

Qumtrix NB Series Cellular Smart Lock — Technical Datasheet

LTE Cat M1 / NB-IoT cellular smart lock for B2B access control (hotels, apartments, co-living, offices)

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Product Summary

The Qumtrix NB Series is a cellular-native smart lock for B2B access control deployments. It connects directly over LTE Cat M1 / NB-IoT (Telit ME310G1-WW, multiband) with no local gateway, Wi-Fi network or hub required, so operators can roll out access control across hotels, apartment buildings, co-living sites and offices without additional site infrastructure.

1. Connectivity & Platform

Subsystem	Component / Standard	Specification
Cellular module	Telit ME310G1-WW	LTE Cat M1 / NB-IoT multiband, global roaming
Bands supported	24 global bands	B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B31, B66, B71, B72, B85, B87, B88
SIM	Multi-IMSI eSIM	Seamless coverage in 23 countries
Credential	NFC (NXP DESFire EV3)	Encrypted NFC credential with secure element
Cloud	MQTT available / LwM2M	Qumtrix Cloud, AWS / Azure / on-premises

2. Power & Battery

Parameter	Value	Notes
Battery type	4x AA alkaline	Field-replaceable
Operating voltage	3.0 V - 6.0 V	Battery pack range
Standby current	14 uA	Ultralow-power cellular wake-up
Typical battery life	~24 months	Based on average use, normal operating conditions

3. Cybersecurity & System Architecture

Feature	Implementation
Encryption	AES-256, mutual TLS (mTLS)
Secure element	Hardware secure element with NXP DESFire EV3 credentials
Audit trail	10,000 local event logs with automatic cloud replication
Firmware update	OTA (over-the-air) remote firmware management
Access methods	Mobile app, PIN, NFC card, mechanical emergency key

4. Mechanical & Environmental

Parameter	Value
Mortise profiles	3585 / 4585 / 5085 / 6085 (European profile, DIN 18252)
Door thickness	30-70 mm, adapter kits for oval and edge profiles
Materials	Zinc alloy + SS304 stainless steel with tempered glass panel
Protection rating	IP65 water and dust resistance
Mechanical life	>= 10 years mechanical working life
Operating temperature	-20 degC to +55 degC
Dimensions (H x W x D)	165 x 68 x 78 mm
Weight	720 g

5. Target Deployments

- Hotels and resorts: contactless guest access, PMS integration and remote credential issuing.
- Apartments and multifamily housing: one lock per unit, no building network required, remote management at scale.
- Student housing and co-living: high-turnover credential management with audit trails.
- Offices and coworking: scheduled access, zone-based permissions and central revocation.
- Short-term rentals: remote check-in and automatic credential expiry between stays.