

F2103 GPRS IP MODEM

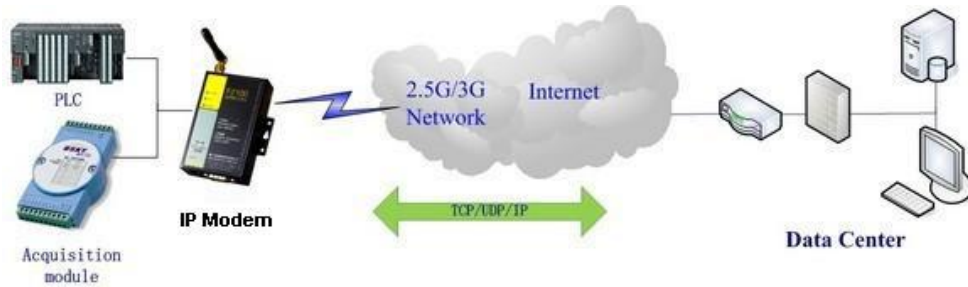
TECHNICAL SPECIFICATION



F2103 GPRS IP MODEM is a kind of cellular terminal device that provides data transfer function by public GPRS network.

It adopts high-powered industrial 16/32 bits CPU and embedded real time operating system. It supports RS232 and RS485 (or RS422) port that can conveniently and transparently connect one device to a cellular network, allowing you to connect to your existing serial devices with only basic configuration.

It has been widely used on M2M fields, such as intelligent transportation, smart grid, industrial automation, telemetry, finance, POS, water supply, environment protection, post, weather, and so on.



Features and Benefits

Design for Industrial Application

- ◆ High-powered industrial cellular module
- ◆ High-powered industrial 16/32 bits CPU
- ◆ Support low-consumption mode, including sleep mode, scheduled online/offline mode, scheduled power-on/power-off mode(optional)
- ◆ Housing: iron, providing IP30 protection.
- ◆ Power range: DC 5~35V

Stability and Reliability

- ◆ Support hardware and software WDT
- ◆ Support auto recovery mechanism, including online detect, auto redial when offline to make it always online
- ◆ RS232/RS485/RS422 port: 15KV ESD protection
- ◆ SIM/UIM port: 15KV ESD protection
- ◆ Power port: reverse-voltage and overvoltage protection
- ◆ Antenna port: lightning protection(optional)

Standard and Convenience

- ◆ Support standard RS232 and RS485(or RS422) port that can connect to serial devices directly
- ◆ Support intellectual mode, enter into communication state automatically when powered
- ◆ Provide management software for remote management
- ◆ Support several work modes
- ◆ Convenient configuration and maintenance interface

High-performance

- ◆ Support TCP server and support multi TCP client connection(optional)
- ◆ Support double data centers, one main and another backup
- ◆ Support multi data centers and it can support 5 data centers at the same time
- ◆ Support multi online trigger ways, including SMS, ring and data. Support link disconnection when timeout
- ◆ Support dynamic domain name(DDNS) and IP access to data center
- ◆ Design with standard TCP/IP protocol stack
- ◆ Support APN/VPDN

Specifications

Cellular Specification

| Item | Content |
|-------------------|--|
| Cellular Module | Industrial cellular module |
| Standard and Band | EGSM900/GSM1800MHz, GSM850/900/1800/1900MHz(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 |

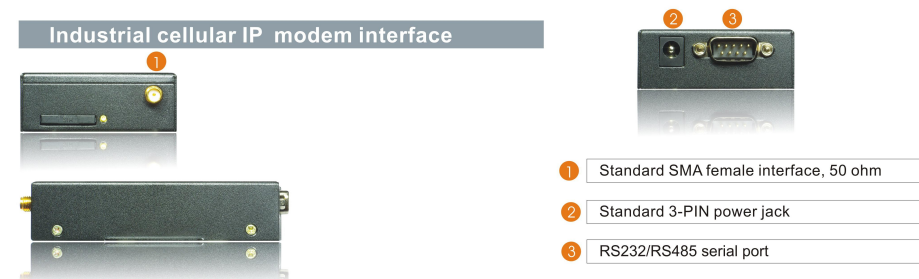
Hardware System

| Item | Content |
|-------|---------------------------|
| CPU | Industrial 16/32 bits CPU |
| FLASH | 1MB(Extendable) |
| SRAM | 512KB(Extendable) |

Interface Type

| Item | Content |
|-----------|---|
| Serial | 1 RS232 port and 1 RS485(orRS422) port, 15KV ESD protection Data bits: 5, 6, 7, 8 Stop bits: 1, 1.5, 2 Parity: none, even, odd, space, mark Baud rate: 110~230400 bps |
| Indicator | "Power", "ACT", "Online" |
| Antenna | Standard SMA female interface, 50 ohm, lighting |

| | |
|---------|---|
| | protection(optional) |
| SIM/UIM | Standard 3V/1.8V user card interface, 15KV ESD protection |
| Power | Standard 3-PIN power jack, reverse-voltage and overvoltage protection |



Power Input

| Item | Content |
|----------------|--------------|
| Standard Power | DC 12V/1.5A |
| Power Range | DC 5~35V |
| Consumption | <250mA (12V) |

Physical Characteristics

| Item | Content |
|------------|---------------------------------|
| Housing | Iron, providing IP30 protection |
| Dimensions | 91x58.5x22 mm |
| Weight | 205g |

Environmental Limits

| Item | Content |
|-----------------------|------------------------|
| Operating Temperature | -25~+65°C (-13~+149°F) |
| Extended | -30~+75°C (-22~+167°F) |

| | |
|-----------------------|------------------------|
| Operating Temperature | |
| Storage Temperature | -40~+85°C (-40~+185°F) |
| Operating Humidity | 95% (Non-condensing) |