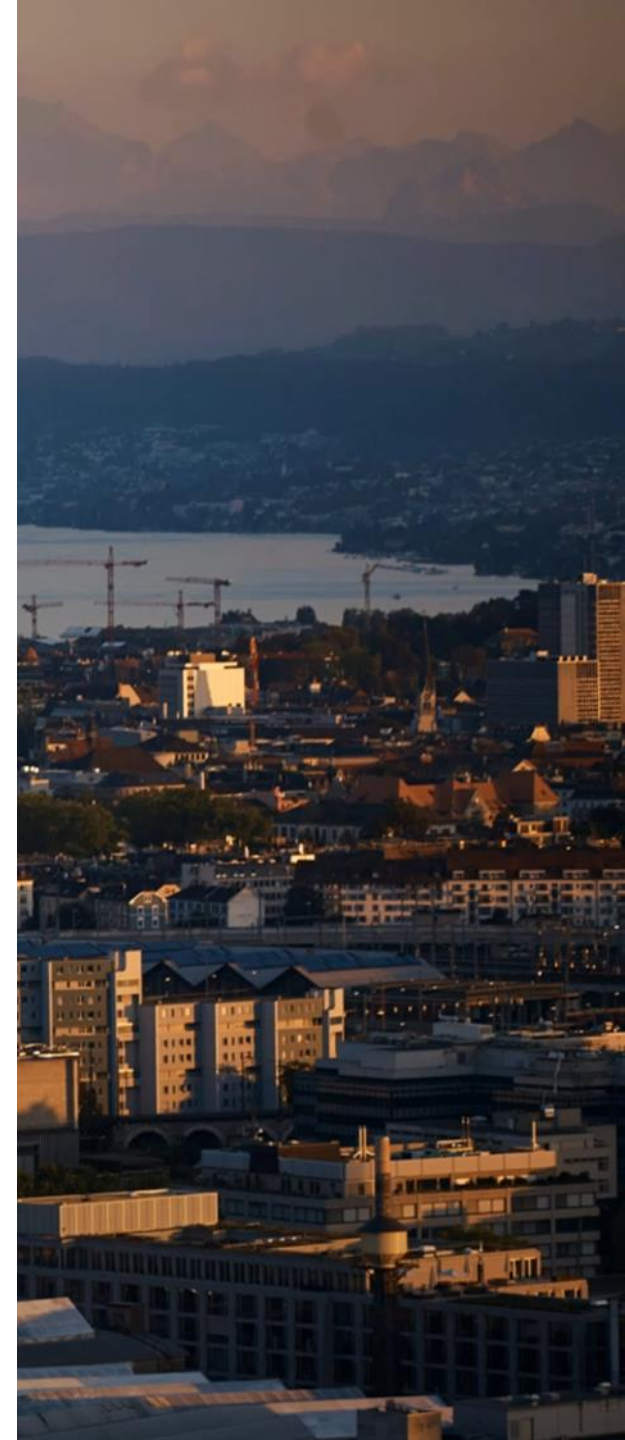# Cellular IoT
LPWAN Modules Catalogue

March 2020

Introduction

The aim of this catalogue is to assist you with locating the right device for your specific IoT use case. Quality is important which is why the following catalogue is currently limited to devices that Swisscom has performed basic connectivity tests on. We also provide basic network specific information on how to connect your device.

Note that the listed devices have been tested with regard to their radio compliance and not their end-to-end reliability. Swisscom does not endorse or take responsibility for the devices listed therein. The information displayed was provided by the respective device manufacturer.

If you are unable to find the right device for your use case in this catalogue or need support realizing your IoT project please contact us under **IoT.SPOC@Swisscom.com**

If you are looking for specific LoRaWAN IoT devices have a look at our other catalogue here.

Classification of a Device

IoT Pre-Qualified
swisscom.ch/IoT

Swisscom IoT Pre-Qualification

- Represents a necessary requirement to be featured in this catalogue.
- Swisscom IoT Pre-Qualification provides end-users with confidence that the device was able to attach to our cellular network with its supported technologies.

SIM7000E

NB-IoT **LTE-M**

IoT Pre-Qualified
swisscom.ch/IoT

Description

- **Dimensions:** 24 x 24 x 2.6 mm
- **Modem Chip:** MDM9206, Qualcomm
- **Supported Technologies:** NB-IoT, Cat-M1, EGPRS
- **Data:**
  - **NB-IoT:** Max. 34 kbps (DL), Max. 66 kbps (UL)
  - **Cat-M1:** Max. 300 kbps (DL), Max. 375 kbps (UL)
- **Additional Info:** Includes GNSS feature

Features	Supported	Tested by Swisscom*
eDRX	✓	✓
PSM	✓	✓
CMM	✓	✓
VoLTE	✓	✗

Supplier

- **Name:** SIMCom Wireless Solutions
- **Origin:** Shanghai, China
- **Local distribution:** EBV Elektronik, Texim Europe and more

Contact Supplier

Further Documentation

*Only ticked if Swisscom has successfully completed the test, not all features have been tested.

