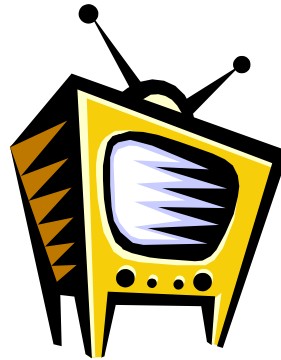




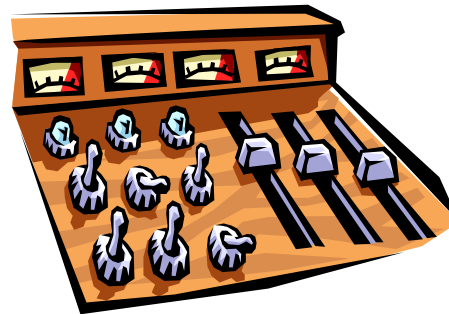
Digital Harmony develops audio/video technologies and licenses these technologies for use in consumer and professional products and systems. Digital Harmony's customers are creating advanced audio and video products that set new standards for Internet-savvy entertainment systems, production studios and live/cinema sound systems.

For more information,
visit the Digital Harmony
web site at
www.digitalharmony.com

Digital Harmony in the Home



Digital Harmony in the Studio



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Technology Portfolio



Enhancing the
Entertainment
Experience™

Technologies for
consumer and
professional
products.



Data-Hiding Products

Many applications require that digital data be hidden in audio recordings (e.g., digital rights management/DRM, embedding URLs and lyrics) or transmissions. Modules can be purchased in any quantity, or the module design can be licensed for manufacture.

BiDAT™ Modules \$10

Transceiver sends up to 56kbps data over line-level audio cables. Specify IR, MIDI or RS232.

PAWS for Windows™ \$100

Audio watermarking plus lyric-hiding Realm™ codec. Inserts PAWprints™ (copyright, URLs, lyrics) in WAV, MP3 and MD audio files.

PAWS™ Plug-Ins \$30

Software plug-ins for audio watermarking. Specify DirectX, ProTools, ASIO or VST.

PAWS™ Modules \$25

Hardware DSP decoder suitable for integrating in wireless toys, radios, other controllers.

Realm™ Modules \$10

Hardware Realm-only decoder suitable for integrating in wireless toys, radios, and custom controllers. Specify video or TTL output.



Composer™ PMA Software

Composer software is used to create personal media assistants/PMA's that act as system controllers and media librarians. These PMA's take optimum advantage of any and all Digital

Composer™ PMA \$30

Standalone application for controlling home 1394 devices. Specify Windows or Mac.

Composer™ SDK \$300

Software developer kit for creating Composer PMA applications. Specify platform.

Composer Pro™ \$50

Standalone application for controlling professional 1394 devices. Specify Windows or Mac.

Composer Pro™ SDK \$300

Software developer kit for creating Composer Pro applications. Specify platform.



DHIVA™ IEEE1394 Products

All DHIVA products comply with the DHIVA Protocol Suite™, a collection of open standards. Modules can be purchased, or the module design can be licensed for manufacture.

DHIVA-1394™ Module \$150

General 1394 I/O card. Specify DS, POF, GOF or CAT5. Specify non-DTCP or DTCP. Coming in 2001: a cost-reduced Crystal CS8510 version.

DHIVA-A1™/A4™ Audio Module \$200

Adds audio I/O daughterboard with audio codec. Analog stereo in/out, S/PDIF in/out, RS232 port. Specify 1 (-A1) or 4 (-A4) isoch channels.

DHIVA-DV™/MPEG™ Video Module \$250

Adds video I/O daughterboard with video codec. Composite in/out, S-Video in/out. Specify DV (-DV) or MPEG-2TS (-MPEG) codec.

DHIVA-GEN™/AP2™ Test Module \$300

General 1394 audio test equipment. Specify standalone 1394 audio signal generator (-GEN) or add-on card for AP System II (-AP2).

DHIVA™ Developer Kit \$9,000

Kit includes hardware module w/firmware, software and drivers for Windows, documentation. Specify DHIVA-A1, -A4, -DV or -MPEG.

DHIVA™ Firmware for CS8510 per unit royalty

Flash-based object code for implementing DHIVA Protocol Suite using Crystal CS8510. Available to OEM licensees only.

DHIVA 1394 Protocol Suite™ (document) no charge

References more than 40 open standards, including IEEE-1394a/b, IEC61883, AV/C, HAVi, DTCP. Available to general public.

DHIVA™ T-Shirt \$20

100% cotton-compliant. Guaranteed to be interoperable with pants from multiple manufacturers. Specify S, M, L or XL.

1394 Interoperability Test Program



Devices are tested for compliance with the DHIVA 1394 Protocol Suite, and guaranteed to be interoperable with other certified devices. The DH1394 certification mark (shown at left) acts as a 1394 "seal of approval" for consumers.

DHIVA™-based 1394 Audio/Video Device \$5,000

All DHIVA-based 1394 devices are required to be tested.

Non-DHIVA™ 1394 Audio/Video Device \$5,000

Testing is optional but encouraged for non-DHIVA 1394 devices.

Loudspeaker Products

Assembled and tested hardware modules can be purchased in any quantity, or the module design can be licensed for manufacture.



DHIVA-SPK Module \$100

Standards-based 1394 interface card for loudspeakers. Bidirectional AV/C control.

WireFree™ Transmitter \$100

Multi-room, 10Mbps, secure, wireless audio transmitter. 8 independent 96kHz channels.

WireFree™ Receiver \$50

Single-channel wireless audio receiver for use with WireFree transmitter. 200-ft range.

Hi-Power BiDAT™ Module \$15

Transceiver sends up to 56kbps data over passive speaker cables to/from 100W amps.

Lo-Power BiDAT™ Module \$10

Transceiver sends 56kbps data over line-level audio cables to/from powered speakers.

Realm™ Speaker Module \$10

Decoder module for integrating text displays in loudspeakers. Connects to speaker wire.

Beamer™ Module \$30

Sophisticated beam-steering DSP module for use in powered, multi-driver loudspeakers.

Beamer™ Developer Kit \$2,500

Kit includes Beamer module, programming tools, sample code, documentation.

1394 Silicon Products

Crystal CS8510 \$10

(available Q2 2001)

1394 intelligent A/V node controller with integrated ARM7, LLC and AVS. Use with 1394a/b PHY chip and flash memory. Sold by Cirrus Logic. Runs DHIVA firmware.



1394 AVS™ \$100K license fee

Complete audio and video system for 1394 SOC's. Includes innovative packet data bus.

DTCP Copy Protection \$100K license fee

Gate designs and firmware that implement DTCP. Available to DTLA licensees only.

Mango™ SOC Design Kit \$9,950

Kit includes module with custom 1394 SOC, AVS in FPGA, I/O and firmware.