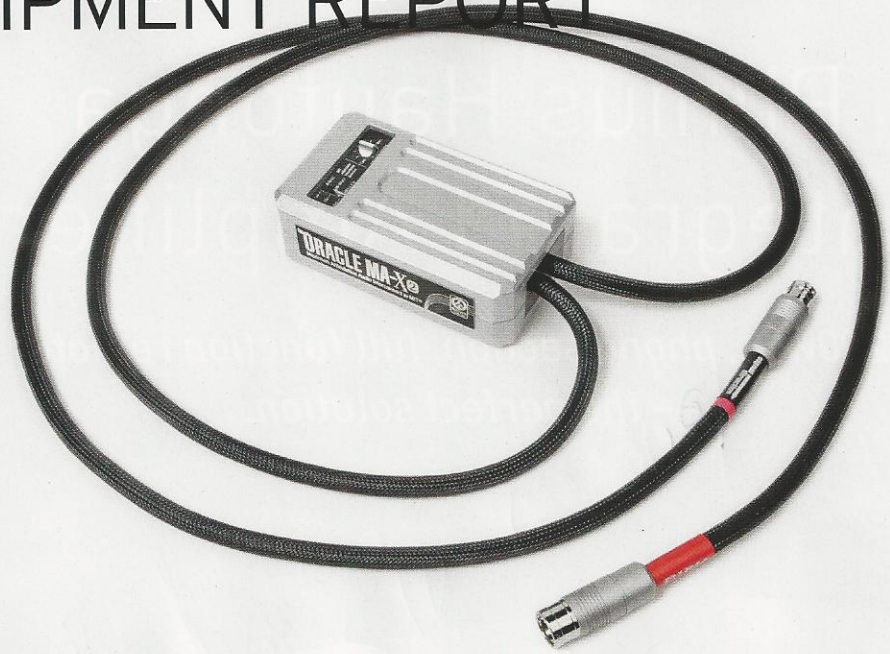

MIT Oracle MA-X SHD Loudspeaker Cable and MA-X2 Interconnects

Reference Quality

Robert Harley

Before I describe MIT's top-of-the-line loudspeaker cables and interconnects and report on their performance in my system, I must address head-on the issue of their astronomical price. An 8' pair of MA-X SHD loudspeaker cables is $49,999. A one-meter pair of MA-X2 interconnect is $14,399. Can any cable be worth that kind of money?

When assessing the value of a component it's a mistake to think of that component in isolation and assign value based on your preconceptions of the component-category. If you used these criteria, no speaker cable could possibly be worth fifty grand. A more insightful approach, however, is to listen to a system that includes the cable under evaluation and then substitute a less expensive cable and ask yourself if, in the context of the entire system's overall cost and performance, you're willing to live with the performance reduction imposed by the less expensive product. Let your ears be the judge of what's worth the price, not prejudice.

There are two other factors to consider in this exercise. The first is the product's cost in relation to the overall system investment. The second is simply your financial means. To the vast majority of audiophiles, never mind the general public, a $50k speaker cable can't possibly be worth the asking price. But to those who can afford the best of everything, why live with second best in your audio system if you don't have to?

That raises the question of just how good the MIT Oracle MA-X SHD and MA-X2 really is. For this asking price, the performance must be the absolute state of the art. Before tackling that question, I'd like to relate a story about this product's predecessor, the original Oracle MA. A few years ago the designer of a six-figure reference-grade loudspeaker arrived at my home to set up the newly arrived review samples. I was to have received the Oracle MA loudspeaker cables and interconnects before the loudspeakers showed up, but the cable delivery had been delayed. The loudspeaker designer proceeded with the setup using my reference cables, but wasn't satisfied with the sound. He tweaked and tweaked, but the system just didn't cohere. At the end of a long day we agreed that he would return in the morning to keep perfecting the speaker placement. An hour into the next day's work with no progress, my doorbell rang; it was FedEx with the MIT Oracle cables and interconnects. It was the middle of winter and the cables were nearly frozen to the touch. Nonetheless, we put the MIT cables and interconnects straight into the system and instantly the problems the loudspeaker designer had been battling vanished. The cables literally transformed the system, and eventually allowed this statement-class loudspeaker to achieve its full potential. It was an eye-opening experience.

The cables and interconnects under review here are an evolution of those products. The developments in the new models include two technologies that go by the acronyms "SHD" (Super High Definition) and "FAT" (Fractional Articulation Technology). I confess that I don't understand how these technologies work, so I asked MIT founder Bruce Brisson to explain them in the accompanying interview.

