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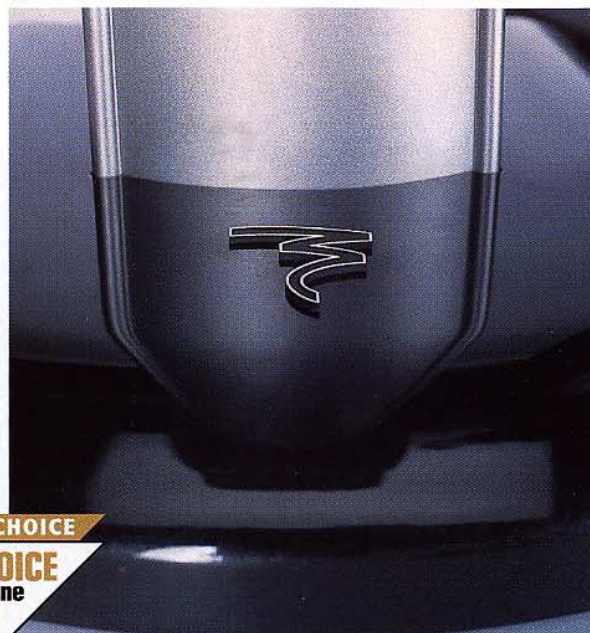
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EDITOR'S CHOICE

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COMPACT UTOPIA

A beryllium tweeter is this Utopia's ace. But can it trump the competition in such a compact box?

PRODUCT Focal-JMLab Micro Utopia Be

TYPE Standmount loudspeaker

PRICE £3,500 per pair

KEY FEATURES Size (WxHxD): 25x42.5x38cm

• Weight: 18kg • 25mm inverted dome beryllium

tweeter • 165mm 'W' cone mid/bass driver

• Sensitivity: 89dB • Impedance: 8 ohms

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Focal-JMLab is an ambitious company. It already makes an alarmingly large range of drive units for the domestic and in-car markets and last year it expanded its capacity with a new factory so that it could build more of them. It therefore needs to sell more speakers to warrant this expense. Rather than trying to compete in the ever more aggressive budget speakers market, Jacques Mahul (the JM in JMLab) is seeking to establish the brand's pedigree with a technological *tour de force* called Utopia Be.

The original Utopia range made an impression with the stature of the Grande Utopia range topper and the unusually wooden nature of the 'grilles'. In fact they weren't grilles at all but protectors for the Focal drive units incorporated in the time-aligned Focus Time baffles that can still be seen in the Utopia range. The wooden protectors have gone and Utopia Be is devoid of any form of grille cloth or protection save for little tweeter caps. The cabinets look much

the same as their predecessors but are constructed differently, though with a similar degree of overkill. Every element of the speaker has changed but none more so than the tweeter behind the Be suffix.

Beryllium (Be) is a dream material for high frequency domes. It is superior in every way to both aluminium and titanium, with lower density and greater velocity of sound and greater rigidity for a given mass. Why then, you may ask, don't all drive unit manufacturers produce a beryllium tweeter? At present only two other companies make such a thing and just one of them has a product available in the UK – JBL with its K2 9600 horn-loaded behemoth. The other is Pioneer's pro division TAD, which also has a beryllium ribbon tweeter in the pipeline.

The main reason for beryllium's scarcity in the world at large let alone loudspeakers is the difficulty of working with it. It is inherently dangerous stuff in its natural dust-like state and processing it requires more resources than any loudspeaker company alone can offer. Focal-JMLab has got round this by teaming up with a beryllium mining and processing company in Ohio which produces the Be film that the company uses to make its tweeter dome. What differentiates Focal's Be tweeter from the JBL, for example, is its unusually fine thickness – 25 microns to be precise – which is nearly half the 45

microns achieved elsewhere. Designer Dominic Baker had dreamt of making a Be tweeter since he was at university and played a key part in creating this inverted dome unit.

Backing up the dome itself is an unusual hybrid magnet structure described as a Focus Ring. Focal-JMLab wanted to circumvent the losses in magnetic strength caused by high temperatures and selected a Samarium Cobalt magnet for its high Curie point (the temperature at which a magnet becomes saturated). Only Alnico comes close to the 825o of this material, with the more popular Neodymium trailing behind at 319o. However, as Samarium Cobalt does not have the strength required on its own, the Focus Ring is in fact a Neodymium ring which 'dopes' the main magnet, increasing its field strength to an extremely high two teslas!

In performance terms the tweeter is pretty spectacular. It claims a five octave flat response, covering 2kHz to 40kHz. Or in sonic terms the midrange to ultra-high frequency, up to the sort of area where we don't directly hear sound. However, if a system is capable of reproducing them it invariably sounds more relaxed. Not all sources actually produce these frequencies – CD for instance goes no higher than our theoretical hearing limit of 20kHz but SACD and DVD-Audio have the potential to approach 100kHz.

