F4931-R2H

让万物更加智慧
Bringing Intelligence Across All Beings

SPECIFICATION

| VERSION	CLASS
V1.1.0	

F4931-R2H is a low-power industrial computer independently developed by Four-Faith. It combines wireless cellular network and routing technology with industrial computer technology.

The system adopts RK3399 processor (dual Cortex-A72 large core + four Cortex-A53 small core), the main frequency is up to 2GHz, which provides high-speed computing support for client task programs.

Quad-core Mali-T860 GPU, support OpenGL ES 1.1/2.0 /3.0, OpenVG1.1, OpenCL, Directx11 hardware accelerator, full HD 1080P video codec engine, provide smooth and powerful video experience for multimedia playback.

F4931-R2H contains 4 USB, 6 RS232, 1 RS232/RS485, HDMI, LVDS, network, audio and other interfaces, and can be connected with scanners, printers, cameras, keyboards, mice, infrared screens, LCD screens and other devices. No longer bothered by the lack of interfaces.

Topology
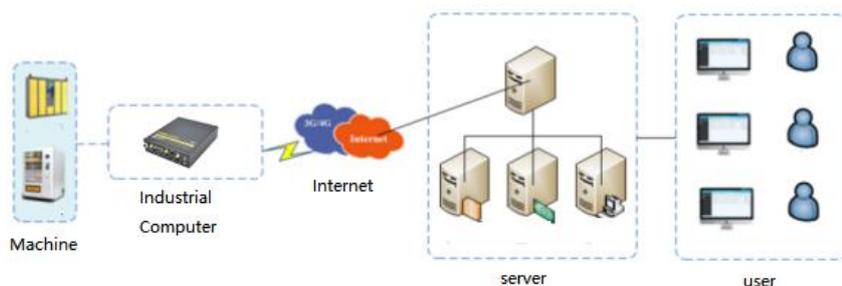
Feature

Industrial Design

◆ Using high-performance ROCKCHIP RK3399 processor, wide temperature design (-20℃~60℃)
◆ Adopt professional wide voltage input (DC 9~25V) power supply design
◆ Using metal shell, good heat dissipation, anti-impact, the whole machine has no fan design
◆ Adopt aviation head power interface. TF card, SIM card adopt anti-theft structure design
◆ Android 7.1（standard）OS

Reliable

◆ WDT watchdog design to ensure system stability
◆ Adopt a complete anti-drop mechanism to ensure that the data terminal is always online
◆ Ethernet interface built-in 1.5KV electromagnetic isolation protection
◆ RS232/RS485 interface built-in 15KV ESD protection
◆ Built-in 15KV ESD protection for SIM/UIM card interface
◆ Built-in reverse phase protection and over voltage protection for the power interface
◆ Antenna interface lightning protection（OPTIONAL）

Standard

◆ Power on to enter working state
◆ Support 10/100/1000Mbps Ethernet
◆ Provide 3 standard USB2.0 interfaces and 1 standard USB3.0
◆ Provide multiple RS232 DB9 interfaces
◆ Provide audio input and output interface
◆ Support GPIO expansion (optional)

Powerful

◆ Support 4K video codec
◆ Local storage supports SSD solid state drive (optional), TF card (optional)
◆ Open Android environment, you can develop and install applications by yourself
◆ Support HDMI, VGA, LVDS (optional) external touch screen and other display devices
◆ Support 802.11 b/g/n WIFI network, and provide multiple encryption methods, support Client/AP mode
◆ Support 3G/4G dial-up Internet
◆ Support APN/VPDN private network dial-up
◆ Supports intelligent keep online detection and auto-recovery functions
◆ Provide PWR, SYS, WIFI, ONLINE, indicator light, easy to use and maintain
◆ Support NTP, built-in RTC, support timing restart, timing switch machine function
◆ Support equipment management platform to realize remote status monitoring, configuration, update and other functions
◆ Support multiple LAN/WAN connection methods, including static IP, DHCP, 3G/4G and other networking methods
◆ Adopt solid-state hard disk storage (optional) to ensure high-speed data reading and writing and safety and stability

