NuoRui 挪瑞科技

# Electronic Chart Display and Information System

Nuorui Electronic Technology Co., Ltd.

# RYECDIS-2012L

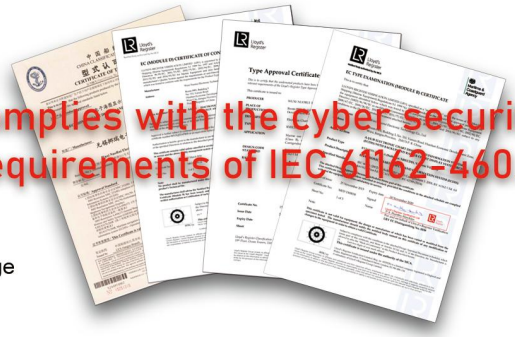
RYECDIS-2012L is a high-performance Electronic Chart Display and Information System (ECDIS). Fully compliant with international ECDIS standards, it provides a full suite of functions including electronic chart data loading and updating, route planning and checking, route monitoring, measurement and calculation, as well as integrated alarms based on chart data and real-time sensor inputs.

Beyond meeting mandatory international requirements, RYECDIS-2012L integrates advanced features such as radar image overlay, Conning, raster charts and network-based system deployment, further improving safety, efficiency and operational convenience during vessel navigation.

RYECDIS-2012L has been certified by the China Classification Society (CCS). It has been widely installed and operated on chemical tankers, bulk carriers, oil tankers, container ships, fishery patrol vessels, maritime surveillance ships, and various types of engineering vessels.

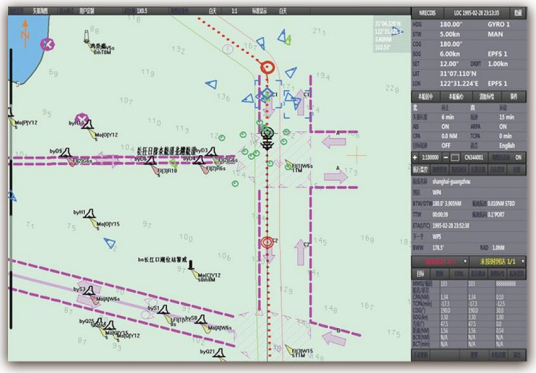
# Feature Introduction

- **Chart Data Compatibility**: S-57, S-63 and ARCS
- **Chart Updates**: CD, USB, E-mail or Online
- **Display Orientation**: North up, Course up and Heading up
- **Motion Mode**: Relative motion and True motion
- **Route Type**: Rhumb Line, Great Circle and combined route
- **Route Planning**: Route check with alarm output; Simulating the voyage
- **Real-time Sensor Input and Monitoring**
- **Chart Information Query**
- **Position Search**: port name, Latitude and Longitude
- **Manual Chart Update and Editing**
- **Ship's Log Record and Replay**



Complies with the cyber security requirements of IEC 61162-460.

# system integration



- Integrates with GPS, BeiDou, GYRO, ARPA radar, speed log, echo sounder and anemometer
- Supports NMEA 0183 and IEC 61162-450
- Capable of tracking over 2,000 AIS and / or ARPA targets

