# MRP-2000 v2 Global

## Multi-GNSS RTK receiver with ATSC 3.0 and LTE

"MRP-2000 v2 Global" is a device that provides centimeter-level precision positioning using GNSS satellite signals with correction data from base stations built as infrastructure. The main feature of "MRP-2000 v2 Global" is that both ATSC 3.0 receiver and LTE module capable of receiving GNSS correction data are built-in. Users can easily acquire cm-level precise position information without a separate Base Station anywhere within our service area. This is the most innovative way to use cm-level precision positioning technology



## Components


GPS antenna


ATSC 3.0 antenna


MRP-2000 v2 Global


RS232 & Power cable


Global IoT USIM


LTE antenna

## ✷ NavPath™

## Features

### Ultra-light and compact L1/L2 RTK GPS Receiver

MRP-2000 v2 Global which the world's first product is applied and commercialized U-Blox's F9P presents premium GNSS RTK capability of High accuracy with 184 channels. While RTK fix is, it provides precise RTK performance below Average error of 3cm

### Reception of RTK correction data without any equipment

MRP-2000 v2 Global mounted LTE and ATSC 3.0 network functionality can connect to the local RTK server and receive RTK correction information independently without any additional network. Differential from connection of additional Base Station and VRS, it can connect the local RTK server conveniently and economically as soon as power input

### Faster speed with multi GNSS

MRP-2000 v2 Global receives Galileo, GLONASS, and Beidou satellites as well as GPS and changes to RTK Fix status in a shorter time

### Various GNSS information on LCD Display

MRP-2000 v2 Global can check the latitude, longitude and altitude information in real time on the LCD display and the operation status of the terminal can be also checked in real time by the LED indicators

### Positioning information (NMEA) Uplink function support

Location information by LTE module of MRP-2000 v2 Global is transmitted to a nominated server allowing real-time location information to be managed remotely (optional)

## Specifications

| GNSS TECHNOLOGY | |
|---|---|
| Channel | 184 |
| Satellites signal tracking | GPS: L1C/A, L2C GLONASS: L1OF, L2OF Beidou: B1I, B2I Galileo: E1B/C, E5b QZSS: L1C/A, L1S, L2C |
| Cold start(Time To First Fix) | < 40s |
| Aided start(TTFF) | < 2s |
| RTK Convergence time | < 10s |

| MEASUREMENT ACCURACY | |
|---|---|
| Static Accuracy | Horizontal: ±1.5m CEP Vertical: ±1.5m CEP |
| SBAS Accuracy | Horizontal: ±1.0m CEP Vertical: ±1.0m CEP |
| RTK Accuracy | Horizontal: ±(10mm + 1ppm) CEP Vertical: ±(10mm + 1ppm) CEP |
| Accuracy of time pulse signal | 30ns |
| Nav. Update Rate | up to 5Hz (Full GNSS) up to 20Hz (GPS only) |

| INTERFACE | |
|---|---|
| Input Port | GNSS: SMA ATSC 3.0: SMA LTE: SMA |
| Output Port | RS232 Serial (D-sub 9pin) |
| Correction Data Format | RTCM3.X (ATSC 3.0, LTE) |
| Output Protocols | UBX(U-bolx proprietary), NMEA, RTCM3 |

| PHYSICAL | |
|---|---|
| Dimension | 97.4mm X 46.5mm X 24mm (W x D x H) |
| Weight | 146g |
| Work Temperature | - 25℃ ~ +85℃ |

| POWER SPECIFICATION | |
|---|---|
| Input | 1. USB-C: 5V 2.0A DC 2. Rated Voltage: 9V-50.4V (Li-PO 2S~12S) |

| OPERATION | |
|---|---|
| Button | Select, Up, Down |
| Indicator | Power, GNSS, LTE/ATSC 3.0, RTCM, Fix |