



True North Path Finder

GNSS BASED NORTH ALIGNMENT SYSTEM

Features:

- ❖ Multi GNSS Receiver Supporting.
GPS-L1,L2,L3,L5
NavIC-L5
GLONASS-L1,L2
Beidou-B1,B2
SBAS-GAGAN
- ❖ Rugged construction to meet MIL STD.
- ❖ NMEA 3.01 output message
- ❖ Isolated Serial Ports.
- ❖ 10/100/1000 Ethernet Interface
- ❖ Dual Antenna capability
- ❖ Low Power consumption



Electrical Specification

Power Input	9-36V DC Continuous
Power consumption	<6 Watts
Operating Temperature	-30 °C to +70 °C
Storage Temperature	-40°C to +85°C

Physical specifications

Dimensions	270mmx150mmX60mm
Weight	<2 Kgs
Installation	Flange Mount
Cooling	Passive Conduction
Chassis	Aluminium Alloy
Color	MIL Green
Mass Continuity	Severty as per MIL-STD-461F
MTBF	200000 hours

Receiver Specifications

No. of GNSS Constellation	04
Signals	GPS L1(C/A)/L2(C)/L5, GLONASS L1(C/A)/L2(C/A), Beidou B1/B2, IRNSS L5, SBAS L1(GAGAN, WAAS)
Hot start TTFF	<1 Seconds
Cold Start TTFF	<45 Seconds (95%)
Sensitivity	-136 dBm Acquisition -155 dBm
Positioning Accuracy	Standalone mode: 1.5m(H) 2m(V) (95%) With SBAS:<1m(H) 1m(V) (95%) With DGPS: 0.25m(H) 0.5m(V) (95%) With RTK: 5mm + 0.5ppm(H) 8mm + 1.0 ppm (V) (95%)
GNSS Altitude Accuracy	Antenna separation: 1m(Min) Heading: ≤ 0.4° Pitch/Roll : ≤ 0.5°C
Velocity Accuracy	0.2 m/s(95%)
Time Accuracy	<100ns (95%)
Update Rate	1Hz ~ 20Hz
Dynamics	Max Velocity: 515m/s Max Acceleration: 4g
Altitude	Max Altitude:18,000m Min altitude: -1000m



Physical specifications

Power	24V DC Power supply(230V AC to DC Adapter will be Provided for AC Input)
Antenna Port	GPS/GLONASS/Beidou/IRNSS active Antenna(+5.5V /100 mA max)
Communication Ports	10/100/1000M Ethernet(UDP, TCP/IP) - 1No. Isolated RS422 - 1No. Isolated RS232 - 1No.
Data Formats	1) NEMA 3.0 2) RTCM SC104 Ver 2.1,2,3



User Interface

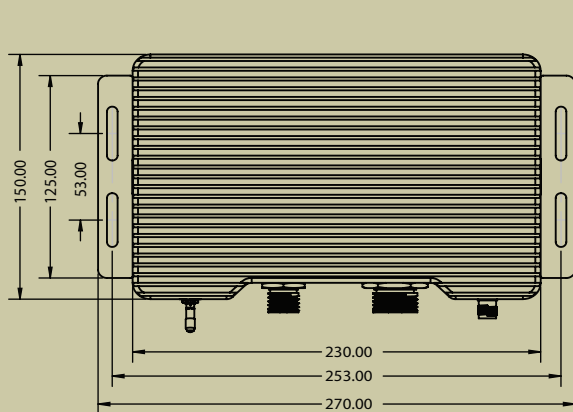
Data Reader/ Software Application	1) Windows/ LINUX Based utility for reading North Alignment Data
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EMC (MIL-STD 461E/F Compliance)

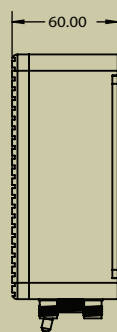
EMC Test Spec	Type of Test	Frequency Range	Tested Range
CE101	Conducted Emissions	30Hz ~10kHz	30Hz ~ 1kHz :110 dB 1k-10k:110-90 dB
CE102	Conducted Emissions	30Hz ~10kHz	10kHz ~ 500KHz: 100-66dB, 500KHz~10MHz:66dB
RE101	Radiated Emissions	30Hz ~100kHz	(30~100k :180-110 dBpT)
RE102	Radiated Emissions	10kHz ~ -18GHz	(2MHz~18G Hz: 44-89 dB)
Vibration	5 ~ 500 Hz, 1.48 & 1.90 & 2.24 Grms, Method 514.6 / Procedure I		
Shock	Method 516.6 / Procedure I		

Ordering Guide

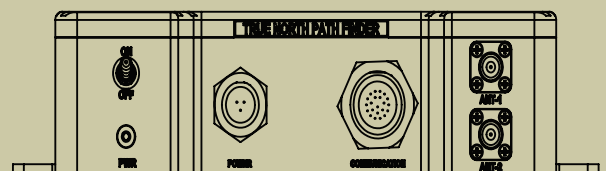
V3N-TNPF-ANT1-ANT2-LMR240-15M	True North Path Finder With 2 GNSS Antenna & 15m LMR240 Cables For Each Antenna
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TOP VIEW



SIDE VIEW



FRONT VIEW



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