

JBL Summit Ama

JBL's iconic Project Everest and K2 are joined by three new 'Summits' – the Makalu, Pumori and Ama
 Review: **Mark Craven** Lab: **Paul Miller**

With its three new Summit series loudspeakers, JBL is continuing its journey through the Himalayas. The Makalu and Pumori floorstanders, plus the standmount Ama auditioned here, join its existing 'Project' Everest DD67000 [HFN Aug '14] and K2 S9900 [HFN Aug '10] flagships in taking their name from the world's highest peaks. Like those two models, they also come with prices that demand a head for heights, even if the Summit Ama – at £14,998 – can be said to be relatively affordable when compared to the Everest at £79,998.

What we have here then, perhaps, is JBL and parent group Harman Luxury Audio realising there was something of a gap between its two existing top-line models and its more wallet-friendly Studio Monitor [HFN Jan '22], Classic [HFN May '19] and HDI ranges. There's also the matter of size. The Everest, with its two 380mm bass drivers, measures nearly 1m wide, and the K2 is a 56cm-wide floorstander weighing nearly 83kg. Missing was a standmount design worthy of flagship status. Enter the Summit Ama.

CONE CHEMISTRY

Okay, this speaker is not exactly compact either. Dimensions of 476x308x336mm (hwd) give it real in-the-room presence, and the supplied stands also have a chunky rather than svelte aesthetic. But *in situ* they look smart, either in the ebony wood veneer finish seen here with its 'Summit gold accents', or the high-gloss black (with 'Summit platinum' trim) alternative.

The Pumori and Ama speakers make use of the same bass/mid and HF driver pairing, but the Pumori adds a 250mm woofer, leaving the Ama as the range's only two-way model. Both drive units are freshly engineered, although the technology behind the horn-loaded compression driver will be familiar to JBL aficionados.

Starting with the bass/mid driver, this uses a 200mm 'Hybrid Carbon Cellulose

Composite Cone' (*aka* 'HC4') where outer layers combine a mix of carbon fibre with JBL's traditional pulp fibre, sandwiching a closed cell foam inner core. The aim here is to create a cone possessing the required stiffness and excursion to marry high output and low distortion.

CROSS TALK

As for the motor assembly, this features a large, 60mm voice-coil, ferrite magnet and dual inverted

spiders, the unit then being secured to the cabinet via a cast aluminium frame.

The Summit series' new D2815K compression tweeter, meanwhile, integrates two 38mm Teonex (polyethylene

naphthalate resin) domes and dual motors [see pic, p48]. It is mounted behind an HDI (High-Definition Imaging) horn, formed from Sonoglass (a fibreglass-based material) and shaped to optimise both horizontal and vertical dispersion.

Horn-loading improves efficiency, which is typically reflected in higher sensitivity, so JBL's mere 84dB specification for the Ama simply reflects the capability of the 200mm bass/mid unit. Add in a low impedance [see PM's Lab Report, p49] and you'll want to match the Summit Ama to a robust amp.

This bass/mid driver is framed by a half-roll surround and tuned via a large rear-facing port to deliver a claimed 34Hz (-6dB) bass extension. Handover to the treble is at 1.6kHz, which is relatively low but made possible by the extended reach of the D2815K compression driver (on the Pumori and Makalu models, the

RIGHT: New drivers – 200mm three-layer pulp/carbon hybrid cone bass/mid unit with 64mm voice-coil sits below a Sonoglass acoustic horn fitted with a 38mm dual-dome, dual-motor Teonex compression tweeter



'The low and high arms of the crossover are split, accommodating bi-wire/amp set-ups'

LOUDSPEAKER

crossover is even lower). The network, a third-order type, is a low-ESR design that employs multiple, small capacitors. The low and high arms are split, accommodating bi-wire/amp set-ups through the Summit Ama's twin sets of rhodium-plated, carbon fibre-wrapped binding posts.

Bad news for tweekers, perhaps, but of limited concern to anyone else, JBL no longer offers adjustment of HF, Presence or LF levels, as it does on the Everest and K2 speakers. Performance fine-tuning therefore comes down to positioning. The supplied manual offers little information here, but the outcome is to have the speakers angled so they cross over a little way behind the listening position. Or, in the words of a JBL engineer when we asked for more on preferred installation, 'We have found the best balance between centre-image size and overall image height/width/depth is where the speakers are pointed to a spot about 2.6m behind the listener's head'.

