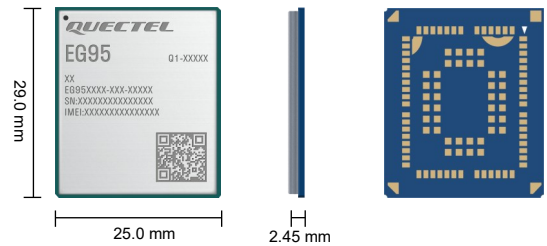


Quectel EG95 Series

IoT/M2M-optimized LTE Cat 4 Module



Quectel EG95 is a series of LTE Cat 4 module optimized specially for M2M and IoT applications. Adopting 3GPP Rel-11 LTE technology, it delivers maximum data rates up to 150 Mbps downlink and 50 Mbps uplink.

EG95 series contains 7 variants: EG95-NA, EG95-NAX, EG95-NAXD, EG95-E, EG95-EX, EG95-AUX and EG95-JP. EG95 series is pin-to-pin compatible with Quectel GSM M95 module and LPWA BG95 series/BG96 modules. And it is backward compatible with existing GSM/GPRS & 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, Android) extend the applicability of the module to a wide range of M2M and IoT applications such as industrial router, industrial PDA, rugged tablet PC, video transmission and digital signage.



Key Features

- ✓ LTE Cat 4 module optimized for M2M and IoT applications
- ✓ 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
- ✓ Simple migration from 2G/3G to 4G with a flexible and scalable platform



LTE Cat 4
Max. 150 Mbps (DL)
Max. 50 Mbps (UL)



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



LGA Package



Embedded Abundant
Protocols



Compact Size



Quectel Enhanced
AT Commands



USB 2.0 High Speed
Interface



USB Drivers

Quectel EG95 Series

LTE Cat 4	EG95-NA	EG95-NAX	EG95-NAXD (Data-only)	EG95-AUX
Region/Operator	North America	North America	North America	Latin America/Australia/New Zealand
Dimensions (mm)	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45
Temperature Range				
Operating Temperature	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands				
LTE-FDD	B2/4/5/12/13	B2/4/5/12/13/25/26	B2/4/5/12/13/25/26	B1/2/3/4/5/7/8/28/66
WCDMA	B2/4/5	B2/4/5	B2/4/5	B1/2/5/8
GSM/EDGE	-	-	-	B2/3/5/8
GNSS (Optional)	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS
Certifications				
Carrier	America: Verizon/AT&T/ T-Mobile/U.S. Cellular Canada: Rogers/Telus	America: Sprint/Verizon/AT&T Canada: Telus	America: Verizon/AT&T/T-Mobile/Sprint/ U.S. Cellular	Australia: Telstra ^①
Regulatory	Global: GCF North America: PTCRB America: FCC Canada: IC	Global: GCF North America: PTCRB America: FCC Canada: IC	Global: GCF North America: PTCRB America: FCC Canada: IC	Europe: CE America: FCC Brazil: Anatel Australia & New Zealand: RCM
Others	WHQL/RoHS	WHQL/RoHS	WHQL/RoHS	WHQL/RoHS
Max. Data Transmission Rates				
LTE-FDD (Mbps)	150 (DL)/50 (UL)	150 (DL)/50 (UL)	150 (DL)/50 (UL)	150 (DL)/50 (UL)
DC-HSPA+ (Mbps)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)
WCDMA (kbps)	384 (DL)/384 (UL)	384 (DL)/384 (UL)	384 (DL)/384 (UL)	384 (DL)/384 (UL)
EDGE (kbps)	-	-	-	296 (DL)/236.8 (UL)
GPRS (kbps)	-	-	-	107 (DL)/85.6 (UL)
Interfaces				
(U)SIM	× 2	× 2	× 2	× 2
UART	× 2	× 2	× 2	× 2
USB 2.0	× 1	× 1	× 1	× 1
Audio Digital (PCM)	× 1	× 1	× 1	× 1
I2C	× 1	× 1	× 1	× 1
NETLIGHT	× 1	× 1	× 1	× 1
SPI	× 1	× 1	× 1	× 1
Main Antenna	× 1	× 1	× 1	× 1
Rx-diversity Antenna	× 1	× 1	× 1	× 1
GNSS Antenna	× 1	× 1	× 1	× 1
PWRKEY	× 1	× 1	× 1	× 1
RESET_N	× 1	× 1	× 1	× 1
USB_BOOT	× 1	× 1	× 1	× 1
GRFC (Optional)	-	-	-	× 2
Voice				
Speech Codec Modes	AMR/AMR-WB	AMR/AMR-WB	-	HR/FR/EFR/AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/ Noise Suppression	Echo Cancellation/ Noise Suppression	-	Echo Cancellation/ Noise Suppression
Audio (Optional)	Digital Audio and VoLTE (Voice over LTE)	Digital Audio and VoLTE (Voice over LTE)	-	Digital Audio and VoLTE (Voice over LTE)
Enhanced Features				
DTMF	●	●	-	●
DFOTA	●	●	●	●
QMI/RmNet	●	●	●	●
MIMO 2 × 2	●	●	●	●
Audio Playback*/ Audio Recording*	Optional	Optional	Optional	Optional
QuecOpen®	●	-	-	-
QuecFile®	●	●	●	●
(U)SIM Card Detection	●	●	●	●
SMS	●	●	●	●
eSIM*②	●	●	●	●

