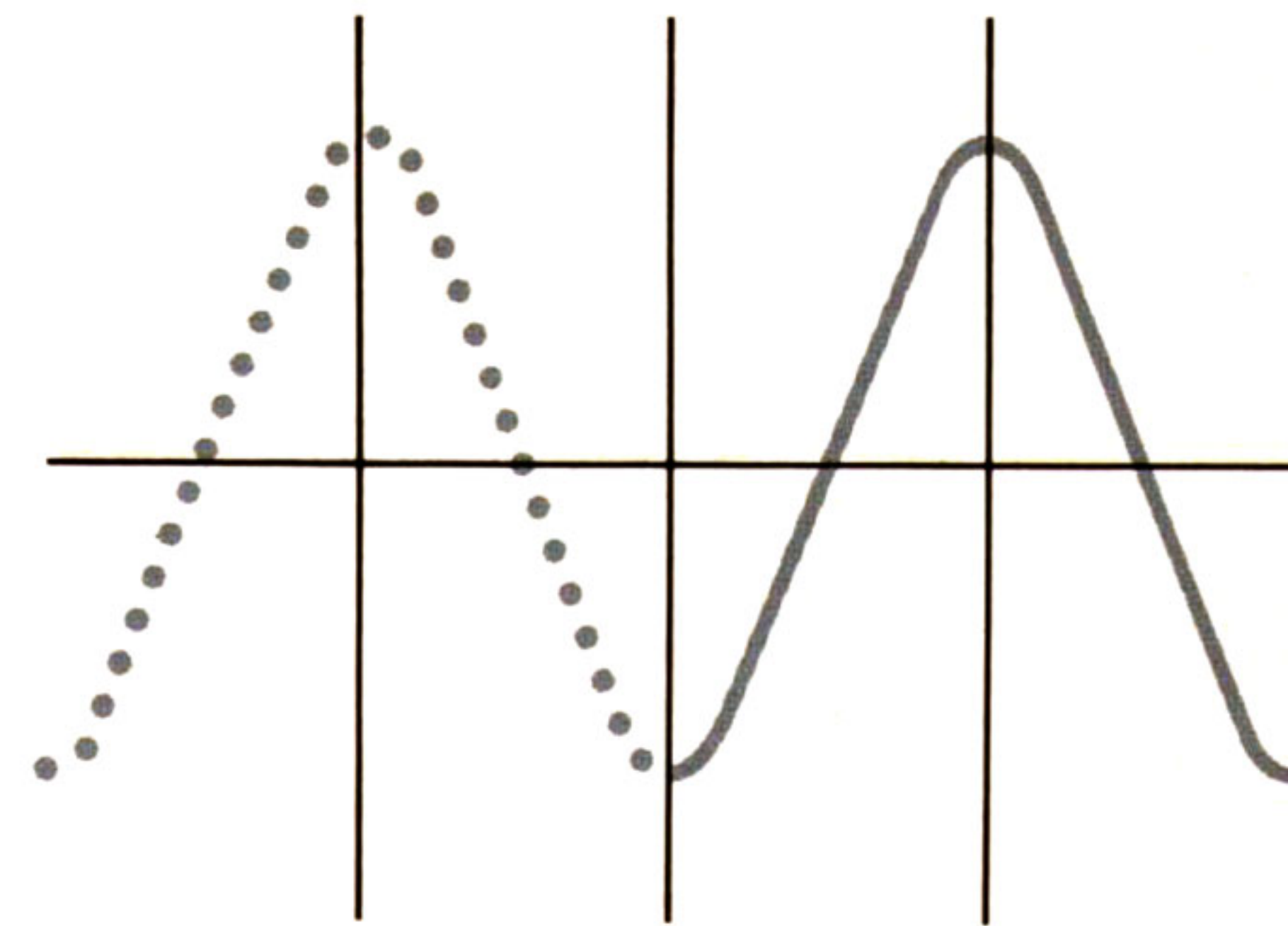


DIGITAL-TO-ANALOG CONVERTERS



Wadia DIGITAL™
The Leader in Signal Conversion

DIGITAL-TO-ANALOG CONVERTERS

There is a magic in music for which the skilled listener thirsts . . . the dimensionality of soundspace; the varied sonic imagery, from solo performances to the nuances of massed choral and orchestral works; wisps of voicing, reverberations, breath intakes, instrumental and vocal timbre.

