



InHand Networks

5G Android Industrial Computer
High Performance, Reliable and Multiple Interfaces

InBOX720 5G Series

Industrial-grade Embedded Computing Platform



InBOX720 5G series is the new-generation 5G 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 4G, 5G, 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, InBOX720 5G provides one SIM card interface (supporting 5G wireless networks), one SD card port, one HDMI interface, four 232 serial ports, one 485 serial ports, seven USB interfaces (including one USB 3.0 interface), one Type C interface, one ethernet network port, four 5G antenna interfaces, one Wi-Fi antenna interface.

InBOX720 5G provides a power interface that adopts 12V DC wide-voltage power input and a wide temperature range, and is specially designed for industrial applications.

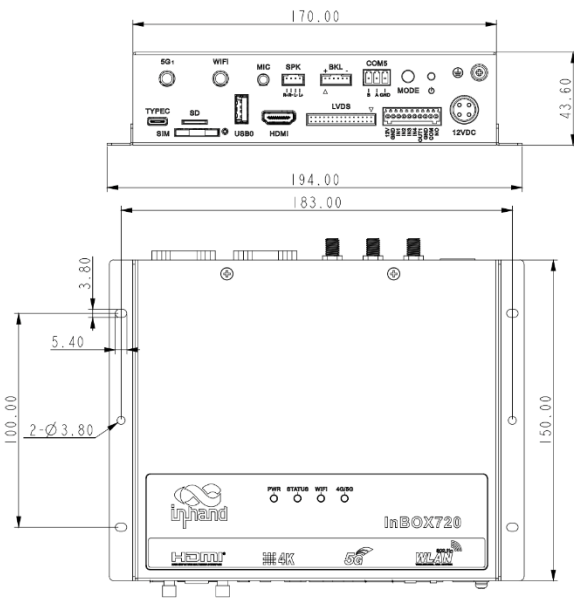
InBOX720 5G is particularly suitable for large-scale network connection of machines and device operation management, for example:

- Facial recognition
- Advertising
- Self-service freezer
- Self-service retail
- Supermarket self-checkout
- Smart express cabinet
- Smart charger
- Self-service medicine vending

Features and Advantages

- + 5G network/WiFi
- + High performance processor with 6 cores
- + 2GB storage/16GB disk
- + 4K video playing
- + Dual gigabit ethernet
- + GPIO interface
- + Seven Type-A USB interfaces
- + Four RS232 serial port/ one RS485 serial port
- + CAN interface
- **Omnipresent and continuous Internet access capability**
InBOX720 5G implements continuous and reliable service communication through 4G and 5G networks. Devices in all kinds of environments, such as business districts and desolate fields, can be fully covered by 4G and 5G networks to ensure device communication.
- **High speed 5G network**
InHand InBOX720 5G covers mainstream global operators and supports 5G NSA/SA mode, providing a high-speed, low-latency, and highly reliable 5G network.
- **Effective large scale self-service devices deployment and management support**
InHand intelligent vending machine management platform + InBOX720 5G solution allows customers to deploy and manage the self-service devices by simple settings and web connection.
- **Multiple interfaces for various applications scenarios**
Compared with the previous generation, InBOX720 5G owns more interfaces and provides more complete hardware interface support for multiple types of equipment and multiple application scenarios.

Dimensions



10 feet ports defination	
12V	12V power pin
GND	Ground pin
IN1	Input pin
IN2	Input pin
IN3	Input pin
IN4	Input pin
OUT1	5V output pin, maximum output current is about 15mA;
GND	Ground pin
COM	COM pin
NO	NO pin

