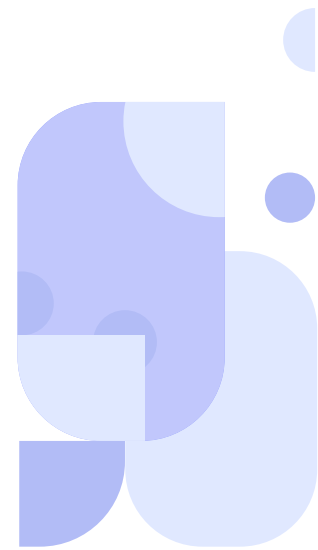
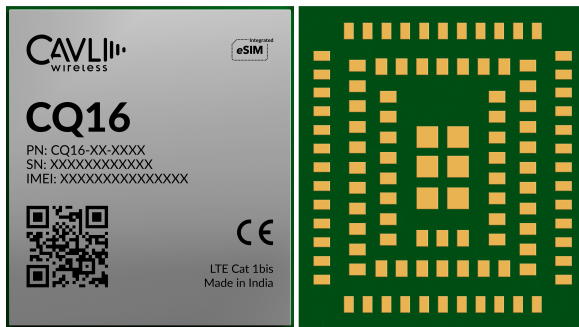


# CQ16



Cavli  
C Series



## Overview

CQ16 is a series of new LTE Cat1.bis modules with optional integrated eSIM optimized for IoT applications with low cost and low power consumption. It is compliant to 3GPP Rel 14 Cat.1bis standards and ideal for customers interested in switching from legacy 2G and 3G solutions to LTE. CQ16 comes with unique features that enables easy product development and faster go to market for product makers. Its enhanced power saving modes, including sleep features and low power modes making it ideal for applications such as asset tracking, POS and remote monitoring and energy metering. The module can be easily onboarded to Cavli Hubble, our proprietary cloud based modem management platform to enables hassle free global deployments.

CQ16 comes in 5 variants - North America, South-East Asia, Europe alone, Indian alone and Default variant respectively, covering different countries and regions.

## Key Highlights



LTE Cat 1bis



USB 2.0  
Interface



Power Saving  
Modes



Low Power  
Consumption



Small Form  
Factor Design



Integrated  
eSIM



Cavli Hubble  
Platform



## Basic Module Information

### Basic Specification

Processor: ARM Cortex M3 processor @204MHz clock

RAM: 1.25MB

Flash: 4MB NOR Flash

OS: FreeRTOS

### Radio Technology

RAT Used: Cat 1bis

3GPP Release: 14

### LTE Bands

EU: B1/B3/B5/B7/B8/B20/B28

NA: B2/B4/B5/B12/B13/B66

LA: B2/B3/B4/B7/B8/B28

AN: B1/B5/B3/B8/B18/B19/B26/B28

### Interfaces

UART x3

USB 2.0 x1

USIM x1

Network Status Indicator x1

Power ON Status Indicator x1

ADC <sup>2</sup> x2

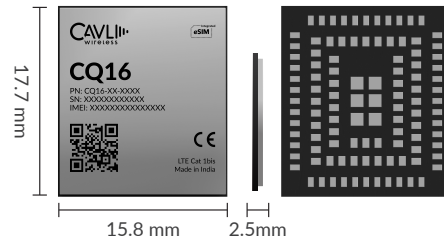
I2S <sup>2</sup> x1

I2C <sup>2</sup> x1

SPI <sup>2</sup> x1

GPIO <sup>2</sup> x3

Main ANT x1



### Packaging

Form Factor: LGA

Dimensions: 17.7 x 15.8 x 2.5 (mm scale)

Pin Count: 109 Pins

Weight: 1.53+- .01g

### Temperature Range

Operating Temperature: -40 °C to 85 °C

### Network Speed (Peak values)

Cat 1bis: DL 10Mbps & UL 5Mbps

### Power Characteristics

Voltage Range: 3.4 V to 4.2 V

Typical Voltage: 3.7 V

### Applicable Region

North America, Australia, New Zealand, Europe, India

### Internet Protocols

TCP(S), HTTP(S), FTP(S), MQTT(S), UDP, PPP

<sup>1</sup> Optional

<sup>2</sup> Needs SDK

<sup>3</sup> In Progress

<sup>4</sup> Planned