

Global LTE IoT Starter Kit



KIT DESCRIPTION

Avnet's Global LTE IoT Starter Kit targets designers interested in creating cellular connected IoT edge devices that can operate in multiple countries around the world. Powered by AT&T IoT services available through Avnet, the kit provides a complete development environment for sensor to cloud applications and services. To speed transition from prototyping to production, the fully certified development board included in the kit can be purchased in volume quantities, accelerating IoT deployment efforts and reducing risk.

The Starter Kit features a small (79.5 mm x 30 mm) development board built around a Wistron NeWeb Corporation (WNC) M18QWG global LTE Cat-4 modem module. The M18QWG module provides cellular modem functionality plus user application support, thus eliminating the need for an external host processor. A rich set of system peripherals, controllable through the user's application code, are easily accessible through a 60-pin expansion connector or a 2x6 peripheral module. This enables easy customization with application specific sensors and I/O interfaces through the addition of user create 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 that runs on the M18QWG module is developed using the Open Embedded Linux environment. A Software Development Kit (SDK) specific to the M18QWG module provides the necessary API calls within the Open Embedded framework. Once the application code is complete, it is loaded into the M18QWG module through a USB interface on the development board, eliminating the need for external proprietary JTAG cables.

Cloud application development is supported by AT&T's M2X Data Services and Flow Designer. M2X is a cloud-based, fully managed data storage service for connected machine-to-machine (M2M) devices, while Flow Designer is a visual IoT application development environment designed to help IoT developers create applications faster.

FEATURE LIST

Development Board

- Global SoC Module (M18QWG)
- Ambient Light Sensor
- Temperature Sensor
- 3-Axis Accelerometer
- USB Interface
- 60-pin Expansion Connector (1.8V levels)
- 2x6-pin Peripheral Module Connector (3.3V levels)
- Power Regulation

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

Pulse Electronics LTE+GNSS and LTE Antenna

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



KIT INCLUDES

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

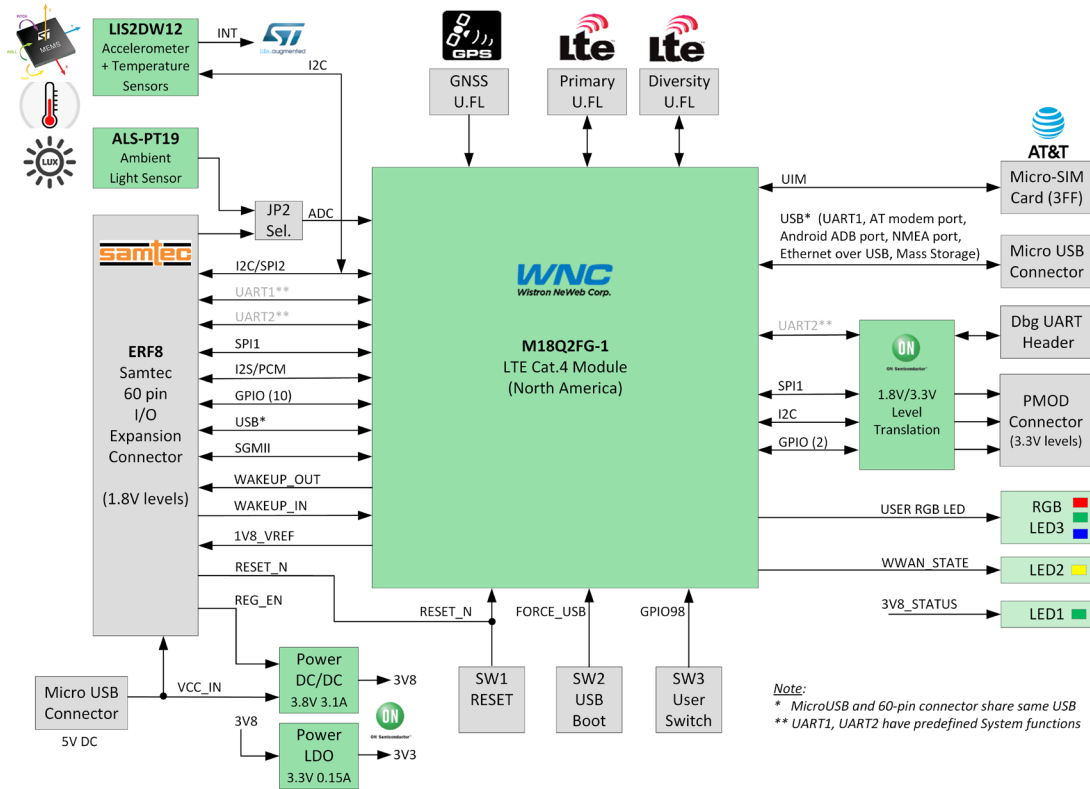
TARGET APPLICATIONS

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

To purchase this kit, visit

www.cloudconnectkits.org/product/global-lte-starter-kit

BLOCK DIAGRAM



FEATURED SUPPLIERS



PARTS

Part Number	Description	Resale
AES-ATT-M18QWG-SK-G	Global LTE IoT Starter Kit	\$139

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

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