

Multi-system Shipborne Radionavigation Receivers

GN150 Series

Support Internal Chart & C-MAP (MAX) Card
Approved by the China Classification Society(CCS)

GNSS

- Global
- Navigator
- Satellite
- System



Multi-system Shipborne Radionavigation Receivers GN150 Series



Main features

Passed the EU CE certification, China Classification Society CCS type approval.

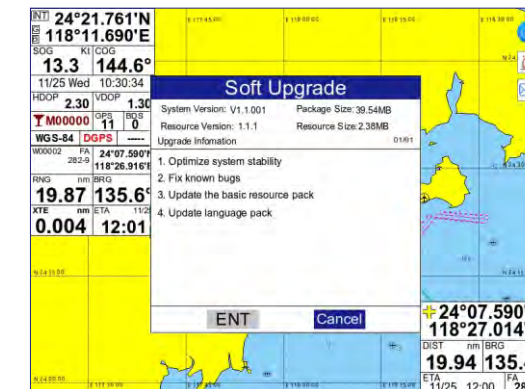
- ◆ Super cortex-A17 processor with high-capacity storage, born to be strong, never settle.
- ◆ Built-in high-precision BDS/GPS/GLONASS multi-mode positioning module, support RTCM2.3 DGNSS input.
- ◆ Self-developed SOG & COG filtering algorithm which can intelligently match ship types to achieve stable SOG & COG output.
- ◆ Connect to mobile network to upgrade software online.
- ◆ Install in intelligent voice to broadcast operation content, alarm content, etc.
- ◆ Classic & Utility dual operating system, you can switch freely.
- ◆ Support Internal Chart and C-MAP(MAX) dual chart system.
- ◆ Power failure will immediately alarm to ensure the device work well.

High-precision Positioning

It uses BDS, GPS, GLONASS multi-mode high-precision positioning module to achieve stable and reliable position, combined with self-developed SOG&COG filtering algorithm which can intelligently match ship types to achieve stable SOG&COG output.

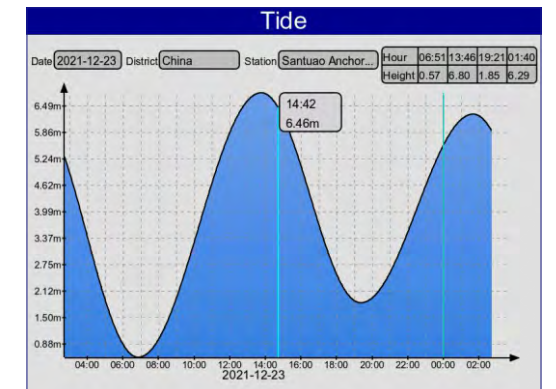
Enjoy Internet Services

Connect to mobile network to upgrade software and chart online. Integrate with IoT technology, it can easy to support function expansion, aims to help wisdom shipping.



Real-time Tidal Data

Provide global real-time tidal data for users to grasp its dynamic law, it can automatically match the nearest tidal station based on position information.



Abundant Data Interface

With abundant data interface, support NMEA0183 format data communication, support RTCM2.3 DGNSS input, support to connect audible and visual alarm.

Meeting Standards

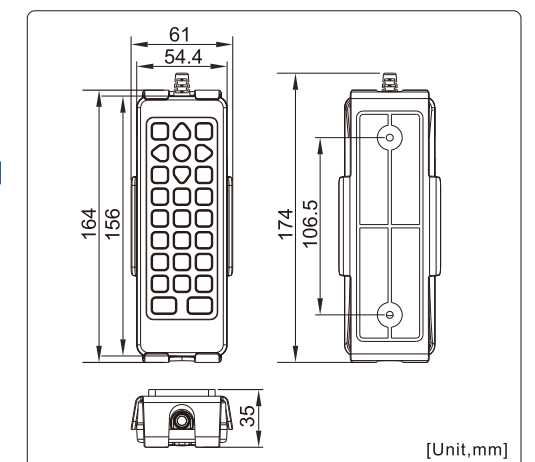
Approved by CCS, compliant with international certification standards, including IMO Resolution A.694(17), Resolution MSC 112(73), IMO MSC Resolution 379(93), IMO MSC Resolution 401(95), IMO MSC Resolution 432(98), IEC 61108-1, IEC 62288, IEC60945, IEC 61162-1.

