

HIGHLANDER

RADAR

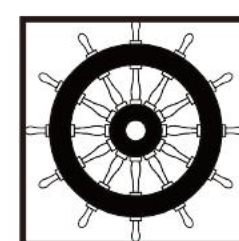
HLD-RADAR 900/900C



Fully Automatic Working Radar Auxiliary Collision Avoidance Radar HLD - RADAR 900/900C

Complies with the following regulations:

IEC 60945(2002)incl.Corrigendum 1 (2008) IEC 61162-2 (2024)
IEC 61162-1(2024) IEC 61162-450(2018) IEC 62288(2021) IACS ER E27
IEC 62923-1(2018) IEC 62923-2(2018) IEC 62388:(2013)/COR1:2014

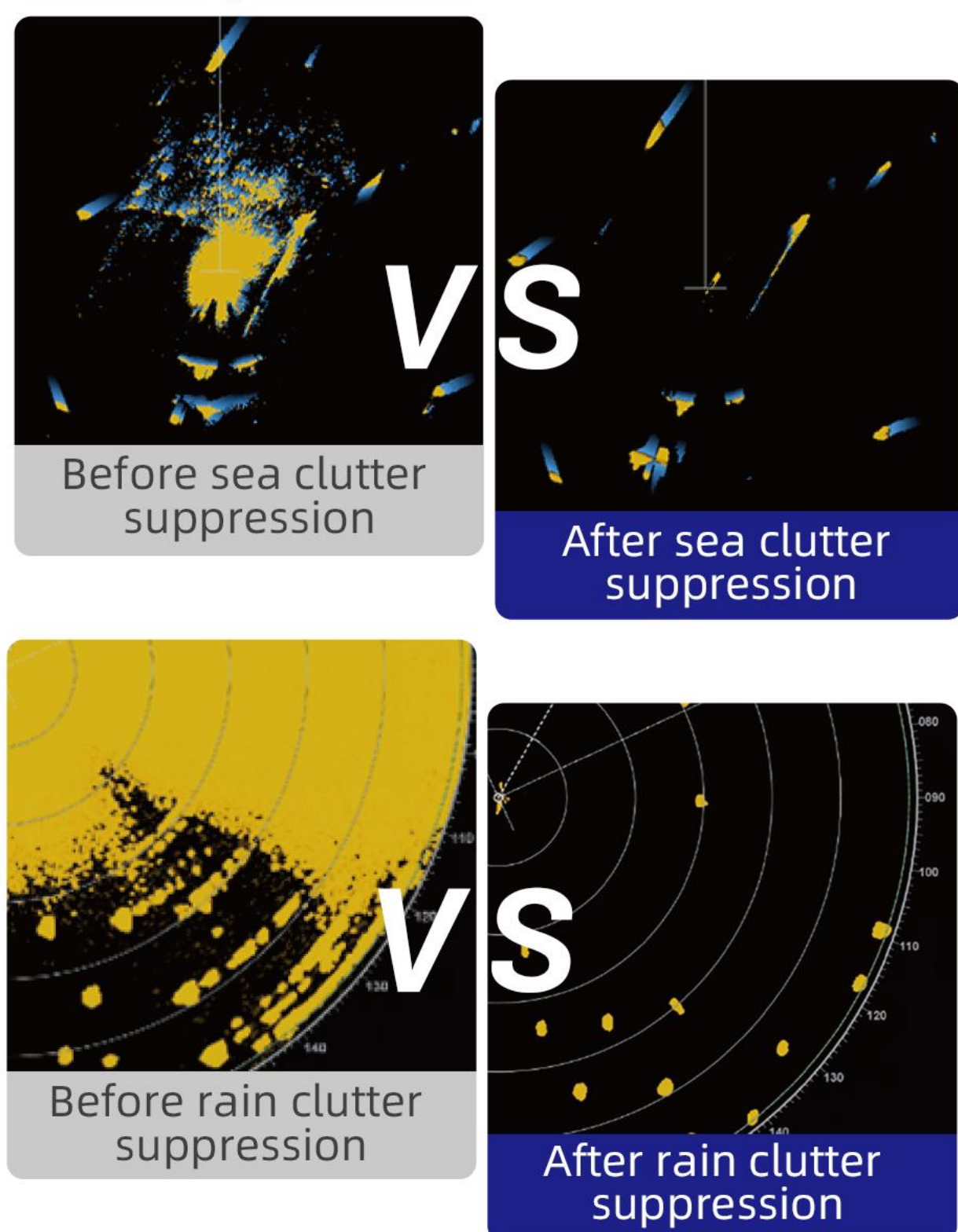


» Automatic Tuning

Dynamic automatic tuning keeps the radar in real time at its best performance for optimal target detection.

