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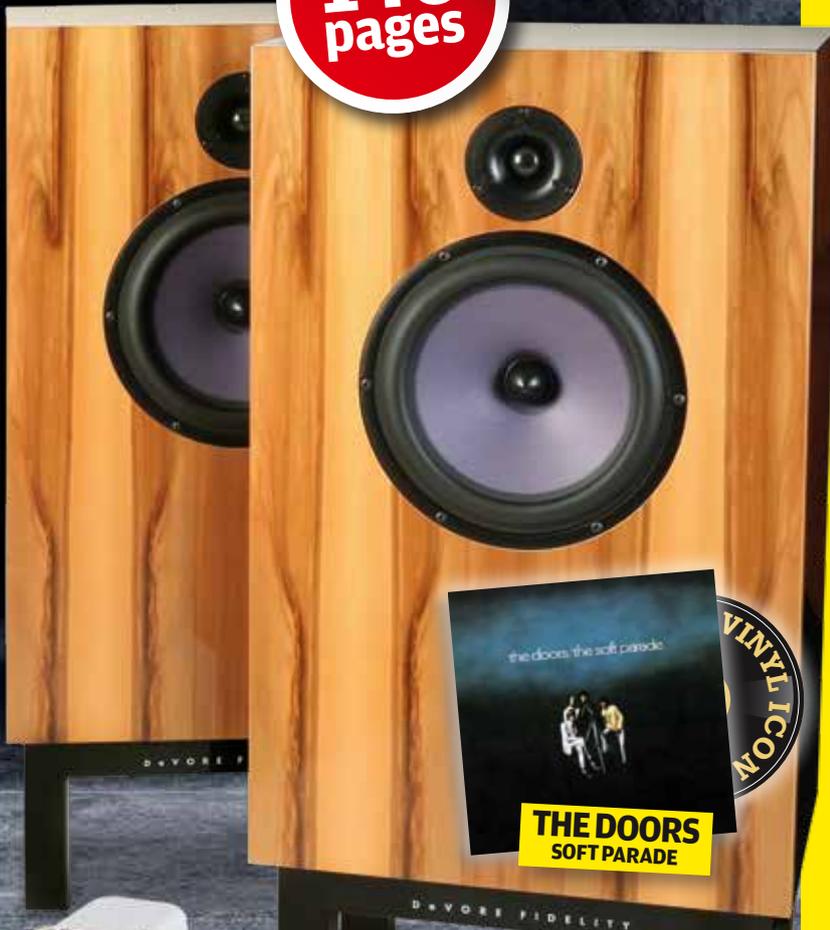
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Rotel Michi X3

The 'entry-level' model in a range of two new, fully-featured Michi integrateds, the X3 is a distillation of Rotel's award-winning pre/power design with astonishing power on tap
 Review: **Andrew Everard** Lab: **Paul Miller**

This amplifier is substantial, beautifully designed and finished, powerful (rated at 350W/4ohm) and hefty, at getting on for 30kg – and yet it's the base model of two integrated amplifiers recently added to Rotel's revived Michi range. Following on the heels of the EISA Award-winning P5/S5 pre/power amplifiers [*HFN* May '20] and the M8 monoblocks [*HFN* Oct '20], the X3 and bigger X5 all-in-one amplifiers are the next stage in the expansion of this lineup. The £6300 X5 claims 600W/4ohm and while the £4300 X3 model may be 'lower powered' it's still able to deliver quite a wallop when required, offering a very impressive bang for your buck [see PM's boxout, p57, and Lab Report, p59].

Of course, sheer power isn't everything, but combining plenty of Watts with a space-efficient design and sensible pricing does seem to be something of a trend at the moment. Indeed, there are more than a few 'big integrateds' offering the kind of performance that would once have been the preserve of more conventional preamp/power amp combinations. And while the X3 is slightly wider than the hi-fi norm at 485mm, and getting on for square in plan view, it's also clearly been designed to slot into most equipment racks, standing just 150mm – that's 6in in old money – tall.

EXTRA SPECS

For an amplifier with so appealing a combination of flexibility and sheer grunt, it could almost be called svelte, an impression heightened by the mixture of matt and gloss black in its styling, which also ensures it looks 'all the money'. The styling of these reborn Michi components may be very different from the brushed metal and lacquered wood of the originals from the early 1990s, but it's remarkably successful, being both understated and

RIGHT: Large screened transformer feeds a strictly-regulated PSU [centre], supporting the left/right bipolar power amps [far left/right]. Phono stage, line preamp and AK4490EQ-based DAC stages are on three stacked PCBs [top]

clearly able to be scaled elegantly from the big M8 monoblocks down to this rather more compact integrated model.

