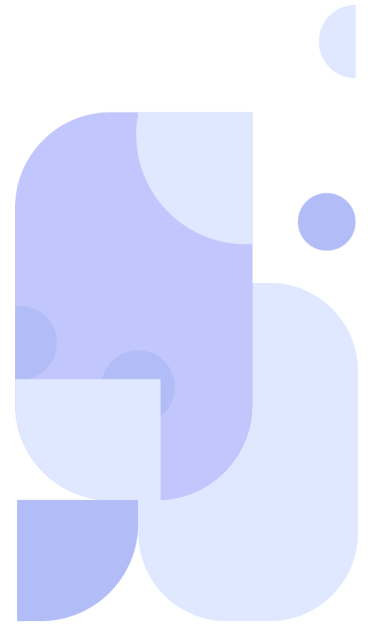
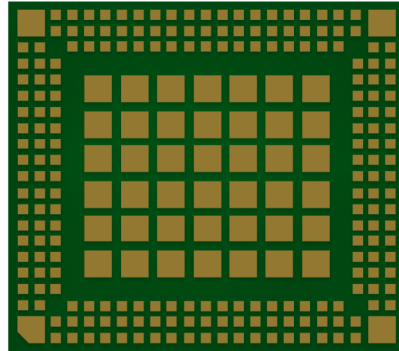


CQM220



Cavli
C Series



Overview

CQM220 is a 5G RedCap module compatible with 3GPP release 17 standards for IoT and M2M applications. It delivers maximum data bandwidth upto 220Mbps in downlink and 50 Mbps. The module is available in LGA and M.2 form factors.

CQM220 supports an optional integrated eSIM providing global connectivity via Cavli Hubble Device and Connectivity management platform. CQM220 also supports in-built GNSS with multi-constellation capability making it ideal for tracking applications. The module comes with OpenSDK capabilities, ensuring application level coding for specific without requiring an external host MCU.

CQM220 is perfect for applications that require higher data throughput with location information and global deployments such as Asset Tracking, HD Smart Surveillance Systems, Industry 4.0 etc.

Key Highlights



5G RedCap



In-built GNSS
(L1+L5)



Integrated
eSIM



Cavli Hubble
Platform



USB 2.0
Interface



Open SDK



LTE Cat 4
Fallback

Basic Module Information

Basic Specification

Processor: ARM Cortex-A7 @ Speed upto 1.7 GHz

RAM: 256/512 MB

ROM: 256/512 MB

OS: OpenWrt/Linux

Operating Mode: Standalone

Radio Technology

RAT Used: 5G RedCap

3GPP Release: 17

Fall back: LTE Cat 4

Bands

5G Bands: n1/n2/n3/n5/n7/n8/n12/n13/n14/n13/n14/n18/n19/n20/n25/n26/n28/n30/n38/n40/n41/n48/n66/n70/n71/n77/n78

4G Bands: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B18/B20/B25/B26/B28A/B28B/B30/B38/B40/B41/B66/B70/B71

Interfaces

USB 2.0 x1

I2C³ x1

USIM_(1.8V / 3.0V) x1

SGMII x1

SDC_(WLAN-SDIO) x1

PCIe x1

I2S x1

UART x2

COEX_UART x1

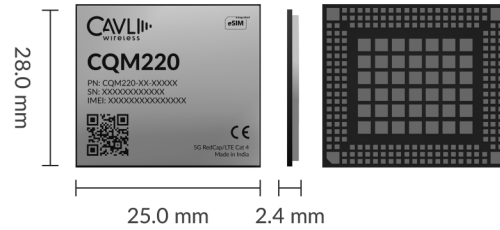
PCM x1

Network Status x2

Main ANT x1

Diversity ANT x1

GNSS ANT x1



Packaging

Form Factor: LGA

Dimensions: 28.0 x 25.0 x 2.4 (mm scale)

Other FF: M.2

Network Speed (Peak Values)

5G RedCap: DL 220Mbps & UL 50 Mbps

LTE Cat 4: DL 150Mbps & UL 50 Mbps

Temperature Range

Operating Temperature: TBD

Power Characteristics

Operating Voltage: TBD

GNSS (Fix @ -135dBm) 26s

Constellation Coverage

Qualcomm Location Suite Gen 9 (L1+L5)

GPS/GLONASS/Galileo/BeiDou/NavIC/QZSS/SBAS

Applicable Region(s)

Global

¹ Optional

² Needs SDK

³ In Progress

⁴ Planned

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