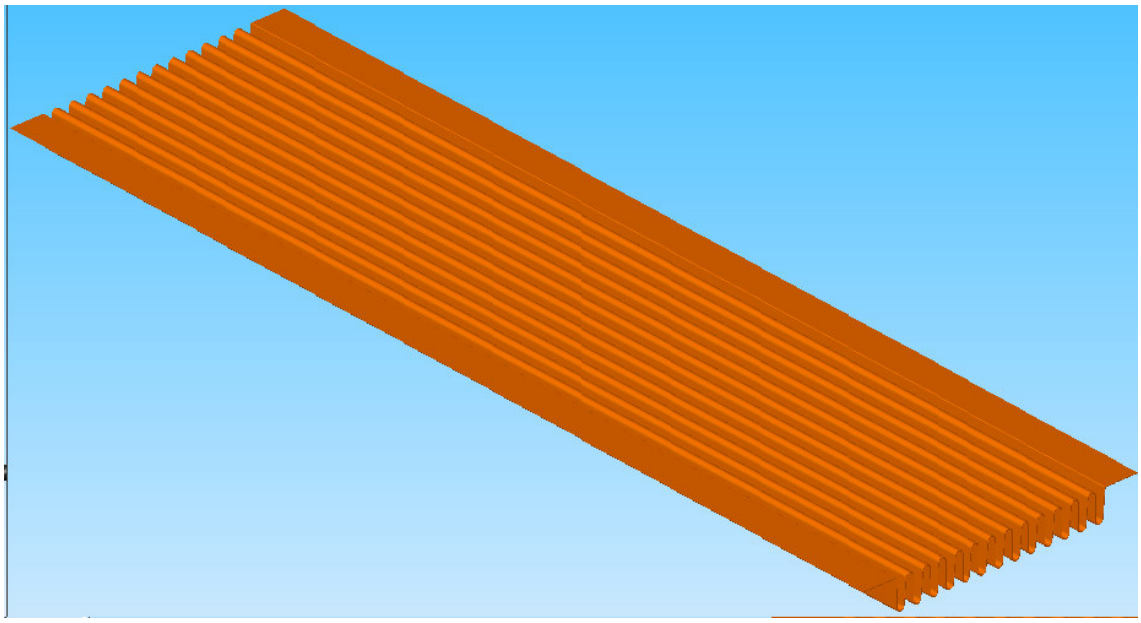
beyma

PROFESSIONAL LOUDSPEAKERS

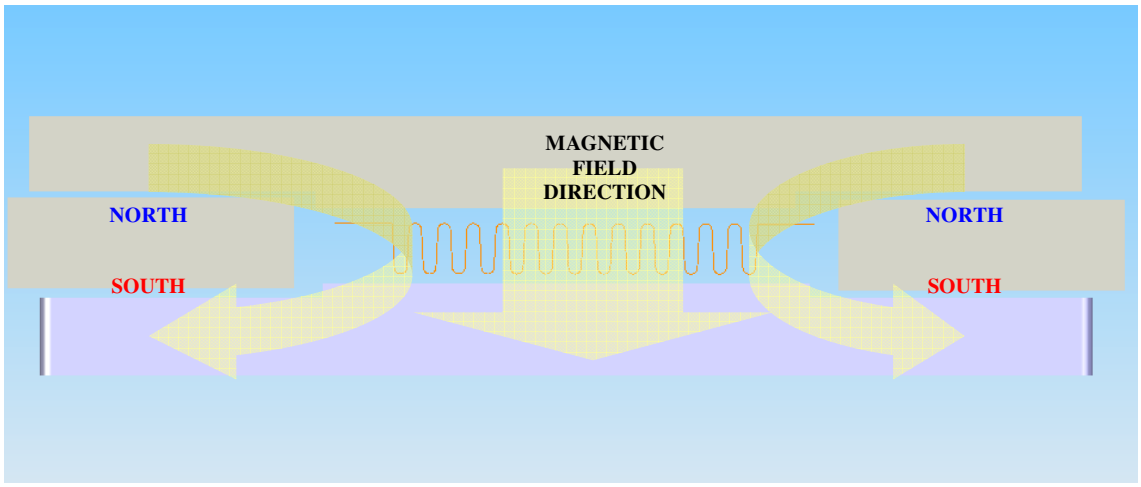
NEW beyma TPL-150

Beyma introduces a new type of component for the professional sound, bringing the highest sonorous quality of the most demanding audiophile to the world of live music.
This type of high frequency transucer is based on the AMT technology (Air Motion Transformer). In this type of transducers, invented by the German physicist and Nobel prize Oskar Heil, the generation of the sound takes place in a very different from the habitual one in ribbon tweeters. In figure one, we can see that in this device, the diaphragm is formed by longitudinal folds, like in an accordion. In the straight face of each one of these folds, there is a printed conductive copper thread.



This diaphragm is made in Beyma, on a material able to support extremme temperatures and of a great flexibility. It is used in military and aerospace applications to manufacture flexible printed circuits. It is of a great durability and reliability.

The operation principle is the same one that in a regular tweeter, but geometry is very different:



As it is possible to be seen in this figure, the magnetic field is closed happening by where the diaphragm is located. When an alternating electrical current circulates along the copper tracks of the membrane, a movement takes place in the folds from left to right. The sound wave is generated when the air between the folds is compressed.
This causes that, being the displacement of each fold very small, the air moves at great speed, producing an important sound pressure.

The advantages of this type of tweeter can be summarized in:

- Radiation surface four times the one of a tweeter or an equivalent compression driver, thanks to its folded geometry.
- Mobility transformer of air (Air Motion Transformer) because it causes in the air a speed four times greater than the one of the folds themselves (relation 4:1).
- This confers an enormous dynamics and an incredible transient response, vastly superior to that of any conventional tweeter, including ribbon tweeters and compression drivers.

What Beyma has done has been to develop to this technology creating a component of professional use, of which would be possible to emphasize:

- The high sensitivity: 99 dB@1W, 1m.
- Wide frequency range: from 1 to 23 kHz.
- Admissible power handling without precedents: 80W AES.
- Directly applicable for Line Array systems, with total coherence of the wavefront with no need of any adapter.
- Also suited for other conventional applications, with a horizontal coverage superior to 100º up to 10 kHz.

All these characteristics make of the Tpl-150 an authentic alternative to the conventional compression drivers, and contributing an enormous added value to any sound system that incorporates it. The sonic quality, timbre, definition and clarity of this transducer is simply unsurpassable.

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