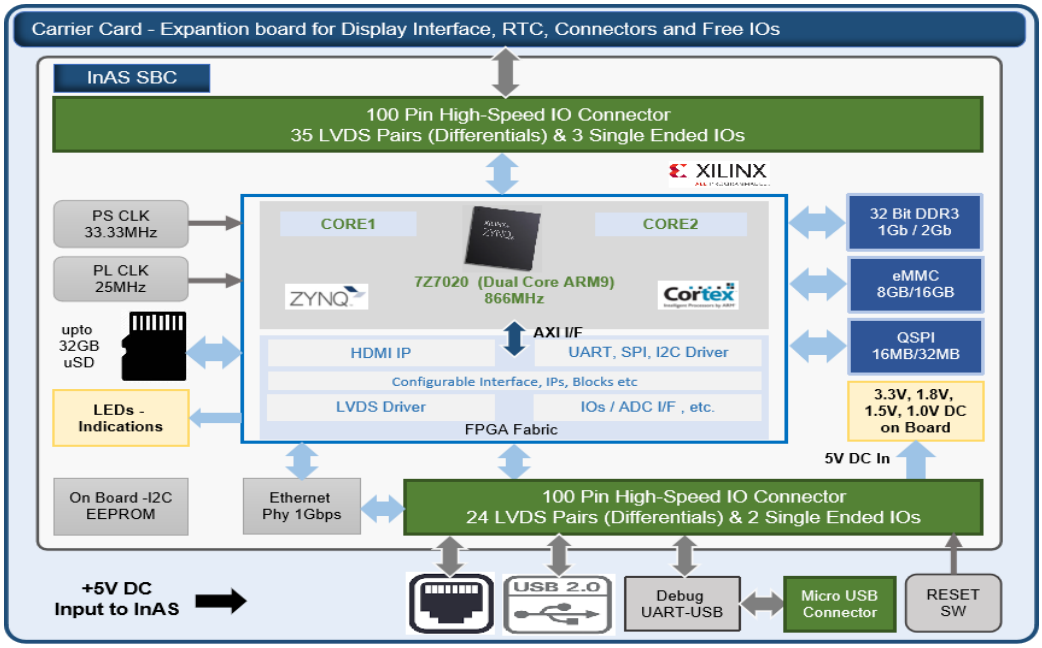
InAS (India Automation SOM)

Xilinx® SOC - Zynq™ 7000 Series Based

High Performance, Compact SBC



- ✧ Powered by ARM® Dual-Core Cortex™A9 MP Core
- ✧ Based on Xilinx's high-end Zynq XC7Z000 Series All-Programmable SoC
- ✧ Support Zynq devices XC7Z007 / 10 / 14 / 20 CLG 400 Pin package
- ✧ 87mm x 65mm board size Compact form factor
- ✧ Available in Production ready with industrial temperature range
- ✧ Linux BSP, tool chain and Support available

Rezonet Technologies India Private Limited, No.4 Sitai, Right Bhusari Colony, Kothrud, Pune, Maharashtra, India – 411038.
Email - Marketing@rezonet.in

Xilinx Zynq SOC advantages

- ✧ Combines Flexibility of SBC with the FPGA configurability
- ✧ Industrial Grade, Rugged platform to optimize overall BOM cost
- ✧ On module required power supplies for efficient power management
- ✧ Linux board support package (BSP) along with Root file system enables seamless integration
- ✧ Customized Carrier boards for instant board bring-up and quick prototyping

Key Specs

Processor

- Dual ARM Cortex-A9 @ 866MHz
- Enhanced NEON Extension and Single & double precision FPU
- 32KB Instruction and Data L1 cache
- 512KB Unified L2 Cache
- 256KB On-chip Memory

FPGA

- Xilinx Artix-7 28nm Advanced low power FPGA fabric
- Up to 85K Logic Cells (approximately 1.3M of equivalent ASIC gates)
- 560KB Block RAM
- 220 programmable DSP slices (18x25MAC)

Additional Interfaces

- CAN 2.0 / UART (Optional on IOs assignments)
- 123 FPGA IO's (For 7020 only)
- Analog Inputs (Multiplex and Shared)

Power Supply

- 4.5-5.5V
- 5W (Max)

