



GSV2501 Product Brief

HDMI 2.0 Tx with Embedded MCU, eARC/ARC Rx

General Description

Gscoolink GSV2501 is a high-performance, low-power HDMI 2.0 transmitter with CEC, ARC Rx and eARC Rx. By integrating enhanced microcontroller based on RISC-V, GSV2501 has created a cost-effective solution that provides time-to-market advantages. GSV2501's HDMI Transmitter supports up to 18Gbps (TMDS, 6G/3Lane). The superior architecture of GSV2501 provides economical smaller footprint solutions using QFN64, targeting applications of HomeAV and ProAV.

HDMI Transmitter Features

- Compliant with HDMI 2.0b, HDMI 1.4b
- Compliant with HDCP 2.2/2.3 and HDCP 1.4
- Data rate up to 18Gbps (TMDS 6Gbps/3 Lane)
- Programmable Voltage Swing, Slew-Rate and Pre-emphasis
- Support AC-coupling on TMDS
- Support Color Space Converter
- Hardware CEC Engine for Low Level protocol decoding

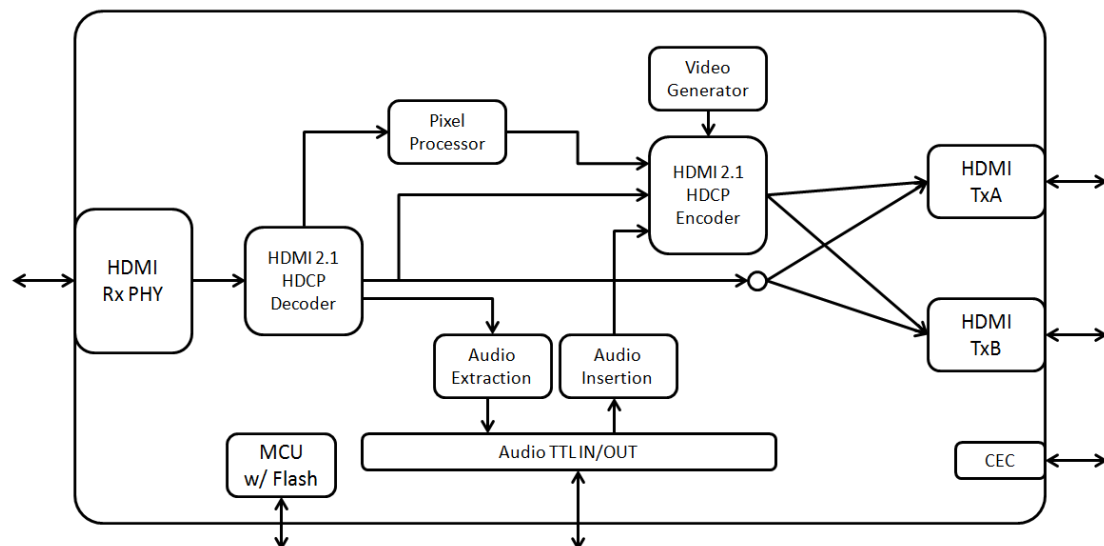
- 5V tolerance on DDC/HPD/CEC pins

Audio Input/Output Features

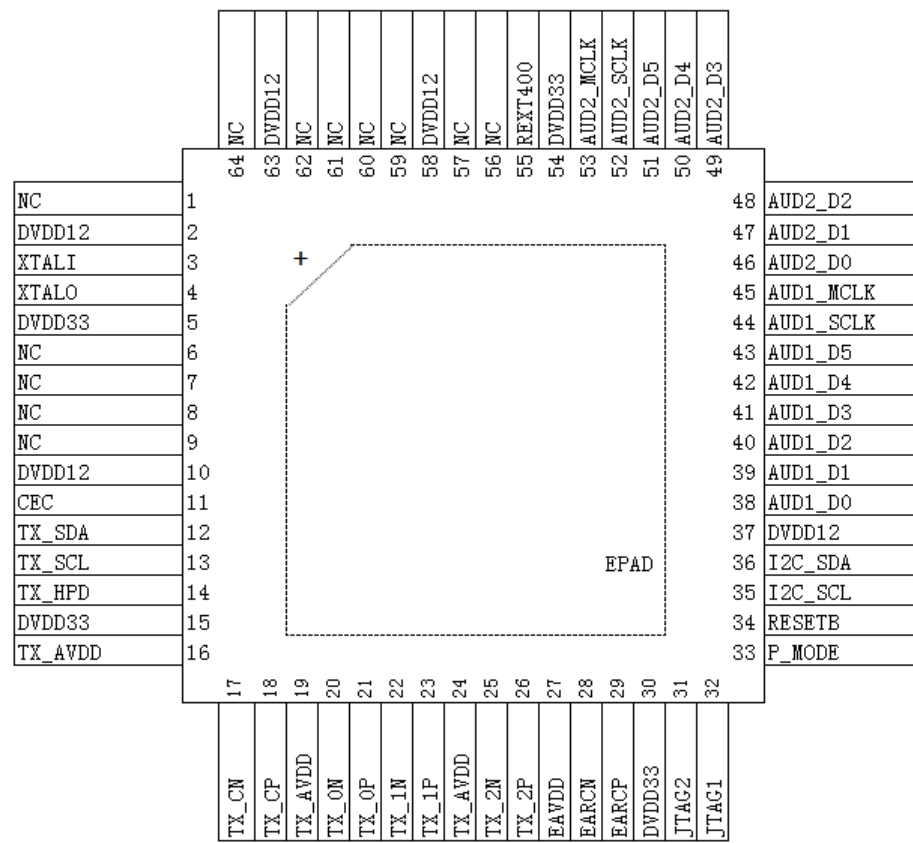
- I2S and SPDIF Audio Extraction from HDMI Rx
- I2S/SPDIF Audio Insertion to HDMI Tx
- SPDIF/I2S/HBR/DSD/TDM Format Supported for Audio Extraction and Insertion
- SPDIF to I2S Conversion using single TTL bus in Bi-direction

System Features

- Optional External MCU (via I2C)/ Internal MCU mode for chip control
- Embedded MCU and External Flash
- External pins of Flash QSPI interface
- External 25MHz Crystal required
- Available Pins for UART/Timer/GPIO
- Temperature Sensor Monitoring Circuit

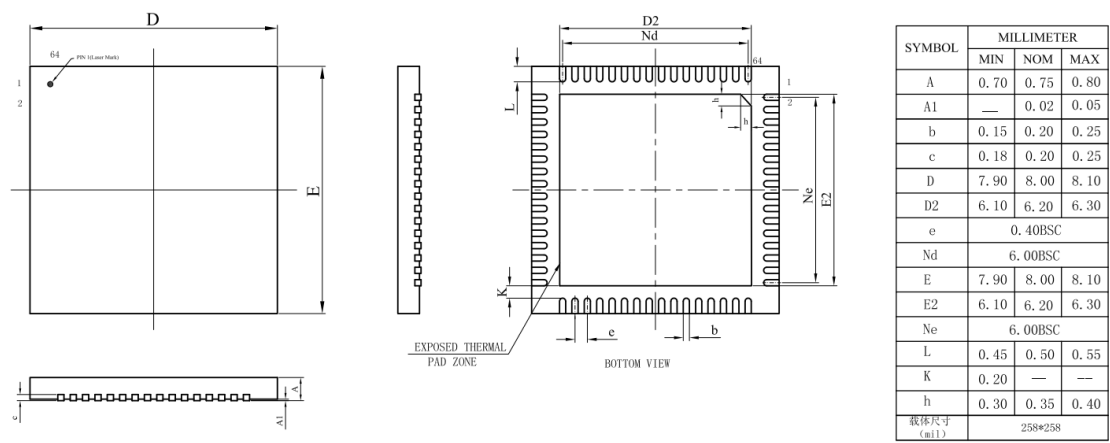


Pin Description



GSV2501 QFN64 Pin Diagram

Package Information



Package Dimensions (QFN64)