

product features

- ATAPI (SFF-8020) standard support
- Supports CD-ROM disk speeds of up to 12x (read) and 8x (write)
- Supports Sony-Philips CD-ROM, CD-ROM/XA, CD-I (read), CD-WO (write), multi-session PhotoCD, CD-G, CD+, CD-Extra, and CD-Audio formats
- Designed to directly support Philips E65xxx series CD-R/RW engines
- SCSI pass-through mode for interface to popular SCSI protocol chips
- Host transfers with interleaved user and subcode data in a single burst
- PIO Mode 4 support; Mode 2 multi-word DMA support
- Supports direct register addressing
- Memory interface supports industry-standard DRAMs (up to 8MB)
- Supports multi-block transfer rates of greater than 65KB in a single transfer
- Segmented memory support for sophisticated caching schemes
- Performs the functions of C3 encoding, data scrambling and outputs data using an I²S bit stream to the EFM Encoder IC
- Can generate sync, header, and subheader information
- Real-time error correction of up to 138 P and Q byte errors per block
- 160-pin PQFP



OAK TECHNOLOGY

OTI-975

IDE CD-Recordable/ReWritable Controller

Oak Technology's OTI-975 CD-Recordable/ReWritable (CD-R/RW) controller is a high-performance block decoder/encoder device for IDE CD-R/RW subsystems.

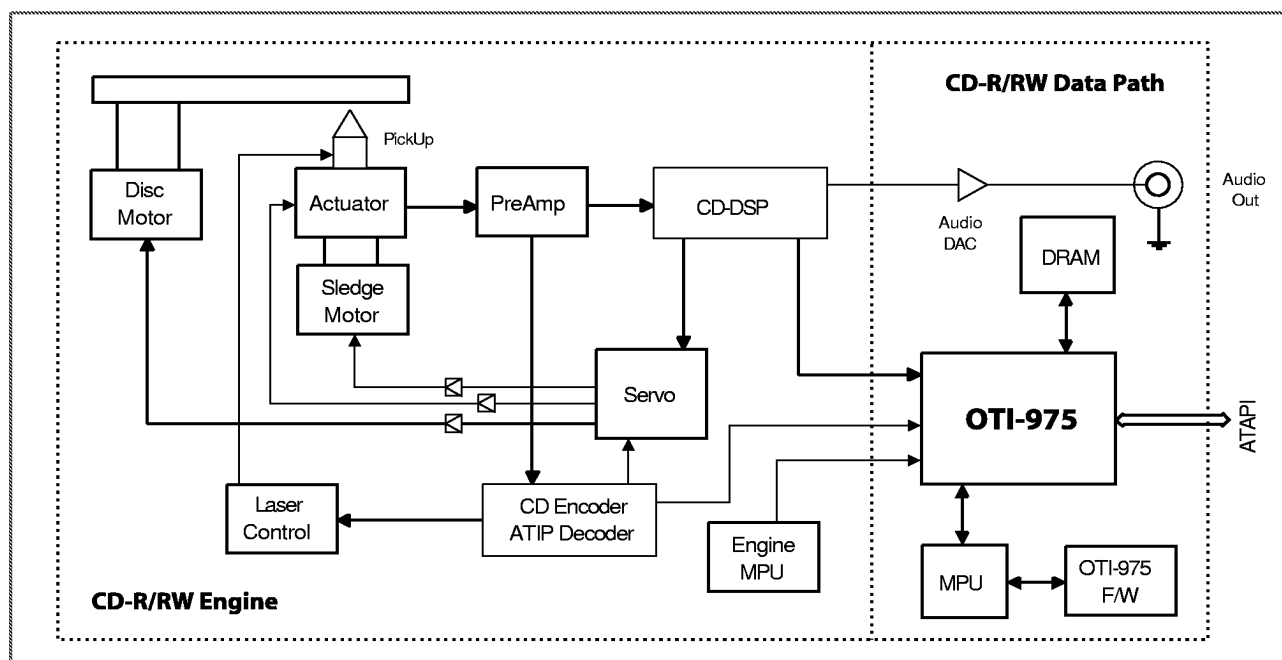
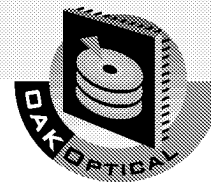
The OTI-975's read functions include CD data descrambling, real-time error correction, and data transfer to the host interface. The OTI-975's write functions include block encoding, data scrambling, C3 error correction byte generation, and data transfer from the host interface.

The OTI-975 is designed for operation in a system with industry-standard microcontrollers (multiplexed A/D or non-multiplexed A/D), DRAMs, and CD-DSPs. The block encoding function is designed to interface directly with the Philips E65xxx series engines. The OTI-975 decodes CD-ROM data according to the Sony-Philips CD-ROM, CD-ROM/XA, CD-I (read), CD-WO (write), multi-session Photo CD, CD-G, CD+, CD-Extra, and CD-Audio formats. In addition, the OTI-975 supports disk speeds of up to 12x for reads and 8x for writes. By programming the serial data input pin, the OTI-975 can work with CD-DSPs from a variety of suppliers.

Once data is passed from the CD-DSP to the OTI-975, real-time ECC logic can correct up to 138 P and Q byte errors per block. The OTI-975 host interface supports the IDE interface on an ISA, PCI, or VL bus, providing 16-bit data transfers from chip to host. The host interface has built-in output buffers that directly drive the IDE bus and also contain control and transfer-status registers to which the host has access.

OTI-975 Product Brief

Block Diagram of CD-R/RW Drive Electronics



Block Diagram of CD-Recordable/ReWritable Drive Electronics

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