

## E-Call - Rack

### Multiband GNSS Switch with controller



#### Features:

- 3 Antenna Inputs: GPS L1, Glonass, GPS L1 / Glonass combined
- Antenna Selection via control module or software application
- Integrated High-Rejection filter for the selected GNSS frequency
- Integrated GNSS receiver Ublox8 for signal handling
- GNSS receiver data output via Bluetooth or USB
- Supplying GNSS Signal output for repeaters or GNSS receivers

#### Description:

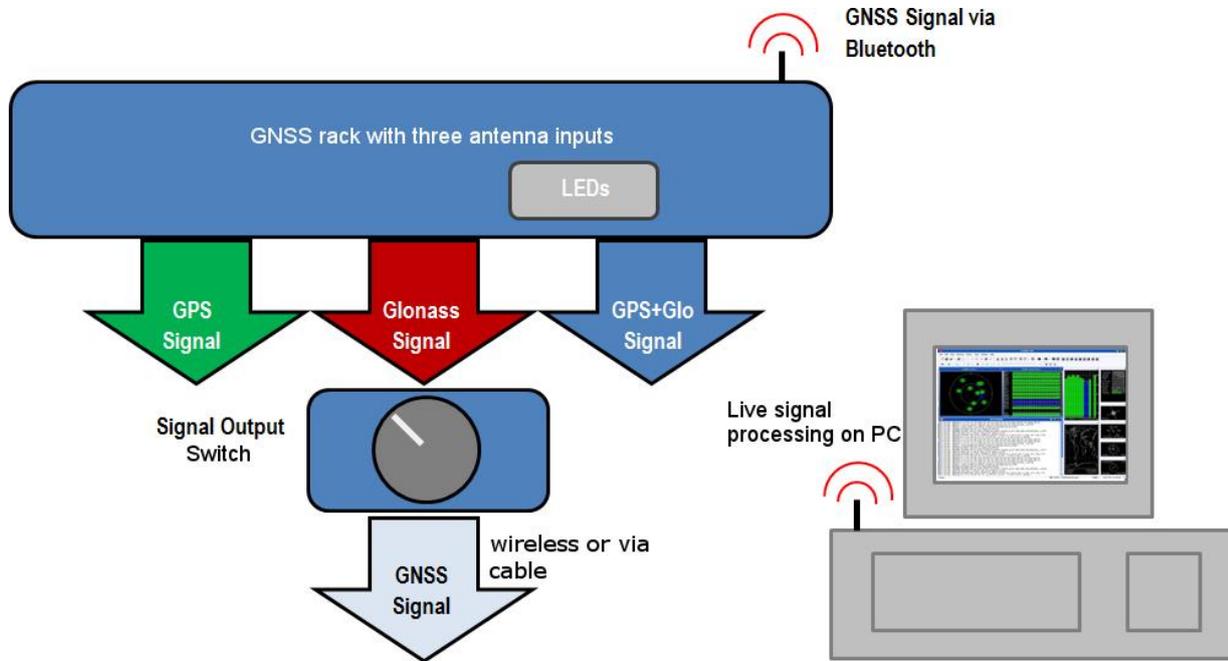
This 19" Rack (2 HE) allows you to choose one of the input GNSS frequencies and provide the chosen signal at the output. The integrated GNSS Receiver (Ublox 8) processes the chosen signal and provides the processed data via USB or Bluetooth interface to the U-Center Software. There are three antenna inputs for GPS L1, Glonass or GPS L1/Glonass combined. The integrated High-Rejection Filter will only pass a small band of the selected GNSS signal to prevent out-of-band interferences. The selected GNSS signal will be provided to the RF output to supply external devices, like GNSS receivers or repeaters with signal.

This system is especially useful for research, E-Call development and quality control to supply receiving systems with a selectable range of GNSS signals (wireless or via cable) and to show the signal data on an external PC for verification (via Bluetooth or USB).

