

Cheetah Connect PCB

General Description

Cheetah Connect PCB is a complete image acquisition and processing system consisting of Cheetah IC and Cheetah Receiver FPGA.

Scope of the User Guide document

The Users Guide provides instructions on installing and using the Cheetah Connect PCB. A detailed description of the installation process is given, as well as a description of the Cheetah Receiver FPGA system and its operation. The Users Guide provides the information in the following order:

1. How to use the Cheetah Connect PCB
2. Environment Installation (for Windows OS)
3. Cheetah Receiver FPGA description
4. Application code structure
5. Example of image acquisition

Features

- 80x120 Ultra High-Speed Imager
 - Power down mode
 - High IR sensitivity (>70%QE@850nm)
- Charge-Sensor Pixel Imager
 - Direct pixel charge processing
 - Charge to digital conversion
- SPI Interface
- Spartan 7 FPGA for image readout and processing
 - on-chip 1620 kbit of SRAM memory
 - 60 MHz system clock for processing
 - scalable architecture for arbitrary image algorithms
- Onboard 128MByte PSRAM for image recording
- USB-C user interface for PC connection

Applications

- Gamer mouse frontend
- High-speed tracking
- High-speed inspection

Subject to change without notice.