

G21 Industrial 4G Router Spec

Description

G21 Industrial Grade 4G Router is a kind of internet of things wireless communication router, use LTE-FDD/TDD 4G mobile broadband network type, to provide convenient and high-speed network transmission function.

This series of products use high performance industrial ARM Cortex A7 communication processor, use embedded real-time operation system as software support platform, to provide security, high-speed, stable 4G wireless network for clients. It's a wireless router with 2 SIM slots, 2 Ethernet RJ45 ports, 2.4G + 5G dual band WIFI and communication serial port.

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,



Features

Industrial grade design

- Use high performance industrial wireless module
- Use high performance industrial ARM Cortex A7 processor
- Support low power consumption mode, customized
- Use plate metal CRS shell with good heat dissipation
- Power supply: +7.5V~+32V DC

Network characteristic

- Port flow detection
- Link real-time monitoring
- Multiple VPN protocol (PPTP、L2TP、IPSec、VPN...)
- Support serial port DTU function
- Support dialing as required (voice, SMS or data trigger)
- Support UPnP

Stability

- Use soft/hardware watchdog and multi-level link detection, with capability of fault automatic diagnosis, automatic recovery, ensure equipment working in stable and security way
- Multiple equipment self-checking mechanism, ensure smooth link and alarm
- ESD protection for each port, prevent static shock

Remote management

- Remote parameters configuration
- Remote parameters backup
- Remote restart and log query
- Remote equipment upgrading
- Equipment online monitoring

Details

Functions

- Down compatible to HSPA+、EVDO、TD-Scdma、EDGE、GPRS network
- Support 1 x LAN and 1 x WAN (2 x LAN)
- Provide standard RS-232/485 serial port, support serial port DTU (data transmission terminal) function
- Support hardware WDT, provide anti-log off mechanism, ensure data terminal online forever
- Support multiple VPN protocol (PPTP, L2TP or GRE etc.)
- Support multiple functions (DHCP, DDNS, firewall, NAT, DMZ host etc.)
- Support wired and wireless mutual backup
- Support 2 SIM backup/failover
- Support multiple network protocol (ICMP、TCP、UDP、Telnet、SSH、FTP、HTTP、HTTPS etc.)
- Support industrial SIM/UIM card design

Extend functions

- Support WAN port, wired and wireless mutual backup (optional)
- Support dual LAN port function (optional)
- Support 802.11n (optional)
- Support extend GPS (optional)
- Support SMS (optional)
- Support OpenVPN, OpenWRT(optional)
- Support customization

Wireless parameter

Wireless module:	Industrial grade wireless module
Bands:	LTE (MIMO) : FDD-Band 1 / 2 / 3 / 5 / 7 / 8 / 20 / 28 (Band 1/ 2 / 4 / 5 / 7 / 8 / 12 / 13 / 17 / 25 / 26) TDD- Band 38 / 39 / 40 / 41 UMTS(WCDMA): 2100MHz / 1900MHz / 900MHz / 850MHz GSM/GPRS/EDGE: 1900MHz / 1800MHz / 900MHz / 850MHz LTE Worldwide frequency is acceptable.
Theory bandwidth:	MAX DL: 150Mbps ; MAX UL:50Mbps (Category 4, MIMO)
Transmit power:	23dBm+/-1dB @25°C
Consumption:	Data mode <210mA/12V; Idle modem <170mA/12V
Receive sensitivity:	-97dBm @10MHz QPSK

Interface type

LAN:	1 Ethernet interface(RJ45), self-adaption MDI/MDIX, built-in electromagnetic isolation protection
WAN/LAN:	1 WAN/LAN port multiplex, suitable for wired dialing or used as LAN port hung on two terminals Equipment monitoring port, standard RJ45 interface, support hardware flow control RS232 communication mode
Console:	
Indicator:	Six indicator lights, 3 "Signal strength LED", "Power", "WLAN", "Error". 3 signal strength indicator lights (1: poor. 2: general. 3: good.)
Antenna interface:	1 Main antenna interface (3G/4G), characteristic impedance 50Ω; 1 Aux/GPS antenna interface, used as 3G/4G AUX antenna or GPS function active antenna; 1 WiFi 802.11n antenna interface
SIM/UIM interface:	SIM/UIM engineering card cover, protect the card from falling. 1.8V/3V automatic detection, support dual SIM card.
Power interface:	+7.5V~32V (standard DC 12V/1.5A), built-in power instantaneous overvoltage protection and opposite connection protection
Reset:	Press this button, the parameters will return to factory setting

Power supply

- Standard power: DC 12V/1.5A

Appearance

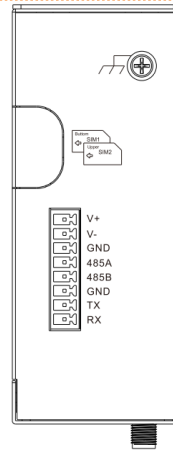
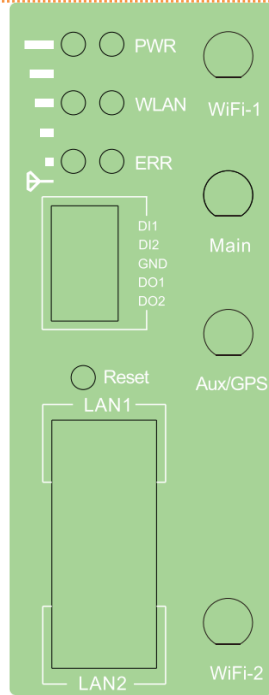
- Housing: Metal
- Dimension: 102×100×42mm
- Weight: 450g

