ICM-EG91NA-12345-IOT and ICM-BG95M1-45678-IOT

WIRELESS CONNECTIVITY MODULES

Cellular and IoT connected cameras are a natural progression using connectivity modules from ienso's embedded ecosystem, powered by Quectel devices. The most popular is our 10/5 Mbps Cat 1 LTE module. Secure connectivity is yours with our Cat M1 LTE module with 375 kbps downlink & 1.2 Mbps uplink, and FIPS certifiable boot, debug, and file system. Optional Wi-Fi/Bluetooth interfaces allow easy configuration. Other compatible LTE modules are available.

APPLICATIONS:

- Embedded Vision
- Connected Healthcare
- Remote Maintenance
- Retail/Vending
- Security/Alarms

KEY SPECIFICATIONS

- Cat 1 LTE: 10 / 5 Mbps down/uplink.
- Cat M1: 375 kbps downlink / 1.2 Mbps uplink.
- Environmental: -40°C to 85°C.
- Regulatory: RoHS, FCC, CE, and other relevant regional certifications.

THE RIGHT EMBEDDED VISION SYSTEM FOR YOUR APPLICATION

CONSISTENT QUALITY: From six-axis lens alignment to consistently accurate color quality, to AI and ubiquitous connectivity, we guarantee that every iENSO embedded vision system will perform to spec.

SECURE SUPPLY: With iENSO engineers on the floor in all of our manufacturing partner facilities, we guarantee the quality and quantity of supply you need to make your application a success.

COMPELLING ECONOMICS: With our years of experience in the design and development of industrial, machine and consumer vision technologies, we can provide a cost-effective, no compromise embedded vision solution for your application.

iENSO.COM

iENSO Global Headquarters
20 Mural St. Unit 7
Richmond Hill (ON) L4B 1K3, Canada
(905) 763-6938 | mail@iENSO.com

Manufacturing Operations China
News Building
1002 Shennan Road, Room 1603
Shenzhen, Guangdong, P. R. China

Modem type	Quectel EG91-NA	Quectel BG95-M1
Benefits	Intermediate bit rate IoT. Low-power. Compact. Compatible with major carriers.	Secure IoT connectivity. Low-power. FIPS-ready crypto, boot, debug & file system.
Features	Qualcomm MDM9x07 LTE, ARM Cortex-A7 1.3 GHz, GNSS, PMU, RFFE. *Configuration interface with 802.11n Wi-Fi, BT4.0.*	Qualcomm MDM9205 LTE, ARM Cortex-A7 800 MHz, TrustZone, GNSS, RAM, Flash, RFFE. *Config. i/f with 802.11n Wi-Fi, BT4.0.*
LTE Bitrate Output power	10 / 5 Mbps down/uplink Class 3 (23 dBm ± 2 dB)	375 kbps DL, 1.2 Mbps UL Class 3 (20 dBm)
GNSS	GPS/GLONASS/BeiDou/Galileo/QZSS	(optional) GPS, GLONASS, BeiDou, Galileo
Wi-Fi/BT	Optional 802.11 B/G/N 2.4GHz 1T1R WiFi with Bluetooth2.1/3.0/4.0	Available through customization
Module current	13 µA / 2.6 mA / 29 mA	Power saving: 3 µA.
LTE module Interfaces	USB2.0 HS, (U)SIMx2, UARTx2, SPI, Main/Rx diversity antenna, GNSS antenna, power/network/reset.	USB2.0, (U)SIM, UARTx3, PCMx3, ADC, GPIOx2, shared LTE-GNSS antenna, power, network.
3GPP support	E-UTRA Release 11; TS20.007, Enhanced AT	Release 14; TS 20.007, TS 27.005, Enhanced AT
Supported network protocols	TCP, UDP, PPP, SSL, FTP(S), HTTP(S), NTP, PING, QMI, CMUX, SMTP(S), MMS	TCP, UDP, PPP, SSL, TLS, FTP(S), HTTP(S), NITZ, PING, MQTT, CoAP
Module variants	Multiple, including European EG91-E (LTE/WCDMA/GSM).	Several Cat M1/Cat NB2 variants, incl. BG95-MF w/ Wi-Fi positioning
Pin-compatible modules	Quectel BG96 (LTE Cat M1/Cat NB1), UG95/96 (UMTS/HSPA+)	Quectel EG91/EG95 (LTE), BG96/BC95 (LPWA), UG95/UG96 (UMTS/HSPA), M95 (GSM/GPRS).

ABOUT iENSO

Established in 2003, iENSO provides imaging and wireless solutions that are helping global brands take their products to the next level in the age of embedded systems and AI platforms. iENSO accelerates the deployment of innovative imaging and wireless products in a wide range of verticals such as IoT, home automation, automotive, drones, professional entertainment, robotics, remote surveillance and security. With offices in Canada and China, iENSO has perfected the engineering ecosystems that exist between initial design and high-volume manufacturing.

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