



CX25820/1 PCI-Express Media Bridge

Multi-Channel Video and Audio to PCIe Bridge

The CX25820/1 multi-channel media bridge devices enable bi-directional digital video and audio transfers to a host PC via a PCIe x1 interface. The CX25820 and CX25821 contain BT.656/VIP2.0 digital video interfaces supporting 27 MHz input clock rates and I²S digital audio interfaces supporting up to 96 kHz sample rates, for uncompressed video and audio data respectively. Both devices are designed for PC-based security Digital Video Recorders (DVRs) supporting PAL and NTSC applications.

Flexible Architecture

With six bi-directional video interfaces and three bi-directional audio interfaces, the CX25820 can bridge multiple streams of BT.656/VIP2.0 video and I²S audio to/from the PCIe bus. The CX25821 adds

four more video interfaces, for a total of ten digital video interfaces (maximum of eight in either direction). The CX25821 also adds two audio interfaces, increasing the total number of I²S interfaces to five (maximum of four in either direction). The video interfaces may be configured to accept video data in a "54 MHz Mode", which reduces the number of traces routed on the PCB by interleaving 2 data streams on a single digital video port.

The CX25820/1 contain 48 GPIO pins, which maximize flexibility and allow customization to a variety of applications and designs. The GPIO pins also support I²C interfaces, interrupts, flags for motion detection, and other features.

Surveillance-Specific Features

The CX25820/1 contains programmable logic to detect motion on incoming BT.656/VIP2.0 streams. The ability to detect motion on incoming video streams allows the CX25820/1 to immediately alert the host processor of motion via interrupts over PCIe.



Distinguishing Features

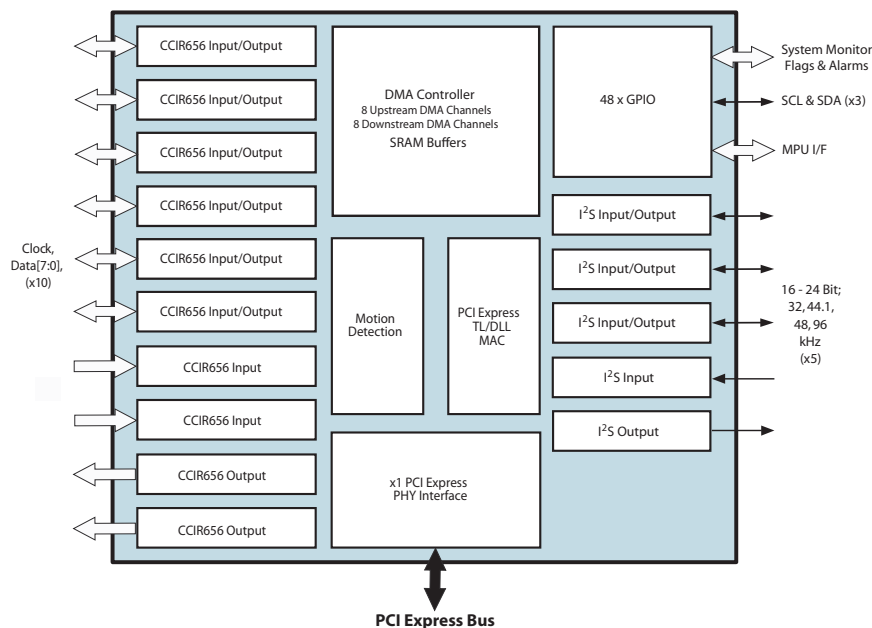
- ◆ PCIe 1.1 Compliant
- ◆ Bi-directional BT.656 interfaces to PCIe
- ◆ Bi-directional I²S interfaces to PCIe
- ◆ Programmable Motion Detection
- ◆ Supports "54 MHz Mode" digital video data (2 channel byte-interleaved mode)
- ◆ 48 GPIO pins

Applications

- ◆ PAL and NTSC PC-based DVRs
- ◆ Multi-monitor Displays

Packages

- ◆ 233-pin, 14 x 14 mm, fPBGA
- ◆ 256-pin, 28 x 28 mm, eLQFP



Part Number CX25820, CX25821

Description
PCI-Express Media Bridge

