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LOUDSPEAKERS

TOTEM ACOUSTIC BISON MONITOR

Pierre Fontaine

VUMETRE
**REJ
MAR
KABLE**

**ORIGIN**

Canada

PRICE

€ 2,600 (\$ 2,250/£ 2 495)

DIMENSIONS

243 mm (9.57") x 171 mm (6.73") x 330 mm (13.11")

IMPEDANCE

8 ohms

SENSITIVITY

87 dB @ 1 W

CROSSOVER FREQUENCY

2.5 kHz (first order filter)

FREQUENCY RESPONSE40 Hz to 29.5 kHz (± 3 dB)**RECOMMENDED POWER**

30-150 W

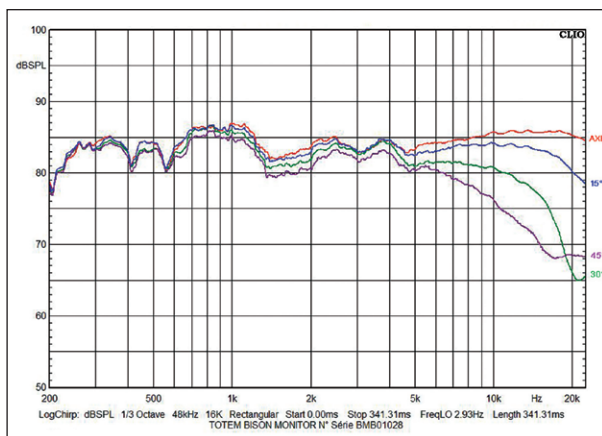
The first model in Totem Acoustic's new Bison range, this small two-way speaker has a remarkable respect for timbre. Moreover, it offers a full, natural sound image, and has a base that its small size does not suggest.

The new family of speakers, named Bison, in reference to the power and endurance of North America's largest mammals, comprises three models. The small Monitor is the entry-level model in the new series. It is based on a rather conventional two-way architecture. Nevertheless, it benefits from all the know-how of the Canadian manufacturer. Let's remember that since its creation in 1987, Totem Acoustic has always concentrated its research on small volume speakers.

In spite of the constraints linked to the small dimensions, the company has been able to offer its productions an expressive, natural and balanced reproduction. For this reason, Totem has always favored listening, subjective listening and feeling for the final adjustment of all its productions. Thus, it is often «by ear» estimates, resulting from long hours of listening, that deter-

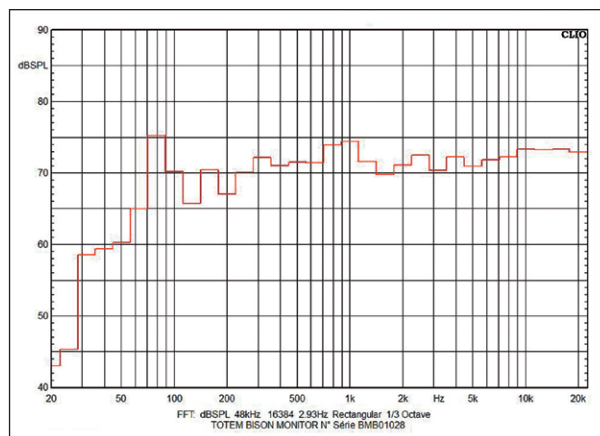
mine the final adjustments in order to have a behavior that seeks above all to be seductive.

As far as the Bison Monitor is concerned, although its architecture may seem rather conventional, each of its components has been optimized so that it too benefits from the Totem Acoustic DNA. Its tweeter, for example, is based on a large 33 mm (1.30") diameter dome laser cut and formed in a flexible textile. A choice that guarantees both an excellent harmonic behavior in the high range and a very smooth reproduction. Moreover, its large diameter for a speaker of this type offers the possibility of setting a relatively low transition frequency between the two sections. Totem Acoustic has chosen a value of 2.5 kHz. Similarly, to ensure a smooth transition between the two channels, the filtering remains of order 1, i.e. 6 dB per octave. This sobriety of the filtering also has the effect of limiting the phase rotations



Directivity curves 0°, 15°, 30°, 45°

The off-axis response curves are perfectly smooth. On the horizontal plane, the attenuation slopes are not very pronounced up to 30°. Total absence of accidents close to the frequency of connections and side effects.



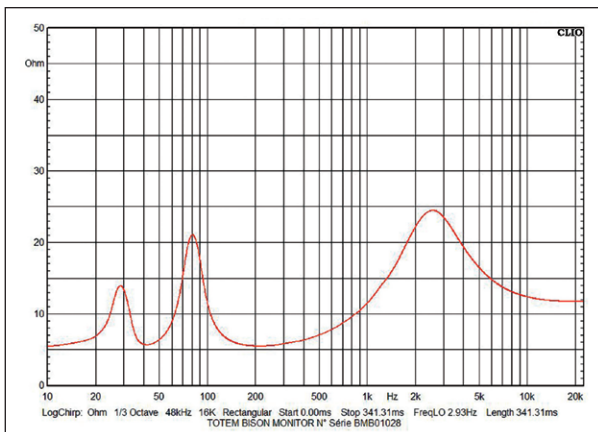
Curve per third octave in the axis

Very good coherence of the sound spectrum, with a slight fluttering accent in the form of a W acting subtly on the extremities and the midrange. Since the cabinet has a rear vent, the relationship with the rear wall is essential in order to correctly complete the front wave. Average efficiency of 87 dB at 2.83 V.

near the connection frequency. A point that plays in favor of the precision and the relief of the sound image that these speakers will be able to deliver.

