

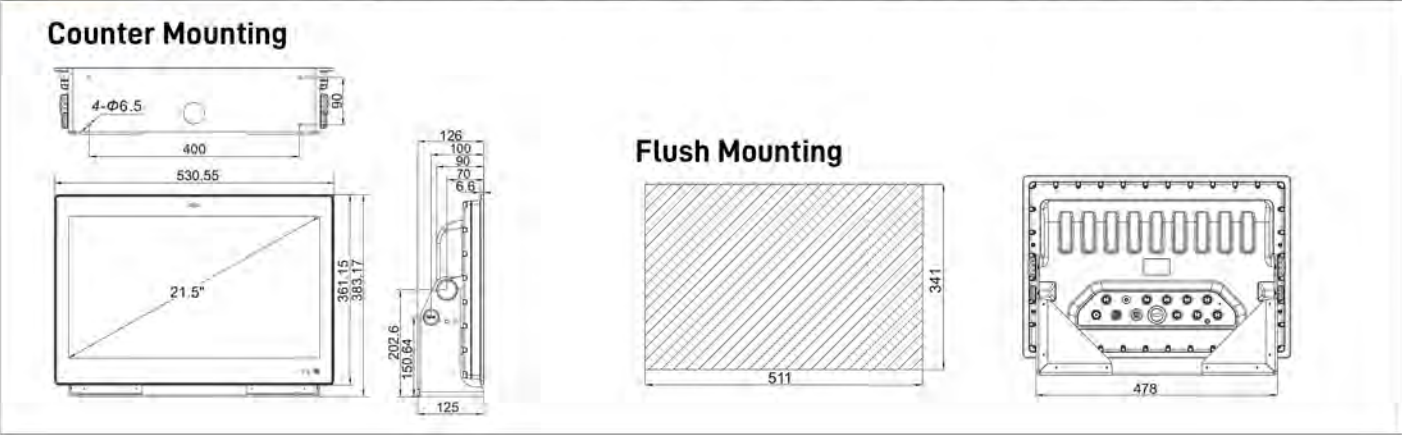
Main Unit	
Operation System	Android 11
CPU	Cortex-A17 Quad core
CPU Speed	1.8GHz 32Bit
RAM	4GB
Flash Memory	16GB
Video Engine	Mali-T764
Touch Panel	Capacitive Multi-touch Screen
Size	21.5 inch
Brightness	800 cd/㎡ (Max)
Viewing Angle	Full perspective85°
Resolution	1920X1080
Power Voltage	DC 18V-36V
Power Consumption	60W
Audio	Support 3W external speaker
Micro SD card	Two SD card slot, support 512GB high-speed Micro SD(TF) card in FAT32,NTFS format
Microphone	Built-in
Camera	Built-in
Bluetooth	BT4.0
WiFi	802.11 b/g/n
Ethernet	1000Mbps
NMEA0183	7 ports data interface, baud can be set independently, including 4 ports input; 3 ports output
NMEA2000	Support GNSS, AIS, HDG and other data communication.
Other Interface	1 audio output, 1 alarm output, 1080P HDMI output, support copy screen or extend screen
Working Temperature	-15℃~+55℃

Class B AIS Transponder	
Frequency	156.025~162.025MHz
Bandwidth	25KHz
Modulation	GMSK/FM
Data Rate	9600bps
Number of AIS Transmitter	1
Number of AIS Receiver	2(CH87B/CH88B)
AIS Channel CH87B(default)	161.975MHz
AIS Channel CH87B(default)	162.025MHz
Output Power	2W
Rx Sensivity	<-110 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)

Echo Sounder			
Output Power	600W	Frequency	50KHz/200KHz
Range	0-500m	Depth Unit	Meters, Fathoms, Inches
Echo Color	256、16、8、Monochrome	Background	White, Blue, Black
Display Mode	Single frequency, Dual frequencies, A scope mode, Simulation mode	Storage and playback	It can store and playback at least 20 hours of water depth data
Picture Speed	Stop、*1/8、*1/4、*1/2、*1、*2、*4		

XN60(21.5") Standard: IEC 60945; IEC 62287-1; IEC 61108-1; IEC 61108-4; IEC 61108-5; IEC 61162-1; ITU-R M.1371-5; IMO A.694(17)



XN-60 SERIES

Multi-Function Display



XN60 SERIES



Multi-Function Display

XN60 series Multi-Function Display provides an multi-task operation solution. The system integrates GNSS, electronic chart, class B AIS transponder, CCTV, AI video recognition, echo sounder, radar. And it supports multiple communication methods, such as Wi-Fi, bluetooth, 1000Mbps ethernet. It also supports online upgrading charts and softwares and provides other cloud services.

