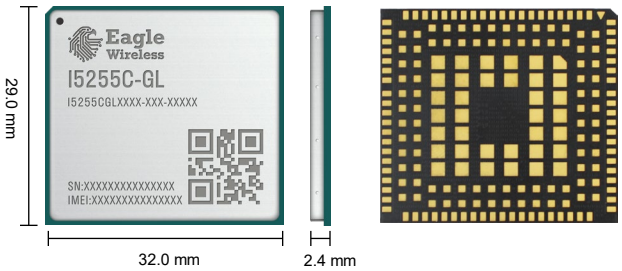
I5255C-GL

5G RedCap Sub-6 GHz LGA Module



Eagle I5255C-GL is a 5G Redcap Sub-6 GHz LGA module. Adopting the 3GPP Rel-17 RedCap technology, with features of 5G LAN*/ URLLC/ Slicing, the module supports a theoretical peak data rate of 223 Mbps in the downlink and 123 Mbps in the uplink. The module supports LTE Cat 4 and 5G Sub-6 SA mode, and is backward compatible with Rel-15 and Rel-16 networks. The module is partially compatible with Eagle 4G module I42x series modules with smaller sizes, which can meet customers' different application demands for medium speed, large capacity, low latency, high reliability, etc., and is convenient for customers to design.

I5255C-GL module is an industrial-grade module for industrial and commercial applications only.

I5255C-GL module supports Qualcomm® IZat™ location technology Gen 9VT (GPS, GLONASS, NavIC*, BDS, QZSS and Galileo). The integrated GNSS receiver greatly simplifies product design and provides quicker, more accurate and more dependable positioning capability.

A rich set of Internet protocols, industry-standard interfaces (USB 2.0, PCIe 2.0, PCM, UART, SGMII, SPI, etc.) and abundant functionalities (USB drivers for Windows 10/ 11, Linux and Android) extend the applicability of the module to a wide range of RedCap applications.

Key Features

- LGA form factor, small size
- Worldwide 5G/ 4G coverage
- 5G SA mode, with 5G LAN*/ URLLC/ Slicing features
- Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment (optional)
- Feature refinements: DFOTA and VoNR/ VoLTE (optional)
- PCIe 2.0 interface for Wi-Fi/ Bluetooth
- Optional Mini PCIe form factor

5G NR Sub-6 GHz

LTE Cat 4

LGA Form Factor

Embedded Abundant Protocols

VoNR/VoLTE (optional)

Multi-constellation GNSS (optional)

PCIe 2.0 Interface

USB 2.0 High Speed Interface

Enhanced AT Commands

Version: 1.3 | Status: Released

I5255C-GL

5G RedCap Sub-6 GHz		I5255C-GL
Region/Operator		Global
Dimensions (mm)		29.0 × 32.0 × 2.4
Weight		Approx. 5.2 g
Temperature Range		
Operating Temperature		-30 °C to +75 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
5G	**5G NR**	**3GPP Release 17 RedCap SA operation, Sub-6 GHz**
	5G NR SA	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 77/ 78/ 79
	DL 2 × 2 MIMO	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 77/ 78/ 79
LTE	**LTE-FDD**	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 66/ 70/ 71
	LTE-TDD	B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48
	DL 2 × 2 MIMO	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 34/ 38/ 39/ 40/ 41/ 42/ 43/ 48/ 66/ 70/ 71
GNSS (Optional)		GPS/ GLONASS/ BDS/ Galileo/ NavIC*/ QZSS
Certifications*		
Regulatory		PTCRB/ FCC/ IC/ GCF/ CE RED&DA*/ RCM*
Carrier		AT&T/ Verizon*/ T-Mobile
Others		RoHS
Data Rates (Max.) ①		
5G SA Sub-6 GHz		223 Mbps (DL)/ 123 Mbps (UL)
LTE		200 Mbps (DL)/ 105 Mbps (UL)
Interfaces		
(U)SIM		× 2
UART		× 2
SGMII		× 1
USB 2.0		× 1
PCIe 2.0		× 1
PCM		× 1
I2C		× 1
SPI		× 1
ADC		●
RESET_N		●
GPIOs (Open)		●
Antennas		Cellular: × 2; GNSS: × 1
Voice		
Voice		Digital Audio and VoNR/VoLTE (optional)
Enhanced Features		
eSIM		○
DTMF		●
DFOTA		●
(U)SIM Card Detection		●
Drivers		
USB Serial Driver		Windows 10/11; Linux 2.6–6.7; Android 4.x–14.x
RIL Driver		Android 4.x–14.x
PCIe MHI Driver		Linux 3.10–6.12
USB MBIM Driver ②		Windows 10/11; Linux 3.18–6.7
USB RNDIS Driver		Windows 10/11; Linux 2.6–6.7
USB GobiNet Driver		Linux 2.6–3.4
USB QMI_WWAN Driver		Linux 3.4–6.7
Electrical Features		
Supply Voltage Range		3.3–4.3 V, typ. 3.8 V
Power Consumption		Typical 2.8 mA @ Sleep Typical 23 mA @ Idle

Note:
1. ①: Theoretical only; actual values depend on network conditions.
2. ②: Optional (a license is required to use this driver).
3. *: Under development / In progress.
4. ●: Supported; ○: Optional.

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1974 E. 66th St., Suite 200-B Cleveland, OH 44103 USA
Email: info@eaglewireless.com
http://www.eaglewireless.com

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