

AGENEWTECH

H226SJ

Smart Module Specification_V1.0



Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

Wuxi Sunning Smart Devices Co.,Ltd.

No.52, Zone C, Huigu Pioneer Park, Huishan Economic Development Zone, Wuxi

Postal Code : 214174

PhoneNum : +86 0510 8235 0372 MailBox : Asupport@agenewtech.com

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About the Document

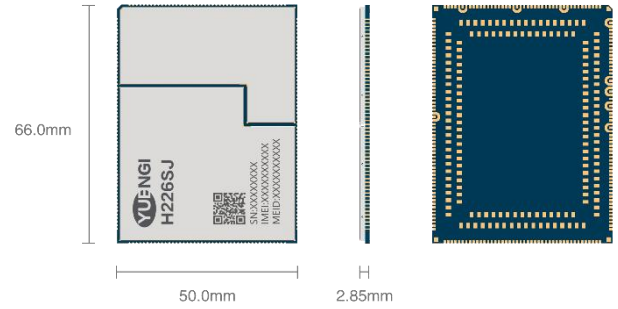
History

Version	Date	Author	Description
-	2021-12-14	Peng Cong	Initial
1.0	2022-01-04	Peng Cong	Controlled Copy

H226SJ

Multi-network Smart 5G module

Supports Wi-Fi & BT



H226SJ is a multi-network smart 5G module based on Unisoc's Octa-core T7510 processor (Qual-core ARM Cortex-A55 & Qual-core ARM Cortex-A57) launched by Agenew, equipped with Android 9.0 operating system. Its powerful performance, 3.2TOPS AI processing, 2D/3D graphics acceleration processing capabilities, fully meet the needs of customers for high-speed and multimedia functions in industrial and consumer applications. The H226SJ series modules include a total of two versions: H226SJ-CE and H226SJ-W (H226SJ-W supports only Wi-Fi & BT).

The H226SJ is a domestically produced 5G module aimed at the Chinese market, supporting both 5G standalone (SA) and non-standalone (NSA) network architectures. It meets the frequency band requirements of Chinese mobile operators such as China Mobile, Unicom, and Telecom, fulfilling the domestic demand for 5G communication modules. The H226SJ supports Wi-Fi multiple input multiple output technology (MIMO 2×2), utilizing dual antennas for signal transmission and reception, thereby increasing download speeds, reducing error rates, and improving communication quality. Additionally, the H226SJ supports a variety of positioning systems, including GPS+Galileo/GLONASS/BeiDou (B1C) with a selection of two out of three, and also supports AGPS, catering to the needs of different environments and significantly enhancing positioning speed and accuracy.

The H226SJ integrates a rich array of interfaces (such as LCM, camera, touchscreen, microphone, speaker, UART, USB, I2C, SPI, SDIO, and PCIE interfaces), which greatly expands its applications in the M2M field, making it widely used in smart cash registers, smart POS systems, tax control machines, security monitoring, in-vehicle devices, high-end information collection devices, smart robots, smart homes, smart hardware, industrial smart handheld devices, drones, high-end law enforcement or policing equipment, smart intercom devices, smart wearables, vending machines, logistics cabinets, and other devices across various industries.



Main Advantages

- ✓ Comprehensive coverage of multi-network standard
- ✓ Main screen supports up to QHD+ 3200×1440
- ✓ Support dual camera function, up to 4 cameras, up to 24M
- ✓ Support 5G NSA/SA mode
- ✓ Integrated multi-constellation GNSS receiver to meet the needs of fast and accurate positioning in different environments
- ✓ Support 1080P@30fps video recording and playback



ARM A73 + A53
64-bit Processor (Octa-core)



IEEE 802.11
a/b/g/n/ac



Support Android 9



GPS+Galileo/GLONASS
/BeiDou(B1C)



Powerful multimedia



BT 5

NR	H226SJ
Region/Operator	China
Operating System	Android 9.0
Memory	64GB eMMC + 32GB LPDDR4X (default) 128GB UFS + 48GB LPDDR4X (optional) / 256GB UFS + 64GB LPDDR4X (optional)
Module Dimension (mm)	66.0× 55.0 × 2.85
Packaging	LCC + LGA
Temperature Range	
Operation Temperature	Operating temperature range: -35 °C ~+ 75°C Storage temperature range: -40 °C ~ + 90 °C
Frequency Band Information	
NR	N1/N41/N78/N79
LTE-FDD	B1/B3/B5/B7/B8/B28
LTE-TDD	B34/B38/B39/B40/B41(2496-2690)
WCDMA	B1/B2/B5/B8
GSM/EDGE	850/900/1800/1900
WLAN	2.4/5GHz, 802.11 a/b/g/n/ac
Bluetooth	BT 5
GNSS	GPS + Galileo/GLONASS/BeiDou(B1C)
Certification	
Operator Certification	Undetermined
Compulsory Certification	SRRC*/NAL*/CCC*
Other Certifications	RoHS*/REACH*
Data Rate	
NR	SA: 1.7Gbps (DL) / 250Mbps (UL) (DL : UL slot ratio 7:3) NSA: 1.8Gbps (DL) / 200Mbps (UL)
LTE	300Mbps (DL) / 150Mbps (UL)
DC-USDPA	42Mbps (DL)
DC-HSUPA	11.2Mbps (UL)
WCDMA	384Kbps (DL) / 384Kbps (UL)
EDGE (Kbps)	236.8Kbps (DL) / 236.8Kbps (UL)
GPRS (Kbps)	85.6Kbps (DL) / 85.6Kbps (UL)
Features	
Bandwidth (MHz)	NR : 20/100MHz LTE : 1.4/3/5/10/15/20MHz
Rx-Diversity	●
DL MIMO Support	●
SIM Card Detection	●
Dual-SIM & Dual-standby	●
USB Firmware Update	●
OTA Firmware Update	●

Remark: 1. *: In progress
2. ●: Supports

NR	H226SJ
Electrical Specification	
Operating Voltage	3.55 ~ 4.4 V, typical 3.8 V
Consumption (Typical)	100µA @ power off, 6mA @ sleep mode, typical
Interface	
LCD	1080P@60fps
Camera	×3, 4-lane MIPI CSI, supports four camera groups, up to 24MP
TP	Capacitive touch screen
Audio	3 analog outputs: speaker, earpiece, headphones 3 analog inputs: 1 set of noise-canceling microphones, 1 set of headphones
USB	USB3.0, support OTG mode
(U)SIM	×2 (1.8V/2.95V)
UART	×5 (2 support hardware flow control, max 4.6 Mbps)
SD Card	×1, support SD Card (SD3.0), 4-bit SDIO
ADC	×2, 1 for battery ID
I2C	×5, I2C interfaces
SPI	×3, SPI interface, reusable for GPIO*4
PWRKEY	1.8V, internal pull up
GPIO	×22, GPIO interfaces
Antenna	Main antenna, LTE DRX antenna, Wi-Fi/BT/GPS antenna, NR main TRX, NR MIMO RX2, NR MIMO RX3, NR MIMO RX4, WIFI MIMO RX, Coaxial seat connection