

CBM100L

March 24

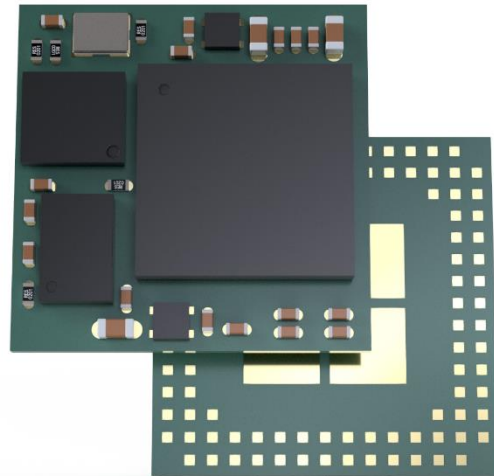
Overview

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.

Highlights

- Up to 2x High-speed 10Gbps/Ports
- Up to 8x Camera/Display Interfaces
- Supported standards OpenLDI, CSI, DSI, LVDS, SLVS, Parallel
- Dual Bitstream boot
- Single Supply operation
- MCU for user-specific configuration

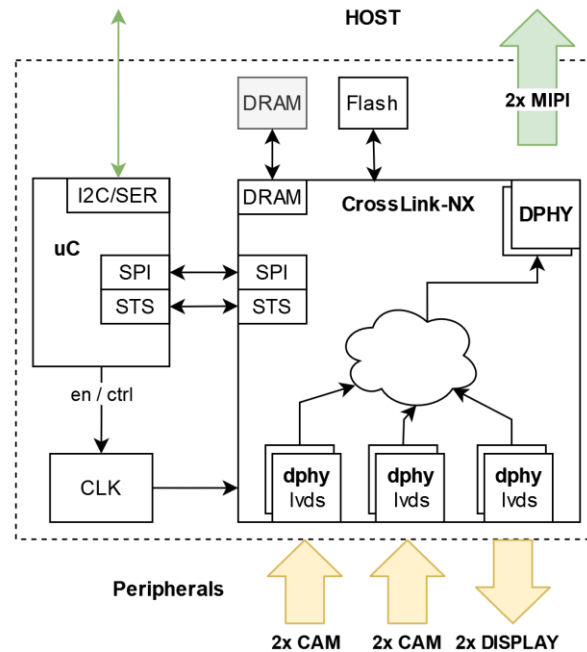


Specification

Package	10 x 10mm, LGA108 – 0.65mm
Logic Cells	17k
Connectivity	2x 4-Lane Hard D-PHY CSI/DSI Ports (up to 2.5Gbps/Lane) 3x 4-Lane Soft D-PHY CSI/DSI Ports (up to 1.5Gbps/Lane) 3x 2-Lane Soft D-PHY CSI/DSI Ports (up to 1.5Gbps/Lane)
Peripherals	Build in clock generator / integrated Flash
Input/Output	57x Single-ended IOs (1.2V and/or 1.8V) 32x Differential Pairs (SLVS, LVDS) 8x Clock-capable Inputs
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 single CSI interface
- Video Interface Bridge. SLVS/LVDS to CSI, CSI to DSI, Parallel to CSI/DSI, etc...
- Video Cloning/Mirroring. Duplicate video content from input to multiple displays
- Video Pre-Processing (ISP). Lens corrections, color space conversion, ...
- Video pattern generators for custom test equipment
- Video grabber from image sensor to USB, Ethernet, etc...

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)**, ...
- RaspberryPi, NVIDIA Jetson, ...

Ordering Information

Description	Ordering Part Number
CBM100 Module	CBM100L-Z0-L000-C-0000