

# CXD1889R, CXD1882R, CXD3008Q SPC900 Series

DVD video players have finally become standard equipment in home entertainment centers. However, for an engineer faced with starting development of a new product, the amount of work is prodigious.

To reduce this burden on developers, Sony has created and now provides a chip set solution for the front-end section of a DVD video player. Furthermore, Sony has incorporated the Sony VSTEM AV interface, which connects DVD front-end and back-end sections, into this chip set. This means that any VSTEM compatible MPEG2 board, even ones from other manufacturers, can be used.

- DVD/CD RF amplifier: CXD1889R
- DVD digital signal processor: CXD1882R
- CD and servo DSP: CXD3008Q
- Microcomputer: SPC900 Series
- Significantly reduces DVD player development efforts
- Supports playback of the CD audio, VCD, super-VCD, and DVD video formats
- Adopts the Sony-proposed VSTEM AV interface
- Deck mechanism: KHM-210AAA

## ■ Lumiere EX

Lumiere is the trade name for Sony DVD video chip set solution products, and is well known as the name of the Lumiere brothers, who invented an early motion picture camera and projector. While the first Sony Lumiere product is already in volume production, the product introduced here is the Lumiere EX (extension) DVD chip set solution that adds the Sony VSTEM AV interface to the functions of the chip set.

## ■ Significantly Reduces DVD Player Development Efforts

When developing a new DVD player, the amount of work associated with the microcomputer software development is stupendous. There are many different types of discs that must be supported, and years of accumulated know-how is required to consistently achieve stable playback in the face of discs with large sample-to-sample variations. The Lumiere EX product provides the whole DVD player front end in a single package. Since Sony provides a deck mechanism in which the optical pickup is already installed, the semiconductor chip set, and a microcomputer with the software already installed, the users development efforts are significantly reduced.

## ■ The Sony Proposed VSTEM DVD Video AV Interface

VSTEM is an 8-bit parallel bus AV interface that was proposed independently by Sony. VSTEM stipulates the hardware, the communication protocols, and the commands used. No special ICs need to be added if Sony microcomputer and DVD digital signal processor products are used in the front end. An end product can be formed simply by combining Lumiere EX with a VSTEM compatible back end. For example, if an MPEG2 board is connected as the back end, a Super Audio CD player can be formed by connecting a DSD board (under development) to the DVD video player.

