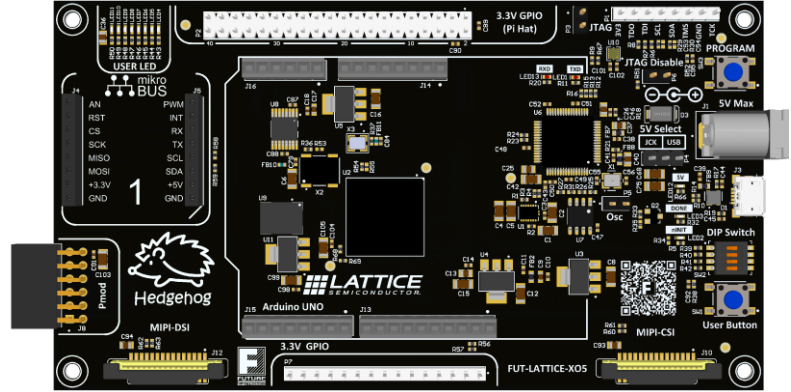# Hedgehog - MachXO5™-NX Breakout Board

Overview

Hedgehog is a MachXO5-NX evaluation board designed by Future Electronics in partnership with Lattice Semiconductor. It's a simple, low-cost breakout board that provides convenient access to densely spaced I/Os of Lattice's MachXO5-NX secure control FPGA to allow simple evaluation and development. The MachXO5-NX family of low-power FPGAs are built on Lattice Semiconductor Nexus FPGA platform, using low-power 28 nm FD-SOI technology. The MachXO5-NX family supports a variety of interfaces including MIPI D-PHY (CSI-2, DSI), LVDS, SLVS, subLVDS, SGMII (Gigabit Ethernet) and more. It includes embedded flash memory for on-chip multi-boot and UFM.

FUT-LATTICE-XO5

Visit Hedgehog board GitHub page for reference designs and more:

https://github.com/Future-Electronics-Design-Center/Hedgehog-Development-Board

Features

- Lattice MachXO5-NX secure control FPGA (25K LCs)
- Pmod™, mikroBUS™, Arduino, and Raspberry Pi connectors
- On-board FTDI JTAG and connector
- Program and user buttons
- 4-position DIP switch
- MIPI camera and display interfaces
- 128Mb HyperRAM
- 8 x LEDs
- USB debug interface

System Block Diagram