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

CCS CHINA CLASSIFICATION SOCIETY 中国船级社

RUSSIAN MARITIME REGISTER OF SHIPPING 1913

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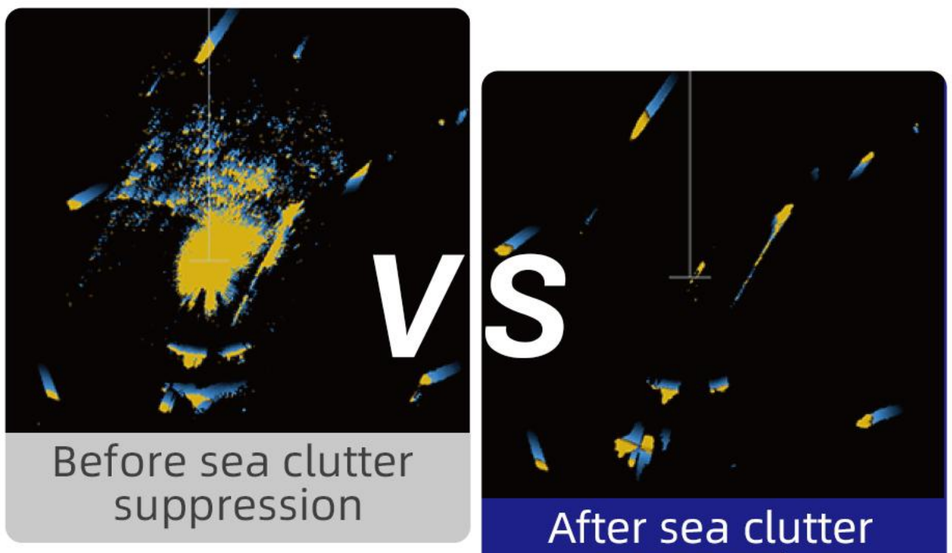
Automatic Tune

Dynamic Automatic Tuning ensures that the radar functions at its optimal level in target detections.

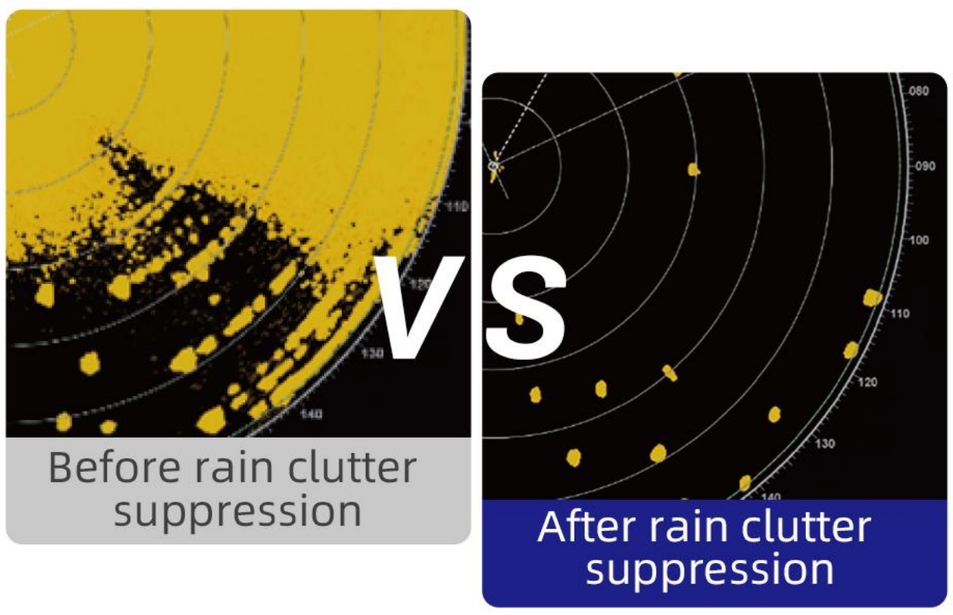
Automatic Clutter Suppression

Automatic Sea & Rain Clutter Suppression allows the radar performance to automatically adapt to different sea states, vessel types and installation limitations.



Before sea clutter suppression

After sea clutter suppression



Before rain clutter suppression

After rain clutter suppression

Automatic Target Acquisition

Radar targets are automatically acquired whenever they are within the defined zone. Up to 10,000 targets are automatically tracked.

