



Q880-AF

specification

- 4G LTE
- Dual LAN/1WAN+1LAN+ 4G + wifi + TTL Transparent Transmission
- Omni-directional 4G antenna, with good signal and stable transmission
- Support for CAT 4
- Industrial-grade products have stable performance

product description

In the Internet world of everything, the demand for intelligent communication will only become stronger and stronger, especially in the field of intelligent industrial control. 4G industrial routing module is an embedded 4G wireless VPN router launched by the company for the industrial field. The explosive 4G cellular data network and a variety of wired high-speed broadband access services to provide fast Internet access. With its security, stability and intelligence, thousands of devices are easily connected to the Internet, providing high-speed data transmission and communication for the real sense of equipment information.

Q880 also provides WAN / LAN * 1 + LAN * 1 dual network port + 2.4G wireless wifi, a TTL transmission interface, a SIM card slot, ethernet port and WIFI work, providing data gateway function.

Support equipment cloud platform remote management, simple graphical interface, convenient and quick use, let you understand the current state of equipment anytime and anywhere, widely used in M 2M industry, such as security, smart grid, intelligent transportation, smart home, financial, mobile POS terminal, supply chain automation, industrial automation, intelligent building, fire protection, public safety, environmental protection, meteorology, digital medical, remote sensing survey, military, space exploration, agriculture, forestry, forestry, water, coal mine, petrochemical and other fields.

size of product

product model	Q880-AF
SIM block	The Nano-Sim card
Ethernet port	WAN / LAN 1, LAN 1,10 / 100 M adaptive,
Power interface	1.25mm 2pin terminal, output: DC 5-36V / 1 A
reset key	Long press for more than 6 seconds to restore the factory settings
LED, pilot lamp	Routing system light 1, signal green light 1, w i f i yellow light 1, WAN / LAN 1 port

	red light 1, LAN 2 port orange light 1
size	52*38*10mm
weight	180g
work environment	Operating temperature: -40°C to 8 5 °C; storage temperature: -40°C to 8 5 °C; humidity: 5%~95% (No condensation)

4G wireless network technical specifications

Module model	Quectel E C 2 5 - A F
Frequency point support	LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71
Upper and downstream peak rates	LTE FDD: 150Mbps (DL) / 50Mbps (UL) LTE TDD: Max. 130Mbps (DL) / Max. 35Mbps (UL)
receiving sensitivity	Meet the 3 GPP standard
maximumoutput	LTE FDD: 23dBm±2d B LTE TDD: 23dBm±2d B
The 4G antenna type	ipex 1 interface * 2 (optional suction cup extension antenna)
antenna gain	5dBi

WiFi, with the technical specifications

protocol standard	IEEE 802.11a /b /g /n
channel bandwidth	20MHz
frequency	2.4G
TX /RX	2T 2R MIMO

Peak rate	802.11b: 11Mbps 802.11g: 54Mbps 802.11n: 300Mbps
debug mode	DSSS/CCK , OFDM
receiving sensitivity	-85dBm in 802.11b -70dBm in 802.11g -70dBm in 802.11n
Maximum transmitting power	18dBm in 802.11b 17dBm in 802.11g 16dBm in 802.11n
The wifi, the antenna type	The ipex 1 generation of * 1
antenna gain	5dBi
Number of users	Maximum of 32