## Reliability assurance

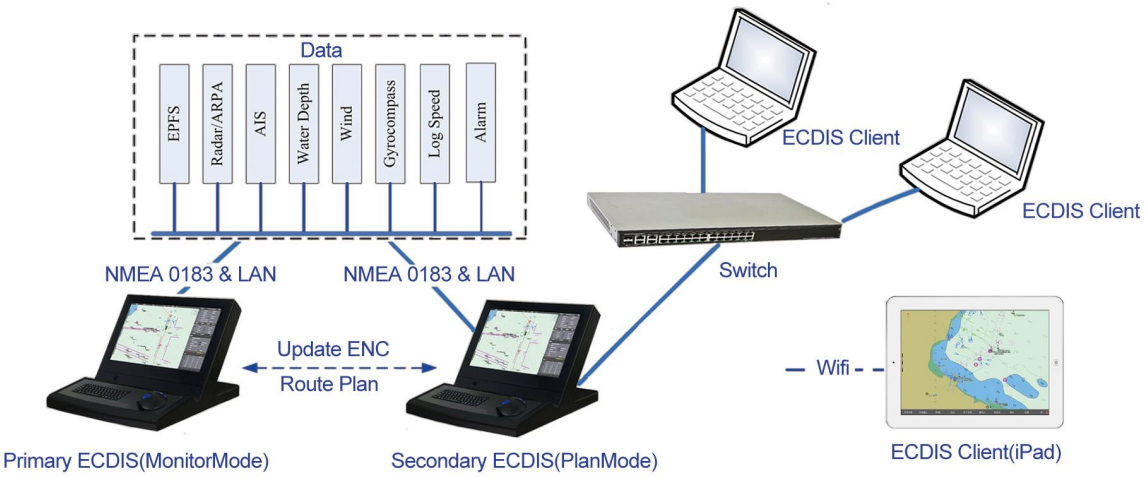
- **Processing Unit**: Fitted with solid-state drives (SSD), featuring anti-vibration performance, high durability, fanless design, and wide operating temperature range.
- **Display Unit**: Professionally engineered specifically for marine environments.
- **Backup Hard Drive**: In the event of system software failure, quick recovery can be achieved by simply replacing the backup hard drive.
- **Dual Power Supply**: Automatically switches to 24V DC when 220V AC power fails, ensuring uninterrupted operation without a UPS.

## Product Features

- **Dual-Language Support**: Chinese and English
- **100% independent R&D**: with flexible customization available to meet specific user requirements
- **Multi-Mode Switching**: Seamless switching between ECDIS, Conning, and Radar
- **Comprehensive Chart & Publication Support**: Provides global digital chart data and digital publications, including Tidal data, List of light and Radio Signal
- **Tailored Training Services**: Offers type-specific training with diverse training methods
- **Modular & Versatile Installation**: Adopts a modular design, supporting flush-mounted, desktop and stand-alone installation
- **Flexible Deployment**: Supports single machine, dual-machine backup and network-based deployment

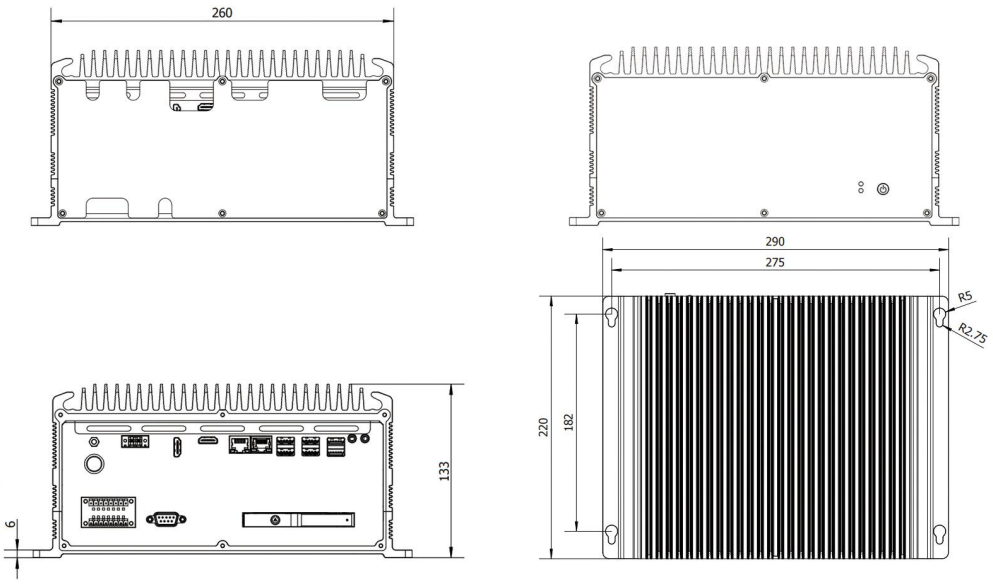
## LAN-ECDIS

With the continuous advancement of information technology, marine equipment is becoming increasingly digitalized and intelligent, and shipboard LAN applications are expanding steadily. In response to customer demands, we provide an ECDIS solution based on the ship's local area network, referred to as LAN-ECDIS. For large vessels, LAN-ECDIS serves as an integrated navigation solution that transmits navigation and electronic chart data to multiple terminals — including mobile wireless access terminals — from the main ECDIS unit installed on the bridge. In cases where the vessel is already equipped with a third-party ECDIS, the same solution can still be implemented using a dedicated server computer, without affecting the normal navigation operation of the existing ECDIS.

