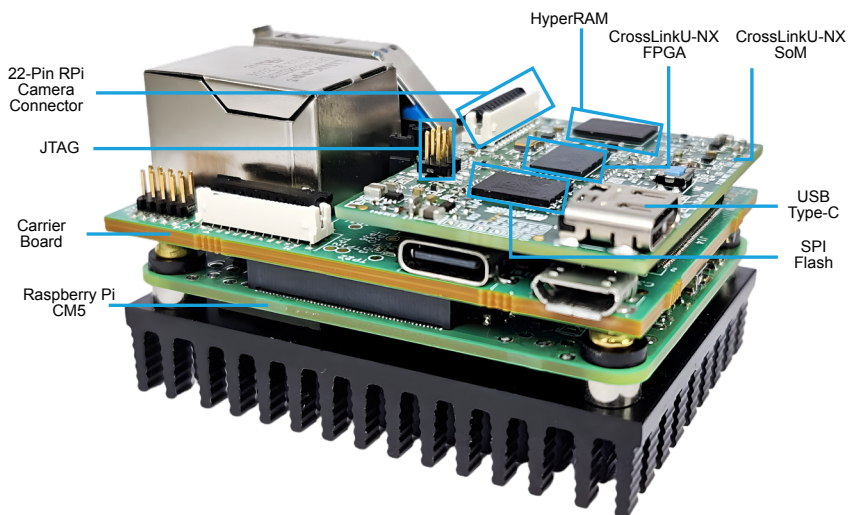


This document provides a brief introduction to the CrossLinkU-NX SOM sensAI Kit. This kit is a cutting-edge System on Module (SoM) built on the CrossLinkU-NX LIFCL-33U FPGA, designed for resource-constrained Edge AI applications.



Check Kit Contents

The CrossLinkU-NX SOM sensAI Kit contains the following items:

Sl No	Description	Part Number/Manufacturer	QTY
1	CrossLinkU-NX SOM sensAI Kit	PN: LIFCL-SOM-EVN Rev B, MFG: Lattice	1
2	Generic Carrier HW Board	PN: LF-GEN-CR-PCBA Rev A, MFG: Lattice	1
3	Raspberry PI CM5	PN: SC1601, MFG: Raspberry Pi	1
4	Raspberry PI CM5 Passive Cooler	PN: SC1752, MFG: Raspberry Pi	1
5	IMX219 Camera with regular (narrow) FOV	PN: (ArduCam B0191), MFG: Arducam	1
6	22-22 RPI 5 Camera Cable 200 mm	PN: B0BQ72Q33C, MFG: SHIVLAHERI	1

7	USB Cable Type A Male to Type C Male 3.00'	PN: U428-003-G2, MFG: Eaton Tripp Lite	1
8	IMX219 Camera holder	PN: R213343 (web store SKU), MFG: KKSBB	1
9	5 V 25 W AC DC External Wall Mount (Class II) Adapter Multi-Blade (Sold Separately) Input	PN: WR9QA5000USBCNAN (R6B), MFG: GlobTek, Inc.	1
10	Input plug for wall adapter1	PN: Q-KIT®, MFG: GlobTek, Inc	1
11	Modular Cable Plug to Plug 8p8c (RJ45, Ethernet) 3.28' (1.00m) Shielded	PN: BC-5SG010M, MFG: Bel Inc.	1
12	USB 2.0 Cable Type A Male to Micro B Male 3.28' (1.00 m) Shielded	PN: CBL-UA-MUB-1 MFG: Harwin Inc.	1
13	Conn Shunt 1.27 mm black handle – Used to enable eMMC write mode on the CM5	PN: M50-2000005 MFG: Harwin Inc.	3

Static electricity can shorten the lifespan of electronic components. Please observe these tips to prevent any damage that could occur from electro-static discharge:

- Use anti-static precautions such as operating on an anti-static mat and wearing an anti-static wristband.
- Store the board in anti-static packaging.
- Touch the metal housing to equalize voltage potential between you and the board.

2

Using the CrossLinkU-NX SOM Edge AI Kit

The CrossLinkU-NX SOM sensAI Kit as shipped with CrossLinkU-NX SoM for HMI Demonstration.

3

Installing the Software

- The CrossLinkU-NX SOM sensAI evaluation board is preprogrammed with a basic demonstration.
- To develop your own solutions, download and use the Lattice Radiant (version 2024.2 or later) and Lattice Propel (Version 2024.2 or later).
- If you only need to re-program the board, you can use the Radiant programmer Stand-alone Software (version 2024.2 or later).

Powering the Boards and Observing the Demo Program

- [illegible]

- Open a browser and go to <http://192.168.1.45:5000>.
- Click Enable Streaming Mode.
- You should now be able to see the object detection on the video.
- Refer to the CrossLinkU-NX SoM for HMI Demonstration (FPGA-RD-02333-1.0) for step-by-step guidance on power and demo program observations.

Doing more with CrossLinkU-NX SOM sensAI Kit

Check the Lattice website latticesemi.com/products/developmentboardsandkits/crosslinku-nx-system-on-module-som-board to download the full User Guide, the full source code of the default demo, and other resources. You can use the Lattice Radiant and Propel software tool to develop and program your own demos.

Additional Terms and Conditions Applicable to Lattice Programming and Development Hardware

Lattice device programmers, programming cables, socket adapters, and other hardware sold for use in conjunction with Lattice software ("Programming Hardware") and Lattice evaluation boards and development kits sold for use in conjunction with evaluating Lattice products ("Development Hardware") are designed and intended for use solely with semiconductor components manufactured by Lattice Semiconductor Corporation. Programming and Development Hardware is warranted to meet Lattice specifications only for a period of ninety (90) days; in all other respects the terms and conditions of sale of Programming and Development Hardware shall be Lattice's standard terms and conditions set forth in Lattice's Sales Order Acknowledgment. Additionally, Lattice specifications for Programming and Development Hardware limit their use to low-volume engineering applications only, and not for volume production use. The warranty for Programming and Development Hardware will not apply to any Programming or Development Hardware used in production, used with worn or improperly installed hardware, or used with incompatible systems or components.

Technical Support

www.latticesemi.com/support