## ■ Fully Adjustment Free

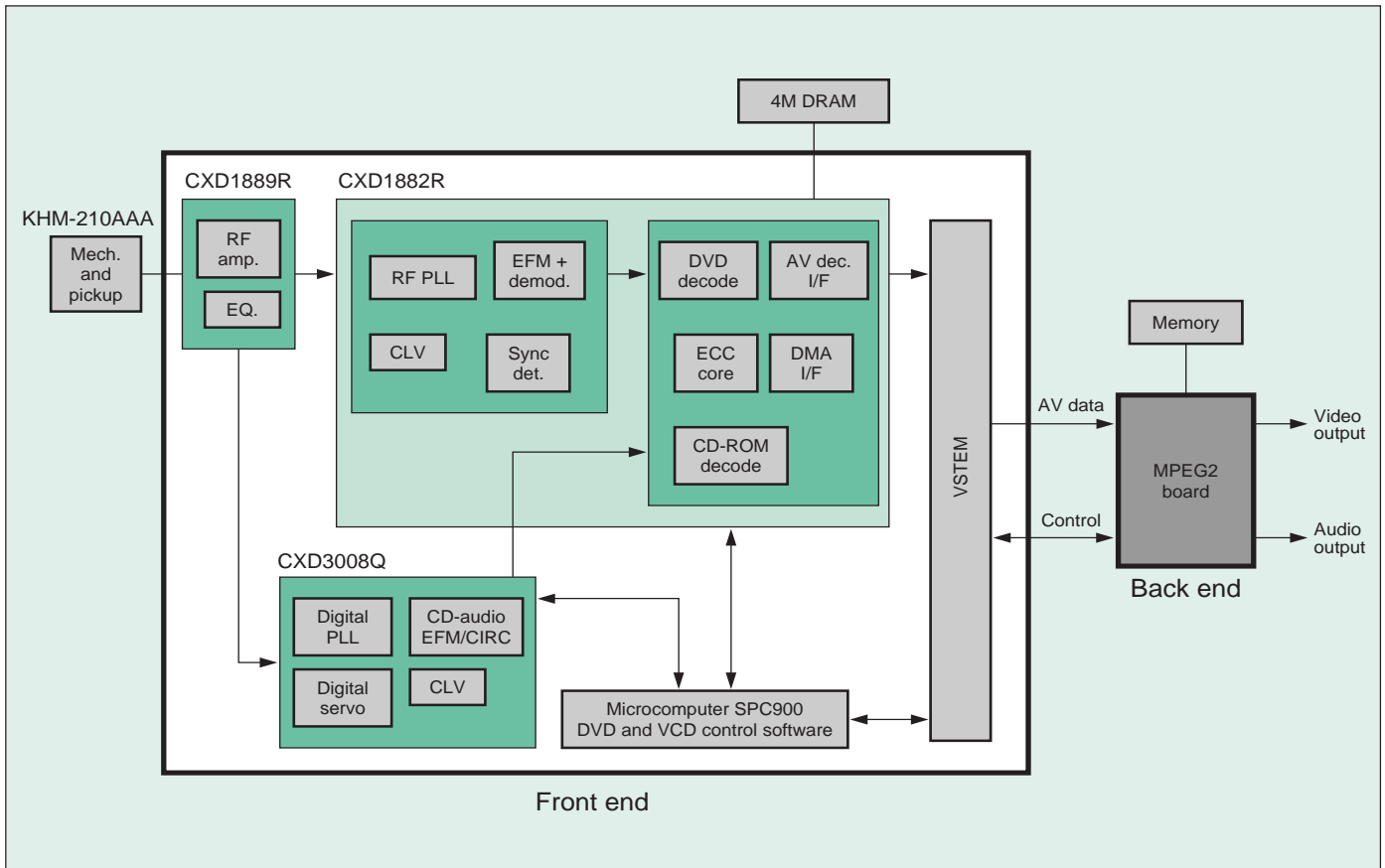
Since this chip set automatically adjusts the focus bias, the focus gain, and the tracking gain for each disc, no adjustment steps are required in the manufacturing line.

## V O I C E

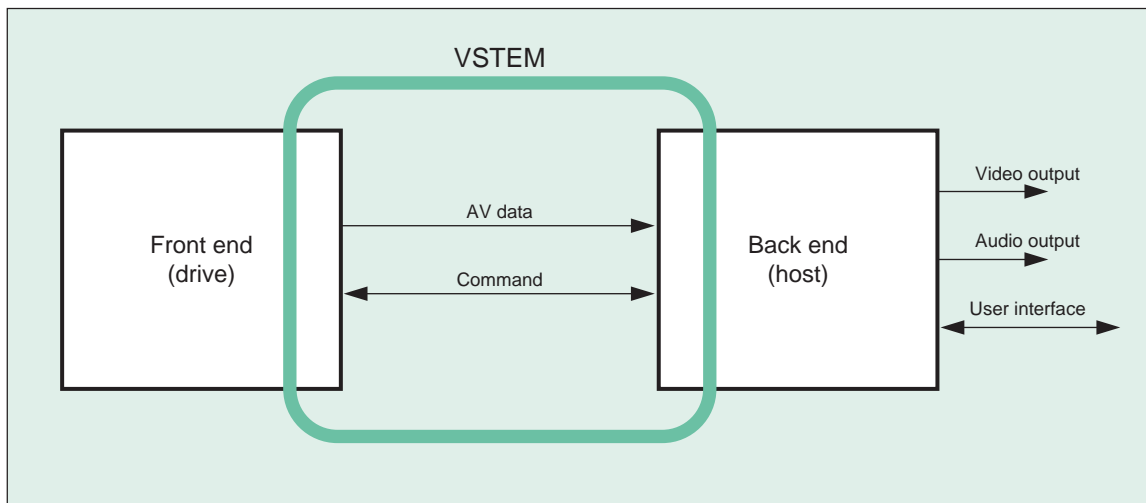
Sony has provided this timely solution concept just as the DVD market is about to enter a rapid growth period. It goes without saying that we focussed on playability in this product to achieve top level performance. We are proud that as a result this chip set has been well received by end product design engineers.



# New Products



■ Figure 1 DVD Video Player System Block Diagram



■ Figure 2 VSTEM Diagram