

Calliope EU140Q Module

Optimized, single-mode LTE category 1 connectivity solution for Europe LTE networks operating on LTE bands 1, 3, 8 and 20



The Calliope EU140Q module is an all-in-one, single-mode, LTE category 1 (Cat 1) module designed for European operators, supporting LTE bands 1, 3, 8 and 20. The Calliope EU140Q module comprises the Calliope Platform and all other elements necessary for a complete LTE modem system. These include an LTE-optimized transceiver, a complete quad-band RF front-end for bands 1, 3, 8 and 20, and key interfaces, all in a single compact package. The Calliope EU140Q 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 EU140Q module supports VoLTE and can easily be paired with a GNSS solution for asset and IoT tracking. It is compatible with Linux, Android, and Windows and a wide range of embedded and real-time OSes.

Highlights

- Operates on LTE bands 1, 3, 8 and 20
- Ultra small 22.5 x 22.5 x 1.5 mm LGA module
- Based on Sequans' Calliope LTE Cat 1 platform
 - 3GPP Release 10; software-upgradeable to Release 11
 - PTCRB compliant
 - Category 1 throughput (10 Mbps DL/ 5 Mbps UL)
 - Multi-band FDD and TDD capable
- Embedded IMS clients
- Supports VoLTE
- Compatible with Linux, Android, Windows and a wide range of embedded and real-time OSes
- High-speed UART and USB 2.0 interfaces
- Fully tested and calibrated
- Pin-to-pin compatible with all Q series modules enabling single platform support for multiple LTE categories and multiple operators

Calliope LTE Platform

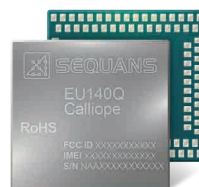
At the heart of the Calliope EU140Q module is the Calliope LTE Platform, an ultra compact, cost and power-efficient LTE chipset for IoT and M2M device design. Calliope provides all necessary IoT features along with extremely low power consumption at a low cost for industry leading price/performance. 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 IMS clients. A field diagnostic tool is available for faster time-to-market.

Applications

The Calliope EU140Q 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 EU140Q module Starter Kit

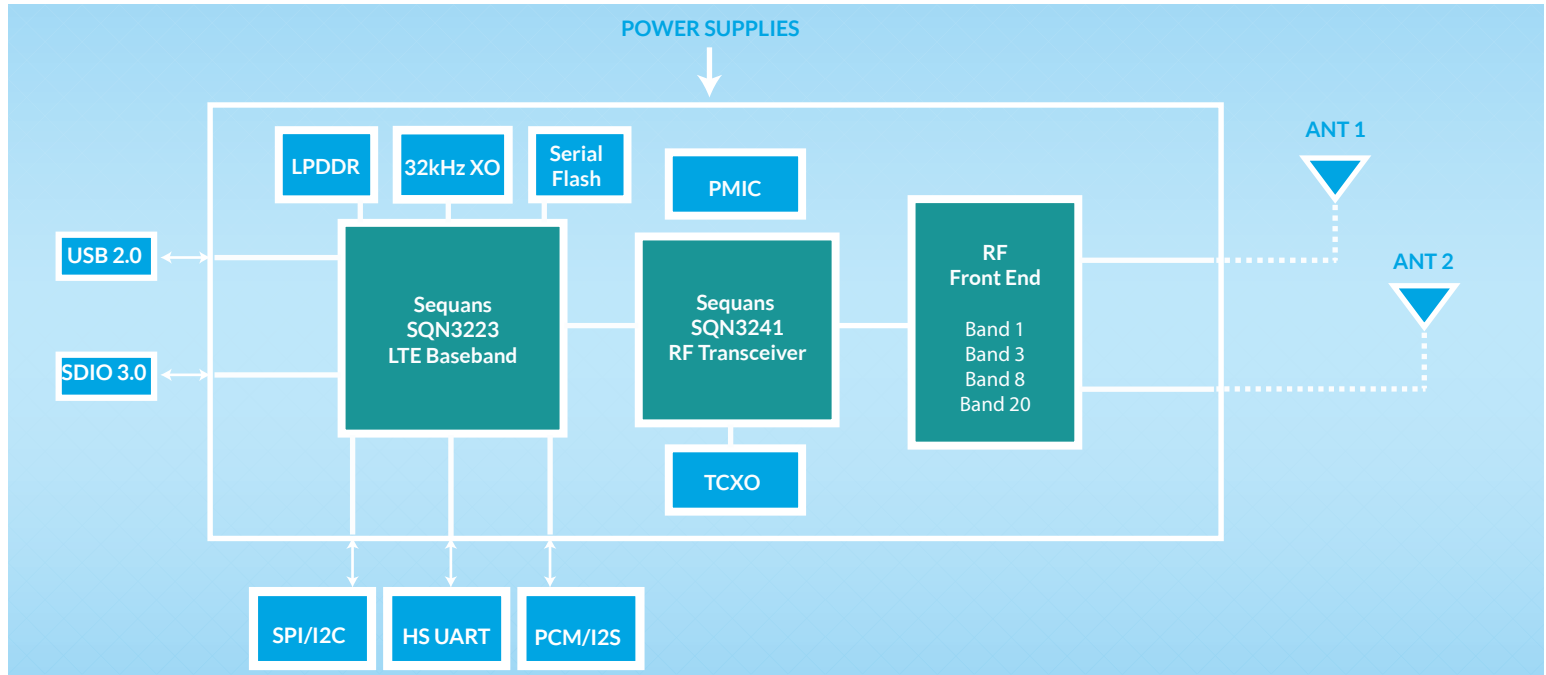
The Calliope EU140Q module starter kit enables plug-and-play development with all major operating systems. The starter kit also includes schematic layout and BOM design files for use in PCB designs.



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Calliope EU140Q module block diagram



Product characteristics

LTE modem

- ❖ 22.5x22.5x1.5mm, LGA module
- ❖ Operates on FDD LTE bands 1, 3, 8 and 20
- ❖ 3GPP Release 10 and PTCRB compliant
- ❖ VoLTE ready
- ❖ Certified compliant with RED requirements
- ❖ Max transmit power up to +23 dBm
- ❖ RoHS Compliant

Throughput

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

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 +60° C ambient
- ❖ Storage: -40° C to +85° C