Other features

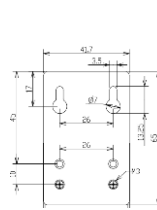
- CPU: ARM Cortex A7 Core, 900M.
- Flash/RAM: 128Mb / 1Gb DDR3
- Working temperature: -30 ~ +75°C (can be extended)
- Storage temperature: -40 ~ +85°C
- Relative humidity: <95% (No condensation)

H21 serial interface drawing

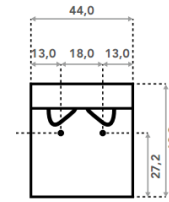
Front panel: Top panel:



Parts:



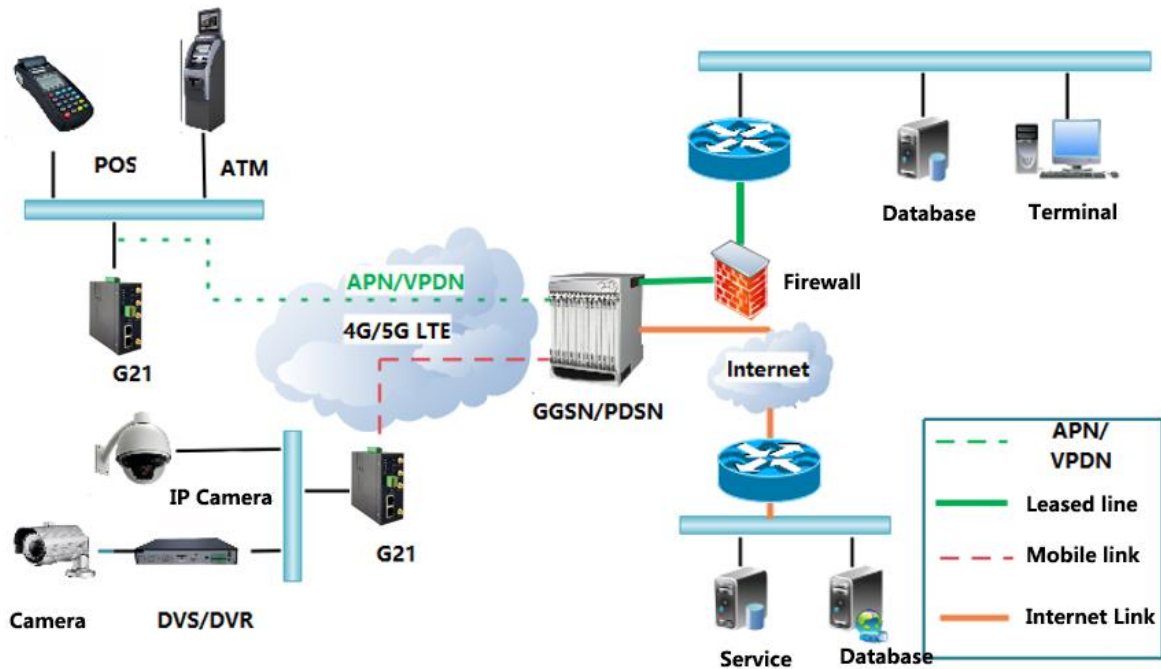
A(Wall mount),



B(Din-rail),

Product list

G21	WCDMA standard	EV-DO standard	TDD standard	FDD standard	Customized
LAN	●	●	●	●	○
WIFI-802.11n	●	●	●	●	○
WAN	●	●	●	●	○
MIMO antenna	●	●	●	●	○
Dual SIM	●	●	●	●	○
HSPA+	●	-	-	-	○
EV-DO	-	●	-	-	○
TDD	-	-	●	-	○
FDD	-	-	-	●	○
GPS	○	○	○	○	○
RS232	●	●	●	●	○
RS485	○	○	○	○	○
Storage (8GB~64GB)	○	○	○	○	○
Refer NO.:	G21-WA2T-DW	G21-E12T-DW	G21-TA2T-DW	G21-FA2T-DW	

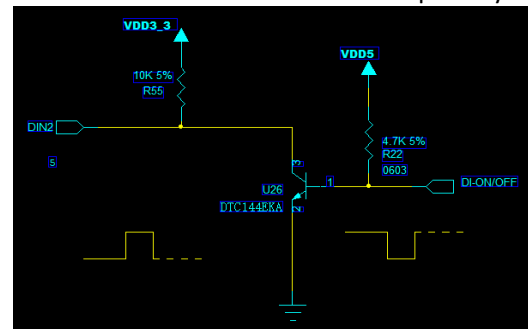
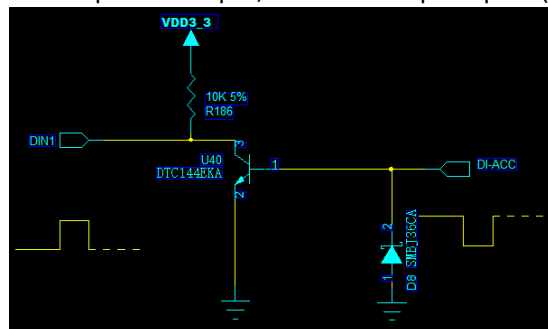


G21 interface wiring instruction

Terminal1(5PIN)			Terminal2(8PIN)		
1	DI1	Input1	1	V+	Power input positive
2	DI2	Input2	2	V-	Power input negative
3	GND		3	GND	
4	DO1	Output1	4	485A	485-A
5	DO2	Output2	5	485B	485-B
			6	GND	
			7	TX	Serial port output
			8	RX	Serial port input

DI1: Openbase input, default 47 K resistance ground(input 0), can be connected to ACC ignition information

DI2: Openbase input, default 4.7 K pull up 5 V(input 1), can be connected to the external switch quantity



DO: Digital output DO, can be used to control external drive devices, such as relay switches

- a. Relay: can be used to directly drive 5 V relays
- b. Pulse signal: can define frequency, output alarm

