INDUSTRIAL EMBEDDED COMPUTER
IEC-501 SERIES

comtronix

Fanless Embedded Computer with Intel® 12th Generation 8-Core Processor i3-N305 3.80GHz Max, Supports: 1- HDMI, 1-DisplayPort, 2- 2.5GbE LAN, 6- USB, 2- COM, 1- DIO, WiFi Ready, Wide Voltage 9~36VDC, Onboard TPM2.0

Low Power	Dual Monitor	WiFi Ready	Wide Temp	Fanless	Wide Range Voltage

FEATURES

- Intel® 12th Generation 8- Core Processor 3.80GHz Max
- High performance 262-pin DDR5 4800 SO-DIMM
- max. up to 32GB
- 2• 2.5GbE Ethernet Ports
- 1• RS232/422/485, 1• RS232, 1• DIO
- 2• 3.2 USB Gen2 ports, 2• 3.2 USB Gen1 port, and 2• 2.0 USB ports
- 1• M.2 SSD up to 4TB
- 1• HDMI port, 1• DisplayPort
- Onboard TPM2.0 (Infineon SLB9672)
- Wide range voltage 9~36VDC
- Highly reliable thermal transfer fanless technology

SYSTEM SPECIFICATIONS

Processor		Intel® i3-N305 3.80GHz Max
Processor Generation		Alder Lake-N™
Processor Cores		8
Memory		Up to 32GB DDR5 SO-DIMM
Storage		1 • M.2 SSD up to 4TB
Chipset		SoC integrated
Graphics		Intel® UHD Graphics
LAN Controller		2 • Intel® I225-V 2.5GbE LAN ports
TPM		Infineon® SLB9672
System I/O	Front	2 • USB 2.0 ports
		1 • DIO
		1 • Power Button
		2 • RS232/422/485 ports
		2 • WiFi RP-SMA connectors
	Rear	4 • USB 3.2 ports (2- Gen2 ports, 2- Gen1 ports)
		2 • 2.5GbE LAN Ports
		1 • HDMI port
		1 • DisplayPort
		1 • 3- Pin Terminal Block Power connector
		1 • Line-out
BIOS		AMI UEFI
Watchdog Timer		256 levels, 1~255 sec.
Expansion Interface		1 • M.2 B Key
		1 • M.2 E Key
System Indicator		1 • blue LED for system power-on (shared)
		1 • red LED for SSD active (shared)

MECHANICAL SPECIFICATIONS

Color	Silver-Blue
Construction	Aluminum extrusion and heavy gauge chassis
Dimensions (W x H x D)	195mm x 37mm x 142mm (7.67" x 1.45" x 5.59")
Mounting	DIN rail mount / VESA mount / Wall mount

POWER SUPPLY

Power Input	9 ~ 36VDC with protection fuse
Power Adapter	110 ~ 240 AC to 12VDC out 60W

REGULATORY SPECIFICATIONS

Operating Temperature	-10°C ~ 60°C (14°F ~ 140°F)
EMI/EMC	CE standards applied (EN 55022 / EN 55024 / EN 55032 / EN 60950-1) FCC 47 CFR Part 15 Subpart B RoHS
Vibration	5~500Hz 1G PTP
Shock	operating: 30G (11ms), non-operating: 40G (11ms)

ORDERING INFORMATION

Base

IEC-501_-	IEC-501 Industrial Embedded Computer, Intel 12th Generation 8- Core Processor i3-N305 3.8GHz Max, 2- USB 3.2 Ports Gen2 Ports, 2- USB 3.2 Gen1 Ports, 2-USB 2.0 Ports, 2- I225-V 2.5GbE LAN, 1- HDMI Port, 1- DisplayPort, 1-Line out, TPM2.0, 3-Pin Terminal Block with Mate. (Does not include AC Wall Adapter)

