RHF4M603 LTE Cat.1 LCC+LGA Module

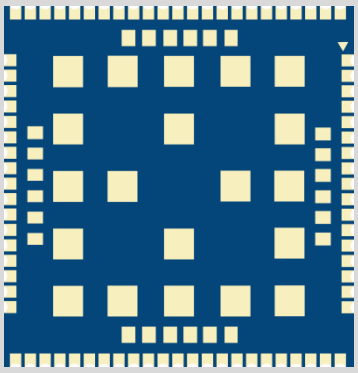
PRODUCT BRIEF

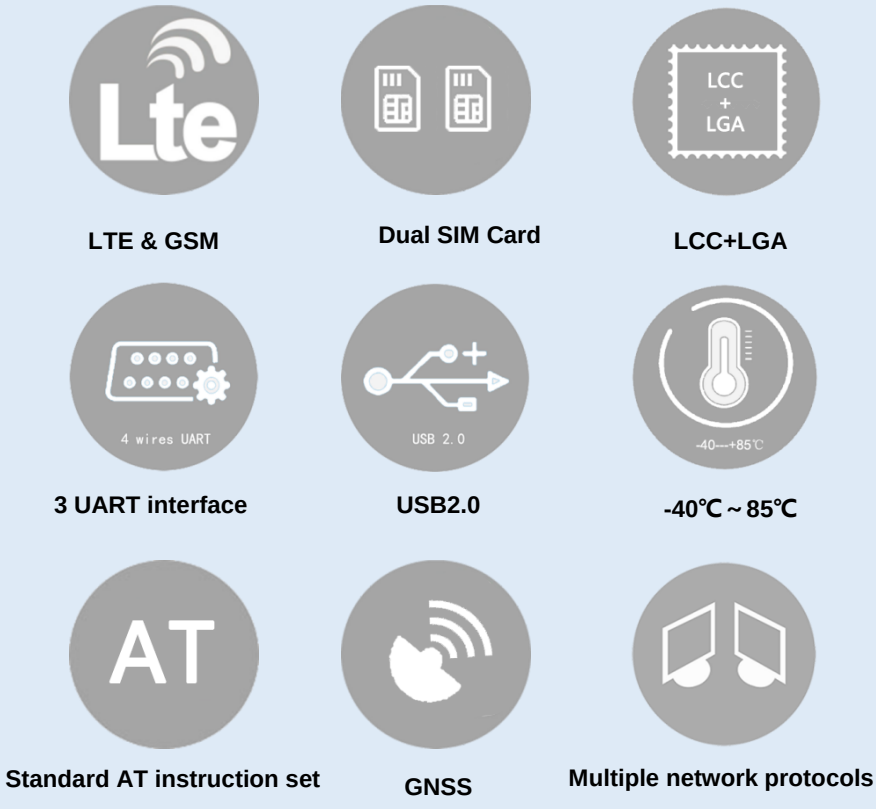
RHF4M603 Module is a wireless communication module based on ASR1603 platform, supporting multi-band ultra-high cost-effective LTE Cat.1 bis + GNSS positioning in overseas markets. The module supports data connection such as LTE-FDD, EDGE, GPRS and GSM, supports up to 10Mbps download rate and 5Mbps upload rate, and can provide voice functionality for customer-specific scenarios.

RHF4M603 is an LCC+LGA patch module with a compact package, Size only (24±0.1)*(24±0.1)*(2.4±0.2) mm, Can meet the application needs of most M2M and IoT fields.

RHF4M603 is equipped with a rich set of network protocols, integrates multiple industrial standard interfaces (SPI, I2C, USB, UART), and supports various drivers and software functions (such as Windows, Linux, Android), providing great flexibility and ease of integration for customers' applications.

RHF4M603 support AT command interface by default. It is also available to OpenCPU for user secondary development.





APPLICATION

- Mobile computing devices
- Automation field
- Intelligent computing
- Tracking and positioning system
- Smart metering
- Shared bicycles, cloud horns
- Security system
- Wireless POS machine

