Specification

Main Unit	
System	Intelligent operating system
CPU	2.4GHZ octa-core 64-bit
RAM	8GB
FLASH	32GB
GPU	ARM Mali G610
Touch panel	Capacitive multi-touch
Size	17 inches
Brightness	600 cd/m² (Max)
Viewing angle	Full perspective 85°
Resolution	1280×1024
Power voltage	DC 18V-36V
Audio output	2×3W
MicroSD card	The two SD card slots support 512GB high-speed Micro SD (TF) cards in FAT32 and NTFS formats, and support external 2T M2 SATA hard drives
Microphone	Built-in microphone
Front camera	Binocular HD camera with intelligent fill light
Bluetooth	BT5.0
WiFi	802.11 b/g/n
Ethernet	1000Mbps
5G communication	Support
NMEA0183	4 ports data interface, baud can be set independently, including 2 ports input; 2 ports output
NMEA2000	Support GNSS, AIS, heading and other data communication
Other interface	1 audio output; 1 alarm output; Support 1080P resolution HDMI and typeC, can be the same screen or dual display output
Working temperature	-15°C～+55°C

| Class B Transciever	
Frequency	156.025 ～ 162.025MHz
Bandwidth	25KHz
Modulation	GMSK/FM
Data Rate	9600bps
Number of AIS transmitter	1
Number of AIS receiver	2 (channel A and channel B)
AIS channel A(default)	CH87B(161.975MHz)
AIS channel B(default)	CH88B(162.025MHz)
TX output power	2W
RX sensivity	<-107 dBm@ 20%PER

GNSS		
Receiver		72 channels
Receive frequency		GPS L1: 1575.42MHz, BDS B1: 1561.098MHz
Accuracy	GPS&BDS	2.5m (CEP50%, open sky)
	GPS	5m (CEP50%, open sky)
	BDS	5m (CEP50%, open sky)
	DGNSS	1m (CEP50%, open sky)
Speed Accuracy		0.1m/s(50%@10m/s)
Time to First Fix		<32s (Cold Start), <1s (Hot Start)

Installation dimensions (unit, mm)

Counter Mounting

Flush Mounting

CUT OUT
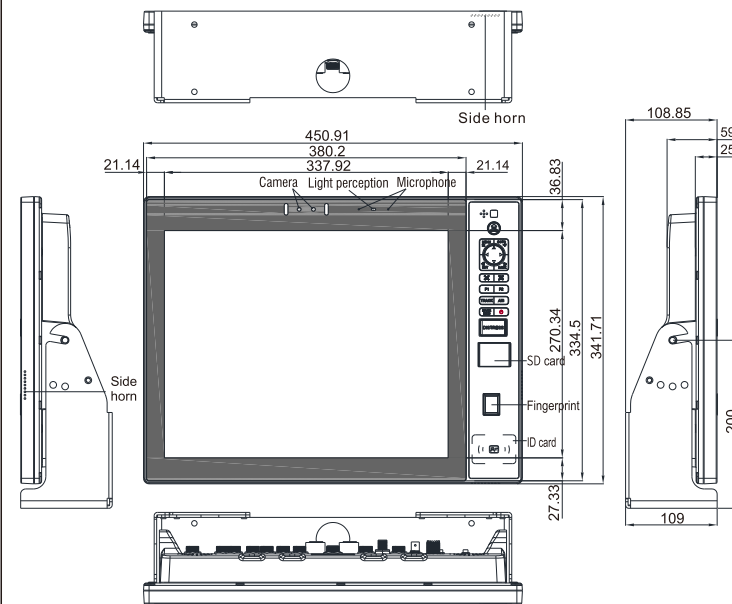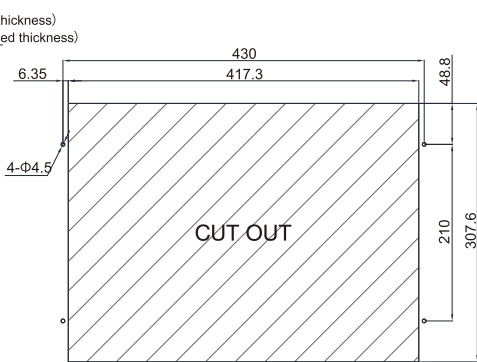
XN-6618
Multi-Function Display Pro

www.xinuo.com

Multi-Function Display Pro is a next-generation GNSS multifunctional integrated system that combines GNSS high-precision positioning, ECS electronic chart system, and AIS ship automatic identification system. The system integrates echo sounder, radar, CCTV AI video recognition, digital control system. The device adopts an intelligent operating system, offering strong scalability, system stability, and support for voice control. It supports various communication methods such as 5G, WiFi, Bluetooth, Gigabit Ethernet, VSAT satellite broadband, satellite phone, providing users with an intelligent maritime equipment solution for multitasking and intelligent networking.

