

VL-InAS : ARM/FPGA SoC DEVELOPMENT BOARD

VL-InAS is a compact ARM/FPGA System on Module designed for embedded system development, industrial control, and SoC-based application prototyping. It combines a dual-core ARM Cortex-A9 processor with a low-power Artix-7 FPGA fabric, enabling seamless integration of software processing and custom hardware acceleration on a single module.

System on Module Board

Processor:

- Dual ARM Cortex-A9
- Enhanced NEON Extension and Single & Double precision FPU
- 32KB Instruction and Data L1 Cache
- 512 KB Unified L2 Cache
- 256KB On-chip memory

FPGA: Xilinx Artix-7 28nm Advanced Low Power FPGA Fabric

Memory:

- 1/2GB DDR3 Support
- 8Gb/16Gb eMMC
- 16MB/32MB QSPI Support

Ethernet

- 1 x 10/100/1000 BASE-T Ethernet module
- Additional x 10/100/1000 BASE-T

USB: 1 x USB 2.0 OTG

uSD: 1 x uSD support up to 32GB

Display: Through LVDS Interface

Power Supply:

- 4.5-5.5V, 5W (Max)
- 3.3V, 1.8V, 1.5V, 1.0V DC on Board

Boot Support: JTAG / QSPI / uSD

Form Factor:

- 85 mm x 65 mm
- 2 x 100 Pin High speed connectors

Software Support: Linux

Additional Interfaces:

- CAN 2.0 / UART
- 123 FPGA IO's
- Analog Inputs (Multiplex and Shared)
- Expansion Board

Interfaces on Expansion Board

- HDMI Out for Video output connectivity - 1 Nos
- 1 Gbps Ethernet over RJ45 - 2 Nos
- USB 2.0 OTG - 1 Nos
- USB - UART for debug over Micro USB cable
- 50+ GPIO for external interfaces with independent +5V and 3.3V GPIO connector