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### Function:



### Setup:

1. Connect all GNSS active antennas to the corresponding „IN“ ports.
2. Connect the Bluetooth antenna to the corresponding port.
3. Connect the control module to the front port.
4. If desired, connect a coax cable to the „RF OUT“ port.
5. Connect included AC adapter power supply plug.
6. Connect included Bluetooth dongle to your PC and establish Bluetooth connection to the 19“ Rack (System Control->Printer and Devices->Add New device).
7. Establish the connection. The coupling code is „1234„.  
(It can take some minutes)
8. Install U-Center V8.0 or higher on your computer ([www.u-blox.de](http://www.u-blox.de)).
9. Check the COM port No.: (Bluetooth connection -> Start -> Search for „Bluetooth“), click on „change Bluetooth settings“. At the tab „COM-ports“, you can see the COM port no. with the “SPP Slave” note. Remember this number. (COM Port Nr. 5 for example, see fig. 1.1 and 1.2)
10. In the U-Center software choose the COM port no., click next to „Connect“(fig. 1.3).
11. Change the data rate to 57'600 (fig. 1.4).
12. Click „Connect“ button.

Setup is finished and the system can be used.

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### GNSS system selection:

Choose the GNSS mode by switch on the control module. The chosen mode will be indicated with LEDs at the front in three different colors (green = GPS, blue = GPS / Glonass, red = Glonass).

You can see in the U-Center software, when switching to another mode, that the corresponding satellites will be added or removed from the reception list, because there is no more signal reception from them. In addition you can modify the receiver to process signals of selected GNSS systems only. To do it, click on „View->Configuration View“ and choose the tab “GNSS“. Here you can disable specific GNSS systems by unchecking the „Enabled“ box. Approve receiver settings changes by clicking „send“ button. These settings are temporary saved on the receiver until the next repowering. For permanently changing these settings, click on „CFG (Configuration)“, choose the option „Save Current Configuration“ and click „Send“ (fig. 1.5).

