

Introduction

G53-Q6 ARM Quad-core 5G 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 ARM Quad-Core industrial communication processor, flush bonding real-time operation system as software supporting platform. It provides secure, reliable, stable 5G wireless network, and provides 5 Gigabit LAN, RS-485 + RS-232, USB and dual band 2.4 G + 5.8G Wi-Fi6.

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 Quad-Core 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: 12V~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 5 x Gigabit LAN (10/100/1000M) or 4 x LAN + 1 x WAN
- Provide standard RS232+RS485 interface, support serial DTU(data transmission unit) function
- Support 2.4G + 5.8G WIFI6, IEEE802.11b/g/n and 802.11ax
- Support DHCP, DDNS, firewall, NAT, and DMZ host etc.
- Support ICMP, TCP, UDP, Telnet, SSH, API, FTP, HTTP, HTTPS protocols etc.

Advanced

- Support Gigabit WAN, wire and wireless backup(optional)
- Support GPS / Beidou orientation(optional)
- Support USB internal storage extension, 8GB-256GB(optional)

Customization

- Deeply customize intelligent routing system based on OpenWRT
- Support customer secondary development
- Run the OpenJDK development environment
- Run the R language development environment

Specification

Hardware		Software		
CPU	Quad-core ARM Cortex-A53 at 1.8 GHz	Network protocols	PPPoE, TCP, UDP, DHCP, NAT, DNS, NTP, SMTP, Telnet, VLAN, SSH2, DDNS, etc.	
RAM	1Gb DDR3	VPN tunnels	IPsec, OpenVPN, GRE, WireGuard, Zerotier	
Flash	Nor 32MB+Nand 256MB(can be extended)	Firewalls	DMZ, NAT, Filtering (IP/Domain name/MAC address), QoS	
Cellular Interface		Remote management	Web, CLI, SMS	
Number of antennas	4	Serial port protocols	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway	
Connector	SMA-K	Device Management	Local or remote web browser(IE v8 or above) VLAN SNMP v2, v2c, v3 M2M management platform CLI/Telnet command SSH configure MQTT TR069	
SIM	2 x SIM/UIM			
Ethernet Port				
Number of ports	5(5 x LAN or 1 x WAN+4 x LAN) IEEE 802.3, IEEE 802.3u			
Serial Port		Optional	M2M management platform CLI/Telnet command SSH configure MQTT TR069	
Number of ports	1 x RS-232 + 1 x RS-485			
Connector	1 x 9-pin 3.5 mm female socket			
Wi-Fi Interface				
Number of antennas	4(2 x Wi-Fi 2.4G+2 x Wi-Fi 5.8G)	Physical Characteristics		
Connector	RP-SMA-K	Ingress protection	IP34	
Standards	IEEE802.11 b/g/n/ax	Housing & Weight	Metal, 750 g	
Frequency bands	2.4 GHz + 5.8GHz	Dimensions	142 x108 x 48 mm	
Maximum Bandwidth	2.4G 600Mbps / 5G 1200Mbps	Operating temperature	-30 ~ +75 °C	
Security	WEP, WPA, WPA2 encryption	Storage temperature	-40 ~ +85 °C	
Power supply and consumption		Relative humidity	5 ~ 95% RH (non-condensing)	
Connector	1 x 9-pin 3.5 mm female socket	Regulatory and Type Approvals		
Input voltage	12 ~ 32 V DC	Standard	EN 300 328 v 1.7.1(2016-11)	EN 301 489-17
Power consumption	Idle: 600mA@12 V Max: 750mA@12 V		EN 301 489-1	EN 301 489-52
Recommended power supply	12V DC/2 A power adapter		EN 301 908-1	EN 301 908-2/13
			EN 55024:2015	EN 60950-1
			EN 55032:2015	EN 61000-3-2
Others			EN 61000-3-3:2008	EN 62311:2008
Reset button	1 x RST			
LED indicators	1 x Signal, 1 x PWR, 1 x WLAN, 1 x NET	Certificates		
Watchdog	Built-in	Passed	CE	
Guarantee	One year		RoHS	
Customization	Support		CCC	

