

Industrial Computer Featuring High Performance and Excellent

InBOX712 Series

Industrial-grade Embedded Computing Platform



InBOX712 is the new-generation 4G intelligent terminal launched by InHand Networks specially for smart business. It carries the RK3399 chip of Rockchips Electronics. It provides omnipresent and continuous Internet access in 3G, 4G, and wireless modes. It can update payment data to a cloud management platform in real time, and implement remote monitoring and management on the platform. It provides software and hardware configuration with improved performance and stability at reduced power consumption to make data transmission smoother and more stable.

Currently, InBOX712 provides one SIM card interface (supporting 4G wireless networks), two HDMI interfaces, three 232 serial ports, five USB interfaces (including one USB 3.0 interface), one Type C interface, one network port, one Wi-Fi antenna interface, and one 4G antenna interface.

InBOX712 provides a power interface that adopts 9–36 V DC wide-voltage power input and a wide temperature range, and is specially designed for industrial applications.

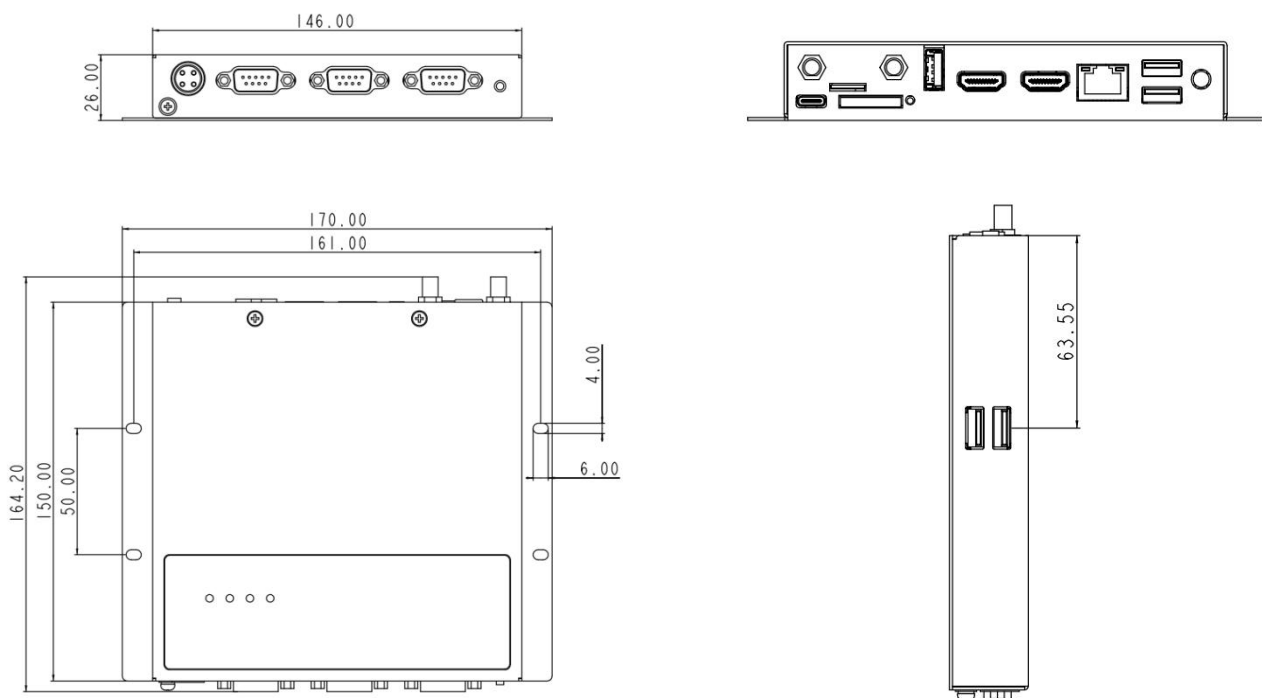
InBOX712 is particularly suitable for large-scale network connection of machines and device operation management, for example:

- Facial recognition
- Dual-screen different display
- Self-service retail
- Advertising
- Self-checkout terminal
- Supermarket self-checkout

Features and Advantages

- + 4G network support
- + Efficient large-scale network deployment for devices
- + Reliable and continuous network communication of devices
- + Real-time data analysis
- + Grade 3 information classified security protection to ensure information security and reliability
- + Fully industrial design withstanding harsh conditions
- + InVending cloud management platform
- + Mobile public account operation
- + Non-cash payment reconstruction for multiple vending machines
- + High-performance RK3399 processor of Rockchips Electronics
- **Omnipresent and continuous Internet access capability**
InBOX712 implements continuous and reliable service communication through 3G and 4G networks. Devices in all kinds of environments, such as business districts and desolate fields, can be fully covered by 3G and 4G networks, ensuring device communication.
- **Checking the device status on the device management platform at any time**
InHand intelligent vending machine management platform allows users to check the device status in real time, helping device vendors manage devices remotely in a unified manner. Currently, the platform can be accessed through web browsers, mobile phones, and even WeChat, to support device management and operation at any time.
- **Big data-based intelligent platform**
InHand platform helps carriers with business decision making through massive data analysis. It provides enterprises with useful information in an efficient and real-time manner through real-time data analysis.
- **Platform supporting Grade 3 information classified security protection of the national supervision level**
InHand platform ensures the security of user information and data while improving technologies and services. InHand intelligent vending machine management platform is certified with Grade 3 information classified security protection, with an improved capability of protecting user information and data security.