Main Features

◆ Support GNSS high-precision positioning.

◆ Compatibility with various data formats such as S-57, S-63, C-MAP, and the ability to overlay satellite imagery.

◆ Built-in Class B AIS transceiver, providing comprehensive AIS transmit and receive functionality.

◆ Multiple networking options including 5G, WiFi, Bluetooth, and Gigabit Ethernet, with support for connecting to VSAT satellite broadband, enabling ship-to-shore communication, and support online upgrades and cloud services.

◆ Built-in echo sounder.

◆ Support access radar data to realize radar function, radar echo image real-time display.

◆ Integration of video AI artificial intelligence recognition capabilities.

◆ Integration of digital electronic control system, supporting onboard switch connections for lighting and power control.

◆ Equipped with a device assistant for remote control and support for voice activation, providing intelligent operation capabilities.

◆ Built-in front-facing camera and microphone.

◆ Intelligent operating system, touch screen, easy to operate.

◆ Built-in large storage capacity with a TF card expansion slot, supporting up to 512GB TF card usage and external M.2 SATA hard drive for storage expansion.

◆ Bluetooth mouse, keyboard, speaker, and other peripheral device connectivity supported, as well as external USB mouse and keyboard operation.
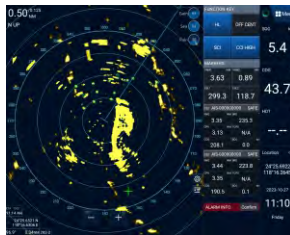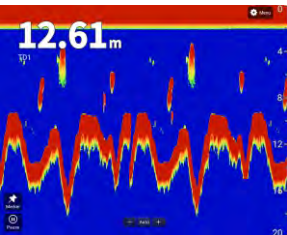
Multiple Display Modes

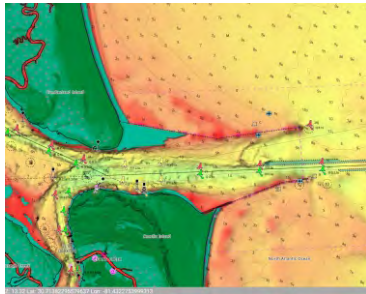| Chart | AIS radar | Radar | CCTV |

| Echo Sounder | Multi-Screen Mode | GNSS | Dashboard |

Electronic Chart

Supports the installation and display of various chart data, meeting the usage requirements of different users.

Supports the installation and display of official electronic charts.

Supports C-MAP, providing users with comprehensive chart information references.

Supports overlaying satellite imagery and user-layer data, providing users with more accurate navigation information references.

DGNSS

Support multiple positioning modes including GPS&BDS, GPS, BDS. Support RTCM2.3、RTCM2.4、RTCM3.2 differential data protocol.

It can receive satellite navigation differential information, even in areas with poor mobile communication signals, ensuring reliable transmission and coverage of GNSS augmentation signals and achieving high precision navigation positioning.
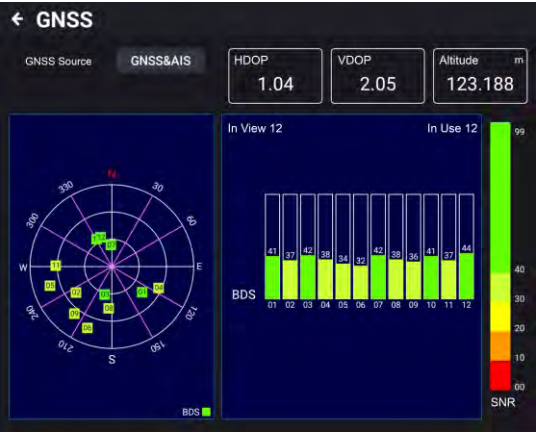
AIS (Automatic Identification System)

