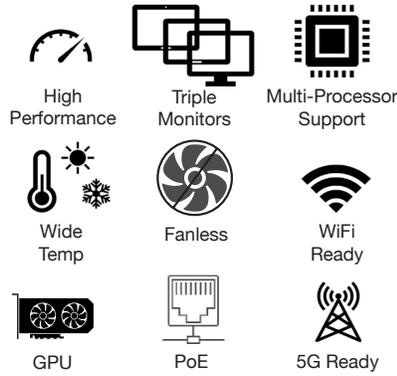# INDUSTRIAL EMBEDDED COMPUTER
IEC-801 SERIES

comtronix

Industrial Embedded Computer with Intel® 12th, 13th, & 14th Generation i3 ~ i9 Core Processor via socket 1700, R680E Chipset, Supports: 4- 2.5GbE LAN, 8- USB 3.2 Gen2, 2- DisplayPorts, 2- HDMI, 2- 2.5" Removable SSD SATA 3.0, 2- 2.5" Internal SATA 3.0 SSD or U.2/U.3/NVMe, 6-RS232/422/485, Onboard TPM2.0, 3- M.2 M Key, 1- PCI Express x16 Gen5, 2- PCI Express x4 Gen4, 1- PCI Express x4 Gen3, Integrated: 12-48 VDC @ 800W, 850W AC or 1200W AC Power Supply

High Performance

Triple Monitors

Multi-Processor Support

Wide Temp

Fanless

WiFi Ready

GPU

PoE

5G Ready

FEATURES

- Intel® 12th, 13th, & 14th Generation 4- Core & 24- Core processors 4.30GHz~5.80GHz Max
- Up to 128GB DDR5 5600MHz UDIMM
- 2• 2.5" Removable SATA 3.0 ports (RAID 0/1/5/10 Support)
- 2• 2.5" Internal SATA 3.0 ports (RAID 0/1/5/10 Support) or 2.5" Internal U.2/U.3/NVMe
- 8• 3.2 USB Gen2 ports, 4• RS232/422/485
- 2• HDMI, 2• DisplayPorts
- 1• PCI Express x 16 Gen5, 2• PCI Express x 4 Gen4, 1• PCI Express x4 Gen3, 3 • M.2 M Key
- 1• Supports Dual Slot NVIDA® GPU's
- 1• 4- Port 2.5GbE Isolated PoE Module
- 1• 5G Module
- 1- DB37 Digital I/O Module 32bit Digital I/O Module: 4- Ports (each port 8bit)
- 1• DB37 Analog & Digital I/O Module (16- digital I/O, with 8 single ended or 4 differential analog inputs)
- Highly reliable thermal transfer fanless technology
- Wide range operating temperature supported
- Integrated 89% Efficiency 750W or 1200W Power Supply

SYSTEM SPECIFICATIONS

Processor	Intel® 12th Gen Alder Lake i3-12100 4.30 GHz Max
	Intel® 12th Gen Alder Lake i5-12500 4.60 GHz Max
	Intel® 12th Gen Alder Lake i7-12700 4.90 GHz Max
	Intel® 12th Gen Alder Lake i9-12900 5.10 GHz Max
	Intel® 13th Gen Raptor Lake i3-13100 4.50 GHz Max
	Intel® 13th Gen Raptor Lake i5-13500 4.80 GHz Max
	Intel® 13th Gen Raptor Lake i7-13700 5.20 GHz Max
	Intel® 13th Gen Raptor Lake i9-13900 5.60 GHz Max
	Intel® 14th Gen Raptor Lake i3-14100 4.70 GHz Max
	Intel® 14th Gen Raptor Lake i5-14500 5.00 GHz Max
	Intel® 14th Gen Raptor Lake i7-14700 5.40 GHz Max
	Intel® 14th Gen Raptor Lake i9-14900 5.80 GHz Max
Processor Generation	Raptor Lake-S™ Refresh/Alder Lake-S™
Processor Cores	4 • i3-12100, i3-13100, i3-14100
	6 • i5-12500
	12 • i7-12700
	14 • i5-13500, i5-14500
	16 • i9-12900, i7-13700
	20 • i7-14700
	24 • i9-13900, i9-14900
Memory	Up to 128GB DDR5 5600MHz UDIMM
Storage	2 • M.2 SSD
	2 • 2.5" Removable 3.0 SATA drive bays
	2 • 2.5" SATA 3.0 SSD internal drive bays
Chipset	R680E
Graphics	Intel® UHD Graphics 730 & 770
LAN Controller	4 • Intel® I226-LM 2.5GbE LAN port
TPM	Infineon® SLB9672
System I/O Front	1 • Power Button
	2 • 2.5" Removable 3.0 SATA drive bays
	4 • RS232/422/485 port
	2 • DisplayPort
	2 • HDMI
	8 • USB 3.2 Gen2 ports
	4 • 2.5GbE LAN Ports
	1 • Line-out
	1 • Mic
	2 • WiFi RP-SMA connectors
	1 • Power Connector
	1 • DB37 I/O Connector
	4 • PCI Express slots
BIOS	AMI
Watchdog Timer	256 levels, 1~255 sec.
Expansion Interface	1 • PCIe x 16 Gen5
	2 • PCIe x 4 Gen4
	1 • PCIe x 4 Gen3
	3 • M.2 M Key
System Indicator	1 • blue LED for system power-on
	1 • amber LED for SSD active

