

The SOC PCIe-I-8K PCIe Card

Product Description

The SOC PCIe-I-8K board is a versatile FPGA PCIe card that is equipped with an Intel Arria-10 SX660 FPGA, and 20Gb of DDR3 memories. A SOC SoM module with another SX660 or a larger FPGA can also be added to the PCIe-I-8K to increase the FPGA and DDR capacity.

The PCIe-I-8K board has a PCIe connector that supports up to 8 PCIe 3.0 lanes with a total bandwidth of 68Gbps. The PCIe-I-8K also has a large number I/O ports, which makes it adaptable for many different applications, especially PCIe accelerations, video/audio, Internet, and Ethernet connectivities.

The PCIe-I-8K can be used with or without SOC I/O drivers, but, the SOC driver firmware makes the board ready to use (plug-and-play) which saves tremendous amount of time for developers. The SOC PCIe FPGA firmware and host PCIe driver is a complete system which enables the data communications between the host and the FPGAs on the PCIe-I-8K card.

While the PCIe-I-8K can be used to develop and deliver applications related to PCIe, such as acceleration card for AI applications, SOC has developed acceleration cards for H.264/H.265/MPEG2 encoding, decoding, and transcoding accelerations. SOC also customizes the acceleration card to meet customer requirements.

Key Features

- Intel Arria-10 SX660 FPGA
- 20Gbit DDR3 Memory
- SOC SoM or MPEG Codec Module
- HDMI input and output (1.4a)
- 4x12G SDI ports for either inputs or outputs
- Tri-Speed Ethernet (10/100/1000Mbps)
- 8 lanes of PCIe

Applications

- PCIe acceleration card
- Video compression and transmission for 8K resolution or multiple 4k or HD channels
- Video receiver and decompression
- Video transcoding
- Others

SOC Video Codec Acceleration Card

- H.264/H.265 Encoder PCIe acceleration card
- H.264/H.265 Decoder PCIe acceleration card
- H.264/H.265 Transcoder PCIe acceleration card
- Others, please contact SOC

