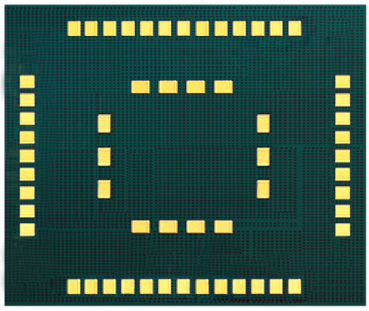
C41QS

Cavli
C Series



Overview

C41QS is a Cat NB2 Module compatible with 3GPP E-UTRA Release 14 standards supporting a wide array of frequency bands making it usable globally while consuming very low power. The module comes in a compact form-factor of 17.7mm x 15.8mm x 2.0mm ideal for size constrained applications. The module supports an optional integrated GNSS, and eSIM that provides accurate locational services along with Global Connectivity and device management features powered by Cavli Hubble platform.

C41QS is ideal for applications that demand low space, low power consumption and aggressive pricing. It is suited for applications such as smart metering, smart parking, sensor and monitoring applications etc.

Key Highlights

- Cat NB2
- Ultra-Low Power Consumption
- LGA Package
- Compact Form Factor Design
- Cavli Hubble Platform
- Integrated GNSS

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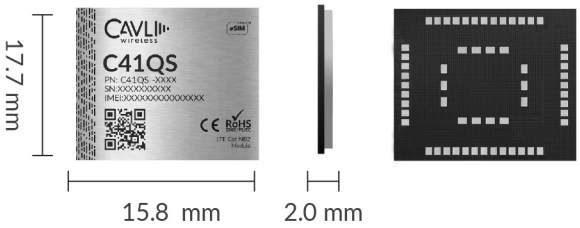
Basic Module Information

Basic Specification

Processor:	ARM Cortex M3 @ 204MHz clock
Flash:	4 MB
RAM:	272 KB
OS:	Free RTOS



Radio Technology

RAT Used:	Cat NB2
3GPP Release:	14

Packaging

Form Factor:	LGA
Dimensions:	17.7 x 15.8 x 2.0 mm
Pin Count:	58 Pins
Weight:	TBD

LTE Bands

LTE: B1/B2/B3/B4/B5/B8/B12/B13/B14/B17/B18/B19/ B20/B25/B26/B28/B66/B70/B85

Network Speed (Peak Values)

Cat NB2:	DL 127Kbps & UL 158.5Kbps

Internet Protocols

TCP, HTTP, MQTT

Constellation Coverage

GPS / BeiDou & QZSS Capable

Hot Start / Warm Start / Cold Start

Interfaces

UART	x3
GNSS UART[1]	x1
USIM (DSSS) (1.8V / 3.0 V)	x1
SWD	x1
Status Indicators	x1
SPI[2]	x1
GPIO[2]	x1
Main ANT	x1
GNSS ANT[1]	x1
ADC[2]	x1

Power Characteristics

Voltage Range:	3.0 V to 4.2 V
Typical Voltage:	3.3 V
TxD Peak	TBD
TxD Idle	TBD
GNSS (Fix)	TBD

Temperature Range

Operating Temperature:	-35°C to +75°C
Extended Operating temp:	-40°C to +85°C

Applicable Region

Global

[1] Optional [2] Needs SDK. Not available currently [3] In Progress

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

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