

# Product Roadmap

- Embedded Mainboard & SBC
- Embedded Fanless PC
- IP65/66/67/69 Panel PC / Box PC

# Contents

- LEX System Features & Advantages
- Embedded Solution Overview
- Embedded Solution Case Study
- Product Development Timeline
- Contact Information

# Features & Advantages

## Flexible

Diverse Expansion interfaces and modules for various Vertical Applications



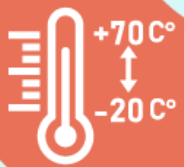
## Integrated

Accelerating Customer Development Speed for Cross-Platform products



## Stable

Wide Temperature, Wide Voltage & Shock Resistance, IP66/IP67 & IP69K Waterproof Design



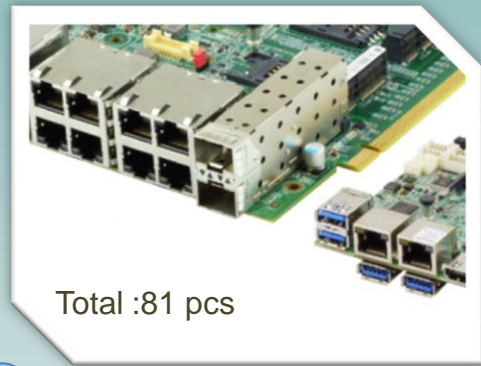
## Innovation

Fanless small Form Factor Embedded tailored products or space-constrained solutions



# LEX SYSTEM – Embedded Solution

LEX offers design and manufacturing of industrial motherboards, industrial computers, expansion boards, and customized industrial computers, including edge computing systems and AI intelligent application platforms. Our in-house developed products cover four major categories:



Total :81 pcs

## 1 Embedded IPC Board

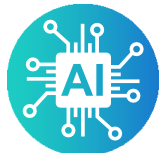
- Femto-ITX 1.8" : 3pcs
- 3.5"SBC :30 pcs
- Computer On Module : 5 pcs
- UPS board : 4 pcs
- Pico-ITX 2.5" : 28 pcs
- 5 ¼ " ( 200 x 150mm) : 4 pcs
- CPU board : 3 pcs
- ARM based : 4 pcs



## 2 Customized Motherboard & Chassis

Innovating Research & Integration Services for Global OEM/ODM and System Integrators

## • Applications



AI / Visual Analytics



Smart Manufacturing /  
Machine Vision



IoT / IIoT



Smart Healthcare /  
AI Medical Imaging



Smart Transportation  
& Railways



Maritime Shipping  
& Navigation



Defense / Military  
Robust Computers



Edge Computing  
Edge Gateway Control



Networking /  
Communication Equipment

# LEX SYSTEM – Embedded Solution



**3** Fanless Rugged Panel PC, Fanless Embedded Systems, Servers



**4** Expansion Boards/Cards & Related Accessories

## Fanless Rugged Panel PC



•SUPER series (7" /10.1" /10.4" /15" )



•VITA series (10.1" /15" /21.5" /23.8" )



•SHARK IP66/67 waterproof (10.1" /13.3" )



•STAR IP66/67 waterproof (10.4" /12.1" 15.1" )



•Stainless IP66/IP67/IP69K waterproof

(10.4" /15.1" /19" )

## Fanless Embedded System



•Rugged /Waterproof System

•In-vehicle System



•DIN Rail System

•1U server



•AI image Analysis & Machine Vision

•Ultra Compact / Compact System

•High-Speed Ethernet Network Card / PoE / Fiber Card

•4G / 5G / WiFi / Bluetooth Module

•Video Capture Card

•USB / SIM / COM / Display Conversion Card

•M.2 / eIO Expansion Card

•Storage Card

•Digital IO Card

•Carriers and Converter Boards

•Power Boards and Charger Modules



# Embedded Solution— Case Study



Spain  
Intelligent Transportation  
Surveillance System

China  
Highway ETC smarting  
billing system

Germany  
3D Surgery Navigation

China  
Servotronic EtherCAT  
Robot Motion Control

# Embedded Solution— Case Study



Kiosk-Self Service  
Harsh outdoor Panel PC  
for Winter Olympics



Video Analysis  
Metro Real-time  
Surveillance System



Poland  
Railway in-train  
communication



Netherlands  
Fleet management

# 2024 Q2 Product Development timeline



## 13th Gen Intel® Core™ Raptor Lake-P/U



**21130HW - EVT**

Intel® 13th Gen Raptor Lake-U/P CPU  
 1 x DDR5 SODIMM (Max. 32GB)  
 HDMI, eDP, LVDS  
 2 x Intel 2.5 GbE, 4 x USB 3.2  
 4 x USB 2.0, 2 x COM, 4DI / 4DO,  
 HD Audio, 1 x Mini PCIe, 1 x M.2  
 108 x 10mm

