

## MIKE VALENTINE

The innovative engineer and producer on the art of better recordings

## Q ACOUSTICS CONCEPT 50

Martin Colloms is hugely impressed by this elegant floorstanding speaker's sound – and value for money

## ICON 4 PRO

A high-quality – and highly flexible – line controller for the audio purist

## AUDIOLAB OMNIA AND MARANTZ MODEL 40N

Two very different approaches to creating an all-in-one, 'just add speakers' system

## HOW TO MEASURE A SPEAKER

As Keith Howard explains, you have to start by getting the bass right

## PLUS

Dynaudio's dynamic EMIT 20, PrimaLuna's superb EVO 400 valve amp, and speakers from Aretai, Ophidian and Russell K. And is Mark Levinson trying to hard to please with its first-ever headphone design?

## MAGICO A3

*Martin Colloms finds this neat floorstander, designed as a more affordable addition to the range, makes minimal concessions in either build or sound quality*





# High concept, compact dimensions

DRAWING ON THE TECHNOLOGY OF THE FLAGSHIP CONCEPT 500 LOUDSPEAKER, THIS FLOORSTANDER FROM Q ACOUSTICS OFFERS EXCELLENT VALUE, SAYS MARTIN COLLOMS

**The Q Acoustics Concept 50 may look large in the pictures, but appearances can be deceptive: once installed you can appreciate the design's slim proportions, even though – at just over a metre tall – it enjoys significant physical presence. And the sleek design pays off in the fact that it looks good naked: it's so neat and well-finished you might just as well leave the grilles detached and benefit from the smidjeon of extra dynamics and clarity available from the resulting sound delivery.**

The Concept 50 comes in a choice of high-quality finishes: the review sample was in a handsome dark silver luxury gloss lacquer, with black and white available to similar standards. This loudspeaker is truly of piano quality finish and at a little over £2,000 this elegantly-designed system might be considered to be the junior partner of the more massively built Concept 500 (reviewed in Vol 12 No 3, at £4,200). What's more, despite the large price differential you would be forgiven for confusing the two designs as they exhibit substantial similarities, while of similar height, but radically different appearance, there is the companion two-driver Concept 300 at £3,000 reviewed in Vol13 No3, complete with its angular tensioned stand corded in stainless steel. Then

there's the superficially similar 3050i, also a three-driver floorstander, at just £650. Q Acoustics manage the technology and performance differentiation very well between these various designs and each is clearly segmented by a particular price/performance equation, with even the rather more humble 3050i receiving Best Buy approval in HIFICRITIC.

Here a competitive pricing of a smidge under £2,000 gets you the Concept 50, a full height floorstanding tower, where Q Acoustics assiduously note the numerous technologies which are employed in its creation. No simple slab-sided enclosure, the specifications also describe a three-driver, two-way, vertically orientated array, this comprising two 125mm bass-mid drivers with a

central 25mm soft dome tweeter, much as we have seen before in the range. At this lower price point, one might expect certain economies, but that really does not appear to be the case either in respect of finish, or of engineering. Dimensions include a substantial overall height of just over a metre, (102.5 cm) with a decidedly slim enclosure profile of 18cm, plus a significant depth of 41.8cm when spiked and mounted on its heroically dimensioned 'arcuate' floor stabiliser. Per loudspeaker it weighs 22.9 kg (50.5 lbs), making it ideally a two-person lift and install.

The specified amplifier load impedance is a nominal 6ohms with a declared minimum of 3.6ohms, which we found was about right. With this comes a generous sensitivity, a claimed 90.5dB/2.83V, a nominal 1W, at one metre, and from previous experience there is no reason to doubt this claim. As such, healthy sound levels approaching 104dBA in-room will be possible from comparatively modest amplification, up to 100W, this enhancing the value equation.

### Design and build

Technically the Concept 50 is quite sophisticated, employing numerous up-to-date design techniques to minimise colouration and maximise retrieval of music details. Enclosure panel resonances are controlled by computed, strategically located braces and reinforcements. Interior volume resonances find suppression with anti-resonator selectively absorptive ducts. Some potential floor vibration absorbing compliance is built into the massive arc shaped cast floor stabiliser, this complementing the floor spiking option at the front of the loudspeaker. The enclosure base is partially decoupled by a triple layer anti-resonance intermediary plate. Also if conditions suggest, this may be bolted up with supplied fixings for a more strongly coupled interface to the floor, perhaps for more slam and speed if a little less transparency. Finally the enclosure is double walled, designed with a vibration controlling interlayer gel, the whole proving surprisingly dead to a resonance inducing knuckle rap.