- EU CE certification
- China Classification Society Certificate
- Multi-touch capacitive screen
- Built-in 16GB SSD
- Support DGNSS [BDS&GPS]
- Support ENC and C-MAP MAX chart
- Satellite image map overlay
- Built-in echo sounder
- Built-in front camera, microphone
- AI video recognition
- Built-in Class B AIS



XN60(10.1'')

- Capacitive Multi-touch Screen
- Resolution:1280×800

XN60(12.1'')

- Capacitive Multi-touch Screen
- Resolution:1024×768



XN60(15.6'')

- Capacitive Multi-touch Screen
- Resolution:1920×1080

XN60(21.5'')

- Capacitive Multi-touch Screen
- Resolution:1024×768



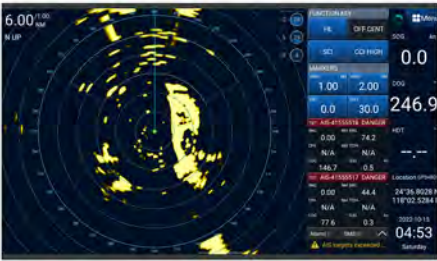
MULTIPLE DISPLAY MODES



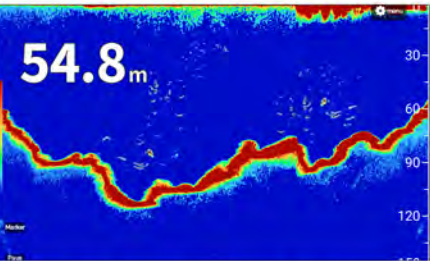
CHART



AIS LIST



RADAR



ECHO SOUNDER



RADAR & CHART



CCTV



DASHBOARD



SAILING DATA



GNSS(GPS&BDS)

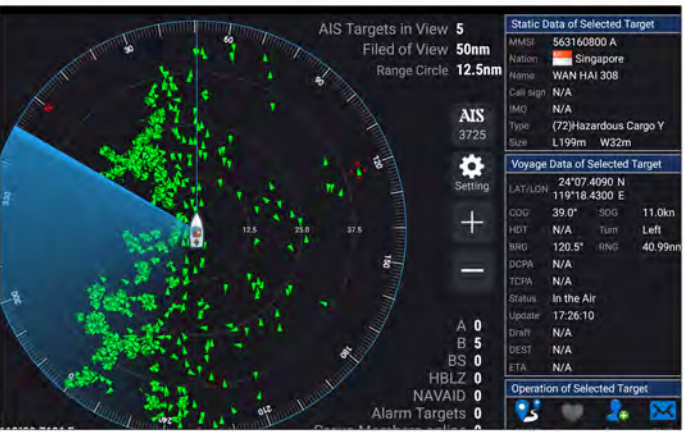
CHART

- Support multiple chart formats to meet the needs of different users.
- Support ENC chart and C-MAP MAX chart and provide users with detailed chart information reference.
- Support the overlay of satellite image map and user layer.



CLASS B AIS TRANSPONDER

- Built-in Class B AIS transponder, with perfect AIS function.
- AIS information display has automatic avoidance function.
- Support AIS ship group management, alarm when anchor disengagement and ship leaving.
- AIS radar images can visually display the distribution of surrounding ships.



