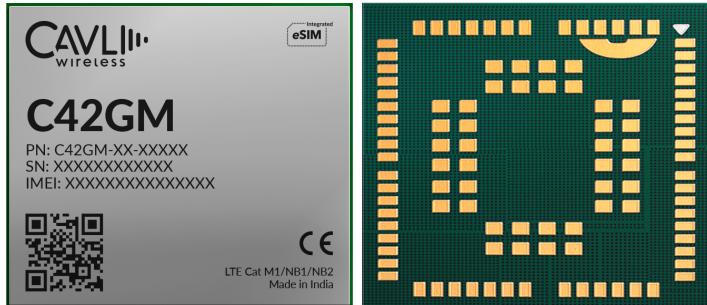


Technical Document



Overview

C42GM is an LTE Cat M1/Cat NB2/NB1 Module that adheres to the 3GPP Release 14 specifications. With its compact form factor of 26.5 x 22.5 x 2.3 mm and ultra-low power consumption, the C42GM module is well-suited for applications with limited space and power constraints. It offers global band support, ensuring compatibility in various regions. The module also provides the option of integrated GNSS and eSIM, powered by the Cavli Hubble Global Connectivity and Device Management Platform. Its versatility makes it suitable for a wide range of applications, including Asset Tracking, Vehicular Telemetry Systems, Smart Cities, Healthcare, Smart Homes, Retail, Safety Devices, as well as Industrial and Agricultural Intelligent Monitoring.

Key Highlights



Integrated
Hubble eSIM



Modem
Intelligence Cloud



Global

GNSS

GNSS Support



Sigfox Certified
NB-IoT Module



Classic
CAN Interface



DRX &
eDRX modes



Basic Module Information

Application Processor Specification

ARM Cortex R4 processor @ 1.5GHz

ROM: 16 MB / 32 MB

RAM: 2MB

Supported Bands

LTE : B1/ B2/ B3/ B4/ B5/ B6/ B8/ B9/ B10/ B12/
B13/ B14/ B15/ B16/ B17/ B18/ B19/ B20/
B24/ B25/ B26/ B27/ B28/ B54/ B65/ B66/
B68/ B71/ B90

Communication Protocols

HTTP(S), MQTT(S), Sigfox, CAN

Temperature Range

Normal working temperature: -30°C to +75°C

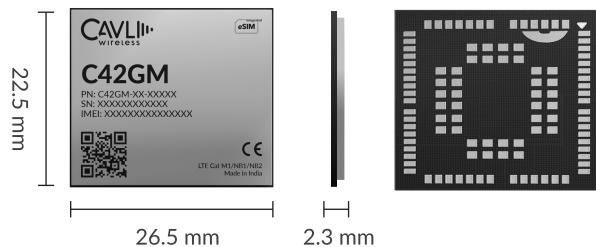
Extended Operating temperature: -40°C to +85°C

Interfaces

3xUART, 1xANT , 1xGNSS_ANT¹, 1xSDIO,

1xCAN Bus, 8xGPIO², 1xPCM², 1xI2C²,

2xADC², 1xUSIM, 1xSPI²



Packaging

Dimension: 26.5 x 22.5 x 2.3 mm, LGA Package

Network Speed (Peak values)

LTE Cat M1: 588Kbps (DL) ,1119Kbps (UL)

LTE Cat NB1: 20Kbps (DL) ,60Kbps (UL)

LTE Cat NB2: 127Kbps (DL), 158.5Kbps (UL)

Constellation Coverage

GPS / BeiDou & QZSS Capable

Power Characteristics

Voltage Range: 3.1V to 4.2V

Typical Voltage: 3.6V

TxD Idle: 199 mA

DRx Mode: 1.65 mA

eDRx Mode: 0.85 mA

Power Saving Mode: 3.9 µA

Product Variants

Variants	Cat M1	NB1/2	GNSS	Flash Size	Internal eSIM
C42GM-M16S0N	✓	✗	✗	16 MB	✗
C42GM-M16S0H	✓	✗	✗	16 MB	✓
C42GM-M16GNN	✓	✗	✓	16 MB	✗
C42GM-M16GNH	✓	✗	✓	16 MB	✓
C42GM-M32S0N	✓	✗	✗	32 MB	✗
C42GM-M32S0H	✓	✗	✗	32 MB	✓
C42GM-M32GNN	✓	✗	✓	32 MB	✗
C42GM-M32GNH	✓	✗	✓	32 MB	✓
C42GM-N16S0N	✗	✓	✗	16 MB	✗
C42GM-N16S0H	✗	✓	✗	16 MB	✓
C42GM-N16GNN	✗	✓	✓	16 MB	✗
C42GM-N16GNH	✗	✓	✓	16 MB	✓
C42GM-N32S0N	✗	✓	✗	32 MB	✗
C42GM-N32S0H	✗	✓	✗	32 MB	✓
C42GM-N32GNN	✗	✓	✓	32 MB	✗
C42GM-N32GNH	✗	✓	✓	32 MB	✓