

## OAMIROMIA EG800K-EU

# OAMIROMIA Quectel EG800K-EU LTE Cat.1 4G Module Instruction Manual

Model: EG800K-EU

## 1. INTRODUCTION AND OVERVIEW

This manual provides essential instructions for the proper installation, operation, and maintenance of the OAMIROMIA Quectel EG800K-EU LTE Cat.1 4G Module. The EG800K-EU is a high-performance, cost-effective LTE Cat.1 module designed for IoT and M2M applications, offering a maximum downlink rate of 10 Mbps and uplink rate of 5 Mbps. It supports various network bands for the European region, ensuring reliable connectivity.

Understanding the module's capabilities and following these guidelines will ensure optimal performance and longevity.



Figure 1: The Quectel EG800K-EU LTE Cat.1 4G Module. This image displays the compact form factor of the module, featuring its model number, serial number, IMEI, and a QR code for identification.

## 2. SAFETY INFORMATION

Please read and understand all safety precautions before handling or operating the module. Failure to comply with these instructions may result in damage to the product, personal injury, or property damage.

- **Electrostatic Discharge (ESD) Precautions:** This module is an ESD-sensitive device. Always handle it in an ESD-protected environment, using anti-static wrist straps and mats.
- **Power Supply:** Ensure the power supply voltage and current ratings match the module's requirements. Incorrect power can cause permanent damage.
- **Operating Environment:** Avoid exposing the module to extreme temperatures, humidity, dust, or corrosive substances.
- **Antenna Connection:** Connect the antenna properly before powering on the module to prevent damage to the RF circuitry.
- **Professional Installation:** Installation and integration of this module should be performed by qualified personnel with experience in electronic components and RF systems.

### 3. PRODUCT SPECIFICATIONS

The following table outlines the key specifications of the Quectel EG800K-EU module:

Feature	Description
Model	EG800K-EU
Technology	LTE Cat.1
Region	Europe
Max Downlink Speed	10 Mbps
Max Uplink Speed	5 Mbps
Form Factor	LCC Package
Manufacturer	OAMIROMIA (Module by Quectel)
ASIN	<a href="#">B0F4X7VHSQ</a>

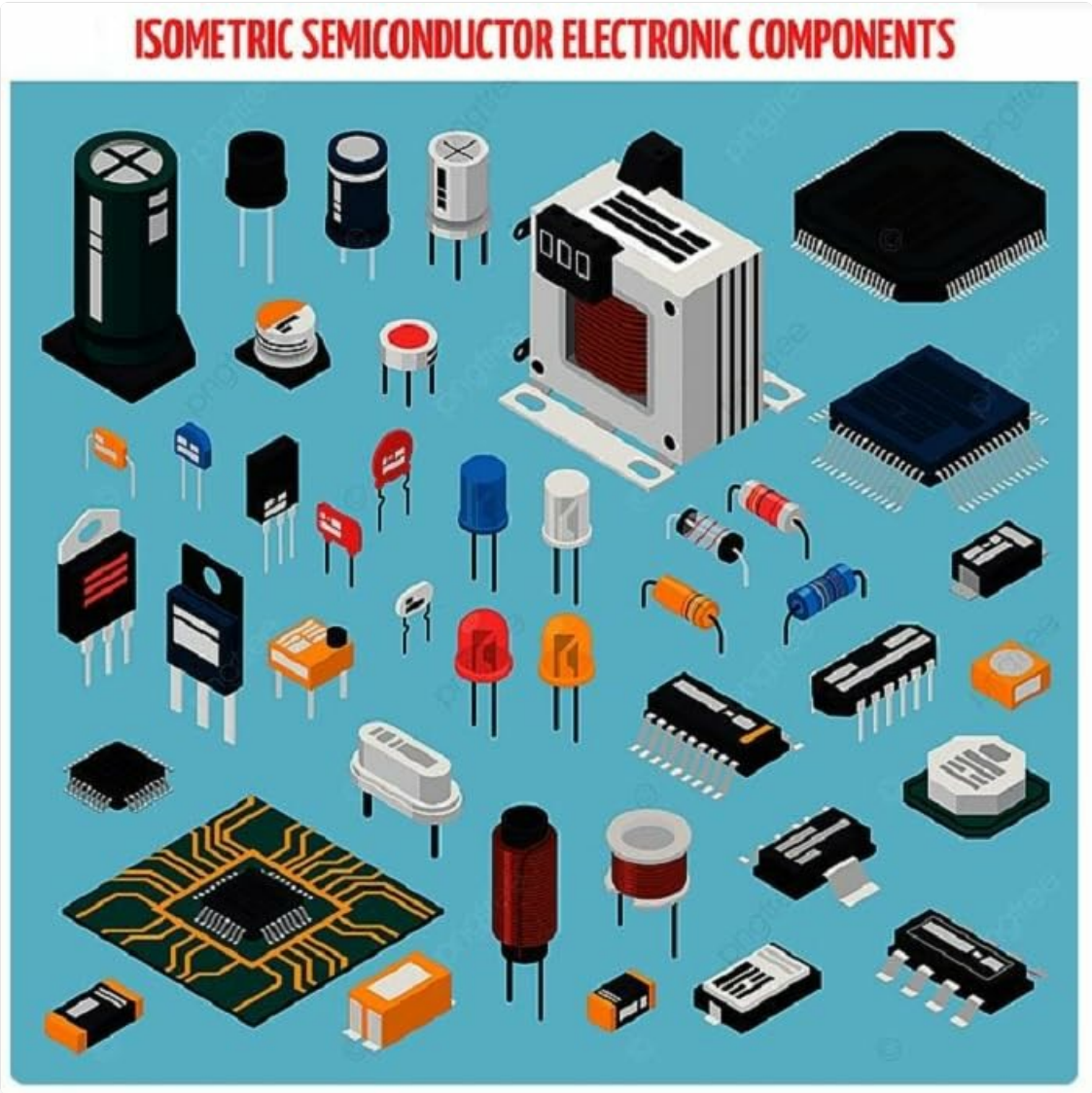


Figure 2: An illustration of various semiconductor electronic components. This image provides a visual representation of the