Product Specifications

InBOX720 5G hardware specifications			
Item	InBOX720 5G		
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	5G: SMA × 1; Wi-Fi/Bluetooth: RP-SMA × 1		
232 serial port	Four 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	Six 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 Mbit/s gigabit Ethernet interface, LAN/WAN		
GPIO	10 feet ground pins*1 (plug-in type, screw-free spring type)		
LVDS	One LVDS interface, dual eight, backlight driver board voltage 3.3V, 5V, 12V (default)		
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		
Debugging interface	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.		
Backlight interface	One BKL interface		
SPK interface	One SPK interface, (dual track, 5W voltage *2)		
MIC interface	One MIC interface, 3.5mm standard outlet		
Upgraded Interface (-A)			
Dual gigabit interface (optional)	2 × 10/100/1000 Mbit/s gigabit Ethernet interface, LAN/WAN		
CAN (optional)	1 × CAN BUS		
Indicator lights			
Power light	Turns on when power on		
Status light	Glimmer when working normally		
WiFi status light	Turns on when WiFi connected		
4G/5G indicator	Turns on when 4G/5G connected		
Power supply			
Power input	12 V DC		
Appearance Features			
Installation	Wall	Security Grade	IP40
Housing	Metal	Dimensions (cm)	19.4*15*4.36

InBOX720 5G hardware specifications			
Hardware detection			
Watchdog	Supported	Cooling	Fanless cooling
Hardware	Custom API		
Ambient temperature and humidity			
Storage	-40°C to +85°C		
Ambient	5-95% (non-condensing)		
Operating	-20°C to +70°C (industrial grade)		
EMC index			
Static electricity	Level 3		
EFT	Level 3		
Surge	Level 3		
Others			
Real-time clock (optional)	Embedded RTC, power supply with a supercapacitor		
Temperature sensor	Optional	Audio	HDMI audio output or SPK audio output
Consumption	Less than 15W overall		

InBOX720 5G software specifications	
Item	InBOX720 5G
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 browser/server (B/S) architecture
Network	
Network standard	4G full-frequency
Wi-Fi	Supported, 802.11b/g/n, Client/AP mode
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 extraction
Video codec	H.265/H.264/VP9 4K@60 fps HD video decoding
Image processing	BMP, JPG, PNG, and GIF
Configuration	
Configuration operation	Configuration software provided
Timed startup and shutdown	Supported
Upgrade	
Upgrade operation	Local USB upgrade and remote upgrade (optional)

Order Information

Model	Model code: InBOX720 5G-<WMNN> <STD/PLAT>-<S>		
	<WMNN>: wireless communication type & module	<STD/PLAT>: version	<S>: serial port type
InBOX720-NRQ00-PLAT	<p>5G NR n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79</p> <p>LTE-FDD B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71</p> <p>LTE-TDD B34/B38/39/B40/B41/B42/B43/B48</p> <p>WCDMA B1/B2/B3/B4/B5/B6/B8/B19</p>	PLAT: Support for the intelligent vending machine platform, vending software applied	Standard version
InBOX720-NRQ00-STD	<p>5G NR n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79</p> <p>LTE-FDD B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71</p> <p>LTE-TDD B34/B38/39/B40/B41/B42/B43/B48</p> <p>WCDMA B1/B2/B3/B4/B5/B6/B8/B19</p>	STD: standard Android version	Standard version
InBOX720-NRQ00-PLAT-A	<p>5G NR n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79</p> <p>LTE-FDD B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71</p> <p>LTE-TDD B34/B38/39/B40/B41/B42/B43/B48</p> <p>WCDMA B1/B2/B3/B4/B5/B6/B8/B19</p>	PLAT: Support for the intelligent vending machine platform, vending software applied	A: Advanced version (dual gigabit net interface, CAN BUS interface applied)
InBOX720-NRQ00-STD-A	<p>5G NR n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79</p> <p>LTE-FDD B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71</p> <p>LTE-TDD B34/B38/39/B40/B41/B42/B43/B48</p> <p>WCDMA B1/B2/B3/B4/B5/B6/B8/B19</p>	STD: standard Android version	A: Advanced version (dual gigabit net interface, CAN BUS interface applied)