This slight off-axis toe-out improves uniformity at the listening position as does, unusually, using the Summit Ama with its magnetically affixed grille in place. But for once this is no bad thing, as the grilles don't upset the visual appeal of this rather grand-looking speaker in any way.

There's an appreciably 'high-end' feel to the Summit Ama, aided by clear attention to detail. The stands have been thoughtfully designed to include cable routing up the rear of each pillar and arrive pre-fitted with height-adjustable soft polymer feet produced in conjunction with specialist manufacturer IsoAcoustics. No alternative spikes are provided, as the foot's bottom 'isolator' layer is said to offer both suction to stop movement on smooth surfaces and a 'strong friction grip' on carpets. As for the enclosures, their braced, layered, curved-wall construction contributes to a weight of around 26kg.



ALTITUDE SLICKNESS

Horn speakers may never shake off their colourful reputation no matter how far removed we get from the time they were first used to literally shout movie dialogue all the way to the back row of the cinema. Still, the performance of JBL's Summit Ama should go a long way in dispelling any such preconceived notions, as these are entirely musical-sounding speakers. Bass is a strong point, being deep and fast but brilliantly controlled, so as not to overpower a

midrange that offers both superior resolution and presence.

There's a cavernous, room-filling soundstage on offer too, which goes hand in hand with the Ama's sense of being unbothered playing at loud volumes. The very top of the audio band may lack a little 'zing', but that doesn't dampen the speaker's listenability.

SLAM SESSION

In the grand scheme of things, the use of a single 200mm bass driver doesn't suggest this speaker will be

particularly dazzling in the low-end department. But, *au contraire*, bass handling is nothing short of superb, and that's whether

adding a subtle current of low-frequency weight, or slamming hard into kick drums. The percussive elements on Fink's live recording of 'Trouble's What You're In' [*Wheels Turn Beneath My Feet*; Ninja Tune ZEN189] benefited from a deep, gentle resonance, which helped reinforce the impression of artist and band playing in a large acoustic.

On the other hand, AC/DC's 'Thunderstruck' [*The Razors Edge*, Columbia; 96kHz/24-bit] is a studio recording meant to sound 'big', and again the Summit Ama's ample but controlled bass helped, initially with the pounding drums in the intro, and then the rampaging bassline.

Once up and running, the track bounced and bounded through JBL's speakers with an energy that called to mind its legendary live ➔

RIGHT: Offered in gloss black and gloss ebony veneer finishes, the cabinet is a braced, curved-wall laminate of engineered wood with a 'multi-component' lining. The matching stands include cable routing [see p49] while the plinth has adjustable, compliant IsoAcoustics feet



LOUDSPEAKER

PEAK PERFORMANCE

Arriving in the late 1980s, JBL's original Everest loudspeaker, the DD55000 [HFN Apr '88], was its first 'Project' model in 30 years, the previous being the D30085 Hartsfield and D44000 Paragon launched in 1954 and 1957, respectively. By comparison with the legendary Paragon – a stereo speaker built into a single but very wide cabinet, with horn-loading of all six of its drive units – the Everest was almost conventional. This was a three-way, floorstanding design combining dynamic 380mm/ 15in woofers with horn-loaded titanium midrange and aluminium 'ultra-high frequency' compression drivers. Large listening spaces were still required to accommodate the 1.4m-high, 92cm-wide enclosures, however, and each cabinet weighed a mountainous 145kg.

The Everest DD55000s were sold in mirror-imaged pairs, as the bass and super tweeter drivers were offset at angles of 30° and 60°, respectively. JBL claimed this helped deliver a 'wide-stage stereo' listening angle up to 80°, and allowed for corner placement if necessary. The output of both the tweeter and midrange drivers could be tuned via two three-position switches giving '0dB' (flat), or '±2dB' of lift or cut in response.

Low-frequency extension was rated down to 40Hz, assisted by the speaker's huge woofer and large, vented cabinet. At the time, JBL said a matching subwoofer would be launched, but this never materialised.



feature here, but that compression driver still makes its presence felt. I wouldn't call its treble delivery 'smooth' but while the overall tone is not overtly bright, neither is it particularly warm. The same directness of delivery I've heard on previous JBL horn designs is there, meaning these aren't the kind of speakers to find you nodding off in front of a log fire on a winter's evening.

