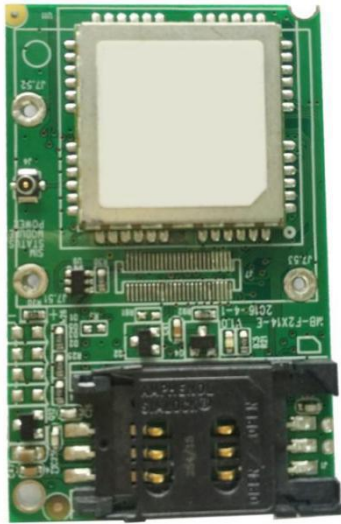


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F2X14-E IP Modem Technical Specification



General

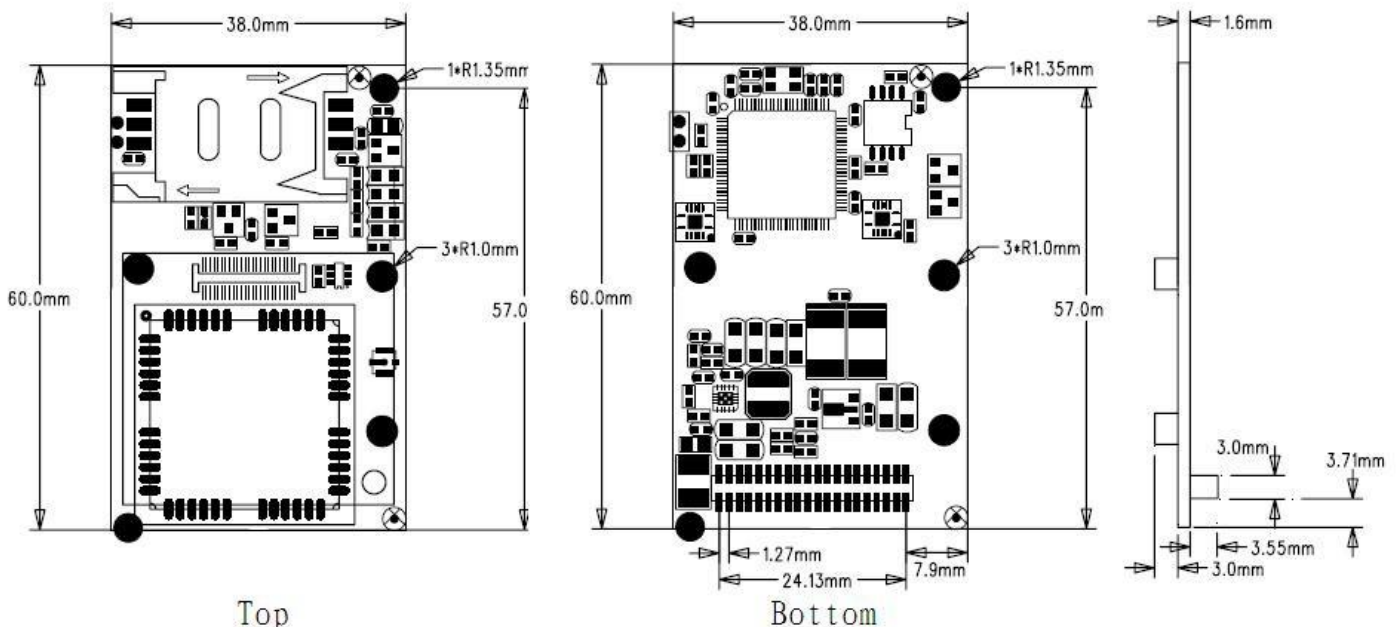
F2X14-E IP Modem is a kind of cellular terminal device that provides data transfer function by GPRS/WCDMA/EVDO/LTE network.

It adopts high-powered industrial 32 bits CPU and embedded real time operating system., it is dual serial port design, supports TTL interface which can be embedded into devices directly and realize data transmission transparently. It also has low power consumption states.

It has been widely used on M2M fields, such as intelligent substation, intelligent distribution network, smart electricity meters, intelligent interactive terminal, intelligent scheduling, intelligent home appliances, intelligent electricity building, power grids for smart cities, intelligent power generation system, smart grids (Such as new energy storage systems)and so on.

Product size (Unit:mm) :

Top View



(Note:The components and their position on the PCB board will change slightly with the version upgrade, please refer to the actual product!)

Note: There may be differences between different types of accessories and interfaces.Please refer to the actual product.

