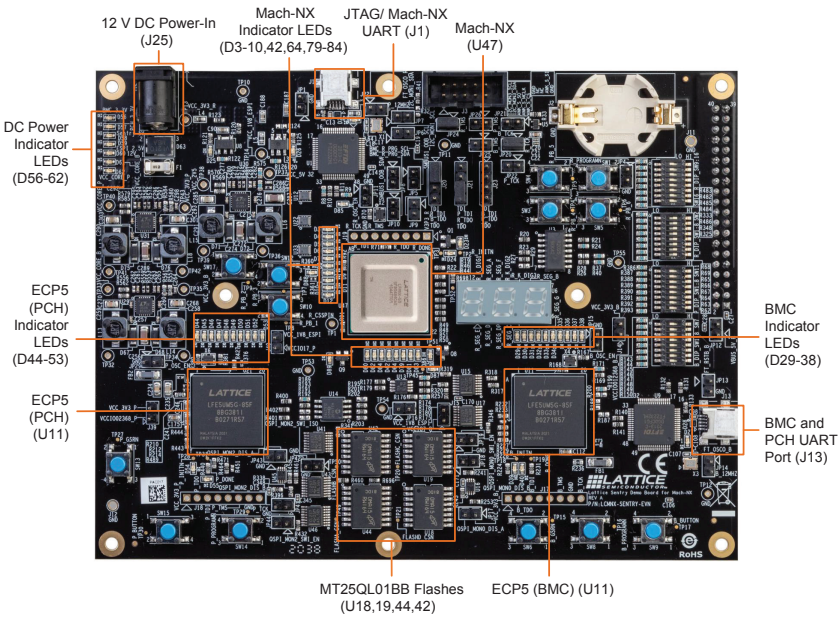
This document provides a brief introduction to the Lattice Sentry Demo Board for Mach-NX.



1 Check Kit Contents

The Lattice Sentry Demo Board for Mach-NX includes the following items:

- Lattice Sentry Demo Board for Mach-NX
- 12 V AC/DC Adapter
- USB Cable for Programming via PC (USB-A to Mini-B)
- Quick Start Guide

2 Using the Board

The Board contains one Mach-NX (LFMNX-50) (U47) and two ECP5-85F (U11, U21) FGPA devices.

The board comes pre-loaded with the demonstration program described below. The Mach-NX program image is contained in its on-board flash. The ECP5 images are contained in their respective external SPI Flash devices (U18, U19, U44, U42).

3 Installing the software

The Board is pre-programmed with a basic demonstration.

To develop your own solutions, download and use the Lattice Propel 1.1 software and the Lattice Diamond software (version 3.12 or later), downloadable from www.latticesemi.com/software.

If you only need to re-program the board, you can use the Diamond Programmer standalone software (version 3.12 or later). You can download this at www.latticesemi.com/programmer.

4 Powering the Boards & Observing the Demo Program

Connect the supplied power adapter to the 12 V DC power input (J25) on the board. The power LEDs (D56-D62) should light, indicating the board is powered.

The LEDs underneath the Mach-NX device (D80, D82, D84, D42, D64, D79, D81, and D83) should move through a series of patterns before settling on 1100 1111 within a few seconds. This indicates that all three FPGAs are configured correctly. There will also be a blinking status LED next to each ECP5-85F (D53, D38) indicating the demo program is running.

5 Doing More with the Lattice Sentry Demo Board for Mach-NX

Check the Lattice website at www.latticesemi.com/sentrydemoboardmachnx to download the full User's Guide, PC-based software tools to interact with the demonstration program, and other resources.

Technical Support

www.latticesemi.com/support

QS056 V2
Nov 2021