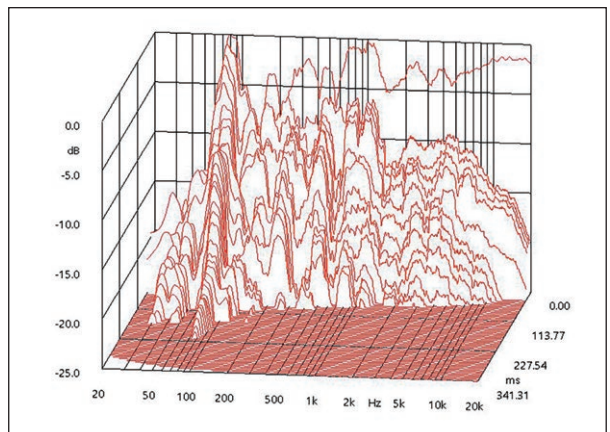
The bass section of the Bison Monitor is based around a 133 mm diameter woofer. It has a rather impressive motor, equipped with a 76 mm diameter moving coil. Again, a rather imposing size for a small bookshelf speaker. In addition, the entire voice coil of this woofer has a very high elongation. The combination of these features allows the Bison Monitor to handle the deepest bass with great ease while maintaining a lively and dynamic temperament.

Finally, the Bison Monitor's handcrafted cabinet uses variable density fiber panels. These combine a very high degree of rigidity on the outer sides of the cabinet with a greater degree of softness on the inner sides. This feature contributes to a good damping of internal sound waves and prevents the appearance of standing waves within the bass-reflex load that could cause undesirable colorations of the reproduction at certain frequencies.



Curve of impedance versus frequency

The impedance curve reveals a bass-reflex loaded two-way system, tuned around 42 Hz by a rear port. With an advertised nominal impedance of 8 and a minimum of 5.4 at 200 Hz, relay frequencies at 2,500 Hz, with first-order filtering of 6 dB/octave. Impedance curve which will not pose any particular problem for amplification electronics on the market.



Waterfall curves

Damping of the impulse response fast and very homogeneous, favoring the sharpness of the transients, predominant resonance frequency 80 Hz.

It should be noted that internal reinforcements are used to further increase the rigidity of this cabinet and offer it great acoustic neutrality. It is clear that every detail has been conscientiously taken into account to offer these small speakers an outstanding behavior.

THE SET UP

Given the rear position of the load relief port of this small speaker, care should be taken not only to lift it off the rear wall, but also to place it at the right height, with the tweeter at the level of the listener's ear in his listening position, usually seated. For this, the choice of a pair of quality stands is essential. For our part, we did our tests with old models of the Partington brand. The Canadian manufacturer continues to promote these models. If necessary, you can find excellent references at Music Tools and Solidsteel. When it comes to the amplifier, choose one with a good power supply, as the small Totems have excellent power handling and will tend to let you know. There is no shortage of good references... Finally, a piece of advice that we urge you to follow carefully: dual wire these speakers.

THE SOUND

There is always a moment with the Canadian manufacturer when the paradox is felt. The one that exists between the life-size sound that its creations deliver, and the absolutely ridiculous size of the sound diffusers. And what has been true of most Totem monitors for the past 25 years is now being repeated with the Bison Monitors. They are very small, but they make a big sound. A big sound is already excellent, you might say. But what stands out here is the ability of the sound to completely emancipate itself

from the speaker as a sound diffuser. It's as if the sound had colonized the entire listening room in a free and independent manner. It is as if the speakers disappear from our horizon. This offers a particularly well-developed three-dimensional image. It is not only wide, deep, and high. It also boasts precision and structure. It's an exhilarating feeling that's hard to get rid of once you've got the hang of it. At the same time, the little Bisons give the listener a beautiful physical sensation, with a rhythmic follow-up that highlights the nervousness of the chords, the urgency of rock or symphonic music. It moves, it swings, in short, there is never a dull moment. All the more so as the spectral balance is completely realistic. Finally, here is a small pair of particularly lively and spontaneous speakers, which seems to want to push the walls to impose its style. How can you resist such a surge of good humor that plays with genres and fashions to always give you the most pleasant lighting of your recordings, whether they are old or very recent?

OUR CONCLUSION

Bison Monitors are replacing Sky. On paper, this was no easy task. Because the little Sky was a real success in its genre. But with the Bison, Totem pushes the musicality envelope a little further, offering a richer tonal balance and a power handling that we found a little higher. What we retain from this adventure is that the Canadian manufacturer has truly mastered the art of making small, hyper-musical and completely compact two-way bookshelf speakers, which allows them to be easily housed in the home and above all to benefit from a life-size sound reproduction. We love It! ■