Keypad

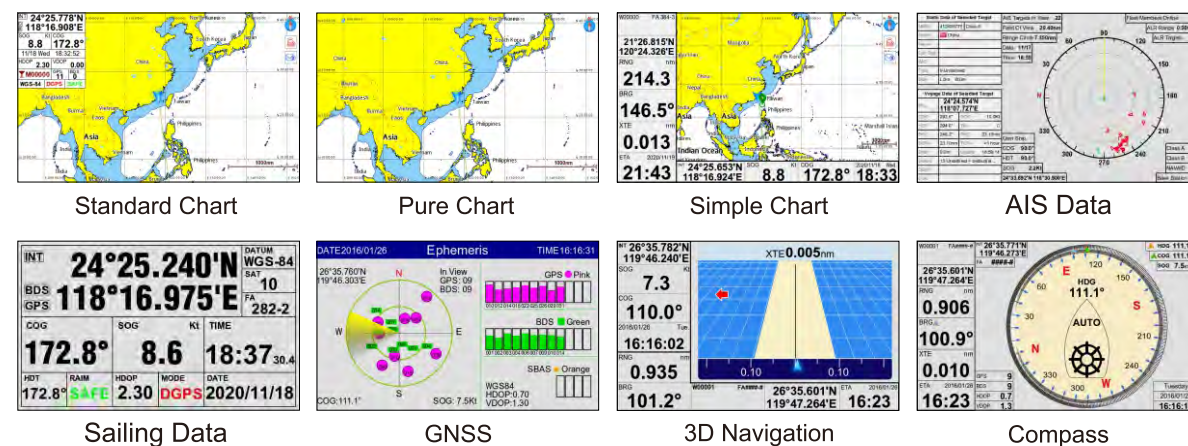


Wired & Wireless Remote Keypad

- ◆ Waterproof IP6
- ◆ Infrared remote control
- ◆ Rich button function
- ◆ Comfortable handle



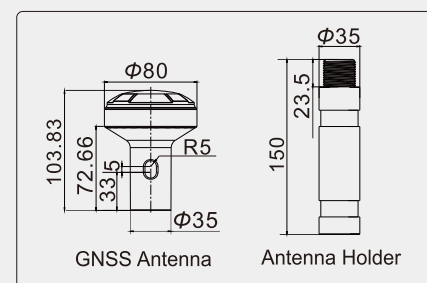
Built-in many display pages, such as Standard Chart, Pure Chart, 3D+Chart, AIS Data, Sailing Data, Navigation Data, 3D Navigation, GNSS, Compass, etc. You can switch freely.



GNSS Antenna



- ◆ Support GPS and BDS positioning.



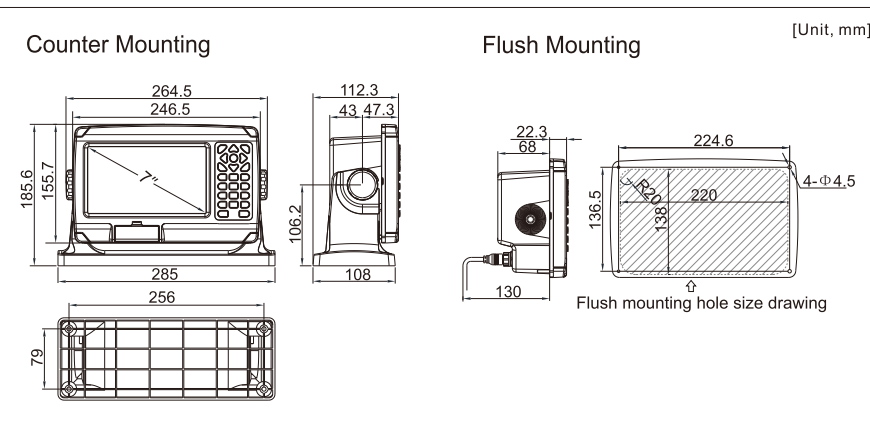
Multi-system Shipborne Radionavigation Receivers GN150 Series



