

NAVLAN-IG3

IRNSS+GPS+GLONASS+GAGAN Rx with LAN Interface



Accord has been indigenously developing customized positioning solutions for various defense programs. IRNSS is India's own regional navigation satellite system aimed at self-reliance in navigation.

Since the launch of first IRNSS satellite, Accord has been enhancing its existing solutions and developing new products and solutions based on IRNSS. This ensures navigation and timing solutions independent of other satellite navigation systems such as GPS and GLONASS ensuring continuity and availability of service for strategic programs.

The proposed product, NAVLAN-IG3 utilizes IRNSS signals to derive location and precise timing information for network synchronization in such programs.

Product Description

NAVLAN IG3 is a Multi Constellation GNSS receiver that supports IRNSS L5, GPS L1, GLONASS L1 and GAGAN L1 Signals. The product is built on Accord's indigenous GNSS receiver technology.

The receiver has a 100Mbps LAN interface through which NMEA 0183 messages are communicated. The front panel has indications for power, position fix and link connectivity. The product also supports RS232/RS422/USB 2.0 interfaces. The position updates can be recorded in to a built-in flash memory.

Features

- ◆ Indigenous IRNSS+GPS+GLONASS+GAGAN Receiver
- ◆ 1 PPS Output and RS232/RS422
- ◆ Ethernet interfaces, connects to device through a TCP/UDP data channel
- ◆ LINUX/ WINDOWS compatible
- ◆ USB 2.0 interface
- ◆ NMEA0183 Rev 4.10 messages
- ◆ Rugged IP67 qualified unit



Few of other products realized by ACCORD



Specifications for NAVLAN IG3

Performance	
Channels	40
Signals	IRNSS L5, GPS L1, GLONASS L1, GAGAN
Cold Start TTFF	45 seconds (typical)
Hot Start TTFF	1 seconds (typical)
Positioning Modes	Standalone: Multi GNSS - GPS + GLONASS + IRNSS Single GNSS - GPS / GLONASS / IRNSS Differential: GPS + GAGAN
Horizontal position Accuracy	Standalone: < 5m (CEP) Differential : < 2.5m (CEP)
Speed Accuracy	0.1 m/s (RMS)
Position Update Rate	1 Hz
Maximum Speed and Altitude	515 m/s, -1000 m to +18,000 m

Physical	
Weight	500 g
Dimensions	105mm x 115mm x 36.7mm (L x W x H)
Chassis	Aluminum Alloy
Installation	Flange mount

Interface	
Power Supply	9V to 36V DC
Antenna	SMA female- GPS active Antenna Input Active antenna power supply (+ 3.3 to 5V /100 mA)
Ethernet	<ul style="list-style-type: none"> Ethernet 10Base- T/100Base-TX Protocols: TCP/IP, UDP, TELNET,DHCP, BOOTP, HTTP ,NTP
1 PPS (RS422)	<ul style="list-style-type: none"> 3.3V Isolated Logic Signal Load: 50 kΩ nominal
RS422 Interface	• +/- 6V Differential, 9600 to 115200 bps
USB Interface	• USB 2.0, Type Mini-B
Power Consumption	< 2 watts
Messages	Transmit: NMEA 0183 Version 4.10 sentences Receive: ASCII Receiver Commands

Environmental	
Operating Temperature	-40° C to +70° C
Storage Temperature	-40° C to +85° C
Water & Dust Resistance	IP67
Compliance	JSS 5555:2000 Class L2H

