

tma-1 from **AI AI AI AI**

I N T R O T M A - 1

This August, AIAIAI will be launching its biggest and most ambitious project to date: TMA-1. The TMA-1 is an innovative headphone, that's been developed over the last two years in close cooperation with our key partners KiBiSi, Tartelet Records, Mannhandle and Thank You For Clapping. Furthermore the development has integrated a large team of international DJ's testing the product and helping form its functionalities. The final product is in its latest stages of development now and soon to be launched. In the following you will get a more in depth idea of what this project is all about.



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F A M I L Y

The TMA-1 has been developed in a close corporation between the following key partners.

AIAIAI

AIAIAI was founded in 2007 by four friends that, hosted a club at the top of an old industrial building in Copenhagen. The club initiated the influx of a collective, consisting of more than 200 young creative minds and shaped some of the biggest and most influential Danish artists, musicians and designers. It also shaped AIAIAI's collective vision, which still hasn't changed: We emphasize an open development process, meaning that we team up with the best possible sound engineers and musicians.

At AIAIAI, we aim to develop our products with a thoroughness that not only tests our products but also, on occasion, our own patience. It's no secret that we feel a certain kinship with past Danish design heritage where functionality was a key element. Not because our aesthetic necessarily links to this particular design tradition, but making sure our products actually work is paramount to us. We take pride in putting the fun in function, and we want to make products and happenings that engage people; something they feel the need to touch, stare at, interact with and enjoy. Something, which simply put, makes them look a bit sharper and sharpens their senses.

KiBiSi

KiBiSi has designed for AIAIAI since the very beginning. In the fertile overlap between design, architecture and ideation, KiBiSi seeks to spawn a new breed of idea-driven industrial design. KiBiSi is a merged symbiotic hybrid of its founders' faculties. Founded by Lars Holme Larsen (Kilo Design), BIG (Bjarke Ingels Group) and Jens Martin Skibsted (Skibsted Ideation), each partner contributes with skill and experience from within his specific field. This provides KiBiSi with state-of-the-art knowledge in the fields of architecture, design and contemporary culture and lifestyle.

Tartelet Records

Tartelet Records is currently rising like the sun on the horizon that is Copenhagen club culture. The label is best described as a DIY electronic record label, which mediates deeply personal and highly diverse flavors such as minimal beats, future funk and ethereal disco. The label was formed in 2008, and the founding fathers of the label are Tomboy/Tomas Barfod (DJ, producer and drummer of Whomade-who) and Fredski/Frederik Bille Brahe (DJ and producer). Tomas and Frederik have been AIAIAI partners on several previous projects, but this one is by far the most engaging process we've been through together.

Mannhandle

Mannhandle is a Copenhagen-based, cutting-edge music production company with a focus on unique sound techniques. It was established in Copenhagen 2004, and it's run by the Schumann brothers (Jon and Frederik). Jon is also known as the multiplatinum selling producer Joshua. He has produced for various Scandinavian artists, including Kent, Kashmir, Carpark North, The Raveonettes and Mew. Mannhandle has been a pivotal partner in defining functionalities and helped AIAIAI build a platform for the best possible sonic experience. Furthermore, Mannhandle is an important partner in the ongoing development of the TMA-universe.

Thank You For Clapping

TYFC is an interdisciplinary design and communication agency working across a range of fields such as identity, graphics, art direction, copywriting and cultural planning. The six Copenhagen-based partners of TYFC have been working closely with AIAIAI and Tartelet Records in planning the lead-user-driven approach to product development, which has been at the core of TMA-1 project; the involvement of 25 DJ's from all over the globe and the implementation of their expertise in creating the headphones as well as testing the TMA-1 in a live setting. Since then, TYFC has been developing communicative strategies and the interactive identity of the TMA-1 headphones.

DESIGN

Main focus in designing the TMA-1 has been to develop a design that on one hand is icon of headphones and on the other hand works and looks like a tool for the user. The design approach has been to clean out as much as possible in the design and focus on exaggerating the details that are necessary to make the design work technical and visual. We have designed with a focus on cohesive relations between the different elements in the headphones. A relation that makes the design appears as a whole with the same DNA controlling every move in the design. No nonsense and straight up.

WHY TMA-1

The name TMA-1 is taken from Stanley Kubricks' science fiction movie "2001: A Space Odyssey". TMA-1 (Tycho Magnetic Anomaly-1) refers to the apparent magnetic irregularity found at the Tycho crater on the Moon's surface by American astronauts. A black Monolith buried 40 feet under the lunar surface causes the anomaly. In the background to the story in the book, an ancient and unseen alien race uses mechanisms with the appearance of large crystal Monoliths to investigate worlds all across the galaxy and, if possible, to encourage the development of intelligent life. The monoliths are extremely long-lived and reliable machines and resist destructive testing beyond the theoretical limits of material strength. We thought this name was fitting for our rugged, all black DJ headphone.

TESTERS

A very important part of the TMA-1 development is the thorough integration of DJs in testing and modifying the product. This lead user driven approach to development has given valuable insights.