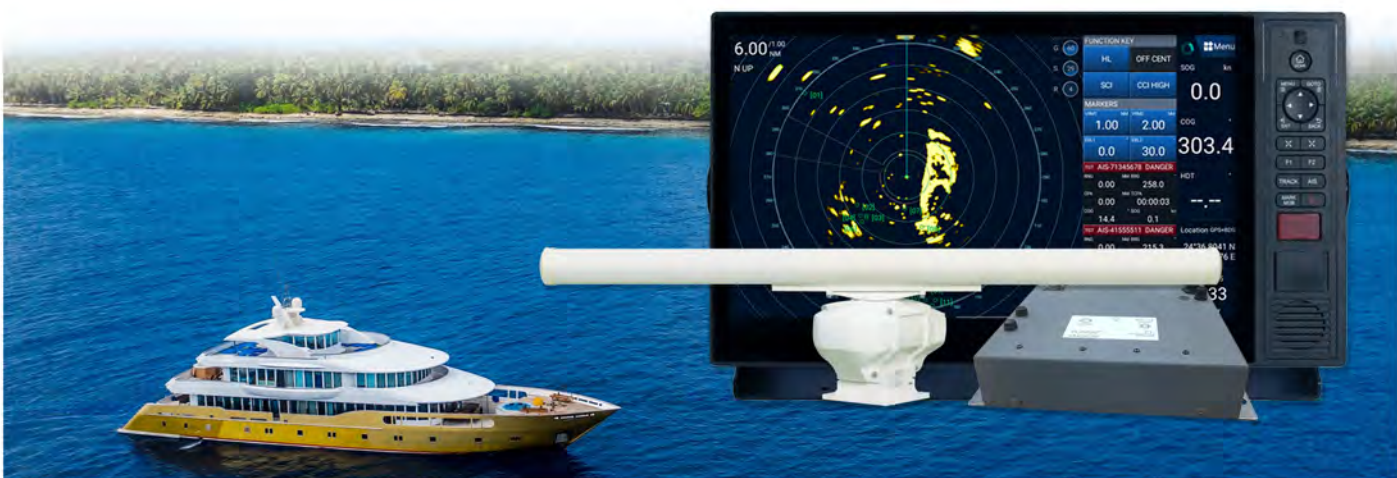
DGNSS

- Support multiple positioning modes including GPS&BDS, GPS, BDS.
 - Support receiving DGNSS corrections from AIS base stations broadcasting or networked transport to achieve high-precision positioning.
- DGNSS corrections protocol: RTCM2.3, RTCM2.4, RTCM3.2 and NTRIP(the networked transport protocol of RTCM).



RADAR

- Support connecting to radar PC.
- It can realize ARPA target automatic capture and tracking, calculate the speed and direction of the target, and give real-time warning to dangerous targets.
- Support AIS data superimposed on radar image, intelligently integrate AIS target and ARPA target, and provide more accurate target tracking.



ECHO SOUNDER

- Support connecting to high-quality transducer, transmission power up to 600W.
- Adopt high precision digital signal processing technology.
- Support 50KHz and 200KHz transmission frequencies.
- Storage and replay echo data and rapidly updating software.
- Support a variety of shortcut gestures which provide a perfect interactive experience.
- It has intelligent operation modes, such as automatic range adjustment, automatic gain adjustment and so on.