Installation Dimension

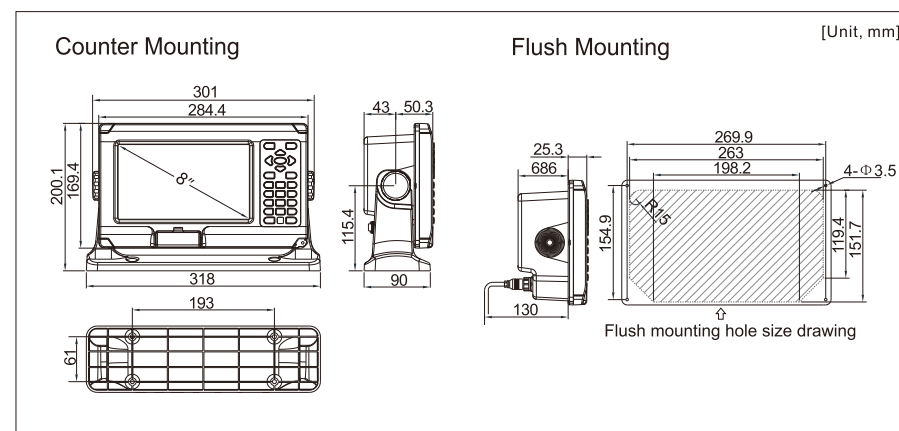
GN150 (7")

7 inch color touch screen LCD,
800×480 resolution



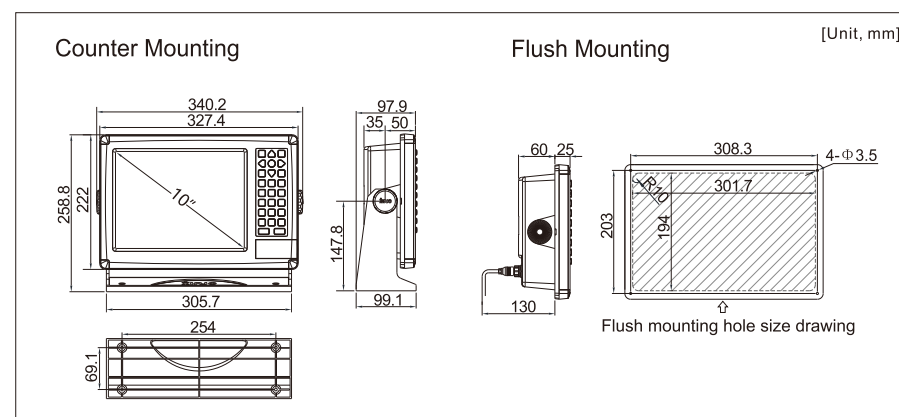
GN150 (8")

8 inch color touch screen LCD,
800×480 resolution



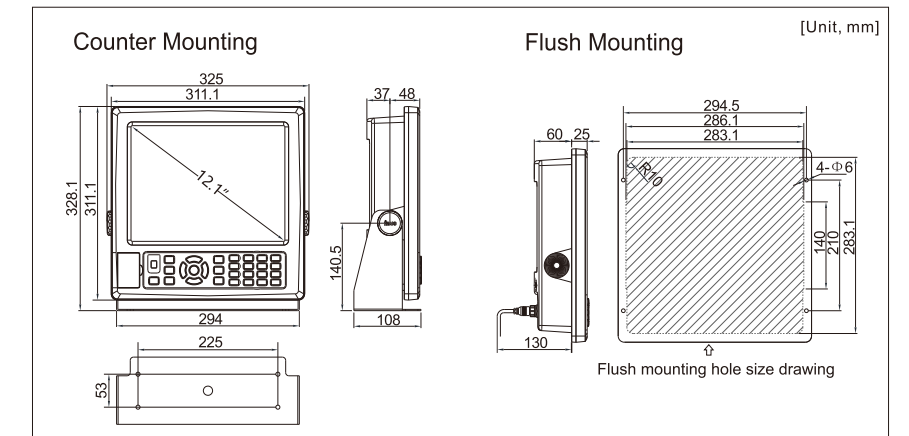
GN150 (10")

