

EC11 Edge Intelligent Computing Box Product Specification Document



Bozztek Technology (Shenzhen) Co., Ltd.

I. Application Scenarios

The product is suitable for various scenarios including transparent kitchens, smart power systems, intelligent transportation, and forest/grassland monitoring. It enables real-time intelligent analysis and closed-loop decision-making at the edge, featuring flexible deployment, outstanding energy efficiency, and strong adaptability, facilitating the rapid adoption of AI technology across industries.

II. Product Features

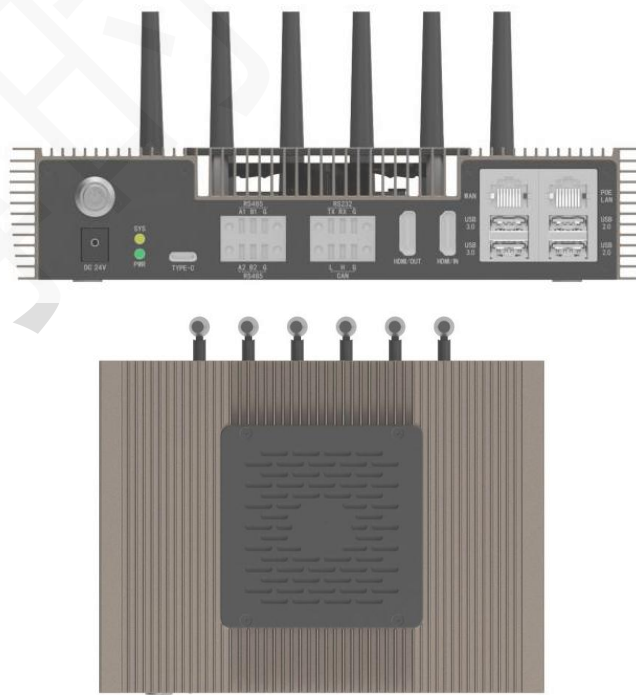
- The main control SoC employs Rockchips RK3588, manufactured using an advanced 8nm process with an 8-core 64-bit architecture, delivering high performance and low power consumption.
- Equipped with rear-mounted M.2 single/dual modular computing cards, it delivers powerful edge computing capabilities.
- Built-in embedded Ubuntu-Linux operating system with strong scalability
- Supports Gigabit Ethernet WAN + 30W PoE LAN ports; supports Wi-Fi, Bluetooth, and 4G/5G; supports high-precision GNSS.
- Extensive interfaces and flexible deployment capabilities: USB, HDMI, RS-485, RS-232, CAN, RJ45, etc.

