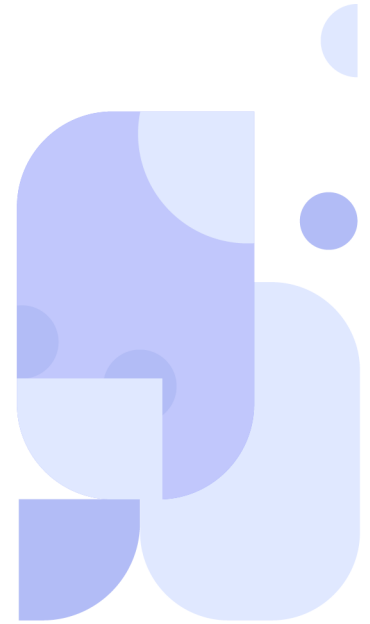
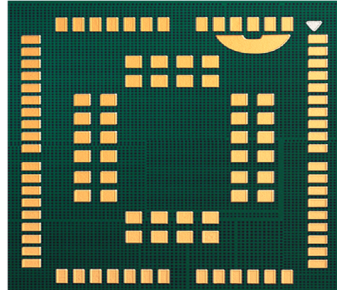


C17QS



Cavli
C Series



Overview

C17QS is a series of new LTE Cat 1bis modules with optional integrated GNSS and iSIM support, optimized for IoT applications with low cost and low power consumption. It is compliant to 3GPP Rel14 Cat 1bis standards and ideal for customers interested in switching from legacy 2G and 3G solutions to LTE.

C17QS comes with unique features that enables easy product development and faster go to market for product makers. Its enhanced tracking features that process GNSS data on the edge along with sleep features and low power modes making it ideal for applications such as asset tracking, POS and remote monitoring and energy metering. The C17QS Module is available in 6 variants such for regional deployments in Europe, Asia & Japan, Australia & New Zealand, Latin America, India, North America along with a Worldwide variant for seamless global deployments.

Key Highlights



LTE Cat 1bis



Integrated GNSS



iSIM Support ³



Cavli Hubble
Platform ³



FreeRTOS



Power Saving
Modes



WiFi Scanning
Available



Small Form
Factor Design



USB 2.0
Interface



SDK Available

Basic Module Information

Basic Specification

Processor: ARM Cortex M3 processor @ 306MHz clock

RAM: 2MB

Flash: 8MB

OS: FreeRTOS

Radio Technology

RAT Used: Cat 1bis

3GPP Release: 14

LTE Bands

EAJ: 1/ 3/ 5/ 7/ 8/ 18/ 19/ 20/ 26/ 28/ 38/ 40/ 41

NA: 2/4/5/12/13/14/25/34/66/ 71 (optional)

LA: 1/2/3/4/5/7/8

AN: 1/3/5/8/18/19/26/28

IN: 1/3/5/8/40/41

WW: 1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 19/ 20/ 25/ 26/ 28/ 34/ 38/ 39/ 40/ 41/ 66/ 71 (optional)

Interfaces

UART x3

USB 2.0 x1

GNSS UART² x1

SWD x1

Network Status Indicator x1

Power ON Status Indicator x1

ADC ² x2

I2S 2 x1

I2C 1 x1

SPI 2 x2

GPIO 1 x11

Main ANT x1

GNSS ANT ² x1

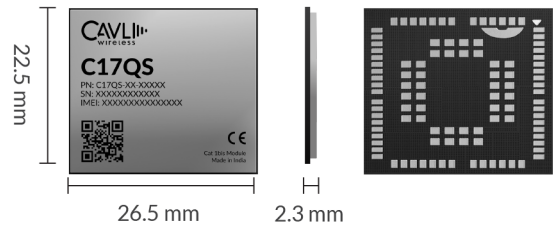
USIM (1.8v/3.0v) x1

Network Speed (Peak values)

Cat 1bis: DL 10Mbps & UL 5Mbps

¹ Optional

² Needs SDK



Packaging

Form Factor: LGA

Dimensions: 26.5 x 22.5 x 2.3 (mm scale)

Pin Count: 102 Pins

Weight: 3.3g

Internet Protocols

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

GNSS Capability

GPS, GLONASS, Galileo, NavIC, BDS, SBAS and QZSS Capable

TTFF : 38 Sec

Temperature Range

Operating Temperature: -40°C to +85°C

Power Characteristics

Voltage Range: 3.6V - 4.5V

Typical Voltage: 3.8V

GNSS(Fix) 67 mA

Tx Idle (USB Connected) 26.1 mA

Tx Idle (USB Disconnected) 3.9 mA

Sleep 1 180 uA

Sleep 2 145 uA

Hibernate 134 uA

eDRX 5.12, PTW : 1.28 - 70 uA

10.24, PTW : 2.56 - 64 uA

20.48, PTW : 5.12 - 50 uA

40.96, PTW : 10.24 - 24 uA

81.92, PTW : 20.48 - 23 uA

Applicable Region

Eurasia & Japan, Australia & New Zealand, Latin America, India, North America, World Wide

³ In Progress

⁴ Planned