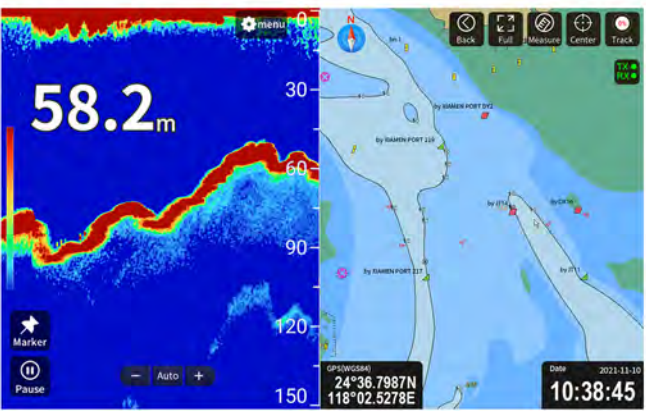


SPLIT SCREEN MODES

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



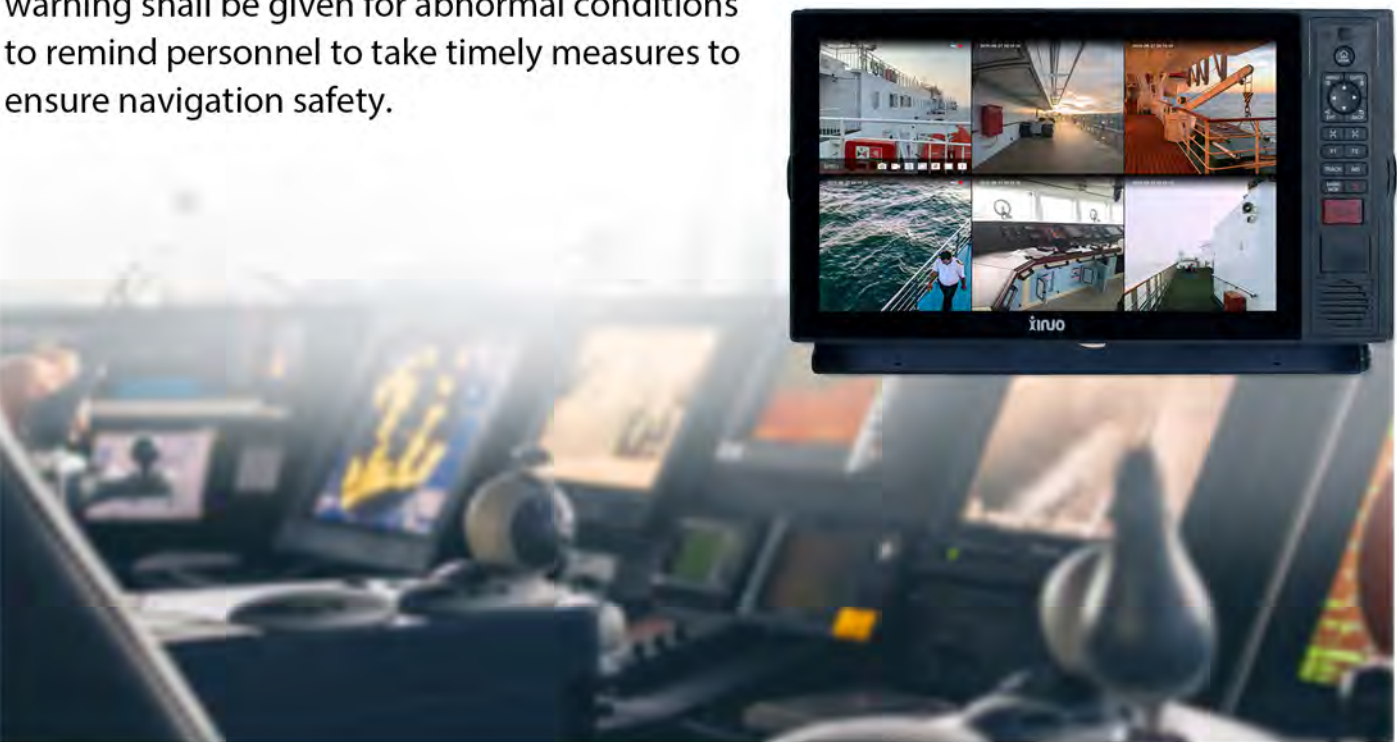
RADAR & CHART



ECHO SOUNDER & CHART

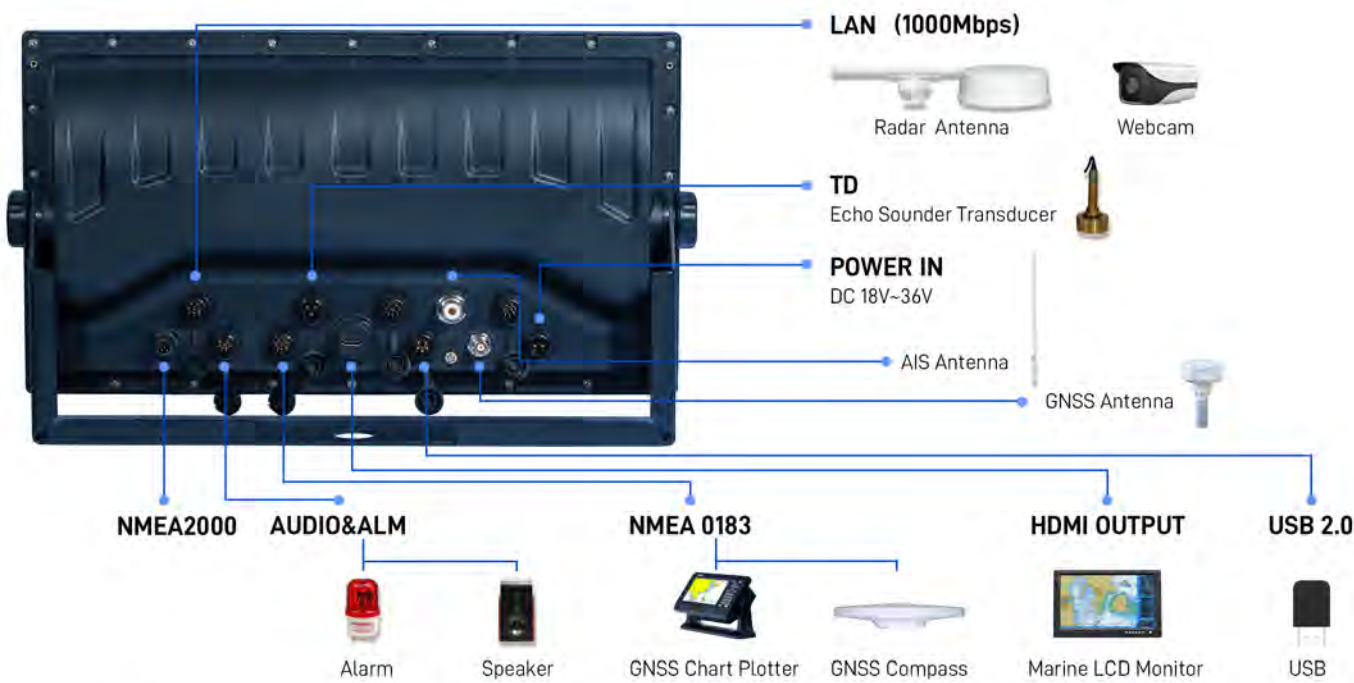
CCTV

The device supports access to multiple webcams and realizes multiple AI recognition such as indentity, dangerous driving and so on. Early warning shall be given for abnormal conditions to remind personnel to take timely measures to ensure navigation safety.



MULTIPLE INTERFACE DATA

- 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, alarm, speaker and USB 2.0.



NMEA2000

- Support NMEA2000 data communication protocol.

Data type	PGN	Content
GNSS	129025	Position, Rapid Update
	129026	COG & SOG, Rapid Update
	129029	GNSS Position Data
	129033	Local Time Offset
	129039	GNSS DOPs
	129040	GNSS Sats in View
Satellite Compass	126992	System Time
	127250	Vessel Heading
	127251	Rate of Turn
	127257	Attitude
	127258	Magnetic Variation
Distance Log	128275	Distance Log
Wind Lata	130306	Wind data
Engine Parameters	127488	Engine Parameters, Rapid Update

Data type	PGN	Content
AIS	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
DPT	129801	AIS Addressed Safety Related Message
	129802	AIS Safety Related Broadcast Message
	128267	Water Depth
	130312	Temperature -DEPRECATED
Temperature	130316	Temperature, Extended Range

