

# ComFi IX220

## **Outdoor 4G Wireless Router**

## **Product Specifications**



- SIM Card Plug and Play, Auto Dial-up Internet Access
- Standard RJ45 Network Port for Direct Use
- Supply 12VDC Power Interface For External Device Use
- Support 110V-240VAC Power Input
- Integrated External Antenna and Outdoor Rainproof
- Low Cost, Low Power Consumption, High Reliability



## **Product Description**

The ComFi IX220 is wireless router based on 4G cellular communication and WIFI technology platform, supports wireless communication of FDD-LTE, TDD-LTE and WLAN through multiple network standards. It is designed for plugand-play wireless monitoring applications. In addition, the ComFi IX220 can also be widely used in various IoT frontend data capture and collection, as well as medium and high-speed data transmission unit (DTU) by typical interfaces directly connected to the control board to realize application solutions. The ComFi IX220 provides AC110~220V AC power input interface, DC12V power output interface, USB interface (built-in optional), SIM card socket interface (built-in), soft reset button (built-in), UART interface (built-in optional), 10M/100M Network RJ45 Interface.

## **Product Features**

#### **Industrial Application Design**

The ComFi IX220 uses a stable performance single chip has enterprise-level data communication processing capabilities, built-in 128MB system memory, Wi-Fi support 2.4GHz 802.11n wireless protocol. The product supports low power consumption modes, including sleep mode, scheduled online and offline mode and timer switch mode (only supported by special version). In addition, the product adopts a waterproof case, the protection level meets IP54 that provides a decent protection in an outdoor environment. It is especially suitable for industrial control field applications. The wide-voltage AC input design (AC110V~AC220V) and 12VDC power output design meet the needs of various industrial control fields.

#### **Stable and Reliable**

The ComFi IX220 adopts a built in watchdog design to ensure system stability and support long term stable operation. External network communication adopts a complete anti-drop mechanism to ensure that the data communication terminal is always online. In addition, it provides comprehensive interface protection such as built-in 1.5KV electromagnetic isolation protection for the Ethernet port, built-in reverse and overvoltage protection for the power interface, and lightning protection for the antenna interface.

#### **Convenient and Easy to Use**

The ComFi IX220 provides a standard Ethernet interface, which can be directly connected to an equipment via Ethernet port with a network cable. It also provides WIFI connection which can be directly connected to a wireless equipment. The device is an intelligent data terminal, which can enter to the data transmission state after power on. It is convenient and flexible to use. It supports multiple working modes and is convenient for system configuration and maintenance.



## **Device Interfaces**

Item	Description	Remark
Power Interface	Input: AC110~220V, Output 12V/2A	
USB Interface	USB 2.0 Interface x 1	Built-in Terminal (Optional)
USIM Interface	1.8V/3.0V Nano USIM/SIM Card	
Ethernet Interface	RJ45 Port, 10/100 Auto Adaptive, LAN/WAN Configurable	
UART Interface	UART Interface x 1	Built-in terminal (Optional)
Reset Button	Long hold 3sec above to reset to factory default setting	
LED Indicators	Power On / WIFI Status x 1, Cellular Connection Status x 1	Internal

## 4G/3G/2G Technical Specifications

Item	Description	
Cellular Technology	LTE FDD, LTE-TDD, WCDMA, TD-SCDMA, EDGE, GPRS, GSM	
	LTE-FDD: Max 150Mbps DL / Max 50Mbps UL	
	LTE-TDD: Max 130Mbps DL / Max 35Mbps UL	
	WCDMA: Max 21Mbps DL / Max 5.76Mbps UL	
Data Rate	TD-SCDMA: Max 4.2Mbps DL / Max 2.2Mbps UL	
	EDGE: Max 236.8Kbps DL / Max 118Kbps UL	
	GPRS: Max 85.6Kbps DL / Max 85.6Kbps UL	
	GSM: Max 9.6Kbps DL / Max 2.7Kbps UL	
Rx Sensitivity	Compliance with 3GPP Release 9 Standard	
	LTE-FDD: 23dBm±2dB	
	LTE-TDD: 23dBm±2dB	
	WCDMA: 24dBm±1dB/-3dB	
Tx Output Power (Max)	TD-SCDMA: 24dBm±1dB/-3dB	
	GSM: B5/B8: +33±2dB (Power Class 4)	
	GSM: B2/B3: +30±2dB (Power Class 1)	
Antenna Type	External Antenna	



Antenna Gain	5dBi

#### Cellular Band/Frequency (Europe version)

Standards	Bands	
4G LTE-FDD	B1, B2, B3, B5, B7, B8, B20	
4G LTE-TDD	B38, B39, B40, B41	
TD-SCDMA	B34, B39	
WCDMA	B1, B2, B5, B8	
GSM	850, 900, 1800, 1900 (Quad-Band)	

#### Cellular Band/Frequency (Pacific version)

Standards	Bands	
4G LTE-FDD	B1, B2, B3, B5, B7, B8, B28(A+B)	
4G LTE-TDD	B38, B39, B40, B41	
TD-SCDMA	B34, B39	
WCDMA	B1, B2, B5, B8	
GSM	850, 900, 1800, 1900 (Quad-Band)	

#### Cellular Band/Frequency (China version)

Standards	Bands
4G LTE-FDD	B1, B3, B5, B8
4G LTE-TDD	B38, B39, B40, B41
TD-SCDMA	В34, В39
WCDMA	B1, B8
GSM	900, 1800

## **Environmental Specifications**

Item	Description
Operating Temperature	-20 °C ~ +70 °C
Storage Temperature	-40 °C ~ +85 °C
Operating Humidity	5% ~ 95%



## **Device Access Information**

Item	Default Value
Default IP Address	192.168.150.1
Default Login ID	admin
Default Login Password	admin
Default WIFI Password	12345678

Note: Login ID and password can be modified in the device setting.