FEATURES

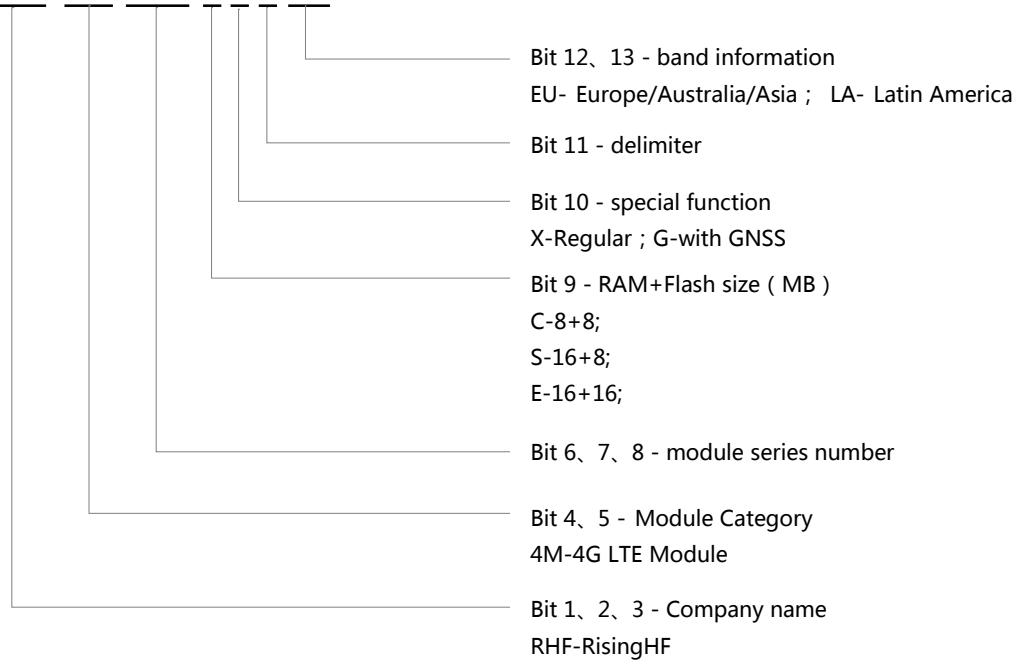
- RHF4M603-EU Frequency bands
  - FDD LTE: B1/B3/B5/B7/B8/B20/B28
  - GSM: GSM850/EGSM900/DCS1800
- RHF4M603-LA Frequency bands
  - FDD LTE: B1/B2/B3/B4/B5/B7/B8/B28/B66
  - GSM: GSM850/EGSM900/DCS1800/ PCS1900
- Operating Voltage 3.3V~4.2V, typical 3.7V
- Standby current<2mA; power-off current< 9uA
- Low cost: cost-effective ASR1603 platform
- Dimension: 24*24*2.4±0.2mm LCC+LGA;
- Supports dual-SIM cards with single standby
- Supports LTE and GSM networks
- Supports Wi-Fi SCAN positioning
- Transmission power:
  - Class 3 (23dBm±2dB) for LTE FDD bands
  - Class 4 (33dBm±2dB) for EGSM900&GSM850[1]
  - Class 1 (30dBm±2dB) for DCS1800&PCS1900[1]
  - Class E2 (26dBm±3dB) for EGSM900, GSM850 8PSK[1]
  - Class E2 (25dBm±3dB) for DCS1800, PCS1900 8PSK[1]
- Date rate:
  - LTE FDD：DL 10Mbps, UL 5Mbps@20M
  - EDGE：Max 236.8Kbps (DL&UL)
  - GPRS：Max 85.6Kbps (DL&UL)
- GNSS: support GPS、GLONASS、BDS、Galileo、QZSS；
  - Horizontal positioning accuracy < 2m@CEP50
  - Cold start sensitivity(typical) -149dBm@GNSS
  - Tracking sensitivity(typical)-166dBm@GNSS
  - Reacquisition sensitivity(typical)-159dBm@GNSS
- Hardware interfaces:
  USIM x2
  USBx1 ，support USB2.0 slave
  USARTx3
  I2C;
  SPI；
  ADCx2;
  Support a set of analog input and output audio interfaces；
  LPTIMER;
  GPIOs
- Standard AT instruction set (Hayes 3GPP TS 27.007 and 27.005)
- Supports protocol TCP/UDP/PPP/HTTP/NITZ/CMUX/RNDIS/NTP/HTTPS/PING
- Operating temperature：-40～+85℃
- FOTA, firmware over-the-air update reduces maintenance costs
- Support OpenCPU for user secondary development.

[1] In the 4-slot transmission mode of the GPRS network, the maximum output power is reduced by 3dB. This design complies with the GSM specifications outlined in Section 13.16 of 3GPP TS 51.010-1.

ORDERING INFORMATION

Part numbering scheme:

R H F 4 M 6 0 3 C X – E U



Model number	District	Band	RAM+Flash	GNSS
RHF4M603CX-EU	Europe/Australia/Asia	LTE: B1/B3/B5/B7/B8/B20/B28 GSM: 850/900/1800	8MB+8MB	×
RHF4M603CG-EU				√
RHF4M603SX-EU			16MB+8MB	×
RHF4M603SG-EU				√
RHF4M603EX-EU			16MB+16MB	×
RHF4M603EG-EU				√
RHF4M603CX-LA	Latin America	LTE: B1/B2/B3/B4/B5/B7/B8/B28/B66 GSM: 850/900/1800/1900	8MB+8MB	×
RHF4M603CG-LA				√
RHF4M603SX-LA			16MB+8MB	×
RHF4M603SG-LA				√
RHF4M603EX-LA			16MB+16MB	×
RHF4M603EG-LA				√

CONTACT

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