As we have found with one or two other brands using similar hardware, the biwire binding post links appeared to have an invisible but mildly resistive film on their mirror finish nickel plated surfaces, requiring seriously high torque for a reliable connection between low and high frequency sections and also when using spade terminated cables. Fortunately, the thread pitch on the binders is quite fine, thus aiding the application of reliably high contact forces.

Configured in a D'Appolito, or vertical-in-line array of three drivers, the two 125 mm (5in) bass-mid units are set above and below the nominal 1inch, 27mm soft dome tweeter. The latter boasts such subtleties as a hollow central pole, the chamber

volume critically damped, with a mildly flared waveguide at the front plate to ease the acoustic transition from the dome to the baffle. The crossover is set at a relatively low point of 2.1kHz thanks to the inherently low tweeter fundamental resonance of 700Hz. All three drivers are securely mounted to a rigid plate, this an alloy casting forming the upper section at the front, here providing a smoothly contoured, reflection and resonance free mounting plane. This is bolted through to a thick metal plate embedded in the rear panel. The generous, high-volume velocity, flow contoured bass port is located low down on the rear panel. An accessory foam plug is provided to moderate the bass output if required, e.g. for near to wall placement. Thus plugged, the upper bass is rendered more agile but the system as a whole will sound drier in the bass in free space.

### Sound Quality

For a fuller expression of musical dynamics I found the floor spikes worthwhile, as well as the locking bolts engaged on the suspension, and I also preferred the Concept 50 with the grilles detached, here with the enclosures toed out about 6 degrees so that I could just see down the inside edges. First impressions were promising, these loudspeakers have a wide, well balanced frequency range and sound is quite neutral. At normal sound level the bass runs deep, and the sound stage is open, spacious and airy.

Image focus is crisp and is stable with frequency, the imaginary sound stages are well detached from the physical enclosures, while perspectives are very good indeed with fine depth, while noting that the overall presentation is a little more distant than usual. Timbres are essentially neutral (grilles off) even a little sweet, and there is no problem turning the volume up, given the unforced character and good power handling. The usual colourations are very well controlled here.



**HIFICRITIC**  
HIGHLY RECOMMENDED

**Specifications**

**Q Acoustics Concept 50**

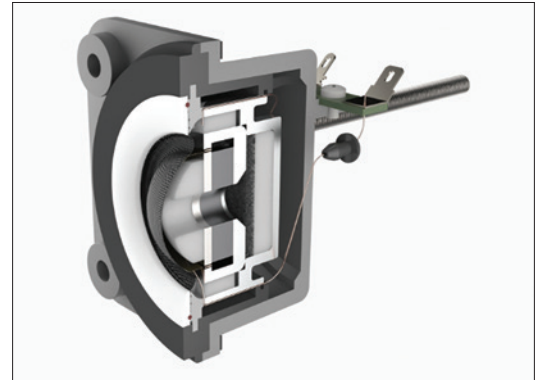
Type	Floorstanding loudspeaker
Price	£1999/pr
Bass unit	2 x 125 mm (5.0 in)
Treble unit	25 mm (0.9 in)
Frequency response	42 Hz - 30 kHz (-6dB)
Nominal impedance	6 Ω, minimum 3.6 Ω
Sensitivity	90.5 dB/W/m
Amplifier power	25-150 W
Crossover frequency	2.1 kHz
Distortion	2.83Vrms: <0.2% 120Hz - 20kHz
Effective volume	28.8 l
Dimensions (HxWxD)	102.5x41.8x31.9cm
Weight	23kg

qacoustics.co.uk

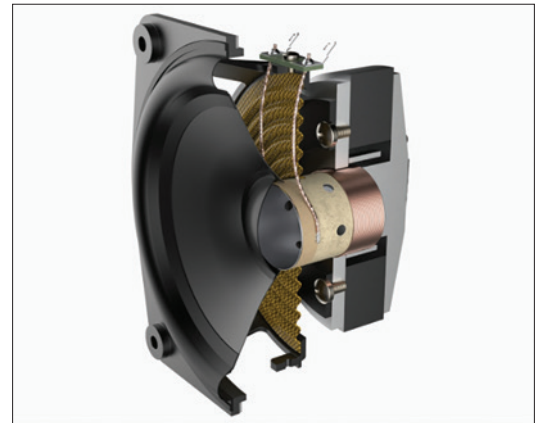
Physically imposing, there is a distinct danger that the Concept could be driven as if it was larger and more powerful than it really is and the application of heavy rock at power will inevitably begin to stretch its capabilities. For example at high levels, episodic classical orchestral bass comes over well, while repetitive heavy rock basslines lacked some measure of speed and percussive attack. On Naim Records' *The Resurrection Man*, with Thea Gilmore, the sense of projection and power on this rock track was diluted, as was the driving beat: here the Concept 50 was judged to be a little polite. (Note: The lab data does suggest some diminution in output in the presence range from above 2.5kHz.)

