

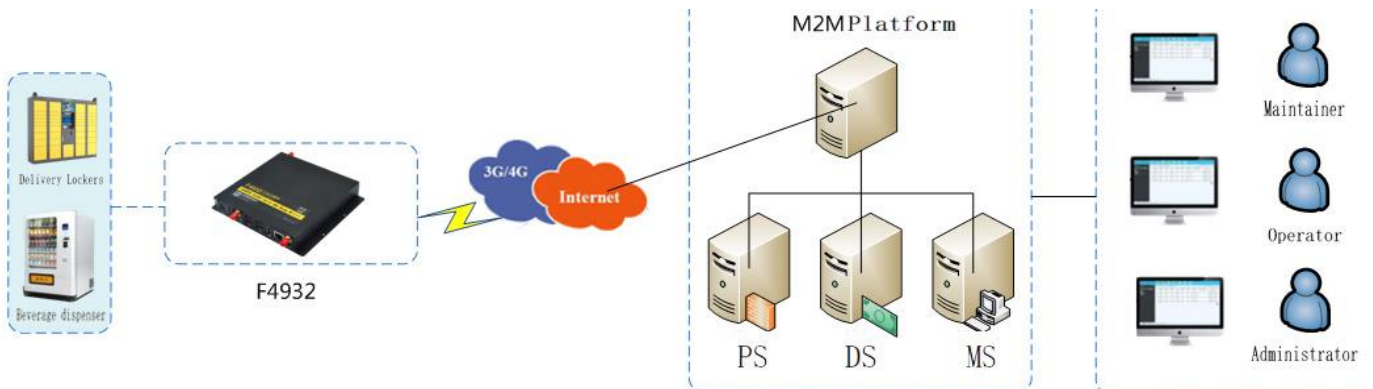
# IPC-120

## Industrial Personal Computer Specification



IPC-120 is a low power industrial computer independently developed by Four-Faith. It integrates wireless cellular network and routing technology and industrial computer technology, the device uses Freescale Cortex™ - A9 i.M 6 X processor, the frequency is 1.0 GHz, provides high-speed computing support for client's programs and tasks need. It supports OpenGL ES2.0 and OpenVG™ 1.1 hardware accelerators, Full HD 1080P video codec engine, provides a smooth and strong video experience for multimedia playback. IPC-120 contains 4 USB, 3 RS232 / RS485, 1 of HDMI, Internet, audio, and so on interfaces, can be connected to external devices such as code scanner, printer, camera, keyboard, mouse, infrared touchscreen, LCD screen, etc., no need to be worried about limited interface anymore. Built-in Android operating system and provides API and development documents, make it easier for customers to use and develop applications.

## Application Topography



## HIGHLIGHTS

### INDUSTRIAL-GRADE DESIGN

- High-performance industrial component
- Freescale Cortex™-A9 i.MX6 processor
- Professional power supply design, with undervoltage, overvoltage, overcurrent, Reverse polarity, short circuit, surge protection function
- Wide power range: DC 5~36V
- Wide temperature range:(-35°C~75°C)
- 4-core S-terminal power connector, stable and does not fall off
- Metal casing, good heat dissipation, impact resistance
- Fanless design
- TF, SIM card with the anti-theft design
- Built-in Android, LINUX (optional) Operating System

### STABLE & RELIABLE

- WDT protection, ensure system stability
- Auto recovery mechanism, including online detection, offline auto redials make sure device always online
- SSD storage (optional), High-speed data read and write to ensure security and stability
- Ethernet port: 1.5KV magnetic isolation
- RS232/RS485/RS422 port with15KV ESD protection
- SIM/UIM port with 15KV ESD protection
- Antenna port with lightning protection(optional)

### STANDARD INTERFACE & EASY-TO-USE

- Entering work state automatically when powered
- Support 10/100/1000 Mbps Ethernet
- Provide multiple standard USB2.0 interfaces
- Provide multiple RS232 / RS485 interface DB9
- Provide audio input/output interface

