EG-12 LTE-A Module





Key Features

- Worldwide 4G LTE-ADVANCED Category 12
- TDD-LTE CBRS Band 48, Band 42 and Band 43
- FCC Part 96 Certified
- Supports DFOTA and DTMF
- Supports DL 3CA/256 QAM, UL 2CA/64 QAM
- 2x2 MIMO & 4x4 MIMO
- USB 2.0/3.0, supports master and slave modes

The EG12 is an LTE-A Cat 12 module in an LGA form factor, which meets the 3GPP Release 12 standard. Delivering maximum downlink rates of 600 Mbps and uplink rates of 25 Mbps under LTE, the EG12 supports a range of applications that require fast and reliable transmission of large amounts of data, and multiple-input multiple-output (MIMO) technology meets demands for data rate and link reliability. The series consists of three variants to meet various geographical demands, which can be compared via the table above.

A wide range of internet protocols, industry-standard interfaces and functionalities allow the module to serve a wide range of IoT applications with demanding data transmission requirements.











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Features & Specifications

Form Factor	LGA
Dimensions (mm)	$37.0 \times 39.5 \times 2.8$
4G	LTE Cat 12
Frequency Bands (MHz)	LTE-TDD: B42/43/48
Weight (approx.) g	9
Operating Temperature	-30°C ~ +75°C
Extended Temperature	-40°C ~ +85°C
Control via AT Commands	Commands
Data Transmission	
LTE	LTE-TDD: Max. 600 Mbps (DL)/ Max. 25 Mbps(UL)
SMS	•
Protocols	TCP/UDP/FTP/HTTP/HTTPS/PING/SMS
Interfaces	
USB	2.0/3.0, Slave Mode
PCM	•
PCM I2C	• ×1
I2C	×1
I2C (U)SIM	× 1 × 2, 1.8 V/ 3.0 V
I2C (U)SIM eSIM	× 1 × 2, 1.8 V/ 3.0 V
I2C (U)SIM eSIM GPIO	×1 ×2,1.8 V/3.0 V / ×2
I2C (U)SIM eSIM GPIO UART	× 1 × 2, 1.8 V/ 3.0 V / × 2 × 3
I2C (U)SIM eSIM GPIO UART ADC	× 1 × 2, 1.8 V/ 3.0 V / × 2 × 3 × 2
I2C (U)SIM eSIM GPIO UART ADC SPI	× 1 × 2, 1.8 V/ 3.0 V / × 2 × 3 × 2 × 1 (Optional)
I2C (U)SIM eSIM GPIO UART ADC SPI SD Card	× 1 × 2, 1.8 V/ 3.0 V / × 2 × 3 × 2 × 1 (Optional)
I2C (U)SIM eSIM GPIO UART ADC SPI SD Card RESET_N	× 1 × 2, 1.8 V/ 3.0 V / × 2 × 3 × 2 × 1 (Optional)
I2C (U)SIM eSIM GPIO UART ADC SPI SD Card RESET_N PCIe	× 1 × 2, 1.8 V/ 3.0 V / × 2 × 3 × 2 × 1 (Optional) Optional

Enhanced Features	
MIMO	2×2 , 4×2 , 4×4 , DL
eCall	•
Voice	Optional
DTMF	Dual-tone Multi-frequency
DFOTA	Delta Firmware over the Air
GNSS	GPS/GLONASS/BeiDou/Galileo/QZSS
(U)SIM Card Detection	•
Electrical Features	
Supply Voltage Range	3.3~4.3 V, typ. 3.8 V
Power Consumption	20 μA @Power off 1.83 mA @Sleep, Typ. 9.41 mA @Idle
Software Features	
Software Features USB Serial Driver	Windows: 7/8/8.1/10, Linux: 2.6/3.x/4.x/5.x, Android 4.x/5.x/6.x/7.x/8.x/9.x
	Linux: 2.6/3.x/4.x/5.x,
USB Serial Driver	Linux: 2.6/3.x/4.x/5.x/ Android 4.x/5.x/6.x/7.x/8.x/9.x
USB Serial Driver GNSS Driver	Linux: 2.6/3.x/4.x/5.x/, Android 4.x/5.x/6.x/7.x/8.x/9.x
USB Serial Driver GNSS Driver RIL Driver	Linux: 2.6/3.x/4.x/5.x/, Android 4.x/5.x/6.x/7.x/8.x/9.x / Android 4.x/5.x/6.x/7.x/8.x/9.x
USB Serial Driver GNSS Driver RIL Driver NDIS Driver	Linux: 2.6/3.x/4.x/5.x/, Android 4.x/5.x/6.x/7.x/8.x/9.x / Android 4.x/5.x/6.x/7.x/8.x/9.x Windows: 7/8/8.1/10
USB Serial Driver GNSS Driver RIL Driver NDIS Driver MBIM Driver	Linux: 2.6/3.x/4.x/5.x/, Android 4.x/5.x/6.x/7.x/8.x/9.x / Android 4.x/5.x/6.x/7.x/8.x/9.x Windows: 7/8/8.1/10 /
USB Serial Driver GNSS Driver RIL Driver NDIS Driver MBIM Driver Gobinet Driver	Linux: 2.6/3.x/4.x/5.x, Android 4.x/5.x/6.x/7.x/8.x/9.x / Android 4.x/5.x/6.x/7.x/8.x/9.x Windows: 7/8/8.1/10 / Linux 2.6/3.x/4.x/5.x



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