



- HL7812



Air Interface: Cat-M1,Cat-NB2 with 2G fallback  
Region: Global

HL7812 LTE-M and NB-IoT Module for Industrial IoT

### **Global LPWA module with 2G fallback offering ultra low power, small footprint and deep coverage**

For battery-powered or low power deployments, Sierra Wireless' HL7812 module supports 3GPP's Release 14 features and offers best-in-class power consumption, high transmit power and the highest level of security from the edge to the cloud. This ensures field longevity and reduces the risk of your mission critical applications such as asset tracking, smart energy, smart cities and more.

## Benefits



### **Private Networks**

Band 8 with NAD to enable utilities in the US to deploy their own 900MHz private network





### **Deep Building Penetration**

Improve indoor and underground coverage with class 3 (23 dBm) transmission power



### **Best-in-class power efficiency**

Reduce operational and device maintenance cost of battery-powered and low power devices



### **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



### **Ready-to-Connect**

Get instant access to Sierra Wireless Smart Connectivity to reduce total cost of ownership, strengthen end-to-end security, and simplify operations with a single point of accountability and management platform



### **FOTA Upgrades**

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



### **Location Services**

Integrated GNSS receiver with Assisted GNSS enables tracking and location-based services



### **TCP/IP Stack**

Embedded stack to easily communicate over the internet supporting a rich set of protocols including HTTP/S, TCP, UDP, TLS, DTLS

## Technical Specifications

4G LTE

### Category

Cat-M1/NB2

### Frequency Bands

B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66, B85

2G

### GSM, GPRS

850, 900, 1800, 1900

### DATA SPEED

### Peak Download Rate

Cat-M1 590Kbps, Cat-NB2 127Kbps

### 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

**EMBEDDED SIM**

Optional Ready-to-Connect (Sierra Wireless USIM)

**CLOUD SERVICES**

Free FOTA upgrades, Connectivity Management option, Device Management option

**OCTAVE ENABLED**

Variant available with Octave all-in-one edge-to-cloud solution

**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