GREATER LONDON

That said, having heard the Sinfonia of London orchestra, under conductor John Wilson, run amok through William Walton's 'Scapino' overture [Chandos CHSA 5328; 96kHz/24-bit], it becomes hard to imagine it any other way. The percussion popped, brass notes arrived in a flash, and the whole piece fizzed with energy. JBL's Ama puts nothing in between you and the music.

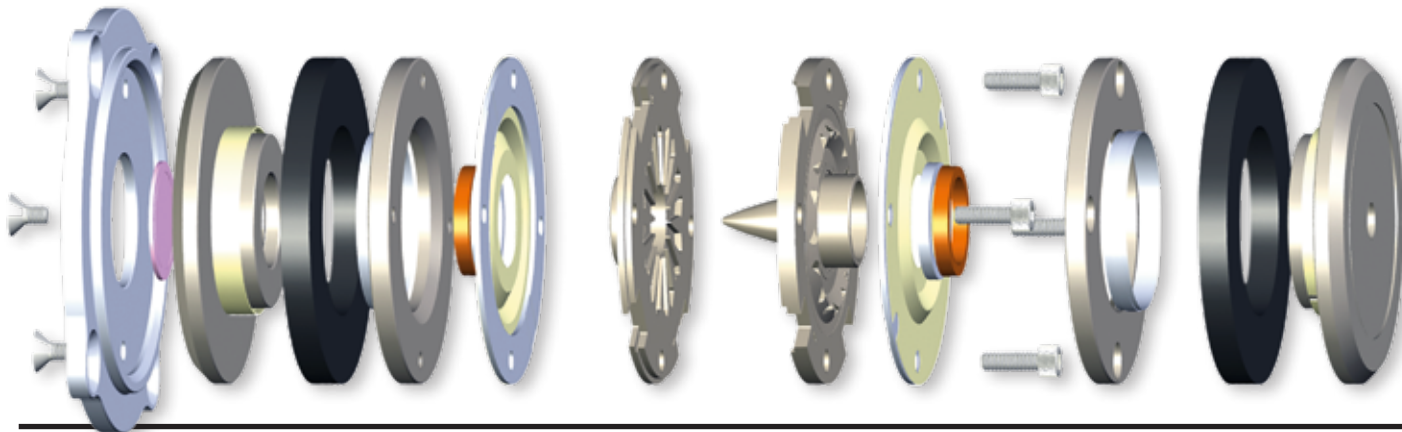
This vivid, clear performance proved just as appealing with the slow, delicate 'Caruso' from Antonio Forcione's landmark *Meet Me In London* release [Naim Label NaimCD021]. Sabina Sciubba's vocal hung in the air, while finely etched nylon acoustic guitar, and the occasional tight burst of electric bass, danced around behind her.

This is one of the most intimate tracks on Forcione's 1998 album, and some might not be keen on the way the Summit Ama paints it almost larger than life. This,

BELOW: Exploded view of JBL's new D2815K compression tweeter showing front/rear neodymium magnets [black], diaphragm assembly [centre] and phasing plates [each side]

contributed to the huge sound these speakers create. Neither does that bass driver appear overworked, seeming barely to move when generating the lowest notes in London Grammar's 'Hey Now' [*If You Wait* (Deluxe Ed.); Ministry Of Sound].

The typical sensitivity benefits of a horn-loaded speaker might not be a



LEFT: The rear of the Summit Ama hosts a bass reflex port and dual sets of 4mm speaker cable/binding posts to support bi-amping/bi-wiring via its 'acoustically symmetric' 3rd-order crossover, split at 1.6kHz

not a complex, dense piece, unlike Opeth's 'Blackwater Park', the closing track from the Swedish band's 2001 album of the same name [Sony Music 19439876312]. This posed the Summit Ama a different challenge of thick, distorted guitar riffs and crashing cymbals, but the speakers responded with a superb display of lower midrange strength and drive. Sticking with European prog/metal, Riverside's epic nine-minute 'The Struggle For Survival' [*Wasteland*, InsideOutMusic; 44.1kHz/24-bit] was delivered with real speed and clarity right across the frequency range.

PUNCH LINE

Simply put, there's nothing about the Summit Ama's performance I didn't enjoy. Yes, the sound favours openness and dynamism over richness and warmth, and the speakers are quite demanding of your amplifier(s), but I challenge anyone to hear them digging into Jeff Beck's 'Scared For The Children' [*Loud Hailer*; Rhino 44.1kHz/24-bit] and not be bowled over. This showed everything they can do, from the heavenly, reverbed guitar tone and Rosie Bones' crisply defined vocals, to the punch and snarl of the band when Beck's solo goes flying. ☺

though, is baked into JBL's wide-dispersion design – everything sounds big, not just in terms of soundstage width and depth, but height too. Even a track that's straightforward pop/rock, Bonnie Raitt's 'Have A Heart' [*Nick Of Time*; Capitol Records CDEST 2095], gained in stature when heard through the Summit Ama, its synth sounds ringing out wide, and Raitt and her backing singers almost choir-like in their scale.