SPECIFICATION

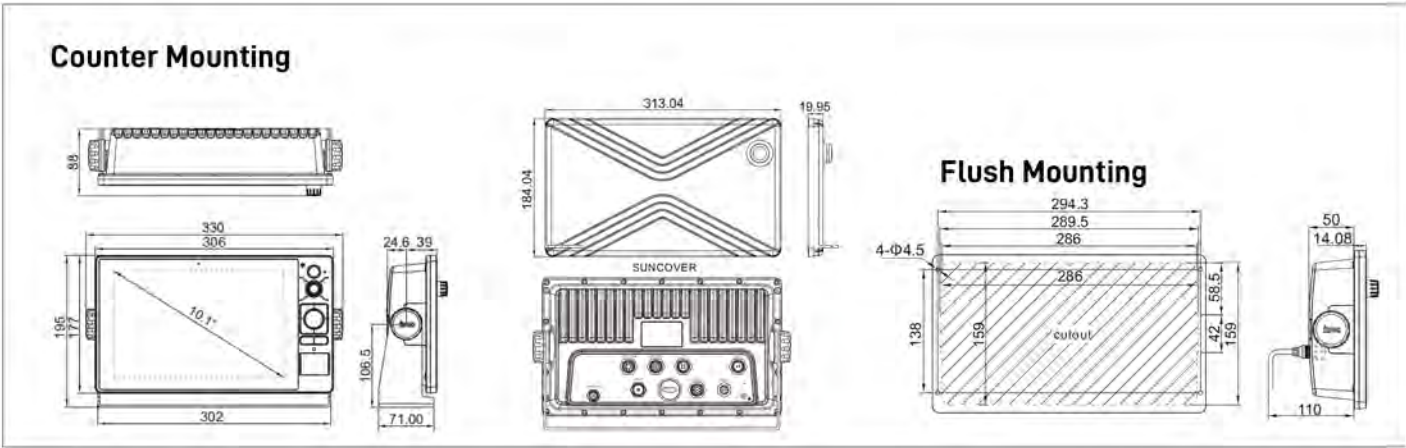
Main Unit	
Operation System	Android 11
CPU	Cortex-A55 Quad core
CPU Speed	2.0GHz 64Bit
RAM	2GB
Flash Memory	16GB
Video Engine	ARM G52 2EE
Touch Panel	Capacitive Multi-touch Screen
Size	10.1 inch
Brightness	800 cd/㎡ (Max)
Viewing Angle	Full perspective85°
Resolution	1280X800
Power Voltage	DC 10V~36V
Power Consumption	30W
Audio	2W
Micro SD card	A SD card slot, support 512GB high-speed Micro SD(TF) card in FAT32,NTFS format
Microphone	Built-in
Camera	Built-in
Bluetooth	BT4.0
WiFi	802.11 b/g/n
Ethernet	1000Mbps
NMEA0183	4 ports data interface, baud can be set independently, including 2 ports input; 1 ports configurable input/output; 1 ports output
NMEA2000	Support GNSS, AIS, HDG and other data communication.
Other Interface	1 audio output, 1 alarm output, 1080P HDMI output, support copy screen or extend screen
Working Temperature	-15℃~+55℃

Class B AIS Transponder	
Frequency	156.025~162.025MHz
Bandwidth	25KHz
Modulation	GMSK/FM
Data Rate	9600bps
Number of AIS Transmitter	1
Number of AIS Receiver	2(CH87B/CH88B)
AIS Channel CH87B(default)	161.975MHz
AIS Channel CH87B(default)	162.025MHz
Output Power	2W
Rx Sensivity	<-110 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)	

Echo Sounder			
Output Power	600W	Frequency	50KHz/200KHz
Range	0-500m	Depth Unit	Meters, Fathoms, Inches
Echo Color	256、16、8、Monochrome	Background	White, Blue, Black
Display Mode	Single frequency, Dual frequencies, A scope mode, Simulation mode	Storage and playback	It can store and playback at least 20 hours of water depth data
Picture Speed	Stop、*1/8、*1/4、*1/2、*1、*2、*4		

XN60(10.1") Standard: IEC 60945; IEC 62287-1; IEC 61108-1; IEC 61108-4; IEC 61108-5; IEC 61162-1; ITU-R M.1371-5; IMO A.694(17)



