



# Intelligent Module

## Ubiot GH360

Multi-network Standard Intelligent LTE Cat 6 Module / Support GNSS & Wi-Fi & BT










GH360 is a series of multi-network standard Smart LTE Cat 6 modules based on Qualcomm octa-core 64-bit ARM Kryo™ 260 processor launched by Yuntion, built-in Qualcomm Adreno™ 512 GPU, and equipped with Android 9.0 operating system. The GH360 series modules have excellent performance and powerful multimedia functions, fully meeting the needs of customers for high speed and multimedia functions in industrial and consumer applications. This series of modules currently includes 5 versions: GH360-CE, GH360-W, GH360-E\*, GH360-A\*, GH360-J\*.

GH360 supports MIMO technology. Multiple receiving antennas can be used at the receiving end, thereby increasing the download speed, reducing the bit error rate and improving the communication quality. At the same time, GH360 supports GPS + GLONASS + BeiDou multiple positioning systems to greatly improve the positioning speed and accuracy.

GH360 integrates function-rich interfaces (such as LCM, camera, touch screen, microphone, speaker, UART, USB, I2C and SPI interfaces, etc.), which greatly expands the application of GH360 in the field of M2M, making it widely used in smart cash registers, smart POS machine, 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, AI and other equipment and industries.

### Main Advantage

- Support LTE Cat 6 and 2 × 20MHz carrier aggregation, the maximum downlink rate can reach 300Mbps
- Comprehensive coverage of various network formats
- Support MIPI\_DSI and DP over USB Type-C to achieve dual-screen different display, the main screen MIPI\_DSI supports up to 2560 × 1600 @60fps, DP supports 4096 × 2160 @30fps
- Support MIPI\_DSI0 (1920 × 1080 @60fps) + MIPI\_DSI1 (1920 × 1080)@60fps dual-screen display as an option
- 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 4k @30fps video recording and playback

 SDM660 Octa-core 64-bit Processor	 Android 9.0	 Qualcomm GPU Adreno™ 512
 Cat 6 Max.300Mbps (DL) Max.50Mbps (UL)	 IEEE 802.11 a/b/g/n/ac	 BT5.0
 GPS + GLONASS + BeiDou	 Powerful Multimedia Function	 LCC + LGA Package

# GH360 Specifications

## Band Information

### China/India

GH360-CE:  
LTE FDD: B1/B3/B5/B8  
LTE TDD: B38/B39/B40/B41  
WCDMA: B1/B8  
EVDO/CDMA: BC0  
GSM: 1800/900MHz

### North America

GH360-A\*:  
LTE FDD:  
B2/B4/B5/B7/B12/B13/B14/B17/B25  
/B26/B66/B71  
LTE TDD: B41①  
WCDMA: B2/B4/B5

### Japan

GH360-J\*:  
LTE FDD:  
B1/B3/B5/B8/B11/B18/B19/B21/B26/  
B28(A+B)  
LTE TDD: B41②  
WCDMA: B1/B6/B8/B19

### Europe/Middle East/Africa/Korea/Thailand

GH360-E\*:  
LTE FDD: B1/B2/B3/B4/B5/B7/B8/B20/B28(A+B)  
LTE TDD: B38/B39/B40/B41①  
WCDMA: B1/B2/B4/B5/B8  
GSM: 850/900/1800/1900MHz

### Global

GH360-W:  
Support Wi-Fi & BT only

## Data

### LTE

Cat 6 FDD: Max. 300Mbps (DL)/50Mbps (UL)  
Cat 6 TDD: Max. 265Mbps (DL)/30Mbps (UL)  
Cat 4 FDD: Max. 150Mbps (DL)/50Mbps (UL)  
Cat 4 TDD: Max. 130Mbps (DL)/30Mbps (UL)

### UMTS

DC-HSDPA: 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)  
1 X 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

