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F2X14 Series IP MODEM Technical Specification

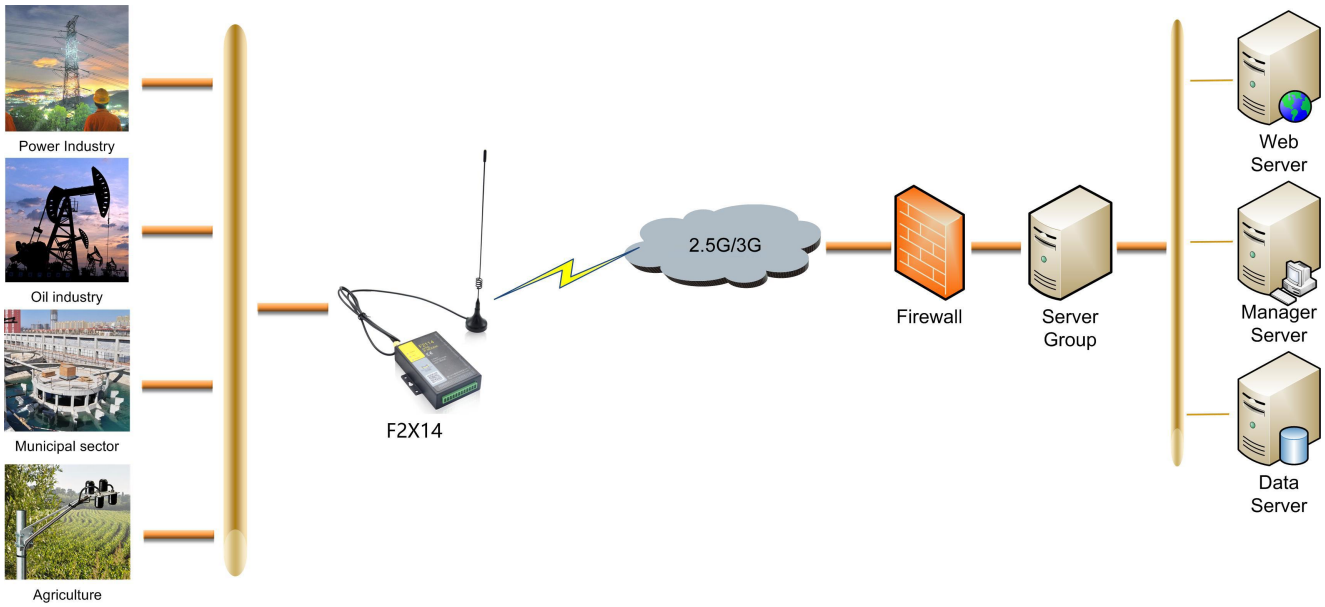


General

F2X14 Series IP MODEM is a kind of cellular terminal device th at provides data transfer function by public GPRS/CDMA/WCDMA/EV DO network.

It adopts high-powered industrial 32 bits CPU and embedded re al 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 de vices with only basic configuration. It has low power consumption st ates. It has compatible digital I/O channel, ADC, input pulse counter and pulse wave output function.

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



Product Feature

Design for Industrial Application

- High-powered industrial cellular module
- High-powered industrial 32 bits CPU
- Low power consumption design, support multi-sleep and trigger modes to reduce the power dissipation farthest
- Embedded Real Time Clock(RTC) circuit
- Housing: iron, providing IP30 protection
- Power range: DC 5~36V

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 ports:15KV ESD protection
- SIM/UIM port: 15KV ESD protection
- Power port: reverse-voltage and overvoltage protection
- Antenna port: lightning protection(optional)

Standard and Convenience

- Adopt terminal block interface, convenient for industrial application
- Support standard RS232/RS485 ports that can connect to serial devices directly
- TTL logic level RS232 interface can be customized
- 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
- Supply 5 I/O channels, compatible 2 pulse wave output channels, 2 analog inputs and one pulse input counters.
- 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

Product Specification

F2X14 Series Cellular Specification

Item	Content
F2114 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
F2214 CDMA IP MODEM	

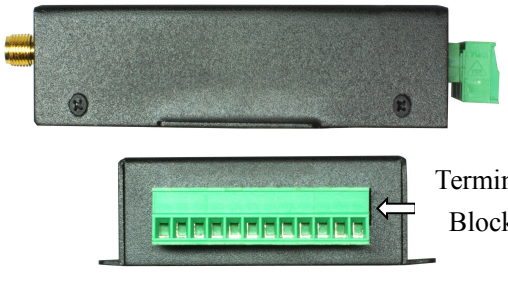
Standard and Band	CDMA2000 1xRTT 800MHz, 450MHz(optional)
Bandwidth	153.6Kbps
TX power	<30dBm
RX sensitivity	<-104dBm
F2414 WCDMA IP MODEM	
Standard and Band	UMTS/WCDMA/HSDPA/HSUPA/HSPA+ 850/1900/2100MHz, 850/900/1900/2100MHz(optional) GSM 850/900/1800/1900MHz GPRS/EDGE CLASS 12
Bandwidth	DC-HSPA+: Download speed 42Mbps, Upload speed 5.76Mbps HSPA+: Download speed 21Mbps, Upload speed 5.76Mbps HSDPA: Download speed 7.2Mbps, HSUPA: Upload speed 5.76Mbps UMTS: 384Kbps
TX power	<24dBm
RX sensitivity	<-109dBm
F2614 EVDO IP MODEM	
Standard and Band	CDMA2000 1X EVDO Rev A 800MHz, 800/1900MHz(optional), 450MHz(optional) CDMA2000 1X EVDO Rev B 800/1900MHz(optional) CDMA2000 1X RTT, IS-95 A/B
Bandwidth	EVDO Rev. A: Download speed 3.1Mbps, Upload speed 1.8Mbps EVDO Rev. B: Download speed 14.7Mbps, Upload speed 5.4Mbps (optional)
TX power	<23dBm
RX sensitivity	<-104dBm

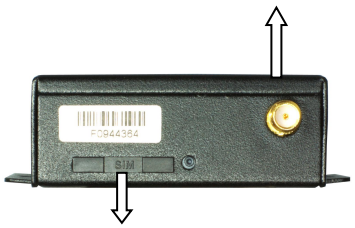
Hardware System

Item	Content
CPU	Industrial 32 bits CPU
FLASH	512KB (Extendable)
SRAM	256KB(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 user card interface, support 1.8V/3V SIM/UIM card, 15KV ESD protection
Power	Terminal block interface, reverse-voltage and overvoltage protection





Note: There may be different components and interfaces in different model,please in kind prevail.

Power supply

Item	Content
Standard Power	DC 12V/0.5A
Power range	DC 5~36V

Consumption

Working condition	Consumption
Standby	3G:16~29mA@12VDC 2G:12~15mA@12VDC
Communication	3G:70~200mA@12VDC 2G:30~35mA@12VDC

Physical Characteristics

Item	Content
Housing	Iron, providing IP30 protection
Dimensions	91x58.5x22 mm
Weight	210g

Environmental Limits

Item	Content
Operating Temperature	-35~+75ºC(-31~+167℉)
Storage Temperature	-40~+85ºC (-40~+185℉)
Operating Humidity	95% (unfreezing)

Ordering Information

Model No.	Description
F2114	GPRS IP MODEM
F2214	CDMA IP MODEM
F2414	WCDMA IP MODEM
F2614	EVDO IP MODEM