SPEC

● **Wireless**

Project	Content
Module	Industrial module
Frequency	•LTE TDD B38/B40/B41 •LTE FDD B1/B3/B5/B7/B8/B20/B28 •WCDMA/HSPA+ B1/B5/B8 •GSM/GPRS/EDGE 850/900/1800MHz
Bandwidth	FDD LTE(DL 100Mbps, UL 50Mbps) TDD LTE(DL 61Mbps, UL 18Mbps) WCDMA(DL 42Mbps, UL 5.76Mbps)
Power	<24dBm
Sensitive	<-109dBm

● **WIFI**

Project	Content
Standard	IEEE802.11b/g/n, 2.4G
Bandwidth	IEEE802.11b：11Mbps IEEE802.11g：54Mbps IEEE802.11n：135Mbps
Encryption	WEP、WPA、WPA2
Power	15dBm
Sensitive	<-70dBm@54Mpbs

● **Hardware**

Project	Content
CPU	ROCKCHIP RK3399
FLASH	8GB EMMC (extendable to 16G or 64G)
LPDDR4	2GB (extendable to 4G)
TF 卡	32GB (optional)

● **Interface**

Project	Content
Ethernet	1 x 10/100/1000Mbps（RJ45），auto MDI/MDIX
Serial	5 x RS232 and 2 x RS232/RS485, 15KV ESD protection： Data bit ：8 Stop bit：1、2 Check ：NONE、EVEN、ODD Band rate ：2400～115200bits/s
Indicator	"PWR"、"SYS"、"Online"、"WIFI"
SIM/UIM	Standard drawer type user card interface, support 1.8V/3V SIM/UIM card, built-in 15KV ESD protection
USB	3 x USB2.0, 1 x USB3.0 （2A），1 x USB2.0 OTG
TF card	Standard bullet TF card interface, support various TF cards
audio port	1 x Speaker，1 x Mic
Display	HDMI：1920x1080, 1366x768, 1280x720, 1024x768
Antenna	Cellular ：2 standard SMA female antenna interfaces, characteristic impedance 50 ohms WIFI：1 standard SMA male antenna interface, characteristic impedance 50 ohms
Power	Standard GX12-4 core aviation head

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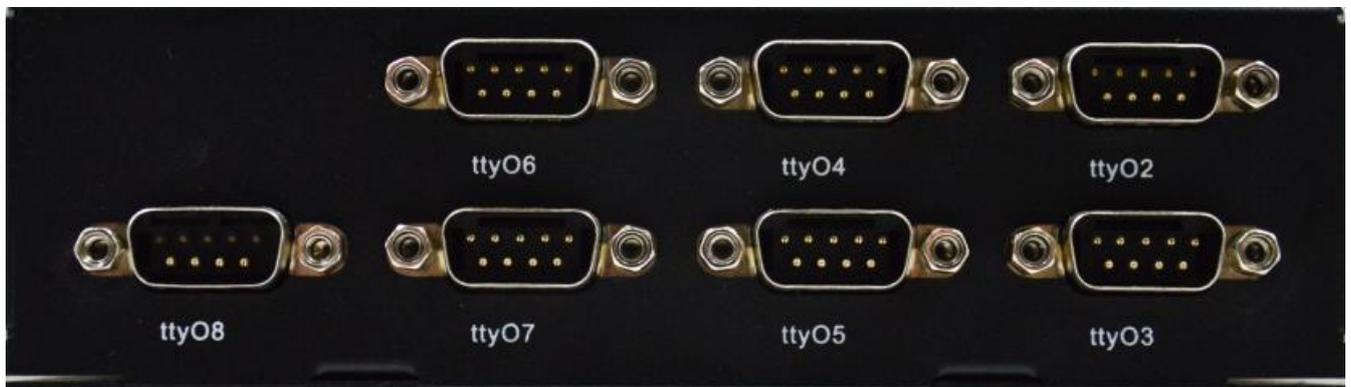
Power

Project	Content
Power adaptor	DC 12V/1.5A
Range	DC 9~25V

Physical

Project	Content
Shell	Metal shell, shockproof design
Size	180x150x45mm (Does not include antenna and mounting parts)
Weight	0.9Kg(Does not include antenna, mounting parts and packaging)

Others

Project	Content
Working Temperature	-20～+60ºC
Storage Temperature	-35～+75ºC
Humility	95%(No condensation)

Order info

Model	Network	3G/4G module	Cellular antenna	WIFI antenna	SIM/UIM
F4931-R2H-TL	TDD-LTE	1	2	1	1
F4931-R2H-FL	FDD-LTE	1	2	1	1

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