

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.

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

- 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 M18QWG Global Module

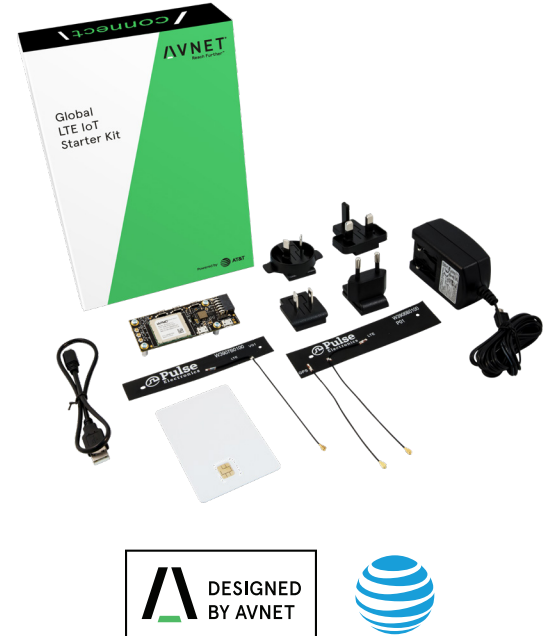
- Global Band Support
- Cat-4 LTE
- 2G/3G Fallback
- GNSS (GPS and GLONASS)
- Based on Qualcomm MDM9207
- Arm® Cortex®-A7 Quad Core
- Single A7 Core is Dedicated to User Application
- Rich Peripheral Features

Pulse Electronics LTE+GNSS and LTE Antenna

- Cellular 2G/3G/4G (MIMO) and GNSS (GPS/Glonass)
- Two Piece, Foldable FPC Three Antenna Assembly

Additional Enablement

- CE RED Certification (With the Supplied Pulse Antennas)
- SIM Supports 100K M2X Data Points, 200 SMS Messages
- High Quality AC/DC 5V Power Supply Included
- A "Click Module" Carrier is Available (Separate Purchase)



KIT INCLUDES

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

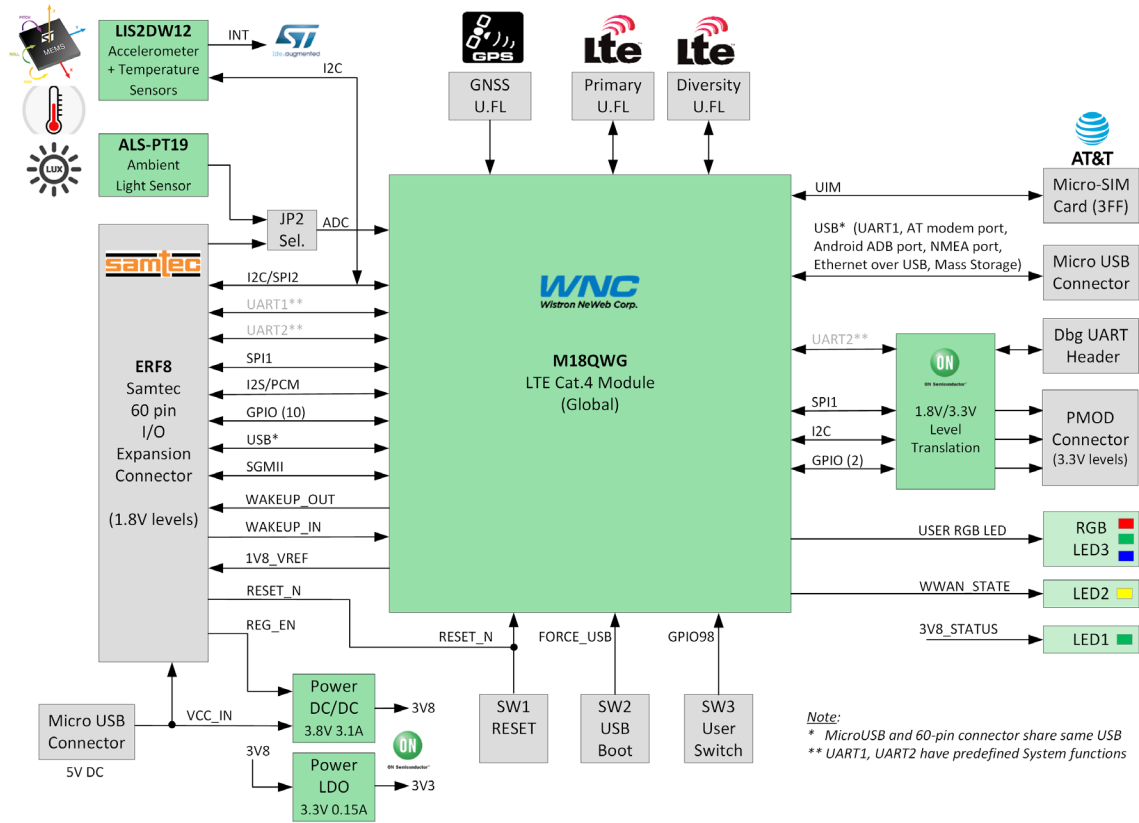
TARGET APPLICATIONS

- 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



molex



Pulse Electronics

samtec



WNC

PARTS

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

RELATED PARTS

Part Number	Description	Resale
AES-ATT-M18QWG-M1-G	Global LTE M18QWG Production Board (M1)	\$99
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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