What's more, while the minimalism of the Michis of decades back may have given way to a more comprehensive specification, the P5, S5 and M8 demonstrate that this has been achieved without performance having been compromised – and that has clearly carried through to the X3, too. For while this integrated comes with a 'fully populated' rear panel that wouldn't seem amiss on a mainstream AV receiver, only lacking a few sets of speaker outputs and the odd HDMI socket, as well as offering that 'your move, creep' ability to grip and drive just about any speaker your throw at it, it also delivers

levels of musical involvement entirely in line with its pre/power stablemates.

BIG HITTER

Michi parent company Rotel has form in this respect. The RA-1592 [*HFN* Sep '16] was another big-hitter and, like the X3, plenty powerful enough for enthusiasts looking to 'downsize' from a pre/power combo. The newer X3 will also handle complex multi-source systems if required: in addition to four sets of line inputs, one of which is on balanced XLRs, it also has a rather good MM phono stage and a comprehensive lineup of digital inputs to feed its onboard 768kHz/32-bit AKM DAC. Along with three optical and three coaxial digital ins, there's also aptX

'Cue up an exuberant track and it's a whole barrel of fun'





Bluetooth, and a USB-B port to enable the X3 to be fed audio from a computer. With this last connection the amp can accept audio at up to 384kHz/24-bit and DSD128 while, via coax and optical, the limit is the usual 192kHz/24-bit.

Ethernet networking and a USB-A port are also provided, but these are there for IP control of the amp, and to support firmware updates – either ‘over the air’ or via a computer download onto a thumb-drive. That’s all par for the course these days, as is the provision for RS232 control, 12V triggering and an external remote control receiver – all of which enables the X3 to be hidden away in a cupboard and driven via a custom-install set-up.

Outputs are provided for two sets of speakers and headphones, and there are also two mono subwoofer outs, and a pair of pre-outs. The last of these should best be considered as a means of adding a second power amplifier (such as the S5) to bi-amp

suitable loudspeakers. In practice the X3 is not configured to be used purely as a preamp as there’s no way to disengage the power amp section which, as PM discovered during lab testing [p59], can clip if the pre out is wound up too far.

CHARGING HARD

Naturally, no such problems occur when using the amplifier as intended – hooked up to a pair of loudspeakers and playing music as long and as loud as most of us could ever want. And you don’t need to be using ‘problem’ speakers to justify the inclusion of this amplifier in your system.

Sure, its massive power output – both continuous and dynamic – does make it especially suitable with speakers of lower sensitivity or challenging impedance, but even more impressive is its ruthless control, allied to unfettered dynamics and crisp cleanliness, even when charging hard, with just about any loudspeaker.

ABOVE: A visual clone of the Michi P5 pre, the X3’s front panel remains simple and clean with source and volume selectors flanking a large, crisp display. Headphone socket is also included

The result is a sound with clout and sparkle in equal measure, wonderfully open and detailed soundstaging where the recording permits, and reliably sharp focus and clarity. And while the X3 sounds excellent with fine recordings, whether on vinyl, CD or via a computer, there’s nothing po-faced about the sound here. Play a rough but exuberant track or two, and it’s a whole barrel of fun.

Loading up Peat & Diesel’s recent *Live At Barrowlands* 2020 set [Wee Studio WSPD 5; Bandcamp download] via Roon on a Mac mini, the X3 conveys all the excitement of the sell-out gig at the legendary venue, and the wildly enthusiastic audience clearly singing every word. Triumphant and thrilling just about sums up this live set, the Stornoway trio creating a massive sound and clearly buzzing as much as the audience on the whole experience. And the Michi X3 delivers it red in tooth and claw, from the powerful drums to the rasping vocals.