MECHANICAL SPECIFICATIONS

Color	Blue & Silver
Construction	Aluminum alloy with heavy steel
Dimensions (W x H x D)	333.80mm x 230mm x 307.27mm (13.14" x 9.05" x 12.09")
Mounting	Wall mount bracket (optional)

POWER SUPPLY

Power Supply	Integrated 12-48 VDC @ 800W, 850W AC or 1200W AC Power Supply

REGULATORY SPECIFICATIONS

Operating Temperature	-0°C ~ 60°C (32°F ~ 140°F)
EMI/EMC	CE standards applied
	(EN 55022 / EN 55024 / EN 55032)
	FCC 47 CFR Part 15 Subpart B
	RoHS
Vibration	Operating: 1G 5-500Hz, 3 Axes
	according to IEC60068-2-64

ORDERING INFORMATION

Base

IEC-801_-	IEC-801 Industrial Embedded Computer, Supports 12th/13th/14th Generation Processors, Intel R680E Chipset, 2- 2.5" Removable SATA 3.0 Drives, 1- Power button, 8- USB 3.2 Gen2 Ports, 4- Intel i226-LM 2.5GbE LAN Ports, 2- HDMI Ports, 2- DP Port, 1- Audio Jack: (Line-Out) (Mic-In), 1- PCIe x16, 3- PCIe x4, 3- M.2 M Key, 2- Internal 2.5" SATA 3.0 Drives or U.2/U.3/NVMe Drives

WARRANTY

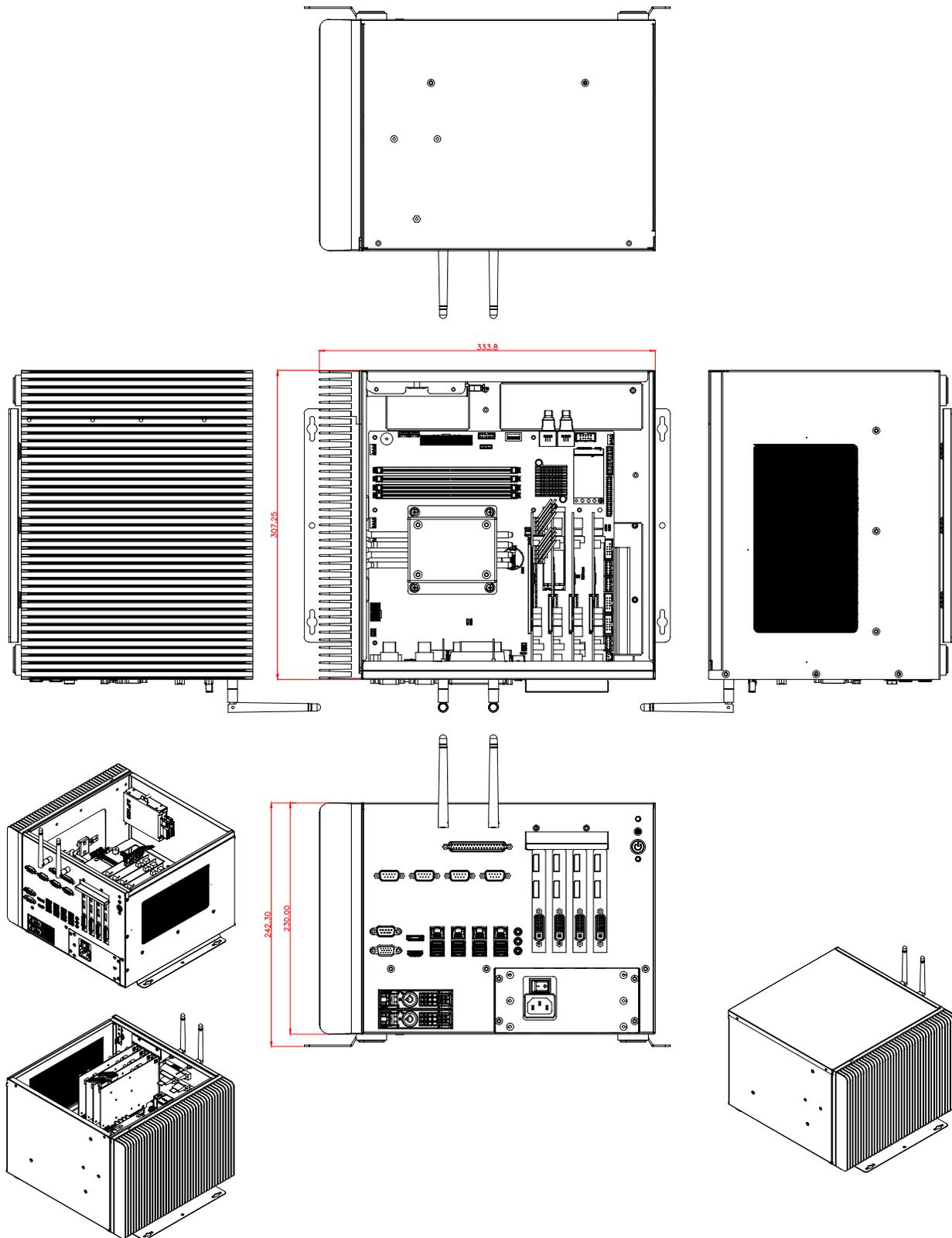|	
Manufacturer Warranty	2 Year Warranty
Extended Warranty	TotalCare Protection 3 or 5 Year Extended
Expected Life Cycle	5 Years