Boot Support

- JATG / QSPI / uSD

Memory

- 1 / 2GB DDR-3 Support
- 8Gb/16Gb eMMC
- 16MB/32MB QSPI support

Ethernet

- 1 x 10/100/1000 BASE-T On module
- Additional 1 x 10/100/1000 BASE-T (Optional on carrier card)

USB

- 1 x USB 2.0 OTG (Optional on carrier card)

Display

- Through LVDS Interface

Serial

1 x UART, 1 x I2C, 1X CAN2.0

Form Factor

- 85 mm x 65 mm
- 2 x 100 Pin High Speed Connectors

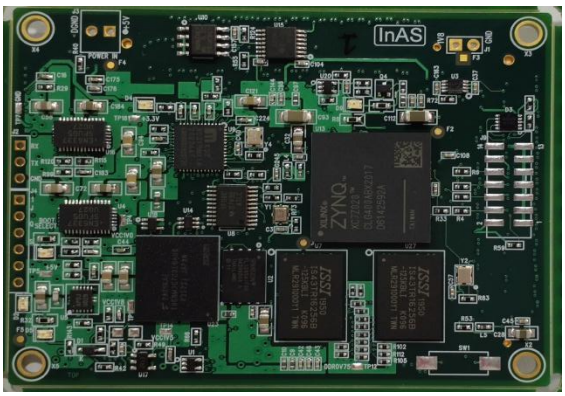
Software Support

- Linux

InAS Bottom



InAS TOP



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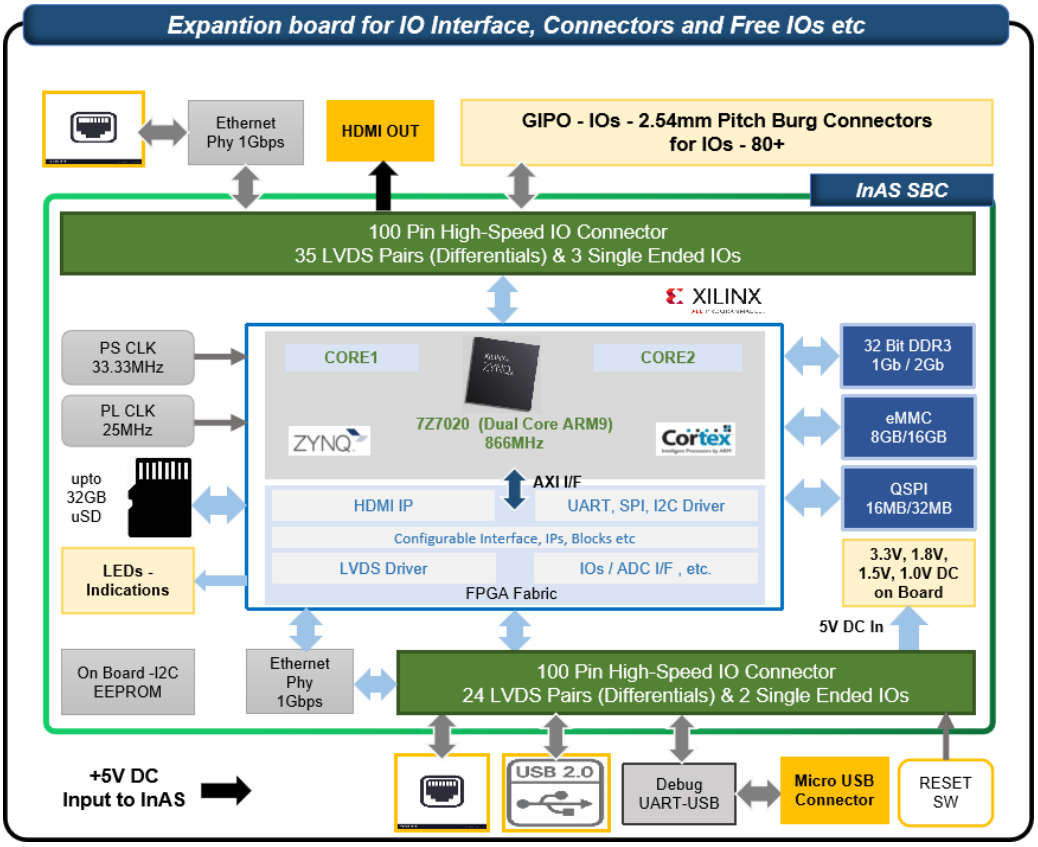
REZONET