» Automatic Clutter Suppression

The automatic sea clutter statistics and suppression algorithm adapts to different sea states, vessel types and installation heights.



» Automatic Target Acquisition

Targets are automatically acquired in the set guard zone, and up to 10,000 targets are automatically tracked in the background.

» Automatic Collision Avoidance Alarm

Collision Avoidance Alarm is automatically triggered whenever dangerous targets are detected via preset collision avoidance CPA/TCPA parameters.

» Automatic Collision Avoidance Decision Support

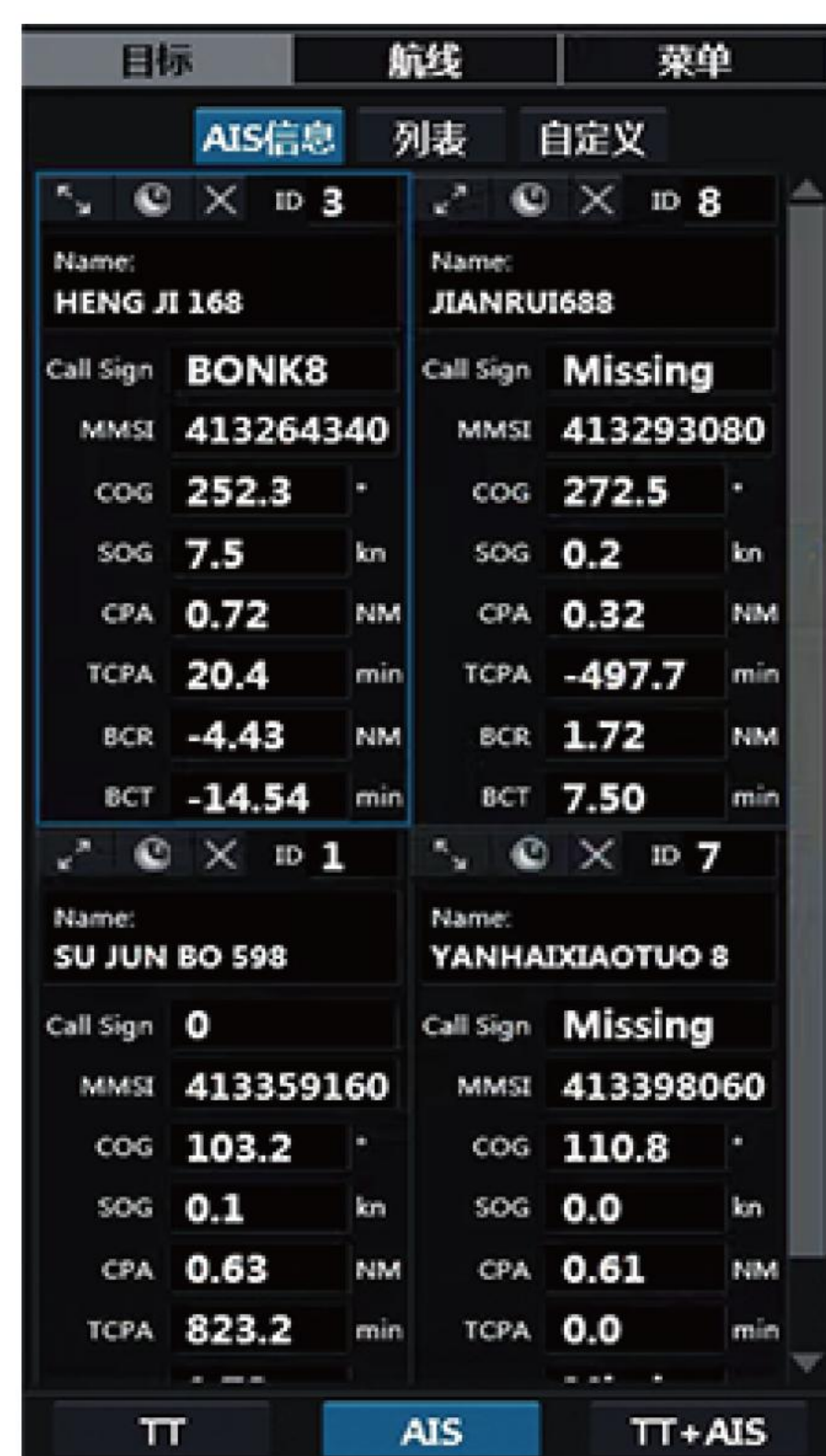
The automatic auxiliary collision avoidance system utilizes the static and dynamic data of the own vessel and target vessels provided by the magnetron radar, and, through continuous computation of the collision avoidance algorithm, provides the crew with reasonable collision avoidance suggestions. The crew can quickly evaluate these algorithm-based recommendations and take appropriate actions, thereby improving decision-making efficiency and navigation safety.