The system includes a Class B AIS transceiver, providing comprehensive AIS functionality. The AIS information display window features automatic collision avoidance capability, ensuring clear and convenient data visibility. It supports AIS vessel fleet management, allowing for alarm settings such as anchor dragging and departure. The AIS radar screen can visually display the distribution of nearby vessels, offering rich statistical data to meet various usage requirements in different scenarios.
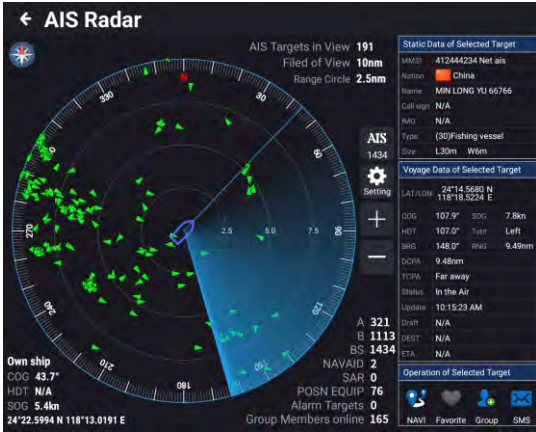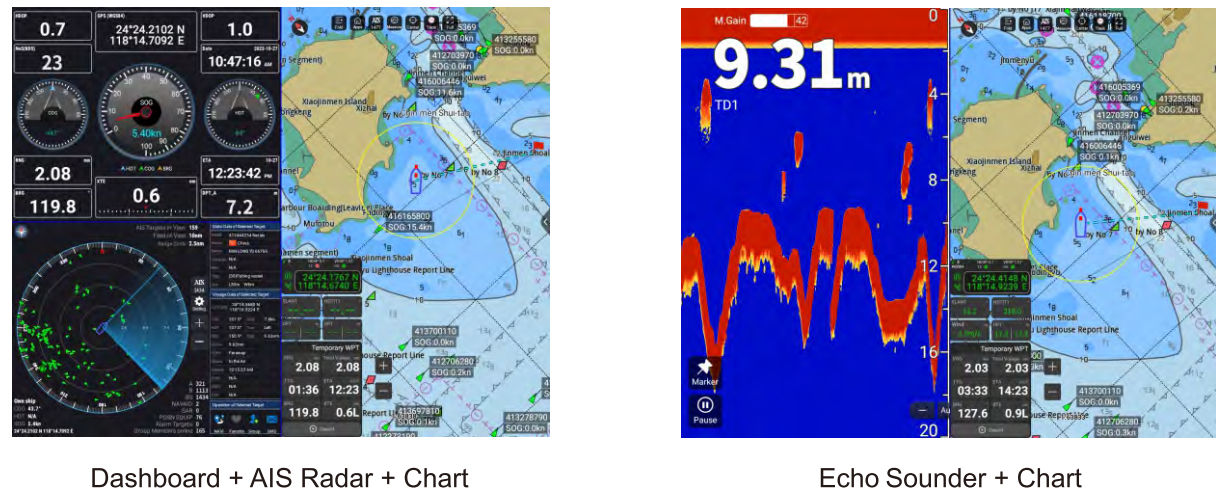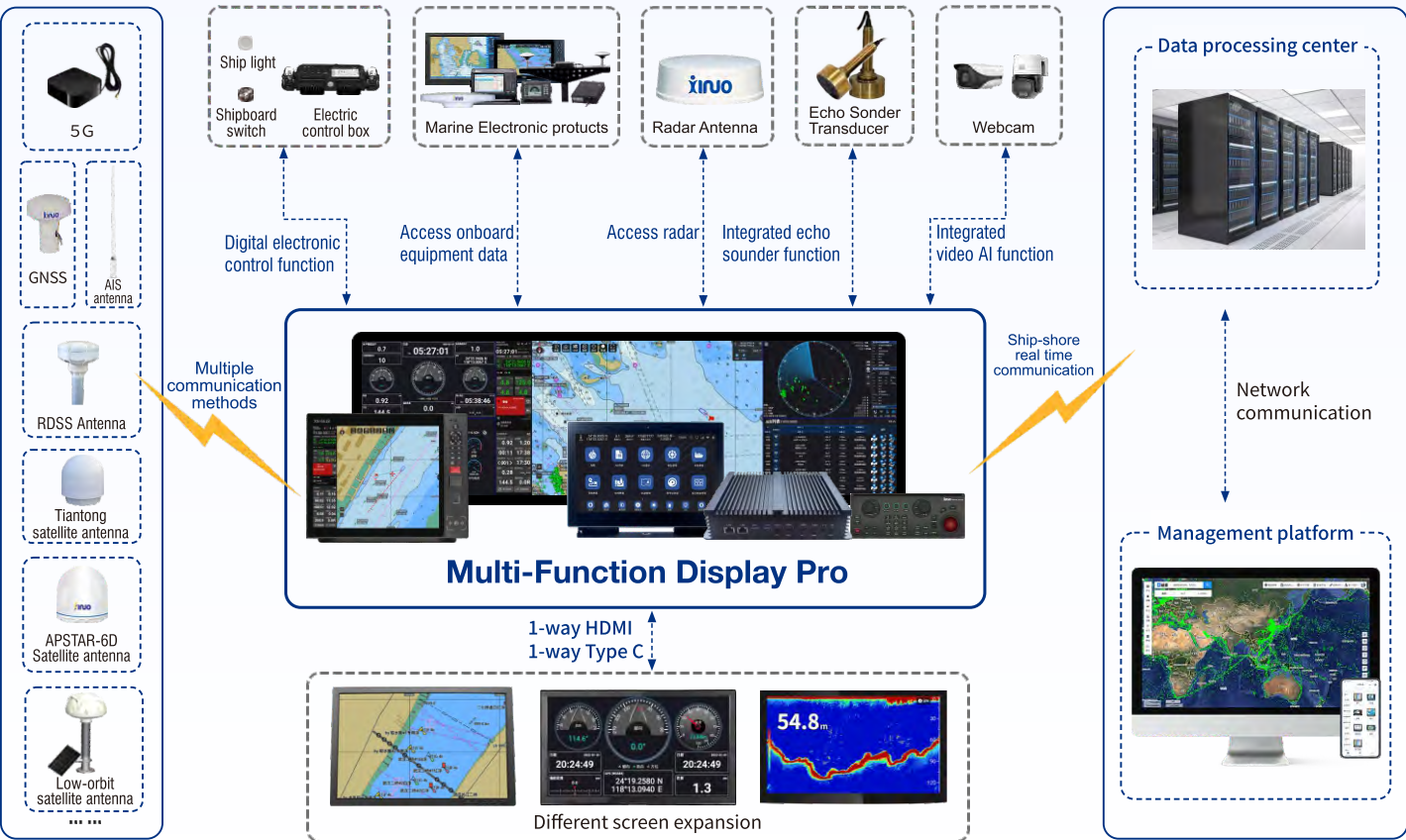
Simultaneous Multi-Screen Display

