

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

- 4G LTE Cat-4 (B2/4/5/12) with 3G Fallback
- GNSS (GPS and GLONASS)
- Based on Qualcomm MDM9207
- Arm Cortex-A7 Quad Core
- Single A7 Core is Dedicated to User Application

Additional Enablement

- FCC, PTCRB and AT&T certifications (With Pulse FPC Antennas)
- AT&T Starter SIM Supports 150 MB, 150 SMS Messages
- A "Click Module" Carrier is Available (Separate Purchase)



KIT INCLUDES

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

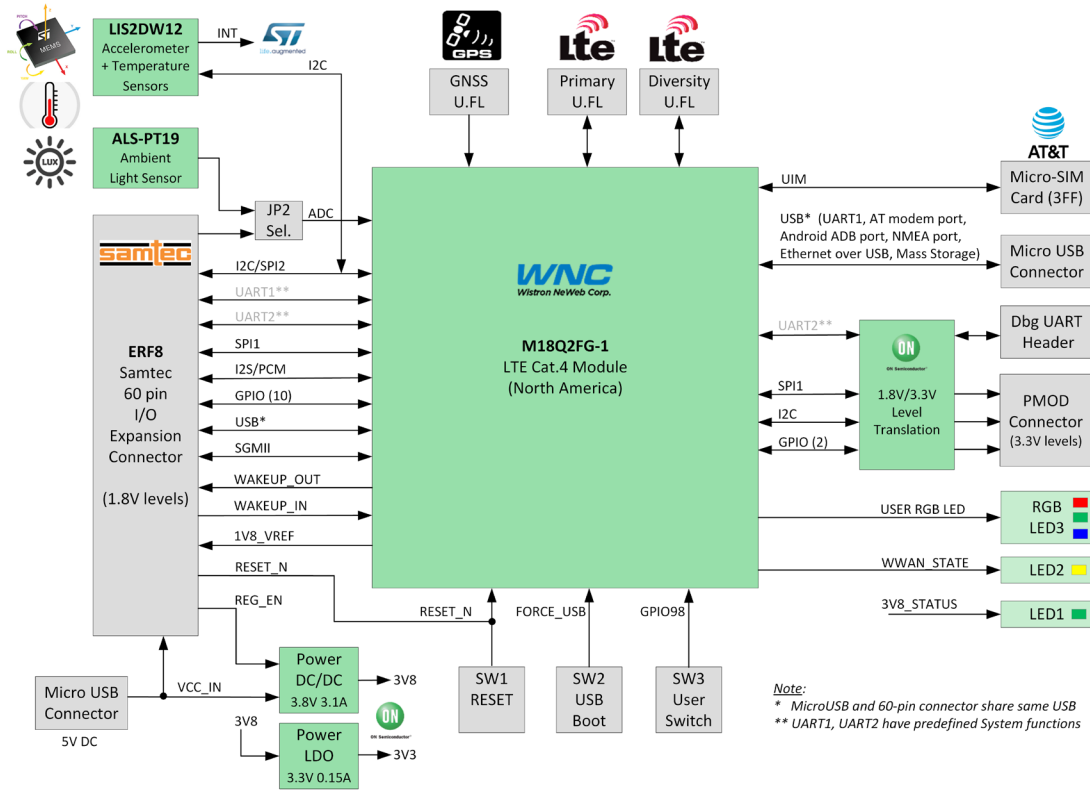
TARGET APPLICATIONS

- 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	Resale
AES-ATT-M18Q2FG-SK-G	AT&T IoT Starter Kit (2nd Generation)	\$109

RELATED PARTS

Part Number	Description	Resale
AES-ATT-M18Q2FG-M1-G	North America LTE M18Q2FG-1 Production Board (M1)	Contact Avnet
AES-ATT-M18Q-CAR-G	LTE IoT Breakout Carrier (Click Module expansion board for system-level prototyping)	\$85
W3906B0100	LTE + GNSS Antenna (certified)	\$2.25
W3907B0100	LTE Antenna (certified)	\$1.70
W6113B0100	LTE+GNSS MIMO Combo Antenna	Contact Avnet
ASP-197278-01	Samtec ERM8 Series Matching Connector (7mm mated connector height)	\$1.35
ASP-197278-02	Samtec ERM8 Series Matching Connector (10mm mated connector height)	\$1.35
ASP-197278-04	Samtec ERM8 Series Matching Connector (14mm mated connector height)	\$1.90

CONTACT INFORMATION

Americas
 2211 South 47th Street
 Phoenix, Arizona 85034
 United States of America
 eval.kits@avnet.com
 1-800-585-1602