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F7C30 GPS+LTE&WCDMA/LTE&WCDMA ROUTER TECHNICAL SPECIFICATION

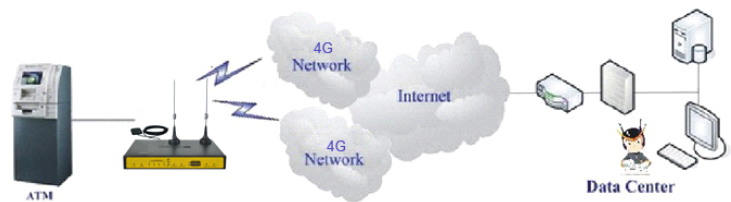


General

F7C30 GPS+LTE&WCDMA/LTE&WCDMA ROUTER is a kind of cellular terminal device that provides data transfer function by public cellular network. And it supports double link backup between LTE&WCDMA and LTE&WCDMA. Also, it supports Load Balancer, Load Shunt and GPS function.

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

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 port that can connect to serial, Ethernet 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 double link backup between LTE&WCDMA and LTE&WCDMA
- ◆ Support triple link backup among LTE&WCDMA, LTE&WCDMA and WAN(PPPOE, ADSL) (optional)
- ◆ Support Load Balancer and Load Shunt
- ◆ 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 VLANs, 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.
- ◆ Support NTP, RTC embedded.
- ◆ Support mulitiple DDNS provider service.
- ◆ Support GPS function

Product Specification

Cellular Specification

Cellular Module	Industrial cellular module
Standard and Band	LTE FDD 2600/2100/1800/900/800MHz, 700/1700/2100MHz(optional) HSPA+/HSDPA/HSUPA/WCDMA /UMTS900/2100MHz, 800/850/1900/2100MHz(optional) EDGE/GPRS/GSM 900/1800/1900MHz GPRS CLASS 10 GPRS CLASS 12
Bandwidth	LTE(DL:100Mbps,UL:50Mbps) HSUPA:5.76Mbps(Upload speed) HSDPA:7.2Mbps(Download speed) UMTS:384Kbps (DL/UL) HSPA+: 21Mbps(Download speed) 5.76Mbps(Upload speed)
TX power	<32dBm
RX sensitivity	<-93.3dBm

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

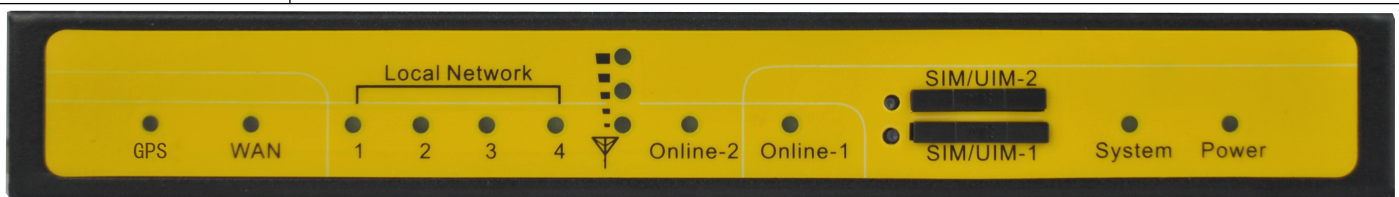
Max. update rate	4 Hz
Accuracy	Position: 2.5m CPE SBAS: 2.0m CPE
Acquisition	Cold starts: 29S Warm starts: 29S Aided starts: <1S Hot starts: <1S
Sensitivity	Tracking: -160dBm Reacquisition: -160dBm Cold starts: -144dBm
Timing accuracy	RMS: 30ns 99%: <60ns Granularity: 21ns
Time pulse	Configurable, 0.25 to 1000Hz

Hardware System

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

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-1", "Online-2", " Local Network ", "WAN", "GPS", "Signal Strength".
Antenna	Cellular: 2 standard SMA female interfaces, 50 ohm, lightning protection(optional) GPS: Standard SMA female interface, 50 ohm, lightning protection(optional)
SIM/UIM	2 standard 3V/1.8V user card interfaces, 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 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	805g

Environmental Limits

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