nTUF 600

Intel® Atom™ Dual Core D525 Processer, 1.8GHz
Marine Computer for ECDIS Application in Bridge Control

Main Features

- Onboard Intel® Atom™ Dual Core D525 processor, 1.8 GHz
- 4x USB ports
- Dual M12 connector for Intel® 82574L GbE LAN ports
- 1x VGA display output
- 2x RS232
- 2x PS/2 for keyboard and mouse
- 1x external CFast socket
- 1x Mini-PCIe with two Antenna Holes
- Support +24V DC power input
- Dual cold swappable 2.5" SSD tray
- Supports ATX Power Mode, WoL, LAN teaming and PXE function

Product Overview

nTUF Series stands for NEXCOM Tough Computer mainly applied to ECDIS, Radar and Positioning system applications in Marine Bridge and Control Room. The nTUF 600 Marine Fanless Computer is based on Intel® Atom™ Dual Core D525 platform providing optimized graphic and computing performance with rich interfaces for Marine peripherals connection. The nTUF 600 features with 4x USB2.0, 2x M12 GbE LAN port, 1x VGA, 2x DB9 RS232, 2x PS/2, 1x CFast socket and two cold swappable 2.5" SSD trays on the front panel. In the rear side, the nTUF 600 offers 4x Digital Input, 4x Digital Output and 4x NMEA ports with 2KV optical protection. The 1.5KV isolation protection design on nTUF 600 enhance the system operation reliability in marinetime application.

The nTUF 600 and nTUF 610 have been certified by DNV, compliant to DNV 2.4, IACS-E10 and IEC60945 standards. With DNV certification, nTUF system can be easily applied to integrated bridge system, vessel automation system, ECDIS application for all vessels like bulk carriers, workboat, cruise, sea patrol..etc.

Specifications

CPU Support

- Onboard Intel® Atom™ Dual Core processor D525, (1M cache 1.8 GHz),
- Intel® ICH8M PCHs chipset

Main Memory

- 1x DDR2 SO-DIMM sockets, support up to 2 GB DDR2 667/ 800 SDRAM, un-buffered and non-ECC

I/O Interface-Front

- ATX power on/off switch
- HDD access/ power status LEDs
- LAN1 & LAN2 status LEDs
- 4x USB2.0 ports
- 2x M12 GbE LAN ports
  Intel® 82574L GbE LAN controller on board with1.5KV surge protection
- 1x VGA output
- 1x DVI-D & 1x HDMI (only work when optional MXM 3.0 graphic module is installed)
- Audio jack (speaker-out & Mic-in & Line-in)
- 2x antenna holes
- 2x DB9, RS232
- 2x PS/2 for keyboard & mouse
- 2x cold swappable 2.5" HDD tray
- 1x external screwed type CFast socket
- 3-pin +24VDC input
- 1x external fuse;10A

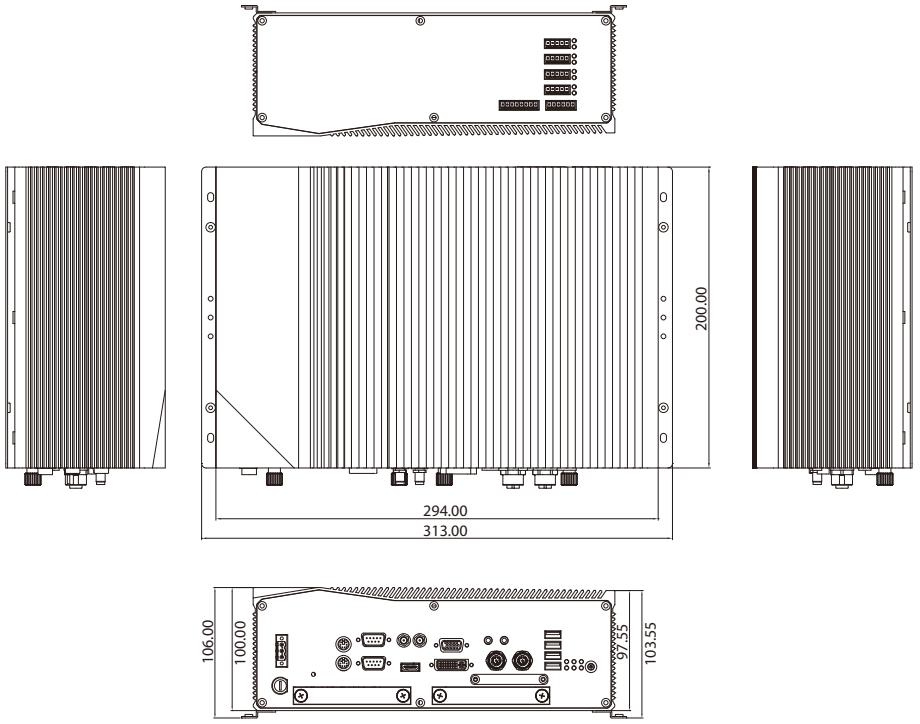
I/O Interface-Rear

- 4x Digital Input: 6-pin screw terminals
  Voltage level: 5V, TTL-level
- 4x Digital Output: 8-pin screw terminals
  +36VDC with 100mA relay
- 4x NMEA interfaces
  Signal: TX/ RX signals
  2KV optical isolation protection

Device

- 2x 2.5" SSD driver bay
- 1x external CFast socket
- 1 x Mini-PCIe socket
  Default: support optional Wi-Fi module
  Option: support optional 3.5G module

Dimension Drawing



Power Requirements
- DC input range: +16V to 30VDC input
- Nominal DC input: +24VDC input with 1.5KV isolation protection
- Pin definition: Positive, Negative and Chassis Ground

Dimensions
- 294mm (W) x 200mm (D) x 100mm (H) (11.6"x 7.9"x 3.94")

Construction
- Aluminum chassis with fanless design

Environment
- Operating temperature:
  Ambient with air flow: -25°C to 55°C
  (Follow Protected b device type in IEC60945, E10 and DNV Standards)
- Storage temperature: -20°C to 80°C
- Relative humidity: 10% to 93% (non-condensing)

Certifications
- IEC60945 4th
- IACS E10
- DNV 2.4

Ordering Information

Barebone
- **nTUF 600 (P/N: 10M00060000X2)**
  Intel® Atom™ Dual Core D525 Marine Fanless Computer