not hard to hear the 'Ishiwata sound' in action. Used with the excellent Neat Iota Xplorer speakers [HFN Jul '18], the immediate impression is one of direct connection with the music being played, ➔

### CLASS D TO THE CORE

Although its literature was less than clear at the time, the PM-10 [HFN Aug '17] was Marantz's first attempt at an audiophile Class D amplifier driven from a switchmode power supply. Its subsequent success was due in no small part to Marantz's choice of Ncore power amp modules and switchmode PSU, both from Hypex. Bridged pairs of NC500 modules were employed in the PM-10, trimmed down to single modules in the KI-PM Ruby, the 200W rating of the former similarly halved to 100W/8ohm here. Of course, with Hypex rating the modules at 700W/4ohm, the KI-PM Ruby apes the PM-10 by delivering considerably more power into 8 and 4ohm loads than Marantz's specification might suggest [see Lab Report, p51]. Furthermore, while less sophisticated H-bridge Class D amplifiers suffer from a load-dependent frequency response (changing with your choice of speaker), the single-ended Hypex modules ensure a more consistent and predictable performance [see right for responses into 8, 4, 2 and 1ohm]. PM







**ABOVE:** Marantz's MMP phono stage and HDAM-SA3 preamp section occupies a full third of the amplifier [right] while a small toroidal transformer [centre] feeds both linear [bottom] and switchmode PSUs [top left], the latter for the pair of Hypex power amp modules [top centre]

whether that be a chamber recital or small jazz ensemble, or a full-blooded orchestral or rock recording.

There's nothing upfront, overt or flashy going on here: instead the duo lets the music do the talking, wrapping it up in a presentation that's rich and yet crisply detailed, making it equally suited for relaxing listening or concentrated attention. Extensive listening has long been an inherent part of the Marantz design process and that's not hard to discern from the way this pair handles a huge range of musical genres.

On initial acquaintance the sound of the player/amp duet may seem very lush and warm, so weighty is the bass it delivers. That's what promotes the ease of listening, especially with the generous sound of the classic Eagles albums in the recent *Legacy* retrospective [Rhino 0081227932466] – and no, I don't just mean *Hell Freezes Over!* It succeeds in revealing all parts of a recording in remarkable detail, yet somehow keeps all that subservient to conveying the atmosphere and emotion of what's being performed.

So there's never a sense of artifice about the sound of the Marantz pairing. Instead, it just gets on with playing the music in a manner that's as satisfying as it's

accomplished. Yes, you can brighten things up – provided you're not playing SACDs or DSD files – if you'd like them a bit more hi-fi-like by choosing Marantz's Filter 2, but with that in place that hint of artificiality creeps in. I'd stick with the default Filter 1.

#### **HARD SLAMMIN'**

For all the purity and poise these KI Rubys show, don't think for a moment that they can't rock out, as a blast with The Prodigy's *No Tourists* set [Take Me To The Hospital 405053 8426267] demonstrates;

the ability of the PM-KI Ruby to slam hard while keeping clean is never in doubt, and it works well with the player to open up the layers of what could charitably be called a somewhat dense mix.

The recent Roger Waters-narrated version of Stravinsky's *The Soldier's Tale* [Sony 19075872732] could also be said to benefit from the open, informative sound of the Marantz pairing if it wasn't for the fact that this ability reveals not just the trite nature of the Waters-rewritten narration – which really didn't need rewriting in the first place – and the toe-curling effect of the performer's 'acting'. Pantomime accents, anyone?

With the rather more fulfilling performance of Borodin's 'Polovtsian' ➔

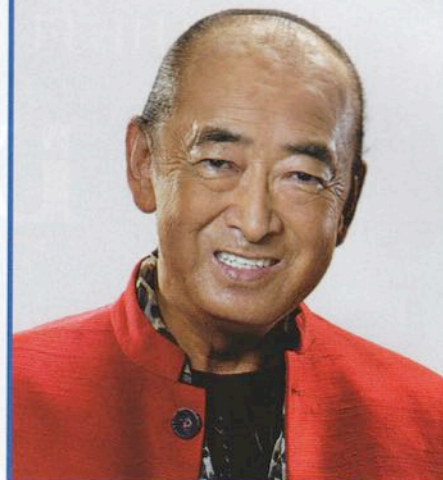
*'Don't think for a moment that the KI Rubys can't rock out'*

#### **KEN ISHIWATA**

In the words of the celebrated movie misquote, 'If you build it, they will come', even Marantz was surprised at just how popular the 'CD-63KI' CD player proved with hi-fi buyers in 1994. A whole new range – or, the cynics would say, a whole new marketing strategy – was born, and Ishiwata moved from being behind the scenes, known only to the cognoscenti, to a much more public figure in hi-fi.