Likewise the track 'Saga' from Jan Garbarek's *Ragas and Sagas* [ECM 5112632], with Garbarek on sax, Ustad Fateh Ali Khan on vocals and, Ustad Shaukat Hussain on tabla, seemed more distant and softer, and with rather less dynamic expression than I am accustomed to. Conversely the lyrical and more laid back 'Knot In Place and Time', also by Garbarek, was beautifully spacious, well-focused and musically revealing.

With Beethoven's *Piano Concertos 3, 4 & 5* [on Linn BKD 336], with soloist Artur Pizarro, and the Scottish Chamber Orchestra under Sir Charles Mackerras, the Concept 50 caresses your ears so well that it's almost too easy to turn up the power and take them beyond their comfort zone. Yet when driven hard the bass does not cave in, it simply limits a little, and does so without getting in the way. Classical piano timbre was slightly dulled in my view, perhaps needing a little more bite and attack. Conversely it was pleasantly devoid of hardness or shout, caressing the ears with fine detail and a sweet,



*The nominal 1inch soft dome tweeter showing internal venting and acoustic absorption*



*The mid/bass driver, with low distortion suspension*

spacious, and well focused stereo presentations with fine depth. The bass was unexaggerated and tuneful, if a little rich, while image perspectives were consistently fine.

Colourations were held to low levels leading to an impressive overall neutrality, while the bass was well extended for the price, and even when intentionally driven to mild overload it remained in good control holding back the associated effects of compression and timbre shift.

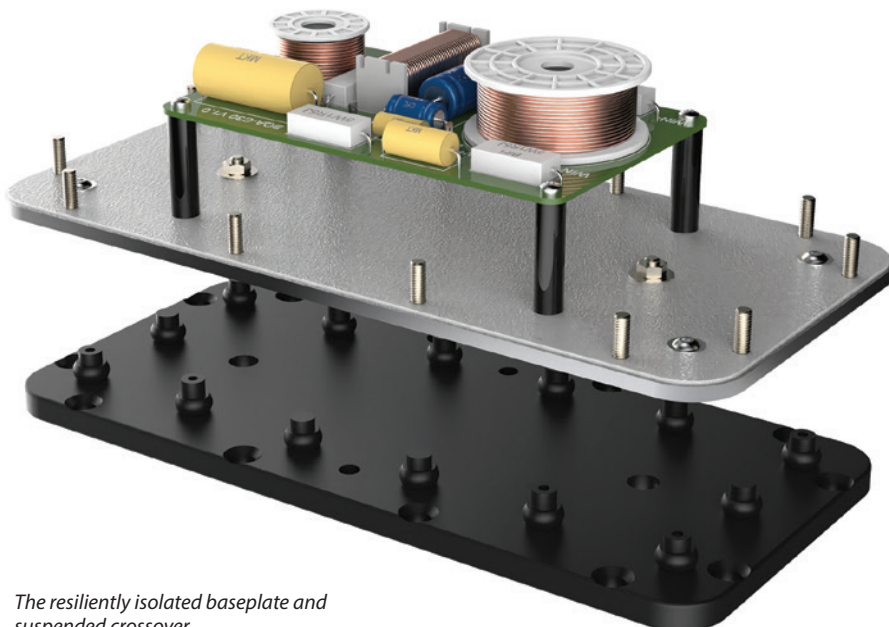
**Conclusion**

This beautifully engineered and finished tower loudspeaker has a well balanced, well extended and spacious sound, and this combined with a very good value equation earns the Q Acoustics Concept 50 a Highly Recommended award from HIFICRITIC.

**Lab report**

**Sensitivity and Load Impedance**

The manufacturers informative specifications were refreshingly almost on the button. For example the measured 1m sensitivity for a 1w '8ohm' 2.83V was almost precisely 90dB, within 0.5dB of spec, while the nominal minimum measured impedance, at 3.5 ohms, compared well with the 3.6ohm



*The resiliently isolated baseplate and suspended crossover*

claim, close to a nominal 6ohm IEC rating. The corresponding load phase angle was held within modest +/- 36 degree limits. The amber trace is for the port plugged, the red trace port open, and the vent resonance is at 43Hz. Given the fine voltage sensitivity, amplifiers from 35 to 100W are suitable, and maximum in-room sound levels of 104 dBA will be possible from a pair.

