

## Multi-Purpose IOT Gateway (MIG)



### PRODUCT DESCRIPTION

The Multi-Purpose IOT Gateway (MIG) is an Open Embedded Linux application environment which enables application developers to easily meet the demands of modern Internet of Things [IoT] connected products. MIG can be used 'as is' or enhanced with new applications developed for the hardware platform using the developer SDK (Software Development Kit). The wireless, security, protocol, network connection, and over-the-air reflashing are bundled, abstracted and enabled for IoT developers to connect products without expending significant effort to learn and code these solutions.



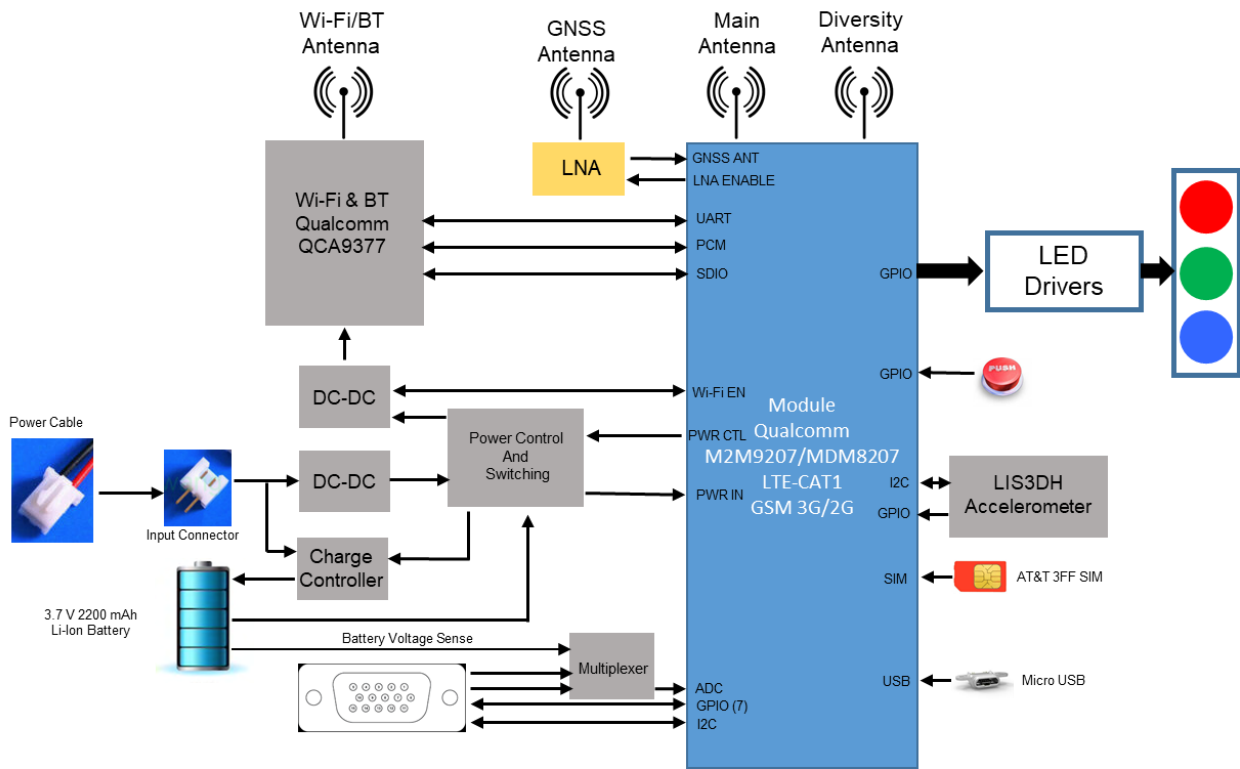
MIG is an advanced tracking and monitoring device with built-in GPS and Wi-Fi to provide accurate location for outdoor and indoor applications. It can support many different types of analog and digital sensors both wired and wirelessly via integrated BLE. MIG also can monitor the status of assets to include temperature, location, movement as well as many other parameters depending on the wired or wireless sensors to which it is connected.

The architecture uses a Qualcomm 9207 chipset which allows for non-licensee access to the application environment. Using this Qualcomm environment along with the SDK, a user can build an application, compile it, and run it within the module minimizing the hardware needed to complete a simple IoT device. The MIG exposes the Qualcomm CIoT SDK to the non-licensed user to allow application development to be rapid and flexible. The SDK gives the ability to control GPIO, SPI, I2C, UART, and ADC peripherals on the module allowing a user to leverage these peripherals for their own use.

### FEATURE LIST

<ul style="list-style-type: none"><li>▪ LTE CAT 1/3G module – based on Qualcomm MDM9207<ul style="list-style-type: none"><li>-Domestic US Version: LTE CAT1: B2/4/5/12 3G: B2/5</li><li>-International Version: 3G: B1/2/5/8, 2G GSM: 850, 900, 1800, 1900</li></ul></li><li>▪ 7 GPIO lines that can be configured as input, output or both.</li><li>▪ I2C Bus – inter-integrated circuit bus.</li><li>▪ GNSS – GPS and GLONASS with Assisted GPS</li><li>▪ Bluetooth 5.0 – based on Qualcomm QCA9377</li><li>▪ Accelerometer – STM LIS3DH<ul style="list-style-type: none"><li>-External accelerometer on I2C bus [STM LIS3DH and/or ADXL345]</li><li>-Up to 2000 samples per second – three axis</li></ul></li></ul>	<ul style="list-style-type: none"><li>▪ External analog or digital temperature sensors<ul style="list-style-type: none"><li>-Internal digital temperature sensor</li><li>-External Temperature/ Pressure/ Humidity Sensor [BME280] supported on I2C bus</li></ul></li><li>▪ ADC (analog to digital converter)</li><li>▪ 3 inputs – Battery voltage &amp; 2 external inputs</li><li>▪ WiFi – based on Qualcomm QCA9377</li><li>▪ Battery – 3.6V/2200 mAh battery</li><li>▪ USB 2.0 slave – for development and local access only</li><li>▪ Onboard Antennas for Cellular, Wi-Fi, Bluetooth and GPS</li><li>▪ Operational Temperature: Industrial Operating Range, -20°C to +80°C</li></ul>
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## BLOCK DIAGRAM



## CONTACT INFORMATION

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