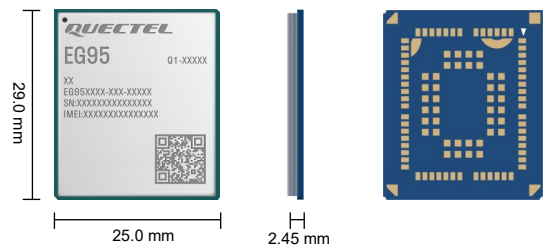


# Quectel EG95 Series

## 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 7/8/8.1/10/11, 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
<b>Region/Operator</b>	North America	North America	North America	Latin America/Australia/New Zealand
<b>Dimensions (mm)</b>	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45	29.0 × 25.0 × 2.45
<b>Temperature Range</b>				
<b>Operating Temperature</b>	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C
<b>Extended Temperature</b>	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
<b>Frequency Bands</b>				
<b>LTE-FDD</b>	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
<b>WCDMA</b>	B2/4/5	B2/4/5	B2/4/5	B1/2/5/8
<b>GSM/EDGE</b>	-	-	-	B2/3/5/8
<b>GNSS (Optional)</b>	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS	GPS/GLONASS/BDS/Galileo/QZSS
<b>Certifications</b>				
<b>Carrier</b>	<b>America:</b> Verizon/AT&T/ T-Mobile/U.S. Cellular <b>Canada:</b> Rogers/Telus	<b>America:</b> Sprint/Verizon/AT&T <b>Canada:</b> Telus	<b>America:</b> Verizon/AT&T/ T-Mobile/Sprint/ U.S. Cellular	<b>Australia:</b> Telstra <sup>①</sup>
<b>Regulatory</b>	<b>Global:</b> GCF <b>North America:</b> PTCRB <b>America:</b> FCC <b>Canada:</b> IC	<b>Global:</b> GCF <b>North America:</b> PTCRB <b>America:</b> FCC <b>Canada:</b> IC	<b>Global:</b> GCF <b>North America:</b> PTCRB <b>America:</b> FCC <b>Canada:</b> IC	<b>Europe:</b> CE <b>America:</b> FCC <b>Brazil:</b> Anatel <b>Australia &amp; New Zealand:</b> RCM
<b>Others</b>	WHQL/RoHS	WHQL/RoHS	WHQL/RoHS	WHQL/RoHS
<b>Max. Data Transmission Rates</b>				
<b>LTE-FDD (Mbps)</b>	150 (DL)/50 (UL)	150 (DL)/50 (UL)	150 (DL)/50 (UL)	150 (DL)/50 (UL)
<b>DC-HSPA+ (Mbps)</b>	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)
<b>WCDMA (kbps)</b>	384 (DL)/384 (UL)	384 (DL)/384 (UL)	384 (DL)/384 (UL)	384 (DL)/384 (UL)
<b>EDGE (kbps)</b>	-	-	-	296 (DL)/236.8 (UL)
<b>GPRS (kbps)</b>	-	-	-	107 (DL)/85.6 (UL)
<b>Interfaces</b>				
<b>(U)SIM</b>	× 2	× 2	× 2	× 2
<b>UART</b>	× 2	× 2	× 2	× 2
<b>USB 2.0</b>	× 1	× 1	× 1	× 1
<b>Audio Digital (PCM)</b>	× 1	× 1	× 1	× 1
<b>I2C</b>	× 1	× 1	× 1	× 1
<b>NETLIGHT</b>	× 1	× 1	× 1	× 1
<b>SPI</b>	× 1	× 1	× 1	× 1
<b>Main Antenna</b>	× 1	× 1	× 1	× 1
<b>Rx-diversity Antenna</b>	× 1	× 1	× 1	× 1
<b>GNSS Antenna</b>	× 1	× 1	× 1	× 1
<b>PWRKEY</b>	× 1	× 1	× 1	× 1
<b>RESET_N</b>	× 1	× 1	× 1	× 1
<b>USB_BOOT</b>	× 1	× 1	× 1	× 1
<b>GRFC (Optional)</b>	-	-	-	× 2
<b>Voice</b>				
<b>Speech Codec Modes</b>	AMR/AMR-WB	AMR/AMR-WB	-	HR/FR/EFR/AMR/AMR-WB
<b>Echo Arithmetic</b>	Echo Cancellation/ Noise Suppression	Echo Cancellation/ Noise Suppression	-	Echo Cancellation/ Noise Suppression
<b>Audio (Optional)</b>	Digital Audio and VoLTE (Voice over LTE)	Digital Audio and VoLTE (Voice over LTE)	-	Digital Audio and VoLTE (Voice over LTE)
<b>Enhanced Features</b>				
<b>DTMF</b>	●	●	-	●
<b>DFOTA</b>	●	●	●	●
<b>QMI/RmNet</b>	●	●	●	●
<b>MIMO 2 x 2</b>	●	●	●	●
<b>Audio Playback*/ Audio Recording*</b>	Optional	Optional	Optional	Optional
<b>QuecOpen®</b>	●	-	-	-
<b>QuecFile®</b>	●	●	●	●
<b>(U)SIM Card Detection</b>	●	●	●	●
<b>SMS</b>	●	●	●	●
<b>eSIM*②</b>	●	●	●	●