» Target Fusion

Target Fusion optimizes the display of targets in the radar picture by fusing tracked targets with AIS targets.

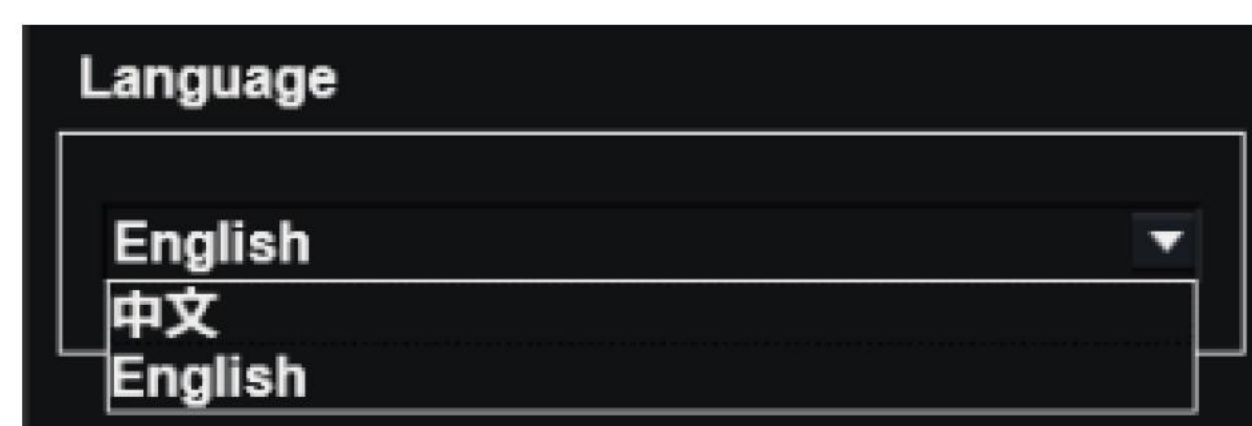


» Multiple AIS Information Displays



» Menu Language

Selectable between English & Chinese.



