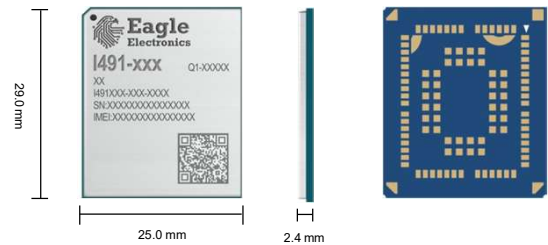


Eagle I491

IoT/M2M-optimized LTE Cat 1 Module



Eagle I491 is a series of LTE Cat 1 modules optimized specially for M2M and IoT applications. Adopting 3GPP Rel-11 LTE technology, it delivers maximum data rates up to 10 Mbps downlink and 5 Mbps uplink. These make I491 series an ideal solution for numerous IoT applications that are not reliant on high speed connectivity but require the longevity and reliability of the LTE network.

I491 series contains 2 variants: EG91-NAX and EG91-NAXD. I491 series is pin-to-pin compatible with Eagle I490, Eagle I4915Q as well as Quectel EG91, EG915Q and BG95 series modules. It is backward compatible with existing GSM/GPRS and UMTS/HSPA(+) networks, ensuring that it can be connected even in remote areas devoid of 4G network coverage.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 8.1/10/11, Linux and Android, etc.) extend the applicability of the module to a wide range of M2M and IoT applications such as smart metering, wearable devices, environmental monitoring, asset tracking, fleet management, smart safety and alarm systems.



Key Features

- ✓ Cost-effective and low-power LTE connectivity optimized for broadband IoT applications
- ✓ Supports DFOTA
- ✓ Multi-band LTE, UMTS/HSPA(+) and GSM/GPRS/EDGE coverage
- ✓ Compact SMT form factor ideal for size-constrained applications with extended operation temperature range
- ✓ Embedded power management unit (PMU) featuring ultra-low deep-sleep current consumption



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



Max. 42 Mbps (DL)
Max. 5.76 Mbps (UL)



LGA Package



Embedded Abundant
Protocols



DFOTA



Enhanced AT
Commands



USB 2.0 High Speed
Interface



Compact Size



USB Drivers

Eagle I491 Family

LTE Cat 1 bis	I491-NAX	I491-NAXD (Data-only)
Region/Operator	North America	North America
Dimensions (mm)	29.0 x 25.0 x 2.45	29.0 x 25.0 x 2.45
Weight (g)	Approx. 2.3	Approx. 2.3
Temperature Range		
Operating Temperature	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands		
LTE-FDD	B2/ 4/ 5/12 / 13/ 25/ 26	B2/ 4/ 5/12 / 13/ 25/ 26
WCDMA	B2/ 4/ 5	B2/ 4/ 5
GNSS (Optional)	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS
Certifications		
Carrier	America: Verizon/AT&T/T-Mobile Canada: Rogers/Telus	America: Verizon/AT&T/T-Mobile/US Cellular Canada: Rogers/Telus
Regulatory	Global: GCF North America: PTCRB America: FCC Canada: IC	Global: GCF North America: PTCRB America: FCC Canada: IC
Others	WHQL/RoHS	WHQL/RoHS
Max. Data Rates		
LTE-FDD (Mbps)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)
DC-HSPA+ (Mbps)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)
WCDMA (kbps)	384 (DL)/384 (UL)	384 (DL)/384 (UL)
Interfaces		
(U)SIM	× 2	× 2
UART	× 2	× 2
USB 2.0	× 1	× 1
RESET_N	× 1	× 1
PWRKEY	× 1	× 1
PCM (Digital Audio)	× 1	× 1
I2C	× 1	× 1
SPI	× 1	× 1
USB_BOOT	× 1	× 1
NETLIGHT	× 1	× 1
Antenna	× 3 (Main, Rx Diversity, GNSS)	× 3 (Main, Rx Diversity, GNSS)
Software Features		
USB Serial Driver	Windows 8.1/10/11 Linux 2.6-6.7 Android 4.x-13.x	Windows 8.1/10/11 Linux 2.6-6.7 Android 4.x-13.x
GNSS/RIL Driver	Android 4.x-13.x	Android 4.x-13.x
USB NDIS Driver	Windows 8.1/10/11	Windows 8.1/10/11
USB MBIM Driver	Windows 8.1/10/11 Linux 2.6-6.7	Windows 8.1/10/11 Linux 2.6-6.7
Enhanced Features		
DFOTA	●	●
DTMF	●	
QMI/RmNet	●	●
QuecOpen	●	●
QuecFile	●	●
SMS	●	●
eSIM*①	●	●
Electrical Features		
Supply Voltage Range	3.3-4.3 V, typ. 3.8V	3.3-4.3 V, typ. 3.8V
Power Consumption (Typ.)	13 µA @ Power off 1.1 mA @ Sleep, Typ. 16.7 mA @ Idle	13 µA @ Power off 1.1 mA @ Sleep, Typ. 16.7 mA @ Idle

NOTE:

① : eSIM function can be supported by software, but an external chip is required

● : supported.