Today's digital source material can only deliver those aural delights if the digital information is faithfully decoded and the analog wavefront components are precisely transmitted to subsequent system components.

Wadia's reverential dedication to authentic musicality, however, isn't the least mystical. Our decoding computers achieve that excellence with techniques once only associated with the most sophisticated telecommunications and aerospace systems.

The magic occurs as you listen . . . for the first time hearing recorded music as you only dreamed it could be realized . . . expressed as the performers and recording engineers intended it to be.

Our basic offering is the Wadia X-32 Digital-to-Analog Decoding Computer, the affordable leader in state of the art digital sonic excellence. At the outset, Wadia's digital input circuitry recovers the clock signal essentially intact, reducing jitter by a ratio of 2500:1 compared to other commonly used methods.

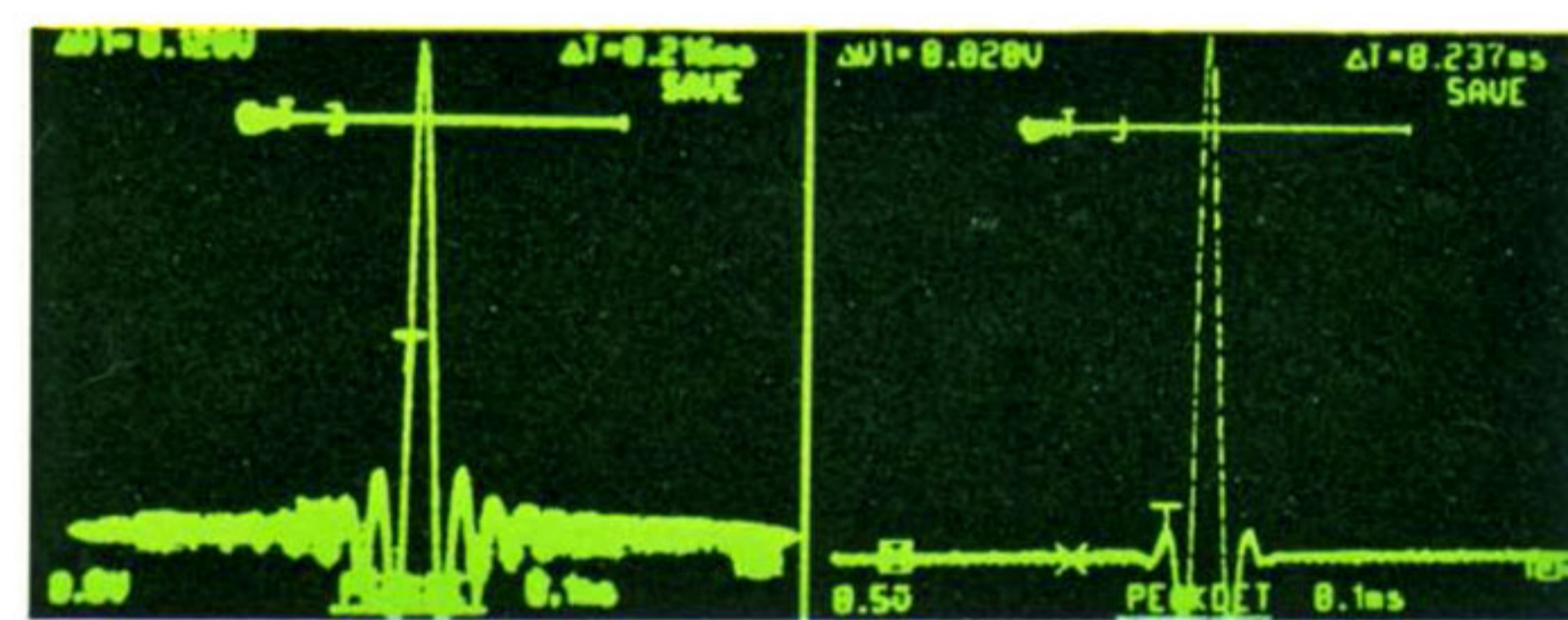
Two ultra-fast AT&T DSPs, at the heart of the X-32 CPU, apply Wadia's exclusive software to create a 32-times resampled signal. This is accomplished in conjunction with two custom-made 18-bit DACs.