» AIS Target correlated with Radar Target

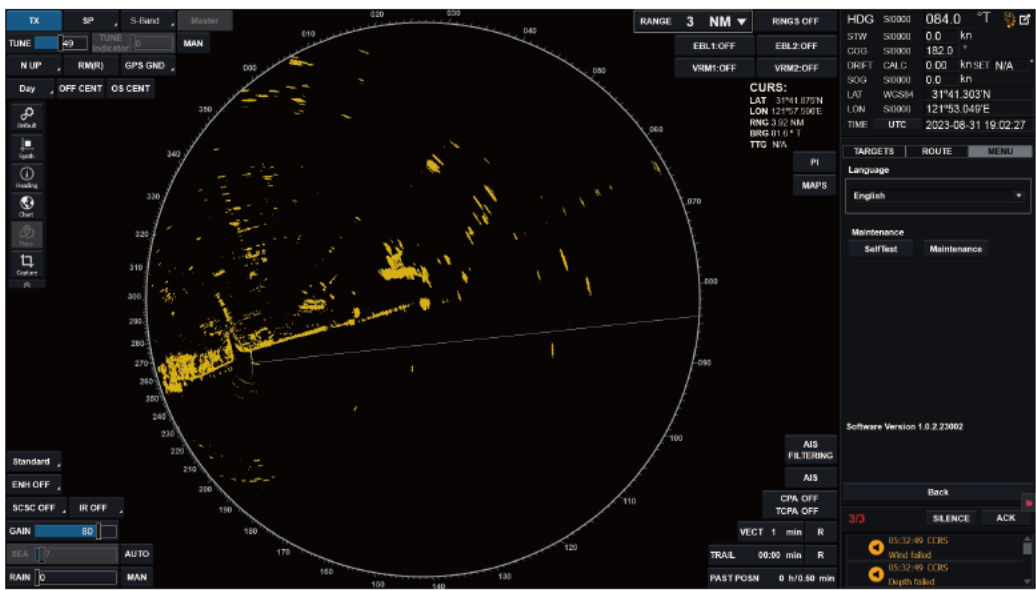


» Radar Target correlated with AIS Target



» Multi-Function Display

A multi-function workstation with flexibility and redundancy, allowing easy