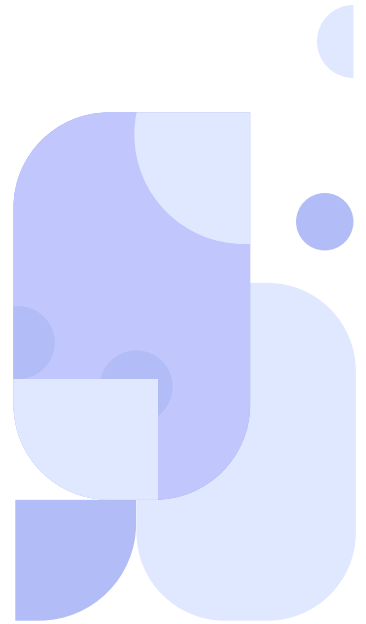


CQM205 Cavli C Series



Overview

CQM205 is a 5G-NR Sub-6 module compliant with 3GPP Release 17 standards, designed for IoT and M2M applications. It delivers exceptional data throughput, offering up to 3.7 Gbps in downlink and 2.5 Gbps in uplink. The module supports LTE Cat 12 fallback and features advanced carrier aggregation with 4CA capability, ensuring reliable high-throughput connectivity in diverse network environments.

CQM205 is equipped with a Quad-Core Cortex A55 processor and offers memory configurations of up to 1GB RAM and 8GB ROM. Operating on Linux or OpenWRT, the module is optimized for application-level coding without requiring an external host MCU. It also features in-built GNSS with L1+L5 support, making it ideal for high-precision tracking applications.

With its Global and Regional variants along with LGA form factor, the CQM205 is perfect for high-bandwidth applications requiring ultra-fast connectivity and location information. This makes it an ideal choice for use cases such as V2X Systems, Industry 4.0, Smart Surveillance Solutions and more.

Key Highlights



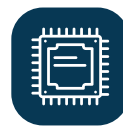
5G NR



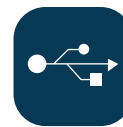
In-built GNSS



Integrated eSIM



Quad Core Cortex A55 up to 2.2 GHz



USB 3.1/3.0/2.0 Interface



Open SDK



LTE Cat 12 Fallback



PCIe Interface



Cavli Hubble Platform

Basic Module Information

Basic Specification

| | |
|------------|------------------------------------|
| Processor: | Quad Core Cortex A55 up to 2.2 GHz |
| RAM: | 1GB |
| ROM: | 1/4/8 GB |
| OS: | OpenWrt/Linux |

Radio Technology

| | |
|---------------|------------|
| RAT Used: | 5G NR |
| 3GPP Release: | 17 |
| Fall back: | LTE Cat 12 |

Bands

5G Bands

| | |
|----|---|
| NA | n2/n4/n5/n7/n12/n13/n14/n25/ n26/n30/n38/n41/n66/n71 |
| EA | n1/n3/n7/n32/n38/n40/n41/n75 |

4G Bands

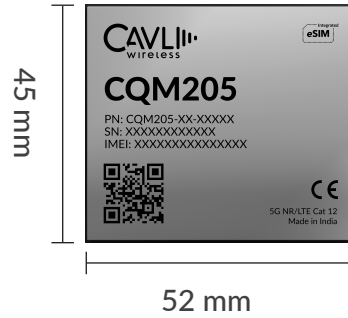
| | |
|----|---|
| NA | B2/B4/B5/B7/B12/B13/B14/ B25/B26/B30/B38/B41/B66/ B71 |
| EA | B1/B3/B7/B8/B20/B28A/B32/ B38/B38/B40/B41/B75 |

Constellation Coverage

| |
|---------------------------------------|
| Qualcomm Location Suite Gen 9 (L1+L5) |
| GPS/GLONASS/Galileo/BeiDou/NavIC/QZSS |

Applicable Region(s)

| |
|------------------|
| Global NA EA |
|------------------|



Packaging

| | |
|--------------|------------------|
| Form Factor: | LGA |
| Dimensions: | 45 x 52 x TBD mm |

Network Speed (Peak Values)

| | |
|-------------|------------------------------|
| 5G NR: | 3.7 Gbps (DL), 2.5 Gbps (UL) |
| LTE Cat 12: | 600 Mbps (DL), 100 Mbps (UL) |

Temperature Range

| | |
|------------------------|-----|
| Operating Temperature: | TBD |
|------------------------|-----|

Interfaces

| | |
|---------------------------|-----|
| USB 3.1/3.0/2.0 | x1 |
| PCIe 4.0/3.0 | x1 |
| PCIe 3.0 | x2 |
| I2C | x2 |
| I2S | x1 |
| SPI | x2 |
| UART | x2 |
| USIM | x2 |
| GPIO | x11 |
| ANTENNA | x8 |
| Network Status Indicators | x4 |

This document is a pre-release version. Some of the technical specifications are subjected to change.