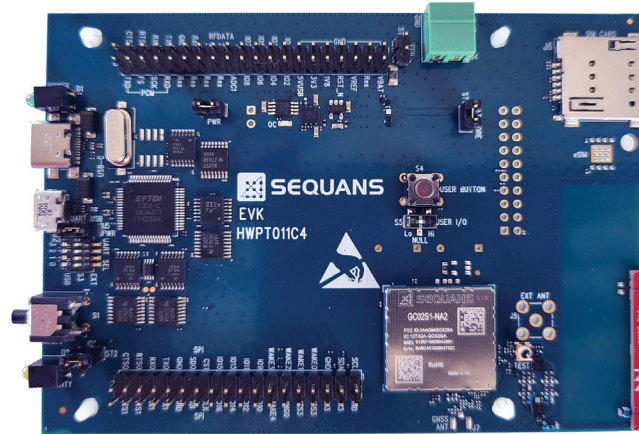# calliope**2**

GC02S1 EVK

LTE Cat 1bis

Evaluation Kit --- Connect to LTE Networks with the Cat 1bis Calliope 2 GC02S1 module

The Calliope 2 GC02S1 Evaluation Kit (EVK) allows you to easily connect to LTE networks with a Cat 1bis module. The GC02S1 EVK comes pre-packaged with a SIM card with pre-paid connectivity and an internal antenna. It is available in 2 regional variants: Europe and North America. You can connect the EVK to your PC via the USB port, or you can connect it directly to your favorite MCU by using the UART port available on header pins. With GC02S1 EVK, you can very easily measure the ultra-low power consumption of Calliope 2 GC02S1 and test its rich set of AT commands.

Highlights

- Calliope 2 GC02S1 module for Cat 1bis connectivity
- 2 variants: Europe & North America
- Pre-paid SIM with global connectivity included
- Integrated, on-board antenna
- Easy power measurement with external power supply
- Suitable for lab or field testing
- Access to all module interfaces for development and testing
- Interface connector for daughter boards

Product Characteristics

Interfaces

- One USB port with ACM and ECM interfaces
- MMF2 SIM + Classique Plastic SIM Holder
- Multiple configurable GPIOs
- PCM
- I2C/SPI

Other Features

- Soldering bridges to easily change pull-up/pull-down configuration
- Remote reset over USB
- Automatic switching when using external power supply

Software

- Field proven 3GPP LTE Cat 1bis Release 14 software stack

- Rich set of AT commands compatible with other Sequans platforms
- Embedded IP stack (TCP w/ TLS1.3, UDP w/ DTLS1.2, CoAP/MQTT, HTTP/FTP, http(S)/ICMP)
- Differential firmware update
- Open SDK (PXL) for customer applications
- MQTT allows connection to Hyper Cloud (AWS, Azure,...)

Reference Design

- Schematics, BOM and layout of EVK available as reference design

RF Frequency

- GC02S1-NA2: bands 2, 4, 5, 12, 13, 14, 17, 25, 66
- GC02S1-EU2: bands 1, 3, 8, 20, 28

Operating Supply

- 5V when operated via USB
- 3.2V-5.5V when using external power supply
- UART/GPIO logic: 1.8V

Evaluation Kit Contents

- EVK board with GC02S1 module (North America or Europe)
- SIM card with prepaid data
- One MiniUSB cable
- Embedded Ignion® antenna with antenna tuner
- User manual available for download

Usage

- Connect to a host PC (Windows / Linux) via USB cable
- Connect to a MCU via the header UART pins (1.8V)
- Send AT commands to the module for control
- Attach to LTE live network or test equipment (CMW500 or similar)
- Send data through PPP or through AT commands
- Measure power consumption of Calliope 2 GC02S1
- Connect to Host via USB-ECM standard Interface for direct IP access

For more documentation on Calliope 2 GC02S1 EVK, check our documentation site https://cloud.sequans.com/

PI-GC02S1-EVK-2-20240627

* available in future release

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