## 4. SETUP AND INSTALLATION

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Proper setup is crucial for the functionality of the EG800K-EU module. This section outlines general steps for integration. Refer to the detailed hardware design guide from Quectel for specific pinout and circuit recommendations.

1. **Prepare the Host Board:** Design or prepare a host PCB that provides the necessary power supply, data interfaces (e.g., UART, USB), and SIM card slot for the EG800K-EU module.
2. **Module Placement:** Carefully place the EG800K-EU module onto the designated LCC pads on the host board. Ensure correct orientation.
3. **Soldering:** Solder the module to the host board using appropriate soldering techniques (e.g., reflow soldering). Ensure all pins make proper contact.
4. **Antenna Connection:** Connect a compatible LTE antenna to the module's RF connector. Ensure the antenna is rated for the operating frequencies of the EG800K-EU.
5. **SIM Card Insertion:** Insert a valid and activated 4G LTE SIM card into the SIM card slot on the host board.
6. **Power Supply Connection:** Connect the regulated power supply to the host board. Verify the voltage is within the module's specified operating range.
7. **Initial Power-Up:** Power on the host board. Observe the module's status indicators (if available on your host board) to confirm proper initialization.



Figure 3: A collection of various electronic components such as resistors, capacitors, and integrated circuits. This image represents the diverse parts that may be used in conjunction with the EG800K-EU module on a larger electronic assembly.

## 5. OPERATING PRINCIPLES

The Quectel EG800K-EU module operates as a cellular modem, enabling devices to communicate over LTE Cat.1 networks. Its primary function is to establish and maintain data connections.

- **Communication Interface:** The module typically communicates with a host microcontroller or processor via serial interfaces such as UART or USB.
- **AT Commands:** Control and configuration of the module are primarily achieved using standard AT commands. These commands allow for tasks such as network registration, data connection management, SMS, and module status queries. Refer to the Quectel AT Commands Manual for a comprehensive list and usage details.
- **Network Registration:** Upon power-up, the module will attempt to register with an available LTE network using the inserted SIM card. Successful registration is indicated by specific status messages or LED patterns on the host board.
- **Data Transmission:** Once registered, the module can establish data connections (e.g., TCP/IP, UDP) to send and receive data over the cellular network.

## 6. MAINTENANCE

The EG800K-EU module is designed for long-term reliability with minimal maintenance. However, adhering to the following guidelines can help ensure its continued performance:

- **Environmental Control:** Maintain the operating environment within specified temperature and humidity ranges. Avoid condensation.
- **Cleaning:** If necessary, gently clean the module and surrounding components with a soft, dry, anti-static brush or cloth. Do not use liquid cleaners or solvents.
- **Firmware Updates:** Periodically check the Quectel website for firmware updates. Apply updates as recommended by the manufacturer to improve performance, add features, or address security vulnerabilities. Follow the provided update procedures carefully.
- **Inspection:** Periodically inspect the module and its connections for any signs of physical damage, corrosion, or loose connections.

## 7. TROUBLESHOOTING

This section provides solutions to common issues encountered with the EG800K-EU module.

Problem	Possible Cause	Solution
Module not powering on	Incorrect power supply voltage; loose power connection; module damage.	Verify power supply voltage and current. Check all power connections. Inspect module for physical damage.
Cannot register to network	No SIM card; invalid SIM card; poor network coverage; antenna not connected or faulty.	Ensure SIM card is inserted correctly and activated. Check network coverage in the area. Verify antenna connection and integrity. Try a different SIM card.
Data connection unstable or slow	Weak signal strength; network congestion; antenna issues; incorrect APN settings.	Relocate the device for better signal. Check antenna connection. Verify APN settings with your network provider.
Module not responding to AT commands	Incorrect serial port settings (baud rate, parity); faulty serial connection; module not initialized.	Verify serial port settings. Check wiring between host and module. Ensure module has completed power-up sequence.

## 8. WARRANTY AND SUPPORT

Information regarding specific warranty terms for the OAMIROMIA Quectel EG800K-EU module is not provided in the product details. For warranty claims or technical support, please contact your point of purchase or the manufacturer, OAMIROMIA, directly. It is recommended to retain your purchase receipt for any warranty-related inquiries.

For detailed technical documentation, including hardware design guides, AT command manuals, and software development kits (SDKs) for the Quectel EG800K-EU, please refer to the official Quectel website or contact Quectel technical support.

## 9. MANUFACTURER INFORMATION

**Brand:** OAMIROMIA

**Manufacturer:** OAMIROMIA

**Date First Available:** July 29, 2025

For further inquiries, please refer to the product listing on Amazon:[B0F4X7VHSQ](#)

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