

The GURU QM 10

By Martin Colloms

Blasting onto the UK audio scene just a few months ago, I first heard these Swedish micro monitors for studios at the spring Heathrow show, ably presented by tom tom audio and distributed by tom tom partner, 'the sound practice'. It is rare in my experience to walk into a hotel demo room and hear a really promising sound right away. The show team, which included the manufacturers, knew what they were doing and demonstrated much of the potential of this blunt looking two way reflex design. Conceived as a nearfield monitor the physical geometry, radiation properties and system recipe also proved surprisingly viable as a near wall boundary speaker for domestic applications, particularly with some local absorptive acoustic treatment. The latter was well in evidence at the Heathrow demo. There I heard a big hearted sound with quite powerful and deep bass, matching many much larger examples, with an articulate monitor standard mid range and crisp, incisive treble. The soundstage was well focused and was wide and deep, promising good resolution and low level detail. Used as located they a visually self effacing except when overdriven when those blue leds come on to tell that you are playing too loud and entering the distortion range. A frequency shaped response matches the indicator to the dynamic capability of the speaker. The picture shows the matt side wall finish for the show examples and the latest version shave pain gloss sidewalls. This grille-less design is tidy nonetheless with an unconventional purposeful appearance. The large slot type port is located on the front panel below the 5.5 inch plastic laminated paper cone, a Peerless bass-mid driver. Careful design ensures that the power handling profile for the driver and port are match with the intended power and frequency range, this quality of low frequency design is rarely seen. This potential is augmented by the near wall placement and helps to deliver a louder and deep bass that expected for the size. Above that is the close mounted, recessed, 14mm cone-dome Visaton tweeter, of polycarbonate foil and capped by a protector phase plug which also helps align the axial frequency response.

Fixings are nicely concealed and you get used to the bluff appearance once you begin listening. Electrical input is single wire via Swiss MultiContact, recessed 4mm sockets. A practical feature is the included decoupling from the stand and the floor (and presumably a bookshelf. The design is equipped with special large area foam polymer feet, a type which do not go on compressing but rather accept a designed load and remain spring like, but with some damping. The result is to decouple the vibration present in an operating speaker enclosure from the stand and floor, where if poorly controlled significant secondary sound and resonance may occur.

While in consequence the operating speaker must rock a little, this known to dilute focus and treble definition a little, the reduced resonance drive to the stand and room will help the speaker to sound more consistent from room to room. Simply substituting little cones

to the stand gave an easy basis for comparison. The resilient pads interfit with the recesses in the MDF top plate supplied for the stand and it cannot then 'walk' off.

Manufacturer's specifications include a 20 to 60W power handling, an average 86dB/W sensitivity, a nominal 8 ohm impedance with a 4 ohm minimum value, and a controlled 'overlap' crossover extending from 2-7kHz. The enclosure is built of MDF with substantial internal bracing and they measure 30cm by 25.2 cm by 23.2 cm and weigh a modest 6kg.

Sound quality:

Used on the indicated 60 cm high stands, and toed in by the recommended amount, just to see the outside edges of the speakers, I found the sound distinctively clear and articulate with really competent, clean and quite deep bass, available at good power and remaining tuneful and informative. Often with smaller speakers you tend to turn up the level to try and hear a good bass line and usually you just hear more distortion. Higher levels are not necessary with the QM 10 which remains informative throughout, even at quite moderate volume. It does sound like a monitor in that it tells you much about the programme content and quality, where the mics are placed and at what angle to the performer. It is ruthless on rough, grubby and highly compressed programme revealing it all its full raucousness. It avoids the oft encountered dome tweeter 'squeak' and has high class mid range as a result. That superior bass tuning, working with correct enclosure volume for the driver used really does deliver surprisingly good bass, and at reasonable level to a low 35Hz.

While it takes a little while to adjust to the on-boundary sound, it does not take long and the result was admirable for clarity, resolution, and fine detail. Focus was good, image width very good. The general quality was upbeat with quite good dynamics and rhythm, driven by the high clarity and definition. Trying cones instead of the rubber feet did improve rhythm, also treble clarity and dynamics somewhat, but there was also a muddy effect in the bass, greater coloration and a loss of detail except in the treble, which was better defined. On balance I feel that Guru have got the engineering/sound equation right having designed for it. You can also expect better consistency of sound quality in various locations when using the designed decoupling interface.

The treble was never brilliant, but I and some listeners were happy enough. However some others had distinct problems with the treble. Part open-plan in my home my acute eared wife unwillingly eavesdrops my listening sessions a floor below and objected directly to the QM-10, 'it was nice enough in the mid but had a strange high pitch sort of buzz in the treble'. Independently another listener indicated that the treble was fatiguing and ultimately unacceptable, though he could not put his finger on it, only that it was

probably in the last half octave towards inaudibility and was not a specific tone or whistle. Potential purchasers will have to make up their own minds.