Application

ATM & Retail

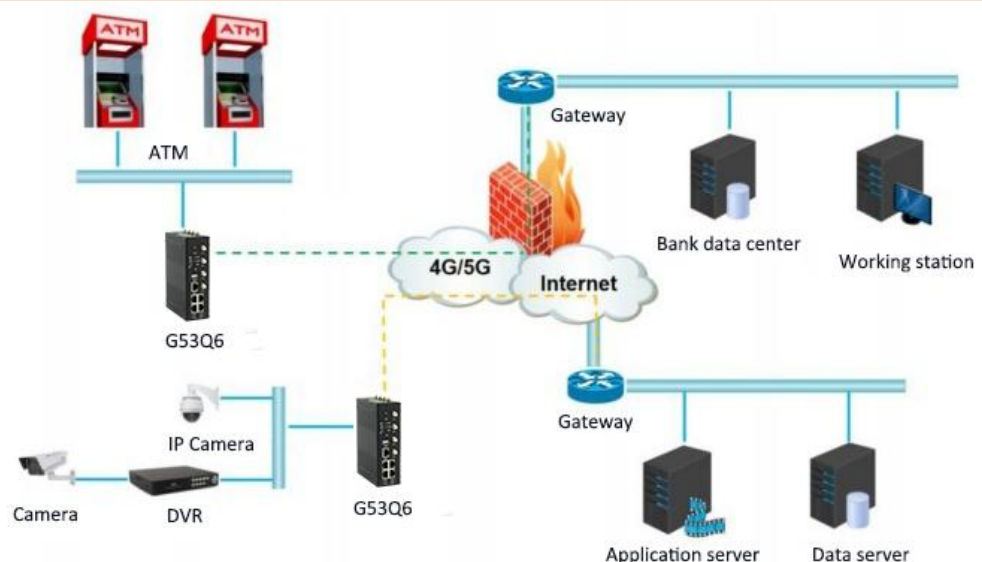
Transportation & Logistics

Energy & Utilities

Oil, Gas & Mining

Industrial IoT

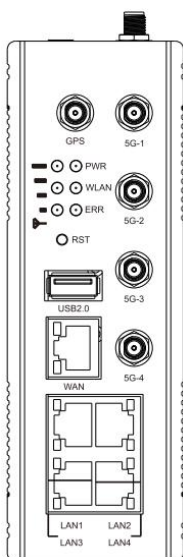
Enterprise IT



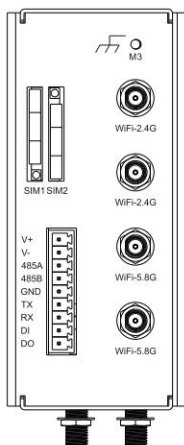
Interface

G53-Q6 series Panel

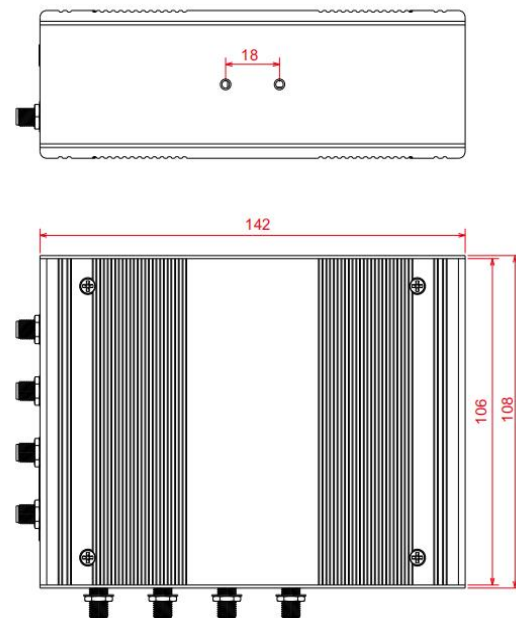
Front:



Up:



Size:



Order Information

Model	Frequency Bands	Country/Region	Interface	Wi-Fi	GPS	Package Contains
G53-Q6	5G: N1/N2/N3/N5/N7/N8/N12/N20/N25/N28/N40/N41/N66/N71/N77/N78/N79 4G: LTE-FDD Band:B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE-TDD Band :B34/B38/B39/B40/B41/B42/B43/B48	Global	5 x LAN 1 x RS232 + 1 x RS485 2 x SIM 1 x USB 2 x I/O	2.4G + 5.8G	√	1 x G53-Q6 router 4 x Cellular antennas 4 x Wi-Fi antennas 1 x GPS antenna(optional) 1 x RJ45 cable 1 x 9-pin serial connector 1 x 12V/2A Power supply

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