



- [HL7845](#)



Air Interface: Cat-M1,Cat-NB2

Region: Europe

HL7845 LPWA Module for the Smart Energy Market in Europe

The most power efficient and secure LTE-M and NB-IoT module that supports the LTE 450MHz bands for IoT smart metering applications.

HL7845 supports 3GPP's Release 14 features to enable faster data speeds and further reduce the power consumption of your solutions. The module also supports both private and public mobile operator bands for flexibility and maximum coverage between the private and public networks. To ease development and reduce certification time for your battery-powered utility smart meters, the HL7845 comes pre-certified with RED and GCF approvals.

When it comes to building critical infrastructure such as smart grids and meters, you want to work with a trusted partner like Sierra Wireless with over 25 years of success and experience in working with top smart meter manufacturers. We are part of the 450MHz Alliance and are highly involved to help build the future in the energy market.

Benefits



LTE 450MHz Bands

Enable utilities to manage their own secure private network to provide wider and deeper coverage



Deep Building Penetration

Improve indoor and underground coverage with class 2 (26 dBm) transmission power



Best-in-class power efficiency

Reduce operational and device maintenance cost of battery powered smart water and gas meters



End-to-End Security

Security keys encrypted are stored in a secure element for an added layer of protection for your solution, from the edge to the cloud



Common Form Factor

Compact CF3® design to migrate between technologies, expand globally, and future-proof product platforms



FOTA Upgrades

FREE firmware over-the-air (FOTA) upgrades future-proof deployments and keep them secure



Location Services

Integrated GNSS receiver enables tracking and location-based services



TCP/IP Stack

Embedded stack to easily communicate over the internet

Technical Specifications

4G LTE

Cat-M1, Cat-NB2

Category

B1, B3, B5, B8, B20, B31, B72, B87, B88

Frequency Bands

DATA SPEED

Cat-M1 590Kbps, Cat-NB2 127Kbps

Peak Download Rate

Peak Upload Rate

Cat-M1 1100Kbps, Cat-NB2 158Kbps

LOCATION SERVICES

Satellite Systems

GPS+Glonass

EMBEDDED SOFTWARE

Firmware

Secure boot, Pre-certified firmware

INTERFACES

UART

1 X 8-wire

USB

1

ADC

2

GPIO

8

Tx ON Indicator

1

SIM interface 1.8V/3V

1

HARDWARE

CF3 Form Factor

LGA

Dimensions

15x18x2.4mm

Temperature Range

Industrial Grade: -40°C / +85°C

APPROVALS

Regulatory

GCF, RED

EMBEDDED SIM

Optional Ready-to-Connect (Sierra Wireless USIM)

CLOUD SERVICES

Free FOTA upgrades, Connectivity Management option, Device Management option

Development Kit



mangOH® Yellow open source reference design is the official development kit for this module, providing a sensor-to-cloud platform with built-in antennas to rapidly prototype ideas and get them to production. Build low-power IoT applications that can run on a battery with mangOH Yellow, which also offers built-in accelerometer, gyroscope, magnetometer, pressure, humidity, acoustic mic, air index quality, temperature, and light sensors, in a compact form factor.

Dev Kit Details