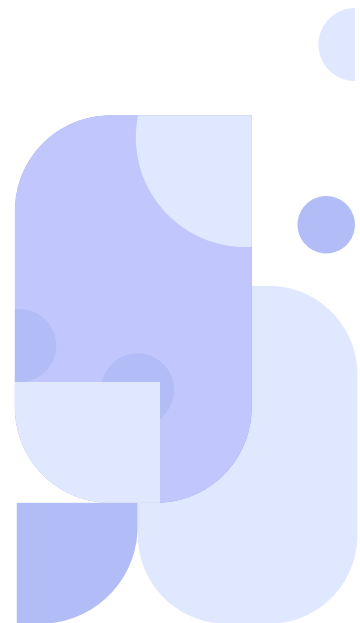
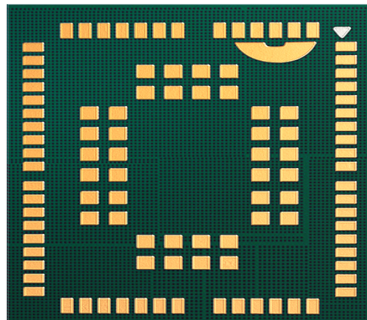


C41QS



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



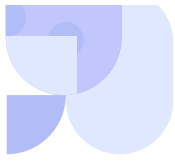
Compact Form
Factor Design



Cavli Hubble
Platform



Integrated GNSS



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 |

LTE Bands

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

Internet Protocols

TCP, HTTP, MQTT

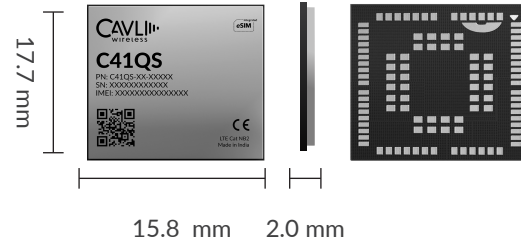
Interfaces

| | |
|----------------------------|----|
| UART | x3 |
| GNSS UART ¹ | x1 |
| USIM (DSSS) (1.8V / 3.0 V) | x1 |
| SWD | x1 |
| Status Indicators | x2 |
| SPI ² | x1 |
| GPIO ² | x1 |
| Main ANT | x1 |
| GNSS ANT ¹ | x1 |
| ADC | x1 |

Temperature Range

Operating Temperature: -35°C to +75°C

Extended Operating temp: -40°C to +85°C



Packaging

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

Network Speed (Peak Values)

Cat NB2: DL 127Kbps & UL 158.5Kbps

Constellation Coverage

GPS / BeiDou & QZSS Capable

Hot Start / Warm Start / Cold Start

Power Characteristics

| | |
|------------------|--------------|
| Voltage Range: | 3.2V to 4.5V |
| Typical Voltage: | 3.3 V |
| TxD Peak | TBD |
| TxD Idle | TBD |
| GNSS (Fix) | TBD |

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.