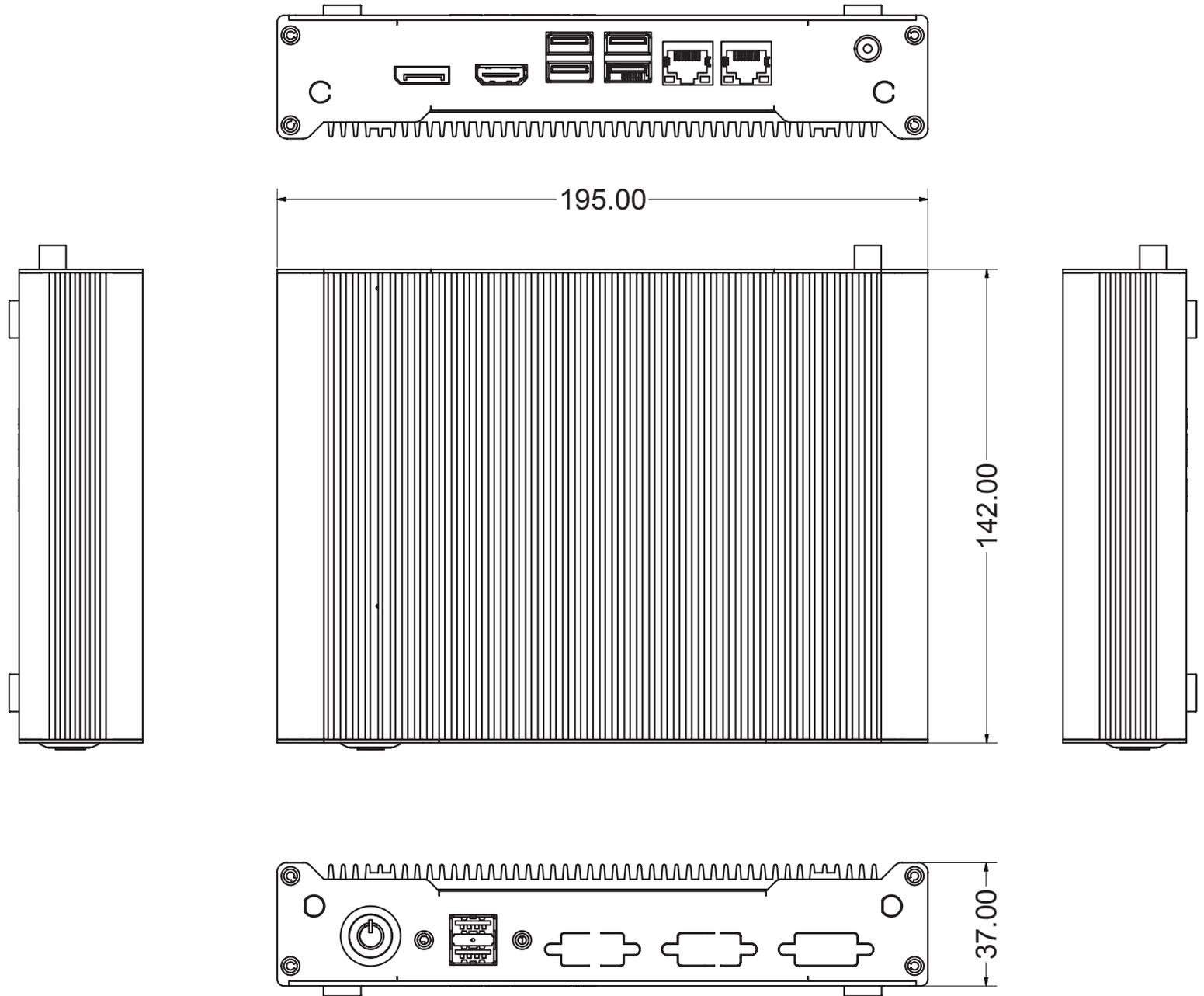## CONFIGURABLE & ACCESSORIES

Power Connector	3-Pin Terminal Block Connector with Mate
M.2 B Key	250GB, 500GB, 1TB, 2TB, 4TB, Dual 2.5GbE LAN Ports
DDR5 SO-DIMM	8GB, 16GB, 32GB
SATA 3.0	256GB, 512GB, 1TB, 2TB
DDR4 SO-DIMM	8GB or 16GB
WiFi module	Intel® 9260 802.11ac/a/b/g/n Wi-Fi / Bluetooth 5.1 M.2 Module Intel® AX210 Wi-Fi / 802.11ax/ac Wi-Fi / Bluetooth 5.2 M.2 Module
DIN rail kit	DIN1-KIT
Wall mount kit	6620080721
AC wall adapter	3771030341
Operating System	Windows® 10 IoT Enterprise 2021 LTSB Value (i3/i5), Windows® 10 Professional 64bit, Windows® 11 IoT Enterprise 2024 Value High End (i3/i5), Windows® 11 Professional 64bit, Ubuntu® Desktop 22.04 LTS 64bit

WARRANTY

Standard Warranty	2 Year Warranty
Extended Warranty	TotalCare Protection 3 or 5 Year Extended
Expected Life Cycle	7 Years

DIMENSIONS

195.00

142.00

37.00

Measurements shown in mm. All dimensions are ± 0.5mm