Gone are the intertransient ringing and passband ripple of digital brickwall filters. Here for your pleasure is the full range of dynamics—the harmonic and inharmonic waveforms, the attack and decay transients—of the original musical structures.

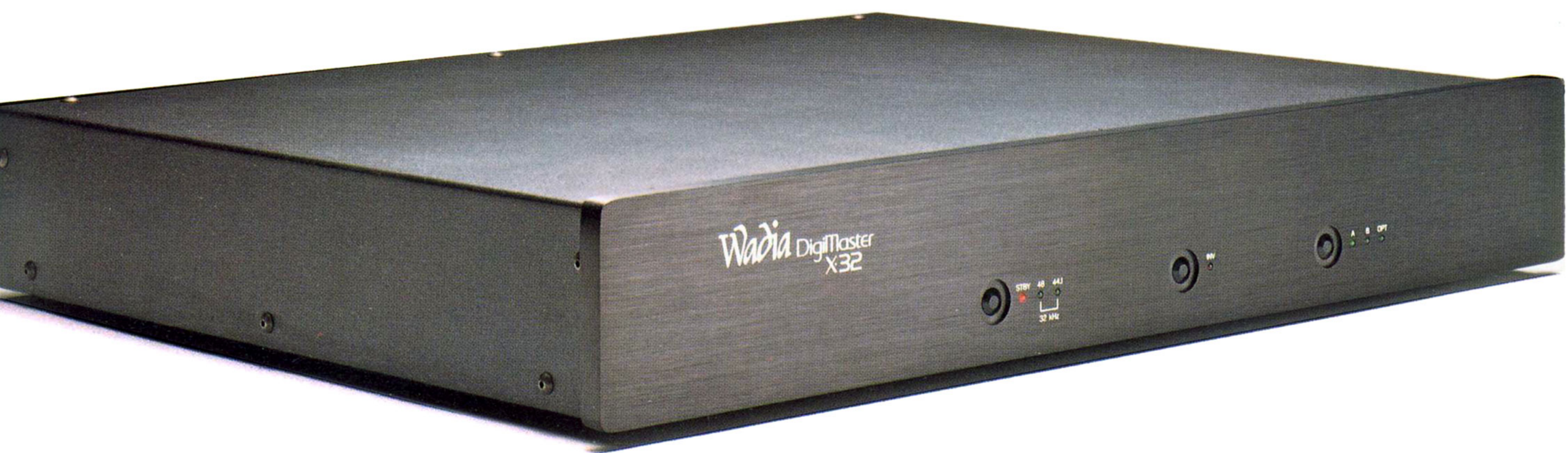
Wadia's software, with its LaGrangian and Spline-based algorithm, is optimized in the time-domain to bring the complexities of real-world music alive in your listening space.

The DigiMaster X-32 incorporates a monolithic version of Wadia's analog output buffer, driving signals with the full power necessary for rich sonic performance.

The X-32 is configured with two coaxial inputs and either one standard optical input, or an optional glass-fiber optical input which is also retrofittable. Up to three CD or DAT program sources can share the benefits of Wadia technology.

