

ONIX-VU440 is based on Xilinx UltraScale™ XCVU440 FPGA, currently the largest FPGA available in the industry. The module board is designed for Rapid prototyping and ASIC Emulation, to provide the best available solution for users' requirements.

The flexible and scalable design of ONIX-VU440 supports three modes of operation, including:

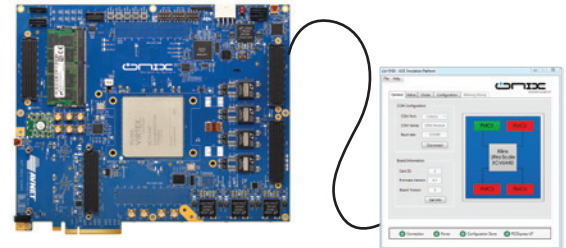
- A "desktop" Standalone Mode
- PCIe plug-in card
- Mezzanine Module mode of operation while plugged on the Host Board.

ONIX package includes management SW that enables:

- Easy access to board features like programmable PLLs/Oscillators
- Flash Programming
- Low-level SoC debug
- Memory Dump and Upload

FEATURES

- Xilinx XCVU440FLGA2892
- Connectivity
 - PCIe Gen. 1/2/3 x1/x4/x8 lanes
 - x4 FMC
 - x4 PMOD
 - SMAs
 - UART over USB
 - JTAG
- DDR Memory
 - DDR4 x72 bit
 - DDR3 \ DDR3L x64 bit
 - LPDDR2 \ 3 (Optional)
- Advanced clock generation
 - On-Board programmable PLL 1kHz up to 800MHz
 - x4 programmable clocks
 - x4 programmable clocks for the GTH transceivers
- FPGA Programming and Debug
 - Via JTAG connector or Digilent USB module
 - Up to 2 configuration files storage in flash
 - Fast remote configuration (via USB)
 - Low-level SoC debug
 - Memory Dump and Upload
- x4 PMOD sockets for off-the-shelf modules
- General purpose x8 DIP switches
- General purpose x8 LEDs
- General purpose x4 push buttons
- Power Supplies
 - 12V Power Supply
 - Standard ATX supply
- Power management providing:
 - Per bank voltage control
 - Power Monitoring
 - Reverse polarity and current protection



TARGET APPLICATIONS

- ASIC Emulation/Validation
- Rapid prototyping

KIT INCLUDES

Hardware

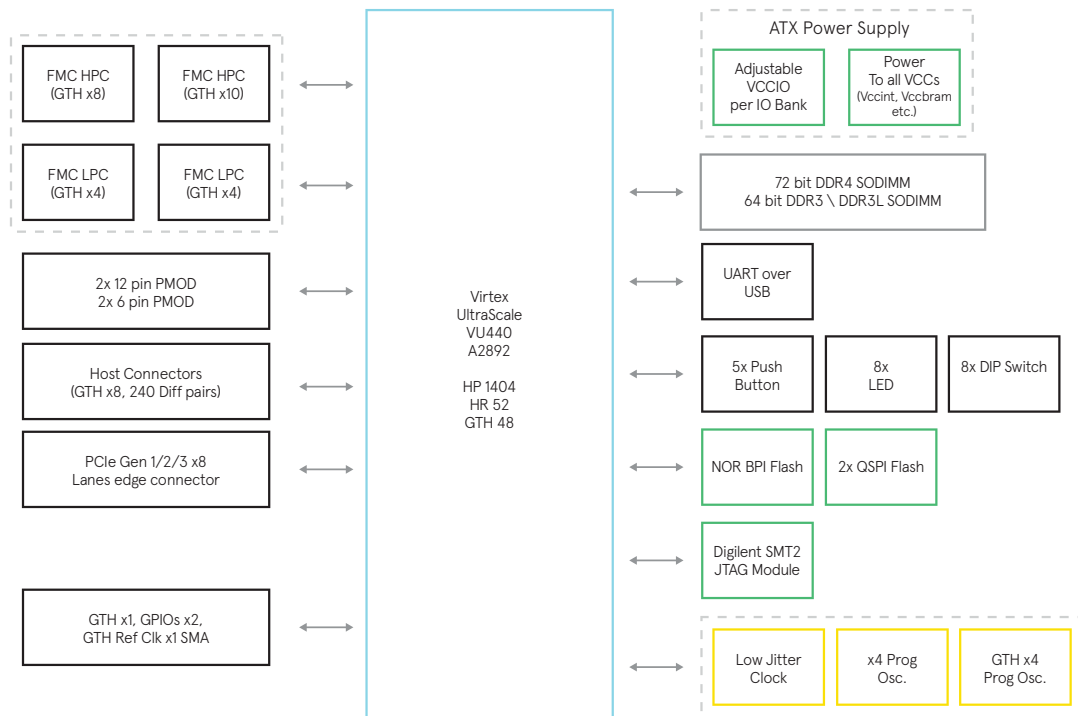
- ONIX Virtex UltraScale 440 Board
- USB A-mini-B Cables (2)
- 12V Power Supply (US/UK/Euro AC cords)

Software Tools

- Xilinx Vivado: Design Edition (Device locked to XCVU0440)
- ONIX Dashboard

To purchase this kit, contact onix@avnet.com or visit <https://www.onix.systems>

BLOCK DIAGRAM



FEATURED MANUFACTURERS



PARTS

Part Number	Description	Resale
AVT-ONIX-VU440-1-G	ONIX Module XCVU440-1 Device	Contact your local Avnet office
AVT-ONIX-VU440-2-G	ONIX Module XCVU440-2 Device	Contact your local Avnet office

RELATED PARTS

Part Number	Description	Resale
AVT-ONIX-FMC-IPASS-8X-G	HPC FMC connector to iPASS high speed	Contact your local Avnet office
AVT-ONIX-PCIE-IPASS-8X-G	PCIe edge connector to iPASS high speed	Contact your local Avnet office
AVT-ONIX-KIT-IPASS-8X	iPASS bundle including Cable	Contact your local Avnet office
AVT-ONIX-FMC-INTF-G	FMC to Universal Peripherals I/F	Contact your local Avnet office
AVT-ONIX-DDR3-G	ONIX DDR3/L adaptor	Contact your local Avnet office
AVT-ONIX-JTAG-EXP-G	Multiple JTAG cascading adaptor	Contact your local Avnet office
AVT-ONIX-HOST-3U-G	ONIX HOST board	Contact your local Avnet office

Countries Available for Purchase: Americas, EMEA, Asia, Japan

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