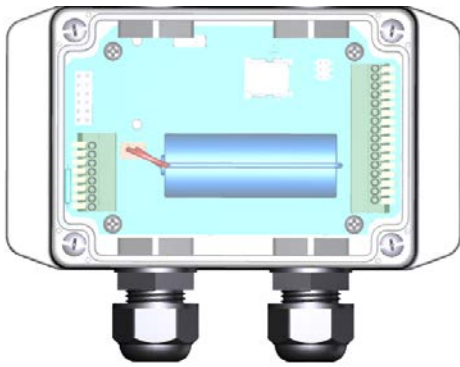


IOT400-DN3B1 / IOT400-DN301 LPWA Data Logger

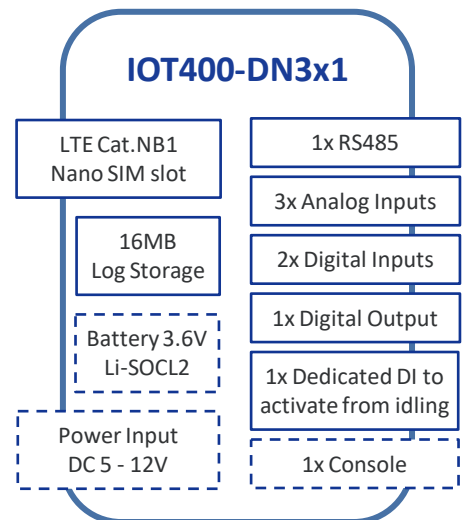


The IOT400 is a cost-effective low complexity solution for simple data acquisition and wireless telemetry. NB-IoT is optimized for low bandwidth IoT traffic and leverages existing 4G infrastructure to transmit data at low data rates. It allows massive deployment of wireless IoT with carrier-level security. Thanks to the power saving technology, the IOT400 has ultra-low power consumption which allows it to operate on a single battery for years.



Applications:

- AMI/AMR: gas, water
- Smart Infrastructure: street lighting, parking, waste management
- Farming and agriculture
- Industrial sensors
- Alarms, event triggering



Battery-powered & easy deploy



- Battery-powered with health alert
- Ext. power supply opt. for heavy loads

LPWA technology NB-IoT



- Low power, low data rates
- Wide area coverage

Ingress Protection (IP65)

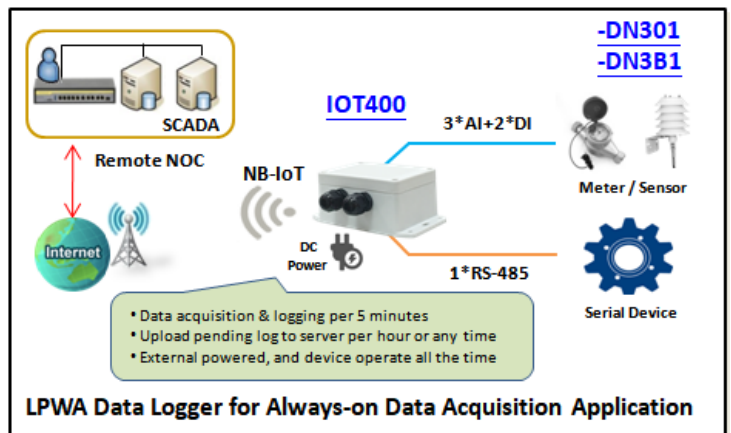
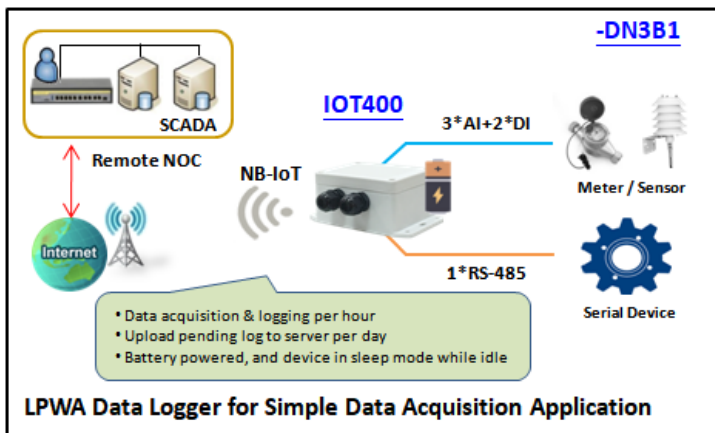


- Harsh environments, wide t° range
- Weatherproof design for moist sites

Data acquisition and events



- AI/DI/Modbus_RTU for sensors / meters
- Logged data storage, scheduled uplink



Specification Summary

Device Interface

- **4G Module:** 1* NB-IoT module (LTE cat.NB1)
- **Log Storage:** 16MB internal storage for data logging
- **I/O Connector:** 2* M16 waterproof connectors with 2-hole cable gland for wiring the required ports to external sensors/meters.

