

File No.	File version	confidential
	1.0.0	

F7434S GPS + WCDMA WIFI ROUTER TECHNICAL SPECIFICATION

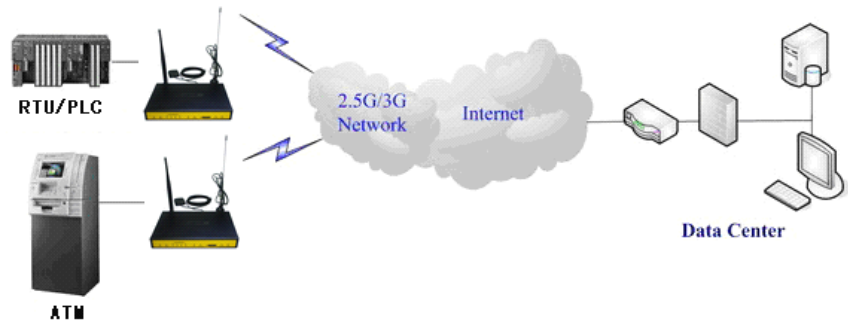


General

F7434S GPS+WCDMA WIFI ROUTER is a kind of cellular terminal device that provides data transmission function by public WCDMA/HSDPA/HSUPA/HSPA+ network, multimedia information storage and release capabilities, support 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 multimedia information storage and release
- ◆ Support WIFI portal authentication and QOS
- ◆ Support access control and advertisement release including text,picture,flash and stream media
- ◆ Support multiple WAN access methods, including static IP, DHCP, L2TP, PPTP,PPPOE,3G
- ◆ Support GPS function
- ◆ Support double link backup between WCDMA and WAN(PPPOE, ADSL) (optional)
- ◆ 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 VLANs, MAC Address clone, PPPoE Server
- ◆ WIFI support 802.11b/g/n. support AP, client, Adhoc, Repeater, Repeater Bridge and WDS(optional) mode.
- ◆ WIFI support WEP,WPA,WPA2 encryption,Support RADIUS authentication and MAC address filter.
- ◆ 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

Cellular Specification

Cellular Module	Industrial cellular module
Standard and Band	UMTS/WCDMA/HSDPA/HSUPA/HSPA+ 850/1900/2100MHz, 850/900/1900/2100MHz(optional) GSM850/900/1800/1900MHz GPRS/EDGE CLASS 12
Bandwidth	HSUPA:5.76Mbps(Upload speed)/ HSDPA:7.2Mbps(Download speed)/UMTS:384Kbps (DL/UL)/ HSPA+: 21Mbps(Download speed)
TX power	<24dBm
RX sensitivity	<-109dBm

GPS Specification

Item	Content
GPS Module	Industrial GPS module
Receiver Type	50-channel 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

WIFI Specification

Item	Content
Standard	IEEE802.11b/g/n
Bandwidth	IEEE802.11b/g: 54Mbps (max) IEEE802.11n: 150Mbps (max)
Security	WEP, WPA, WPA2, etc. WPS (optional)
TX power	21.5dBm (11g), 26dBm (11b)
RX sensitivity	<-72dBm@54Mbps

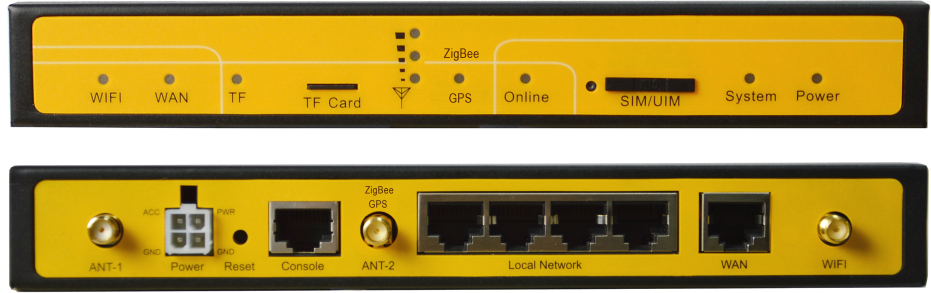
Hardware System

Item	Content
CPU	Industrial 32bits CPU
FLASH	8MB(Extendable to 64MB)
SDRAM	64MB
TF	32GB(Extendable to 64GB)

Interface type

Item	Content
WAN	1 10/100 Mbps WAN port(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection
LAN	4 10/100 Mbps Ethernet ports(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: 2400~115200 bps
Indicator	"Power", "System", "Online", "GPS", "TF", "WAN", "WIFI", "Signal Strength"
Antenna	Cellular: Standard SMA female interface, 50 ohm

	WIFI: Standard SMA male interface, 50 ohm GPS: standard SMA female interfaces, 50 ohm
SIM/UIIM	Standard 3V/1.8V user card interface, 15KV ESD protection
TF	Standard TF card interface
Power	Vehicle power jack, reverse-voltage and overvoltage protection
Reset	Restore the router to its original factory default settings



Power supply

Item	Content
Standard Power	DC 12V/1.5A
Power range	DC 5~35V
Consumption	<650mA (12V)

Physical Characteristics

Item	Content
Housing	Iron, providing IP30 protection
Dimensions	206x135x28 mm
Weight	790g

Environmental Limits

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