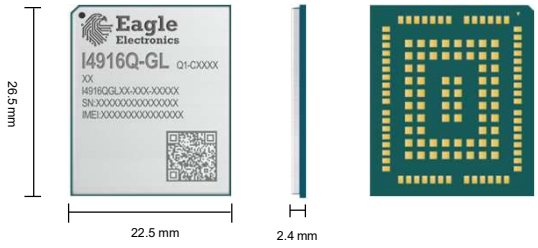
Eagle I4916Q

IoT/M2M-optimized LTE Cat 1.bis Module



Eagle I4916Q is an LTE Cat 1 bis module optimized specially for M2M and IoT applications. Adopting the 3GPP Rel-14 LTE technology, it delivers maximum data rates up to 10 Mbps downlink and 5 Mbps uplink. Designed in a compact and unified form factor, I4916Q is compatible with Eagle LPWA I490 series modules, LTE Standard I491 series modules, and I4915Q series of modules.

A rich set of internet protocols, industry standard interfaces and abundant functionalities (USB serial drivers for Windows 8.1/ 10/ 11, Linux, and Android) extend the applicability of the modules to a wide range of M2M and IoT applications, such as asset management, commercial telematics, payment, RMAC (Remote Monitoring and Control applications), smart safety and automation, smart metering and smart grid.

Key Features

- LTE network coverage
- Supports DFOTA
- Main antenna and GNSS antenna (Optional)
- LTE module in compact size
- Supports Wi-Fi Scan

LTE Cat 1 bis
Max. 10 Mbps (DL)
Max. 5 Mbps (UL)

Compact Size

LGA Package

Embedded Abundant Protocols

DFOTA

Enhanced AT Commands

USB 2.0 High Speed Interface

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Eagle I4916Q

LTE Cat 1 bis	I4915Q-GL	
Region/Operator	Global	
Dimensions (mm)	26.5 x 22.5 x 2.4	
Weight (g)	Approx. 2.9	
Temperature Range		
Operating Temperature	-35 °C to +75 °C	
Extended Temperature	-40 °C to +85 °C	
Frequency Bands		
LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 18/ 19/ 20/ 25/ 26/ 28/ 66	
LTE-TDD	B34/ 38/ 39/ 40/ 41	
GNSS (Optional)	GPS/GLONASS/BDS/Galileo/QZSS	
Certifications		
Carrier	**America**: Verizon/AT&T/T-Mobile*	
Regulatory	**Global**: GCF **North America**: PTCRB **America**: FCC **Canada**: IC **Japan**: JATE/ TELEC	**UK:** UKCA* **Brazil:** Anatel **China:** SRRC*/ NAL*/ CCC **Korea: KC** **Australia/ New Zealand:** RCM
Others	WHQL	WHQL
Max. Data Rates		
LTE (Mbps)	**FDD:** 10 (DL)/ 5 (UL)	**TDD:** 8.96 (DL)/ 3.1 (UL)
Interfaces		
(U)SIM①	× 2 (1.8/ 3.0 V)	× 2 (1.8/ 3.0 V)
UART	× 4 (Main, Debug, GNSS and GNSS debug UART)	× 4 (Main, Debug, GNSS and GNSS debug UART)
USB 2.0	× 1	× 1
REST_N	× 1	× 1
PWRKEY	× 1	× 1
PCM (Digital Audio)*	× 1	× 1
I2C*	× 1	× 1
SPI*	× 1	× 1
Camera SPI*②	× 1	× 1
ADC	× 2	× 2
USB_BOOT	× 1	× 1
GRFC	× 2	× 2
Antenna③	× 2 (Main and GNSS Antennas③)	× 2 (Main and GNSS Antennas③)
Software Features		
Protocols	TCP/ UDP/ NTP/ NITZ/ FTP/ HTTP/ PING/ HTTPS/ FTPS/ SSL/ MQTT/ CMUX/ PPP/ FILE/ SMTP/ SMTPS/ MMS*	
USB Serial Driver	Windows 8.1/10/11 Linux 2.6-6.7 Android 4.x-13.x	
RIL Driver	Android 4.x-13.x	
USB RNDIS Driver	Windows 8.1/10/11 Linux 2.6-6.7	
USB ECM Driver	Linux 2.6-6.7	
Enhanced Features		
DFOTA	●	
Wi-Fi Scan	●	
USIM Card Detection	●	
Electrical Features		
Supply Voltage Range	3.3-4.3 V, typ. 3.8V	
Power Consumption (Typ.)	0.4 μA @ Power off Mode 54 μA @ Sleep Mode (AT+CFUN = 0, USB disconnected) 135 μA @ Sleep Mode (AT+CFUN = 4, USB disconnected) 4.55 mA @ Idle Mode (PF = 64, USB disconnected) 25.8 mA @ Idle Mode (PF = 64, USB connected	

NOTE:
1. ① : Both USIM1 and USIM2 interfaces support 1.8 V USIM cards only, when the USIM2 interface is enabled.
2. ② : Camera SPI and USIM2 are multiplexing pins, so they cannot be used at the same time.
3. ③ : GNSS UART, GNSS debug UART and GNSS antenna interfaces are optional.
4. *: Under development/ In progress

●: supported.

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