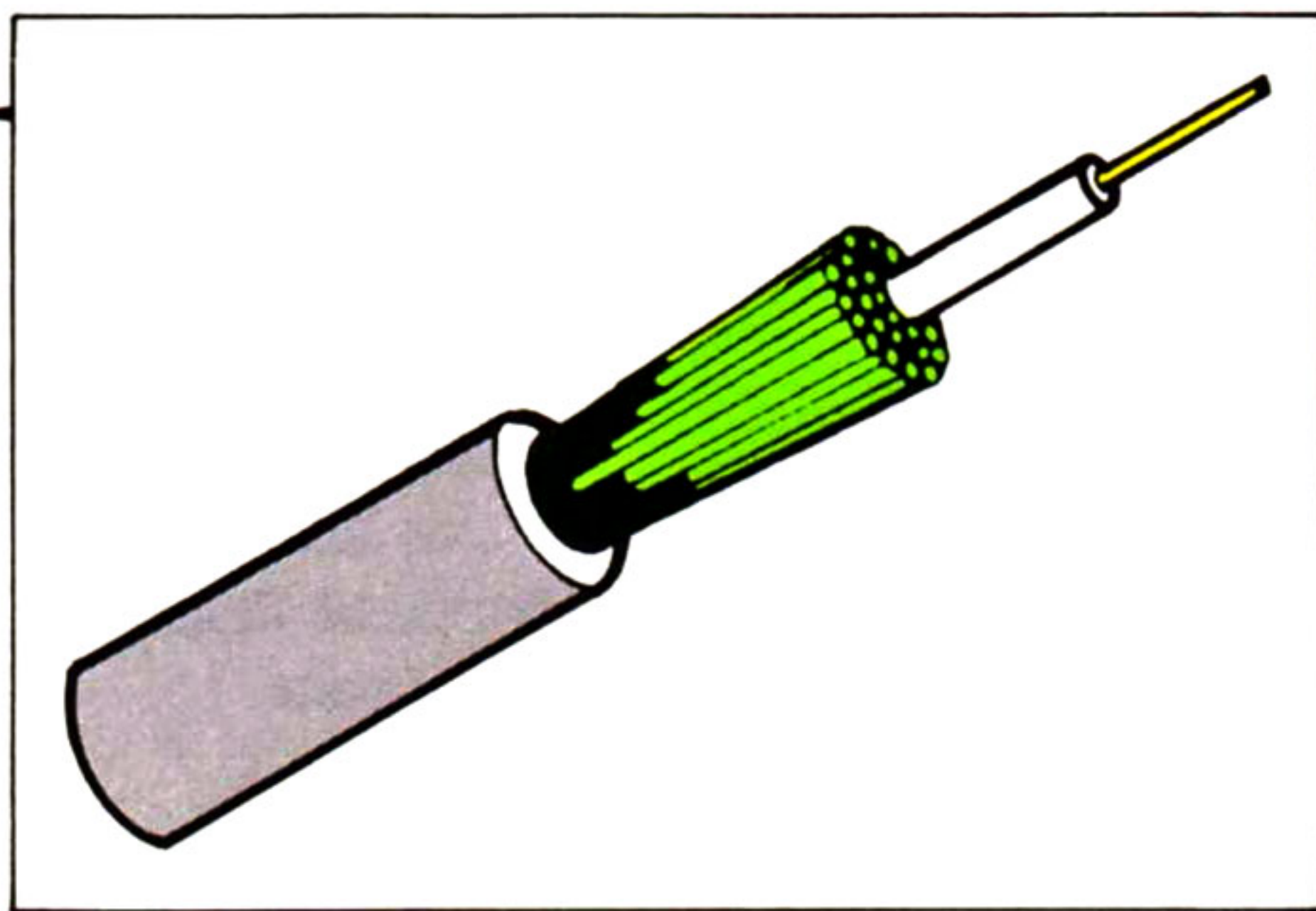


Conventional digital brickwall filter impulse response (left) vs. the response of the proprietary Wadia software (right). The clean Wadia signal maintains absolute intertransient silence.



X-32





Premium quality Wadia fiber optic cables solve all problems in digital impulse transmission.

Fortunately, audiophiles are discriminating people. Their demanding criteria and unlimited expectations fulfill Wadia's commitment to the full musical spectrum captured in digital sources. Thus, the Wadia DigiMaster X-64.4 . . . achieving a level of sonic delight that has audiophiles, critics and recordists standing as they applaud.