Automatic Collision Avoidance Alarm

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

Automatically assist in collision avoidance decision-making suggestions

The automatic assisted collision avoidance system uses the static and dynamic data of the local ship and the target ship provided
by the magnetron radar, combined with the continuous calculation of the collision avoidance algorithm, to provide reasonable
collision avoidance suggestions for the crew. Crews can quickly evaluate and take corresponding actions based on algorithm
suggestions to improve decision-making efficiency and navigation safety.

Target Fusion

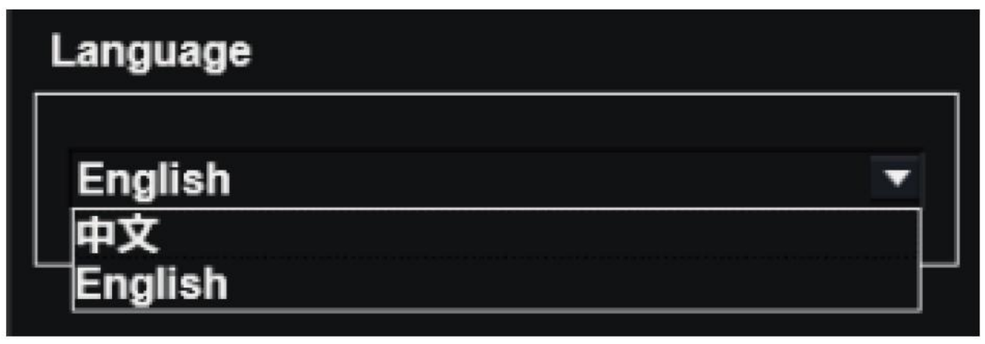
Target Fusion prevents confusion of radar targets and AIS targets while optimizing radar display.

Target Information

Multiple AIS Information Displays

Menu Language

Selectable between English &Chinese.

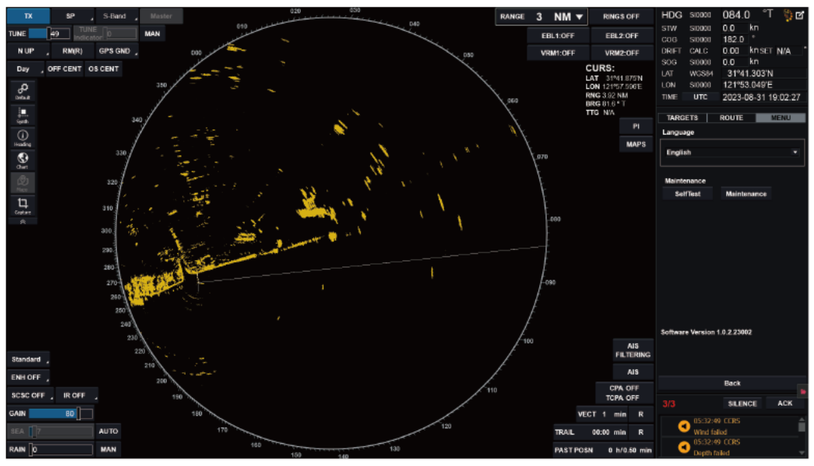


AIS Target correlated with Radar Target

Radar Target correlated with AIS Target

Multi-Function Display

Multi-function workstation providing selection of many modes: ARPA Radar, Chart Radar, ECDIs, Conning Display of Alert Management.