Dimensions



Product Specifications

InBOX712 hardware specifications			
Item	InBOX712		
Hardware platform			
CPU	RK3399; dual Cortex-A72 master processors+four Cortex-A53 co-processors; dominant frequency: 2.0 GHz; 64-bit		
Memory	2 GB DDR3 or LPDDR4		
Flash	16 GB eMMC Flash		
Interface			
SIM card slot	1.8 V/3 V; drawer-type card holder × 1, for SIM card insertion		
SD card slot	SD slot × 1		
Antenna interface	4G: SMA × 1; Wi-Fi/Bluetooth: RP-SMA × 1		
232 serial port	Three RS232 serial ports, DB9 male connector		
485 serial port	One RS485 serial port, DB9 male connector (one serial port can be modified as a 485 serial port)		
USB	Four USB 2.0 hosts, each providing standard 500 mA current; one OTG mode One USB 3.0 interface, 1.5 A current		
Ethernet	1 × 10/100/1000 Mbit/s gigabit Ethernet interface, LAN/WAN		
Indicator interface	One power	One operating status	One 3G/4G status
	One Wi-Fi status		
HDMI	Two HDMI interfaces, one of which is HDMI 2.0 that supports dual-screen different display. 4096×2160 (4K), 1920×1080, 1366×768, 1280×720, and 1024×768; 4096×2160 (4K), 1920×1080, 1366×768, 1280×720, and 1024×768		
Debugging	One TypeC interface		
Button interface	One power-on/off button and one Mode button		
Power interface	DC input, 12 V DC. The power interface is a self-lock four-core circular interface. The device starts automatically upon power-on.		
Mechanical features			
Mounting mode	Wall-mounted	Protection rating	IP40
Housing	Metal	Cooling	Fanless cooling
Dimensions (cm)	17 × 15 × 2.6		
Hardware detection			
Watchdog	Supported		
Hardware	Custom API used to read hardware information.		
Power supply			
Power input	12 V DC		
Ambient temperature and humidity			
Storage	-40°C to +85°C	Ambient	5-95% (non-condensing)
Operating	-20°C to +70°C (industrial grade)		
Others			
(Optional) Real-	Embedded RTC, power supply with a supercapacitor		
Audio	HDMI audio output		
Bluetooth	(Optional) Supported		
Temperature	(Optional) Supported		
Power	Less than 10 W (system)		
Shockproof	Resistance against shock resulting from 10,000 times of door		
EMC index			
Static electricity	Level 3		
Radiated electric	Level 2		
Pulsed electric	Level 2		
Surge	Level 2		

InBOX712 software specifications	
Item	InBOX712
Software support	
Operating system	Android7.1
Application software	Compatible with rich Android-based application software
	Support for APIs of remote upgrade and silent installation
	Support for a media publishing system based on the
Network	
Network standard	4G full-frequency
Wi-Fi	Supported, 802.11b/g/n, Client/AP mode
Bluetooth	(Optional) Bluetooth 4.0 and later
Graphics processing	
Processing capability	Double ISP pixel processing capability up to 800 MPix/s, with support for simultaneous data input from two cameras, and high-level processing such as 3D and deep information
Video codec	H.265/H.264/VP9 4K@60 fps HD video decoding
Image processing	BMP, JPG, PNG, and GIF
Configuration	
Configuration	Configuration software provided
Timed startup and shutdown	Supported
Upgrade	
Upgrade	Local USB upgrade and remote upgrade (optional)

Order Information

Model	Model code: InBOX712- <WMNN> -<STD/PLAT>-<S>		
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<WMNN>: wireless communication type & module <STD/PLAT>: version <S>: serial port type

InBOX712-DQ20-PLAT	China: (4G) LTE-FDD Band 1/3 LTE-TDD Band 38/39/40/41 TD-SCDMA Band 34/39 UMTS (DC-HSPA+) Band 1 EVDO 800 MHz CDMA-1x 800 MHz EDGE/GPRS/GSM 850/900/1800/1900 MHz	PLAT: Support for the intelligent vending machine platform	<NA>: RS232; 485: RS485
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InBOX712-DQ20-STD	China: (4G) LTE-FDD Band 1/3 LTE-TDD Band 38/39/40/41 TD-SCDMA Band 34/39 UMTS (DC-HSPA+) Band 1 EVDO 800 MHz CDMA-1x 800 MHz EDGE/GPRS/GSM 850/900/1800/1900 MHz	STD: standard Android version	<NA>: RS232; 485: RS485
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InBox712-DQ20-PLAT-485	China: (4G) LTE-FDD Band 1/3 LTE-TDD Band 38/39/40/41 TD-SCDMA Band 34/39 UMTS (DC-HSPA+) Band 1 EVDO 800 MHz CDMA-1x 800 MHz EDGE/GPRS/GSM 850/900/1800/1900 MHz	PLAT: Support for the intelligent vending machine platform	<NA>: RS232; 485: RS485
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InBox712-DQ20-STD-485	China: (4G) LTE-FDD Band 1/3 LTE-TDD Band 38/39/40/41 TD-SCDMA Band 34/39 UMTS (DC-HSPA+) Band 1 EVDO 800 MHz CDMA-1x 800 MHz EDGE/GPRS/GSM 850/900/1800/1900 MHz	STD: standard Android version	<NA>: RS232; 485: RS485
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InBox712-DQ25-PLAT	EMEA/South Korea/Thailand/India LTE-FDD B1/B3/B7/B8/B20/B28A WCDMA B1/B8 GSM/EDGE B3/B8	PLAT: support InVending Cloud, ready-to-use Android APP pre-installed	
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InBox712-DQ25-STD	EMEA/South Korea/Thailand/India LTE-FDD B1/B3/B7/B8/B20/B28A WCDMA B1/B8 GSM/EDGE B3/B8	STD: standard version, support 3rd party Android APP	
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