selection on any multi-function display among Chart Radar, Conning or Alert Management System.



Radar

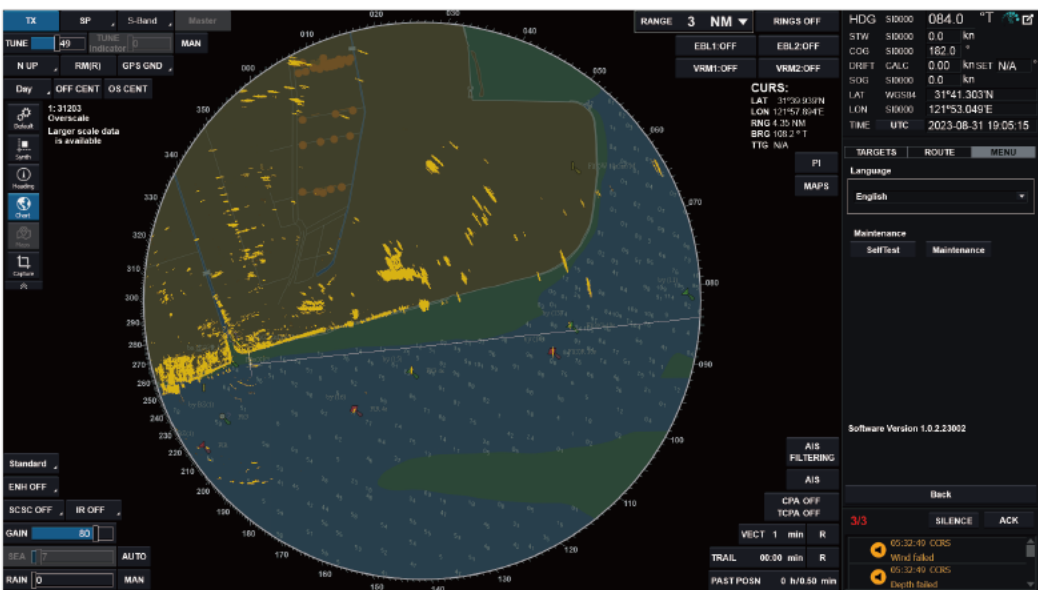
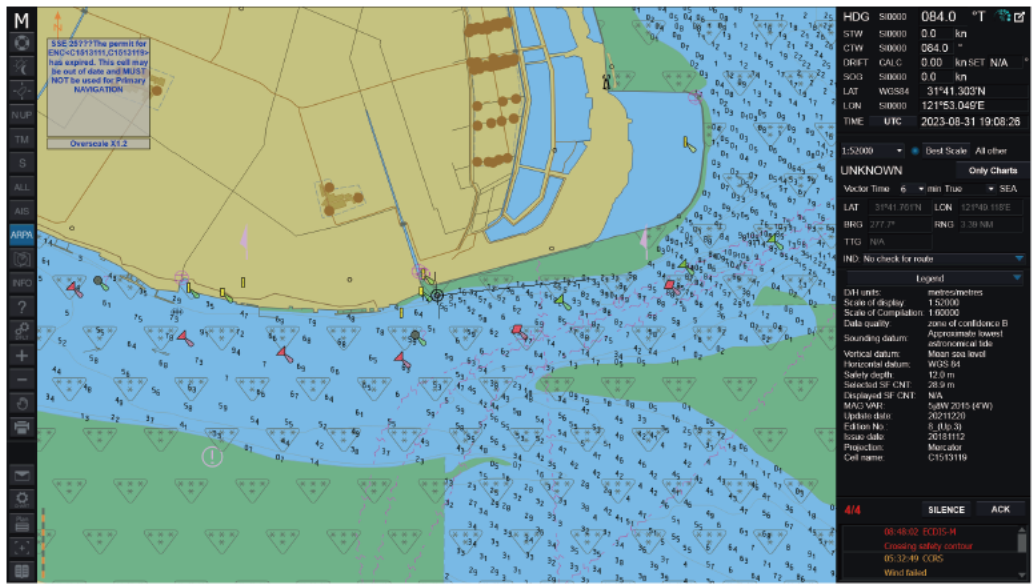
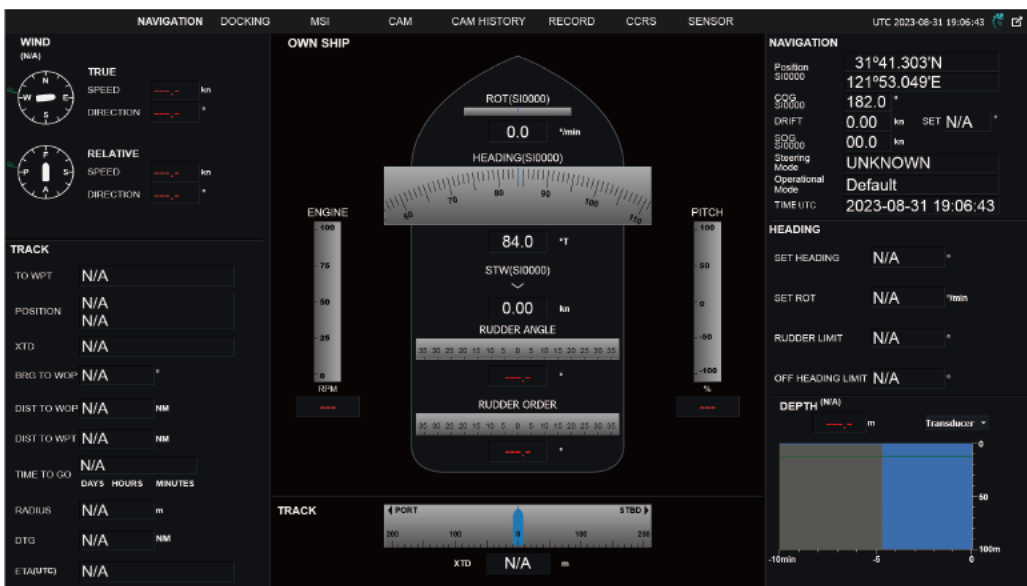