The termination box on the loudspeaker cables is massive, measuring 12" x 7" x 5.5" and weighing about 20 pounds (a guess). One end of the box houses a massive threaded connector for attaching the cable that runs to the amplifier. The other end has short captive runs of cable terminated with spade lugs. The termination housing features a three-position switch marked SD, HD, and SHD. Two six-position knobs on one end of the termination box are marked "Articulation," one for the bass and one for the treble. Looking next at the interconnect, its termination box is small in comparison (3.5" x 6"). It offers two adjustments, one to match the cable to the input impedance of the component it is driving, and the other a five-position knob marked "Articulation."

The MA-X SHD cables (MIT prefers to call them "interfaces") are designed for any loudspeakers. The MA-C interconnects that I received for review are a variation of the MA-X2 that has been specifically optimized for electronics from Constellation Audio (the impedance selector switch is disabled). My review system includes the Constellation Virgo preamplifier and Centaur monoblock power amplifiers. The rest of the system is truly of reference quality, with Magico Q7 loudspeakers, a dCS Vivaldi digital front end (reviewed last issue), and an LP playback system comprising the Basis Inspiration turntable, Air Tight PC-1 Supreme cartridge, and the Simaudio 810LP phonostage. The equipment sits on Stillpoints racks and the amplifiers rest on amplifier stands from Critical Mass Systems. AC conditioning is provided by the Shunyata Talos, Triton, and Typhon. My review samples included a one-meter pair of MA-X2 from the Vivaldi to the Virgo, and a 14' pair of MA-C (from the Virgo to the Centaurs).

The MA-X SHD loudspeaker cables and MA-X2 interconnects are an evolutionary step up from their predecessors, which were my references for many years. The new SHD versions share certain characteristics that I'm very familiar with. One thing that all MIT cables do, particularly the upper-end models, is present the music's spatial qualities with tremendous depth, separation among images, and very fine resolution of spatial cues. You hear this clearly when switching from any other cable/interconnect system to the MA-X SHD; the soundstage with the MIT is suddenly larger, deeper, more finely woven, and has a greater sense of the vivid "air" in which the images exist. Moreover, the MIT paints a more tangible picture of the recording venue's size, shape, and acoustic characteristics by virtue of its resolution of micro-details. I also find that this interface system presents a tremendous sense of bloom around image outlines, as well as "action," the sense of hearing the expanding envelope of sound as an instrument projects its energy into the room. All these qualities contribute to the system's realism and life.

MIT cables, and particularly those reviewed here, are also notable for their fully fleshed-out tonal balance. From the upper bass through the lower midrange, in particular, these cables have a richness and harmonic density that sets the foundation for the rest of the system's sound. They have a warmth and saturation that reveal the power of left-hand piano lines, the body, weight, and size of doublebass and cello, and the "purring" quality of a Fender Precision bass. This characteristic, which affects an orchestra's "power range," better conveys the physicality of orchestral fortes. These MIT cables also have extraordinary depth, weight, and impact in the bottom octave.

It would be a mistake to read what I just wrote and infer that these cables have a warmish coloration that adds a little plumminess to the bass, or a little extra bottom-end bloom, or a darkish cast to timbres. Rather, this tonal richness and warmth aren't instances of artificial bloating or ripeness, but rather of the more natural rendering of instruments as we hear them in life. So many cables tend to sound thin in the power region, with "skeletal" timbres and threadbare tone colors. These MIT cables are unique in my experience in their ability to present the full harmonic richness of instrumental timbres without a trace of coloration or false warmth.

Higher up in frequency, the Oracle maintains this saturation of tone color and density of information. They are not bright sounding; yet they present a rich and vivid rendering of upper-midrange and treble timbres. It's a wonderful combination—a highly detailed and resolved presentation without the treble etch that reduces listener involvement and induces fatigue. These cables are completely lacking in edge, grain, or treble forwardness.

The adjustments are interesting, particularly the "SD, HD, and SHD" knob on the loudspeaker cables. In the SD position, the loudspeaker cable is excellent, exhibiting the characteristics I've described. Turning the knob to HD increases the clarity, renders timbres with more color, makes the soundstage more transparent, and better resolves individual musical lines within complex passages. Turn the knob again to SHD and these qualities are magnified yet again. The difference between SD and SHD is startling; the SD by comparison sounds a little opaque, lower in resolution, less lifelike in timbre, a bit congealed, and not as expansive. Switching from SD to SHD (bypassing for the moment the middle HD position), I heard an improvement that was certainly as significant as changing from an excellent power amplifier to a reference-quality model. Keep in mind the phrase "by comparison"; the cables in the SD position are superb but the SHD position puts them over the top. The sense of seeing through the soundstage to instruments at the back of the hall and hearing them as separate objects rather than as part of the overall sonic tapestry is alone worth the price of admission. The sound is so much more vivid and immediate in the SHD position. The wooden percussion instrument in the piece "Postcard" from *Playing With Fire* [Reference Recordings] is audible toward the back of the soundstage behind the orchestra, and somewhat indistinct in the SD position. Switch to SHD and the instrument is suddenly separate from the rest of the orchestra, the pitches are more apparent as are the transient attacks, and the instrument sounds more like wood being struck rather than simply an

SPECS & PRICING

ORACLE MA-X SHD LOUDSPEAKER CABLE
Price: $49,999 (8' pair)

ORACLE MA-X2 INTERCONNECTS
Price: $14,399

MUSIC INTERFACE TECHNOLOGIES
4130 Citrus Ave., Suite 9
Rocklin, CA 95677
(916) 625-0129

undifferentiated percussive sound. The cable's two other adjustments, marked Low Frequency Articulation and High-Frequency Articulation had a similar, though less dramatic effect.