NOTE:

- * : Under development/In progress.
- : Supported.
- ① : Certified with EG95-AUX data-only version.
- ② : eSIM function can be supported by software , but an external eSIM chip is required.

Quectel EG95 Series

LTE Cat 4	EG95-NA	EG95-NAX	EG95-NAXD (Data-only)	EG95-AUX
Drivers				
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	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 Driver	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
RIL Driver	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
USB NDIS Driver	Windows 8.1/10/11	Windows 8.1/10/11	Windows 8.1/10/11	Windows 8.1/10/11
USB MBIM Driver	Windows 8.1/10/11, Linux 3.18–6.7	Windows 8.1/10/11, Linux 3.18–6.7	Windows 8.1/10/11, Linux 3.18–6.7	Windows 8.1/10/11, Linux 3.18–6.7
USB GobiNet Driver	Linux 2.6–6.7	Linux 2.6–6.7	Linux 2.6–6.7	Linux 2.6–6.7
USB QMI_WWAN Driver	Linux 3.4–6.7	Linux 3.4–6.7	Linux 3.4–6.7	Linux 3.4–6.7
Electrical Features				
Supply Voltage Range	3.3–4.3 V, 3.8 V Typ.	3.3–4.3 V, 3.8 V Typ.	3.3–4.3 V, 3.8 V Typ.	3.3–4.3 V, 3.8 V Typ.
Power Consumption	13 μ A @ Power off 1.0 mA @ Sleep, Typ. 15 mA @ Idle	11 μ A @ Power off 1.1 mA @ Sleep, Typ. 17.8 mA @ Idle	11 μ A @ Power off 1.1 mA @ Sleep, Typ. 18 mA @ Idle	10 μ A @ Power off 1.0 mA @ Sleep, Typ. 16 mA @ Idle