Multi-thread operation: high computing power, support multi-thread efficient operation.
Dual-channel display: Support multi-channel 8K HD expansion display.

The screen display can be flexibly configured according to your navigation needs.

Dashboard + AIS Radar + Chart

Echo Sounder + Chart

Ship-shore Real Time Communication

Multi-Function Display Pro

Different screen expansion

NMEA2000 Data Communication

Supports NMEA2000 data communication protocol, plug and play, enabling fast information sharing between different devices, ensuring the effectiveness and real-time nature of data transmission.

Data Type	PGN	Content
GNSS	129025	Position, Rapid Update
	129026	COG&SOG Rapid Update
	129029	GNSS Position Data
	129033	Local Time Offset
	129539	GNSS DOPS
	129540	GNSS Sats in View
Satellite Compass	126992	System Time
	127250	Vessel Heading
	127251	Rate of Turn
	127257	Attitude
	127258	Magnetic Variation
DPT	128267	Water Depth
Temperature	130312	Temperature-DEPRECATED
	130316	Temperature, Extended Range
Wind Lata	130306	Wind data
Engine Parameters	127488	Engine Parameters, Rapid Update

Data Type	PGN	Content
AIS Information	129038	AIS Class A Position Repor
	129039	AIS Class B Position Report
	129040	AIS Class B Extended Position Repor
	129041	AIS Aids to Navigation (AtoN) Report
	129793	AIS UTC and Date Report
	129794	AIS Class A Static and Voyage Related Data
	129809	AIS Class B "CS" Static Data Report, Part A
	129810	AIS Class B "CS" Static Data Report, Part B
	129795	AIS Addressed Binary Message
	129797	AIS Binary Broadcast Message
	129801	AIS Addressed Safety Related Message
	129802	AIS Safety Related Broadcast Message
Distance Log	128275	Distance Log
Navigation Data	129283	Off-course distance
	129284	Navigation data
	129285	Information about navigation points