Product Features

Design for Industrial Application

- ◆ High-powered industrial cellular module
- ◆ High-powered industrial 32 bits CPU
- ◆ Low power consumption design, to reduce the power dissipation in the most way
- ◆ Power range: DC 5~36V
- ◆ Operating temperature-40~75°C

Stability and Reliability

- ◆ Support hardware and software WDT
- ◆ Support auto recovery mechanism, including online detect, auto redial when offline to make it always online
- ◆ SIM/UIM port: 15KV ESD protection
- ◆ Power port: reverse-voltage and overvoltage protection
- ◆ Few connectors, with good seismic performance

Standard and Convenience

- ◆ Standard TTL interface which can be embedded into devices directly
- ◆ Support intellectual mode, enter into communication state automatically when power is on
- ◆ Provide management software for remote managemen (Optional)

- ◆ Support a variety of working mode which make it easy and flexible to use
- ◆ Convenient configuration and maintenance interface
- ◆ Support the serial update,remote update, can export the serial log
- ◆ Embedded installation, fast fixing, conveniently and quickly

High-performance

- ◆ Support TCP server and support 4 TCP client connection (optional)
- ◆ Support protocol conversion between ModBus and RTU/TCP (optional)
- ◆ Support dual data center backup transmission and multiple data center synchronous transmission (5 data centers)
- ◆ Support multi data centers and it can support 1-5 data centers at the same time
- ◆ Support protocol conversion between 101 and 104 (optional)
- ◆ Support standard TCP/UDP protocol, support data transfer transparently
- ◆ Support login security authentication
- ◆ Multiple indicator lights that can indicate a variety of system states

Product Specification-----

Wireless parameters

| Item | Content |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| F2114-E GPRS IP MODEM | |
| Standard and Band | EGSM 900/GSM 1800MHz, GSM 850/900/1800/1900MHz(optional) Compliant to GSM phase 2/2+ GPRS class 10, class 12(optional) |
| Bandwidth | 85.6Kbps |
| TX power | GSM850/900: <33dBm GSM1800/1900: <30dBm |
| RX sensitivity | <-107dBm |
| F2814-E FDD LTE IP MODEM | |
| Standard and Band | LTE FDD 2600/2100/1800/900/800MHz, 700/1700/2100MHz (Optional) DC-HSPA+/HSPA+/HSDPA/HSUPA/UMTS 850/900/2100MHz , 800/850/1900/2100MHz (Optional) EDGE/GPRS/GSM 850/900/1800/1900MHz , GPRS CLASS 10 EDGE CLASS 12 |
| Bandwidth | LTE FDD: Download speed 100Mbps, Upload speed 50Mbps DC-HSPA+: Download speed 42Mbps, Upload speed 5.76 Mbps HSPA+: Download speed 21Mbps, Upload speed 5.76 Mbps HSDPA: Download speed 7.2Mbps , HSUPA: Upload speed 5.76Mbps UMTS: 384Kbps |
| TX power | <23dBm |
| RX sensitivity | <-97dBm |

Interface type

| Item | Content |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDI | Num.of ports: 2 Port 1: TTL Port 2: TTL Serial port type : 2×20PIN 1.27 pitch interval female header +3 pin 2.54mm pitch; Single row of female header Stop bits: 1、2 Parity: none, even, odd, Baud rate: 300~115200bps |
| Antenna | IPEX connector, 50 ohm |
| SIM/UIM | Standard clamshell socket interface, support 1.8V/3V SIM/UIM card, 15KV ESD protection |
| Indicator | Power、SIM card、Operation、network state |

Power supply

| Item | Content |
|-------------------|-----------|
| Standard power | DC 5V |
| Operation Voltage | DC 3.6~9V |

Consumption

| Item | Content | |
|-------------|---------|------------|
| Communicati | 70mA@5V | 100mA@3.6V |
| Standby | 30mA@5V | 55mA@3.6V |

Physical Characteristics

| Item | Content |
|--------------|------------|
| Installation | Embedded |
| Dimension | 60x38x12mm |
| weight | About 8g |

Other parameters

| Item | Content |
|---------------------|------------------------|
| Working temperature | -40~+75°C (-40~+167°F) |
| Storage temperature | -40~+85°C (-40~+185°F) |
| relative humidity | 95% ((unfreezing) |

Ordering Information

| Model No. | Description |
|-----------|------------------|
| F2114-E | GPRS IP MODEM |
| F2814-E | FDD LTE IP MODEM |