Quectel EG95 Series

LTE Cat 4	EG95-E ^①	EG95-EX	EG95-JP
Region/Operator	EMEA	EMEA	Japan
Dimensions (mm)	29.0 × 25.0 × 2.3	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45
Temperature Range			
Operating Temperature	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands			
LTE-FDD	B1/3/7/8/20/28A	B1/3/7/8/20/28	B1/3/8/18/19/26
LTE-TDD	-	-	B41
WCDMA	B1/8	B1/8	-
GSM/EDGE	B3/8	B3/8	-
GNSS (Optional)	-	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS
Certifications			
Carrier	-	Europe: TIM	Japan: NTT DOCOMO/KDDI/SoftBank*
Regulatory	Global: GCF Europe: CE The UK: UKCA Australia & New Zealand: RCM	Global: GCF Europe: CE The UK: UKCA Australia & New Zealand: RCM	Japan: JATE/TELEC
Others	WHQL/RoHS	WHQL/RoHS	WHQL/RoHS
Max. Data Transmission Rates			
LTE-FDD (Mbps)	150 (DL)/50 (UL)	150 (DL)/50 (UL)	150 (DL)/50 (UL)
DC-HSPA+ (Mbps)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)	-
WCDMA (kbps)	384 (DL)/384 (UL)	384 (DL)/384 (UL)	-
EDGE (kbps)	296 (DL)/236.8 (UL)	296 (DL)/236.8 (UL)	-
GPRS (kbps)	107 (DL)/85.6 (UL)	107 (DL)/85.6 (UL)	-
Interfaces			
(U)SIM	× 2	× 2	× 2
UART	× 2	× 2	× 2
USB 2.0	× 1	× 1	× 1
Audio Digital (PCM)	× 1	× 1	× 1
I2C	× 1	× 1	× 1
NETLIGHT	× 1	× 1	× 1
SPI	× 1	× 1	× 1
Main Antenna	× 1	× 1	× 1
Rx-diversity Antenna	× 1	× 1	× 1
GNSS Antenna	-	× 1	× 1
PWRKEY	× 1	× 1	× 1
RESET_N	× 1	× 1	× 1
USB_BOOT	× 1	× 1	× 1
GRFC (Optional)	-	-	× 2
Voice			
Speech Codec Modes	HR/FR/EFR/AMR/AMR-WB	HR/FR/EFR/AMR/AMR-WB	AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/ Noise Suppression	Echo Cancellation/ Noise Suppression	Echo Cancellation/Noise Suppression
Audio (Optional)	Digital Audio and VoLTE (Voice over LTE)	Digital Audio and VoLTE (Voice over LTE)	Digital Audio and VoLTE (Voice over LTE)
Enhanced Features			
DTMF	●	●	●
DFOTA	●	●	●
QMI/RmNet	●	●	●
MIMO 2 × 2	●	●	●
Audio Playback*/ Audio Recording*	Optional	Optional	Optional
QuecOpen [®]	●	-	-
QuecFile [®]	●	●	●
(U)SIM Card Detection	●	●	●
SMS	●	●	●
eSIM ^{*②}	-	●	●

NOTE:

- * : Under development/In progress.
- : Supported.
- ①: Thickness of EG95-E module is 2.3 mm, whereas that of EG95-NA/NAX/NAXD/AUX/EX/JP module is 2.45 mm.
- ②: eSIM function can be supported by software, but an external eSIM chip is required.

Quectel EG95 Series

LTE Cat 4	EG95-E	EG95-EX	EG95-JP
Drivers			
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	Windows 8.1/10/11, Linux 2.6–6.7, Android 4.x–13.x
GNSS Driver	-	Android 4.x–13.x	Android 4.x–13.x
RIL Driver	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
USB NDIS Driver	Windows 8.1/10/11	Windows 8.1/10/11	Windows 8.1/10/11
USB MBIM Driver	Windows 8.1/10/11, Linux 3.18–6.7	Windows 8.1/10/11, Linux 3.18–6.7	Windows 8.1/10/11, Linux 3.18–6.7
USB GobiNet Driver	Linux 2.6–6.7	Linux 2.6–6.7	Linux 2.6–6.7
USB QMI_WWAN Driver	Linux 3.4–6.7	Linux 3.4–6.7	Linux 3.4–6.7
Electrical Features			
Supply Voltage Range	3.3–4.3 V, 3.8 V Typ.	3.3–4.3 V, 3.8 V Typ.	3.3–4.3 V, 3.8 V Typ.
Power Consumption	15 μ A @ Power off 1.3 mA @ Sleep, Typ. 21 mA @ Idle	15 μ A @ Power off 1.3 mA @ Sleep, Typ. 21 mA @ Idle	10 μ A @ Power off 0.9 mA @ Sleep 16 mA @ Idle