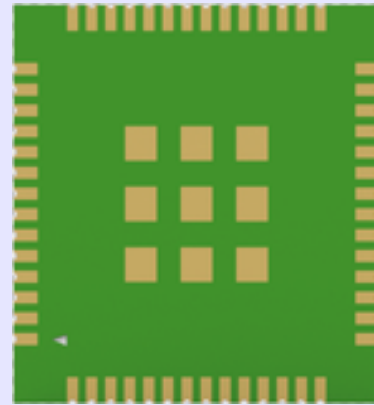


Notion NB-IoT module OT01-5



OT01-5 is a high-performance NB-IoT module with extremely low power consumption. It supports a broad range of frequency bands used all over the world. It also provides abundant external interfaces (UARTs, SPI, etc.) and protocol stacks (UDP/TCP, CoAP, LWM2M, etc.). Especially **the ESIM and motor driver inside-design make it suitable for smart gas and water meters without external micro-controller unit (MCU)**. The rich interfaces, small size, low power consumption and many RF bands allow it to be widely used for smart gas/water meters, information collection, security monitoring, smart city/home and other applications.

RF bands 1 / 3 / 5 / 8 / 20 / 2* / 4* / 12 / 13 / 17* / 18* / 19* / 25* / 26* / 28 / 66* (bands with a "*" are not tested yet)

power supply 2.2–3.7 V (typical: 3.3 V)

package LCC

dimensions 23 × 23 × 2.3 mm

operating temperature –20–60 °C

extreme working temperature –40–85 °C

humidity 5–95 %

software update via USB, UART, FOTA

RF output power 23 ± 2 dB m

RF sensitivity –114 dB m

single tone upload speed 16.7 kbit/s

single tone download speed 25.5 kbit/s

multi tone upload speed 62.5 kbit/s

multi tone download speed 25.5 kbit/s

power saving mode (PSM) 5 μA@3.3 V

DRX (2.56 s) average 300 μA@3.3 V

eDRX (81.92 s) average 70 μA@3.3 V

certifications

- SRRC
- CMCC
- CT
- Deutsche Telekom

interfaces

- 1 × USB 1.1
- 2 × UART
- 1 × SPI
- 1 × PWM
- 2 × I2C
- 2 × 24 bit differential ADC
- 2 × SIM (internal and external)
- n × GPIO
- keys: power, reset and matrix
- PAD antenna
- internal motor driver

protocols UDP / TCP / CoAP / MQTT / LWM2M / PPP / SSL / TLS / DTLS / HTTP / HTTPS / FTP*

AT commands 3GPP release 13/14

applications

- water / gas meters
- smoke detectors
- smart home / city

