

## Navtech Radar RPU N-700



### Overview

Navtech's Radar Processing Units (RPUs) are custom built hardware platforms tailored to manage the demands of high data throughput and intensive processing typical of radar tracking systems. They are designed to work reliably 24x7 in harsh environments. All systems undergo a comprehensive burn-in and have been tested exhaustively for compatibility and performance with Navtech's radar management software.

Front View



Back View



The new N-Series is based on well-established industrial grade components. All the parts are manufactured using tight revision control and are included in long term development programmes which guarantee availability over many years and provides for future upgrades.

Each system has a high level of redundancy. The N-700 comes as standard with a hardware RAID controller configured for level 5, redundant cooling fans and redundant power supplies. The system also includes a BIOS level watchdog timer that can restart the whole system in the unlikely event of it becoming inoperable.

Additional equipment options include a system management card which enables operators to remotely analyse and resolve hardware problems.

Each system has good expansion capability and the N Series 3U chassis allows for full height PCI and PCIe expansion cards. Please contact Navtech Radar if you require further information on the expansion options or if you have a specific requirement.

The N-700 is designed to handle a heavy processing load and is suitable for managing up to 8 radars\*.

\*The total load of a system is based on a number of factors therefore it will vary from site to site. A key consideration is the number of tracks the system will be expected to monitor at any given point in time. This means in more demanding situations the RPU may be able to support less radar and in others it may be able to support more.

## Hardware Specifications

CPU	Intel Core i7 3770 3.4GHz (Quad Core with Hyper-threading, 8MB Cache)
Chipset	Intel C216 Express PCH Socket LGA1155
RAM	16GB (2x8GB DDR3 1333MHz)
Supported RAM	Up to 32GB (subject to capabilities of the OS)
Video	Intel HD4000 (Integrated Graphics)
LAN	2x On-board Intel 1GbE Adapters (Intel 82574L & 82579LM)
Audio	Realtek ALC889 7.1 High Definition Audio
HDD Controller	LSI MegaRAID SAS 9240i Controller – supports hardware RAID 0/1/5/10
HDD Interfaces	RAID Controller supports 4x SATAII Mainboard supports 2x SATAIII (6.0GB/s), 4x SATAII (3.0GB/s)

## Storage

HDD	3x Seagate 500GB 7200RPM SATA HDD 2.5" RAID edition
RAID Setup	3x HDD in RAID 5 Configuration (Total storage ~ 1TB)
HDD Capacity	4x 2.5" External Hot Swap
Options	2-4x 120GB SSD for even greater speed and resilience in harsh environmental conditions.

## System Expansion

PCI Express	1x PCIe x16, 1 x PCIe x4 slot and 1x PCIe x1 slot
Standard PCI	1 x 32-bit PCI Slot

## Supported OS

Windows 7 Professional SP1 x64

## LED's and Switches

Front and Rear of	Power Switch
Chassis	Power LED, HDD Activity, Fan and Temperature warning lights

## External Interfaces

Front	1x USB 2.0 Port
Rear	4x USB 2.0 Ports, 2 x USB 3.0 Ports (6x total) 2x RJ45 (1GbE) 1x 9-pin RS232 Serial Port 1x DVI-D Port 1x D-Sub 15-pin VGA Port 2x HDMI Ports 5x Audio Jacks & 1x SPDIF

## Mechanical Design

Design	EIA RS-310C 19" Standard Rackmount Rack rails not required Can be mounted forward or rear facing. Power switch and status LEDs are duplicated on the front and rear.
Colour	Black
Dimensions	441mm (W) x 133mm (H) x 305.4mm (D)
Package Size	470mm (W) x 250mm (H) x 560mm (D)
Cooling	2x 40x28mm ball bearing fans
Air Filters	2x Filters front of chassis – easily replaceable. Shipped with spare set.
Gross Weight	Approximately 9Kg

## Environmental - Operational

Temperature	10°C – 35°C
Humidity	8% - 90% non-condensing

## Environmental - Storage

Temperature	-20°C - 60°C
Humidity	5%-95% non-condensing

## Electrical and Power

CPU Max TDP	77W (22nm Lithography)
PSU	2x 400W (12V, 28A)

## Testing

Full burn-in and diagnostics testing prior to shipping
Test reported included with each unit

## Regulation

FCC – Class B, CISPR22 – Class B, TUV, IEC-1000-3-2 Class D, RoHS
UL 1950, CAS 22.2 NO/950, TUV IEC 950

For further information  
please contact:



### Navtech Radar Limited

Home Farm  
Ardington  
Wantage  
Oxfordshire  
OX12 8PD UK  
Tel: +44 (0)1235 832419  
sales@navtechradar.com  
www.navtechradar.com

