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 voltage power input and a wide temperature range, and is specially designed for industrial applications.
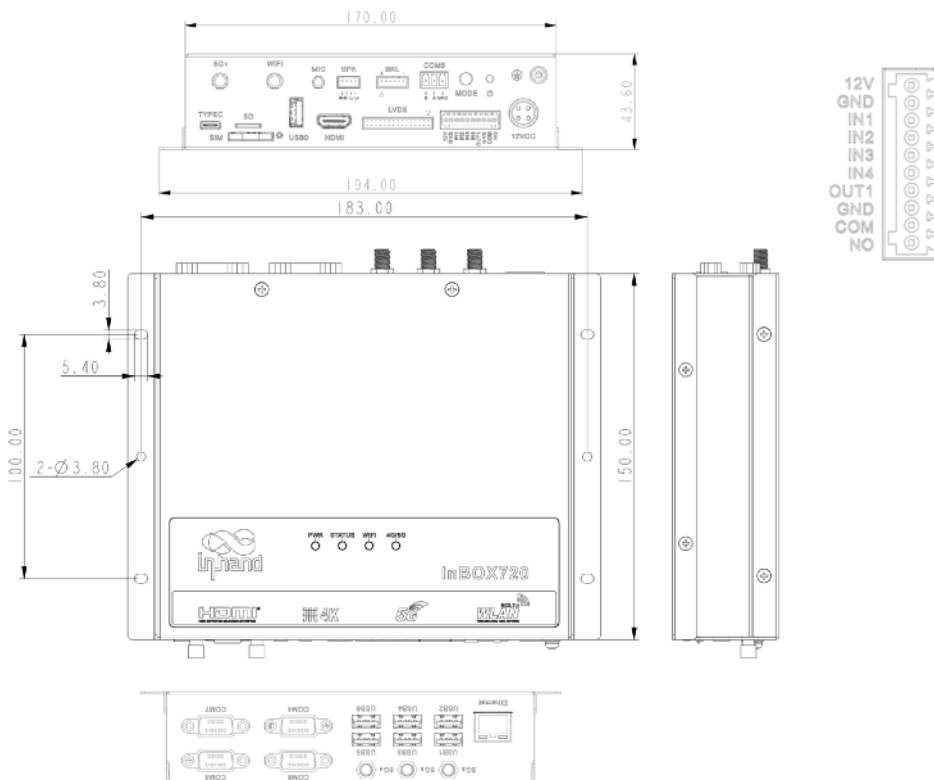
InBOX720 5G is particularly suitable for large-scale network connection of machines and device operation management, for example:

- Facial recognition

- Industrial control

- Dual-screen different display

- Self-service retail

- Advertising

- Self-checkout terminal

- Supermarket self-checkout

Features and Advantages

- + 5G network/WiFi

- + High performance 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**

The InBOX720 supports 5G networks with higher network access rates and lower data transmission delays. In addition, the device is connected to wired, Wi-Fi networks, which makes the networking mode more flexible.

● **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.

● **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.

● **Industrial design ensures stable and reliable performance**

The InBOX720 adopts a wide temperature range and high EMC rating to ensure stable operation of devices in the industrial field and/or 24-hour unattended environments.

Dimensions （mm）

10 feet ports definaton	
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: 1.8 GHz; 64-bit
Memory	2 GB
Flash	16 GB
Interface	
232 serial port	RS232 serial ports× 4 , DB9 male connector
USB	Type-A USB2.0 ×6,
Antenna interface	5G: SMA × 4; Wi-Fi/Bluetooth: RP-SMA × 1
Ethernet	10/100 Mbit/s gigabit Ethernet interface ×1, LAN/WAN
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.
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	HDMIx1 4096×2160 (4K), 1920×1080, 1366×768, 1280×720, and 1024×768
USB	Type-A USB3.0 ×1,
SIM card slot	1.8 V/3 V; drawer-type card holder × 1, for SIM card insertion
SD card slot	SD slot × 1
Debugging interface	Type-C × 1
Button interface	power-on/off button × 1 and Mode button × 1
485 serial port	RS485 serial port ×1 ,
Backlight interface	BKL interface × 1
SPK interface	SPK interface × 1, (dual track, 5W voltage *2)
MIC interface	MIC interface × 1, 3.5mm standard outlet
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 mounted	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			
ESD	Level 3		
EFT	Level 3		
Surge	Level 3		
Others			
Real-time clock	Embedded real-time clock (RTC), power supply with Button batteries		
Temperature sensor	Optional	Audio	HDMI audio output or SPK audio output
Consumption	Less than 15W overall (Inside the equipment, not including peripherals)		

InBOX720 5G software specifications

Item	InBOX720 5G
Software support	
Operating system	Android7.1 / Linux
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	5G 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)

Product Specifications

Model	Model code: InBOX720 5G-<WMNN><STD/PLAT/L>-<XX>		
	<WMNN>: wireless communication type & module	<STD/PLAT>: version	<L/A> specil version
InBOX720-NRQ3-STD	5G NR NSA：n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA：n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B12(B17)/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE-TDD:B34/B38/B39/B40/B41/B42/B43/B48 LAA:B46 WCDMA Bands:B1/B2/B3/B4/B5/B6/B8/B19	STD: standard Android version	
InBOX720-NRQ3-LU	5G NR NSA：n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA：n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B12(B17)/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE-TDD:B34/B38/B39/B40/B41/B42/B43/B48 LAA:B46 WCDMA Bands:B1/B2/B3/B4/B5/B6/B8/B19	L: Linux	