Using Wadia's proprietary software, four AT&T DSP chips in parallel process the fully time-corrected signal with the power of a mainframe computer. The artifacts of digital brickwall filtering are completely eliminated.

The resultant 64-times resampling through Wadia designed 18-bit DACs pushes the spurious noisebands well past the 2 MHz range and reproduces the subtleties in musical waveforms with a degree of realism virtually indistinguishable from the original master tape.

The DigiMaster X-64.4 is engineered with features that raise it to aerospace

standards. Its dual power supply—separate digital and analog sections—protects time-domain authenticity from frequency-domain fluctuations. And the dual-toroid power supply operates below a false bottom, shielding critical circuitry from heat and magnetic influences.

Aircraft/computer-grade multilayer PC boards are the basis of the X-64.4's four-section modular design. Housed in a ruggedly attractive plate aluminum body for superior mechanical stability, the circuitry incorporates a greater number of discrete components, assuring each element as vibration-free an environment as possible.

The DigiMaster X-64.4 automatically senses and decodes CD, DAT and DBS audio data streams from a pair of BNC coax, as well as plastic optical and glass-fiber inputs. Single-ended gold-plated RCA and XLR balanced analog outputs are standard.

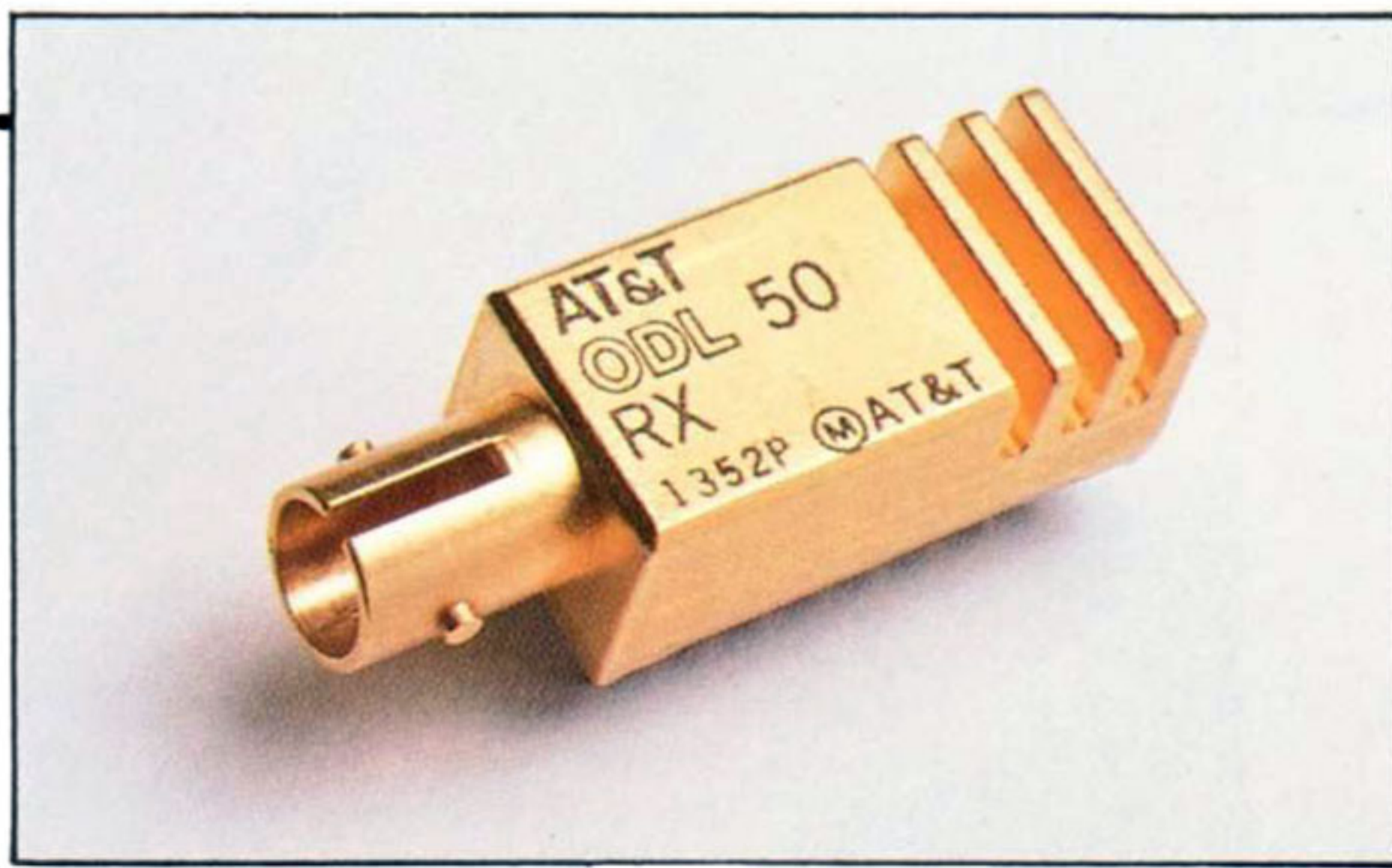
In a world where digital technology changes so rapidly, Wadia is a technological ideology in constant forward motion. Thus, the modularity of the DigiMaster X-64.4 is of distinct importance to the progressive audiophile. As our research yields software improvements, you are assured updatability as easy as ROM chip replacement. And, should high-performance DAC technology become available, DigiMaster X-64.4 owners will gain those advantages as readily.