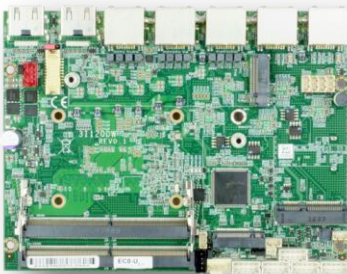


**21130DW - EVT**

Intel® 13th Gen Raptor Lake-U CPU  
 1 x DDR5 SODIMM (Max. 32GB)  
 HDMI, eDP  
 4 x Intel 2.5 GbE, 3 x USB 3.2  
 4 x USB 2.0, 2 x COM, 4DI / 4DO,  
 2 x M.2, 1 x Nano SIM  
 108 x 10mm



**SKY 2 21130DW**



**31130DW- EVT**

Intel® 13th Gen Raptor Lake-P / U CPU  
 2 x DDR5 SODIMM (Max. 64GB)  
 2 x HDMI, eDP  
 5 x Intel 2.5 GbE, 3 x USB 3.2, 5 x USB 2.0  
 1 x Mini PCIe, 2 x M.2, 1 x Nano SIM  
 2 x COM, 4DI / 4DO  
 146 x 110 mm



**31130TW - EVT**

Intel® 13th Gen Raptor Lake- U CPU  
 On-board LPDDR5 (16GB/32 GB)  
 HDMI, DP, eDP, 5 x Intel 2.5 GbE,  
 3 x USB 3.2, 5 x USB 2.0, 3 x M.2,  
 1 x Nano SIM, 2 x ISO-COM, HD Audio  
 2 x ISO-CANBus, 4DI / 4DO, onboard NVMe  
 CPC-Ignition Delay on/off control  
 146 x 150 mm



**SKY 3 31130DW**



**HAWK 31130TW (M12)**



**HAWK 31130DW**



# 2024 Q2 Product Development timeline



## Intel® Elkhart Lake ATOM /Celeron processor

### 2I640PW - EVT

Pico Express Computer on Module

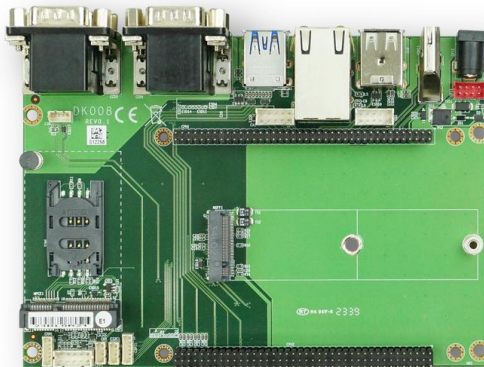


Intel® Elkhart Lake ATOM® x6413E / J6412 CPU  
On Board LPDDR4 4GB or 8GB  
Independent display: 1 x HDMI, 1 x LVDS, 1 x VGA  
2 x Intel 2.5 GbE LAN, 2 x USB 3.0, 5 x USB 2.0  
4 x COM, 1 x Mini PCIe, 1 x M.2  
1 x PCIe x2 (Pico-Express)  
Touch Screen, HD Audio, 4DI / 4DO  
102 X 85 mm

### DK008 - EVT

Evaluation Board for 2I640PW

I/O: 1 x HDMI, 2 x RJ45 , 2 x USB 3.0, 2 x USB 2.0  
4 x COM, 1 x Mini PCIe, 1 x M.2, 1 x PCIe x1,  
4DI / 4DO, Wide Range DC -IN  
104 x 146 mm



# 2024 Q2 Product Development timeline

## NVIDIA Jetson Orin Nano/ NX SOM Carrier Board



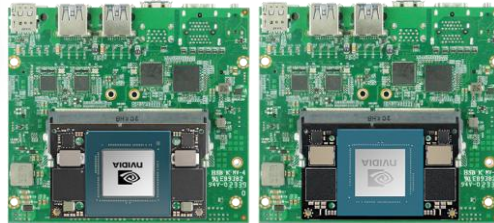
**JETSON**  
Orin™ NX

**JETSON**  
Orin™ Nano



### 2NOR01 - EVT

NVIDIA® Jetson Orin™ Nano / Orin™ NX  
2 x HDMI 2 x 2.5GbE, 1 x GbE  
4 x USB 3.1, 1 x Type C USB 3.1 / 2.0 (OTG), 1 x USB 2.0  
Mic-in / Line-out ; AMP 2W  
2 x RS232 (Option RS422 ), 1 x CANBus  
1 x M.2 M key 2 x M.2 B key, 1 x SIM, 4DI / 4DO  
Internal wafer: SPI, I2S, I2C, USB 2.0



### CPU Board:

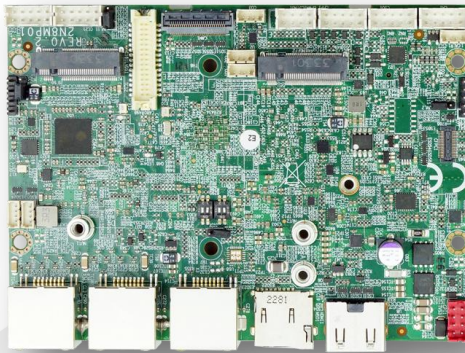
NVIDIA Jetson NX: 8 / 16GB LPDDR5, 70 / 100 TOPs  
NVIDIA Jetson Nano: 4 / 8GB LPDDR5, 20 / 40 TOPs  
AI Accelerator: NVIDIA® Jetson Orin™ Nano / Orin™ NX



