

Introduction

H21 4G 5G Redcap Router is a kind of internet of things wireless communication router, uses Sub6 / LTE mobile cellular network, to provide convenient and high speed network transmission function.

This series of product uses high performance MIPS 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 LAN, RS-485+RS-232, GPIO, Console, Dual SIM and 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 MIPS industrial communication 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 and link real time monitoring
- Various VPN protocols (PPTP, L2TP, IPSec, OpenVPN, GRE, Wireguard, Zerotier etc.)
- 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 LTE, WCDMA, HSPA, GPRS, EDGE
 - Support 2 x LAN (10/100M) or 1 x LAN + 1 x WAN
 - Provide standard RS232/485 interface, support serial DTU(data transmission unit) function
 - Support 2.4G WIFI, IEEE802.11b/g/n
 - Support wired and wireless network mutual backups
 - Support hardware WDT, provide anti-log off mechanism, ensure data terminal online forever
 - 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 dual sim for failover or backup
 - Support base station and Wi-Fi hybrid positioning
- ### Advanced
- Support WAN, wire and wireless backup(optional)
 - Support GPS / Beidou orientation(optional)

Specification

Hardware

CPU	MIPS core (580MHz)
RAM	512Mb DDR2
Flash	128Mb

Cellular Interface

Number of antennas	2(Main, Aux)
Connector	SMA-K
SIM	2 x SIM/UIM

Ethernet Port

Number of ports	2(2 x LAN or 1 x WAN+1 x LAN) IEEE 802.3, IEEE 802.3u
-----------------	--

Serial Port

Number of ports	1 x RS-232 + 1 x RS-485
Connector	Console(RS-232) 8-pin female socket(RS-485/RS-232)

Wi-Fi Interface

Number of antennas	1(Wi-Fi)
Connector	RP-SMA-K
Standards	IEEE802.11 b/g/n
Frequency bands	2.4 GHz
Bandwidth	Standard 150Mbps, 300Mbps optional
Security	WEP, WPA, WPA2 encryption

Power supply and consumption

Connector	8-pin female socket
Input voltage	7.5 ~ 32 V DC
Power consumption	Idle: 170mA@12 V Max: 300mA@12 V
Recommended power supply	12V DC/1.5 A power adapter

Others

Reset button	1 x RST
LED indicators	1 x PWR, 1 x WLAN, 1 x ERR, 3 x Signal
Watchdog	Built-in
Guarantee	One year
Customization	Support

Software

Network protocols	PPPoE, TCP, UDP, DHCP, NAT, DNS, NTP, SMTP, Telnet, VLAN, SSH2, DDNS, etc.
VPN tunnels	IPsec, OpenVPN, GRE, WireGuard, Zerotier
Firewalls	DMZ, NAT, Filtering (IP/Domain name/MAC address), QoS
Remote management	Web, CLI, SMS
Serial port protocols	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway

Device Management

Basic	Local or remote web browser(IE v8 or above) VLAN SNMP v2, v2c, v3
Optional	M2M management platform CLI/Telnet command SSH configure MQTT TR069

Physical Characteristics

Ingress protection	IP34
Housing & Weight	Metal, 300 g
Dimensions	102 x 100 x 42 mm
Operating temperature	-30 ~ +75 °C
Storage temperature	-40 ~ +85 °C
Relative humidity	5 ~ 95% RH (non-condensing)

Regulatory and Type Approvals

Standard	EN 300 328 v 1.7.1(2016-11)	EN 301 489-17
	EN 301 489-1	EN 301 489-52
	EN 301 908-1	EN 301 908-2/13
	EN 55024:2015	EN 60950-1
	EN 55032:2015	EN 61000-3-2
	EN 61000-3-3:2008	EN 62311:2008

Certificates

Passed	CE RoHS CCC
--------	-------------------

Application

ATM & Retail

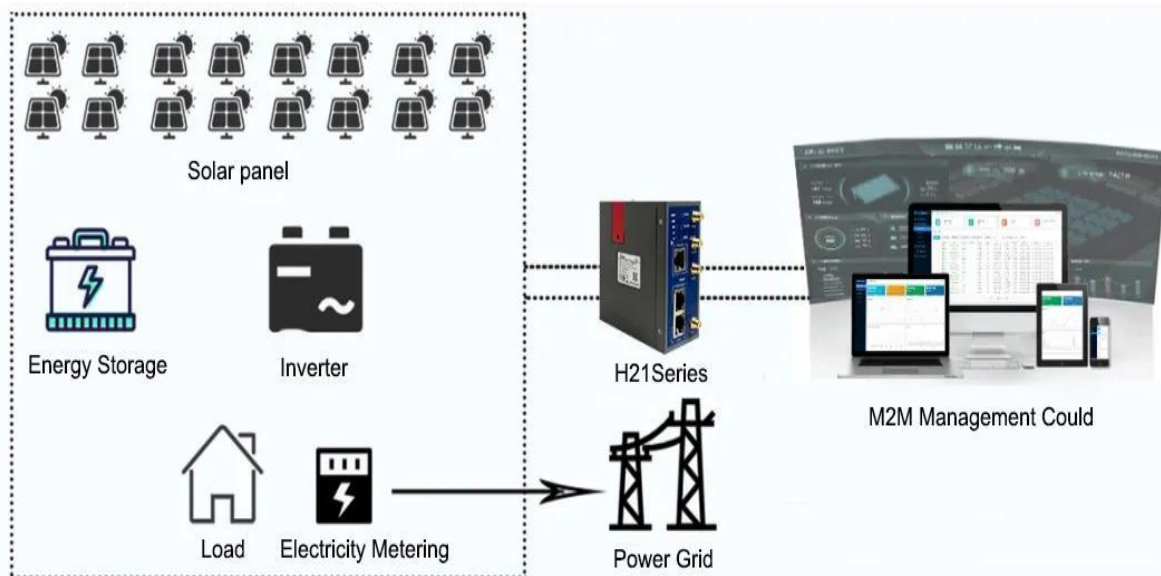
Transportation & Logistics

Energy & Utilities

Oil, Gas & Mining

Industrial IoT

Enterprise IT



Interface

Front panel:	Top panel:
	Parts: A, B(Din-rail),

Order Information

Model	Frequency Bands	Country/Region	Interface	Dual SIM	Wi-Fi	GPS	Package Contains
H21-FA2T-D	4G: FDD-LTE: Band1/3/5/7/8/20/28 TDD-LTE: Band38/39/40/41 3G: WCDMA/HSDPA/HSUPA/HSPA+: Band1/2/5/8	Global	2 x LAN 1 x RS-232 3 x I/O	√	×	×	1 x H21 router
H21-FA2T-DW			2 x LAN 1 x RS-232 3 x I/O	√	√	×	1 x Cellular antennas
H21-FA2T-DGW			2 x LAN 1 x RS-232 3 x I/O	√	√	√	1 x Wi-Fi antennas(optional) 1 x GPS antenna(optional)
H21-WA2T-D			2 x LAN 1 x RS-232 3 x I/O	√	×	×	1 x RJ45 cable
H21-WA2T-DW			2 x LAN 1 x RS-232 3 x I/O	√	√	×	1 x 8-pin power connector 1 x 12V/1.5A Power supply
H21-WA2T-DGW			2 x LAN 1 x RS-232 3 x I/O	√	√	√	

*For more information about frequency bands in different countries, please contact your Homtecs sales representative.