Available H/W Ports

- **SIM Slot:** 1* nano-SIM (4FF)
- **Analog Input:** 3* AI ports (supports 0-10V / 4-20mA)
- **Digital Input:** 2* DI ports (isolated, supports Pulse Counter, Dry Contact)
- **Digital Output:** 1* DO port (isolated, Non-Relayed Output)
- **Field Bus:** 1* RS485 for Modbus RTU/ASCII
- **Console Port:** 1* RS232 for device configuration
- **Wake-up Port:** 1* internal Reed Switch, and
1 * dedicated DI for external device wake-up triggering.
- **Power Source :** 4000mAh 3.6V Li-SOCL2 battery, or
external 5V~12V DC power.
- **Antenna :** 1*internal 2dBi antenna

WAN & Uplink

- **WAN:** Cellular WAN
- **Cellular:** 3GPP, NB-IoT with PSM supported
- **Data Transimission:**
Single Tone - 16.7kbps (UL)/25.5kbps (DL)
Multi Tone - 62.5kbps (UL)/25.5kbps (DL)

Server Access

- **Protocol:** TCP, UDP, MQTT
- **Data Security:** Pre-shared Key Encryption
- **Connection:** By Schedule Plan (by monthly/weekly/daily), By Event
- **Data Upload:** Multiple Server supported for redundancy,
Re-trial plan for interrupted connection.

Field Comm.

- **Modbus:** Master for accessing attached Modbus RTU/ASCII Slaves
(Upto to 3 Modbus devices supported)
- **Data Logging:** By schedule plan (by yearly/monthly/weekly/daily, or per designated minutes)

Administration

- **Configuration:** Windows Utility, Console CLI;
via USB-to-Serial console cable, or Bluetooth wireless
- **System:** Backup & Restore, Reboot & Reset, SysLog, Upgrade

Environment

- **OP/Storage Temp.:** -30°C ~ 70°C ; -40°C ~ 85°C
- **Humidity:** 10%~95% (non-condensing)
- **Enclosure:** Plastic (PC, UL-94V2), Bracket Mount
- **Dimension:** 105x 75x55mm (Enclosure only);
132x103x55mm (including Cable Gland, Brackets);

Certificate - CE

- Standards & Regulation
- EMI: EN 55032: 2015 +AC: 2016 Class B
- EMS: EN 55024, IEC 61000
- Radio: EN 301 489
- Safety: EN 60950-1, EN 62368-1

Package Accessory

- 1*Device
- 1*4000mAh 3.6V Li-SOCL2 Battery (for -DN3B1)
- 2* Cable Tie for fixing battery (for -DN3B1)
- 3* Jumper for AI current mode setting
- 3* Water&dust-proof Stopper

Optional Accessory (separate order required)

- USB-to-Serial Console Cable
- Bluetooth Module for wireless Configuration

SKU Information:

IOT400-DN3B1-00-yy : NB-IoT, with Battery

IOT400-DN301-00-yy : NB-IoT, without Battery

'yy': Area Variant. As below table

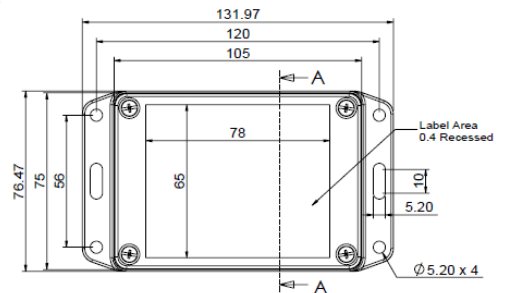
yy	SKU	Cellular Band	Module Cert.	System Cert.
GO	Global	B1/2/3/5/8/19/ 20/28	CE, GCF, FCC, PTCRB, NCC, RCM, IC	TBC

Comment:

- Specifications are subject to change without prior notice.
- Besides CE, other regional certification needs to be checked for availability.

Mechanic Drawing

• Top View



• Side View



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