

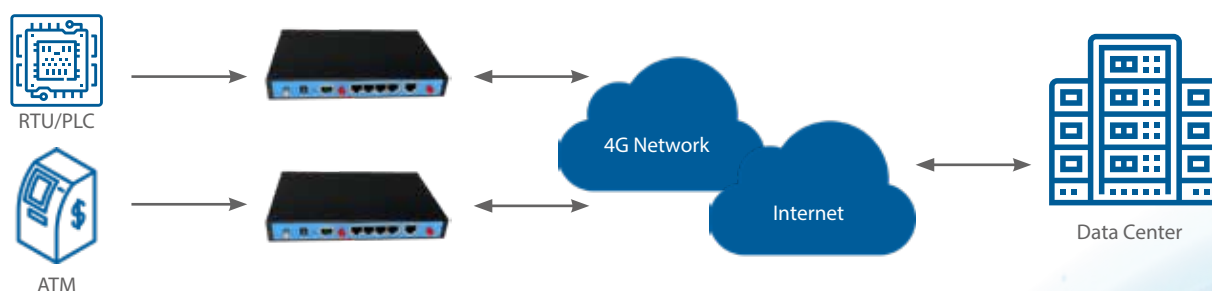
SenNet Router 30L GPRS/3G/4G WIFI

TECHNICAL SPECIFICATION



SenNet Router 30UL WIFI is a kind of cellular terminal device that provides large data **transmission function** by public UMTS/HSDPA/HSUPA/HSPA+/LTE network.

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 devices to a cellular network, allowing you to connect to your existing serial, Ethernet and WIFI devices with only basic configuration. post, weather, and so on.



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
- Support low-consumption mode, including sleep mode, scheduled online/offline mode, scheduled power-on/power-off mode(optional)
- Housing: iron, providing IP30 protection.
- DIN-rail mounting and Wall mounting.
- 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 protection
- 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/UMTS/4G/LTE
- Support double link backup between WCDMA and WAN(PPPOE, ADSL) (optional)
- Support VPN client(PPTP, L2TP, OPENVPN, IPSEC and GRE)
- Support VPN server(PPTP, L2TP, OPENVPN, IPSEC and GRE)
- 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 mode.
- WIFI support WEP,WPA,WPA2 encryption, Support 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(optional), HTTP, POP3(optional), OIC-Q(optional), TELNET, FTP(optional), SNMP, SSHD, etc.
- Schedule Reboot, Schedule Online and Offline,etc.
- Support GPS function (Optional)

CELLULAR SPECIFICATION

| Cellular Module | Industrial cellular module |
|-------------------|---|
| Standard and Band | FDD: B2/B4/B5/B13/B17/B25/B26 (Optional), B1/B2/B3 /B5/B7/B8/B20/B28 (Optional) TDD: B38/B39/B40/B41 HSPA/HSUPA/HSDPA/WCDMA/UMTS/LTE 2100/1900/1800/900/850MHz EDGE/GPRS/GSM 1900/1800/900/850MHz |
| Bandwidth | HSPA+: 21Mbps(Download speed) 5.76Mbps(Upload speed) HSUPA:5.76Mbps(Upload speed) HSDPA:7.2Mbps(Download speed) UMTS:384Kbps (DL/UL) CDMA2000 1X EVDO: 3.1Mbps(DL)/1.8Mbps(UL) EDGE: 236.8Kbps(DL/UL) GPRS: 85.6Kbps LTE(DL:150Mbps,UL:50Mbps) |
| TX power | <23dBm |
| RX sensitivity | <-93.3dBm |

GPS SPECIFICATION (OPTIONAL)

| 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", "Alarm", "Local Network", "WAN", "WIFI", "Signal Strength" |
| Antenna | Cellular: 2 Standard SMA female interface, 50 ohm, lightning protection(optional) WIFI: 1 Standard SMA male 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 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 | 280~330mA@12VDC |
| Communication | 325~562mA@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) |