SKY 2 2NOR01

# 2024 Q2 Product Development timeline

NXP i.MX8M Plus /ARM Cortex-A53



## 2N8MP01 - EVT

NXP i.MX8M Plus (Quad core)  
ARM Cortex A53 + M7 CPU  
LPDDR4, 4GB / 8GB  
Independent display: 1 x HDMI, LVDS, 1 x MIPI Display  
3 x GbE LAN, 2 x USB 3.0, 3 x USB 2.0  
2 x COM, 3 x M.2, 1 x Nano SIM  
4DI / 4DO, 1 x MIPI (CSI), 1 x CANBus  
115.4 x 84.5 mm



## NET 2N8MP01



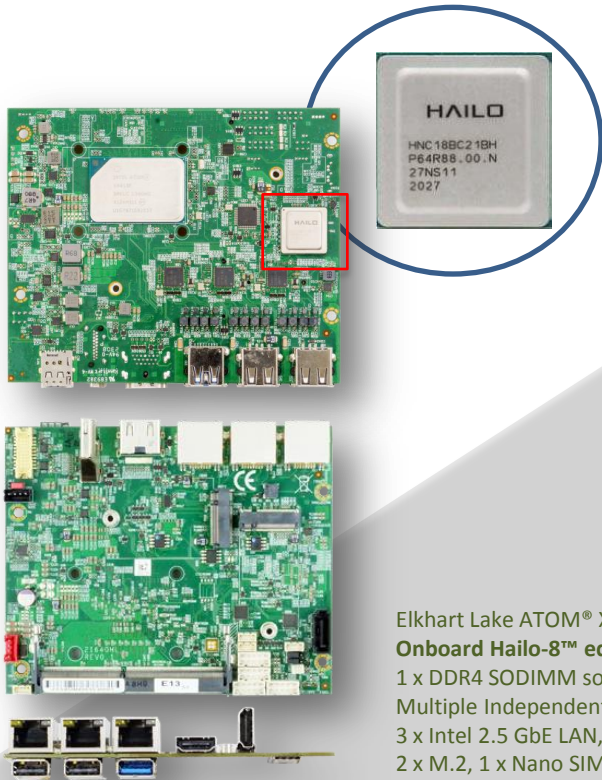
## PALM -NEX001 (MP)

NXP i.MX8M Plus (Quad core)  
ARM Cortex A53 CPU  
LPDDR4, 8GB (NEX-8MP)  
32GB eMMC 5.1 (NEX-8MP),  
expandable to 256GB  
HDMI ; 2 x GbE ; 2 x USB 3.0 / 2.0  
1 x Micro SD, 1 x RS232, 1 x RS485  
DC input : +5V  
71.4W x 71.4D x 29.5H mm

# 2024 Q1 Product Development timeline



Edge AI System + onboard Hailo-8™ edge AI processor



SKY 2 2I640HL



NET-II 2I640HL

Elkhart Lake ATOM® X6413E CPU  
**Onboard Hailo-8™ edge AI Processor**  
1 x DDR4 SODIMM socket, Max. 32GB  
Multiple Independent display: 2 x HDMI ,eDP  
3 x Intel 2.5 GbE LAN, 1 x USB 3.0, 5 x USB 2.0, 2 x COM  
2 x M.2, 1 x Nano SIM, 4 DI / 4DO



# 2024 Q2 Product Development timeline

## Expansion Card and Modules



**NF226A**

M.2 2242 B key to  
1 x Intel I226IT 2.5GbE



**NF226B**

M.2 3042 B+M key to  
2 x Intel 2.5 GbE



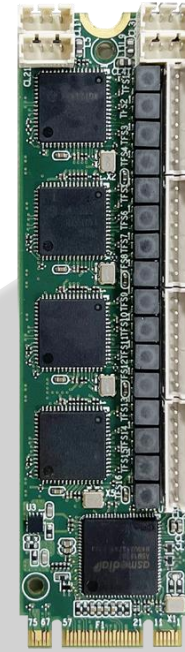
**NF212A**

M.2 2242 B key to  
1 x Intel I210IT GbE



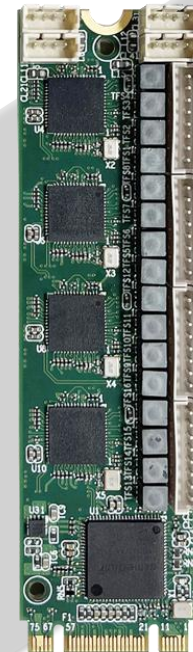
**NF212B**

M.2 3042 B+M key to  
2 x Intel GbE



**NF226C - Develop**

M.2 2280 B+M key PCIe to  
4 x Intel 2.5 GbE



**NF212C-Develop**

M.2 2280 B+M key PCIe to  
4 x Intel GbE

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