

Real-Time Navigational Development System (RT-GNSS-DVS-01-09)

The Real-Time Navigational Development System provides all the flexibility and advantages of the CRS software receiver and guaranteed real-time operations. It is a self-contained unit that allows for the design, development, test and operation of real-time single and dual frequency GPS as well as other navigational receivers. The system consists of the antenna, downconverters, software receivers, front ends, real-time processors, FPGA correlators, pre-processors and associated embedded processors for real-time prototyping and running the software receiver.

The visualization tools of the system provide access to almost every point on the receiver chain. This allows the use of pseudorange, phase and correlator outputs at an extremely high rate.



The system also allows for the development of novel architectures, such as those using Ultra Tight Coupling, GPS/INS interpretation, and the use of CRPA antennas for A/J. In addition, the system is capable of the design, development and prototype of low noise operations in one step.

From the operator's perspective, users have the ability to reconfigure the receiver architecture, develop their own algorithms, and immediately operate a real-time system; thus reducing development time and efforts by orders of magnitude.

Units for the different versions of C/A code, dual frequency P-cod, and M-code are currently available, while a Galileo system can be provided when necessary.

