



Intelligent Module Ubiot GH331C

Multi-network Standard Intelligent LTE Module / Support GNSS & Wi-Fi & BT










GH331C is a multi-network standard Smart LTE Cat 4 module based on Qualcomm octa-core 64-bit ARM Kryo™ 260 processor launched by Yuntion, with built-in Qualcomm Adreno™ 610 GPU, and equipped with Android 11.0 operating system (10.0 optional). Its powerful performance and rich multimedia functions fully meet the needs of customers for high speed and multimedia functions in industrial and consumer applications.

GH331C supports GPS+GLONASS+BeiDou multiple positioning systems, which greatly improves the positioning speed and accuracy.

GH331C integrates function-rich interfaces (such as LCM, camera, touch screen, microphone, speaker, UART, USB, I2C and SPI interfaces, etc.), which greatly expand its application in the M2M field, making it widely used in smart cash registers, Intelligent POS, tax control machine, security monitoring, vehicle-mounted equipment, high-end information collection equipment, intelligent robot, smart home, intelligent hardware, industrial intelligent handheld equipment, drone, high-end police or law enforcement equipment, intelligent intercom equipment, intelligent wearable , vending machines, logistics cabinets and other equipment and industries.

Main Advantage

- Support LTE Cat 4, the maximum downlink rate can reach 150Mbps
- Comprehensive coverage of various network standards
- The screen supports up to 1080x2520 (FHD+)
- Support dual camera function, up to 4 cameras
- Integrated multi-constellation GNSS receiver to meet the needs of fast and accurate positioning in different environments
- Support 1080P @60fps video recording and playback

 ARM Kryo™ 260 64-bit processor (octa-core)	 Qualcomm GPU Adreno™ 610	 Android 11
 Cat 4 Max.150Mbps (DL) Max.50Mbps (UL)	 BT5.0 (BR/EDR+BLE)	 GPS+GLONASS+ BeiDou
 IEEE 802.11 a/b/g/n/ac	 Powerful Multimedia Function	 LCC + LGA Package

GH331C Specifications

Band Information - China

GH331C-CE

LTE FDD: B1/B3/B5/B8

LTE TDD: B38/B39/B40/B41

WCDMA: B1/B8

EVDO/CDMA: BC0

GSM: 900/1800MHz

Data

LTE

Cat 4 FDD: Max. 150Mbps (DL)/50Mbps (UL)

Cat 4 TDD: Max. 135Mbps (DL)/35Mbps (UL)

UMTS

DC-USDPA: Max. 42Mbps (DL)

DC-HSUPA: Max. 11.2Mbps (UL)

WCDMA: Max. 384Kbps (DL/UL)

TD-SCDMA

Max. 4.2Mbps (DL)/2.2Mbps (UL)

CDMA2000

EVDO:

Max. 3.1Mbps (DL)/1.8Mbps (UL)

1X Advanced:

Max. 307.2Kbps (DL/UL)

GSM

GPRS:

Max. 107Kbps (DL)/85.6Kbps (UL)

EDGE:

Max. 296Kbps (DL)/236.8Kbps (UL)

Electrical Parameters

Supply Voltage

3.4V~4.4V

Typ.3.8V

Power Consumption

73uA @shutdown

3.9mA @ sleep mode, Typ.

GH331C Specifications

Electrical Parameters

RF Output Power

Class 4 (33dBm±2dB) for GSM850
Class 4 (33dBm±2dB) for EGSM900
Class 1 (30dBm±2dB) forDCS1800
Class 1 (30dBm±2dB) for PCS1900
Class E2 (27dBm±3dB) for GSM850 8-PSK
Class E2 (27dBm±3dB) for EGSM900 8-PSK
Class E2 (26dBm±3dB) for DCS1800 8-PSK
Class E2 (26dBm±3dB) for PCS1900 8-PSK
Class 3 (24dBm+1/-3dB) for WCDMA bands
Class 3 (24dBm+3/-1dB) for EVDO/CDMA BC0
Class 2 (24dBm+1/-3dB) for TD-SCDMA bands
Class 3 (23dBm±2dB) for LTE-FDD bands
Class 3 (23dBm±2dB) for LTE-TDD bands

RF Sensitivity(dBm)

LTE FDD B1: -98dBm
LTE FDD B3: -98dBm
LTE FDD B5: -99dBm
LTE FDD B8: -99dBm
LTE TDD B34: -99dBm
LTE TDD B38: -98dBm
LTE TDD B39: -99dBm
LTE TDD B40: -98dBm
LTE TDD B41: -98dBm
WCDMA B1: -109dBm
WCDMA B8: -110dBm
TD-SCDMA B34: -109dBm
TD-SCDMA B39: -109dBm
EVDO/CDMA BC0: -109dBm
EGSM900: -108dBm
DCS1800: -108dBm

Highlight Features

WLAN

2.4G+5G, 802.11 a/b/g/n/ac

GNSS

GPS/GLONASS/BeiDou

LTE Cat 4

Support diversity receiving antenna
Support 3GPP E-UTRA Release 12
Support dual card dual standby
Firmware update via USB

Bluetooth

BT2.1+EDR/3.0/4.1 LE/4.2/5.0 BLE

Bandwidth

1.4/3/5/10/15/20MHz

General Features

Operation System

Android 11

Storage

32GB eMMC+3GB LPDDR4X (Default)
64GB eMMC+4GB LPDDR4X(Optional)

Operating Temperature Range

-40°C ~ +80°C

Size

35.0mm × 40.0mm ×2.50mm

Package

LCC + LGA Package

Weight

About 7.8g

GH331C Specifications

Audio & Video

VoLTE

Support VoLTE Ultra HD voice call

SRVCC/CSFB

Support SRVCC/CSFB voice fallback technology

Audio

Supports 24-bit/192kHz high-fidelity music playback

Wi-Fi Video

The highest codec 1080P @30fps

Video Encode and Decode

1080P @60fps

Interface

LCM Interface

4-lane MIPI FHD+ (1080×2520) @60fps

UART Interface

3 sets
Support hardware flow control
Maximum speed up to 4Mbps

USB Interface

Compliant with USB 3.1/2.0 specification
Support USB OTG

Touch Screen Interface

Capacitive Touch Screen

Antenna Interface

Main, Diversity, GNSS Antenna and Wi-Fi & BT & FM Antenna Interface

Other Interfaces

I2C Interface: 5 groups
(U)SIM Interface: 2 groups(1.8V/2.95V)
SD card Interface: 1 group(support SD 3.0, 4-bit SDIO)
PWRKEY : 1.8V, pull-up internal
SPI Interface: 2 groups (1 group can be multiplexed as UART; 1 group can be multiplexed as I2S, I2S supports Tx and Rx)
ADC Interface: 1 group
GPIO Interface: 15 groups

Camera Interface

3-way 4-lane MIPI_CSI
Max rate 2.5Gbps/Lane
Support 3 or 4 cameras
Support up to 25M pixel photos through dual ISP

Audio Interface

Analog Audio: Earpiece, Headphone, AUX Out, 3 groups of microphones support 1 group of noise-cancelling microphones

Certification

* Represents under development

For more information and support, please visit www.yuntion.com For Business Cooperation: navy.yao@yuntion.com

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