**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
<b>Drivers</b>				
<b>USB Serial Driver</b>	Windows 7/8/8.1/10/11, Linux 2.6–6.5, Android 4.x–13.x	Windows 7/8/8.1/10/11, Linux 2.6–6.5, Android 4.x–13.x	Windows 7/8/8.1/10/11, Linux 2.6–6.5, Android 4.x–13.x	Windows 7/8/8.1/10/11, Linux 2.6–6.5,
<b>GNSS Driver</b>	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
<b>RIL Driver</b>	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
<b>USB NDIS Driver</b>	Windows 7/8/8.1/10/11	Windows 7/8/8.1/10/11	Windows 7/8/8.1/10/11	Windows 7/8/8.1/10/11
<b>USB MBIM Driver</b>	Windows 8/8.1/10/11, Linux 3.18–6.5	Windows 8/8.1/10/11, Linux 3.18–6.5	Windows 8/8.1/10/11, Linux 3.18–6.5	Windows 8/8.1/10/11, Linux 3.18–6.5
<b>USB GobiNet Driver</b>	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5
<b>USB QMI_WWAN Driver</b>	Linux 3.4–6.5	Linux 3.4–6.5	Linux 3.4–6.5	Linux 3.4–6.5
<b>Electrical Features</b>				
<b>Supply Voltage Range</b>	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.
<b>Power Consumption</b>	13 $\mu$ A @ Power off 1.0 mA @ Sleep, Typ. 15 mA @ Idle	11 $\mu$ A @ Power off 1.1 mA @ Sleep, Typ. 17.8 mA @ Idle	11 $\mu$ A @ Power off 1.1 mA @ Sleep, Typ. 18 mA @ Idle	10 $\mu$ A @ Power off 1.0 mA @ Sleep, Typ. 16 mA @ Idle

# Quectel EG95 Series

LTE Cat 4	EG95-E <sup>①</sup>	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*
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 x 2	●	●	●
Audio Playback*/ Audio Recording*	Optional	Optional	Optional
QuecOpen <sup>®</sup>	●	-	●
QuecFile <sup>®</sup>	●	●	●
(U)SIM Card Detection	●	●	●
SMS	●	●	●
eSIM <sup>*②</sup>	-	●	●

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
<b>Drivers</b>			
<b>USB Serial Driver</b>	Windows 7/8/8.1/10/11, Linux 2.6–6.5, Android 4.x–13.x	Windows 7/8/8.1/10/11, Linux 2.6–6.5, Android 4.x–13.x	Windows 7/8/8.1/10/11, Linux 2.6–6.5, Android 4.x–13.x
<b>GNSS Driver</b>	-	Android 4.x–13.x	Android 4.x–13.x
<b>RIL Driver</b>	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
<b>USB NDIS Driver</b>	Windows 7/8/8.1/10/11	Windows 7/8/8.1/10/11	Windows 7/8/8.1/10/11
<b>USB MBIM Driver</b>	Windows 8/8.1/10/11, Linux 3.18–6.5	Windows 8/8.1/10/11, Linux 3.18–6.5	Windows 8/8.1/10/11, Linux 3.18–6.5
<b>USB GobiNet Driver</b>	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5
<b>USB QMI_WWAN Driver</b>	Linux 3.4–6.5	Linux 3.4–6.5	Linux 3.4–6.5
<b>Electrical Features</b>			
<b>Supply Voltage Range</b>	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.
<b>Power Consumption</b>	15 $\mu$ A @ Power off 1.3 mA @ Sleep, Typ. 21 mA @ Idle	15 $\mu$ A @ Power off 1.3 mA @ Sleep, Typ. 21 mA @ Idle	10 $\mu$ A @ Power off 0.9 mA @ Sleep 16 mA @ Idle