

# Multi-function Intelligent Display

## GNSS Multi-function Intelligent Display

XN60(10.1")  
XN60(12.1")  
XN60(15.6")  
XN60(21.5")

## BDS High Precision Multi-function Intelligent Display

XN60BD(10.1")  
XN60BD(12.1")  
XN60BD(15.6")  
XN60BD(21.5")



## XN60 Series Multi-functional intelligent Display

XN60 series multi-function intelligent display provide an intelligent system and multi-task operation networking solution. The touch screen is easy to use, page display is clear, the performance is superior. It supplies great control experience.

XN60 series multi-function intelligent display integrates functional modules such as GNSS, chart plotter, Class B AIS, video surveillance, etc. It supports Ethernet, WIFI, 4G to realize update software online and other cloud services. Using a high-performance processor, it can quickly response to system operation to improve user experience.

### Main features

- ◆ Passed the EU CE certification, China Classification Society CCS type approval.
- ◆ Android operating system, it uses non-air-gap multi-point capacitive touch screen with full viewing angle.
- ◆ Built-in large-capacity storage, double TF expansion card slot, support 512GB Micro SD(TF) card.
- ◆ Support multiple network communications such as Ethernet, WIFI, 4G to realize update software online and other cloud services.
- ◆ Support to connect bluetooth mouse, sound box, USB mouse, USB keyboard, etc.
- ◆ XN60(10.1"/12.1"/15.6"/21.5") support BDS and GPS dual mode positioning. XN60BD(10.1"/12.1"/15.6"/21.5") support BDS high precision positioning.
- ◆ Support different chart format of C-MAP (MAX), S-63, CJ-63. It also supports to overlay satellite images on the chart.
- ◆ Support 6-channel network camera access to realize real-time video monitoring.
- ◆ Built-in Class B AIS module, with perfect AIS function.



### XN60( 10.1" ) XN60BD( 10.1" )

10.1 inch color touch screen LCD ,1280×800 resolution



### XN60( 12.1" ) XN60BD( 12.1" )

12.1 inch color touch screen LCD , 1024×768 resolution



### XN60( 15.6" ) XN60BD( 15.6" )

15.6 inch color touch screen LCD , 1920×1080 resolution



### XN60( 21.5" ) XN60BD( 21.5" )

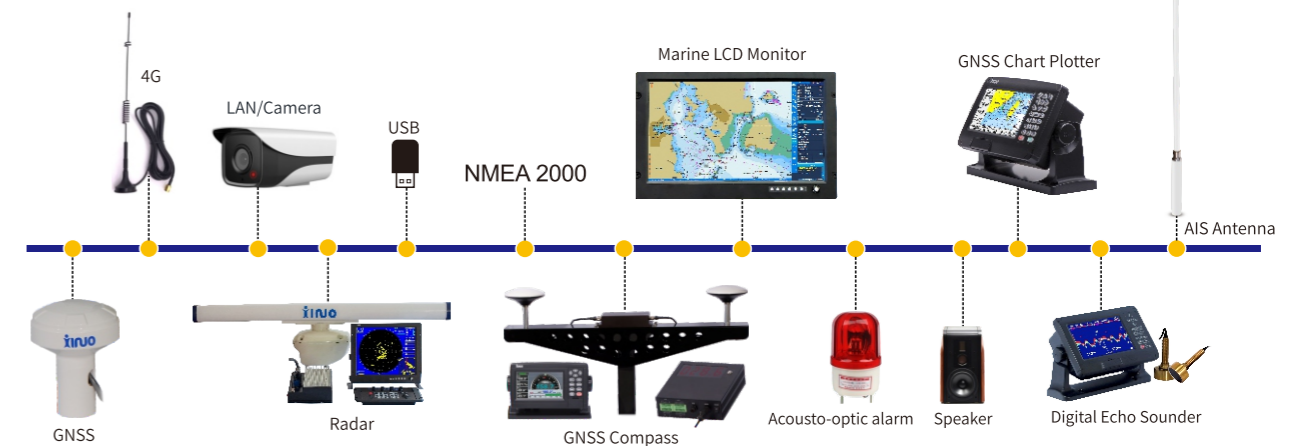
21.5 inch color touch screen LCD , 1920×1080 resolution



### Abundant Data Interface

Support NMEA0183, NMEA2000 format data to satisfy various data collection, reception, storage and communication, such as DPT, water temperature, HDG, etc.