WATER MUSIC

On this track the brilliant clarity of the performance was noteworthy, in particular the precise location of various instruments. But it's

HI-FI NEWS VERDICT

JBL's huge, varied range of loudspeakers can make it hard to work out what belongs where, but one look at the oh-so-stylish Summit Ama will tell you it's a flagship model. It has all the attributes of one too, from the quality of its craftsmanship (including the partnering stands) to a pristine performance that brings out all the life and energy of your recordings. A peaky blinder, if you'll pardon the pun...

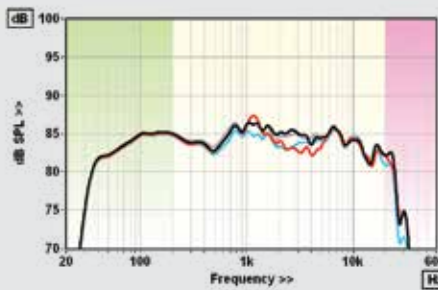


LAB REPORT

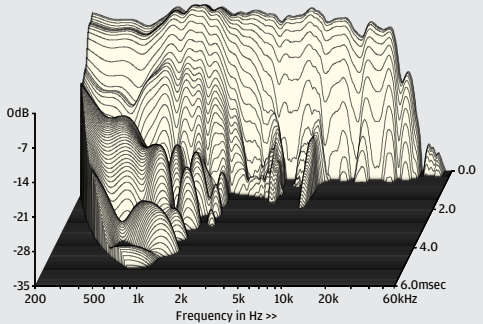
JBL SUMMIT AMA

JBL's revised horn profile and new 38mm compression driver has realised an improved vertical dispersion, allowing the listener to be seated above or below the main axis without any significant deviation in response [black trace, Graph 1]. One of our pair [red trace] had a more exaggerated 'bump' at 1.1kHz and deeper midband dip leading to a higher ±3.4dB response error while the other was flat to within ±2.5dB (200Hz-20kHz). The 800Hz 'step', seen in previous JBL bass/treble horn designs [HFN Jan '22 & Mar '21], integrates out over a longer distance, while the new Teonex treble dome is now free of any ultrasonic break-up [pink shaded area, Graph 1]. JBL recommends the Ama is toed out to cross behind the listener's head – this obscures an axial horn mode at 8kHz [CSD, Graph 2] at the expense of a 1.5dB drop in sensitivity and further dip through the presence band [blue trace].

Axial sensitivity is significantly higher than JBL's 84dB spec. at 86.2dB/1kHz (85.1dB, 500Hz-8kHz) but distortion is also higher than average at ~1% at the bass/treble extremes before falling to 0.3% in the midband (all re. 90dB SPL/1m). Bass is also very generous. The '200mm' mid/woofer spans 86-426Hz (-6dB) with a sharp but clean port tuning of 36Hz, realising a diffraction-corrected bass extension of 33Hz (-6dB re. 200Hz), falling steeply thereafter [green shaded area, Graph 1]. To a degree, all this is leveraged against a fairly tough amplifier load as the measured 2.8ohm/212Hz minimum is lower than JBL's rated 3.1ohm/239Hz. Moreover, there are substantive +57°-71° swings in phase angle that incur a minimum 1.1ohm/100Hz EPDR that remains sub-2ohm from 63-700Hz. PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. L, blk; R, red; ±15°, blue; grille, grey



ABOVE: Mild driver/misterrmination modes are visible before crossover but 8kHz mode is 'invisible' off-axis

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	86.2dB / 85.1dB / 82.6dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.75ohm @ 212Hz 45.1ohm @ 23Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–71° @ 62Hz +57° @ 1.74kHz
Pair matching/Resp. error (200Hz–20kHz)	1.9dB/ ±2.7dB/±3.3dB
LF/HF extension (–6dB ref 200Hz/10kHz)	33Hz / 25.5kHz/25.3kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.1% / 0.3% / 1.2%
Dimensions (HWD) / Weight (inc. stand)	476x308x336mm / 46kg