



V8821

UNISOC first 5G IoT-NTN satellite communication SoC

V8821 is UNISOC first satellite communication SoC, featuring an advanced 22nm manufacturing process; it combines baseband, Transceiver, PMIC and FLASH/SRAM, supports R17 IoT-NTN standard, bidirectional voice call and data transmission functions. With its low power consumption and small surface area, V8821 can be used in cell phone direct satellite connections, wearable products, satellite IoT products and satellite IoT products.



IoT-NTN Universal Satellite Communication Chip

- Supports IoT NTN R17
- Currently supports L-band maritime satellites and S-band Tiantong satellites
- Expandable to support access to other NTN satellite systems
- Flexible adaptation to IoT applications, IoV, cell phones and wearable products
- Supports voice function

Advanced Solution

- Variety of interfaces, supporting LPUART, UART, GPIO, I2C and more
- Supports TCP/IP protocol, suitable for a variety of upper layer services, inheriting the commonly used IoT
- Protocols, and supports access to existing data platforms

Field Tested

- Suitable for various application environments: ocean, edge of city, city center, city parks

Flexible Hardware Configuration

- Can reuse hardware resources from customer's original design, such as PA, etc.
- Can be used with UNISOC RFA solutions

Low power consumption, wide voltage and temperature range, suitable for different battery types and temperature environments

- Low power consumption, with transmitting power as low as 23dBm.
- Supports 2.1V~4.2V wide voltage range
- Wide temperature range: -20 to 75 degrees



UIS8821

Communication	3GPP Rel-16/Rel-17 IoT-NTN specification compliant 3GPP defined NTN band n255 and n256
Interfaces	UART, SPI, I2C
Manufacturing process	22nm

