

Air8000U (Eurasian)

4G / GNSS / Wi-Fi / Bluetooth / 4-in-1 Industrial Engine

It can be applied to various scenarios including industrial control, location tracking, and multimedia.

Air8000.CN



4G Parameters



LTE Features

LTE Cat.1 bis
MAX: 10Mbps (DL)
MAX: 5Mbps (UL)

Frequency Band

LTE-TDD: B38/B40/B41
LTE-FDD: B1/B3/B5/B7/B8/B20/B28

Zone Of Application

Europe, Southeast Asia, Africa

Output Power

LTE-TDD: Class3(23dBm+1/-3dB)
LTE-FDD: Class3(23dBm+-2dB)

Sensitivity

FDD: -99dBm (10M)
TDD: -100dBm (10M)

GNSS Parameters



Supported Frequency Bands :

GPS L1;
BDS B1;
GLNASS G1;
Galileo E1;

Supports GPS/BDS-3 single-frequency multi-mode

Update Rate: 1~10Hz Positioning Accuracy: <2m

Acquisition Sensitivity: <-149dBm Tracking Sensitivity: <-165dBm Supports hot start and A-GNSS assisted positioning.

Accelerometer Parameters

- Measurement Range:**
 $\pm 2g / \pm 4g / \pm 8g$ (programmable)
- Data Resolution:**
8-bit / 10-bit / 12-bit selectable
FIFO buffered data storage
- Sampling Rate:** 14 Hz to 1.3 kHz (adjustable)
- Power Consumption:**
Sniffing current: 0.4 μA @ 1 Hz ODR

Wi-Fi Parameters



- Standard Support:**
Wi-Fi 6 (802.11ax)
Backward compatible with 802.11b/g/n
- Frequency & Bandwidth:**
2.4 GHz band
Supports 20/40 MHz channel bandwidth
- RF Performance:**
Max TX Power: 21 dBm (per chain)
RX Sensitivity: -98 dBm @ 11b 1Mbps
- Operation Modes:**
Concurrent AP + STA mode
- Connection Capacity**
Supports >10 associated clients

Bluetooth Parameters

- Protocol Support:**
Bluetooth 5.4 LE + Classic Bluetooth (BR/EDR) dual mode
- RF Performance:**
Max TX Power: 21 dBm
RX Sensitivity: -98 dBm
- Concurrency Features:**
Simultaneous Wi-Fi/BLE/Bluetooth operation
Concurrent BLE Central & Peripheral roles

Interface Quantity

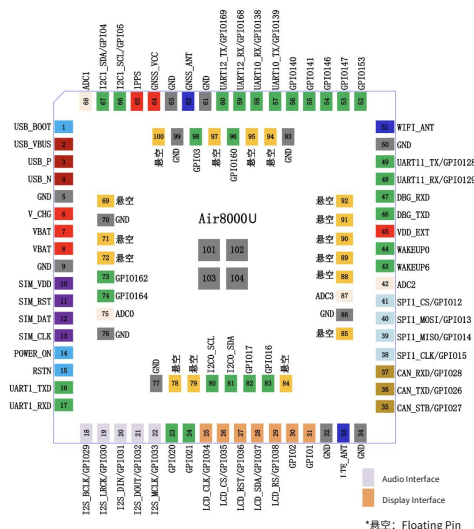
Interface Name	Quantity
USB 2.0 High-Speed Port (480 Mbps (Max))	1
Charging Interface	1
1.8V/3.0V (U)SIM Interface	2
I2S Digital Audio Interface	1
UART Interface	4
SPI LCD Interface	1
Universal SPI Interface	1
Universal ADC Interface	4
I2C interface	2
4G Antenna Interface	1
Wi-Fi Antenna Interface	1
GNSS Antenna Interface	1
CAN interface	1
Quad-SPI Interface	1
Programmable GPIOs	52
ADC Interface	4
SPI CAMERA Interface	1

Software Specifications

- Supports secondary development
- Supports drivers for RS-485, RS-232, Ethernet
- Enables multi-network convergence
- Provides VoLTE call capability

Hardware Specifications

- Package Dimensions (Tolerance ± 0.15 mm):**
Length: 22.3 mm
Width: 22.4 mm
Height: 2.3 mm
- Product Weight:** ca. 2.6 g
- Operating Temperature:** -40°C to +85°C
- Supply Voltage:** 3.3 V - 4.35 V (Typ. 3.8 V)
- RAM:** 8 MB (4 MB user-accessible)
- Flash:** 8 MB (3.5 MB user-available)



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Air8000N Documentation

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