Since then he has been very much front and centre in his role as 'Brand Ambassador', but you get the impression that there's some suggestion of the flame being 'handed over' of late. For example since the SA-10 launch a couple of years ago [*HFN* Mar '17], Ishiwata's colleagues have been more prominent, notably Rainer Finck, who has been heavily involved in both those products and the KI Rubys. And these days there's more emphasis on the group behind the company's products, with Ishiwata saying that 'Even after my 40 years at Marantz I still feel the passion to create outstanding high-end devices together with my dedicated team'.

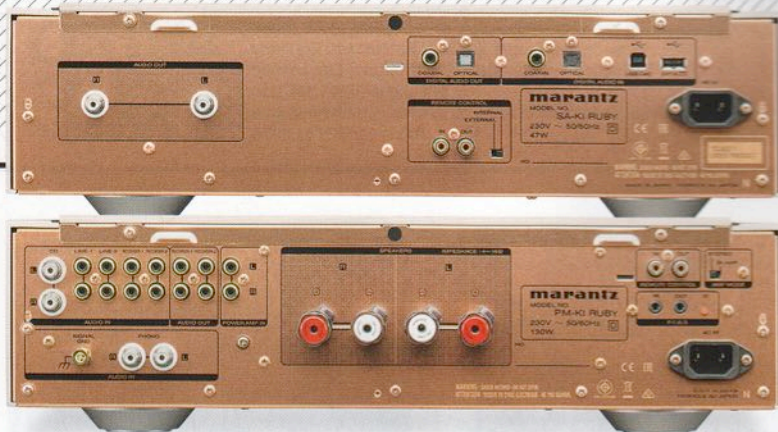
One might be tempted to say that 40 years is some innings, but with Ken you never know. Even now, in his eighth decade, he teased that there's more to come when launching the KI Ruby pairing at Amsterdam's Royal Concertgebouw. Known for his flamboyant silk jackets, he sported not the predictable deep red befitting the occasion, but a vibrant gold coat, pointing out this was the colour for 50 years. Ever the showman...





## LAB REPORT

### MARANTZ SA-KI/PM-KI RUBY



**ABOVE:** SACD player/DAC [top] has optical/coaxial and USB-B/USB-A digital inputs plus optical/coax digital outs and analogue outs on RCAs. Amp [below] has MM/MC plus three line ins, two tape loops, a power amp in and 4mm speaker binding posts

Dances' [BFO/Fischer; Channel Classics CCS SA37016], the Marantz sound comes into its own with that lovely blend of richness and finesse that's the brand's hallmark. There's no effort in the way the broad, deep soundstage is created, nor in the positioning of the considerable orchestral and choral forces within it, which has both scale and focus, and the overall effect is to draw you into the music and help the entire system disappear.

#### VIRTUAL AND PHYSICAL

What's more, the Marantz system is as impressive whether you play CD/SACD discs on the SA-KI Ruby or connect music in via the USB-B port, working very well with one of my Macs running Audirvana or Roon to deliver a sound indistinguishable from 'physical media' – and in fact better when some really hi-res files were served up.

The phono stage, too, maintains this impression of quality, and has evidently been designed with a real ear for making the most of any kind of music. Whether I played the Dunedin Consort's Handel's *Messiah* [CKH312] on my trusty Rega Planar 2, in which the combination evoked both the scale and intimacy of the performance, or some vintage live '70s rock in the form of Be Bop

Deluxe's *Live! In The Air Age* [Harvest SHVL 816], there were striking levels of detail combined with that fluidity. And with the live album the gutsy, yet fleet-footed bass was very much in evidence.

#### THIS IS IT...

Finally, to the immediacy of John Scofield's *Combo 66* set [Decca France 96kHz/24-bit download], where this Marantz pairing really sank its teeth into the remarkably rendered instrumentation, from the fuzzed-out guitar through the swirling organ, with the metronomic bass playing off the inventive drumming. Anyone after a 'close your eyes and see the musicians' experience would discover this was it, the Marantzes not putting a foot wrong, and an absolutely solid three-dimensional image being conjured.

