G20 4G Router with Gigabit Ethernet

Introduction

G20 series mobile broadband router is a kind of internet of things wireless communication router, use WCDMA/HSUPA/HSPA+, EV-DO, LTE, etc, to provide convenient and high speed network transmission function.

This series of product uses high performance ARM Cortex A7 industrial communication processor, flush bonding real-time operation system as software supporting platform. It provides secure, high speed, stable 4G wireless network, and provides 2 Gigabit LAN, RS-485/232 and dual band 2.4 G + 5G Wi-Fi.

It can be used in finance, postal, smart power grids, smart transportation, environment monitor, fire protection monitor, security, water conservancy, public safety, advertising release, industrial control, earth quake monitor, meteorological watch, instrument monitor etc.

Features

Industrial design

Use high performance industrial wireless module

Use high performance ARM Cortex A7 industrial processor

Support low power consumption, including sleep mode, timing on/off line mode and timing switch on/off mode

Use plate metal CRS shell, heat dissipation is good

Power source: 7.5V~32V DC(extended to be 36V)

Degree of protection: IP34(Max IP51)

Network characteristic

Port flow detection

Link real time monitoring

Various VPN protocols (PPTP, L2TP, IPSec, VPN)

Serial port DTU function supporting

Support dial as required (audio, SMS, or data trigger)

Support UPnP, Firewall, Port forwarding, IP passthrough and Hotspot(Wi-Fi Portal) etc.

Stability

Use soft hardware watchdog and multi-level link detection , with capability of fault automatic diagnosis, automatic recovery, ensure equipment to work in stable and safe way

Multiple equipment self-checking mechanism

ESD protection for each port, prevent static shock

Wireless network signal indicator light, 3 levels to show the signal strength on-site

Remote management

Remote parameter configuration

Remote parameter backups

Remote restart and log query

Remote equipment upgrade

Equipment online monitoring

Functions

Down compatible WCDMA, HSPA, GSM, GPRS, EDGE

Support 2 x Gigabit LAN (10/100/1000) or 1 x LAN + 1 x WAN

Provide standard RS232/485 interface, support serial DTU(data transmission unit) function

Support 2.4G + 5G WIFI, IEEE802.11b/g/n and 802.11ac

Support wired and wireless network mutual backups

Support hardware WDT, provide anti-log off mechanism, ensure data terminal online forever

Support PPTP, L2TP, IPSec, GRE, various VPN protocol

Support DHCP, DDNS, firewall, NAT, and DMZ host etc.

Support ICMP, TCP, UDP, Telnet, SSH, API, FTP, HTTP, HTTPS protocols etc.

Support Industrial SIM/UIM card design

Support base station and Wi-Fi hybrid positioning

Advanced

Support Gigabit WAN, wire and wireless backup

Support 802.11b/g/n and 802.11ac(optional)

Support GPS / beidou positioning(optional)

Specification

Wireless

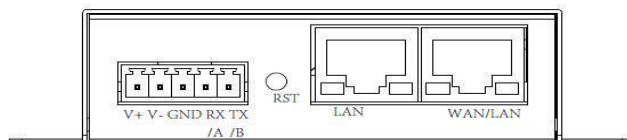|	
Module:	Industrial wireless model
Frequency band:	FDD-LTE(Band 1 / 3 / 5 / 7 / 8 / 20 / 28), (Band 1 / 2 / 4 / 5 / 7 / 8 / 12 / 13 / 17 / 25 / 26) TDD-LTE(Band 38 / 39 / 40 / 41) HSPA(850 / 900 / 1900 / 2100MHz), GSM(850 / 900 / 1800 / 1900MHz) EV-DO(800MHz), TD-Scdma(Band 34 / 39）
Theory bandwidth:	HSPA+: 5.76 / 21Mbps; FDD/TDD LTE: 50 / 150Mbps (Cat4)
Transmit power:	<23dBm+/-1dBm @25℃
Power consumption:	Data mode: <300mA/12V; Idle mode: <165mA/12V
Receive sensitivity:	<-97dBm @10MHz QPSK

Wi-Fi

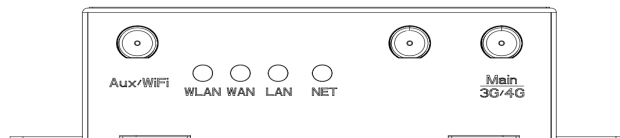|	
Bandwidth:	Support IEEE802.11b/g/n and 802.11ac，Max: 300Mbps / 866Mbps
Security Encryption:	Support WEP、WPA、WPA2 etc.， optional for WPS function
Transmit power	16-17dBm（11g），18-20dBm（11b）15dBm (11n)
Receive sensitivity	<-72dBm@54Mpbs

Interface

LAN：	1*LAN Gigabit Ethernet interface （RJ45）, self-adaption MDI/MDIX, built-in electromagnetism insulation blocking
WAN：	1*WAN interface, self-adaption MDI/MDIX, built-in electromagnetism insulation Blocking
Serial：	1*RS485/RS232 interface, connect the acquisition device which has RS485/232 port
Indicator light：	4 indicator, "WAN", "LAN", "WLAN" and "NET", 3 colors for "NET"(red: bad, yellow: good, green: perfect)
Antenna interface:	3*SMA antenna interface(4G , Wi-Fi/Aux and 4G MIMO or Wi-Fi 2T2R), 50 Ω
SIM/UIM：	SIM/UIM, Industrial SIM slot, prevent SIM from falling; 1.8V/3V auto detection
Power：	7.5V~32V(standard DC12V/1.5A), built-in power instant overvoltage protection
Reset：	Reset to factory configuration