A comparison of 4-times (left) vs. Wadia 64-times resampling (right) reveals the smooth curve achieved . . . in this example, by 353 steps per 8 KHz cycle. As a result, the sharp peaks and gentle curves of every music waveform are faithfully recreated.



X-64.4



The ST-type Glass Optic Receiver pioneered in audio use by Wadia.

Ultimately, there is the Wadia DigiMaster 2000 . . . a level of digital musical realization born of Wadia's commitment to embrace your highest listening aspirations.

The DigiMaster 2000 begins by incorporating every element of the DigiMaster X-64.4. Then Wadia engineers attack the challenge of digital integrity with their typical technological idealism.

Because the integrity of the enclosure is a subtle but important factor in performance, Wadia machines the enclosure from a single solid block of aluminum to shield circuitry from eddy currents, ground current and thermodynamic variances.

The power supply, in its own chassis, feeds the 2000 through three lines: digital-domain, left analog and right analog is also powered by toroidal transformer. Analog audio contamination by digital byproducts is eliminated.

True to Wadia ideology, the DigiMaster 2000 has *one* input only: glass-fiber optical. Other input formats can be optically decoupled from source equipment by the Wadia DigiLink 40 coax-to-glass-fiber converter.

Wadia's powerful output buffer provides 400mA of transient peak current drive with a 1300 volts/micro-second slew rate, drives Wadia's analog output intact to subsequent system components . . . and into the heart of your listening pleasure.

And DigiMaster 2000 owners will continue to ride the crest of digital musicality as technology advances: total modularity makes updates, as they evolve, an option for your consideration.

Wadia recreates the magic of live performance to a degree previously unheard. In that opinion, we're hardly alone. The engineering purism inherent in Wadia products travels a simply logical path to critical enthusiasm. Audition Wadia excellence at your dealer; allow Wadia to restore the magic in your musical life.



The Wadia PSM 201B Power Supply.