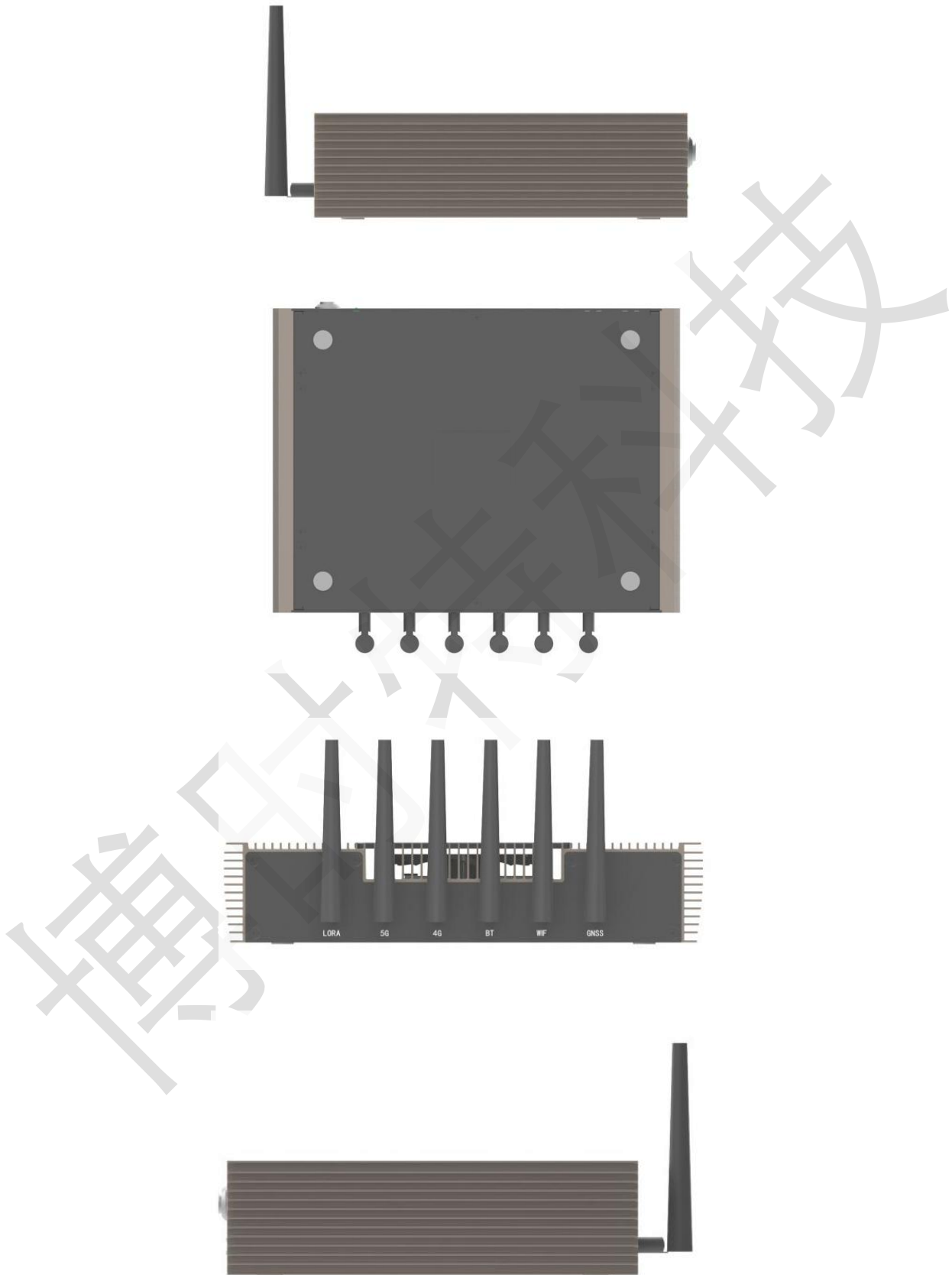
III. Product Specification Table

Edge Intelligent Computing Box		
product model	EC11	
Basic Specifications	operating system	Ubuntu 22.04.5 LTS desktop system
	processor	4*Cortex-A76+4*Cortex-A55 CPU, 6TOPS NPU, Mali-G610 MC4 GPU
	memory	16 GB LPDDR5+ memory with 64 GB EMMC, supporting expansion to 32 GB LPDDR5/128 GB EMMC
	source	DC 24 V/5A
	Working humidity	Industrial-grade: 10%–95% (in the absence of non-condensable water droplets)
	working temperature	Industrial-grade – 20°C to 65°C
	Storage temperature	Industrial-grade – 30°C to 75°C
	Device Size	211.26*160.8*45.7 mm
	Heat dissipation	Adjustable-speed fan for active cooling + shell fins
	pilot lamp	Dual-color LED status light
	Power button	12mm self-locking button *1
	Universal Serial Interface	USB TypeC*1, Debug USB3.0*2USB2.0*2