10.4 inch color touch screen LCD,
800×600 resolution



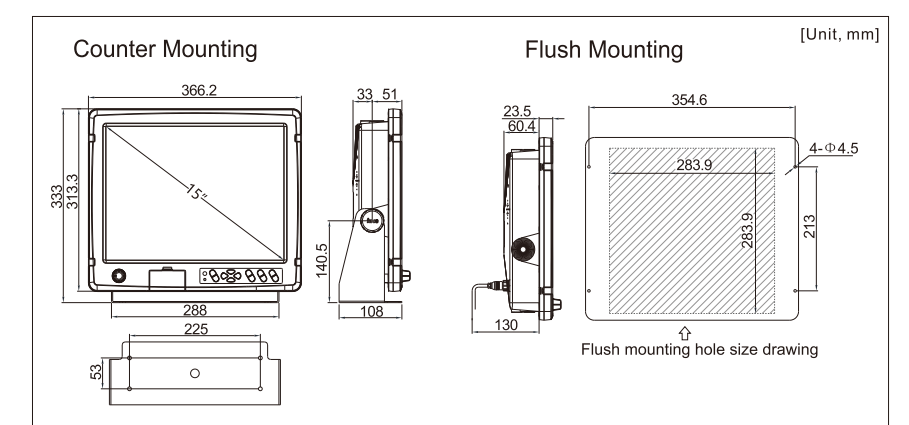
GN150 (12")

12.1 inch color touch screen LCD,
800×600 resolution



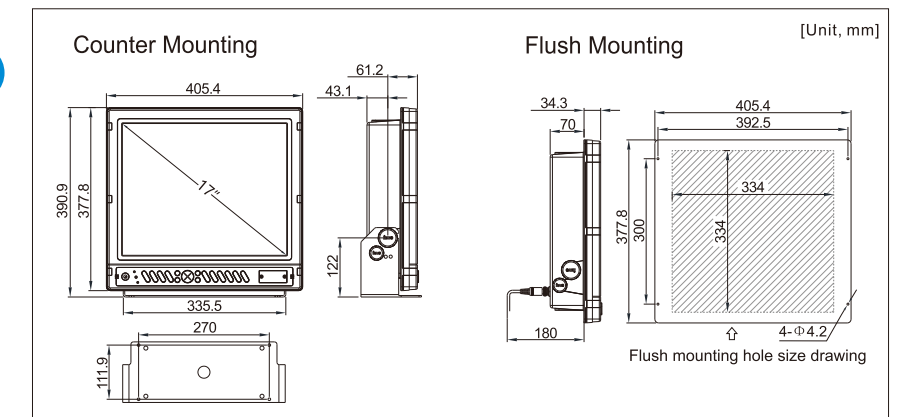
GN150 (15")

15 inch color touch screen LCD,
1024×768 resolution



GN150 (17")