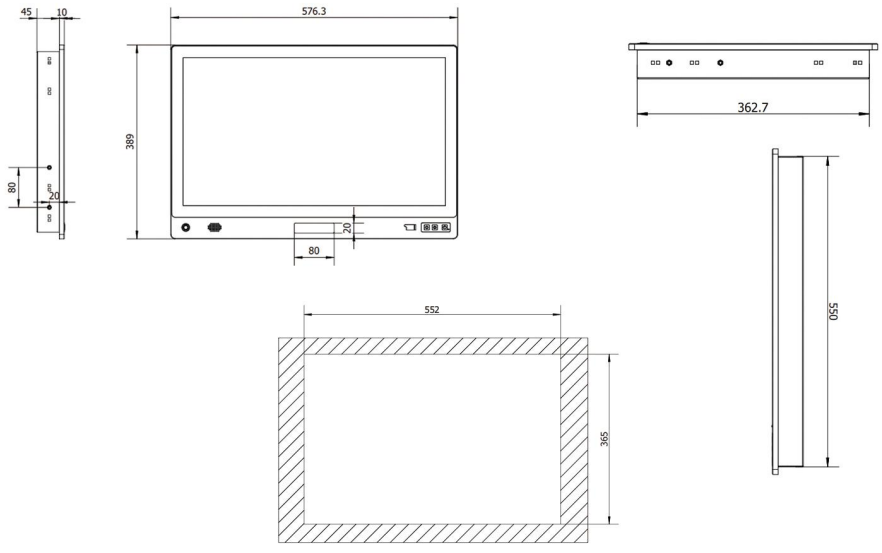


# Specifications

- Processing unit




- Display unit

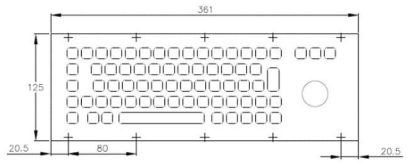


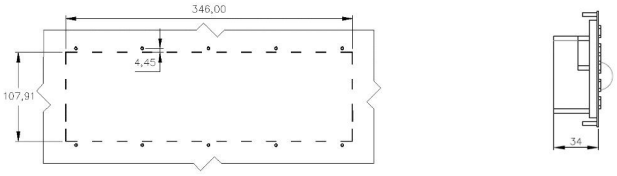

23.8 inch

Display unit size options: 19, 21, 23.8, 27, 32 inches

(If you have any other requirements, please contact the nearest seller)

- Control unit




# Performance parameters

- **Maritime Specific Computer**
  - High-performance 11th Gen Intel® Core™ i5 CPU, 8 GB DDR4 RAM
  - Dual independent display (2× HDMI), 2× Gigabit Ethernet ports
  - 8× NMEA 0183 interfaces, 2× USB 3.0, 4× USB 2.0
  - 256 GB solid-state drive (SSD)
  - Windows® 10 operating system
- **Performance Standards**
  - IEC 60945, IEC 61174, IEC 62288, IEC 61162-1, IEC 61162-2, IEC 61162-450, IEC 61162-460
- **Environmental Specifications**
  - Operating temperature: −15 °C to +55 °C
  - Storage temperature: −20 °C to +60 °C
  - Relative humidity: 10–95% RH @ 40 °C, non-condensing
- **Electrical Characteristics**
  - Input voltage: 9–36 VDC (2-pin); nominal 24.0 VDC
- **Mechanical Specifications**
  - Operating vibration (with SSD): 1.5 Grms, 5–500 Hz, 1 hour per axis
  - Operating shock (with SSD): 10 G, half-sine wave

Passion • Refinement • Strength • Persistence

NuoRui

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