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F7225 GPS+CDMA ROUTER TECHNICAL SPECIFICATION

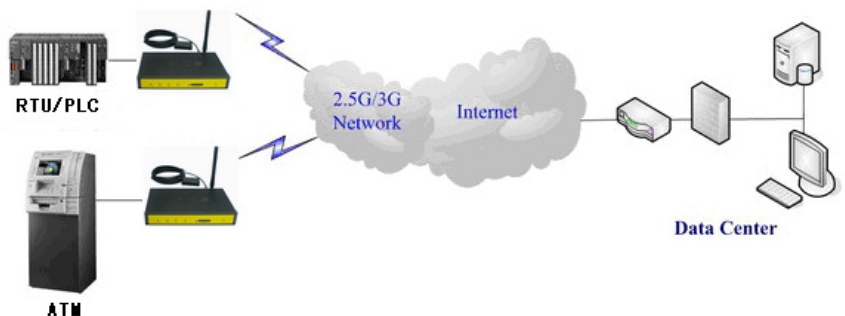


General

F7225 GPS+CDMA ROUTER is a kind of cellular terminal device that provides data transfer function by public CDMA network and GPS function.

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

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.



Product Feature

Design for Industrial Application

- ◆ High-powered industrial cellular module
- ◆ High-powered industrial 32bits CPU
- ◆ High-powered industrial GPS module
- ◆ 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 router always online
- ◆ Ethernet port: 1.5KV magnetic isolation protection
- ◆ 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(or RS485/RS422) and Ethernet port that can connect to serial and Ethernet 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 (WEB or CLI)

High-performance

- ◆ Support 3G/HSPA/4G WAN access methods
- ◆ Support GPS function
- ◆ Support VPN client(PPTP, L2TP, OPENVPN, IPSEC and GRE)(only for VPN version)
- ◆ Support VPN server(PPTP, L2TP, OPENVPN, IPSEC and GRE)(only for VPN version)

- ◆ Support local and remote firmware upgrade,import and export configure file.
- ◆ Support NTP, RTC embedded.
- ◆ Support multiple DDNS provider service.
- ◆ Support MAC Address clone, PPPoE Server
- ◆ Support multi online trigger ways, including SMS, ring and data. Support link disconnection when timeout
- ◆ Support APN/VPDN
- ◆ Support DHCP server and client, firewall, NAT, DMZ host , URL block, QoS, ttraff,statistics, real time link speed statistics etc.
- ◆ Full protocol support , such as TCP/IP, UDP, ICMP, SMTP, HTTP, POP3, OICQ, TELNET, FTP, SNMP, SSHD, etc.
- ◆ Schedule Reboot, Schedule Online and Offline,etc.

Product Specification

Wireless Specification

| Item | Content |
|-------------------|---|
| Cellular Module | Industrial cellular module |
| Standard and Band | CDMA2000 1xRTT 800MHz, 800/1900MHz(optional),450MHz(optional) |
| Bandwidth | 153.6Kbps |
| TX power | <30dBm |
| RX sensitivity | <-104dBm |

GPS Specification

| Item | Content |
|------------------|--|
| GPS Module | Industrial GPS module |
| Receiver Type | 50-channle GPS L1 (1575.42MHz) C/A code SBAS: WAAS,EGNOS,MSAS,GAGAN Support GALILEO |
| Max. update rate | 4 Hz |
| Accuracy | Position: 2.5m CPE SBAS: 2.0m CPE |
| Acquisition | Cold starts: 29S Warm starts: 29S |

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|-----------------|---|
| | Aided starts: <1S Hot starts: <1S |
| Sensitivity | Tracking: -160dBm Reacquisition: -160dBm Cold starts: -144dBm |
| Timing accuracy | RMS: 30ns 99%: <60ns Granularity: 21ns |
| Time pulse | Configurable, 0.25 to 1000Hz |

Hardware System

| Item | Content |
|-------|-------------------------|
| CPU | Industrial 32bits CPU |
| FLASH | 8MB(Extendable to 64MB) |
| SDRAM | 64MB |

Interface Type

| Item | Content |
|-----------|--|
| Ethernet | 1 10/100 Mbps Ethernet port(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection |
| Serial | 1 RS232(or RS485/RS422) port, 15KV ESD protection Data bits: 5, 6 ,7, 8 Stop bits: 1, 1.5(optional), 2 Parity: none, even, odd, space(optional), mark(optional) Baud rate: 2400~115200bits/s |
| Indicator | "Power", "System", "Online", "Link/ACT", "Alarm", "GPS", "Signal Strength". |
| Antenna | Cellular: Standard SMA female interface, 50 ohm, lightning protection(optional) GPS: Standard SMA female interface, 50 ohm, lightning protection(optional) |
| SIM/UIIM | Standard 3V/1.8V user card interface, 15KV ESD protection |
| Power | Standard 3-PIN power jack, reverse-voltage and overvoltage protection |
| Reset | Restore the router to its original factory default settings |



Power Input

| Item | Content |
|----------------|--------------|
| Standard Power | DC 12V/1.5A |
| Power Range | DC 5~35V |
| Consumption | <450mA (12V) |

Physical Characteristics

| Item | Content |
|------|---------|
|------|---------|

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|------------|---------------------------------|
| Housing | Iron, providing IP30 protection |
| Dimensions | 157x97x25 mm |
| Weight | 445g |

Environmental Limits

| Item | Content |
|-----------------------|------------------------|
| Operating Temperature | -35~+75°C (-31~+167°F) |
| Storage Temperature | -40~+85°C (-40~+185°F) |
| Operating Humidity | 95% (unfreezing) |