

About Kontron

Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: www.kontron.com

About the Intel® Partner Alliance

From modular components to market-ready systems, Intel and the over 1,000+ global member companies of the Intel® Partner Alliance provide scalable, interoperable solutions that accelerate deployment of intelligent devices and end-to-end analytics. Close collaboration with Intel and each other enables Alliance members to innovate with the latest IoT technologies, helping developers deliver first-inmarket solutions.

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2.5" Single Board Computer

2.5"-SBC Family



➤ Ultra-small Form Factor Ideal to be integrated into a variety of ultra-compact & portable systems

➤ Ultra-low Power Consumption
Perfect for fanless & energy-efficient applications

➤ Commercial & Industrial Operating Temperature
For all environmental conditions



2.5" Single Board Computer

2.5" single board computer, also known as Pico-ITX SBC, is an ultra-small computer board measuring just 100 mm x 72 mm (3.9" x 2.8"), around the same dimensions as a 2.5" hard disk. It is a perfect baseboard to be integrated into a fanless ultra-compact or portable system at an exceptionally low power consumption.

Kontron's 2.5" single board computers support latest processors and utilize advanced technology components. They are designed for continuous operation (24/7) under harsh operating conditions and on high system load. They come up with both commercial and industrial variants with operating temperature range from 0 °C to 60 °C and from -40 °C to 85 °C respectively, to cover various environmental conditions of different application scenarios.

Kontron's 2.5" single board computers ensure an extended long-term availability of up to 10 years from the release date, based on embedded key components. In addition, Kontron offers many value-added services like detailed documentation, a professional life-cycle management and customizing tools.



▶ 2.5"-SBC Family 2.5" Single Board Computer

- > Soldered memory & storage for reliable & long-lasting operation
- > Wide voltage input range to accommodate to unstable power supply conditions
- > CE / FCC / ICES / UKCA Class B compliant and UR certification

2.5"-SBC Family

2.5" Single Board Computer



2.5"-SBC-AML/ADN

System	Processor (Standard)	Intel® Atom® x7211RE (2C, 6M, 1.0/3.2 GHz, 6 W) x7433RE (4C, 6M, 1.5/3.4 GHz, 9 W) x7835RE (8C, 6M, 1.3/3.9 GHz, 12 W) Intel® Core™ i3-N305 (8C, 6M, 1.8/3.8 GHz, 9←15 W) Intel® N97 (4C, 6M, 2.0/3.6 GHz, 12 W)
	Processor (Project Base)	Intel® Atom® x7213RE (2C, 6M, 2.0/3.4 GHz, 9 W) x7211E (2C, 6M, 1.0/3.2 GHz, 6 W) x7213E (2C, 6M, 1.7/3.2 GHz, 10 W) x7425E (4C, 6M, 1.5/3.4 GHz, 12 W) Intel® N50 (2C, 6M, 1.0/3.4 GHz, 6 W) N200 (4C, 6M, 1.0/3.7 GHz, 6 W)
	Memory	4 / 8 / 16 GByte LPDDR5 4800 RAM
Video	Graphics Controller	Intel® UHD Graphics Gen12
	eDP	1 (4K@60Hz)
	DP	2 (4K@60Hz on rear)
	Multiple Display	Triple
Network Connection	Ethernet Controller	Intel® I226-V/IT
	2.5 GbE	$2 \ (on \ rear, TSN \ support^{(\eta)})$
Peripheral Connection	USB Type-C	1 (on rear, v3.2 Gen 2 ⁽²⁾ w/ DP & PD 5 V / 3 A)
	USB 3.2 Gen 2 / USB 2.0	2 (on rear) / 2
	RS232/422/485 / RS232	$\begin{array}{c} 0 \ / \ 2^{(3)} \ (\text{default}) \\ 2^{(3)} \ / \ 0 \ (\text{optional}) \end{array}$
	DI / DO	4 / 4
Storage & Expansion	eMMC	32 / 64 / 128 GByte
	M2. Key B	1 (PCIe x2 / USB 2.0 / SATA / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / CNVi ⁽⁴⁾)
Power	Input Voltage	DC 9 V ~ 20 V
Firmware	BIOS	AMI uEFI BIOS w/ 256 Mb SPI Flash
	Watchdog	Programmable WDT, system reset
	H/W Monitoring	Voltages, Temperatures
	Real Time Clock	Processor integrated RTC
	Security	dTPM 2.0
Software	OS Support	Windows 11, Windows 10, Linux
Environmental	Operating Temperature	0 °C ~ 60 °C / 32 °F ~ 140 °F (Standard) -40 °C ~ 85 °C / -40 °F ~ 185 °F (Extreme)
Compliance	EMC	CE, FCC, ICES & UKCA Class B
	Safety	UR (UL Recognized)

⁽¹⁾ TSN support only for Atom® (2) Only USB 3.2 Gen 1 support for Atom® x7000RE (3) Only Tx / RX support for RS232 signal (4) Atom® x7000RE does not support CNVi