

CBM110L

May 24

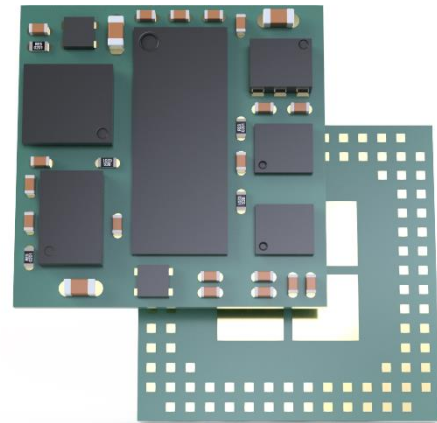
Overview

FPGA based Module for Camera and Display applications on the edge. Expand the capabilities of your SoC, multiply the number of available interfaces, increase flexibility of the system, be future proof. High performance and flexible Module built on lattice latest nexus technology.

Speed up your prototype development and proof of concept phase, up to small series by using this highly integrated Module in a space saving 10x10mm LGA package. Allows for Simple 4x Layer PCB technology, in-system update over I2C or UART for future upgrades.

All Features

- Up to 3 Camera Interfaces
- USB 2.0 and USB 3.2 Interfaces
- Supported standards: OpenLDI, CSI, DSI, LVDS, SLVS, Parallel
- Dual Bistream Boot
- Single Supply Operation
- MCU for user-specific configuration

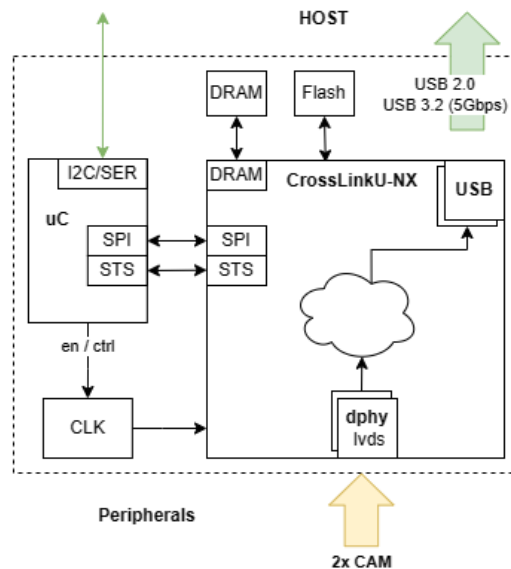


Specification

Package	10 x 10mm, LGA108
Logic Cells	33k
FPGA resources	64 DSPs: 18 x 18 multipliers 3.6Mb embedded memory (EBR, LRAM)
Connectivity	7 high speed differential lanes - up to 1.2Gbps/Lane (LVDS) - up to 1Gbps/Lane (MIPI) 14 high speed single ended lanes (alternative) USB 2.0 (480Mbps) USB 3.2 (5 Gbps)
Peripherals	Built-in clock generator Integrated Flash Frame Buffer: HyperRAM (2x128Mbit)
Power Supply	1.8V (low power)
Environment	Operating Temperature Commercial: 0 – 60°C Industrial: -40 - +85°C *

*on request

Block Diagram



Applications

- Video Aggregation. Merge multiple video streams in a USB interface
- Video grabber from image sensor to USB
- Video Rotation
- Advanced ISP
- Standard UVC class – no drivers needed
- Sensor fusion
- Image overlays
- ML ready

Targeted Platforms

Currently tested sensors:

- IMX258 (CSI2), OV5647(CSI2), OVM6211(CSI2), IMX477(CSI2), IMX424(CSI2)
- AMS NanEyeM
- PYTHON1300 (LVDS), MT9V024 (LVDS), ...

Supported SoC:

- I.MX6, I.MX8, ...
- SMARC, OpenStandardModule (OSM), COM express Modules, x86 Platforms ...
- RaspberryPi, NVIDIA Jetson, ...

Ordering Information

Description	Ordering Part Number
CBM110 Module	CBM110L-U0-L001-C-0000