It can connect to audible and visual alarm, keyboard, mouse, network camera, etc. HDMI output can be same screen or different.



## Chart Data

Support different chart formats of S-63, CJ-63, C-MAP (MAX) to meet the needs of different user groups. At the same time, it supports to overlay satellite images and user layers on the chart, to provide users with more accurate and three-dimensional navigation information.



## Class B AIS

Built-in Class B AIS module with perfect AIS function. The AIS information display auto avoid to keep the data display clear and easy to view. Support to making ships being in a group to manage, and can set multiple alarm, such as anchor alarm, leave out alarm, etc.

The AIS radar page intuitively shows the distribution of ships, provides many types statistical data to meet the needs of different usage scenarios.



## Instant Messaging

Based on network, RDSS, AIS, it can realize to send graphic, voice, video with www.ships66.com or another XN60 device. It also supports to send short message to mobile phone.



## Online Service

Users can upgrade software, chart, app online anytime and anywhere. It also provides many cloud services, such as backup data, etc.



## Face Recognition

Support face recognition function, cooperate with management platform to realize remote management of crew work.

## Video Surveillance

Support to access 6-channel IP camera, with functions such as video recording, screen capture, mobile monitor alarm, realizing multi-directional real-time monitoring of ship. It also supports to view real-time and historical video data on the www.ships66.com.



## Speed Limit Alarm

Data such as speed limit area and speed limit value can be pushed to the XN60 through management platform, the data can overlay on the chart to realize real-time remind and alarm according to actual navigation situation, thus to ensure the navigation order and realize intelligent supervision.

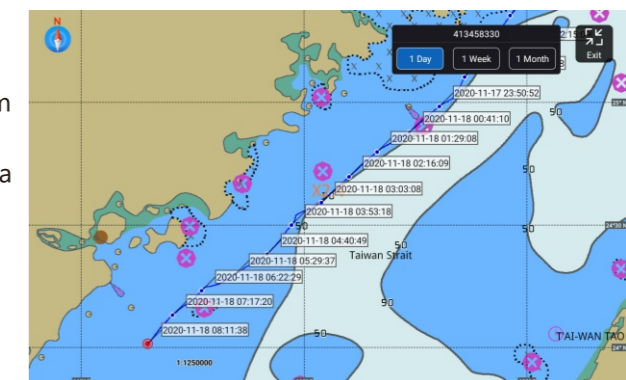


## Energy Management

Support connect main engine fuel consumption, engine speed, lubricating oil temperature and other energy consumption data of ships with NMEA0183, NMEA2000 format to XN60, XN60 can upload data to management platform by network, it is convenient for supervisors to monitor cabin equipments.

## AIS Data Query

Support to download AIS data from www.ships66.com via network to XN60 and can overlay the AIS data on the chart. It makes opportunity for us to view AIS data all over the world as you need on the XN60, and can download their history tracks to reference.



# Multi-function Intelligent Display



10.1"

12.1"

15.6"

21.5"