DELICATE TOUCH

Keeping it Caledonian, the gentler sound of Heron Valley’s *Erie Storm* EP (another Bandcamp download) plays to the speed and deft touch of the amplifier. The instrumental and vocal definition here is as notable as the way the rhythms drive along with a mixture of delicacy of touch and outright slam as the opening ‘Take You There’ builds from its gentle interlude in the middle section to the drive towards the end of the track. And while I’m no connoisseur of the pipes, the sheer brio of the second track, ‘Annas’, with its lead instrument set against a driving rhythm section powered by the Michi X3, would surely put a smile on any face. ↪

POWER PLAY

Rotel makes no special claim for its Michi X3 as the most power integrated available, but it could, and perhaps should, shout a little louder about this amplifier’s phenomenal W per £ performance [see Lab Report, p59]. Top performers stand the test of time – the Krell S-550i [HFN Jul ’13] offered 2x336W/8ohm with 2.4kW/1ohm (49.4A) under dynamic conditions while Musical Fidelity’s Nu-Vista 800 [HFN Nov ’14], still available at £8800, delivers 2x325W/8ohm, reinforced by a massive dynamic 2.2kW/1ohm (46.4A). Norway provides very close competition with the mighty £9000 Hegel H590 [HFN Oct ’18] which maintains 2x310W/8ohm, increasing to a dynamic 2.28kW/1ohm (47.8A).

More recently, Perreaux’s £8280 Eloquence 255i [HFN Apr ’18] was tested at 2x435W/8ohm even though it is protected at 1.5kW/2ohm and 610W/1ohm (26.7A). Musical Fidelity pops up again with the all-transistor M8xi at £5650, offering 2x640W/8ohm but limited to 1300W/2ohm and 720ohm/1ohm (26.8A) under dynamic conditions. From Italy and USA, respectively, there’s the new £7800 Audia Flight FLS 9 [HFN Feb ’21] and £24,000 D’Agostino Progression [HFN Nov ’20] – priced with their DAC options – achieving 160W and 265W/8ohm, respectively, although both max out at ~1020W (31.9A) into 1ohm. Against this battery, Rotel’s £4300 Michi X3 is looking very capable indeed at 2x255W/8ohm and 1.775kW/1ohm (42.1A). So if you own the world’s least sensitive/lowest impedance speakers there’s no more affordable high power partner. PM

INTEGRATED AMPLIFIER



ABOVE: The X3 offers MM phono, one balanced (XLR) and three RCA line ins; sub and preamp outs; three optical, three coaxial and one USB-B digital ins; trigger, RS232 and network control ports plus two sets of substantial 4mm speaker cable binding posts

I spent some time comparing the internal digital section of the amp with an external alternative, switching to the iFi Audio NEO iDSD [HFN Mar '21] connected to the X3's balanced inputs. Now, while this excellent £699 DAC maybe just had a slight edge on bite and snap with some tracks – and especially multi-DSD ones beyond the Michi X3's capability – it was a pretty close-run thing, and shouldn't detract at all from the ability of the internal digital capability here.

REAL BREEZE

Playing 'You Take My Breath Away' – yes, the Freddie Mercury song – from Belgian soprano Jodie Devos's enchanting *And Love Said...* recital [Alpha Classics ALPHA668] shows the lightness of touch of the X3, setting the voice against simple piano in an entirely credible acoustic, and letting notes hang in the air in a wonderfully affecting manner.

Then, via the sometimes offbeat logic of Roon Radio, in the next moment the amp can turn up the wick to power through Dire Straits' 'Sultans Of Swing' [from the *Best Of...* compilation of the same title; Vertigo 558 658-2], with flat-out drive in the bass and percussion and ultra-fine detail in Knopfler's intricate guitar-work, bringing the much-heard tracks fresh and breezy all over again.

The same goes with the high-speed pianism



LEFT: Rotel's slim Michi remote offers access and control over the X3's comprehensive on-screen menu system

on Bob James's *Lost 1965 New York Studio Sessions* [2xHD Historic 2XHRRE1196; DXD], whether playing straight down the line on 'Serenata' with Bill Wood on bass and drummer Omar Clay, or hanging a little looser with Larry Rockwell and Robert Pozar on the opening tracks of the set.

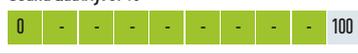
The combination of great recordings and the kind of loving transcription that are the hallmark of the 2xHD project makes the music spring to life anew, and the Michi X3 has all the speed, warmth and control to make the most of it. And that held true whether with my big old PMC OB1 speakers or the smaller, faster Neat Iota Xplorer.

