XDS1 CD/SACD PLAYER

emm Labs SE

XDS1 CD/SACD PLAYER

"Everything should be made as simple as possible, but no simpler."
Albert Einstein

While Albert Einstein may not have been an audiophile, he did have a pretty good head on his shoulders. So when it came time for EMM Labs to create a statement digital product, it seemed only logical to keep Einstein's statement in mind.

Our goal, after all, was nothing less than a quantum leap in performance. And that's just what we achieved with EMM Labs' new XDS1 CD/SACD Player. Inside its sculpted, brushed aluminum chassis is a silky smooth Esoteric™ drive mated to the industry's most sophisticated digital and analog electronics.

How did we make the XDS1 the best player we've ever created? In general terms, by simplifying. We decreased complexity. Shortened critical signal paths. Reduced parts count while increasing parts quality. Now let's get specific.

BETTER DIGITAL STARTS WITH BETTER ANALOG

We started by simplifying our analog circuitry. Instead of the two to three gain stages typical of most player output sections, *the XDS1 features just one active gain stage from DAC to output*. The circuitry is discrete (no op-amps) and operates in pure Class A.

MDAT™: YOU CAN ACTUALLY SEE WHY IT SOUNDS BETTER

The XDS1 features our most refined Meitner Digital Audio Translator (MDAT™) circuitry yet. But it's what MDAT™ *does* that makes it so amazing.

Conventional digital players convert a digital signal (the ones and zeroes) to analog by processing it through a reconstruction filter that uses interpolation (oversampling) to smooth the analog waveform. The process works beautifully in the frequency domain, but in the time domain, errors are introduced in the form of pre and post ringing (figs.1&2).

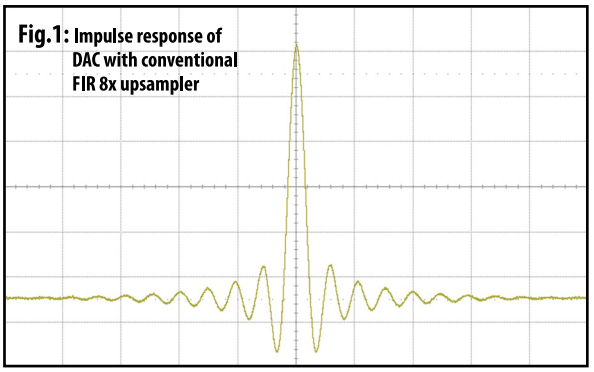

Fig.1: Impulse response of DAC with conventional FIR 8x upsampler

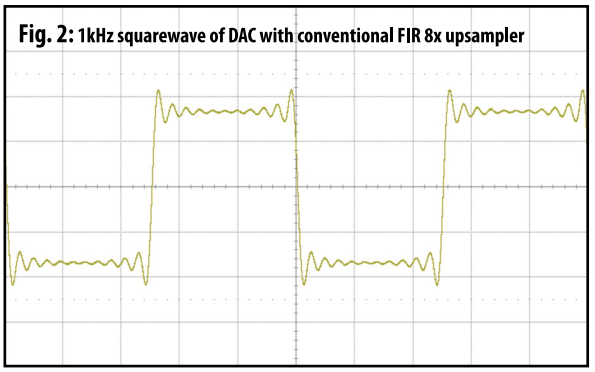

Fig. 2: 1kHz squarewave of DAC with conventional FIR 8x upsampler

With MDAT™ processing, there is no pre and post ringing (figs.3&4). Which is why MDAT™—quite unlike any other processing technology extant—is unique in its ability to preserve the phase, frequency and dynamic integrity of the waveform. Once you've heard this level of improvement in terms of resolution, nuance and dynamic shading, there's no going back.

