

# hi-fi news

& Record Review

## HEAVY METAL MASTER

Exclusive: Avid's Acutus Reference SP turntable rocks



**PATTI SMITH**  
We ride the Horses LP

**'FM radio beats DAB'**  
Keeping analogue alive, p14

**Group test: Top tuners**  
Five FM favourites dialed-in

**Desktop divas**  
Harman's 'crystal' speakers

**Wadia's PowerDAC**  
The DAC that drives speakers



• **PLUS** 14 pages of music features • **VINYL RE-RELEASE** Joy Division's *Closer* on 180g LP  
 • **AUDIO MILESTONES** Spendor BC1 loudspeaker • **HI-FI @ HOME** High-end in Hong Kong  
 • **VINTAGE** Radford STA 15 III reviewed • **READERS' CLASSIFIEDS** Scores of hi-fi bargains

UK £4.00 US \$9.99 Aus \$9.95



# Harman Kardon GLA-55 (£750)

Looking like props from the latest Indiana Jones movie, these 'crystal skulls' are actually sophisticated desktop speakers. And they're fashioned from acrylic, not glass  
 Review & Lab: Keith Howard

If the term 'multimedia' is often used pejoratively in the hi-fi world then 'multimedia loudspeaker' is almost always so. It brings to mind the nasty little transducers that accompany many an all-in computer package and which, all too often, soon find themselves in landfill – along with the unwanted joystick. But multimedia speakers don't have to be like that. Achieving good sound from desktop loudspeakers is a worthy aim, and a worthy engineering challenge too. You have to accept, though, that the end result is unlikely to be inexpensive.

Cue the Harman Kardon GLA-55, a multimedia loudspeaker that takes its task seriously on two fronts: sound quality and visual impact. Looking like something from an Indiana Jones set, its faceted transparent plastic 'cabinet' – although nothing could be less like the traditional veneered wooden box – cries out to be used on a minimalist glass-topped desk alongside an iMac. Which doubtless explains why the GLA-55 is available from Apple Store, and why Apple Store and Harrods are its biggest UK outlets.

Harman had hoped to call it the Crystal, for obvious reasons, but that proved impossible. GLA-55 may be a clever alternative – one that has already fooled some dozy online pundits – but this speaker is not made of glass: its three-part enclosure is moulded, painstakingly, from



hi-fine news  
 EDITOR'S CHOICE

ABOVE: Clear acrylic cabinet comprises three pieces that are bolted together. Solid, uninsulated conductors replace conventional wiring to link the two drivers to the integral amplification

clear acrylic. No wonder, then, that the instructions warn of not using solvents to clean its faceted surface.

### CLASS D AMPS

As you'd expect, this is a powered loudspeaker with integral amplification – but the chromed plastic base that contains the electronics is so thin you'd be forgiven for disbelieving it. Rated power is 56W per satellite but that may well be a short-term figure.

