

OSI DIGITAL, INC. 26745 Malibu Hills Road Calabasas, CA 91301

CAMLINK FULL MODE TO 10G ETHERNET CONVERTER- Model No. CE01MIN-OSI

DESCRIPTION:

The Camlink full mode to 10G Ethernet Converter module is to capture the video or images from the cam link camera. This captured data is fed through LVDS to parallel converter chip and then connected to FPGA. In FPGA this data is converted in to Ethernet packets using glue logic. The FPGA is interfaced with the high speed interface of 10G Ethernet copper module. The control information from 10G Ethernet is taken and required control logic is implemented for CAMLINK configuration. For Cam link configuration we use the serial RS232 interface.



INTERFACES :

Video Interface:

- Camlink: Full mode Link, Video resolution: 1920 x 1080 / 1280 x 1024.
- Frame rate: 100 Frames maximum, Bits: 16 bits per pixel
- Colour: Monochrome.

Data Interface:

- 1 x Ethernet 10G Base T copper
- 2 x RS232
- 1 x RS422

Memory Interface:

- 512MB DDR3 SDRAM memory
- 512M bit parallel flash for booting or application of FPGA.
- 128MB QSPI Flash memory.

Power:

- 12V DC +/-5%
- <24W

Mechanical Dimensions:

• 120 x 100 x 35mm

Applications:

- Security and Surveillance
- Camera application for video processing.



Environmental Specifications :

- Operating Temperature: -20 °C to + 55°C
- Humidity Range: 20% to 90% (Non-condensing).
- Thermal shock test: -20 °C for 3 hours and + 55°C for 3 hours, No of cycles-8.

Architecture:

The Camlink to 10G Ethernet converter uses a FPGA for high speed Ethernet conversion for the full mode camera link port via Samtec connector. The 10G Ethernet is a copper module which the MAC is inbuilt in the FPGA. The Camlink data of LVDS is converted in to parallel and feed to FPGA where it converts to Ethernet data.

CEC Software:

Micro blaze is used as Processor to communicate with the front end GUI for controls and commands to the FPGA. Micro blaze communicates with GUI to take commands for the

- Camera Resolution
- Baud rate setting





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