G20 series Panel

Front:

Back:

Power supply
- Standard: DC 12V/1.5A

Appearance
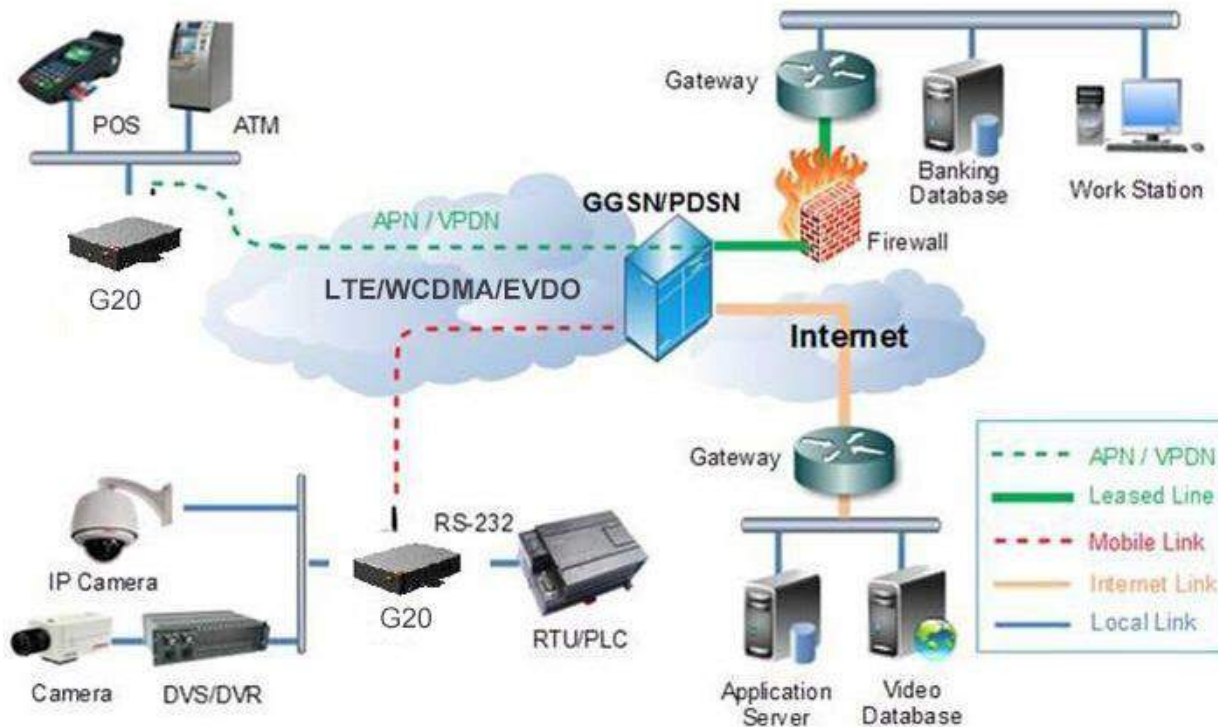- Casing：Metal
- Dimension：102x73.5x25.5mm
- Weight: about 450g

Others
- CPU：ARM A7 Core. 900MHz / 867Mbps
- Flash/RAM：128Mb / 1Gb DDR3
- Working temp: -30~+75℃
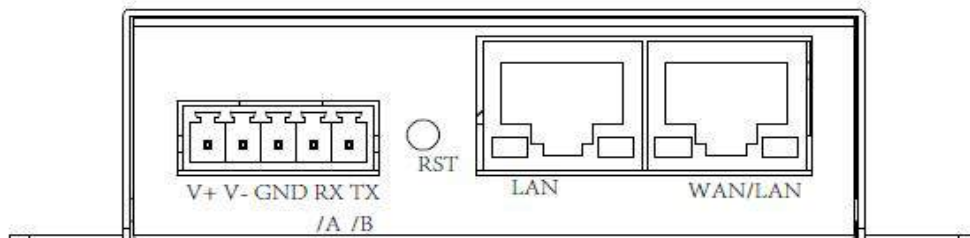- Storage temp: -40~+85℃
- Related humidity: < 95% non-condensing

Product mode list

G20	Standard	LTE 4G	Wi-Fi + 4G	GPS + 4G	Customise
LAN	●	●	●	●	
WAN	●	●	●	●	
802.11b/g/n or ac	○	○	●	○	
HSPA+	●	●	●	●	
EV-DO	○	-	○	○	
TD-Scdma	○	-	○	○	
FDD-LTE	○	●	●	●	
TDD-LTE	-	○	○	○	
GPS	○	○	○	●	
RS232	●	●	●	-	
RS485	○	○	○	-	
mode：	G20-WA2T	G20-FA2T	G20-FA2T-W	G20-FA2T-G	

Network diagram

Interface:

Terminal	Name	Description
1	V+	Power input and output, non-polarity
2	V-	
3	GND	Signal ground
4	RX/A	Serial RS-232/RS-485, RX signal
5	TX/B	Serial RS-232/RS-485, TX signal