

# AT&T IoT Starter Kit 2nd generation



## KIT DESCRIPTION

AT&T IoT Starter Kit (2nd Generation) provides an innovative new System-on-Module IoT solution, enabling the design of cellular connected edge devices, certified for operation in the United States. Powered by AT&T IoT services available through Avnet, this kit provides a complete development environment for sensor-to-cloud applications and services.

Designed to be used for both prototyping and production, the slim form-factor LTE system board is fully compliant with FCC, PTCRB, and AT&T network certifications, thereby reducing development risk and speeding IoT deployments. The Starter Kit features a small (79.5 mm x 30 mm) development board built around Wistron NeWeb Corporation (WNC) M18Q2FG-1 LTE Cat-4 modem module. The M18Q2FG-1 module provides cellular modem functionality plus user application code support via a dedicated Arm® Cortex™-A7 processor, thus eliminating the need for an external host processor. A rich set of embedded system peripherals, controllable through the user's application code, are easily accessible through a 60-pin expansion connector or a 2x6 peripheral module header. This enables easy system customization with application specific sensors and I/O interfaces through the addition of user created or off-the-shelf plug-in boards. The development board also includes an ambient light sensor, temperature sensor, and 3-axis accelerometer for out-of-box demonstration examples.

User application code runs directly on the M18Q2FG-1 module, leveraging the OpenEmbedded software framework for Linux application development. A Software Development Kit (SDK) specific to the M18Q2FG-1 module provides the necessary API calls to access hardware peripherals and system resources. Application code built with the SDK is loaded into the M18Q2FG-1 module through a USB interface on the development board, eliminating the need for external proprietary JTAG cables.

AT&T services facilitate Cloud based application development and deployment: M2X - a cloud-based, fully managed IoT device management and time-series data storage service for network connected devices, and Flow Designer - a visual IoT application development and data orchestration environment, with run-time support for complex nonstandard protocol translation, data processing and integrations, to help developers create IoT applications fast.

## FEATURE LIST

### Development Board

- North America SoC Module (M18Q2FG-1)
- Ambient Light Sensor
- Temperature Sensor
- 3-Axis Accelerometer
- USB Interface
- 60-pin Expansion Connector (1.8V levels)
- 2x6 Peripheral Module Connector (3.3V levels)
- Power Regulation

### Pulse Electronics LTE+GNSS and LTE Antenna

- 2G/3G/4G MIMO
- GNSS (GPS, Glonass)
- Two piece, three antenna FPC assembly
- Foldable

### WNC M18Q2FG-1 North America Module

- Global Band Support
- Cat-4 LTE
- 2G/3G Fallback
- GNSS (GPS and GLONASS)
- Based on Qualcomm MDM9207
- Arm Cortex-A7 Quad Core
- Single A7 Core is Dedicated to User Application
- Rich Peripheral Features



## KIT INCLUDES

- LTE Development Board
- LTE and LTE+GNSS Antennas
- SIM Card
- USB Cable
- Power Supply (AC to 5V DC)

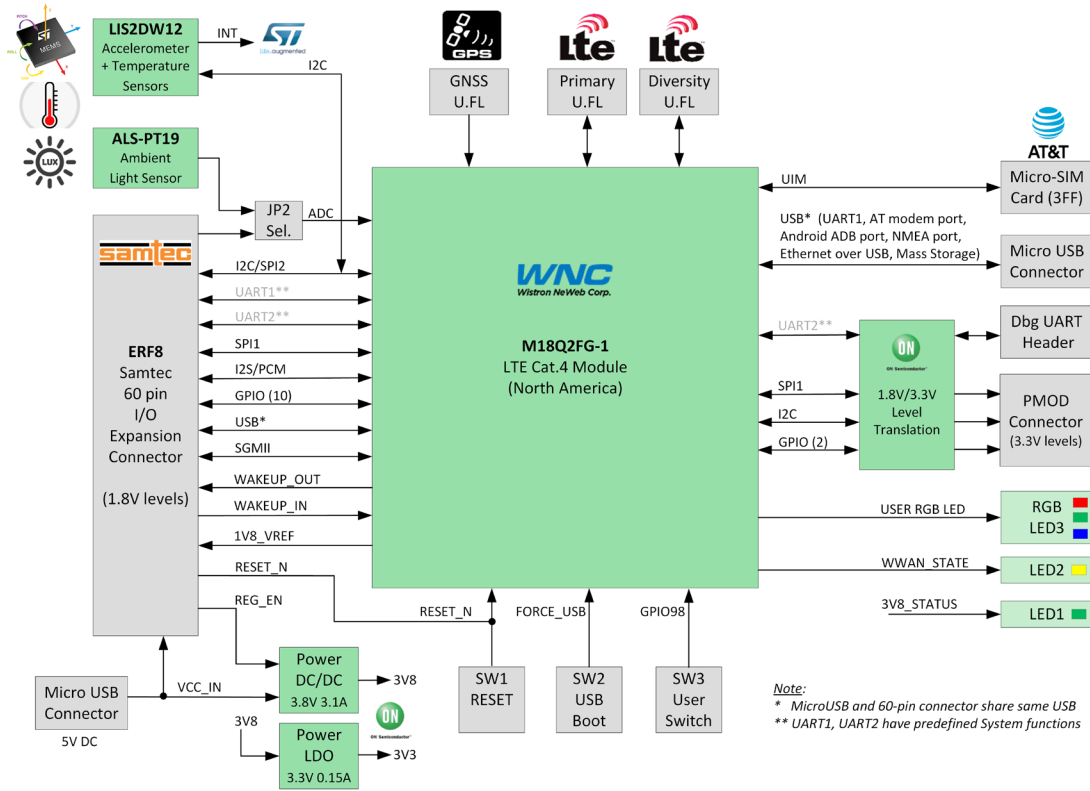
## TARGET APPLICATIONS

- Cellular IoT Devices
- Remote Access
- Smart City
- Smart Agriculture
- Asset Tracking
- Building Automation
- Factory Automation

To purchase this kit, visit

<http://cloudconnectkits.org/product/lte-starter-kit-2>

## BLOCK DIAGRAM



## FEATURED SUPPLIERS



**molex**



**Pulse Electronics**

**samtec**



**WNC**

## PARTS

| Part Number          | Description                           |
|----------------------|---------------------------------------|
| AES-ATT-M18Q2FG-SK-G | AT&T IoT Starter Kit (2nd Generation) |

## RELATED PARTS

| Part Number          | Description  |
|----------------------|--|
| AES-ATT-M18Q2FG-M1-G | North America LTE M18Q2FG-1 Production Board (M1)                                    |
| AES-ATT-M18Q-CAR-G   | LTE IoT Breakout Carrier (Click Module expansion board for system-level prototyping) |
| W3906B0100           | LTE + GNSS Antenna (certified)   |
| W3907B0100           | LTE Antenna (certified)  |
| W6113B0100           | LTE+GNSS MIMO Combo Antenna  |
| ASP-197278-01        | Samtec ERM8 Series Matching Connector (7mm mated connector height)                   |
| ASP-197278-02        | Samtec ERM8 Series Matching Connector (10mm mated connector height)                  |
| ASP-197278-04        | Samtec ERM8 Series Matching Connector (14mm mated connector height)                  |

## CONTACT INFORMATION

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