And if there was any doubt of the massive clean power here, a swift play of the big, magnificent LSO/ Nosedá recording of Shostakovich's 9th Symphony [LSO Live LSO0828; DSD256] shows that soundstaging, agility and massive clout off to great effect. Despite the dynamic swings involved – and you can crank the volume level as high as you want – there's no hardening of the sound or suggestion of the X3 raising a bead of sweat as it breezes through the huge musical event. ☺

HI-FI NEWS VERDICT

Combining 'drive anything' confidence with speed, warmth and the ability to switch from pile-driver to a gossamer touch when required, the Michi X3 carries its massive power lightly, and is all the more rewarding as a result. Add in its flexibility, build quality and sheer style, and you have an amp able to take on the burgeoning ranks of super-integrateds and show most of them a clean pair of heels.

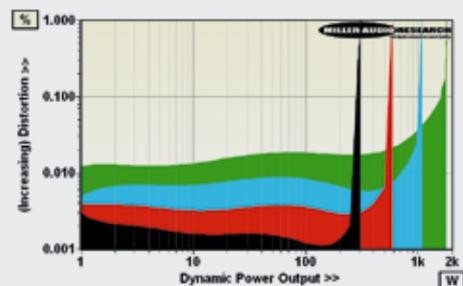
Sound Quality: 87%



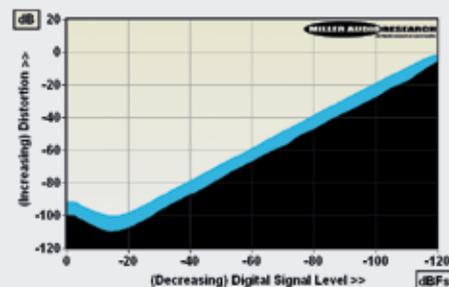
ROTEL MICHIX3

If your loudspeakers are either insensitive or present a cruel load then Rotel's Michi X3 is almost 'Hobson's Choice' at sub-£5000 [see boxout, p57]. Rated at 200W and 340W into 8/4ohm, respectively, it succeeds in delivering 2x225W and 2x425W at <1% THD with sufficient headroom galvanised by that huge PSU to support 307W, 585W, 1.1kW and 1.78kW (42.1A) into 8, 4, 2 and 1ohm loads under dynamic conditions [see Graph 1, below]. Gain is rather lower than specified at just +24dB but allows full use of the volume control with today's 4V+ (balanced) line level sources. The A-wtd S/N ratio is also below average at 80dB, albeit from a subjectively pleasing white noise than any hum from that custom toroidal transformer. Output impedance is usefully low at 0.025-0.035ohm (20Hz-5kHz) while the response reaches out to ±0.1dB from 20Hz-20kHz (and -1dB/100kHz). Finally, distortion is also low at 0.0013-0.021% (20Hz-20kHz) and tracks this trend consistently from 1W-200W/8ohm output.

Measured via the preamp RCAs at 2V output (the internal power amp clips at much above this level) the S/PDIF and USB inputs are all routed via a default, steep minimum phase digital filter that has long post-echoes, a moderate 69dB stopband rejection but a very flat response that reaches out to -0.05dB/20kHz, -0.7dB/45kHz and -1.6dB/90kHz with 48kHz, 96kHz and 192kHz digital files. Jitter is acceptable at 250psec, the A-wtd S/N, again, slightly lower than expected at 103dB but low-level resolution remains true to a tight ±0.2dB over a 100dB dynamic range. While distortion is a low 0.0015-0.0045% at max/0dBfs output (20Hz-20kHz), it falls lower still to 0.0003-0.00056% at -15dBfs [see Graph 2, below]. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 42.1A



ABOVE: Distortion versus 48kHz/24-bit digital signal level over a 120dB range (1kHz, black; 20kHz, blue)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	255W / 425W
Dynamic power (<1% THD, 8/4/2/1ohm)	307W / 585W / 1080W / 1775W
Output imp. (20Hz-20kHz, Pre/Amp)	96-99ohm / 0.029-0.11ohm
Freq. response (20Hz-20kHz/100kHz)	-0.10dB to -0.12dB/-1.05dB
Digital jitter (USB / S/PDIF)	250psec / 245psec
A-wtd S/N ratio (DAC/Amp)	103.0dB / 79.8dB
Distortion (DAC, 0dBfs/Amp, 10W)	0.0015-0.0045%/0.0013-0.02%
Power consumption (Idle/rated o/p)	77W / 695W (1W standby)
Dimensions (WHD) / Weight	485x150x452mm / 28.9kg



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