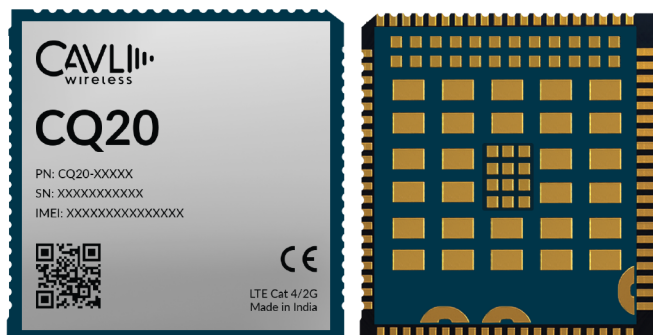




Overview

CQ20 is an LTE Cat 4 module with 2G fall back supporting 3GPP release 10 designed for IoT and M2M applications. It delivers a maximum data rate of 150 Mbit/s DL & 50 Mbit/s UL. It has a compact LGA form factor. CQ20 supports integrated GNSS with Qualcomm® Location Suite Gen8C Lite (GPS, GLONASS, BeiDou/ Compass, Galileo and QZSS), for precise and dependable positioning. CQ20 supports VoLTE and SMS over IMS/SG/CS and supports wide set Internet protocols and industry-standard interfaces.

The CQ20 Module is available in five regional variants - CQ20-EAJ for Eurasia & Japan, CQ20-NA for North America, CQ20-IN for India, CQ20-AN for Australia & New Zealand, CQ20-LA for Latin America along with a worldwide variant, CQ20-WW, for global deployments. CQ20 is ideal for IoT applications such as asset tracking, automotive, e-mobility, data loggers, fleet management and environmental monitoring.

Key Highlights



LTE Cat 4



In-built GNSS



Yocto Linux



Compact Form
factor Design



VoLTE
Support



SMS over
IMS/SG/CS



2G Fallback



USB 2.0
Interface

Basic Module Information

Basic Specification

Processor: ARM Cortex-A7 upto 1.3 GHz	
RAM:	128/256/512 MB
Flash:	128/256/512 MB
OS:	Yocto Linux (Kernel 4.14)

LTE Bands

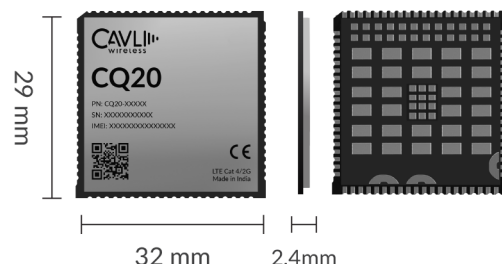
WW:	1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/40/66
NA*:	2/4/5/12/13/25/66
EAJ:	1/3/5/7/8/18/19/20/26/28/40
IN:	1/3/5/8/40
AN:	1/3/5/8/18/19/26/28
LA:	1/2/3/4/5/7/8
GSM Bands:	900 /1800 MHz

Internet Protocols

TCP/HTTP/MQTT/HTTP/HTTPS/MQTT/FTP/FTPS/PPP/SNMP

Interfaces

JTAG	x1
UART	x3
USB 2.0 (HS)	x1
HSIC	x1
USIM (1.8V / 2.85V)	x1
SDC	x2
Network Status Indicator	x2
Power ON Status Indicator	x1
SGMII	x1
I2C ²	x1
ADC	x2
PCM ²	x1
JTAG	x1
Main ANT	x1
Diversity ANT	x1
GNSS ANT	x1



Packaging

Form Factor:	LCC + LGA
Dimensions:	32x 29 x 2.4 (mm scale)
Pin Count:	144 Pins

Radio Technology

RAT Used:	LTE Cat 4 with 2G
3GPP Release:	10

Network Speed (Peak Values)

Cat 4:	DL 150Mbps & UL 50 Mbps
GSM:	DL 236.8Kbps & UL 236.8 Kbps

Constellation Coverage

GPS/GLO/GAL/BDS with QZSS	
Qualcomm Location Suite Gen8C Lite	
TTFF: 30 Sec	

Temperature Range

Operating Temperature:	-30 °C to 85 °C
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Power Characteristics

Voltage Range:	3.6 V to 4.5 V
Typical Voltage:	3.8 V

* No GSM Bands for NA

¹ Optional

² Needs SDK