Display Unit	XN60(10.1")/XN60BD(10.1")	XN60(12.1")/XN60BD(12.1")	XN60(15.6")/XN60BD(15.6")	XN60(21.5")/XN60BD(21.5")
Operation System	Android 11 with OpenGL ES 3.2 & OpenCL 2.0	Android 11 with OpenGL ES 3.2 & OpenCL 2.0	Android 11 with OpenGL ES 3.2 & OpenCL 2.0	Android 11 with OpenGL ES 3.2 & OpenCL 2.0
CPU	Cortex-A55 Quad core	Cortex-A55 Quad core	Cortex-A55 Quad core	Cortex-A55 Quad core
CPU Speed	2.0GHz 64 Bit	2.0GHz 64 Bit	2.0GHz 64 Bit	2.0GHz 64 Bit
RAM	4GB DDR4 1333MHz	4GB DDR4 1333MHz	4GB DDR4 1333MHz	4GB DDR4 1333MHz
Flash Memory	32GB Flash Memory	32GB Flash Memory	32GB Flash Memory	32GB Flash Memory
Video Engine	Mali-T764	Mali-T764	Mali-T764	Mali-T764
Touch Panel	Capacitive Multi-touch Screen	Capacitive Multi-touch Screen	Capacitive Multi-touch Screen	Capacitive Multi-touch Screen
Size	10.1 inch	12.1 inch	15.6 inch	21.5 inch
Brightness	600 cd/m <sup>2</sup> (Max)	600 cd/m <sup>2</sup> (Max)	600 cd/m <sup>2</sup> (Max)	600 cd/m <sup>2</sup> (Max)
Viewing Angle	Full angle 85°	Full angle 85°	Full angle 85°	Full angle 85°
Resolution	1280 x 800	1024 x 768	1920 x 1080	1920 x 1080
Power Voltage	DC10.5V-36V	DC 10.5V-36V	DC 10.5V-36V	DC 18V-36V
Power Consumption	15W	20W	25W	40W
Audio	3W	3W	3W	3W
Micro SD Card Slot	Two SD card slots, support 512GB high-speed Micro SD (TF) card in FAT32, NTFS format			Support to connect to HUB via USB
Microphone	Support			
Camera	8 million pixels			
Bluetooth	BT4.0			
WiFi	802.11 b/g/n			
Ethernet	1000Mbps			
4G Module	LTE/GSM, Internal antenna, and support to connect external antenna			
NMEA 0183	3 ports data interface, baud rate can be set independently, including 2 ports input, 1 ports configurable input/output, 1 ports output.			
NMEA 2000	Support GNSS, AIS, ship heading and other data communication			
Other Interfaces	1 audio output, 1 alarm output, 1080P HDMI, support copy screen or extend screen			
Working Temperature	-15°C~+55°C			
<b>AIS Class B Transceiver</b>				
Frequency	156.025 ~ 162.025MHz			
Bandwidth	25KHz			
Modulation	GMSK/FM			
Data Rate	9600bps			
Number of AIS Transmitter	1			
Number of AIS Receiver	2 (Contains A and B channels)			
AIS Channel A (default)	161.975 MHz			
AIS Channel B (default)	162.025 MHz			
Output Power	2 W			
Rx Sensivity	< -107 dBm @ 20% PER			
Standards	1. Chapter 5 Part Four of Technical Regulations for the Statutory Surveys of Sea-going Ships Engaged on Non-international Voyages (2020) and its Amendments, of MSA, P.R. China. 2. Chapter 6, Part Five of Technical Regulations for the Statutory Surveys of Inland Waterways Ships 2019 and its Amendments, of MSA, P.R. China. 3. SC/T 8145-2011 Technical requirements for shipborne equipment of class B automatic identification system of fishing vessel. 4. IEC 61162-1,2016 Maritime navigation and radio communication equipment and systems -Digital interfaces- Part 1, Single talker and multiple listeners. 5. IEC 60945,2002/COR1,2008 Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results. 6. IEC 62287-1,2017 Maritime navigation and radio communication equipment and systems - Class B shipborne equipment of the automatic identification system (AIS) - Part 1, Carrier-sense time division multiple access (CSTDMA) techniques.			
<b>GNSS XN60(10.1"/12.1"/15.6"/21.5")</b>		<b>BDS High Precision Positioning (support 4G, AIS differential positioning) XN60BD(10.1"/12.1"/15.6"/21.5")</b>		
GNSS Receiver	72 channels	Frequency	BDS B11	
Receive Frequency	GPS L1 1575.42MHz, BDS B1 1561.098MHz	Positional Accuracy (Differential, open sky)	< 10cm (Horizontal accuracy) < 15cm (Vertical accuracy)	
Accuracy	GPS&BDS	2.5m (CEP50% open sky)	Speed Accuracy	< 0.1m/s
	GPS	5m (CEP50% open sky)	Time to First Fix	< 28s (Cold Start) 1s (Hot Start)
	BDS	5m (CEP50% open sky)		1s (Recapture)
	DGNSS	1m (CEP50% open sky)		
Speed Accuracy	0.1m/s (50%@10m/s)	Sensitivity	-147dBm (Capture), -163dBm (Track)	
Time to First Fix	Cold Start <30s, Hot Start <1s	Data Update Rate	1Hz	