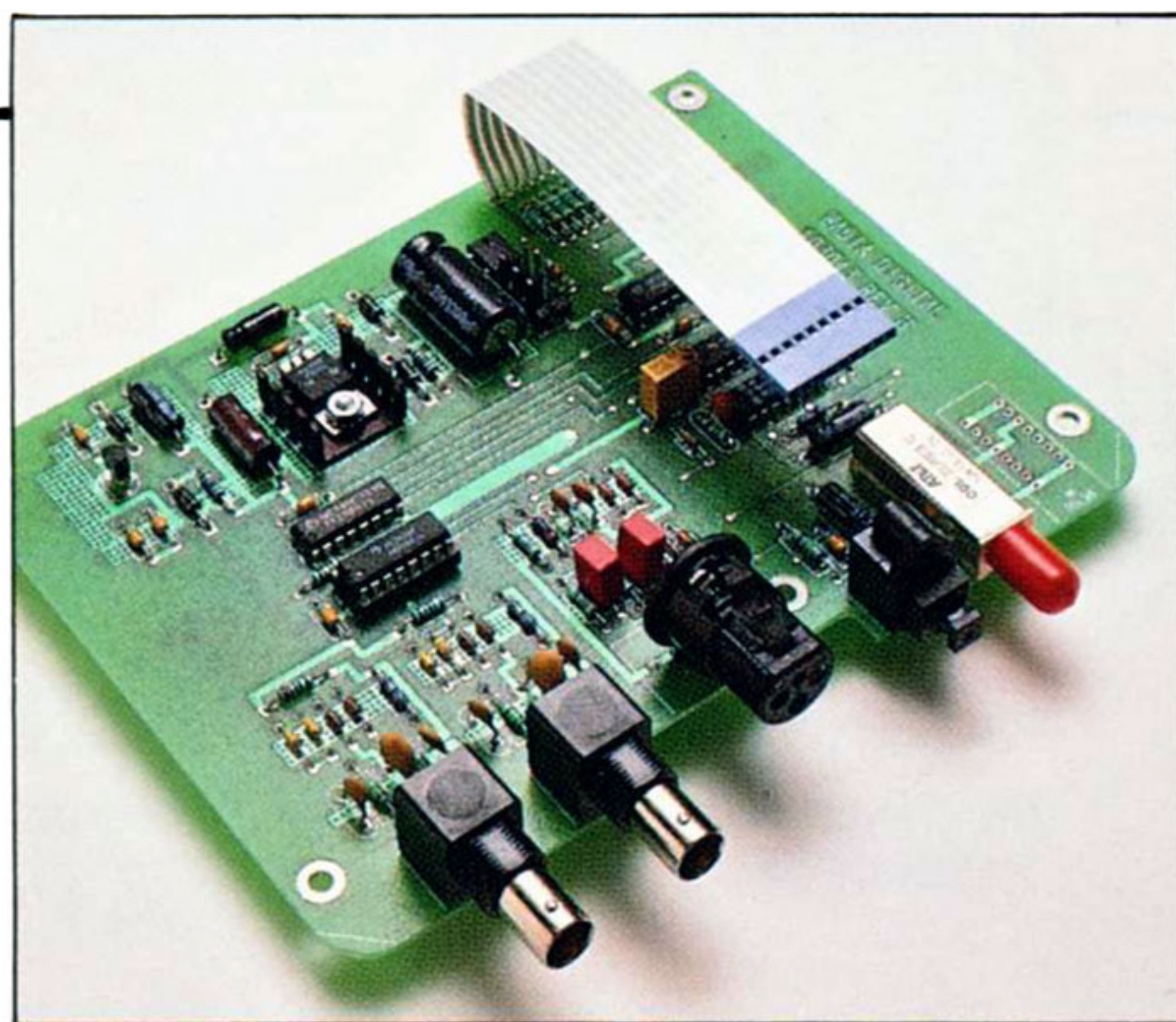


WADIA-2000

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DIGILINK 40

Since the length of coaxial and plastic optical cables for transmitting the digital data stream is critical, they should be kept as short as possible. The Wadia DigiLink 40 Fiber Optic Transmission system can be located inches from your program source so the coax run can be kept to less than a foot. The 50' glass fiber-optic cable of the DigiLink 40 safely carries digital information to one of Wadia's D-to-A converters at any distance.



The DigiLink 40 offers the versatility of two inputs for coax, one for AES/EBU, and one for plastic fiber optic.

Yet another instance of Wadia technical refinement, the DigiLink 40 also eliminates potential ground-loop conditions by optically decoupling digital-source devices from the circuitry of the DigiMaster processors.

