CQM220 ⸤C⸥ | Cavli C Series
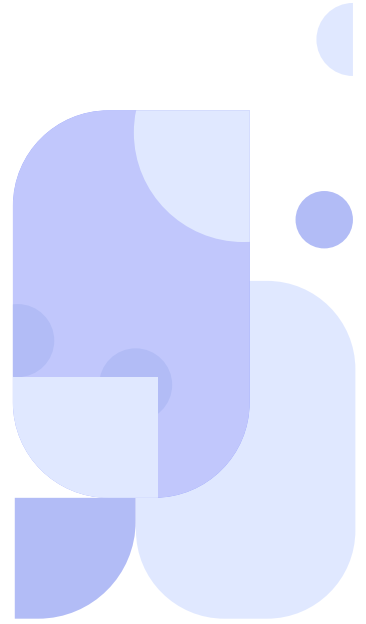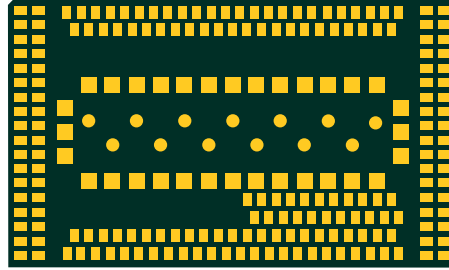

Overview

CQM220 is a 5G RedCap module compatible with 3GPP release 17 standards for IoT and M2M applications. It delivers maximum data bandwidth upto 226Mbps in downlink and 121Mbps. The module is available in LGA, mPCIe Gen2 and M.2 form factors.

The module supports an optional integrated eSIM providing global connectivity via Cavli Hubble Device and Connectivity management platform. Cavli's CQM220 also supports optional integrated GNSS 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 informantion and global deployments such as Asset Tracking, Vehicular Telemetry System, Industry 4.0 etc.

Key Highlights

5G	🛰	**eSIM**	Cavli Hubble
5G RedCap	Integrated GNSS	Integrated eSIM Connectivity	Cavli Hubble Platform
Open SDK	**4G**	USB	
Open SDK	4G Fallback	USB 2.0 Interface	

Basic Module Information

Basic Specification

Processor:	ARM Cortex-A7 @ Speed upto 1.7 GHz
ROM:	256 MB
RAM:	256 MB
OS:	Linux
Operating Mode:	Stand Alone

Radio Technology

RAT Used:	5G RedCap
3GPP Release:	17
Fall back:	4G LTE Cat 4

Bands

NA:	2/4/5/12/13/25/66/7

Interfaces

UART	x4
USB 2.0	x1
PCM [2]	x1
I2C [2]	x1
SPI [2]	x1
I2S	x9
Main ANT	x1
GNSS ANT	x1

Applicable Region(s)

North America	CQM220-NA

21.8 mm

37 mm   2.8 mm
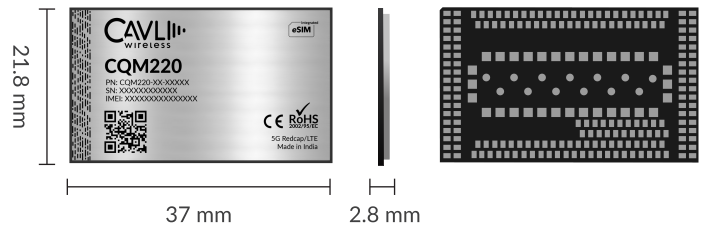
Packaging

Form Factor:	LGA
Dimensions:	37 x 21.8 x 2.8 (mm scale)
Weight:	TBD
Other FF:	mPCIe, M.2

Network Speed (Peak Values)

5G RedCap:	DL 226Mbps & UL 121 Mbps
4G LTE Cat 4:	DL 195Mbps & UL 105 Mbps

Temperature Range

Operating Temperature:	-30 °C to 75 °C[4]
Extended Operating temp:	-40 °C to 85 °C[4]

Power Characteristics

Voltage Range:	TBD
Typical Voltage:	TBD
	NA
TxD Peak	TBD
TxD Idle	TBD
GNSS (Fix)	TBD

Constellation Coverage

Qualcomm Location Suite Gen 9 (L1+L5)

[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.