Radar

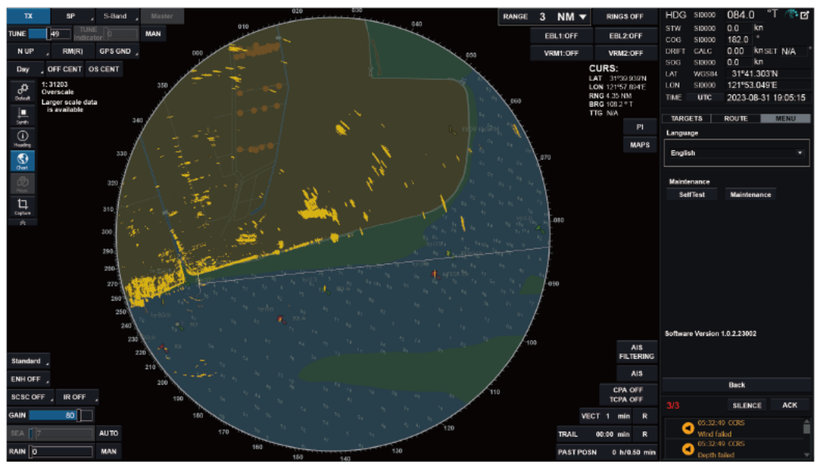
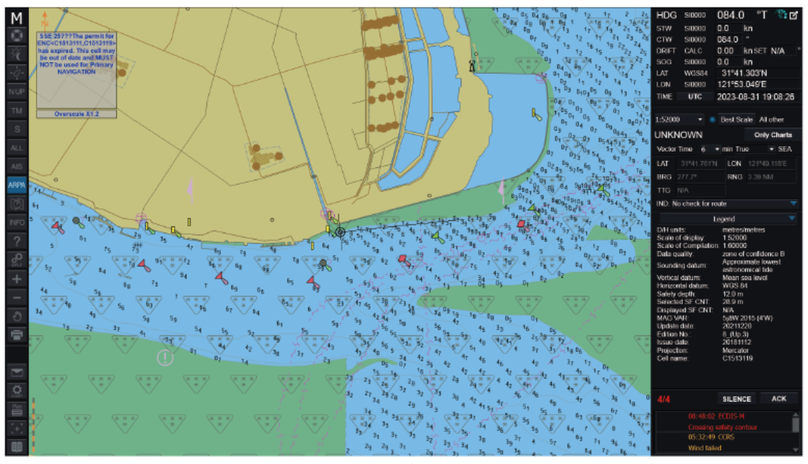
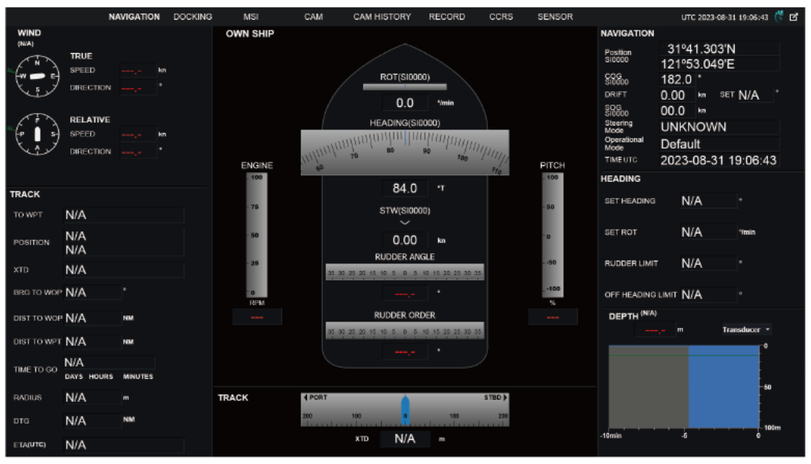


Chart Radar



ECDIS



Conning

HLD-RADAR 900-X(X-BAND) Series 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
3	Tabletop stand
4	De-icing device

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

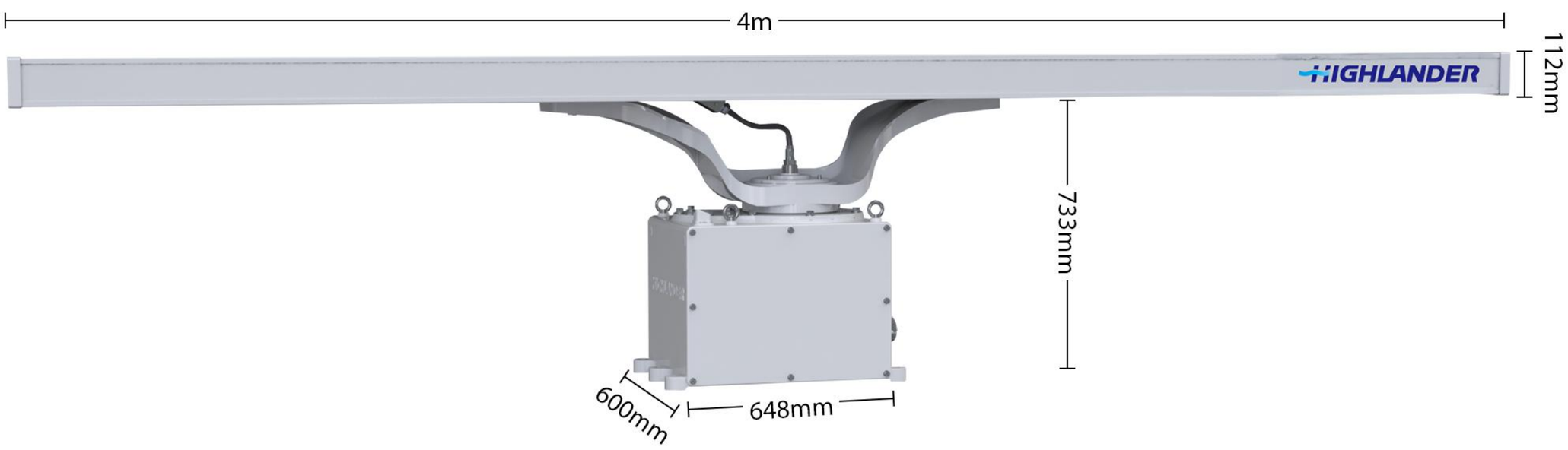
【Main control unit HLD-MCU770】6kg

Name	Specifications	Length mm	Depth mm	Height mm	Weight kg	Specifications	Length mm	Depth 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