Chart Radar



ECDIS



Conning

HLD-RADAR 900-X(X-BAND) Configuration

Standard	
Antenna	HLD-AT104/106/108
Transceiver Unit	HLD-TU110/125
Display unit	HLD-DU162/163/165 HLD-DU133/134/138
Human-machine Interaction Unit	HLD-IU600
Main Control Unit	HLD-MCU770
Power Conversion Unit	HLD-PCU600

Optional	
1	ECDIS key (HLD-LIC900)
2	Console (with hood / sunshade)
3	Tabletop stand
4	De-icing device

HLD-RADAR 900-S(S-BAND) Configuration

Standard	
Antenna	HLD-AT112
Transceiver Unit	HLD-TU130
Display unit	HLD-DU162/163/165 HLD-DU133/134/138
Human-machine Interaction Unit	HLD-IU600
Main Control Unit	HLD-MCU770
Power Conversion Unit	HLD-PCU600

Optional	
1	ECDIS key (HLD-LIC900)
2	Console (with hood / sunshade)
3	Tabletop stand
4	De-icing device

*The specific configuration is subject to the type approval certificate.

» Dimensional Drawing

[Power Conversion Unit HLD-PCU600] 4kg



[Human-machine Interaction Unit HLD-IU600] 3kg



[Display unit 24" HLD-DU163] 10kg



[Main control unit HLD-MCU770] 6kg



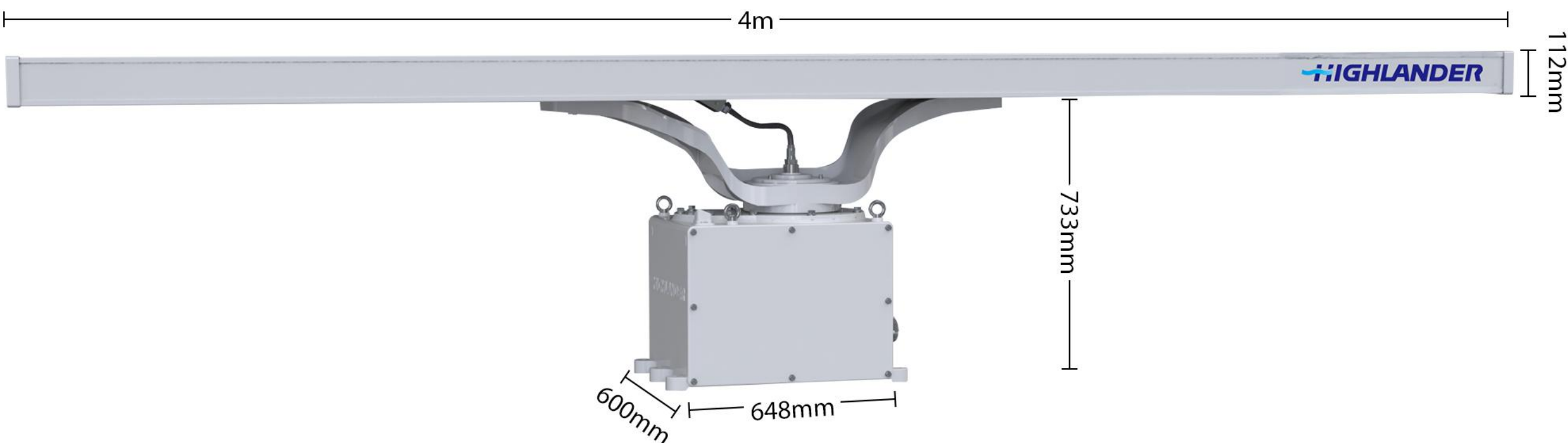
Name	Specifications	Length mm	Width mm	Height mm	Weight kg	Specifications	Length mm	Width mm	Height mm	Weight kg
Display unit 19"	HLD-DU162	429	69	382	7	HLD-DU133	429	75	382	8
Display unit 24"	HLD-DU163	605	69	397	10	HLD-DU134	593	70	384	11
Display unit 27"	HLD-DU165	650	70	420	11	HLD-DU138	650	70	437	11

