



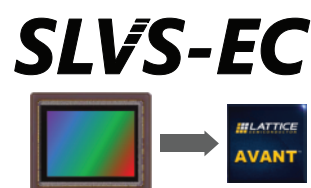
High-resolution Sony sensors demand an interface solution that keeps pace. Macnica Europe's SLVS-EC v3.1 Rx IP delivers proven, production-ready integration between Sony's latest image sensors and the Lattice Avant G/X FPGA family, combining Macnica's deep Sony sensor expertise with Lattice's class-leading low-power, small-footprint architecture to accelerate your path from design to deployment.

Product features

- Supports the SLVS-EC v3.1 specifications
- Power De-skew function allows for easier board design
- Realizes various functions defined in the SLVS-EC Link layer
 - 32 or 64 pixel selectable output interface
 - Supports 8, 10, 12, 14, 16 bits per pixel
- GCC (Gigabit Channel Coding) added in the latest SLVS-EC Version 3.0 for less overhead compared with 8b/10b.
- Supports error correction function using ECC (Error Correction Code)
- Supports Byte to Pixel conversion in 1, 2, 4, 6, and 8 lane configurations
- Includes header parsing and payload error detection
- Unnecessary functions can be removed using compile options
- Reference design and evaluation kit is available

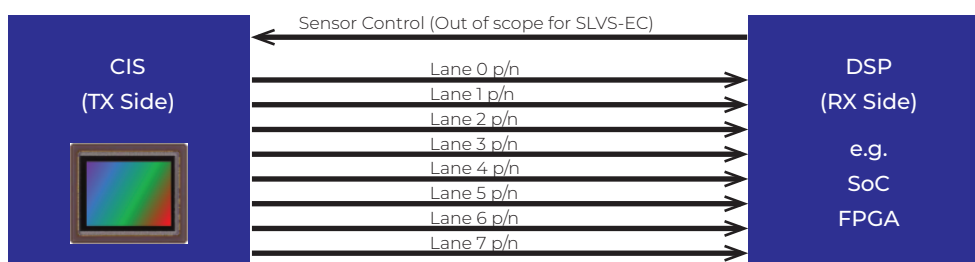
Solution Advantages

- Faster time to market using proven IP
- Simple evaluation process
- Class leading low power consumption with Lattice Avant G/X
- Supports Avant G/X smallest package footprint within its class
- Support up to PCIe gen4 x 8, LPDDR4/DDR4/DDR5, 25Gbps Ethernet for high performance system requirements.



SLVS-EC standard overview

- SLVS-EC (Scalable Low Voltage Signaling with Embedded Clock) is an interface standard for high-resolution, high-speed image sensors developed by Sony Semiconductor Solutions Corporation.
- The SLVS-EC standard is being standardized by the Japan Industrial Imaging Association (JIIA).



SLVS-EC v3.1 IP from Macnica for Lattice FPGA

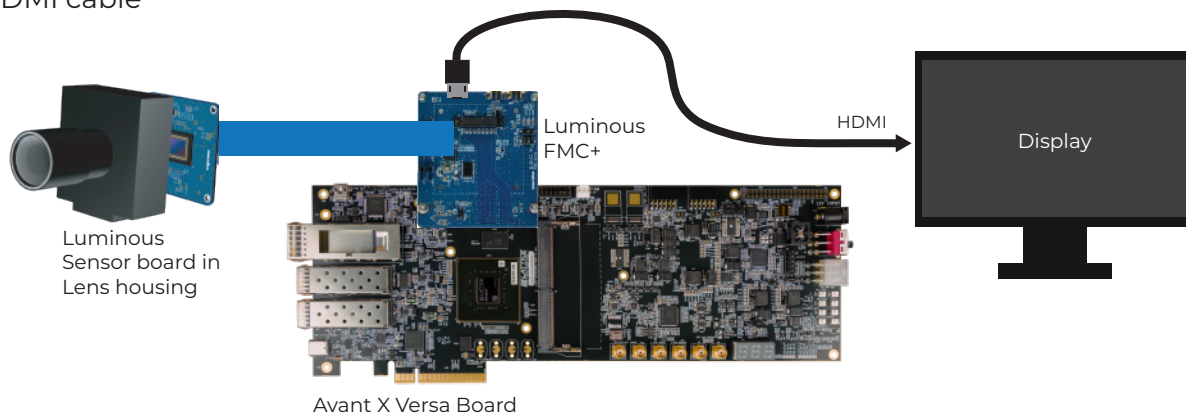
Evaluation kit

Macnica provides hardware and firmware reference design for evaluation

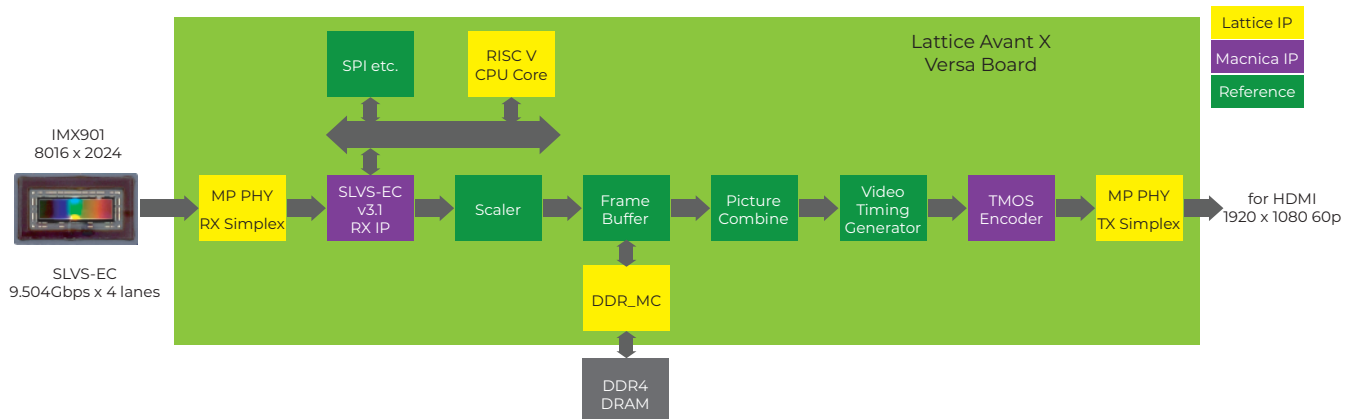
- Luminous IMX901 SLVS-EC Sensor EVM
- Lens assembly for IMX901
- Macnica FMC+ card (loan item only)
- Samtec SLVS-EC ribbon cable

Customer supplied equipment

- Avant G/X Versa board (loan available upon request)
- HDMI cable



Block Diagram



Why Macnica

Nobody knows Sony sensors in Europe like Macnica. We have built proprietary IP specifically for Sony sensor integration and put engineering teams on the ground throughout EMEA, with offices in France, Germany, the UK, and growing coverage across Northern Europe. Behind it all sits Macnica Holdings, an 8.55B Euro global technology leader headquartered in Yokohama, Japan. When you work with us, you are not buying a component. You are getting a partner. www.macnica.com/eu