InAS Expansion board



Interfaces on Expansion board -

- ✧ HDMI Out for Video output connectivity - 1 Nos
- ✧ 1Gbps 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

Benefits -

- ✧ Linux BSP
- ✧ Demo Project for Dual Ethernet, HMDI, USB2.0 interfaces
- ✧ Support to Train and build resource and expertise

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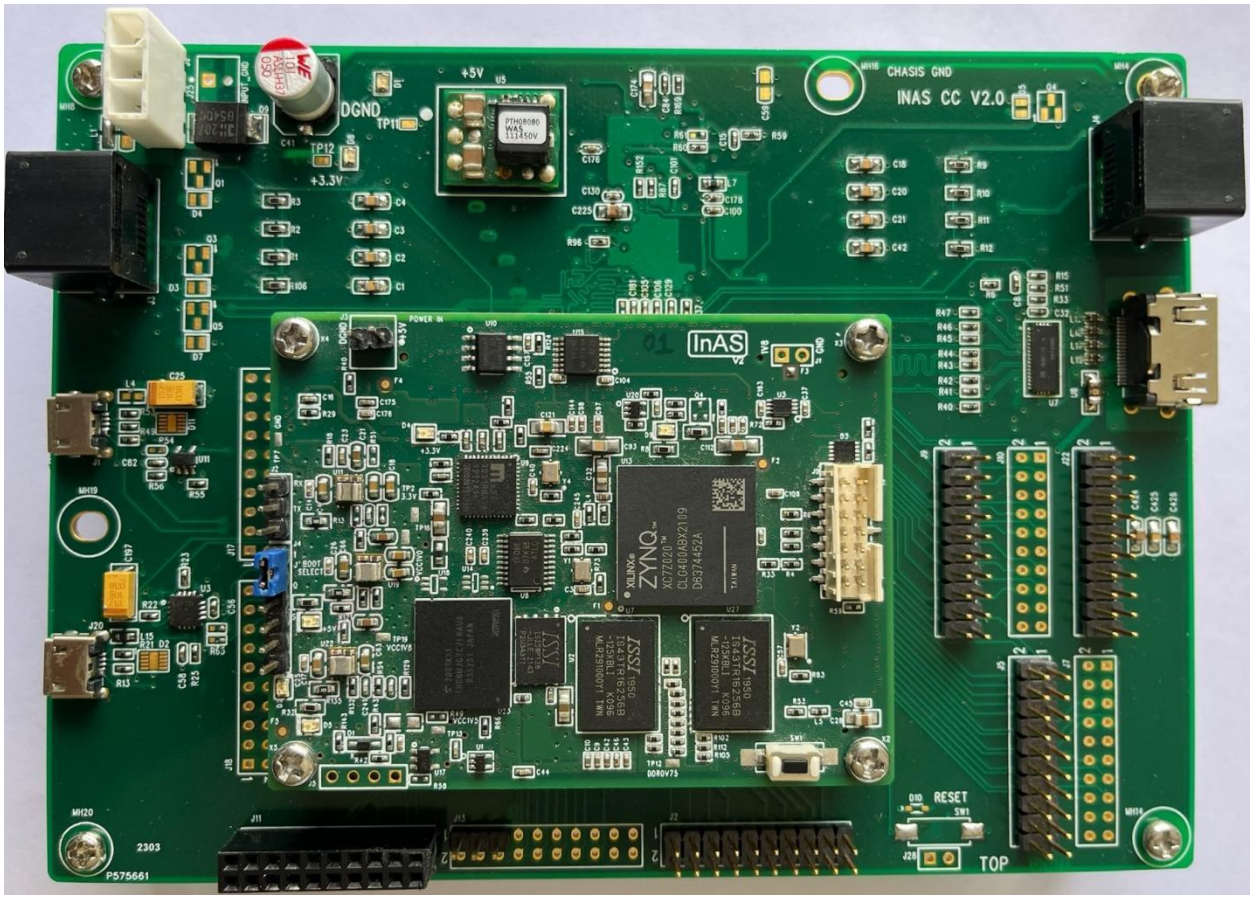
INAS CC V2.0
CHASIS GND
+5V
DGND
+3.3V
InAS
ZYNQ
RESET
TOP