



NVS TECHNOLOGIES AG

NV08C Series

Evaluation Kit for the NV08C-CSM

- A complete NV08C-CSM receiver evaluation & development tool kit
- Simplified evaluation
- Learn its features & functionalities
- No additional hardware required
- Test latitude, longitude, altitude, velocity and time
- Evaluate all modes of operation
- Start system design quickly



NV08C-EVK-CSM

Evaluation Kit for the NV08C-CSM GPS/GLONASS/GALILEO/COMPASS RECEIVER

The NV08C-EVK-CSM evaluation/development kit enables developers to quickly familiarise themselves with the NV08C-CSM's features and functionalities. It is a flexible tool that allows users to evaluate the NV08C-CSM's various modes of operation, as well as to override default configurations/settings and interfaces.

Features:

- NV08C-CSM based EVK-board assembly in an aluminum enclosure
- Active magnet mount GPS + GLONASS Antenna
- Mini-USB interface cable
- USB memory stick with user software, datasheet & user manual
- Carrying case

The NV08C-EVK-CSM provides developers the means to obtain accurate real-time position (latitude, longitude and altitude), velocity and time, by utilising all available Global Navigation Satellite Systems (GNSS), including GPS, GLONASS, GALILEO and COMPASS, as well as Satellite Based Augmentation Systems (SBAS), including WAAS, EGNOS and MSAS, at any location on earth and at any time.

Connectors and jumpers on the NV08C-EVK-CSM board allows for the monitoring of intermediate signals and parameters, such as the state of the digital I/Os, the voltage levels of the power supply and the current draw of individual supply inputs.



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NV08C-EVK-CSM SPECIFICATIONS



Navigation Features

- Number of channels **32**
- Satellite access mode **All-in-view**
- GPS/GALILEO/COMPASS/SBAS L1 **1575.42 MHz**
- GLONASS **L1 1595.5 to 1609.5 MHz**
- Accuracy (CEP)*
 - horizontal
 - autonomous mode **2.5 m**
 - differential mode SBAS **1.5 m**
 - differential mode DGNSS **1 m**
 - vertical **3 m**
 - velocity **0.05 m/s**
 - time (1PPS) **15 ns**
- Time to First Fix (TTFF)*
 - re-acquisition **< 1 s**
 - hot start **< 3 s**
 - cold & warm start **30 s**
- Sensitivity
 - tracking and re-acquisition **-160 dBm**
 - acquisition **-143 dBm**
- Supported vehicle dynamics
 - velocity **500 m/s**
 - acceleration **< 5g**
 - altitude **18,000 m**
- Coordinate systems **WGS-84, PZ-90
SK-42, SK-95**

. Typical values

RF Functionalities

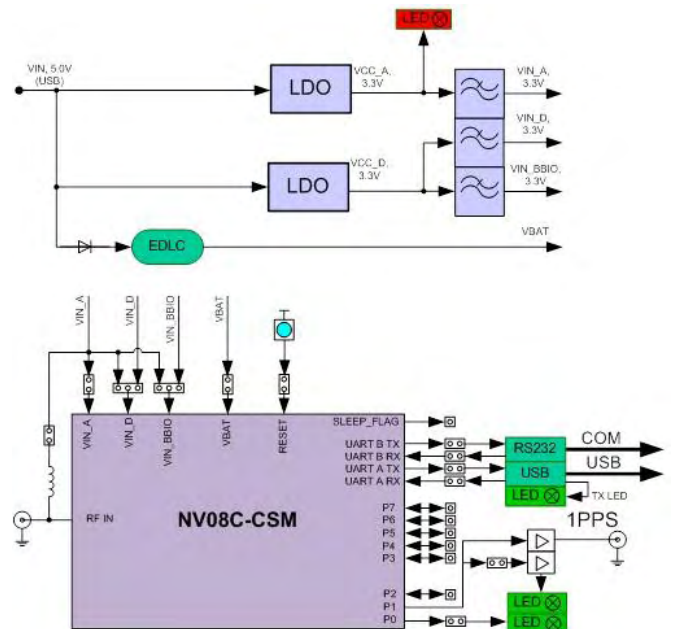
- RF structure
 - built-in LNA, SAW Filters, GPS/GLONASS Diplexer
 - 2 x RF front end chains:
 - GPS/GALILEO/COMPASS/SBAS L1
 - GLONASS L1
- Antenna type **Active¹**
- Internal clock **26 MHz TCXO**

1 - Recommended active antenna: GPS/GLONASS L1, 35MHz Bandwidth, 20 to 40dB Gain, NF < 2dB, Attenuation 35dB @ fc±70MHz

Data Interfaces

- Data update/output rate **1, 2, 5, 10 Hz**
- Data output rate in TTFF mode **(1-60 s)⁻¹**
- Supported protocols
 - IEC61162-1 / NMEA 0183
 - BINR (proprietary)
 - RTCM SC 104 v2.2
- Host data interfaces
 - RS-232-E (1.8 to 3.3V CMOS-level)
 - Mini-USB
- Data exchange rate **Up to 230'400 bit/s**

Function Diagram



Electrical Specification

- Power supply voltage **3.0 to 5.5V**

Environmental Data

- Operating temperature **-40 to +85°C**
- Maximum operating humidity **98% @ 40°C**