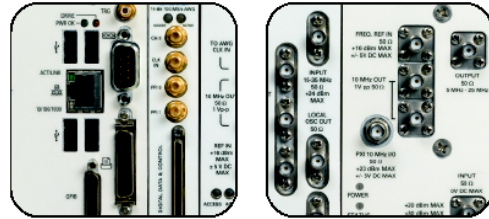


GPS L1 C/A Satellite Simulator

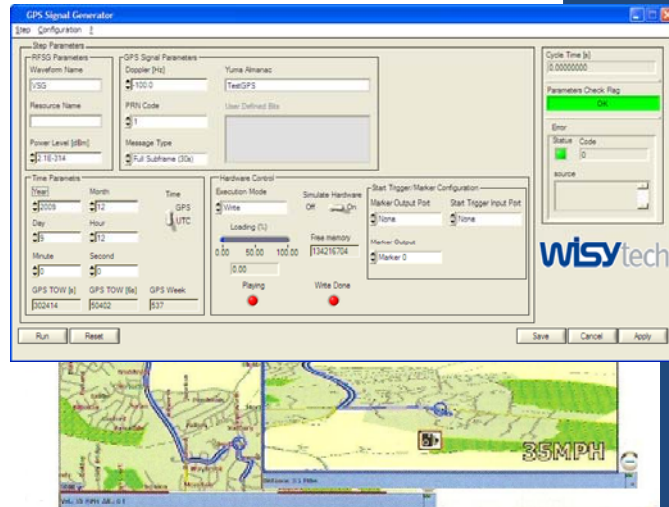
A Global Positioning System (GPS) satellite simulator is essential in factory testing to verify the correctness and the performances of the manufactured GPS receivers.



WisyGPS-S is a collection of NI LabVIEW® VI's to generate single L1 C/A GPS satellite streams for GPS receivers test in manufacturing, quality insurance and R&D applications.

WisyGPS-M, in combination with **WisyPlay** and **NI GPS toolkit**, exploits the NI PXIe-5641R IF-RIO dual player features providing multi-satellite data streams.

GPS signals are generated according to the ICD-GPS-200C document.



Features & Benefits

- ❑ Easily integrate WisyGPS functionalities inside custom NI LabVIEW® applications for creation of GPS tests.
- ❑ The generated waveforms are compliant with WisyPlay IF-RIO based dual-RF generator.
- ❑ WisyGPS-M: Multi satellite generation with the NI GPS Toolkit.

WisyGPS's are compliant with the **WisyPlay** kit that is composed by the NI PXI-5610 RF Upconverter and the NI PXIe-5641R IF Transceiver.

WisyGPS-M allows the user to generate GPS Waveforms by exploiting the NI GPS LabVIEW® Toolkit by National Instruments™ and the WisyPlay kit.

WisyGPS-M converts any kind of GPS pattern generated with the NI GPS Toolkit to be played with WisyPlay.

WisYGPS-S Key Features

Selectable PRN code for spreading: 1-32;
50 bps standard navigation message with valid complete subframes: subframe 1, subframe 2, subframe 3, subframe 4 (page 25), subframe 5 (page 25);
The 50 bps navigation message can be replaced by a used defined pattern (for example alternating zeros and ones);
TOW (Time of Week) and WN (Week Number) configurable;
RF Power: see NI Hardware specifications;
RF bandwidth 2.046 MHz.

Others features

VIs libraries for custom application within the NI LabVIEW® framework;
Stand-alone GPS single satellite simulator instrument control.

RF Hardware

Compliant with the WisYPlay kit composed by the NI PXI-5610 RF Upconverter and the NI PXIe-5641R IF Transceiver;
RF Power range: -140 dBm to +10 dBm;
RF Frequency range: from 250 kHz to 2.7 GHz;
Clock stability: better than 0.1 ppm;
RF Power Accuracy: +/-1 dB;
Frequency resolution: 1 Hz;
Spurious: maximum -40 dBc (Second Harmonic);



For more hardware details, see also Ni Datasheets for more information about the NI PXI-5610 RF Upconverter and the NI PXIe-5641R IF Transceiver.

WISYGPS-M Key Features

According NI GPS toolkit specifications.

For more information about the GPS signal generation features please see also the NI Labview GPS Toolkit specs.

Other Features

WisYGPS-M is provided as NI LabVIEW® library.

Requisites

NI GPS LabVIEW® Toolkit development environment and associated licenses are required.



Authorized Agent/Distributor



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