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## F7133 GPS+GPRS ROUTER TECHNICAL SPECIFICATION

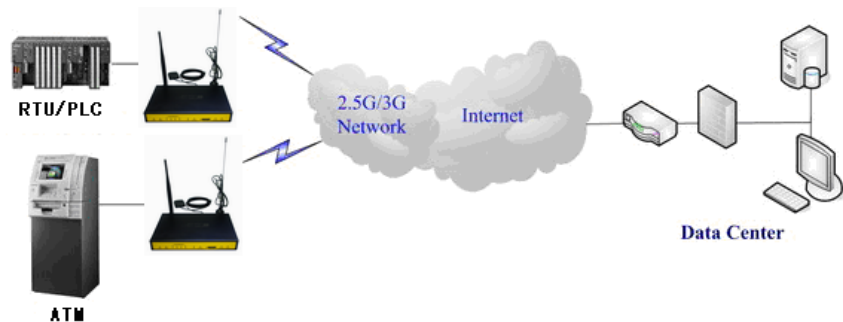


### General

F7133 GPS+GPRS ROUTER is a kind of cellular terminal device that provides data transfer function by public GPRS network and GPS function.

It adopts high-powered industrial 32-bits CPU and embedded real time operating system. It supports RS232 (or RS485/RS422), Ethernet and WIFI port that can conveniently and transparently connect one device to a cellular network, allowing you to connect to your existing serial, Ethernet and WIFI 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), Ethernet and WIFI port that can connect to serial, Ethernet and WIFI devices directly
- ◆ Support standard WAN port and PPPOE protocol that can connect to ADSL 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 data transfer and GPS function
- ◆ Support NTP server(optional)

- ◆ Support double link backup between GPRS and WAN(PPPOE, ADSL) (optional)
- ◆ Support VPN client(PPTP, L2TP, IPSEC and GRE)(only for VPN version)
- ◆ Support port mirror function(optional)
- ◆ Support WIFI AP, WIFI AP client and WDS(optional)
- ◆ Support multi online trigger ways, including SMS, ring and data. Support link disconnection when timeout
- ◆ Support APN/VPDN
- ◆ Support wireless video monitoring and dynamic picture transfer
- ◆ Support DHCP server and client, DDNS, firewall, NAT, DMZ host etc.
- ◆ Support multi protocols, such as TCP/IP, UDP, ICMP, SMTP, HTTP, POP3, OICQ, TELNET, FTP, SNMP, etc.

**Product Specification** -----

**Wireless Specification**

Item	Content
Cellular Module	Industrial cellular module
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	GSM 850/900: <33dBm GSM 1800/1900: <30dBm
RX sensitivity	<-107dBm

**WIFI Specification**

Item	Content
Standard	IEEE802.11b/g IEEE802.11n (optional)
Bandwidth	IEEE802.11b/g: 54Mbps (max) IEEE802.11n: 300Mbps (max)
Security	WEP, WPA, WPA2, etc. WPS (optional)
TX power	16-17dBm(11g), 18-20dBm(11b)
RX sensitivity	<-72dBm@54Mbps

### 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 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	4MB(Extendable to 16MB)
SDRAM	32MB(Extendable to 64MB)

### Interface Type

Item	Content
WAN	1 10/100 Mbps WAN port(RJ45), auto MDIMDIX, 1.5KV magnetic isolation protection
LAN	4 10/100 Mbps Ethernet ports(RJ45), auto MDIMDIX, 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, 2 Parity: none, even, odd, space, mark Baud rate: 110~230400 bps
Indicator	"Power", "System", "Online", "GPS", "Local Network", "WAN", "WLAN"
Antenna	Cellular: Standard SMA female interface, 50 ohm, lightning protection(optional) WIFI: Standard SMA male interface, 50 ohm, lightning protection(optional) GPS: Standard SMA female interface, 50 ohm, lightning 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
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	<460mA (12V)

### Physical Characteristics

Item	Content
Housing	Iron, providing IP30 protection
Dimensions	206x135x28 mm
Weight	795g

### Environmental Limits

Item	Content
Operating Temperature	-25~+65 ℃ (-13~+149 ℉)
Extended Operating Temperature	-30~+75 ℃ (-22~+167 ℉)
Storage Temperature	-40~+85 ℃ (-40~+185 ℉)
Operating Humidity	95% (unfreezing)