Great musicians, fine playing and a superb sound – if you ever wanted an illustration of that familiar Marantz 'Because Music Matters' line, and what Ken Ishiwata strives to achieve in the company's products, this is a pretty good way to grasp the principles. ☺

#### HI-FI NEWS VERDICT

Not just noteworthy in their own right, these two components gel together to create a sound that's pure 'Marantz'. Appealing to a wide range of listeners, there's no sense of a celebratory rosy red glow that might otherwise embellish the sound of disc player or amplifier. They will surely be snapped up by Marantz fans and collectors, but their performance will delight even without the halo of their backstory.

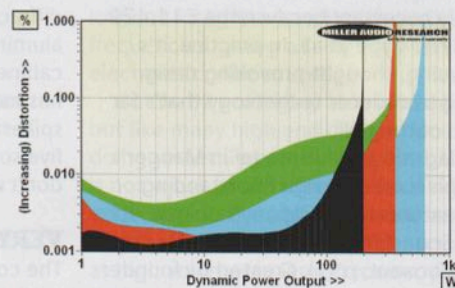
Sound Quality: 85%



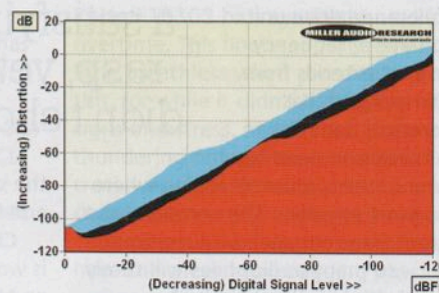
**LEFT:** System remote control governs both KI Rubys, providing access to 'extras' inc. setup, digital filters, tone controls, etc

Although the PM-KI Ruby uses the same Ncore NC500 Class D amp module found in the PM-10 [HFN Aug '17] its single-ended implementation here yields subtle differences in performance. Once again, Marantz's power specification proves to be very conservative as its 100/200W 8/4ohm rating is bested to the tune of 170W/280W in practice, with 200W, 360W, 610W and 370W achieved under dynamic conditions into 8, 4, 2 and 1ohm loads [see Graph 1, below]. So while the PM-KI Ruby's 8/4ohm output is only a third that of the PM-10, its ability to drive very low impedance speakers is actually superior. On the other hand, without bridged operation, distortion is slightly higher – especially at high frequencies (0.03% vs. 0.12% at 20kHz/0dBW) – and the A-wtd S/N rather poorer at 80dB vs. 91dB (both re. 0dBW). Once again, however, the response remains unaffected by loading and is almost identical to that of the PM-10 [see boxout, p47], reaching out to -0.6dB/20kHz and -6.3dB/100kHz.

Marantz's partnering SA-KI Ruby player offers a 1.99V analogue output with a modest 102dB A-wtd S/N ratio and distortion that's just 0.0002-0.00025% (20Hz-20kHz) with Filter 1 [see Graph 2] and fractionally higher at 0.0005% with Filter 2. The response (and stopband rejection) depends on your choice of digital filter: 'Filter 1' is a slow roll-off type with minimal pre/post ringing that offers a mere 4.1dB image rejection and a roll-off of -4.9dB and -3.8dB/20kHz (CD/48kHz files), -7.6dB/45kHz (96kHz files) and -21dB/90kHz (192kHz files). 'Filter 2' has more post-event ringing with a slightly 'flatter' -1.5dB/20kHz, -5.2dB/45kHz and -15dB/90kHz response. Jitter is low with 24-bit LPCM sources at 65psec and just 25psec with SACD. PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 19.2A



**ABOVE:** Distortion versus digital signal level at 1kHz (S/PDIF/USB, red; CD, black) and 20kHz (CD, blue)

#### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	170W / 280W
Dynamic power (<1% THD, 8/4/2/1ohm)	200W / 360W / 610W / 370W
Freq. resp. (20Hz-20kHz/100kHz)	+0.0 to -0.60dB/-6.3dB
Freq. resp. (20Hz-20kHz, Filter 1/2)	+0.0 to -4.9dB/-1.5dB
Digital jitter (CD / USB / SACD)	125psec / 65psec / 25psec
A-wtd S/N ratio (Player/Amp)	102.1dB (0dBFS) / 79.6dB (0dBW)
Distortion (20Hz-20kHz; Player/Amp)	0.0002-0.0003%/0.0019-0.12%
Power consumption (Player/Amp)	27W / 255W (33W idle)
Dimensions (WHD, Player/Amp)	440x127x419/440x127x453mm