SPECIFICATION

Main Unit	
Operation System	Android 11
CPU	Cortex-A55 Quad core
CPU Speed	2.0GHz 64Bit
RAM	4GB
Flash Memory	16GB
Video Engine	ARM G52 2EE
Touch Panel	Capacitive Multi-touch Screen
Size	12.1 inch
Brightness	600 cd/㎡ (Max)
Viewing Angle	Full perspective85°
Resolution	1024X768
Power Voltage	DC 10V~36V
Power Consumption	30W
Audio	2W
Micro SD card	A SD card slot, support 512GB high-speed Micro SD(TF) card in FAT32,NTFS format
Microphone	Built-in
Camera	Built-in
Bluetooth	BT4.0
WiFi	802.11 b/g/n
Ethernet	1000Mbps
NMEA0183	4 ports data interface, baud can be set independently, including 2 ports input; 1 ports configurable input/output; 1 ports output
NMEA2000	Support GNSS, AIS, HDG and other data communication.
Other Interface	1 audio output, 1 alarm output, 1080P HDMI output, support copy screen or extend screen
Working Temperature	-15℃~+55℃

Class B AIS Transponder	
Frequency	156.025~162.025MHz
Bandwidth	25KHz
Modulation	GMSK/FM
Data Rate	9600bps
Number of AIS Transmitter	1
Number of AIS Receiver	2(CH87B/CH88B)
AIS Channel CH87B(default)	161.975MHz
AIS Channel CH87B(default)	162.025MHz
Output Power	2W
Rx Sensivity	<-110 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)	

Echo Sounder			
Output Power	600W	Frequency	50KHz/200KHz
Range	0-500m	Depth Unit	Meters, Fathoms, Inches
Echo Color	256、16、 8、 Monochrome	Background	White, Blue, Black
Display Mode	Single frequency, Dual frequencies, A scope mode, Simulation mode	Storage and playback	It can store and playback at least 20 hours of water depth data
Picture Speed	Stop、 *1/8、 *1/4、 *1/2、 *1、 *2、 *4		

XN60(12.1")

Standard:

IEC 60945; IEC 62287-1; IEC 61108-1; IEC 61108-4; IEC 61108-5; IEC 61162-1; ITU-R M.1371-5; IMO A.694(17)

SPECIFICATION

Main Unit	
Operation System	Android 11
CPU	Cortex-A55 Quad core
CPU Speed	2.0GHz 64Bit
RAM	4GB
Flash Memory	16GB
Video Engine	Mali-T764
Touch Panel	Capacitive Multi-touch Screen
Size	15.6 inch
Brightness	800 cd/㎡ (Max)
Viewing Angle	Full perspective85°
Resolution	1920X1080
Power Voltage	DC 18V~36V
Power Consumption	60W
Audio	2W
Micro SD card	A SD card slot, support 512GB high-speed Micro SD(TF) card in FAT32,NTFS format
Microphone	Built-in
Camera	Built-in
Bluetooth	BT4.0
WiFi	802.11 b/g/n
Ethernet	1000Mbps
NMEA0183	4 ports data interface, baud can be set independently, including 2 ports input; 1 ports configurable input/output; 1 ports output
NMEA2000	Support GNSS, AIS, HDG and other data communication.
Other Interface	1 audio output, 1 alarm output, 1080P HDMI output, support copy screen or extend screen
Working Temperature	-15℃~+55℃

Class B AIS Transponder	
Frequency	156.025~162.025MHz
Bandwidth	25KHz
Modulation	GMSK/FM
Data Rate	9600bps
Number of AIS Transmitter	1
Number of AIS Receiver	2(CH87B/CH88B)
AIS Channel CH87B(default)	161.975MHz
AIS Channel CH87B(default)	162.025MHz
Output Power	2W
Rx Sensivity	<-110 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)	

Echo Sounder			
Output Power	600W	Frequency	50KHz/200KHz
Range	0-500m	Depth Unit	Meters, Fathoms, Inches
Echo Color	256、16、 8、 Monochrome	Background	White, Blue, Black
Display Mode	Single frequency, Dual frequencies, A scope mode, Simulation mode	Storage and playback	It can store and playback at least 20 hours of water depth data
Picture Speed	Stop、 *1/8、 *1/4、 *1/2、 *1、 *2、 *4		

XN60(15.6")

Standard:

IEC 60945; IEC 62287-1; IEC 61108-1; IEC 61108-4; IEC 61108-5; IEC 61162-1; ITU-R M.1371-5; IMO A.694(17)

