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F7836 GPS+LTE/WCDMA WIFI ROUTER SPECIFICATION

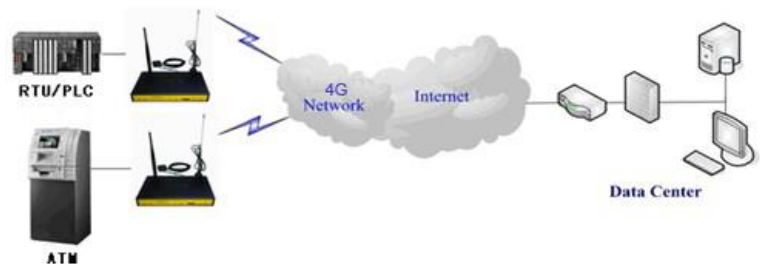


General

F7836 GPS+LTE/WCDMA WIFI ROUTER is a kind of cellular terminal device that provides data transfer function by public LTE/WCDMA 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 self-service terminal industry, 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 5~36V

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

- ◆ RS232/RS485/RS422 port: 15KV ESD protection
- ◆ SIM/UIM port: 15KV ESD protection
- ◆ Power port: reverse-voltage and over-voltage 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 multiple WAN access methods, including static ip, DHCP, PPPOE, 3G/HSPA/4G, DHCP-4G.
- ◆ Support GPS function
- ◆ Support double link backup between LTE/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

- ◆ 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 multiple 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, traffic 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

Item	Content
Cellular Module	Industrial cellular module
Standard and Band	Support: LTE FDD 2600/2100/1800/900/800MHz (Band 1/3/7/8/20) 700/850/1700/1900/2100MHz (Band 2/4/5/13/17/25)(optional) Support: DC-HSPA+/HSPA+/HSDPA/ HSUPA/WCDMA/UMTS 2100/1900/900/850/800MHz (Band 1/2/5/6/8) Support: EDGE/GPRS/GSM 850/900/1800/1900MHz
Bandwidth	LTE FDD (Download speed: 100Mbps, upload speed: 50Mbps) /HSUPA: 5.76Mbps (upload speed) /HSDPA: 7.2Mbps (download speed) UMTS: 384Kbps (download speed/upload speed) HSPA+: 42Mbps (download speed) 5.76Mbps (upload speed)
TX power	<23dBm
RX sensitivity	<-93.3dBm

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	20dBm (11n), 24dBm (11g), 26dBm (11b)
RX sensitivity	<-72dBm @54Mbps

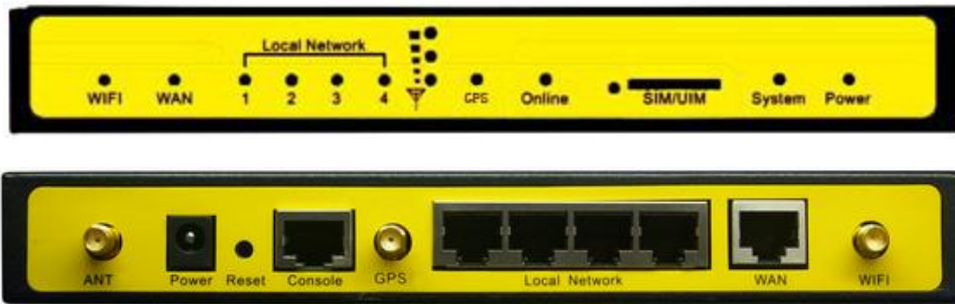
Hardware System

Item	Content
CPU	Industrial 32bits CPU
FLASH	16MB(Extendable to 64MB)
DDR2	128MB

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", " Local Network ", "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/UIM	Standard 3V/1.8V user card interface, 15KV ESD protection
Power	Standard 3-PIN power jack, reverse-voltage and over-voltage protection
Reset	Restore the router to its original factory default settings



Power supply

Item	Content
Standard Power	DC 12V/1.5A
Power range	DC 5~36V

Consumption

Working condition	Consumption
Standby	292~342mA@12VDC
Communication	355~592mA@12VDC
Schedule Shutdown	2.57~4.2mA@12DVC

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)