

# Low-cost, Low-power CEC Controller

## Description

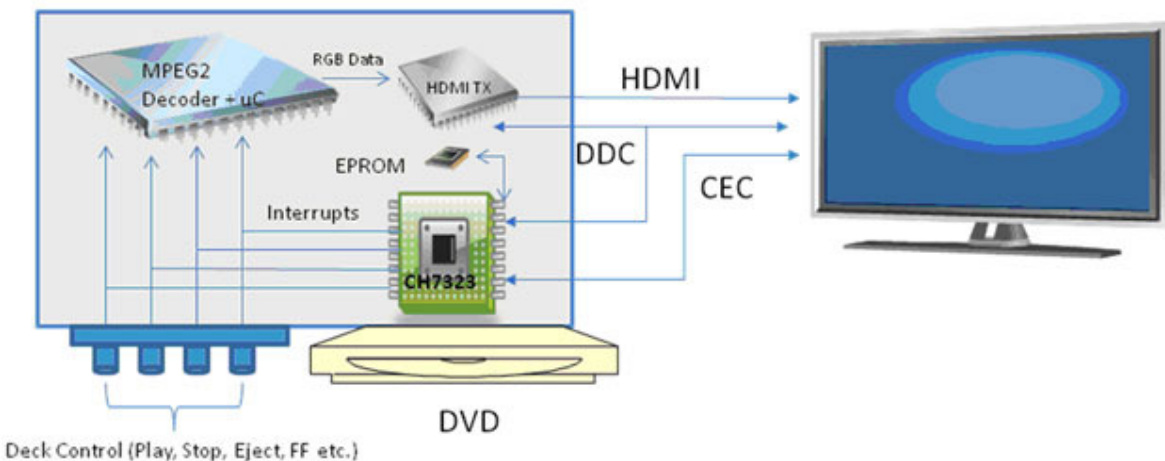
The CH7323 is a low power, small package semiconductor device designed for HDMI playback systems to easily enable Consumer Electronic Control (CEC) features, which allow consumers to manage all of their HDMI CEC peripherals with just one remote control. Using an advanced design technique, the CH7323 is able to help system designers quickly adopt CEC features together with a third party HDMI device to achieve their HDMI-CEC system development requirements.

By combining all CEC features (One Touch Play, Power Status and Deck Control etc.) listed in the HDMI 1.3a specification, the CH7323 provides a cost-effective CEC solution for home theater playback devices, such as DVD players/recorders, A/V receivers, digital set-top boxes and Multimedia Personal Computers. To reduce design time and shorten time to market, the CH7323 is equipped with the state-of-the-art CEC Message Management Auto Mode Technology†, a robust, automated mechanism to eliminate fussy and complicated software programming for processing CEC messages through a microcontroller.\*

To add additional value on top of supporting standard CEC Messages, the CH7323 incorporates a flexible and robust two-wire serial interface to access vendor specific commands stored in an external EPROM. The proprietary information can be used during the handshaking process for establishing a CEC communication between the manufactures' own family devices. Chrontel offers a complete software package and hardware development kit to assist our customers in accelerating their product development.

## Application

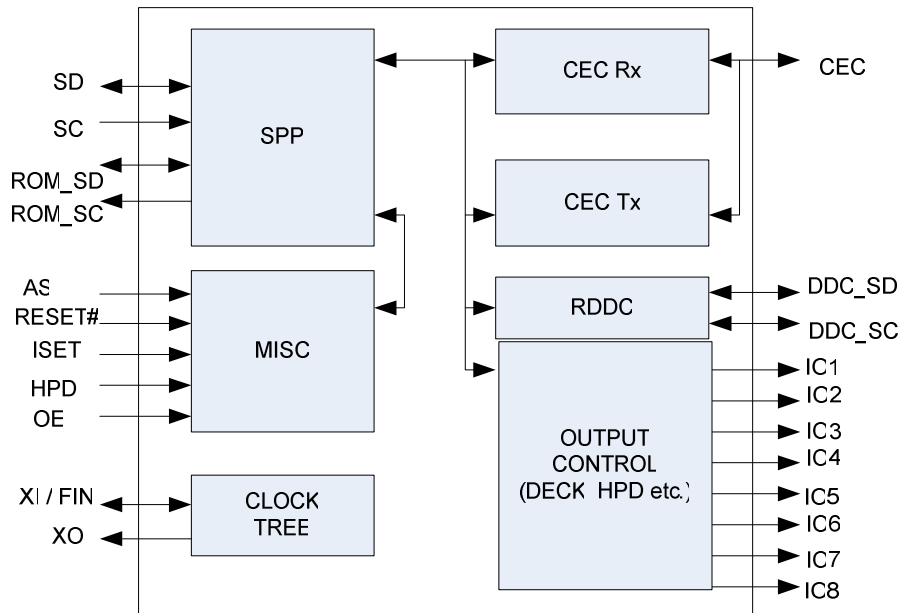
- DVD Players
- DVD Recorders
- Digital Set Top Boxes
- Digital Camcorder
- Personal Computer
- A/V Receivers



**CH7323 Typical Application**

†Patent pending

\*Some CEC features do not apply



CH7323 Functional Block Diagram

**CH7323 Features:**

- Complies with Consumer Electronic Control (CEC) version 1.3a
- Low power, 5mA in full operating conditions in typical application
- Fully programmable through a two-wire serial port
- Programmable power management
- Supports Full CEC features
- Auto Mode Technology † supports CEC functions such as One Touch Play, Power Status, Deck Control, Vendor Specific Command, Audio System Control etc. without software programming
- Flexible crystal frequency or external CMOS clock input
- Supports DDC Master and external serial EPROM for vendor-specific commands
- Reports CEC events through interrupts and registers
- Single 3.3V voltage supply
- Serial Port voltage supported from 1.8V to 5V
- Offered in 24-pin, lead-free SSOP package.

†Patent pending

**CH7323 Development Kit:**

- CH7323 evaluation board
- Application note and reference design schematic
- Complete Windows XP/Vista Driver and API
- CH7323 Software development tool for CE and PC platforms

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<b>ORDERING INFORMATION</b>			
Part Number	Package Type	Number of Pins	Voltage Supply
7323-MF	Lead Free SSOP	24	3.3V
7323-MF-TR	Lead Free SSOP in Tape & Reel	24	3.3V

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