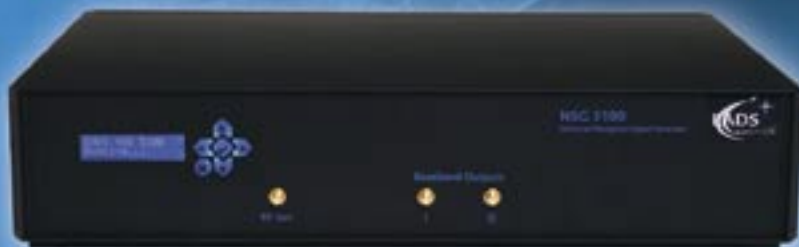


# GNSS Signal Generator NSG 5100L/H



The NSG 5100 GNSS Signal Generator from EADS Astrium is a flexible and modular signal generation unit for laboratory & field testing of GNSS equipment as well as for providing GNSS Pseudolite signals in various environments.

All the space you need



## General Information

Typical applications of the NSG 5100L include GNSS chipset and equipment development, GNSS receiver development as well as mass production testing, all Galileo\* and GPS signal analysis tasks and provision of additional ground based ranging signals.

## Specification

### Output signals/frequencies (switchable)

- E5ab @ 1191.795 MHz
- L1 @ 1575.42 MHz
- E6 @ 1278.75 MHz
- Doppler Range  $\pm 10$ kHz  
in steps of 1 MHz

(Internal OCXO may also be locked to external 10 MHz frequency standard)

### Signal Level

- Nominal NSG 5100H: -45...0 dBm  
NSG 5100L: -75...-30 dBm  
-122 dBm may be reached by additional attenuator
- Resolution 1 dB
- Pulsing RTCM, RTCA, user definable

### Signal Content

- Ranging Codes user programmable  
memory-based
- Primary Code
- Secondary Code
- Code Chip Rate configurable

## Features

- Supports Galileo\*, GPS, EGNOS and WAAS signals
- Programmable memory based ranging codes
- Configurable message data rates
- User definable transparent messages
- Signal and user dynamics fully configurable
- Standard interface for control

\* Galileo is a trademark of the European Commission and the space program Galileo is a joint initiative of the European Commission and the European Space Agency.

The NSG 5100 is fully controllable concerning the PRN codes, signal power level, doppler shift, message contents, message data rates etc.

For users interested in Galileo\*/GPS Local Elements and provision of additional ranging signals the NSG 5100H supports high power transmitting and pulsing of the signal.

### Data Message

- Data Rate Configurable  
On/Off switchable

- EGNOS/WAAS

(Message framing and encoding is done on external control computer)

### Connections

- RF Output SMA female
- 10 MHz Reference SMA female  
Output
- External Reference SMA female  
Input 10 MHz
- External 1 PPS Sync in SMA female
- Baseband I/Q out SMA female
- Command and LAN (RJ45)  
Data Interface standard RS232

## Dimensions

448 mm x 315 mm x 104 mm



The NSG5100 GNSS Signal Generator fulfills the requirements of European Union Product Liability (CE marking) and WEEE and RoHS regulations.

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