

REAL TIME NAVIGATION UNIT FOR ORCA® AND GATOR®

The PowerRTNU, used with ION's Orca and Gator command and control systems, is navigation hardware that interfaces with onboard and in-water systems. VxWorks operating system runs on each of the proven off-the-shelf VME-based CPU boards which interface to vessel sensors and systems via ION designed and manufactured VME Transition Modules [VTMs]. Mission critical application and interface code is developed in-house to run on VxWorks. A lower capacity variant, the PowerRTN μ , is also available.



KEY FEATURES

- 7 slot expandable VME64x chassis for 19" rack or desktop mounting
- 2 PowerPC VME single board computers each running VxWorks RTOS on 1.5 GHz processors
- 10/100/1000BaseT auto-negotiate speed select external Ethernet network (connection to vessel navigation network) + secondary private Ethernet network (e.g. to Gun Controller)
- 10/100/1000BaseT internal, private Ethernet network
- Interfacing to ~ 250 external sensors and headers
- Built-in NTP server
- The standard PowerRTNU is supplied with 15 x RS232 serial ports - 7 ports also selectable for RS422/RS485/NMEA 0183. 7 and 23 port options are also available by adding or removing a VME and VTM board.
- 12 output triggers – selectable TTL active HI/LO & relay NO/NC
- 6 input triggers - selectable active HI/LO
- 1PPS signal available as raw 10 uSec +ve going pulse or switchable on 3 output triggers as 100 mSec +ve going pulse
- GPS clock delivering accurate timing and standalone GPS position to initiate navigation calculation
- GPS clock 'holdover' mode keeps good time for approximately 24 hours during GPS signal outage
- All input and output connectors on rear panel
- Universal input power supply
- DC Power LED indication, LAN activity & CPU activity/status visible through front panel
- VTMs contain serial, digital, GPS and other interface and signal conditioning circuitry
- RoHS compliant





Dimensions & Power

Dimensions	480mm x 500mm x 180mm (4U High)
Weight	14 Kg
Power Supply	Universal Input 90 - 255V @ 47-63 Hz
Power Dissipation	Maximum 400W (< 1.5A @ 220V AC, <3.0A@ 110V AC)

Environmental

Operating Temperature	0°C to + 50 °C, Forced Air Cooling
Storage Temperature	-40 °C to +80 °C
Operating Humidity (NC)*	5% to 85%
Storage Humidity (NC)*	5% to 95%
*Non-condensing	

EMC Compliance and Electrical Safety

Electromagnetic Compatibility, Generic Emission Standard Part 6-4	EN 61000-6-4 : 2001
Electromagnetic Compatibility, Generic Immunity Standard Part 6-2	EN 61000-6-2 : 2001
Electrical Safety Assessment, Low Voltage directive Testing LVDT	EN 60950: 2000

ION has been delivering solutions to the oil and gas industry for over 40 years, and is the leading provider of real-time, multi-vessel positioning and control systems. For further information contact cs1-sales@iongeo.com.

About ION

ION is a leading provider of technology-driven solutions to the global oil and gas industry. ION's offerings are designed to help companies reduce risk and optimize assets throughout the E&P lifecycle.