



Flagship Intelligent Module

Ubiot GH580

Smart AI Module / Support Wi-Fi & BT

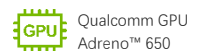
GH580 is an AI module based on Qualcomm Snapdragon 865 platform launched by Yuntion. It has built-in Qualcomm Adreno™ 650 GPU and is equipped with Android 10.0 operating system. Its powerful performance and rich multimedia functions fully meet the needs of customers for high performance and multimedia functions in industrial and consumer applications.

GH580 has powerful multimedia processing capabilities, supports three-way 4K display, supports 64MP 30fps camera, decodes up to 4K240/8K60, encodes up to 4K120/8K30, supports up to 15T AI computing power.

GH580 integrates function-rich interfaces (such as LCM, camera, touch screen, microphone, speaker, UART, USB, I2C, Charge, PCIE and SPI Interface, etc.), which greatly expand its application in the M2M field, making it widely used in smart Cash register, intelligent POS, tax control machine, security monitoring, video surveillance, vehicle-mounted equipment, intelligent robot, smart home, industrial intelligent handheld equipment, drone, high-end police or law enforcement equipment, intelligent high-end information collection equipment, VR Camera, Vending machines, logistics cabinets and other equipment and industries.

Main Advantage

- Integrated Qualcomm Kryo™ 585 CPU, 1 large core + 3 medium cores + 4 small cores, the highest frequency is 2.842GHz
- Integrated Qualcomm Adreno DPU 995, support three-way 4K display, one through DSI, two through Display Port
- Integrated Qualcomm Spectra 480 ISP, supports up to 7 cameras, up to 64MP 30fps, up to 4K120 cameras, 6 channels 4 Lan MIPI CSI interface
- Integrate Qualcomm Adreno VPU 665, decode up to 4K240/8K60, encode up to 4K120/8K30, support H.264/H.265
- Integrated Qualcomm Adreno GPU 650, 4K 60fps UI or 2x2K 60fps UI
- Integrated Qualcomm neural network processing unit NPU230, AI computing power up to 15T
- Support 802.11ax, 2 × 2 MIMO, and Bluetooth 5.1



GH580 Specifications

Band Information

China

GH580-W:

WLAN

802.11ax, 2 × 2 MIMO

BT

Bluetooth 5.1

Highlight Features

WLAN

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

Bluetooth

BT2.1+EDR/3.0/4.1 LE/4.2/5.1 BLE

Firmware update via USB

General Features

Operation System

Android10

Operating Temperature Range

-30°C ~ +70°C

Size

39.5mm × 49.5mm × 2.30mm

Storage

64GB UFS+4GB LPDDR4X (Default)

256GB UFS+8GB LPDDR4X (Max.)

Package

512pin LGA Package

Weight

About 16g

Electrical Parameters

Supply Voltage

3.4V-4.4V, Typ. 3.8V

Power Consumption

73uA @ shutdown

3.9mA @ sleep mode, Typ.

GH580 Specifications

Audio & Video

Interface

Three-way DMIC Interface
1 way WSA digital power amplifier Interface; 1 way SWR audio codec extended Interface; A set of I2S Interface

Video

Decode up to 4K240/8K60
Encode up to 4K120/8K30

Wi-Fi Video

Decode and Encode up to 4K @60fps

Interface

LCM Interface

Two 4-lane MIPI
(2560×1600)@60HZ dual screen or
5040x2160 single screen

Camera Interface

6-way 4-lane MIPI_CSI, maximum
speed 2.5Gbps/Lane.
Supports up to 7 sets of cameras;
Support up to 64M pixels to take
pictures through dual ISP,

Audio Interface

Digital Audio:
SWR codec Interface/ WSA digital
amplifier Interface/ 3 group of DMIC
Interface/ 1 group of I2S Interface

Touch Screen Interface

Capacitive Touch Screen

USB Interface

2 group of USB 3.1 Gen2, support 4K
120Hz DP display, support USB OTG

Other Interfaces

I2C Interface: 3 Groups
SD Card Interface: 1 group(support
SD 3.0, 4-bit SDIO)
PWRKEY : 1.8V, pull-up internal
SPI Interface: 2 groups
ADC Interface: 4 groups
GPIO Interface: 21 groups

Antenna Interface

2X2 Wi-Fi & BT Antenna Interface

UART Interface

3 groups
Support hardware flow control, the
highest rate is up to 4Mbps

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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