17 inch color touch screen LCD,
1280×1024 resolution



Multi-system Shipborne Radionavigation Receivers
GN150 Series
SPECIFICATIONS



Display Unit		GN150 (7")	GN150 (8")	GN150 (10")
Display Type		Color TFT LCD	Color TFT LCD	Color TFT LCD
Size		7 inch	8 inch	10 inch
Resolution		800 × 480 pixels	800 × 480 pixels	800 × 600 pixels
Brightness		500cd/m²	450cd/m²	300cd/m²
Interface		2 Ports NMEA0183 Output , 2 Ports NMEA0183 Input (Baud rate can be set indenpently)	2 Ports NMEA0183 Output , 2 Ports NMEA0183 Input (Baud rate can be set indenpently)	3 Ports NMEA0183 Output , 3 Ports NMEA0183 Input (Baud rate can be set indenpently)
Chart		Internal Char&C-MAP(MAX)	Internal Char&C-MAP(MAX)	Internal Char&C-MAP(MAX)
WiFi		802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power Supply		DC 10V~36V	DC 10V~36V	DC 12V~36V
Power Consumption		5.5W or less (24V DC)	9.12W or less (24V DC)	8.5W or less (24V DC)
GNSS				
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		Cold Start <30s , Hot Start <1s		
Enviromental				
Working Temperature		-15℃~-+55℃		
Storage Temperature		-20℃~-+60℃		
Waterproof		IP65		
Language		English, Simplified Chinese, Traditional Chinese, Vietnamese, Malay, Korean, Turkish, Thai, Greek, Indonesian, Japanese, Myanmar, Arabic, Persian, Spanish, French		
Display Modes		Standard Chart View, Pure Chart View, Simple Chart View, AIS Data, Sailing Data, GNSS, 3D Navigation, Compass		
Memory Capacity		50,000 waypoints, 50,000 markers, 500 routes, one route can indicate 200 waypoints , 1000 tracks, 1600000 track points		
Standards		IMO Resolution A.694(17), Resolution MSC 112(73) , IMO MSC Resolution 379(93), IMO MSC Resolution 401(95), IMO MSC Resolution 432(98) , IEC 61108-1, IEC 62288, IEC60945, IEC 61162-1		

Display Unit		GN150 (12")	GN150 (15")	GN150 (17")
Display Type		Color TFT LCD	Color TFT LCD	Color TFT LCD
Size		12.1 inch	15 inch	17 inch
Resolution		800 × 600 pixels	1024 × 768 pixels	1280 × 1024 pixels
Brightness		400cd/m²	450cd/m²	400cd/m²
Interface		3 Ports NMEA0183 Output , 3 Ports NMEA0183 Input (Baud rate can be set indenpently)	3 Ports NMEA0183 Output , 3 Ports NMEA0183 Input (Baud rate can be set indenpently)	3 Ports NMEA0183 Output , 3 Ports NMEA0183 Input (Baud rate can be set indenpently)
Chart		Internal Char&C-MAP(MAX)	Internal Char&C-MAP(MAX)	Internal Char&C-MAP(MAX)
WiFi		802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power Supply		DC 12V~36V	DC 12V~36V	DC 12V~36V
Power Consumption		10W or less	12W or less	15W or less
GNSS				
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		Cold Start <30s, Hot Start <1s		
Enviromental				
Working Temperature		-15°C~-+55°C		
Storage Temperature		-20°C~-+60°C		
Waterproof		IP65		
Language		English, Simplified Chinese, Traditional Chinese, Vietnamese, Malay, Korean, Turkish, Thai, Greek, Indonesian, Japanese, Myanmar, Arabic, Persian, Spanish, French		
Display Modes		Standard Chart View, Pure Chart View, Simple Chart View, AIS Data, Sailing Data, GNSS, 3D Navigation, Compass		
Memory Capacity		50,000 waypoints, 50,000 markers, 500 routes, one route can indicate 200 waypoints , 1000 tracks, 1600000 track points		
Standards		IMO Resolution A.694(17), Resolution MSC 112(73) , IMO MSC Resolution 379(93), IMO MSC Resolution 401(95), IMO MSC Resolution 432(98) , IEC 61108-1, IEC 62288, IEC60945, IEC 61162-1		

GNSS Antenna GN-100			
Dielectric Antenna Performance Parameters		Other Parameters	
Frequency Range (MHZ)	1568±10	Output Impedance	50Ω
Gain(dBi)	>2@1568±10MHz	Radome Material	ABS
axial Ratio(dB)	<5@1568MHz	Interface Type	BNC-J3
Standing Wave	<2.0	Antenna Dimension(mm)	Φ80×104
Polarization	Right-hand Polarization	Working Temperature(°C)	-40~+85
LNA Performance Parameters		Storage Temperature(°C)	-40~+90
Frequency Range(Mhz)	1568±10	Cable Length	8m, 12m,16m
Gain(dB)	(30±2)@3.3V	Weight(g)	430±10g
Input/output Standing Wave	2.0@3.3V	Waterproof	IP67
Noise Figure(dB)	1.5dB@3.3V		
Rejection(dB)	>20@fo±100MHz		
Flatness In Band(dB)	<1		
Power Supply(V)	DC (2.8~5)V		
Supply Current(mA)	<20@3.3V		