**Frequency Responses**

Frequency responses were pretty smooth, though with a moderate step down of a couple of dB above 2kHz but then continuing smoothly to 22kHz. The step feature may have imparted a slightly distant sounding stereo image. Above axis 15 degrees there is a mild dip at 2.5kHz but this would only affect those standing up. Below axis it remains quite uniform. Lateral off axis responses show modest rolloff and excellent uniformity. Driving the listening space, it showed an impressively well balanced output from 40Hz to 9kHz promoting a neutral sounding room acoustic.

**Energy decay response**

Here was the evidence for the neutral sound and fine clarity, where early and median energy decay was respectably rapid for this representation, much the decay over in a millisecond.

**Distortion**

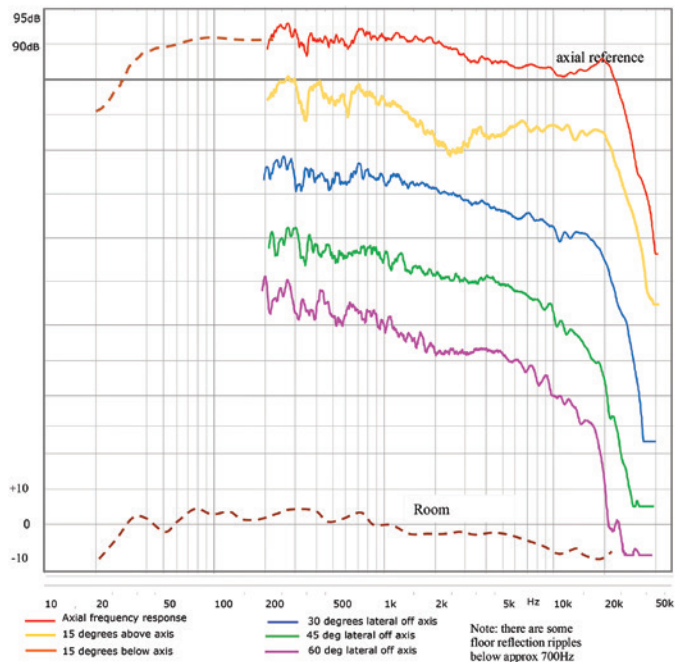
The powerful port showed low levels of distortion and that also goes for the paired drivers at the front. I reckon that the sweet unforced timbre must be due in part to substantially low levels of third harmonic, better than 0.05% on average right up to 10kHz. 1W at 5kHz gave just -73dB, 0.02% of third harmonic, at a loud 89dB.

The powerful port showed little distortion, the latter contribution generally below audibility. I measured at a low 35 Hz where third was 48dB down: inaudible!. These are fine results.

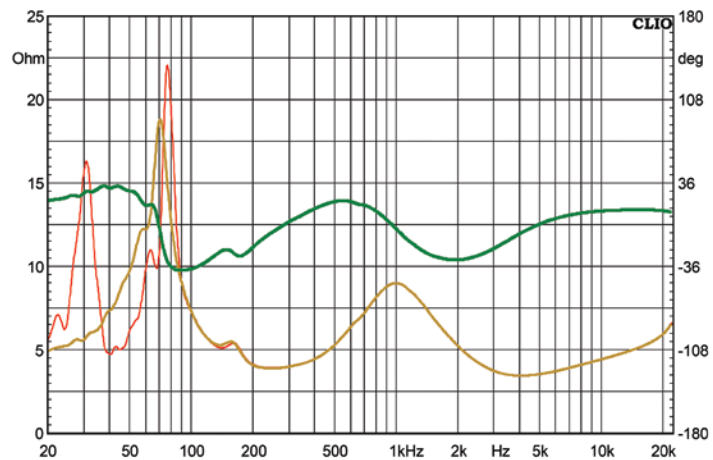
**The System**

Townshend Allegri Reference control unit, Naim NAP250DR power amplifier, D'Agostino Progression integrated amplifier, Naim SuperLine- Supercap DR phono pre; Linn LP12 player with Keel chassis, Karousel main bearing and Radikal motor control, Naim ARO arm, Lyra Delos cartridge, Naim UnitiCore network server, Roon Nucleus Plus server with Qobuz; Linn Klimax DSM streamer-DAC, Naim ND555 Streamer-DAC, 555 PS x2 (DR), Wilson Audio Sabrina X, Magico S-5II, FinkTeam KIM, BBC LS3/5a (15ohm), loudspeakers, Naim 4 tier FRAIM racks; Transparent XL MM2, Naim NAC A5 speaker cables, Naim Super Lumina, Transparent MM2 and van den Hul Carbon TFU interconnect cables.

Q Acoustics Concept 50 Frequency Responses (90 dB/W sensitivity)



Q Acoustics Concept 50 Impedance (port closed amber) and Phase (green)



Q Acoustics Concept 50 Waterfall decay response