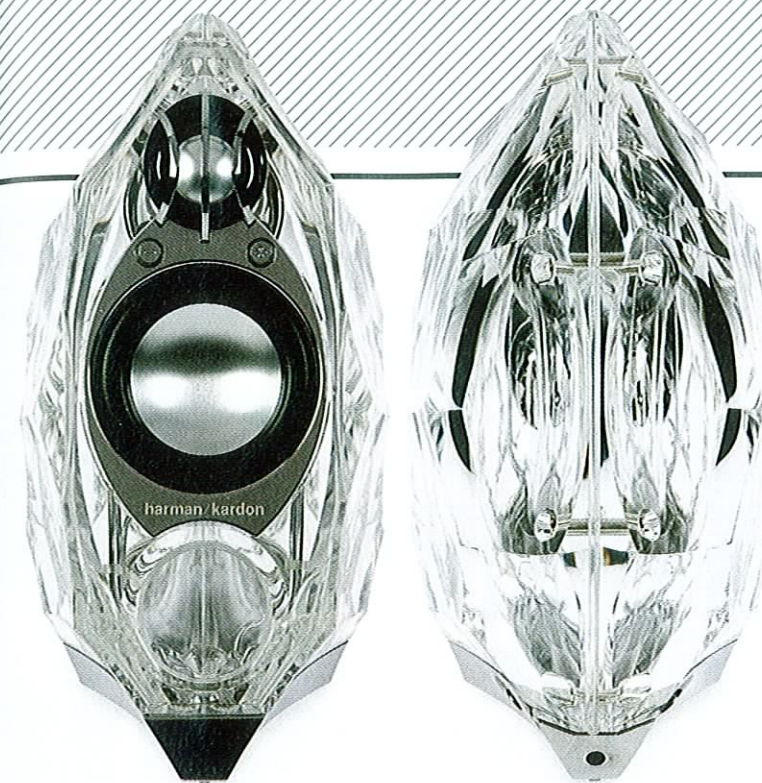
Connections are made to the right-hand speaker – distinguished by volume up/down buttons beneath the tweeter – with audio input via a plug-in lead terminated with 3.5mm stereo jacks either end. A flying lead from the left speaker carries signal and power across

via mini-DIN connector from the right speaker's base. Twin magnetically shielded drivers comprise a long-throw Atlas bass-mid unit with concave metal dome diaphragm, reflex loaded via a front-firing port beneath, and a 25mm convex dome tweeter incorporating Harman's deep anodised CMMD (ceramic metal matrix diaphragm) material.

As the GLA-55s are intended for use on a desktop, either side of a computer monitor, that's exactly how I used them – having first cleared my

desk to leave a rather less pristine scene of minimalist chic than envisaged above. Signal was provided by the FooBar 2000 player feeding an Asus Xonar D2 sound card, using the kernel streaming plugin to bypass Windows XP's KMixer.

'Sinatra was as pitch-perfect as you'll hear him'



ABOVE: All connections are made to the base of the right-hand speaker: DC in from an external power brick, audio in, left satellite out and optional subwoofer out

### CRYSTAL CLEAR

Big band jazz is a severe test for any speaker, let alone one as diminutive as the GLA-55. But on the opening track of JJ Johnson's *The Brass Orchestra* [Verve 314 537 321-2] – wonderfully recorded by Jim Anderson – it gave a fair account of itself. When you sit as close to a pair of them as you usually do at a desk the GLA-55s go amply loud enough for most tastes and deliver a wide-bandwidth sound with impressive bass, although vibrations in the desk can muddy that a little. Imaging is wide but arguably a little flattened, and rendition of detail is OK but not exceptional for what is, in effect, a near-field monitor.

The impressive bass extension was again in evidence in the *Love* album remix of The Beatles' 'Get Together' but this time the unwanted contribution from desk vibration was more obvious and caused the tempo to drag just a little. This effect will vary from desk to desk, of course, dependent on the solidity of its construction, mine being less than an exemplar in this regard. I was also aware of some mild clouding of vocal detail which it's tempting to associate with the upper-midrange resonances revealed in the lab test.

That clouding was also apparent on Laurence Hobgood's piano in 'Goin' Back to Joe's' from Naim's *True Stereo* sampler [naimcd080] – a track that's a stern test of

a speaker's ability to reach into a recording and tease out the essentials. Any shortfall in clarity is immediately obvious in the form of an overly warm, indistinct piano sound in the opening bars. Kurt Elling's classy vocal interpretation, though, was well conveyed.

So too was Frank Sinatra's 'I've Got A Crush On You' from the DVD-A release of *Live At The Sands* [Reprise 8122 73777-9]. If this track doesn't put a smile on your chops as Sinatra ad-libs with Basie's saxophonist then you know that either you're in a grim mood or the replay lacks vitality. Fortunately there was no problem with Harman's GLA-55s which left me smiling, and lapping up a relaxed, on-form Sinatra as pitch perfect as you'll ever hear him.

