

Calliope VZ120Q Module

Optimized, single-mode LTE category 1 connectivity solution
certified for use on the Verizon Wireless network



The Calliope VZ120Q module is the first, all-in-one, single-mode LTE category 1 (Cat 1) module certified compliant with Verizon Wireless Open Network specifications, operating on LTE bands 4 and 13. It can be easily paired with a GNSS solution for asset and IoT tracking. The Calliope VZ120Q module comprises Sequans' Calliope LTE Platform and all other elements necessary for a complete LTE modem system. These include an LTE-optimized transceiver, a complete dual-band RF front-end for bands 4 and 13, key interfaces, all in a single compact package. The Calliope VZ120Q module also includes Sequans' carrier-proven LTE protocol stack, an IMS client, and a comprehensive software package for over-the-air device management and packet routing. The Calliope VZ120Q module supports VoLTE and is compatible with Linux, Android, Windows and a wide range of embedded and real-time OSes.

Highlights

- ❖ Verizon Wireless certified
- ❖ Operates on LTE bands 4 and 13
- ❖ Ultra small 20 x 21 x 1.5 mm LGA module
- ❖ Based on Sequans Calliope LTE platform
 - 3GPP Release 10; software-upgradeable to Release 11
 - GCF compliant
 - Category 1 throughput (10Mbps DL/ 5 Mbps UL)
 - Multi-band FDD and TDD capable
- ❖ Embedded OMA-DM and IMS clients
- ❖ Supports VoLTE, location based services, and Wi-Fi SoftAP
- ❖ Compatible with Linux, Android, Windows and a wide range of embedded and real-time OSes
- ❖ High-speed UART and USB 2.0 interfaces (including Microsoft-certified MBIM support)
- ❖ Fully tested and calibrated
- ❖ Pin2pin compatible footprint with Sequans CAT 4 VZ22Q module

Calliope LTE Platform

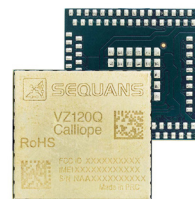
At the heart of Calliope VZ120Q module is the Calliope LTE platform, an ultra compact, cost and power-efficient LTE chipset for IoT and M2M device design. Calliope provides all necessary IoT features along with extremely low power consumption at a low cost for industry leading price/performance. Calliope's software suite is based on more than a decade of proven field experience. It is running in major 4G deployments around the world and is one of the most mature solutions in the global 4G ecosystem. It includes the entire LTE Release 10 software stack along with all drivers and host applications required for a complete 4G system. It includes a turnkey package compatible with Linux, Android, Windows and a wide range of embedded and real-time OSes, and contains Sequans' standard compliant OMA-DM and IMS clients. A field diagnostic tool is available for faster time-to-market.

Applications

The Calliope VZ120Q module is ideal for adding LTE connectivity to M2M and IoT devices. It is an ultra compact, but high performance solution, delivering a perfect blend of LTE features and ultra low power consumption. It supports a wide variety of interfaces, including USB 2.0 device, SDIO 3.0 host, USIM, HS-UART, I2S/PCM-TDM for audio and can seamlessly connect to a GNSS solution for asset and IoT device tracking.