Lab report:

Medium level sine sweep testing revealed a severe buzzing from one enclosure and it was opened up to find the cause. The two crossover inductors were unglued and were rattling against the crossover board and the cabinet rear. They were silenced with a bit of plastic foam before listening got under way. This examination revealed that the tweeter has a polymer Posistor overload protector and then there is a small frequency shaped power supply using a low current rectifier circuit to drive the led overload light. Power testing in the bass revealed a good performance, withstanding 12W sine wave right down to 35 Hz with only moderate distortion and relatively quiet port operation. The reflex point is at 40 Hz, and 35 Hz is available at fair power, quite an achievement. It is tuned to 35 Hz, providing -6dB at a low 30Hz and the port does not have a secondary pipe mode.

Allowing for the boundary alignment the frequency response is pretty good, +/- 3db from 37Hz to 13kHz and then tweeter is a bit rough looking rising to + 5dB by 19kHz. Viewed in high res mode the treble is a bit rough with those deep notches in the off axis curves, but smoothed by third octave averaging on the graph shown.

Intrigued by the disparate comments on the treble a nearfield measurement at 50 degrees showed the tweeter to have a non flat upper range when examined at good frequency resolution. The 'phase cap' on this polycarbonate dome unit results in cavity effects with narrow 25 and 15dB dips at 14.3kHz and 18.5kHz. I consider that is the poor transient behaviour associated with these discontinuities which upset some of my listening panel. The speaker is generally so good otherwise that Guru might wish to find an alternative driver. As regards the waterfall decay graph this is really quite good in terms of phase integration and rapid initial decay, agreeing with the crisp clear sound heard. The upper treble is not so good and those suppressed peaks settle into a ringing decay behaviour. The dashed black curve shows how third octave weighting smoothes the axial response seen above. Above axis it dips severely, as explained in the instructions, it should be set a little above the listener. The below axis result is very fine as are the lateral off axis set at lower frequencies.

Good power response and integration is seen in the room spatial average with 35Hz bass at moderate power! The sensitivity is quite high at 89dB while the impedance is a reasonable 6ohm average with a single minimum value of 4.2 ohms and fairly moderate load phase angles. Indicated electrical bass tune is at 38Hz.

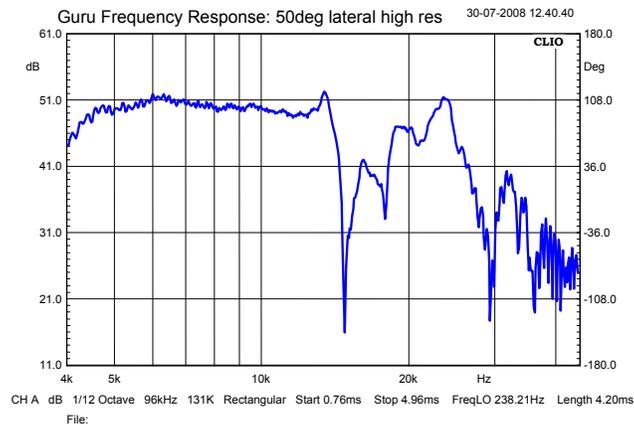
Conclusions:

In most respects this is really clever design, well matched to and taking advantage of the power gain available from a room boundary, highly articulate, revealing and detailed, with good dynamic range and class leading bass tune playing, power and extension in the bass. In addition the decoupling feature is effective in this design increasing consistency

of sound quality in different locations. It is unusually sensitive for the bandwidth and size, and is relatively easy to drive. The Supernait sailed away with this speaker.

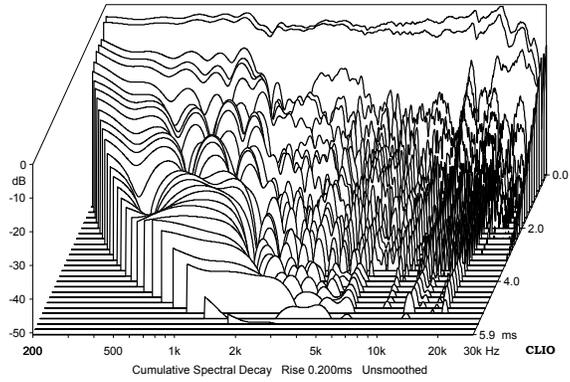
For some the treble was quite satisfactory and particularly well blended to the mid, but for two of my listeners the high treble presented a problem and it is likely that that is associated with the ringing notches found in the last half octave. For myself I would rest more easily when a substitute treble unit with a uniform, sweet high range is substituted for the particular device fitted here.

It remains firmly recommendable, with the proviso that you check this matter for yourself: most other reviewers and users seem not have not shown awareness of it.....yet.



Guru QM10: Waterfall Decay Response

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