

Musical Fidelity M6x 250.7

The Austrian brand's first multichannel power amp is designed not just for home theatre systems but also to service bi- or even tri-amped stereo set-ups. Is this a trend?
Review: **Mark Craven** Lab: **Paul Miller**

Musical Fidelity is no stranger to big power amplifiers. Its top-of-the-range monoblock, the £3599 M8s-700m, claims a 700W/8ohm output and weighs in at 35.5kg, and the company sells a stereo model in the M8 series too, the £3999 2x500W/8ohm-rated M8s-500s. But perhaps what few expected from the brand, considering its range also consists of DACs, streaming amps, phono stages and CD players – everything a two-channel audiophile could want, in other words – is a seven-channel amplifier. Which is what we have here, in the shape of the M6x 250.7.

Undercutting those M8 models at £3099, but featuring an even larger chassis, this multichannel offering claims a 7x250W/4ohm output [see PM's Lab Report, p65], so you don't need to spend long with pen and paper to work out there's bang-for-your-buck (or watts-per-pound) potential here. Amplification is Class AB, Musical Fidelity's preferred mode across its hardware lineup, with the seven modules all neatly arranged internally with sidemount heatsinks [see right], and fed by a pair of huge 'Super Silent' toroidal transformers. These contribute to the unit's not insignificant 32.5kg heft.

SOCKET TO ME

So, seven channels. What can you do with them? Not as much as you might hope. While we've recently seen the eight-channel A35.8 power amp from Primare that allowed its Class D Hypex modules to be bridged [see PM's boxout, p63], thus providing four channels of grunt to drive any pair of speakers with split crossovers, the M6x 250.7 doesn't support this.

Whatever the reason, this feels like a missed trick by Musical Fidelity; what is on offer, however, is bi-amping, made possible by the connections on the rear

RIGHT: Two substantial transformers feed individually regulated PSUs on each of the seven amplifier 'cards'. Each amplifier modules hosts two pairs of high-current output transistors, the channels supporting bi-amping but not bridging

panel [see p65]. The M6x 250.7's inputs are on both balanced XLR and unbalanced RCA connections, sat above 4mm speaker binding posts in numbered (1-7) sections, and included in each section is a secondary RCA socket, labelled 'output'. Use this into the input socket on the adjacent amp module and – *voilà* – you then arrive at a split channel output to feed your bi-amp capable loudspeakers. Furthermore, any tri-amp-ready loudspeakers can be driven this way too, making use of six of the M6x 250.7's seven channels.

Bi-amping or tri-amping would seem the most likely employment of Musical Fidelity's amp in a two-channel system (its seven-channel design is well-suited to the 7.1 'base layer' in a home cinema set-up). But its 'extra channels' could also be used to power a second set-up elsewhere in the

house (albeit with some potentially long runs of speaker cable), or even a second speaker set in a listening room.

LIVE 'N' UNPLUGGED

Unusually, selection between the M6x 250.7's RCA and XLR inputs is entirely based upon what cable you put in – there's no toggle to switch operation between the two, so those running two sources should unplug. Beyond in/out triggers for automated system operation and a power switch, there's nothing else to report on the back panel. Nor, actually, is there much to say about the view from the front. Along the bottom of the fascia are a power/standby button, and seven labelled LED status lights that glow a faint red when the amp is in standby and light up blue when the amp is switched 'on'. If the unit detects



a 'fault condition' – such as overheating or over-current – these LEDs will apparently switch back to a brighter red.

The M6 series is upper-middle in Musical Fidelity's extensive catalogue, below the M8 and NuVista ranges, and above the M5, M3, M2, MX *et al.* So the balanced M6x Pre preamp is the obvious partner for the M6x 250.7, sporting RCA and XLR analogue inputs plus a USB-B for the onboard DAC. There's a style match here too, though the M6x 250.7 is distinctly 'no-frills' from an aesthetic viewpoint. Almost as deep as it is wide, it will sit broodily on a dedicated stand, or might warrant being tucked away out of sight if you can make sure there's sufficient ventilation. The quality of the build is what I've come to expect from the brand – the all-metal chassis feels robust

and the bevelled faceplate (offered in black or silver) is a thick slab of aluminium.

SHAKE SHIFTER

Whether you use the M6x 250.7 as a straight stereo amp or for bi-/tri-amping, you're in for a hefty, heavyweight treat. As no-nonsense in sound as it looks, Musical Fidelity's new powerhouse plays deep and loud, and offers an unblemished view of your music. I found it unbothered by genre or style, happy to follow intimate folk with room-shaking rock, but at its best with 'audiophile' recordings where its transparency reaps rewards. As for its speaker-driving ability, 'formidable' springs to mind.