Calliope VZ120Q module Starter Kit

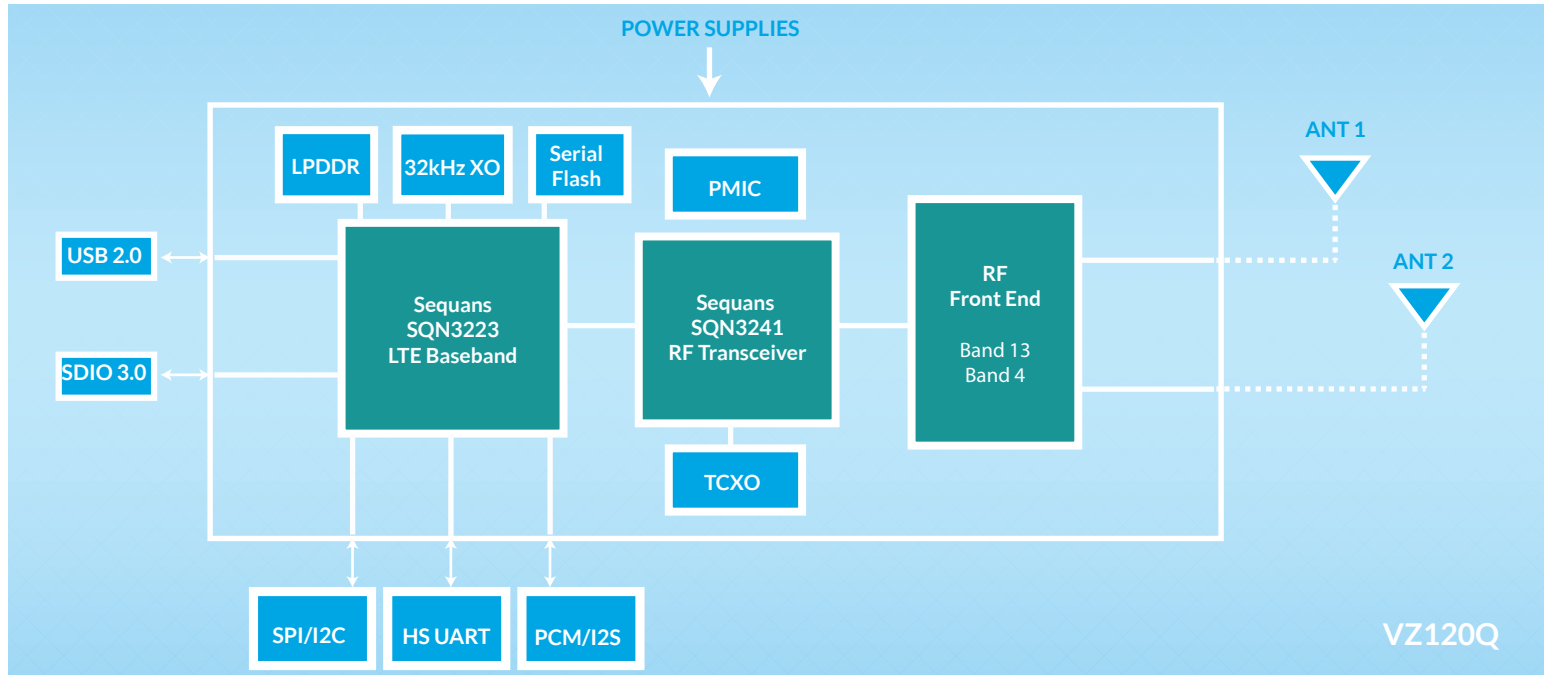
The Calliope VZ120Q module starter kit enables plug-and-play development with all major operating systems. The starter kit also includes schematic layout and BOM design files for use in PCB designs.



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Calliope VZ120Q module block diagram



Product characteristics

LTE modem

- ❖ Certified compliant with Verizon Open Network specifications
- ❖ 20x21x1.5mm, LGA module
- ❖ Operates on FDD LTE bands 4 and 13
- ❖ 3GPP Release 10 and GCF compliant
- ❖ VoLTE ready
- ❖ Certified compliant with FCC modular requirements
- ❖ Max transmit power up to +23 dBm
- ❖ RoHS Compliant

Data Interfaces

- ❖ USB 2.0 device
- ❖ SDIO 3.0 host
- ❖ SPI
- ❖ High speed UART
- ❖ PCM-TDM and I2S (audio)

Environmental

- ❖ Operating temperature: -30° C to +85° C
- ❖ Storage: -40° C to +85° C

Throughput

- ❖ LTE Category 1: 10 Mbps DL / 5 Mbps UL