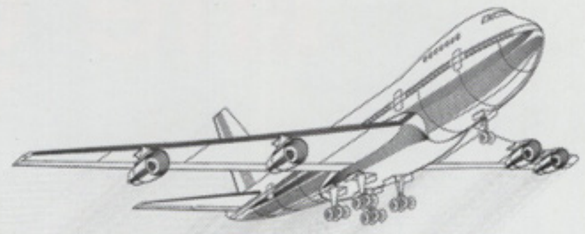
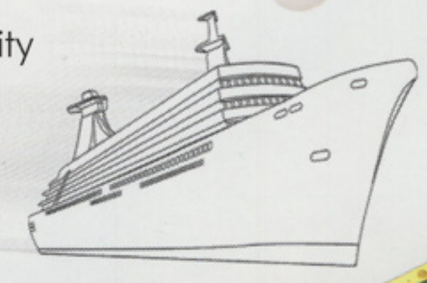
JNS100

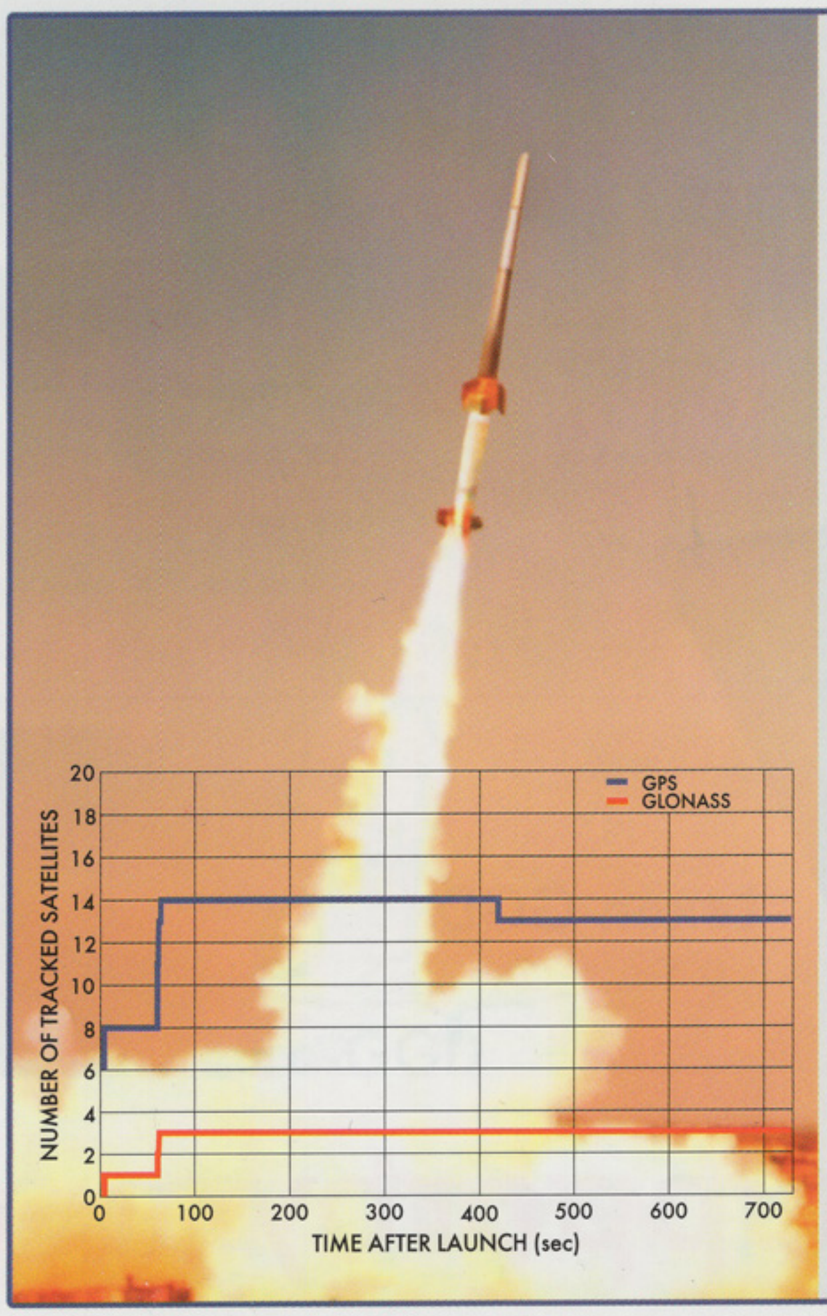
100 Hz raw data and position solutions
(no interpolation)

Extra processor for user applications



- 50-channel, all-in-view: L1 GPS, INMARSAT, WAAS/EGNOS and GLONASS.
- Low signal tracking (down to 30 dB*Hz).
- Fast acquisition and fast re-acquisition.
- Up to 30g's of dynamic.
- Almost unlimited altitude and velocity (for authorized users).
- Advanced Multipath Mitigation.
- 10 cm code phase and 0.1 mm carrier phase precision in differential modes.
- Four high speed (115.2 Kbps) standard RS232 serial ports.
- 1 PPS output (TTL) synchronized to GPS, UTC or GLONASS.
- Event marker input.
- On-board power supply accepts any unregulated voltage between 6.5 and 40 volts.
- Typical power consumption 0.8 watts.
- Dual CPU core allows to run user application software in parallel with satellites processing.
- Small size (88 x 57 mm) and weight (48 g).
- Pin compatible with JNS20.