### HI-FI NEWS VERDICT

This speaker's startlingly modern good looks will probably seal the deal for most who buy it. But the GLA-55 isn't just a pretty face – it delivers a sound which is quite well balanced tonally and informative enough to make a wide range of music enjoyable. Even without a sub, the bass extension is certainly impressive but this top-flight desktop solution is still no substitute for a proper hi-fi system.

Sound Quality: 70%

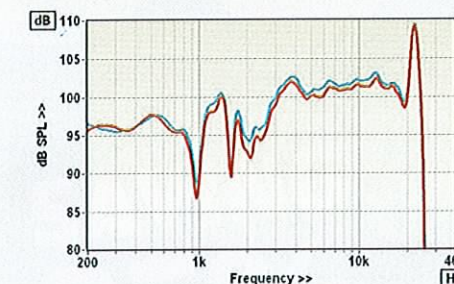


## LAB REPORT

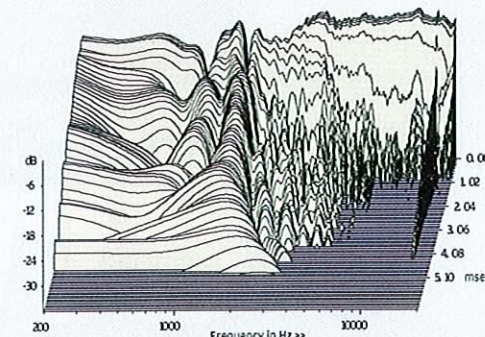
### HARMAN KARDON GLA-55 (£750)

With its volume control set at maximum via the push buttons under the right-hand tweeter, the GLA-55 had a pink noise sensitivity of 99.2dB for 1Vrms input. According to HK's specification it delivers full power at a quarter this input level, suggesting that a pair will deliver a maximum SPL of about 94dB at a typical desktop listening distance. On-axis frequency response errors are high at  $\pm 7.8$ dB and  $\pm 7.3$ dB respectively principally because of a deep, narrow notch in output just below 1kHz, which is followed by a second, lesser notch at 1.55kHz [see Graph 1, below]. These and a peak between them interrupt what should be a smoother,  $\sim 5$ dB step up in response towards treble frequencies which is to compensate for the speaker being used on a large, flat mounting surface.

Although the GLA-55 provides a subwoofer output it does a surprisingly good job itself of plumbing bass depths with a  $-6$ dB frequency of 37Hz (re. 200Hz). Internal digital processing appears to be at a sampling rate of 48kHz as the ultrasonic response rolls off rapidly above about 23kHz. The cumulative spectral decay waterfall [Graph 2, below] confirms that the aforementioned response ripples are associated with significant resonant ridges. Given that the small metal bass-mid driver diaphragm should not enter breakup until much higher frequencies, it appears that these are due to resonances within the enclosed air and port – a supposition supported by the presence of high-amplitude resonant peaks within the port output. Distortion figures – which include amplifier distortion, of course – are good for a speaker of this size, particularly as it had to be driven quite hard to achieve 90dB SPL at 1kHz. KH



ABOVE: 5dB step between low and high frequencies is designed to account for its desktop placement



ABOVE: Waterfall clearly illustrates a major resonance from within Harman's undamped acrylic cabinet

### HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/1Vrms – Mean/IEC/Music)	100.9dB/99.2dB/99.3dB
Impedance modulus min/max (20Hz–20kHz)	N/A
Impedance phase min/max (20Hz–20kHz)	N/A
Frequency response error (200Hz–20kHz)	$\pm 7.8$ dB / $\pm 7.3$ dB
Pair matching (200Hz–20kHz)	$\pm 1.4$ dB
LF/HF extension ( $-6$ dB ref 200Hz/10kHz)	37Hz / 26.3kHz/26.0kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	3.6% / 1.1% / 0.2%
Dimensions (HWD)	304x125x304mm