Access and operate the software function of the device can be done via a web browser. There are two methods can do it: 1. Wired connection and 2. Wireless WI-Fi.

## First time to use

Before proceeding to the device login interface, connect the device to a power source. For wired connection as an example:

- a. Use a network cable to connect the network port RJ45 interface of the device to the network port interface of the PC
- b. On the PC, the computer network port is generally set to automatic mode, as follows:



I	nternet Protocol Version 4 (TCP/IPv4) Properties					
L	General Alternate Configuration					
	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
i.	<u>O</u> btain an IP address automatically					
	O Use the following IP address:					
	IP address:					
L	Subnet mask:					
	Default gateway:					
L	Obtain DNS server address automatically					
L	Use the following DNS server addresses:					
L	Preferred DNS server:					
L	Alternate DNS server:					
	Validate settings upon exit					
	OK Cancel					

c. Once the connection of the device and the PC connected successfully. Open a web browser and enter the IP address: 192.168.150.1 and enter. The web browser should display the login page as below:

4GLTE		
	用户名	
	密码	
	受录	



d. In the username and password field key in the default username and password: **admin** and then press enter to login to the device. Once login successfully, a web dashboard interface in be display as below:



### **Software Functions**

In the device information page, the device information can be found such as firmware version, operation time, IMEI, IMSI, ICCID and other information. The device information page is like below:



<	设备信息	
មនុស្ស	设备信息	
	软件版本	IX22_B11_1CEX0X_E1_23002
系统状态	硬件版本	IX22_V1.1
网络参数	运行时间	00 Day : 00 Hour : 01 Min : 25 Sec
APRIL BAR	设备型号	IX22
	IME)	865190042724339
	SIM-FICCID	89860435191890828520
	SIM-RIMSI	460045537908520

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#### 1.1 Modify WI-Fi SSId and Password

OBILE MISON	短期 电波本	RROM	91802
$\bigcirc$			
网络连接 ON ● 1.63Kb/s ↓ 2.84Kb/s 00:13:15	网络设置 设置外网连接 设置无线内网	*	接入设备 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
121019611	DAGR		
	IMEL	86519004	0317631
	IMSI	46004189	8709330
	频段	Band39	
	额点/小区	38400/146	
■ E05用 1.94MB	信号强度	-124 dBm	
and the state of the	网络名称(SSID)	MIFI_b54e	
NaNTB 流量套督 >			详细组织 >

In the dashboard page, click the "Wireless setting"



In the Wi-Fi setting page, SSID and password can be modify here. After that, click the apply button to save and apply the new settings.

Wi-Fi设置           建立你的无线热点,以供手机或笔记本等无线设备上网使用					
主SSID	Wi-Fi开关	• 启用	● 关闭		
	多重网络名称开关	◎ 启用	◉ 关闭		
副SSID					应用
WPS	±ssid				
internet Wi-Fi	网络名称(SSID) *	CPE_1E63 ✓ SSID 广播			
高级设置	安全模式	WPA2(AES	)-PSK		
	密码 *	12345678	>		
			5		
	最大接入数	10		¥	
					应用

#### 1.2 Modify Gateway setting

In practical applications, if a terminal device or IP camera to be connected is not in the same network segment as the ComFi IX220. The gateway of the ComFi IX220 can be modified in order to make it and the terminal device or IP camera connected in the same network segment.

Click Advanced Settings on the dashboard as the picture below:



08108 <b>M</b> 80 <u>8</u>	1555 @15*	ANNE	theor
网络连接 ON ↑ 1.63Kb/s ↓ 2.84Kb/s 00:13:15	<b>网络设置</b> 设置外网连接 设置无线内网	>	接入设备 1 <sub>合</sub> 0 <sub>台</sub>
监照统计	10 MARIN		
	IMEI IMSI 频段 频点小区	IMSI 460041898709330 频段 Band39 频点/小区 38400/146	
■ 已使用 : 1.94MB NaNTB 流量套督 >	信号强度 网络名称(SSID)	-124 dBm MIFI_b54	

In the router section, modify the IP address will change the network segment. Also, in the DHCP IP Pool should also set to the corresponding network segment IP range. After click the Apply button, the system will automatically update and restart. After restart, it will have the new gateway connection. If you use a computer or mobile phone to connect this time, you need to enter the modified gateway IP address in the web browser to log in to the router.

<	高级设置	
器由	路由	
	IP地址* 192.168.150.1	
防火墙	子网境码* 255 255 255 0	
升级	DHCP服务 意用 ① 关闭	
DDNS	DHCP IPIts * 192.168.150.100 - 192.168.	150.200
	DHCP租期* 24 小时	
PING包		成功
race跟踪	0	
其他		



## **Product Views**





## **Order Information**

Product Model	Product Description
ComFi IX220	Complete Product Unit including 1 x IX220 4G Wireless Router



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