JNS100 Flies High With Flying Colors

On July 15, 2003, JNS100 was tested aboard NASA Sounding Rocket 41.024/Erdman that was launched at White Sands Missile Range by Naval Surface Warfare Center and Northrop Grumman Information Technologies. The objective of the test was to attempt a measurement of the CO_2 abundance (both total mixing ratio and isotopic distribution) using a version of the Cryogenic Whole Air Sampler.

The vehicle was a Terrier-Improved Orion — a rail-launched vehicle that utilizes an Ignition Recovery Module Assembly. The sounding Rocket was a two stage spin stabilized rocket comprised of a Terrier MK 12 Mod 1 motor and an Improved Orion motor with burnout times at T+3.3 seconds and T+34.5 seconds.

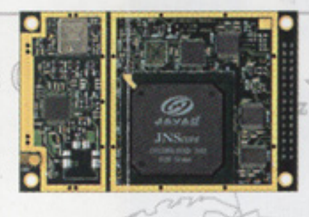
Integration of the JNS100 and telemetry data recording were provided by New Mexico State University Physical Science Laboratory.

The vehicle reached velocity of 569 m/s @ 3.3 sec, 1208 m/s @ 34.5 sec, acceleration of 21.3 G @ 14.6 sec, and roll rate of 626 @ 40.8 seconds. The rocket reached the altitude of 101.1 kilometer at T+157.5 seconds. Total flight time for the vehicle was 729.4 seconds. All of mechanical and electrical systems appeared to perform nominally.

JNS100 was able to continuously track all satellites in view and provide accurate data for the whole duration of the flight. The number of satellites tracked is shown in the diagram at the left. For most of the flight it tracked 13 to 14 GPS and 3 GLONASS satellites.

The greatest GPS technology and

JNS20



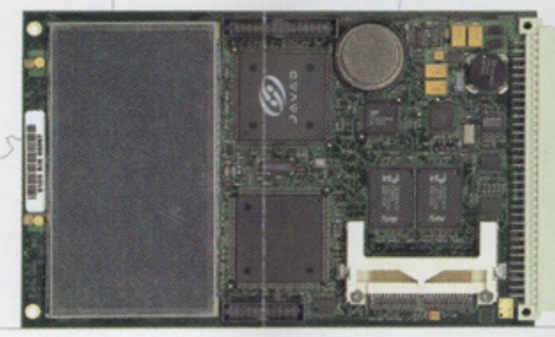
J

LGG

Euro-GD,GG

Lexon-GD,GG

Lexon-GGD



with a support you can't fin

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JNS100

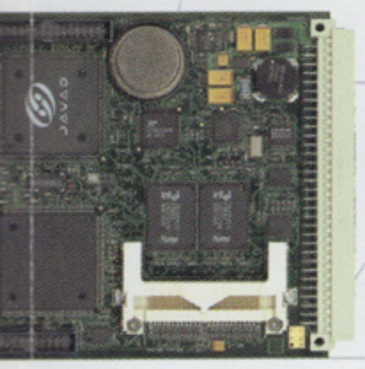
Maxor

JNSGyro-2

JNSGyro-4

MarAnt

AvAnt



Euro-GGD

n't find anywhere else

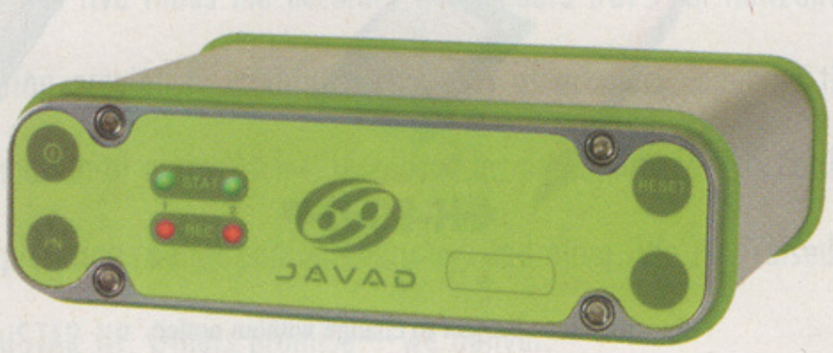
JAVAD®
NAVIGATION SYSTEMS

JNSGyro-4

JNSGyro-4 is the first and the only dual frequency satellite-based attitude system. If you ever doubted the reliability of GPS attitude systems it was because you used single frequency systems. The effective 86 cm dual frequency wavelength (compared to 19 cm of single frequency) makes JNSGyro-4 the most reliable and the fastest-to-settle attitude system in the world. JNSGyro-4 is actually four 20-channel geodetic quality dual frequency GPS (GLONASS optional) receivers packaged in one small box (110 x 90 x 130 mm) that is in turn connected to four antennas. The dual frequency code and carrier data from four antennas are processed to determine the three orientation angles and three dimensional position up to 20 times per second. The JNSGyro-4 can also be operated in RTK or DGPS mode from an external base station to provide highly accurate position and velocity.

JNSGyro-2

JNSGyro-2 is a dual frequency satellite-based two-antenna system that measures true heading. It contains two 20-channel geodetic quality dual frequency GPS (GLONASS optional) receivers packaged in one small box (159 x 49 x 138 mm) that is connected to two antennas whose base-line is fixed at the time of installation. The JNSGyro-2 can also be operated in RTK or DGPS mode from an external base station to provide highly accurate position and velocity.



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CIRCLE 1