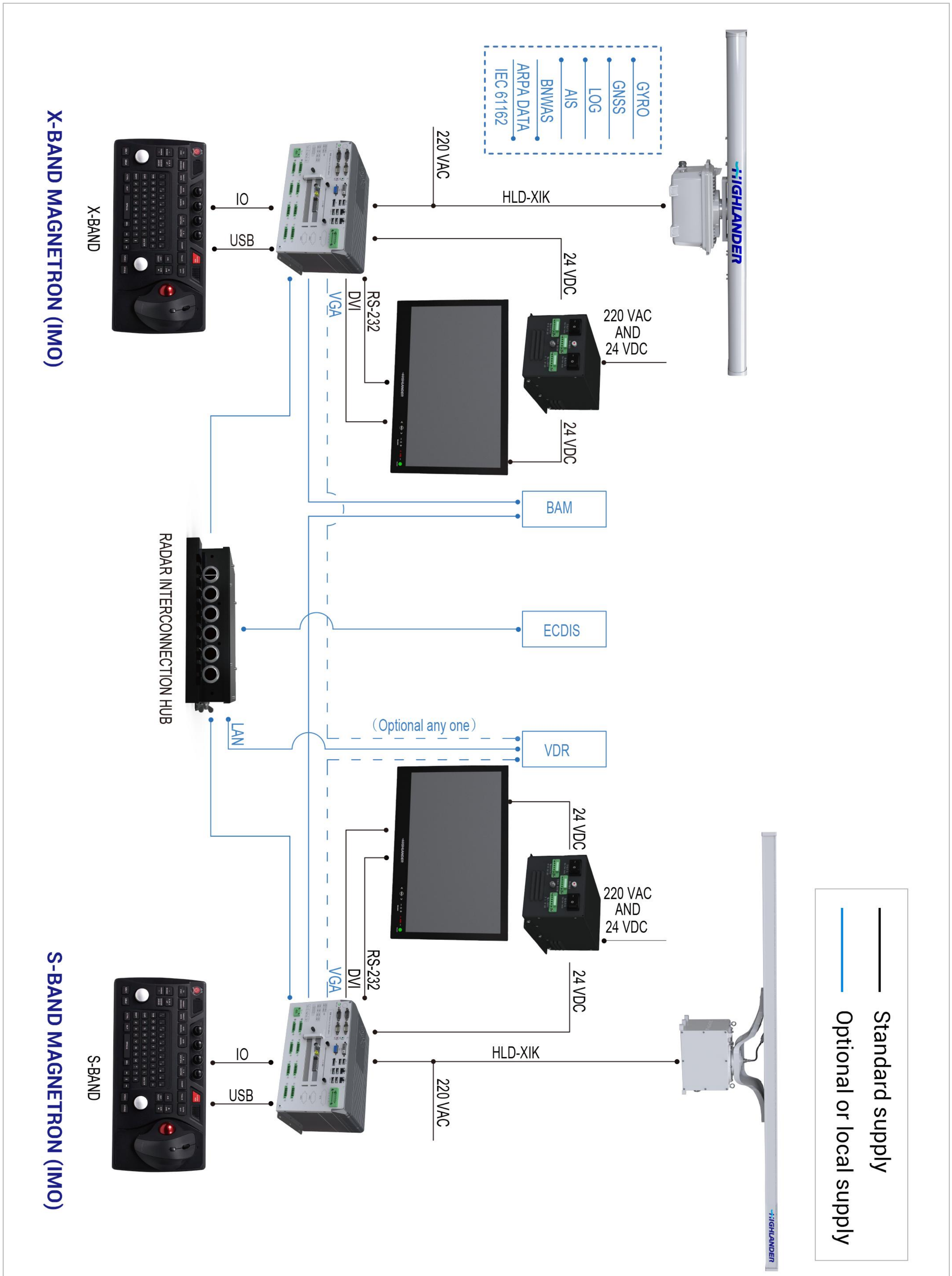
【HLD-AT108+TU110/125 X-band】41kg

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			

24 Hours Hotline

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