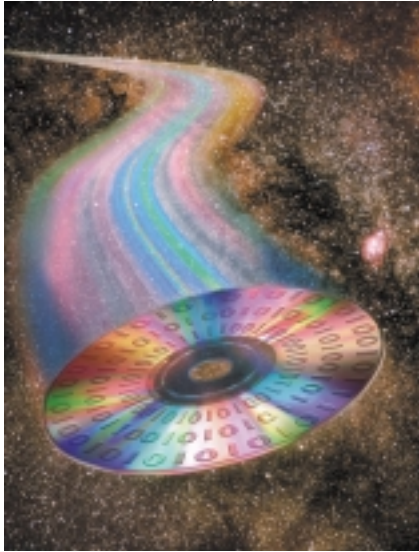


Verance Audio Watermark Detector

SDMI Screen

for the TI C54X™ DSP



Accelerate to SDMI compliance with Verance optimized detectors

Time-to-market is of critical importance in today's evolving digital economy. As technology product features and operating platforms play leapfrog, consumer electronics, computer equipment manufacturers and software makers are challenged by extremely limited engineering resources and ever-tightening product development lifecycles.

Verance understands. We've created a solution for manufacturers developing SDMI (Secure Digital Music Initiative) compliant devices on a Texas Instrument's DSP (Digital Signal Processing) platform that can significantly shorten time to market.

Verance, the inventor of the SDMI screening technology, has developed a new watermark detector based on the low cost, low power TI C54X™ DSP. Its algorithms are optimized for fixed-point math, and it features a straightforward C language API (Application Program Interface) for fast integration with other system functions. Shipped precompiled and optimized, this solution meets or beats the specified requirements of SDMI.

Verance innovation will save you valuable development time and provide the surest path to SDMI compliance.

Key Benefits

- Most efficient TI DSP implementation available
- Designed and supported by Verance, the inventors of the SDMI screening technology
- Optimized algorithms
- Fixed point implementation
- Minimizes resource usage of the SDMI Screen

Texas Instruments platform enables low computation resources, additional revenues

With Verance's new optimized watermark detection solution for TI's industry-leading DSP platform, now hundreds of cellular phone, PDA, portable music device, personal jukebox, and media player software makers from around the globe have the option to more efficiently integrate Verance's copy protection software. Verance engineers have made great strides to achieve a MIPS count of 10 on the TI DSP allowing device makers to dedicate more computing resources to end-user features.

Technology manufacturers know that consumers make buying decisions based primarily on price and features. Verance's TI DSP solution allows manufacturers to favorably effect price through lower cost of production. At the same time, device makers can integrate revenue enhancing next generation features and functionality that will only be available through SDMI compliance.



Verance Audio Watermark Detector

Description

The Verance Audio Watermark Detector (SDMI Screen optimized for the TI C54X™ DSP) is an object-code software module for use in products based on the Texas Instruments TMS320 C54 family of DSPs and that comply with the Secure Digital Music Initiative's (SDMI) Portable Device Specification. The software implements the content screening function ("SDMI Screen") that is required for SDMI devices that permit the playback or recording of content from insecure sources such as analog inputs, unencrypted digital interfaces, and unencrypted files on any digital storage media.

Features

- Relocatable COFF Object Code Library (compatible with all TI C54 and Code Composer C54 tools)
- ANSI C Application Programming Interface (API)
- Passes the Verance/4C 3-Bit Compliance Verification Suite version 1.7
- Audio Input: Linear PCM, 44.1kHz or 48 kHz sample rates, 16 bits resolution, up to 8 interleaved channels
- Watermark Output: 3 watermark data bits per 15 seconds (2 CCI bits and 1 SDMI Trigger Bit)

System Requirements

- Instruction Set: TI TMS320 C54
- Peak/Average Computation: 10 MIPS/10 MIPS
- Data RAM: 16 Kbytes
- Code Size: 8 Kbytes

Product Includes CD-ROM Containing:

- COFF Object Code Library
 - API Header Files
 - User's Manual (Installation, Getting Started, API Specification)
 - Sample application source code
 - Sample application executable code for Texas Instruments Internet Audio 5416 Evaluation Board ("Leia"), part number: TMDS3P603123.
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