

INDUSTRIAL PRODUCT DATASHEET

# LTE Cat 4 EC25-EFA-mini-PCle

The LTE Cat 4 EC25-EFA-mini-PCle is a plug-and-play 4G module with multi-GNSS and ultra-low power consumption for industrial and smart IoT applications.

SKU

113991214

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PRICE

\$62.90(Excl. VAT)



# Overview

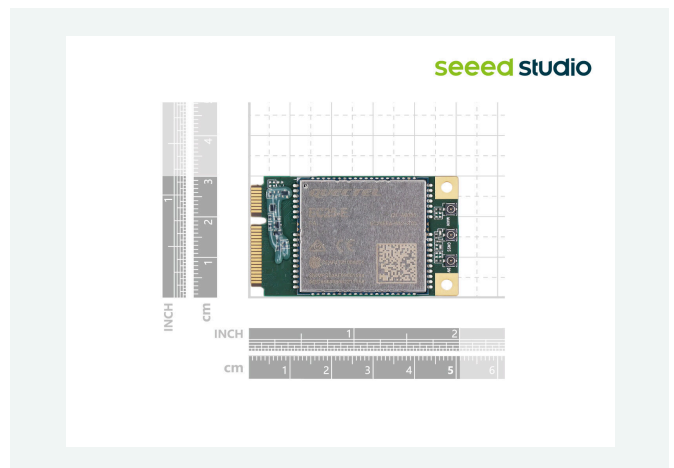


The LTE Cat 4 EC25-EFA-mini-PCle is a plug-and-play wireless communication module supporting 2G, 3G, and 4G networks with broad compatibility for EMEA, Korea, Thailand, and India operators. It integrates multi-GNSS (GPS/GLONASS/BDS/Galileo/QZSS) and offers low power consumption with sleep mode at 1.67 mA, targeting applications such as industrial routers, smart homes, and personal tracking.

# Key Features

- **Plug-and-play LTE Cat 4 wireless communication module:** Support 2G/3G/4G communication, mounted with standard mini PCIe, ready to use
- **Broad network Compatibility and Applicability:** Supports various mobile communication network technologies, including LTE-FDD, WCDMA
- **Built-in multiple GNSS:** Includes GPS/GLONASS/BDS/Galileo/QZSS. Satisfies the need for fast and accurate positioning in different environmental conditions.
- **Low Power Consumption:** The power consumption of the sleep model is as low as 1.67 mA, and Idle power consumption as low as 18.51 mA
- **Support EMEA/Korea/Thailand/India Operators**

# Product Gallery



## Specification

| Specification               | Value                                                                                                                                                                                                                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cellular technology         | LTE Cat 4                                                                                                                                                                                                                                                                                                       |
| Region/Carrier              | EMEA/Korea/Thailand/India operators                                                                                                                                                                                                                                                                             |
| Size                        | 30.0 x 51.0 x 4.9 mm                                                                                                                                                                                                                                                                                            |
| Temperature range           | <ul style="list-style-type: none"> <li>● 35°C to +75°C (operating)</li> <li>● 40°C to +80°C (extended)</li> </ul>                                                                                                                                                                                               |
| Frequency band Information  | LTE-FDD: B1/3/5/7/8/20<br>LTE-TDD: B38/40/41<br>WCDMA: B1/5/8<br>GSM/EDGE: B3/8                                                                                                                                                                                                                                 |
| GNSS support                | GPS/GLONASS/BDS/Galileo/QZSS (optional)                                                                                                                                                                                                                                                                         |
| Carrier Certification       | Europe: Vodafone/Deutsche Telekom/<br>British Telecom/Telefónica<br>Korea: SKT/LGU+                                                                                                                                                                                                                             |
| Compulsory Authentication   | Global: GCF<br>Europe: CE<br>UK: UKCA<br>Korea: KC<br>Taiwan, China: NCC<br>Australia/New Zealand: RCM<br>Thailand: NBTC                                                                                                                                                                                        |
| Other Certification         | RoHS/WHQL                                                                                                                                                                                                                                                                                                       |
| Data rates                  | LTE-FDD (Mbps): 150 Mbps (downlink) / 50 Mbps (uplink)<br>LTE-TDD (Mbps): 130 Mbps (downlink) / 30 Mbps (uplink)<br>DC-HSPA+: 42 Mbps (downlink) / 5.76 Mbps (uplink)<br>WCDMA: 384 kbps (downlink/uplink)<br>EDGE: 296 Mbps (downlink) / 236.8 Mbps (uplink)<br>GPRS: 107 Mbps (downlink) / 85.6 Mbps (uplink) |
| Voice codecs                | HR/FR/EFR/AMR/AMR-WB                                                                                                                                                                                                                                                                                            |
| Echo algorithm              | Echo cancellation/noise suppression                                                                                                                                                                                                                                                                             |
| Voice services              | Digital voice, VoLTE                                                                                                                                                                                                                                                                                            |
| USB to serial port driver   | Windows 7/8/8.1/10/11, Linux 2.6~5.18, Android 4.x/12.x                                                                                                                                                                                                                                                         |
| GNSS and RIL driver         | Android 4.x~12.x                                                                                                                                                                                                                                                                                                |
| USB NDIS driver             | Windows 7/8/8.1/10/11                                                                                                                                                                                                                                                                                           |
| USB MBIM Driver             | Windows 8/8.1/10/11, Linux 3.18~5.18                                                                                                                                                                                                                                                                            |
| USB GobiNet Driver          | Linux 2.6~5.18                                                                                                                                                                                                                                                                                                  |
| USB QMI_WWAN Driver         | Linux 3.4~5.18                                                                                                                                                                                                                                                                                                  |
| Power supply voltage        | 3.0~3.6V, typical value 3.3V                                                                                                                                                                                                                                                                                    |
| Power consumption (typical) | 3.9 mA (sleep), 30 mA (idle)                                                                                                                                                                                                                                                                                    |

| Interface           | Quantity |
|---------------------|----------|
| (U)SIM              | 1        |
| USB 2.0             | 1        |
| Digital audio (PCM) | 1        |
| I2C                 | 1        |
| LED_WWAN#           | 1        |
| W_DISABLE#          | 1        |
| UART                | 1        |
| PERST#              | 1        |

# Applications

- Industrial Router
- Smart Home
- Industrial Automation
- Green Energy
- Smart security
- Mobile gateway
- Personal tracking
- Environmental monitoring

## Part List

|                               |     |
|-------------------------------|-----|
| LTE Cat 4 EC25-EMGA-mini-PCle | x 1 |
|-------------------------------|-----|

## Compliance & Logistics

|          |            |
|----------|------------|
| HSCODE   | 8517799000 |
| USHSCODE | 8517620090 |
| UPC      |            |
| EUHSCODE | 8517180000 |
| COO      | CHINA      |

## Resource Links

- <https://www.seeedstudio.com/LTE-Cat-4-EC25-EFA-mini-PCle-p-5824.html>

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