### Example figures:

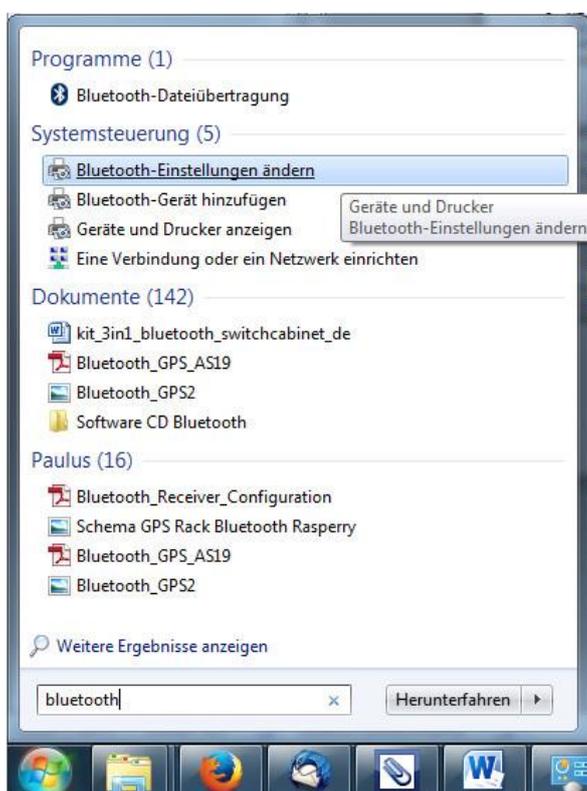


Fig. 1.1

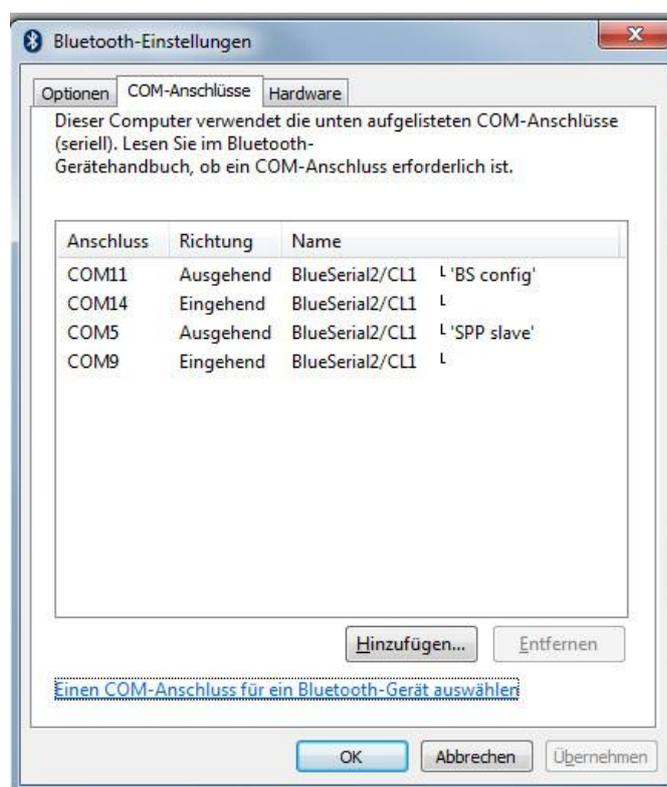


Fig. 1.2

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## Multiband GNSS Switch with controller

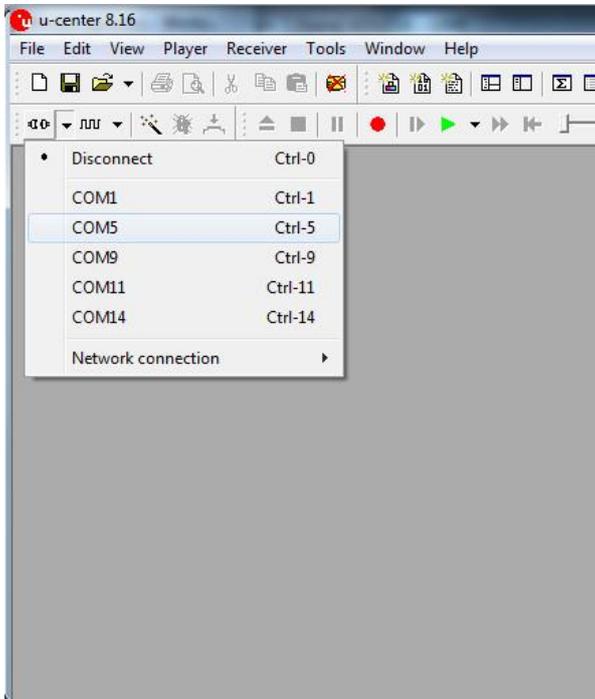


Fig. 1.3

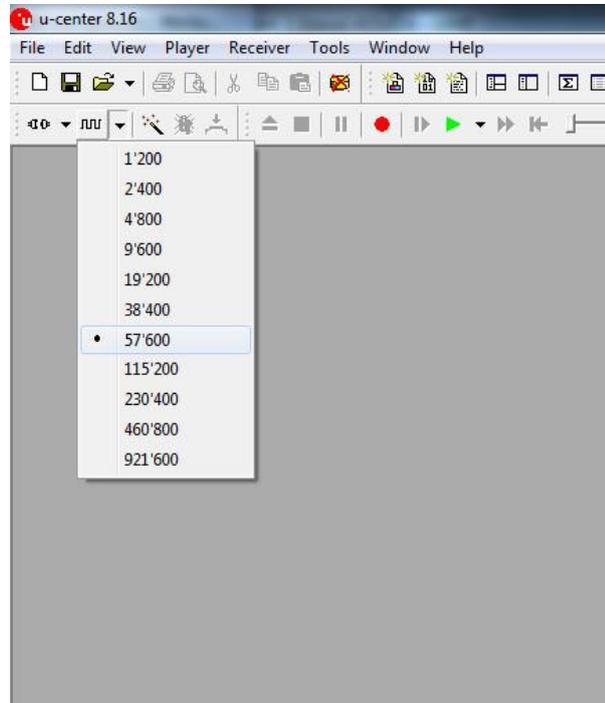


Fig. 1.4