CONFIGURABLE & ACCESSORIES

Processor	Intel® i3-12100 4.30GHz Max, Intel® i5-12500 4.60GHz Max, Intel® i7-12700 4.90GHz Max, Intel® i9-12900 5.10GHz Max
	Intel® i3-13100 4.50GHz Max, Intel® i5-13500 4.80GHz Max, Intel® i7-13700 5.20GHz Max, Intel® i9-13900 5.60GHz Max
	Intel® i3-14100 4.70GHz Max, Intel® i5-14500 5.00GHz Max, Intel® i7-14700 5.40GHz Max, Intel® i9-14900 5.80GHz Max
Power Supply	12-48 VDC @ 800W, 850W AC or 1200W AC Power Supply
RS232/422/485	2• RS232/422/485, 4• RS232/422/485, 6• RS232/422/485
2 • M.2 M Key SSD	250GB, 500GB, 1TB, 2TB, 4TB
2 • 2.5" Removable SATA 3.0 SSD	250GB, 500GB, 1TB, 2TB, 4TB
2 • 2.5" Internal U.2/U.3/NVMe SSD	1TB, 2TB, 4TB
DDR5 UDIMM	16GB, 32GB, 64GB, 128GB
PCIe Mini Card	
Analog / Digital IO	1- DB37 Analog & Digital I/O Module (16- digital I/O, with 8 single ended or 4 differential analog inputs)
Digital IO	1- DB37 Digital I/O Module 32bit Digital I/O Module: 4- Ports (each port 8bit)
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
PCI Express x16	NVIDIA® RTX 4070, CUDA Cores 5888, 3- DisplayPorts, 1- HDMI
	4- Port 2.5GbE PoE Module
	(Verizon®) 5G Embedded Quectel RM520N-GL, Includes: 4- 5G Antennas
	(AT&T®, T-Mobile®) 5G Embedded Quectel® RM520N-GL, Includes: 4- 5G Antennas
3 • PCI Express x4	4- Port 2.5GbE PoE Module
	(Verizon®) 5G Embedded Quectel RM520N-GL, Includes: 4- 5G Antennas
	(AT&T®, T-Mobile®) 5G Embedded Quectel® RM520N-GL, Includes: 4- 5G Antennas
Wall mount bracket kit	6650224021 with Vibration Isolators
Operating System	Windows® 10 IoT Enterprise 2021 LTSB Value (i3/i5), Windows® 10 IoT Enterprise 2021 LTSB High End (i7/i9), Windows® 10 Professional 64bit, Windows® 11 IoT Enterprise 2024 Value (i3/i5), Windows® 11 IoT Enterprise 2024 High End (i7/i9), Windows® 11 Professional 64bit, Ubuntu® Desktop 24.04 LTS 64bit

DIMENSIONS

Measurements shown in mm. All dimensions are ± 0.5mm