ME910C1

NB-IoT **LTE-M**

Description

- **Dimensions:** 28.2 x 28.2 x 2.2 mm
- **Modem Chip:** MDM9206, Qualcomm
- **Supported Technologies:** NB-IoT, Cat-M1, EGPRS
- **Data:**
  - **NB-IoT:** Max. 21 kbps (DL), Max. 62.5 kbps (UL)
  - **Cat-M1:** Max. 300 kbps (DL), Max. 375 kbps (UL)
- **Additional Info:** Optional GNSS feature

Features	Supported	Tested by Swisscom*
eDRX	✓	✓
PSM	✓	✓
CMM	✗	✗
VoLTE	✗	✗

IoT Pre-Qualified swisscom.ch/IoT

Supplier

- **Name:** Telit Communications PLC
- **Origin:** London, United Kingdom
- **Local distribution:** Ineltro , Round Solutions, Rutronik

Contact Supplier

Further Documentation

*Only ticked if Swisscom has successfully completed the test, not all features have been tested.

SARA-R410M-02B

NB-IoT   LTE-M

u-blox

SARA-R4

IoT
Pre-Qualified
swisscom.ch/IoT

Description

- **Dimensions:** 26.5 x 22.5 x 12.3 mm
- **Modem Chip:** MDM9206, Qualcomm
- **Supported Technologies:** NB-IoT, Cat-M1, EGPRS
- **Data:**
    - **NB-IoT:** Max. 32 kbps (DL), Max. 70 kbps (UL)
    - **Cat-M1:** Max. 375 kbps (DL), Max. 375 kbps (UL)
- **Additional Info:** Optional GNSS feature

Features	Supported	Tested by Swisscom*
eDRX	✓	✓
PSM	✓	✓
CMM	✓	✓
VoLTE	✓	✗

Supplier

- **Name:** u-blox
- **Origin:** Thalwil, Switzerland
- **Local distribution:** u-blox online store, digikey

Contact Supplier

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Further Documentation

*Only ticked if Swisscom has successfully completed the test, not all features have been tested.

GM01E

FOXCONN®

Supplier

- **Name:** Foxconn Technology Group
- **Origin:** Taipei, Taiwan
- **Local distribution:** FLNET

Contact Supplier

LTE-M

Description

- **Dimensions:** 25 x 14.6 x 2.15 mm
- **Modem Chip:** SQN3330, Sequans Communications
- **Supported Technologies:** Cat-M1
- **Data:**
    - **Cat-M1:** Max. 300 kbps (DL), Max. 375 kbps (UL)
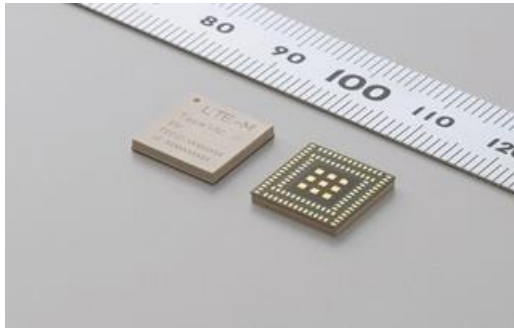- **Additional Info:** LWM2M compatible

Features	Supported	Tested by Swisscom*
eDRX	✓	✗
PSM	✓	✗
CMM	✗	✗
VoLTE	✗	✗

Further Documentation

*Only ticked if Swisscom has successfully completed the test, not all features have been tested.

LBAD0XX1SC

NB-IoT **LTE-M**

Description

- **Dimensions:** 11.1 x 11.4 x 1.4 mm
- **Modem Chip:** ALT1250, Altair Semiconductor
- **Supported Technologies:** NB-IoT, Cat-M1
- **Data:**
    - **NB-IoT:** Max. 27 kbps (DL), Max. 65 kbps (UL)
    - **Cat-M1:** Max. 300 kbps (DL), Max. 365 kbps (UL)
- **Additional Info:** Includes GNSS feature

Features	Supported	Tested by Swisscom*
eDRX	✓	✗
PSM	✓	✗
CMM	✗	✗
VoLTE	✓	✗

Supplier

- **Name:** Murata Manufacturing
- **Origin:** Nagaokakyo, Japan
- **Local distribution:** Arrow, Avnet, Rutronik and more

Contact Supplier

Further Documentation

*Only ticked if Swisscom has successfully completed the test, not all features have been tested.

NB|USB

NB-IoT   **LTE-M**

Description

- **Dimensions:** 26.5 x 22.5 x 2.3 mm
- **Module:** SARA M410M-02B, u-blox
- **MCU Chipset:** ARM A7
- **Supported Technologies:** NB-IoT, Cat-M1
- **Data:**
  - **NB-IoT:** Max. 32 Kbps (DL), Max. 70 Kbps (UL)
  - **Cat-M1:** Max. 375 Kbps (DL), Max. 375 Kbps (UL)
- **Consumption (PSM/Idle/Sleep/Connected@23dBm):**
  - **NB-IoT:** 10μA/15mA/1.96mA/223mA
  - **Cat-M1:** 10μA/15mA/1.5mA/205mA
- **Sensitivity:**
  - **NB-IoT:** -113 dBm
  - **LTE Cat-M1:** -107 dBm

IoT Pre-Qualified
swisscom.ch/IoT

Supplier

- **Name:** exelonix GmbH
- **Origin:** Dresden, Germany

Features	Supported	Tested by Swisscom
eDRX	✓	✓
PSM	✓	✓
CMM	✓	✓
VoLTE	✗	✗

Contact Supplier

Further Documentation

*only ticked if Swisscom has successfully tested the feature

Swisscom IoT

swisscom.ch/iot