Interface Definition		
> GN150(7") > GN150(8")		
GNSS ANT	NMEA	POWER
NMEA	NMEA	
1.Black NC- 2.Red NC+ 3.Orange GND 4.Green NMEA0183_RX1- (AIS input) 5.White NMEA0183_RX1+ (AIS input) 6.Blue NMEA0183_TX3- 7.Yellow NMEA0183_TX3+	1.Brown NMEA0183_TX2- 2.Orange NMEA0183_TX2+ 3.Yellow NMEA0183_RX4- 4.Green NMEA0183_RX4+ 5.Blue RTCM104_RX- (DGPS input) 6.White RTCM104_RX+ (DGPS input) 7.Black ALARM_NO 8.Red ALARM_COM 9.Purple ALARM_NC 10.Gray GND	

Interface Definition		
> GN150(10")		
POWER	KEYPAD	NMEA1 NMEA2 GNSS ANT
NMEA1	NMEA2	
1.Brown NMEA0183_TX2- 2.Orange NMEA0183_TX2+ 3.Yellow NMEA0183_RX4- 4.Green NMEA0183_TX6+ 5.Blue NMEA0183_RX3- 6.White NMEA0183_RX3+ 7.Black NMEA0183_RX1- (AIS input) 8.Red NMEA0183_RX1+ (AIS input)	1.Brown NMEA0183_TX5- 2.Orange NMEA0183_TX5+ 3.Yellow NMEA0183_RX4- 4.Green NMEA0183_RX4+ 5.Blue RTCM104_RX- (DGPS input) 6.White RTCM104_RX+ (DGPS input) 7.Black ALARM_NO 8.Red ALARM_COM 9.Purple ALARM_NC 10.Gray GND	

Interface Definition		
> GN150(12") > GN150(15")		
GNSS ANT	NMEA2 NMEA1 KEYPAD POWER	
NMEA1	NMEA2	
1.Brown NMEA0183_TX2- 2.Orange NMEA0183_TX2+ 3.Yellow NMEA0183_TX6- 4.Green NMEA0183_TX6+ 5.Blue NMEA0183_RX7- 6.White NMEA0183_RX7+ 7.Black NMEA0183_RX1- (AIS input) 8.Red NMEA0183_RX1+ (AIS input)	1.Brown NMEA0183_TX5- 2.Orange NMEA0183_TX5+ 3.Yellow NMEA0183_RX4- 4.Green NMEA0183_RX4+ 5.Blue RTCM104_RX- (DGPS input) 6.White RTCM104_RX+ (DGPS input) 7.Black ALARM_NO 8.Red ALARM_COM 9.Purple ALARM_NC 10.Gray GND	

Interface Definition		
> GN150(17")		
GNSS ANT	NMEA3 NMEA2 NMEA1 KEYPAD POWER	
NMEA1	NMEA2	NMEA3
1.Brown NMEA0183_TX3- 2.Orange NMEA0183_TX3+ 3.Yellow NMEA0183_TX4- 4.Green NMEA0183_TX4+ 5.Blue NMEA0183_RX5- 6.White NMEA0183_RX5+ 7.Black NMEA0183_RX1- (AIS input) 8.Red NMEA0183_RX1+ (AIS input)	1.Brown NMEA0183_TX7- 2.Yellow NMEA0183_TX7+ 3.Blue NMEA0183_RX8- 4.White NMEA0183_RX8+ 5.Black AUDIO+ 6.Red AUDIO- 1.Black NC 2.Red NC 3.Orange ALARM_NO 4.Green ALARM_COM 5.White ALARM_NC 6.Blue RTCM104_RX- 7.Yellow RTCM104_RX+	