LTEm1
Embedded LTE Cellular Modem

Get ready for rapid development. LooUQ's Circuit River LTEM1 modem enables rapid IoT device design, development and deployment due to the LTEM1's network carrier compatibility and approvals. Your device is ready when you are, requiring no additional network certification testing. LooUQ has done the work to enable your project to reach market opportunities as they appear. The LTEm1 offers everything you need for remote sensing and control applications: small size, low power, easy host connectivity and cloud platform compatibility.
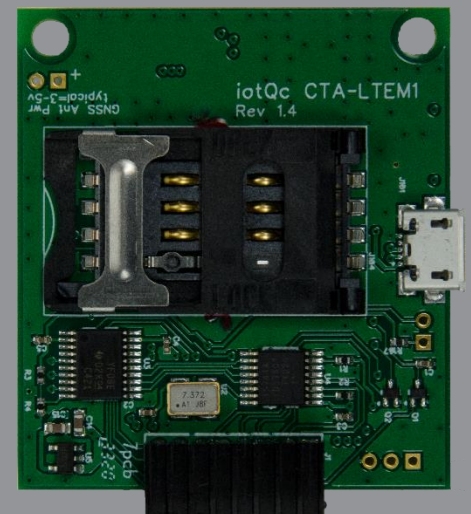
Part Number: **CR-LTEM1**

Features

- Approved on the Verizon and T-Mobile networks
- Tested with Hologram, EMnify and other MVNOs
- Small size, 48mm x 40mm x 8mm
- Low-power, battery centric design
- TCP/IP functionality support TCP/UDP/SSL/HTTP/MQTT
- SSL/TLS support for TCP/HTTP/MQTT
- Integrated GNSS receiver (standalone and assisted)
- SPI host interface
- USB for AT commands, firmware updates and diagnostics
- File system available for application storage
- Powered by the industry recognized Quectel BG96 module
- FOTA, Firmware-Over-the-Air upgrade support
- Cross-industry applicability
- For anywhere, anytime communications

Benefits

- Works seamlessly with popular IoT development boards
- Open-sourced C99 driver supports rich abstraction for TCP/IP
- Secure communications with industry standard encryption
- Field serviceable OTA updates
- Fully integrated with LooUQ Cloud
- Easily integrates with major cloud platforms

Specifications

Physical
- 45mm x 40mm x 9.15mm board
- 48mm x 40mm overall with host connector.
- Detailed dimension information is available in the LooUQ Answers Center (answers.LooUQ.com)

Power
- Supply voltage 3.7-volts nominal (3.6v min, 4.3v max)
- Consumption @ LTE Cat M1 (typical)
  - Power Saving Mode: 10uA
  - LTE Connected Mode (average)
    - 124mA @ 0dBM
    - 130mA @ 10dBM
    - 190mA @ 23dBM

Communications
- LTE CAT-M1 and NB-IOT
- 300 Kbps (uplink) 375 Kbps (downlink)
- SPI host interface for efficient communications
- USB interface for AT, updates, NMEA sentences and diagnostics
- Antenna connections (U.FL/IPEX)
  - Main cellular, GNSS passive or active (3v - 5v)
  - GNSS power injection header for active GNSS antenna
- UART output of GNSS NMEA sentences

Approvals
- Quectel BG96 module FCC approved (XMR201707NG96)
- Verizon OD certified
- T-Mobile Registered

Support
LTEM1 support is available 7x24 via our online LooUQ Answers Center. Priority support is optionally available. LooUQ also offers data plans and LooUQ Cloud platform integrated service plans. Please contact us of more information.

Circuit River

Contact LooUQ's Product Team
231/237-8860

Find Us Online
www.LooUQ.com

More Information
answers.LooUQ.com

https://github.com/LooUQ/CircuitRiver-LTEm1c