3.55V~4.4V  
Typ.4.0V

### Power Consumption

TBD

# GH360 Specifications

## Electrical Parameters

### RF Output Power

Class 4 (33dBm±2dB) for GSM850  
Class 4 (33dBm±2dB) for EGSM900  
Class 1 (30dBm±2dB) for DCS1800  
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: -101	LTE FDD B25: TBD
LTE FDD B2: TBD	LTE FDD B26: TBD
LTE FDD B3: -101	LTE FDD B28A: TBD
LTE FDD B4: TBD	LTE FDD B28B: TBD
LTE FDD B5: -101.5	LTE FDD B66: TBD LTE FDD B71: TBD
LTE FDD B7: TBD	LTE TDD B34: -101 LTE TDD B38: -100.5
LTE FDD B8: -101.5	LTE TDD B39: -101 LTE TDD B40: -100.5
LTE FDD B11: TBD	LTE TDD B41: -100.5 WCDMA B1: -110
LTE FDD B12: TBD	WCDMA B2: TBD WCDMA B4: TBD
LTE FDD B13: TBD	WCDMA B5: TBD WCDMA B6: TBD
LTE FDD B14: TBD	WCDMA B8: -110 WCDMA B19: TBD
LTE FDD B17: TBD	GSM850: TBD EGSM900: -109
LTE FDD B18: TBD	DCS1800: -108 PCS1900: TBD
LTE FDD B19: TBD	TD-SCDMA B34: -109
LTE FDD B20: TBD	TD-SCDMA B39: -109
LTE FDD B21: TBD	EVDO/CDMA BC0: -109

## Highlight Features

### WLAN

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

### GNSS

GPS/GLONASS/BeiDou

Supports LTE Cat 6 and 2x20MHz carrier aggregation; Support diversity receiving antenna, downlink support MIMO 2 × 2 Support 3GPP E-UTRA Release 12 Built-in charging chip and fuel gauge; Support Qualcomm Quick Charge / Support Dual Screen Display Support Dual SIM Dual Standby; Supports A/B OTA Firmware updates via USB

### Bluetooth

BT2.1+EDR/3.0/4.1 LE/4.2 BLE/BT5.0

### Bandwidth

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

## General Features

### Operation System

Android 9.0

### Storage

32GB eMMC + 3GB LPDDR4X(Default)  
64GB eMMC + 4GB LPDDR4X(Opt.)

### Operating Temperature Range

-35°C ~ +65°C

### Size

43.0mm × 44.0mm × 2.55mm

### Package

LCC + LGA Package

### Weight

About 10.0g

# GH360 Specifications

## Audio & Video

### VoLTE

Support VoLTE (Voice over LTE)

### SRVCC/CSFB

Support SRVCC/CSFB

### Audio

Support 24-bit/192kHz High-fidelity music playback

### Wi-Fi Video

The highest codec 1080P @30fps

### Video Encode and Decode

4K @30fps

## Interface

### LCM Interface

2560 × 1600 @60fps  
primary display + 4k @30fps  
over DP 24 bpp RGB;  
Dual MIPI DSI

### Camera Interface

3-way 4-lane MIPI\_CSI  
Maximum rate 2.1Gbps/lane  
Supports 3 or 4 cameras  
Supports 24MP pixel photography  
through dual ISP,Max.

### Analog Audio Interface

Speaker, Earpiece, Headphones and  
3 Groups Microphones (one set of  
noise-cancelling microphones)

### Touch Screen Interface

Capacitive Touch Screen

### USB Interface

USB 3.1 × 1  
USB 2.0 × 1

### Other Interface

I2C Interface × 5  
ADC Interface × 2  
GPIO Interface × 21  
SPI Interface × 1  
PWRKEY × 1 1.8V Internal Pull-up  
(U)SIM Interface × 2 Support  
1.8V/2.95V; SD Card Interface × 1  
Support SD 3.0, 4-bit SDIO

### Antenna Interface

× 4  
Main, Diversity, GNSS Antenna and  
Wi-Fi & BT Antenna Interface

### UART Interface

× 4  
Max. rate of 4Mbps per group  
One set supports hardware flow  
control

## Certification

### Carrier Certification

### Other

RoHS Compliant

\* Represents under development

For more information and support, please visit [www.yuntion.com](http://www.yuntion.com) For Business Cooperation: [navy.yao@yuntion.com](mailto:navy.yao@yuntion.com)

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