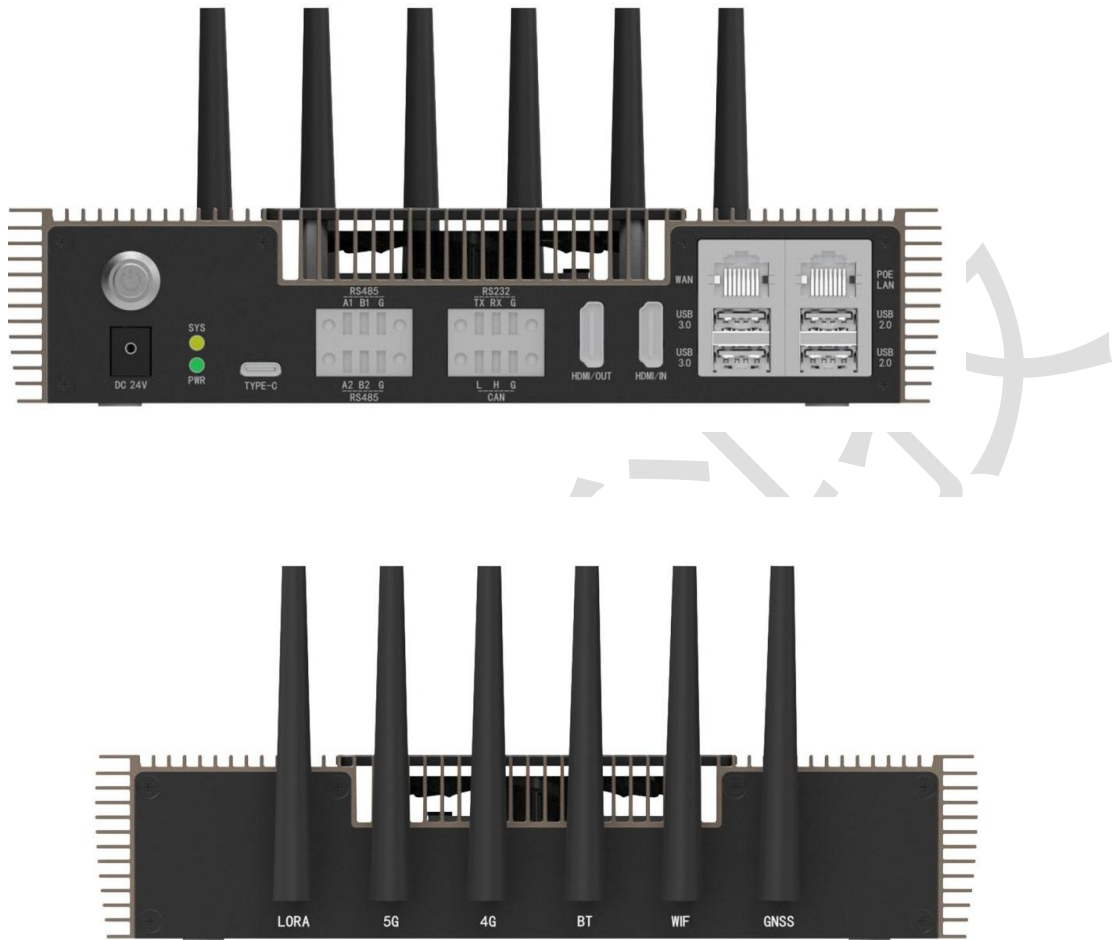
peripheral interface	Multimedia Interface	HDMI OUT*1, 8K@60Hz HDMI IN*1
	Ethernet interface	2 RJ45 ports (each with 1000Mbps bandwidth), one WAN port and one LAN port; the LAN port supports PoE.
	Phoenix Terminal	RS485*2、RS232*1、CAN*1
Wireless Module	WIFI	Dual-band at 2.4 GHz and 5 GHz
	PDA	Compatible with Bluetooth 5.4 and earlier protocols
	4G	eSIM module (optional)
	fixed position	GNSS module (optional)
	LoRa wireless communication module	Optional
Built-in module	Computing Power Module	Two M.2 Key-M slots are designed to accommodate either a rear-mounted single or dual M.2 modular computing cards.
	Extended Storage	An M.2 Key-M slot is used to expand the SSD.
	Hardware watchdog	An independent MCU watchdog with configurable timeout/feedback intervals
	security module	Security chip with integrated national cryptographic certification
	real-time clock	An RTC chip with independent power supply

IV. Edge Intelligent Computing Box: Six Views





V. interface specification :



interface specification :

number	Interface	quantity	use
①	DC source	1	The main power supply receives a DC 24V input with overvoltage and overcurrent protection.
②	TYPE-C	1	Drive/Firmware Flash
③	RS485	2	Industrial equipment supports external serial port communication and peripheral data interaction.
④	RS232	1	Traditional peripheral serial communication and device debugging data transmission
⑤	HDMI/OUT	1	Video image output, external display screen
⑥	HDMI/IN	1	Video input from external video sources and

			image acquisition devices
⑦	WAN	1	Gigabit wired network access, external network communication connectivity
⑧	POE LAN	1	Gigabit internal network expansion with PoE power supply for external output
⑨	USB 2.0	2	Low-speed peripheral expansion, USB storage, and external device expansion
⑩	USB 3.0	2	High-speed peripheral expansion and high-speed storage device data transmission
⑪	LORA	Optional	LoRa wireless communication
⑫	5G	Optional	5G Communications
⑬	4G	Optional	4G Communication
⑭	BT	1	Bluetooth short-range wireless data communication
⑮	WIFI	1	2.4G/5G dual-band wireless network communication
⑯	GNSS	Optional	Positioning and Time Synchronization
⑰	CAN	1	Communication and control signal interaction of industrial vehicle bus equipment

VI. External Dimensions Diagram of the Edge Intelligent Computing Box