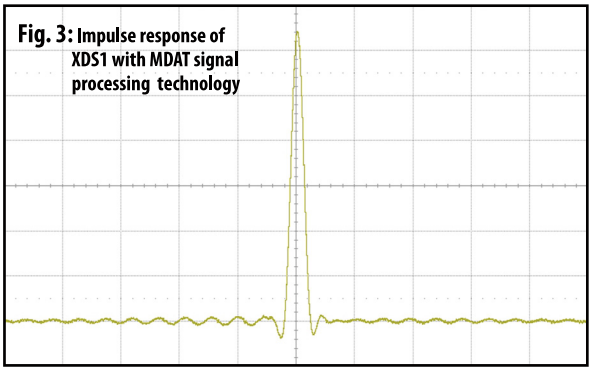

Fig. 3: Impulse response of XDS1 with MDAT signal processing technology

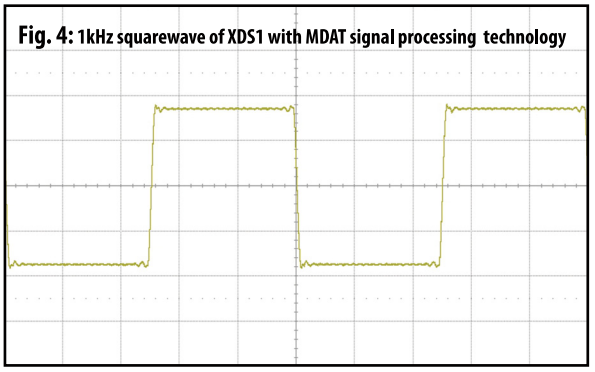

Fig. 4: 1kHz squarewave of XDS1 with MDAT signal processing technology

XDS1 CD/SACD PLAYER

NEW DAC + NEW CLOCK= NEW PARADIGM

At EMM Labs, we develop and manufacture our own proprietary conversion circuitry in house. For the XDS1, we created something truly extraordinary—the MDAC™ module, which contains our most exquisitely refined conversion circuitry ever. Unlike off-the-shelf DAC chips in competing products, the MDAC™:

- Is a cost-no-object (rather than inexpensive) solution
- Is a discrete dual differential (rather than integrated) circuit
- Is free from differential nonlinearities
- Gives us complete control of the digital and analog data streams

In tandem with our new clock—one that establishes new benchmarks in jitter performance, temperature stability and vibration resistance—the result is astonishing. It's as if the noise floor has dropped through the proverbial basement, leaving behind live, flesh and blood performers carved out of a precisely defined three-dimensional soundstage. The gains in transparency, image density, tonal color and *realism* are substantial.

HELLO MFAST™, GOODBYE JITTER

Most converters utilize PLL (Phase Lock Loop) circuits to lock onto the incoming data stream. For the XDS1, we developed a better solution: MFAST™ (Meitner Frequency Acquisition System) technology.

MFAST™ has two distinct advantages over PLLs. It's a high-speed asynchronous system that acquires any data stream almost instantaneously. Further, unlike PLLs that merely attenuate jitter, MFAST™ strips it out of the audio stream *completely*.

Hook a digital audio or video source to the XDS1—computer, music server, MP3 player or whatever you like—and it becomes a standalone converter. MFAST™ ensures that you'll enjoy pristine sonic clarity, whether the incoming data stream is pure or anything but.

THE POWER OF A SUPERIOR POWER SUPPLY

Not only is our new high-isolation resonant mode power supply the greenest we've ever developed, it's also the quietest—significantly outperforming typical switchers and linear power supplies in this regard.

Proprietary to both EMM Labs and the XDS1, this power supply synchronizes its operating frequency (or resonant mode) to that of every other system within XDS1—reducing digital noise to the vanishing point. It also offers ultra-tight regulation and virtually complete isolation from power-line impurities and fluctuations.

The EMM Labs XDS1 CD/SACD Player. Everything about it is better than everything that has come before it.

It's just that simple.

XDS1 CD/SACD PLAYER

KEY FEATURES:

- One gain stage from DAC to output with fully discrete Class A circuitry
- MDAT™ signal processing technology
  - o Provides 2x DSD upsampling for SACD and PCM playback
  - o Preserves phase, frequency and dynamic integrity of waveform
- MDAC™ discrete dual differential D-to-A conversion circuit
- MFAST™ technology for instant signal acquisition, jitter-free performance
- High-isolation resonant mode power supply for silent, green operation
- Exclusive aerospace-grade composite laminate circuit boards
- Silky smooth Esoteric™ drive
- Sculpted, brushed aluminum chassis
  - o Low resonance, internally braced design with thick, machined sole plate
  - o Available in silver or black
- LCD display with four brightness levels and a display-off setting
- New precision-machined aluminum multifunction infrared remote control
- Remote-controllable polarity inversion performed in the digital domain
- PCM inputs via AES/EBU and Toslink

Digital inputs:	AES/EBU, TOSLINK
Digital outputs:	AES/EBU, EMM Optilink
Stereo analog outputs:	XLR and RCA
Output voltage:	XLR outputs: 5V
	RCA outputs: 2.5V
Output impedance:	300 ohms balanced (XLR)
	150 ohms unbalanced (RCA)

System inputs: USB Port for software upgrades
Wired RS-232
External IR

Dimensions: W x D x H: 435 x 400 x 145mm
Weight: 17kg
Power consumption: max. 45 W

emm Labs

For the studio. For the home. For the music.