The bass/mid driver on the Micro Utopia Be

is also rather different to its predecessor. The W cone (so-called because in French it's described as verre-verre, verre being glass), is a sandwich of woven glass tissues on a foam core. The combination is said to have superior stiffness and accurately controllable internal damping, a factor which can be varied with the thickness of the foam. These cones are hand-made for Focal-JMLab by a government-sponsored company local to St Etienne where Jacques has his factory. For the Be range this cone has received a new magnet design called Power Flower, the name referring to the petal-like shape of the multi-ferrite 'motor' design that was originally developed for in-car woofers. Instead of using a single ring magnet, six small magnets are arranged around the voice coil – this is said to improve manufacturing consistency due to better bonding with the pole piece, and improves the linearity of flux.

The Micro Utopia Be is the smallest and least expensive in the new Utopia range. Its stable-mates include a floorstanding half-brother called the Diva, and increasingly larger floorstanders known as Alto, Nova and Grande, the latter weighing in at £46,000. There are also Center and Sub available for multichannel enthusiasts.

You'll notice (overleaf) that the Micro has only a single pair of gorgeous WBT cable terminals. A controversial move in a world seemingly obsessed with the option to bi-wire. The logic behind it is that the designer has more control over the eventual sound of the speaker if this potential source of variance is eliminated. Bi-wiring often changes the sound of a system, usually for the better, but if differing cables are used you can end up with a merely different sound. This way you don't get to experiment – JMLab has made things easy for you, if perhaps a bit less interesting.

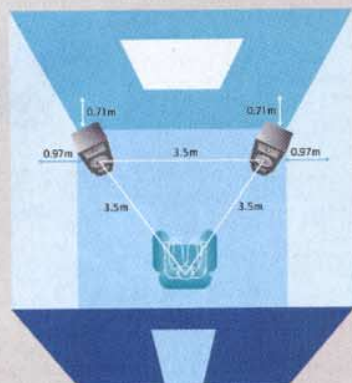
SOUND QUALITY

We used these speakers on their matching stands, albeit examples emblazoned with the notice "Bad Colour" (something to do with the shade of gunmetal grey they're finished in). This stand has a wooden bass and top plate, separated by a single aluminium extrusion with a filler already installed. They come with neat floor cones and stand the speaker fairly high given that your ear when seated is supposed to be at the level of the slot-shaped reflex port between the drivers – 94cm sans spikes. ▶



“Beryllium (Be) is a dream material for high frequency domes, superior to both aluminium and titanium.”

SET-UP



POSITIONING

Focal-JMlab offers unusually specific advice on the placement of its speakers, describing not only where to put them in relation to the room but where to sit in front of them and how to treat the walls. Our test room in this case had a damped wall behind the listening position and a reflective one behind the speakers so there was no need to change anything there. Focal-JMlab suggests sitting 3.5 metres in front of the speakers with the listener and speakers forming an equilateral triangle. However, it has designed the crossovers on its Utopia Be range to give good dispersion and thus a wide sweetspot, so this positioning is optimal rather than essential – we did not make any attempt to put the speakers exactly 3.5 metres apart for instance.

Placement relative to the side and rear walls can be worked out according to Focal-JMlab's equation: $C=B^2/A$, where C is the distance from the bass/mid driver to the side wall, B the distance to the floor and A distance to the rear wall. With the Micro on its stand, the bass/mid driver is 83cm off the ground, and we found the best balance between bass and midrange with the speaker 71cm from the back wall, so the side wall should be 97cm away. In practice a slightly wider placing of 93cm gave better results, so use the above as a guide rather than a definitive rule.

Toe-in also needs experimentation – the balance in our room was pretty good with the speakers toed in slightly towards the listener. However, if they are too fierce that way, turning them slightly further inwards will calm the response.

SYSTEM MATCHING

The specs for this speaker give efficiency as 89dB and nominal impedance as eight ohms, which makes it an average load, a state of affairs backed up by a maximum power recommendation of 100 watts. In practice we got good results with the 200-watt Gamut D200 and the 50-watt Sugden Masterclass, the former extracting deeper bass but the latter giving a bit more life to the sound. As power is less of an issue than quality and given the highly transparent nature of these speakers, auditioning any amps you intend to partner with them is essential rather than just advisable before taking the plunge.



Placement is described more fully in the side-bar to the left, but is clearly quite critical despite the optimum phase technology crossover design. The 3.5m seating to speaker distance makes a whole lot of difference to image focus due to the unusual baffle shape. It's one of those rare speakers that genuinely 'snap' into focus when the correct placement is found.