Built-in Fish Finder/Echo Sounder

Fish finder and echo sounder modes are configurable. Utilizing digital signal processing with strong anti-interference capabilities, it can display data screens clearly. Full-range sampling, with the ability to backtrack STC and gain adjustments. Accurate fish detection and depth measurement to assist with vessel operations.
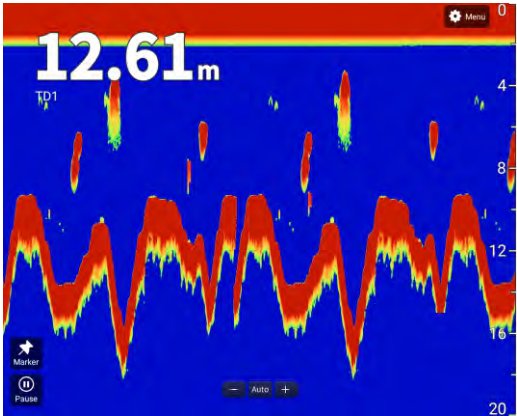
Digital Electronic Control System

By connecting traditional components to the integrated system through a control box and related accessories, it enables remote intelligent control of shipboard switches and equipment power.

Customization of shipboard digital dashboards according to requirements is possible.


Ship Voyage Recorder

Supports to access cockpit equipment data such as satellite positioning, SOG, COG, HDT, echo sounder, wind speed, wind direction, radar, video monitoring, vessel energy consumption, cockpit audio information, and more. These devices can be connected via external hard disk to real-time store and record navigation status information and navigation data. Provides comprehensive reconstruction of the navigation situation, offering robust support for navigation data analysis.

Radar Function

Supports radar function. Enables automatic acquisition and precise tracking of ARPA targets, displaying clear target images. Intelligent control over parameters such as range and gain is possible. Equipped with functions like sea clutter suppression and rain/snow suppression. Supports the fusion of AIS data, radar images, and electronic charts.
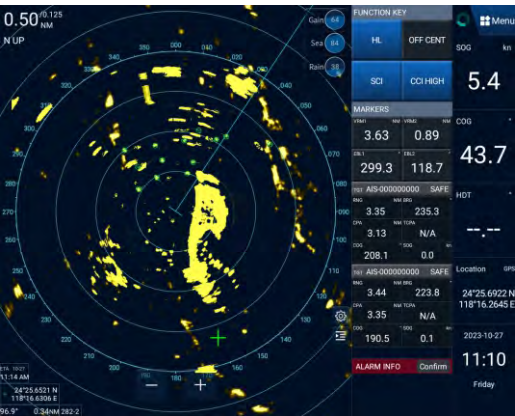
Smart Voice Control

Users can wake up the device through voice commands, achieve remote intelligent control.

At the same time, the Bluetooth headset can be connected to achieve voice control, providing users with a convenient experience.

Video AI Artificial Intelligence Recognition

The equipment integrates video AI artificial intelligence recognition capabilities, supporting the connection of multiple webcams to achieve various functions such as personnel identification, cockpit dynamics recognition, driver fatigue detection, and life jacket recognition. Early warning shall be given for abnormal conditions to remind personnel to take timely measures to ensure navigation safety.

Maritime Personnel Identification

Cockpit Activity Recognition

Driver Fatigue Detection

Wearing Life Jacket Recognition

Multiple Data Interfaces

- Support NMEA0183, NMEA2000 data protocol.
- Support the connection of LAN, which can connect to webcam, radar.
- Support the connection of echo sounder transducer, AIS antenna, GNSS antenna, satellite antenna, alarm, speaker and USB 2.0.

5G | Webcam | NMEA0183 NMEA2000 | USB | Marine LCD Monitor | GNSS Chart Plotter | AIS Antenna

GNSS | Tiantong satellite antenna | APSTAR-6D satellite antenna | RDSS Antenna | GNSS Compass | Alarm | Speaker | RS485 | Echo Sonder Transducer

Optional

Radar Antenna (XN805) | Radar Antenna (XN718A)