A case in point... Iron Maiden's 'Seventh Son Of A Seventh Son' from the concept

'It was so deep, I had to "rewind" to hear it again'

ABOVE: Reassuringly bluff, the lightly textured black alloy faceplate reflects the M6x 250.7's no-nonsense mission statement. Seven pin-hole LEDs reflect the status of each module

album of the same name [Parlophone 724349686403], played at Wembley Stadium levels through Perlisten R7t floorstanders [HFN Aug '22], shook my listening room but maintained an even balance. Bruce Dickinson's operatic vocals fought through the bass, guitars and keyboard backing, which were presented as a sonic wall that felt both solid and textured. And the tone of the lead electric that heralds the start of the track's breakdown section midway through? Fabulous.

DRAMATIC ARTS

A similar sense of thick, churning rhythms was in evidence with Manic Street Preachers' 'Slash N' Burn' [Generation Terrorists; Columbia/Sony Music 88725474512], and AC/DC's 'Shake A Leg' [Back In Black; Epic 510765 2]; songs from albums both mixed to rock as hard as possible – something, it turned out, the M6x 250.7 loves to do. The effect, on the latter track, of guitar and bass guitar riffing in unison, propelled by the straightforward, pounding drumming, almost left me gasping for breath, and I was happy to not dwell long on a slightly bright rendering of some of the distorted guitar parts.

Bass depth, and the natural, subtle tones it unearths, is one of this amp's greatest strengths. 'Little Lights', the closing track from Punch Brothers' *The Phosphorescent Blues* [Nonesuch Records; 96kHz/24-bit], finds the classical/bluegrass/country five-piece in a languid, low mood, and pacing the track are occasional, long notes from a double bass – one so deep, ↪



CLASS WARS

While Musical Fidelity's 7-channel M6x 250.7 and Primare's 8-channel A35.8 [HFN May '22] share a common 150W/8ohm specification, that's about the end of the comparison! Under their respective hoods are two very different amplifier technologies – while the A35.8 utilises a switchmode PSU, with dual APFC (active power factor correction), feeding eight Hypex NCore NC500 Class D modules as four separate 'stereo' banks, the M6x 250.7 combines a pair of 550VA toroidal transformers feeding linear PSUs mounted onto seven mono, Class AB amplifier cards. Because MF is using seven mono amps (eight would not fit within the 450mm width of the M6x cabinet) this means the two huge AC transformers are feeding three and four mono cards, respectively [see Lab Report, p65].

Neither the A35.8 nor M6x requires fan cooling but while the latter incorporates extensive alloy heatsinking on each card [see inside shot, p62], the A35.8 directly benefits from the efficiency of Class D operation without excessive heat or heavy casework. Hence the A35.8 weighs in at just 15kg and draws 1.33kW from the wall at 8x150W/8ohm (95% efficiency) while the more 'traditionally' engineered M6x 250.7 weighs a hefty 35kg and pulls 1.62kW at 7x150W/8ohm (66% efficiency). See p55 for more on amplifier efficiency. PM

MUSICAL FIDELITY M6X 250.7



ABOVE: Seven separate amplifier modules are accessed from the rear panel, each with (unswitched) RCA and XLR inputs, a daisy-chain line output on RCA and speaker connection on 4mm posts. Auto signal sensing and 12V trigger control is included

but given so much presence by the M6x 250.7, that I had to 'rewind' to hear it again. And on this piece, it's the dramatic acoustic lows that act as the canvas for everything else – including banjo, fiddle, and the awe-inspiring massed voices. Having this extension and poise in the lowest frequencies simply made the whole song sound sweeter.

FLOATING FREE

Underworld's 'Motorhome' [Barbara Barbara, We Face A Shining Future, Smith Hyde Productions; 96kHz/24-bit] goes one better – it's all electronic whirrs, digital percussion and a ludicrously overblown bass sound destined to elicit cheers in a nightclub. Here it sounded gloriously bouncy and well-rounded; fit to burst even. What was even better, arguably, was that the track's male vocals floated free, and the amplifier had plenty in reserve to fill out the sound as the keyboard accompaniment grew and grew.

On 'Going To California' and 'The Battle Of Evermore' from *Led Zeppelin IV* [Atlantic 7567 826382] Robert Plant and Jimmy Page dial down the bombast for two flitty, ethereal-sounding compositions rich in acoustic guitar. Both were given a good showing by the M6x 250.7, the amp letting the delicate rhythms flow, while still leaning in to add a subtle attacking edge to Page's downstrokes. And once again, the vocal presentation was excellent with Plant sounding full of body even on the high notes and Sandy Denny on '...Evermore' being a more airy, recessed presence.

This musical side to the amp ought not surprise, given its provenance, and it was on full display during 'Hetzjagd', a funky, up-tempo jazz interpretation of Russian composer Alexander Scriabin, by Martin Albrecht [*The Scriabin Code – Sehen: Hören*, Rodenstein Records; 44.1kHz/24-bit]. This medley of sprightly

percussion, sustained piano notes and clear, clean clarinet has a staging that's not particularly wide, but the M6x 250.7 marshalled the players well, putting the wind instrument in front and pinning the drumming at the back of the room.