The list of DJs is as follows: Tiga, James Murphy (LCD Soundsystem), Hot Chip, DJ Koze, Philipp Jung (M.A.N.D.Y), Booka Shade, Erol Alkan, Claude von Stroke, A-Trak, 2MANYDJS, Prins Thomas, Ellen Allien, MSTRKRFT, Trentemøller, Matthew Dear, Seth Troxler, RJD2, Brodinski, Pilooski, Boys Noize, Hudson Mohawke, Flying Lotus, Kode9, Michael Mayer, Superpitcher, Luciano.



1. HEADBAND

2. CUSHIONS

3. FILTER

4. SPEAKERS

5. ISOLATION

6. HEADPHONE CUP

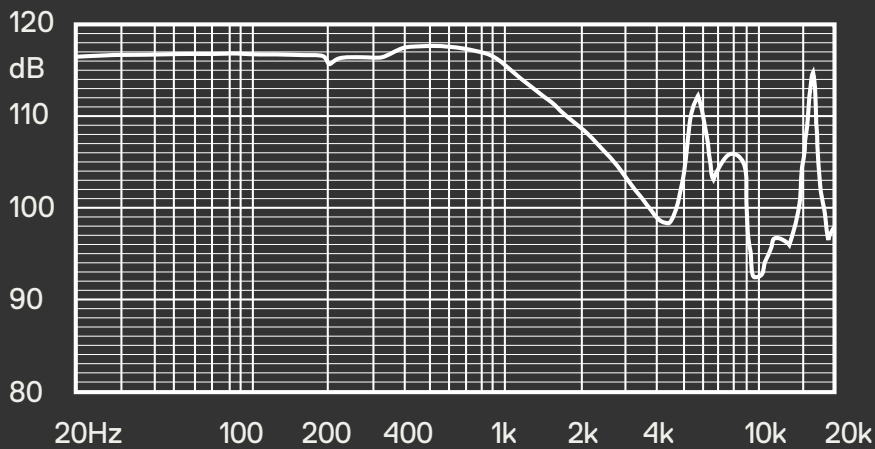
7. CABLE

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- 1 . Headband:** The one piece TMA-1 headband is designed to provide the functionality of a DJ-headphone headband but also to strip it down to the bare essentials. This ensures a stronger and more durable product, which can take daily use for a considerable length of time. By combining the design with a strong, durable and flexible nylon material, a full flexibility when wearing and positioning the headphones during DJing is ensured. Moreover, The flexibility of the nylon material makes sure that the headband always returns to the original shape.
 - 2 . Cushions:** The TMA-1 design also takes the different situations in which headphones are used into account - from the hectic, noisy club environment, to long studio sessions or just being on the road. The TMA-1 offers a selection of easily changeable and different cushions - Each cushion is connected to a specially designed cushion plate.
 - 3 . Filter:** the TMA-1 cushion plate protects the electronics. It comes with a dust proof mesh, which keeps dust and small objects from going into the vital and more sensitive speaker parts. The speaker housing cover front is made in a light and shape resistant ABS material (also known from the LEGO bricks) with imbedded silicone rings that clamp onto the cushion plate pins for a secure fit.
 - 4 . Speakers:** The iron lungs of the TMA-1 use advanced driver materials; from the voice coil, to the yoke, to the magnet and to the speaker diaphragm. These thoroughly tested materials ensure the richest sound available today, based on the most durable driver technology. This makes the TMA-1 achieve the impeccable sound design, which is, of course, further cultivated by the team of test DJs and sound technicians.
 - 5 . Isolation:** For isolation the headphone is lined with 3mm cotton fiber filter – The main function of the filter is to absorb the reflection of the internal soundwaves in the speaker housing and transfer only the intended sound waves to the listener. But the filter also has the function of eliminating most possible external noise functions to work this low tech dual function with no batteries needed.
 - 6 . Headphone cup:** The back of the speaker housing cover is made in a light and shape resistant ABS material with a jet black rubber coating, designed to protect the fragile parts. This also reproduces the best possible conditions for the speaker and it implements the functionality of fitting the TMA-1 with the simple click release function.
 - 7 . Cable:** The 1.5 meter cable transfers the sound to the TMA-1 and it comes with a mini jack connection in both ends, as well as a reinforced plug with a 1/8 adapter option at the end of the wire, which connects to the source. The cable has a 0.4 meter coil on the wire, which gives extra length and flexibility at the turntable without creating the possibility of stepping on the wire or the jack being pulled out during a session.

DRIVER UNIT SIZE: 40 mm
IMPEDANCE: 32 Ohm at 1 KHz
OPERATING POWER: (Nom/Max) 0.02 / 0.05 W
FREQUENCY RESPONSE: F0~20KHz
TOTAL HARMONIC DISTORTION: Max. 0.3%
BUZZ & RATTLES: 1.1V at 100~2KHz Sine wave
SENSITIVITY: (0dB=20uPa) At 1KHz 1mW IEC318 Coupler 115±3dB
WEIGHT: 140 Gram

FREQUENCY RESPONSE CURVE



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