This Wadia Glass Fiber Optic system uses advanced, proprietary encoding techniques optimized for glass fiber transmission. It is a high performance interconnect which offers 8 times the bandwidth and 40 orders of magnitude less attenuation than conventional optical media.

Of course, ownership of a Wadia WT-2000 or WT-3200 CD Transport provides the integrity of glass fiber-optics directly from the source.



The story of Wadia is the story of engineering dedication to the aesthetic truth of music performance. Understanding how the joy of multi-hued musicality was once crushed beneath the weight of brittle black-and-white time displacement error, the Wadia team developed a simple but incisive Mission Statement: Locate all places in

the digital reproduction chain where time-base error can occur and eliminate them.

State-of-the-art computer technology and aerospace component quality became the building blocks of that technological/artistic ideology.

If your ideal of music celebrates that

ethereal quality of the sensed impressions of power, presence and beauty that elates the ear of the mind . . . you are a fellow seeker caught in the soul of the Wadia Mission.

SPECIFICATIONS

X-32

Resampling Rate	32X
Resolution	18-bits
Power Bandwidth	DC – 20kHz
Passband Ripple	None (Monotonic)
CPU Power	36-MIPS
Inputs	2 Coax S/P DIF 1 EIAJ Optical Fiber
Inverting Switch	Digital Domain
Math Resolution	216dB (36-bits)
Output Peak Current Drive	400mA
Output Buffer Slew Rate	1300 Volts/microsec
Output Level (Fully Encoded)	8dBV
Channel Isolation at 1 kHz	>110dB
PC Boards	7-layer Board
Ground Plane and Signal Trace Layers	100% ground plane coverage above and below all critical signal trace paths for stability and shielding High premium CAD/CAM layout
Power Distribution	Massive multiple power-plane layers
Weight	12 lbs.

X-64.4

Resampling Rate	64X
Resolution	18-bits
Power Bandwidth	DC – 20kHz
Passband Ripple	None (Monotonic)
CPU Power	72-MIPS
Inputs	2 Coax S/P DIF 1 EIAJ Plastic Fiber Optic 1 Wadia Glass Fiber Optic
Inverting Switch	Digital Domain
Math Resolution	216dB (36-bits)
Upgradeability	Programmable Gate Array Chips for hardware options and upgrades ROM Chips for software upgrades
Output Peak Current Drive	400mA
Output Buffer Slew Rate	1300 Volts/microsec
Output Level (Fully Encoded)	8dBV
Channel Isolation at 1kHz	>110dB
PC Boards	11-layer Board
Ground Plane and Signal Trace Layers	100% ground plane coverage above and below all critical signal trace paths for stability and shielding High precision CAD/CAM layout
Power Distribution	Massive multiple power-plane layers
Weight	27 lbs.

Wadia-2000

Resampling Rate	64X	Output Peak Current Drive	400mA
Resolution	16-bits	Output Buffer Slew Rate	1300 Volts/microsec
Power Bandwidth	DC – 20kHz	Output Level (Fully Encoded)	8dBV
Passband Ripple	None (Monotonic)	Channel Isolation at 1kHz	>110dB
CPU Power	72-MIPS	PC Boards	11-layer Boards
Inputs	2 Coax S/P DIF 1 XLR AES/EBU 1 EIAJ Optical Fiber to the DigiLink 40	Ground Plane and Signal Trace Layers	100% ground plane coverage above and below all critical signal trace paths for stability and shielding High precision CAD/CAM layout
DigiLink-40	2 Coax S/P DIF 1 XLR AES/EBU 1 EIAJ Optical Fiber to the DigiLink 40 WADIA Glass Fiber input to Decoder	Power Distribution	Massive multiple power-plane layers
Wadia-2000		Weight	Decoder: 18 lbs. DigiLink 40: 10 lbs. Power Supply: 11 lbs. Total for 3-chassis system: 39 lbs.
Inverting Switch	Digital Domain		
Math Resolution	216dB (36-bits)		
Upgradeability	Programmable Gate Array Chips for hardware options and upgrades ROM Chips for software upgrades		



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