To get the best out of the Micro Utopia Be we used an SME Model 20/Series V/vdH Grasshopper vinyl source and both our much loved Eikos and visiting Resolution Audio Opus 21 CD players, with a Pioneer DV939A DVD-A player and a Sony SCD-XA333ES SACD player making appearances to check out the higher frequencies. Amplification was largely borne by a Bryston BP-25 pre with the Gamut D200 power but the Sugden Masterclass AA pairing, also tested this month, put in a worthwhile appearance. Speaker cable was Townshend Isolda, with interconnects from Living Voice.

The original Micro Utopia was considered (HFC 220) to have little in the way of deep bass, a factor of its relatively diminutive size and that of

its main driver (the cone itself is only 120mm in diameter). This is still ostensibly the case yet it doesn't sound like a lightweight speaker once you've got used to the unusually even balance it presents.

Occasionally a record will reveal limitations in the lower regions and sound a bit odd as a result, Massive Attack's *Fear Is The Man That Lives Next Door* being an example where the bass almost ebbs and flows. But this turned out to be the only track that distinctly reveals that the Micro is -6dB down at 40Hz. The great majority of material played sounded natural and even. Bass extension, like most other aspects of the speaker's performance varies dramatically with partnering equipment, the Gamut power amp driving out

notably lower frequencies than the Sugden, yet neither gives a result that could be described as unbalanced. The Micro can produce extremely shapely and full bass when the music demands it, the marvellous hollow bass drum on Nils Petter Molvaer's *Khmer* for example sounding as round if not as deep as it ever has.





“This is an extremely fine speaker for tonal resolution – pianos for instance sound much more real than usual despite the bandwidth limitation.”

Its strength lies in phenomenal transparency, coupled with an absence of perceived distortion. There are recordings which make them sound grubby and others that make them sound crystal clear, but it becomes apparent that what they are doing is revealing the quality of the signal in all its glory (or otherwise). This, combined with an exceptional neutrality suggests that you need to get the system very well sorted before expecting the Micros to sound as stunning as they are able. A great many other speakers will sound crude by comparison.

I guess if the Micro were a perfect speaker then Focal-JMlab would not have felt the need to build bigger ones, but aside from low frequency extension the only shortcoming is in the energy domain. Compared to the Living Voice Avatar OBX-R2 reviewed last month this is a fairly restrained loudspeaker. It will play pretty loud without losing composure but you don't get the dynamic advantages of a higher sensitivity design.

Imaging, as one might expect, is first class, and the contrasts between recordings are blindingly stark. On test, Kurt Wagner's voice on Lambchop's *Is A Woman* was a solid spectre between the speakers, while the

placement of the choir on the Cinematic Orchestra's *Everyday* was unusually precise.

This is also an extremely fine speaker for tonal resolution – pianos, for instance, sound much more real than usual despite the bandwidth limitation. It's as if the extra transparency and extension at the higher frequencies makes up for the curtailment down below. Track after track reveals subtleties of harmonic detail that simply aren't there with most of the alternatives.

If we're talking competition, the most obvious candidate is B&W's Signature 805, a speaker with a bit more energy but probably not quite the transparency. Other contenders would have to be the Wilson WATT 7, albeit in its rare standalone form, and the Neat Ultimatum MFS. But whether any of those could match the Micro's HF performance is open to question. For instance, one (the Wilson) uses Focal's best tweeter prior to the Be, but what you've got ain't always the deciding factor. How you use it is the crux.

And Focal-JMlab has used it to extremely good effect. Take Stina Nordenstam's *Purple Rain*, for example – the Micro peels away the layers in the mix in a natural rather than bright fashion, revealing the minutiae of the

track without undermining its emotional power. Female voices benefit significantly, and Dawn Upshaw's powerful soprano on *Gorecki's Symphony No3* was delivered in all its glory, devoid of the distress that many speakers suffer. In short, the Micro Utopia Be is emphatically one of the finest compact loudspeakers in the world. **HFC**

Jason Kennedy

VERDICT	
SOUND >> 92%	
EASE OF DRIVE >> 80%	
BUILD >> 96%	
VALUE >> 83%	
PRO	Exceptional high-frequency and midband resolution from a very high quality cabinet and state of the art tweeter. Lovely terminals.
CON	Bass extension and dynamics are limited by driver and cabinet size. Bi-wiring would have been a nice option.
CONCLUSION	
This is an exceptional loudspeaker, seemingly devoid of coloration, phenomenally transparent and extremely neutral. What it reveals is the innate quality of the music allowing you to hear less speaker, more instruments and voices.	
HI-FI CHOICE OVERALL SCORE >> 90%	