Bitec
DSP SOLUTIONS FOR INDUSTRY & RESEARCH

Product Brief:
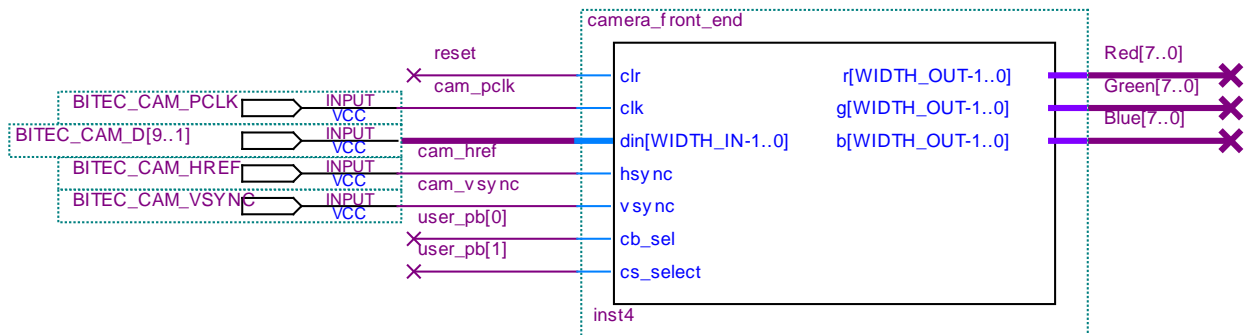
Camera Front End IP

ALTERA.

Features

- Fully parameterised line buffer
- Auto line length adaptation for run-time resolution changes
- Minimal memory footprint
- Fully parameterised
- Bayer to RGB conversion
- Colour bar output
- Gamma correction/Colour space conversion

Applications

- Machine vision
- Video phone
- Remote image sensing
- Surveillance systems
- Biometrics
- Image recognition, filtering and compression
- Video streaming

The Bitec Camera Front End IP allows developers to interface CMOS and CCD cameras to an ALTERA FPGA. Using a memory optimised line buffer, the core sits between a backend SoPC and the raw camera signals. As the line-buffer automatically adapts to the camera resolution, the back-end application can resize or window in real time. An optimised Bayer de-mosaic algorithm is then performed to produce an interpolated RGB triple. A gamma-correction layer allows the core to perform colour correction and user selectable colour space conversion.

The core is designed to interface seamlessly to all CMOS and CCD devices.

A demonstration platform using the Bite Santa Cruz Mega-pixel camera module is available.

For more information **www.bitec.ltd.uk**