The amp responded well to the shifting dynamics, showcasing a welcome nimbleness that belied its bulky appearance, something it did again with The Rolling Stones' 'Midnight Rambler', recorded live in New York City in 2003 [*Licked Live In NYC*; Rolling Stones Records MSDD553838]. This gains an intro section that helps drag the tune out to around 13 minutes, the band members improvising bluesy licks, and it thrilled via the M6x 250.7, with rich piano playing off against honking harmonica and astonishingly weighty drum rolls.

When Keith laid down his riff and the song proper began, it was ramshackle and chaotic, but also joyous to listen to. This extended take on the *Let It Bleed* classic sounds little like the original, but the amp's performance guaranteed I listened in rapt attention to the whole piece. Above all, it sounded live; detailed but gritty, with a sharp edge to Jagger's screams and the gut-punching dynamics. ☺

HI-FI NEWS VERDICT

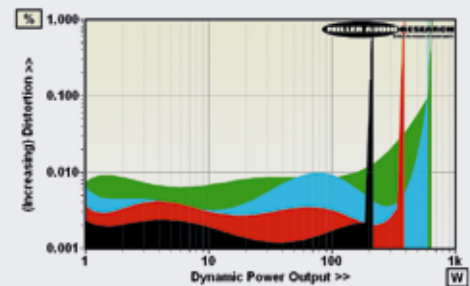
MF's heavyweight seven-channel power amp might disappoint by eschewing channel bridging in favour of bi-amping, but there's no denying its appealing performance. Whatever the musical genre, imperious, extended bass can always have an impact, and the M6x 250.7 couples this talent to a dynamic, fluid sound overall. Tot up all the watts on offer too, and it begins to look like great value for money.

Sound Quality: 84%

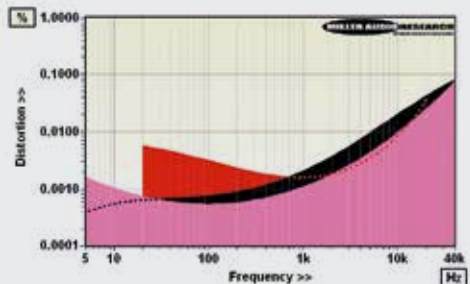


As I discuss in our boxout [see p63], the M6x 250.7 is a three- and four-channel amplifier combined, and one that delivers 1x180W, 2x170W and 4x160W (and 7x160W) into 8ohm before raising its game to 1x305W, 2x280W and 4x255W (7x255W) into 4ohm. Power consumption increases from 265W at 1x150W/8ohm output to 975W at 4x150W/8ohm and 1.6kW at the full 7x150W/8ohm output. Unlike its Class D rival from Primare [HFN May '22] whose architecture 'fixes' its output under both continuous and dynamic conditions, the M6x 250.7's more traditional linear PSU/Class AB design enjoys additional transient headroom, supporting 220W, 385W, 600W and 655W into 8, 4, 2 and 1ohm loads [see Graph 1, below]. Gain is set at a sensible +32dB (x40) via the XLRs and the A-wtd S/N ratio is only slightly below average at 82.3dB (re. 0dBW), but this is a white noise rather than audible hum from the proximity of the transformers.

The output impedance is a fairly steady 0.025-0.04ohm (20Hz-20kHz) and the frequency response has a slight treble roll-off, amounting to -0.8dB/20kHz and -10.3dB/100kHz, just as its bass extension reaches down to 7Hz (-1dB). Harmonic distortion is impressively stable with increasing output, trending from 0.0015%/1W to a minimum of 0.0009%/20W and then drifting gently upwards to 0.002% at the rated 150W (all 1kHz/8ohm). Versus frequency there's a general trend of increasing distortion [see Graph 2, below] where the M6x 250.7 falls to a minimum of 0.0005% in the low bass before climbing through the midrange (0.001%/1kHz) to 0.025%/20kHz and 0.085%/40kHz. By the standards of a vinyl-playing front-end or, indeed, a typical loudspeaker these are still very low figures, of course! PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 25.6A



ABOVE: Distortion versus frequency versus power output (1W/8ohm, black; 10W, pink; 100W, red)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	180W / 305W (one channel)
Dynamic power (<1% THD, 8/4/2/1ohm)	220W / 385W / 600W / 655W
Output imp. (20Hz-20kHz/100kHz)	0.025-0.039ohm / 0.21ohm
Freq. resp. (20Hz-20kHz/100kHz)	-0.16dB to -0.75dB/-10.3dB
Input sensitivity (for 0dBW/150W)	73mV / 898mV
A-wtd S/N ratio (re. 0dBW/150W)	82.3dB / 104.1dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.0005-0.025%
Power consumption (Idle/Rated o/p)	40W / 265W (1W standby)
Dimensions (WHD) / Weight	450x195x435mm / 32.5kg