[HLD-AT108+TU110/125 X-band] 41kg

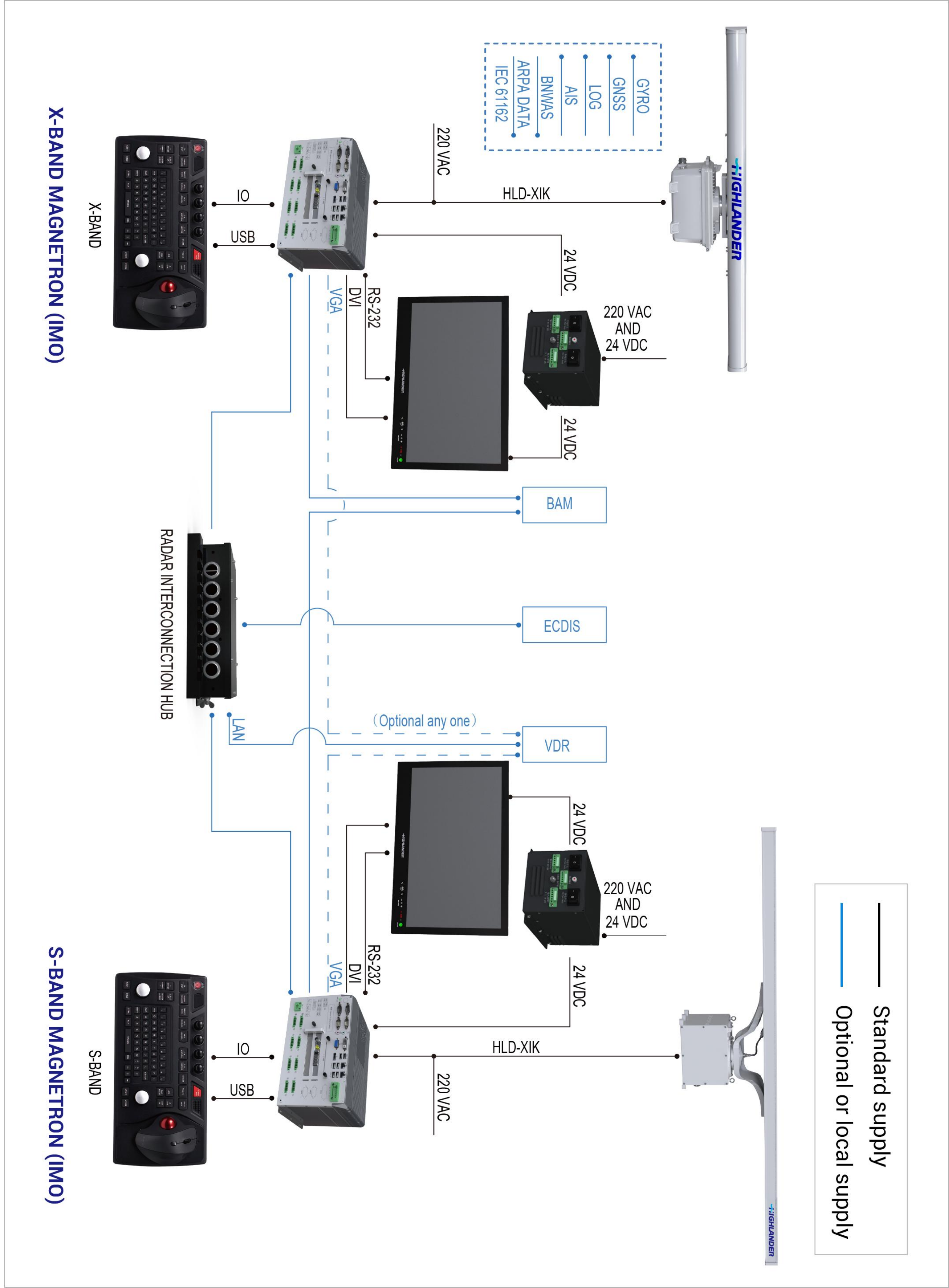


Name	Specifications	Length m	Weight kg
4ft	HLD-AT104	1.3	5
6ft	HLD-AT106	2.05	7
8ft	HLD-AT108	2.54	9
12ft	HLD-AT112	4	66

[HLD-AT112+TU130 S-band radar] 186kg



» X-BAND+S-BAND System Connection Diagram



» Technical Specifications

Antenna band		X-Band			S-Band
		HLD-AT104	HLD-AT106	HLD-AT108	HLD-AT112
Length		4ft	6ft	8ft	12ft
Peak transmit power		10kW/25kW			30kW
Beam Width	Horizontal (°)	2°	1.3°	1°	2°
	Vertical (°)	24°			27°
Antenna rotation speed		24rpm or 40rpm			24rpm or 40rpm
Operating frequency		9410±30MHz			3050±15MHz
Mode and repetition rate	Short pulse groups	0.05µs/1800Hz or 3000Hz			
	Medium pulse groups	0.25µs/1800Hz			
	Long pulse groups	0.75µs/785Hz			
	Ultra long	1.2µs/500Hz			
Intermediate frequency		60MHz			
Performance Monitor		System standard part			
Clutter suppression	Sea clutter	Manual/Automatic			
	Rain and snow clutter	Manual/Automatic			
Gain Control		Manual			
Display resolution (19/24/27 inches)		1280×1024 / 1920×1080 / 1920×1080			
Display mode	Motion mode	True motion, relative motion			
	Direction mode	Bow up, true north up, course up, stern up			
Display range (nautical miles)		0.125-96			
ARPA target capture		Up to 100			
Automatic target capture		Support, 2 auto-capture zones			
AIS target activity		Up to 100			
AIS/ARPA target associations		Support			
Test maneuver ship		Support			
Chart radar function		Optional			



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Hours
Hotline

Tel: 400 088 3335 / +86 513 8058 2906

E-mail: radar@highlander.com.cn
service@highlander.com.cn

Jiangsu Highland Integration Technology Co., Ltd. Jiangsu Tusuo Ocean Technology Co., Ltd.

Add:No.199,Qingfeng Road, Sutong Science & Technology Industrial Park,
Nantong City, Jiangsu Province, China
Tel: +86 513 80582989 Fax: +86 513 80582929
Website: www.highlander.com.cn Post code:226017