C94-M8P application kit

Easy evaluation of u-blox M8 RTK with NEO-M8P

Highlights
- Two application boards for prototyping with NEO-M8P
- Easy integration of RTK high-accuracy solutions
- Based on u-blox NEO-M8P-2 module
- Base and rover functionality
- Integrated radio link

Product description
The C94-M8P application board allows efficient integration and evaluation of NEO-M8P, u-blox’s M8 high precision positioning module.
The NEO-M8P module series introduces the concept of a “Rover” and a “Base Station”, bringing RTK technology to u-blox’s product portfolio. By using a data stream from the base station, the rover can output its relative position with stunning cm-level accuracy in clear sky environments.
The C94-M8P application board integrates NEO-M8P-2 module with both base station and rover functionality. The C94-M8P includes a UHF radio link, allowing for easy setup and fast prototyping. The board also provides connector pins for u-blox C027 and other application boards, enabling communication alternatives using u-blox cellular and short range technologies.

Features
- Receiver NEO-M8P-2 GNSS module with support for both active and passive antennas
- Receiver type 72-channel u-blox M8 engine with inertial sensing GPS/QZSS L1 C/A, GLONASS L1.10F, BeiDou B1I, Galileo E1B/C SBAS L1 C/A, WAAS, EGNOS, MSAS, GAGAN
- Nav. update rate Up to 20 Hz
- Radio link UHF operation in the license-free bands. See Product variants.

Kit includes
- 2 x EVK boards
- 2 x antennas
- 2 x USB cables

Deliverable
C94-M8P board schematic available on request

Block diagram

Interfaces
- UART Pins for UART communication, 3.3 V
- USB Micro-USB for GNSS data and power supply
- Power supply USB, 5 V Pin header, 2.7 V - 3.6 V
- LED Timepulse
- Protocols NMEA, UBX binary, RTCM

Supported external communication
C027-C20/U20/G35 Application board for cellular communication

Product variants
The product variants come with UHF operation on license-free bands, for specified regions.
- C94-M8P-1 China (433 MHz)
- C94-M8P-2 USA and Canada (915 MHz)
- C94-M8P-3 Europe (433 MHz)
- C94-M8P-4 Japan (920 MHz)

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