# C93-M8E

## u-blox M8 UDR application example

SUPPORT

### Highlights

- Based on u-blox EVA-M8E module
- Complete small form factor UDR receiver
- Integrated sensor, flash, antenna and RTC
- USB and UART interfaces

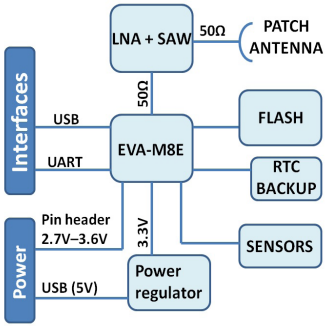
C93-M8E

### Product description

Based on the EVA-M8E module, the C93-M8E enables immediate evaluation of u-blox's Untethered Dead Reckoning technology in most vehicle applications. The C93-M8E includes antenna, RTC and peripheral components required to complete an end-product design in a small case, ready for mounting in a vehicle application. The C93 offers UART and USB interfaces and may be powered via USB or directly via pin header. The C93 may be installed in any stable position within the vehicle with adequate GNSS signal levels and needs no configuration.

u-blox UDR technology provides the benefits of Dead Reckoning (DR) without requiring speed information from the vehicle. The strength of UDR compared with GNSS alone is particularly apparent under poor signal conditions in urban environments, where it brings continuous positioning even to devices installed within the vehicle. UDR positioning starts as soon as power is applied to the module, even before the first GNSS fix is available. For further details please see u-blox EVA-M8E and NEO-M8U product documentation.

### Block diagram




### Features

| | |
|---|---|
| Receiver type | 72-channel u-blox M8 engine with inertial sensing<br>GPS/QZSS L1 C/A, GLONASS L10F,<br>BeiDou B1I, Galileo E1B/C<br>SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN |
| Nav. update rate | Up to 20 Hz |
| RTC crystal | On board, with internal battery |
| Flash | On board |
| Antenna | Internal |

### Interfaces

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

### Deliverable

PCB Schematic, layout and BOM available

### Support product

| | |
|---|---|
| EVK-M8U | u-blox M8 Untethered Dead Reckoning GNSS Evaluation Kit, supports NEO-M8U and EVA-M8E |

### Ordering information

| | |
|---|---|
| C93-M8E-0 | EVA-M8E application board,<br>Untethered Dead Reckoning |

### Contact us

For contact information, see www.u-blox.com/contact-us.