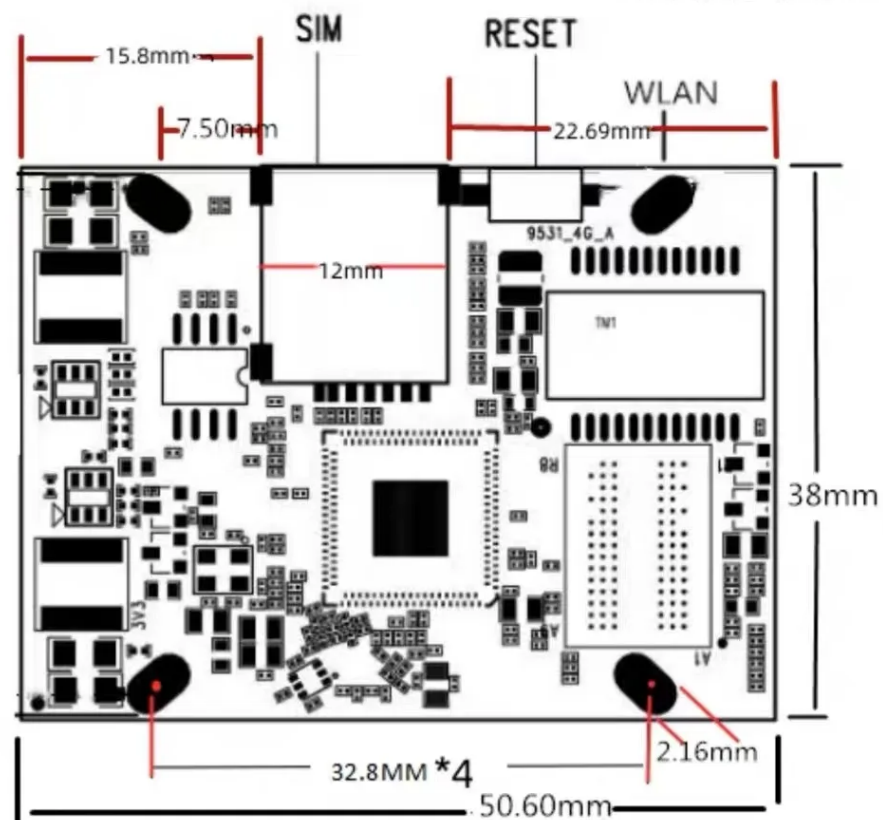
Basic software functionality

linguistic support	Chinese and English
IP protocol	IPv 4
WAN mouth	Fixed ip / PPPoe, dial-up / automatic acquisition
4G dial	Automatically obtain and support the private network VPDN card
The LTE frequency band search mode	Full frequency band search
V PN	L2TP , PPT P
Routing system	o p enwrt
WIFI	The AP mode, and the relay mode
String mouth through transmission	Support 1 TCP, UDP; also as module at port (optional)
Online watchdog	7 * 24 hours without an outage

firewall	MAC blacklist, port mapping, DMZ
statistics	LTE network status, device running status, DHCP customer list, network connection status, firewall status
maintenance	Time synchronization setting, automatic restart, restore factory settings, restore / backup configuration files, local upgrade
Double-link survival mechanism	WAN can switch and automatically switch seamlessly with 4G

Main Chipset	QCA9531
RAM	DDR 512Mb
Flash	SPI 128Mb
Protocol Standard	IEEE 802.11b/802.11g/802.11n/802.3/802.3u
Wireless Rate	2.4G 300Mbps
Working Frequency	2.4GHz

4个圆孔内径均为1.46mm



This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

KDB 996369 D03 OEM Manual v01 rule sections:

2.2 List of applicable FCC rules This module has been tested for compliance to FCC Part 15/22/24/27/90

2.3 Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

2.4 Limited module procedures The EUT was tested inside a specific platform (model: Q880-AF, Q881-AF, Q816-AF, Q817-AF, Q818-AF, M825-AF, M619-AF; Brand:HAO-LINK) and limited modular approval for this specific platform.

2.5 Trace antenna designs Not applicable.

2.6 RF exposure considerations This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

2.7 Antennas

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The antenna must be installed such that 20 cm can be maintained between the antenna and users. Antenna Type PC+ABS Antenna

2.8 Label and compliance information

The final end product must be labeled in a visible area with the following: "Contains FCC ID: 2BSXS-Q880-AF". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

2.10 Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This module certified that complies with RF exposure requirement under mobile or fixed condition, this module is to be installed only in mobile or fixed applications.

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

A fixed device is defined as a device is physically secured at one location and is not able to be easily moved to another location.

Note 2: Any modifications made to the module will void the Grant of Certification, this module is limited to OEM installation only and must not be sold to end-users, end-user has no manual instructions to remove or install the device, only software or operating procedure shall be placed in the end-user operating manual of final products.

Note 3: Additional testing and certification may be necessary when multiple modules are used.

Note 4: The module may be operated only with the antenna with which it is authorized. Any antenna that is of the same type and of equal or less directional gain as an antenna that is authorized with the intentional radiator may be marketed with, and used with, that intentional radiator.

Note 5: For all products market in US, OEM has to limit the operation channels in CH1 to CH11 for 2.4G band by supplied firmware programming tool. OEM shall not supply any tool or info to the end-user regarding to Regulatory Domain change.