### POWERFUL FUNCTIONS

- Support 1080p video codec and 3D acceleration
- Local storage support SSD solid-state drives (optional), TF card (optional)
- Android open environment, can be self-develop and install applications
- Support HDMI, LVDS (optional), can connect to an external display device such as a touchscreen
- Support 802.11 b / g / n WIFI network, and provide a variety type of encryption, support Client/AP
- Provide rich external interfaces to meet customer application requirements
- Supports 3g / 4g dial-up Internet access
- Support APN/dial VPDN private network
- Support intelligent online and offline reconnection, abnormal recovery functions
- Support PPTP, L2TP, IPSEC, GRE, OPEN VPN and other VPN functions
- Provide PWR, NET, WIFI LED light indicators, more convenient for use and maintenance
- Support NTP, built-in RTC, support scheduled restart and powered on or off functions
- Support equipment management platform for remote status monitoring, configuration, updates and other functions
- Support multiple LAN/ WAN access methods, including static IP, DHCP, 3G/4G
- Support dual link backup between 3G/4G and LAN/WAN (optional)

## Product Specification

Cellular Specification	
Item	Content
Cellular Module	Industrial wireless module (single SIM, dual SIM or no SIM optional)
Standard and band	TDD-LTE/FDD-LTE/EVDO/WCDMA/TD-SCDMA/CDMA1X/GPRS/EDGE Optional for single mode, multimode or full Netcom
Bandwidth	FDD LTE (Downlink rate 100Mbps, Uplink rate 50Mbps) TDD LTE (Downlink rate 61Mbps, Uplink rate 18Mbps) CDMA2000 1X EVDO Rev A (Downlink rate 3.1Mbps, Uplink rate 1.8Mbps) WCDMA (Downlink rate 42Mbps, Uplink rate 5.76Mbps)
TX power	<24dBm
RX sensitivity	<-109dBm
WIFI Specification	
Item	Content
Standard	Support IEEE802.11b/g/n, 2.4G
Bandwidth	IEEE802.11b: 11Mbps (max) IEEE802.11g: 54Mbps (max) IEEE802.11n: 150Mbps (max)
Security	Support WEP, WPA, WPA2 such as a variety of encryption
TX power	15dBm(maximum)
RX sensitivity	<-70dBm@54Mbps
Hardware System	
Item	Content
CPU	Freescall Cortex™-A9 i.MX 6
FLASH	8GB eMMC
DDR3	2GB
SSD	128GB (optional, extensible 2TB)
TF	32GB (optional)
Interfaces	
Item	Content
Ethernet interface	1* 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 1.5KV ESD
Serial	1* RS232/485 serial interface with built-in 15KV ESD Data bits:5, 6, 7, 8 bits Stop bits:1, 1.5 (optional), 2 bits

	Error detection: none, even parity, odd parity, SPACE (optional) and MARK (optional) Serial Port Rate: 2400~115200bits/s
Lights	“PWR”, “NET”, “WIFI” indicator light
SIM/UIM	Standard SIM card slot, support 1.8V/3V SIM/UIM card, built-in 15KV ESD
USB Interface	Four standard USB2.0 interface, one standard USB2.0 OTG interface
TF interface	Standard spring type TF card interface, support any TF card
Audio interface	One Speaker interface, one Mic interface
Display Interfaces	HDMI: support 1920x1080, 1366x768, 1280x720, 1024x768 etc. LVDS: support 1920x1080, 1366x768, 1280x720, 1024x768 etc.
Antenna connector	Cellular: 2* SMA female connector, characteristic impedance 50Ω WIFI: 1* SMA male connector, characteristic impedance 50Ω
power interface	4-core S-terminal power connector, stable and does not fall off



#### Power

Item	Content
Standard power	DC 12V/1.5A
Power range	DC 5~36V

#### Physical characters

Item	Content
Shell	Metal case, shock resistant design
Dimensions (mm)	170mm × 150mm × 27mm (not including antenna and other add-on items)
Weight	0.7Kg (not including antenna and other add-on items)

#### Other parameters

Item	Content
Operating temperature	-35~+75°C
Storage	-40~+85°C

temperature	
Operating humidity	95%(unfreezing)

## Order information

Version	network	3G/4G module number	SIM/UIM
IPC-120-W	WCDMA/HSPA+	1	1
IPC-120-V	EVDO	1	1
IPC-120-TL	TDD-LTE	1	1
IPC-120-FL	FDD-LTE	1	1
IPC-120-L	LTE	1	1