Industrial Motherboard Supporting Intel® Core™ Ultra 7 & 5 Processors with SMARTCASE™ S502



Kontron K4021-U mSTX and SMARTCASE™ S502



Ultra-Compact, High-Performance Motherboard and Chassis Combo Built for 24/7 Industrial Edge Computing

The industrial K4021-U mSTX motherboard features Intel® Core™ Ultra processors with powerful UHD Gen12 graphics based on Intel Xe architecture. It supports up to four independent displays at 4K resolution or two displays at 8K and offers multiple DisplayPort options, including front and rear USB-C with Thunderbolt 4, as well as Embedded DisplayPort™ and dual-channel 24-bit LVDS connections. The board includes four M.2 slots for storage and Wi-Fi, plus extensive connectivity options such as GPIO, two COM ports, USB 3.2 Gen2, and Thunderbolt 4. Designed and certified for 24/7 continuous operation, it withstands temperatures up to 60 °C.

The compact SMARTCASE™ S502 chassis (0.87 liters) is tailored for the K4021-U mSTX and supports both horizontal and vertical mounting. With versatile connectivity, robust performance, and a full range of compatible accessories, it is ideal for digital signage, KIOSK, POS/POI applications, and a wide range of industrial use cases.

Ultra compact
Al capable
mSTX
Motherboard
made in Europe!

Intel Products and Technologies

Accelerating AI and Analytics at the Edge



Intel® Core™ Ultra Processors



Intel® Graphics



OpenVINO™ Toolkit Intel® Al Boost

Key Features

Empowered by Intel.



Ultra-Compact Design



4k/8K Display Ready



Dual Channel LVDS & eDP 4k



Integrated NPU for 20x AI/Watt Gain^[1]

 $^{[1]}$ Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.

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Product Specifications

CPU	Intel® Core™ Ultra 7 155U / 5 125U
Graphics	Intel® 12 Gen on X ^e Architecture
Memory	Up to 96GB DDR5 So-DIMM
Storage	Dual M.2 Key-M SSD Slot Option
Wireless Network	M.2 Key-E 2230 Slot Option
LAN	Intel 1GbE & Realtek 5GbE High Bandwith RJ45 Network
Operating / Non-Operating Temp.	0-60°C/-25°C-60°C
Dimension (W x D x H)	36mm x 147mm x 165mm / MB 5,5" x 5,8"
Weight	713g
OS	Windows 11 LTSC & Linux Kernel v.6.11

Learn More

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