Given the obvious superiority of the SHD setting, why would MIT include the SD and HD settings? One explanation is that some listeners might value a slightly softer and more forgiving presentation. Another is that MIT wanted to show definitively that SHD is real and profound by creating a product that is a vehicle for instant comparison. Even though my system is extraordinarily resolving, I can't imagine a listener preferring the SD or HD setting to SHD. Whatever the case, you have the ability to listen to the settings and decide for yourself.

The MIT MA-X SHD loudspeaker cable and MA-C interconnects are simply without peer, in my experience. They are singular in their spatial resolution, tonal density, and ability to resolve upper-midrange and treble information with sounding bright or forward. I don't understand the technical explanation of SHD and Fractional Articulation Technology, but I can say that these cables and interconnects are world-class references.

Before dismissing these products out of hand because of their prices, you should listen to them in a reference-quality system and compare them with other cables. Assuming you can afford them, ask yourself if you're willing to live without the unique musical virtues these cables bring to the table. I think you'll find that the answer to that question is a resounding "no." tas

MIT Founder Bruce Brisson Talks with Robert Harley

RH: Give us an overview of the Oracle Technology.

BB: The Oracle technology started with me designing an optimizing network for each of the octaves. We started at A440, because that's the frequency most musical information surrounds—and we worked on a network for each subsequent octave, up and down, from there. That was the original Oracle technology. We built on that by coming out with what we call HD, for high definition. What that meant was that we extended the Oracle technology to ten octaves and optimized for seven harmonics. The harmonics extend linearly from those octaves. Linearly means any harmonic has to be a whole number—no fractions. If there is a fraction involved, and it deviates much, it becomes a spurious overtone. Instruments and voices produce overtones, but we don't want to produce them in an audio signal-carrying conductor or in any amplifier. That covers the first two evolutions of the Oracle.

From there we created Fractional Articulation Technology, which is where our research led us next; to make optimizing networks for the musical information between the octaves. Not extending forward from the octave by something greater than one, but the inter-octave spectra, which we call notes. The distance between one note and another note can be expressed in "cents"—100 cents is a half step, 200 cents is a full step. With Fractional Articulation Technology we can optimize the spectra between the octaves.

How specifically does the cable design do this?

By forming what we call poles of articulation. This is simply how much energy a cable or a network stores and releases. Associated with that release of energy is a rise time and a fall time, which is accompanied by a settling time. We install networks in the cables which are formed from inductors and capacitors and resistors. We begin our optimization at A440, and then move out. So first we do the octaves then we do the six harmonics of the fundamental which is your 7th harmonic. Then we go between the octaves and we add networks to form the poles of articulation. But they don't have the magnitude that an octave would—they don't store as much energy. We make sure that the rise time and fall times are within certain parameters that we have learned, empirically, doing this over 30 years, that the audiophile's ear responds to.

What do the adjustments on the network boxes do?

On the speaker cables, the first switch allows you to play in either standard definition, high definition, or super-high definition. In the super-high definition we do one more thing, which is reducing analog jitter within the cable down to 2.8 microseconds. After reading some scientific information on jitter that suggested we could hear jitter between our right ear and our left ear down to 2.8 microseconds I became fascinated. I've got to find out why, right? These things control me; I don't control them. So I go on the hunt using a novel device developed by Hewlett-Packard called an interval analyzer. I began to look at different cables and listen. This is what you've got to do in this business—measure, listen, measure, listen, measure, listen, then send it out for listening to different beta sites. I went to work on the project—it was about a two-and-a-half-year project—and what I found was exactly what I thought. Jitter affected spatial qualities. But more than that, and I was bowled over by this, was that it affected timbre to such a degree in the lower frequencies.

We found that reducing jitter made things sound much more natural and dense. I think the term "dense" is something that your readers will identify with. This all extends from the fact that audiophiles can't control the rhythm, the beat, the general pace of the music, but what they do tend to try to control is timbre and spatial qualities in their systems.

With the SHD line we bring that all together and it manifests itself as accurate timbre and also an accurate soundstage. Within the soundstage you have large images. Within the large images you have smaller micro-images. You have micro-level details like backwashes off one wall, the right wall, not the left wall. When you control jitter, all of those things, particularly that backwash off just one wall, become very, very apparent.