



HD-880CA
(Chartplotter/AIS)



HD-1000CA
(Chartplotter/AIS)



HD-1200CA
(Chartplotter/AIS)

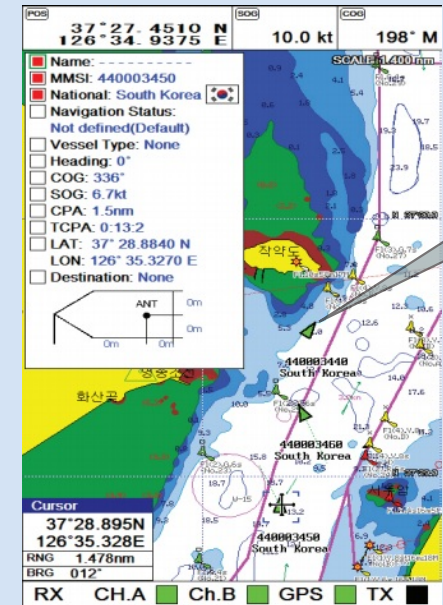
Free-direction Wireless RC !

Low Power Consumption !

Tracking up to 5 vessels independently !

AIS SPECIFICATION

1. Frequency
156.025MHz ~ 162.025MHz
- Default channel 88B, AIS(162.025MHz)
- Default channel 87B, AIS(161.975MHz)
2. Channel Spacing
25KHz
3. Frequency stability rate
 $\pm 10\text{PPM}(-20^{\circ}\text{C} \sim +60^{\circ}\text{C})$
4. Data Rate
25kHz GMSK (AIS, TX and RX)
25kHz AFSK (DSC, RX only)
5. Output power
2W(33dBm $\pm 1.5\text{dB}$)
6. Demodulation
GMSK



CHARTPLOTTER SPECIFICATION

LED Backlight Display
Super wide color LED backlight provides the optimum viewing under direct sunlight.

High Accuracy
New Haiyang's GPS ANT, accuracy of the position. Real-time head-moving is available.

Various Chart Systems
Three chart systems C-MAP or NAVIONICS HY Chart(Inter/Exter) are available. The most suitable chart is chosen by the user. Lots of information such as buoys, lighthouses, wrecks and tides are provided.

SD(Normal/Mini) support
SD(Normal/Mini) card memory available to store user data(WPT, mark, track, etc) or upgrade new S/W and chart.

Outdoor use
Water/Dust resistant protect against dust, rain or wave in rough condition.

Windows OS
Easy operation with Turbo keys on Windows.

Multi-language
Selection of languages, Korean, English, Italian, Spanish, Chinese, Taiwanese, Vietnamese, Arabic, Thai, Greek, Turkish, Malay, Indonesian, Aarbic, Indian(Hindi, Gujarati) Persian etc.

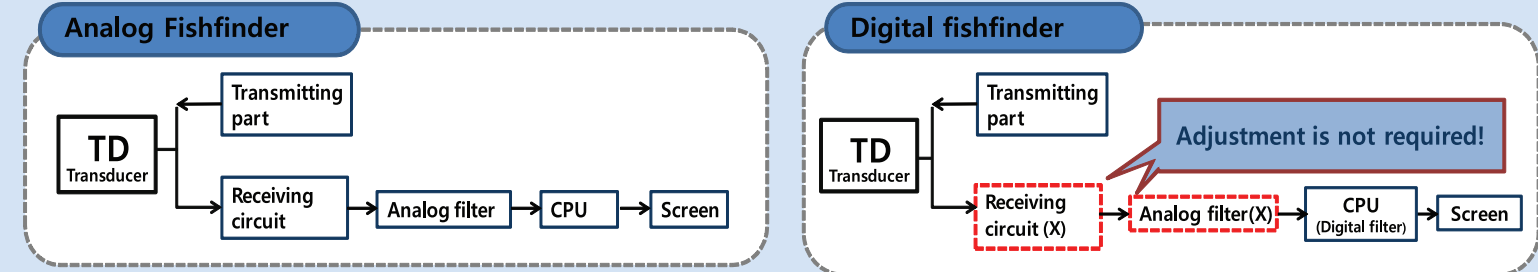
Various AIS information
When connecting AIS, sorting MMSI, Ship's name, nationality, CPA, etc available. Additionally, easy measuring the distance of other ships available with AIS radius. Tracks the movement of up to 5 vessels with track history and optional live details on individual vessels.

CCTV camera
CCTV camera function is standard(Up to 2 PCS available).

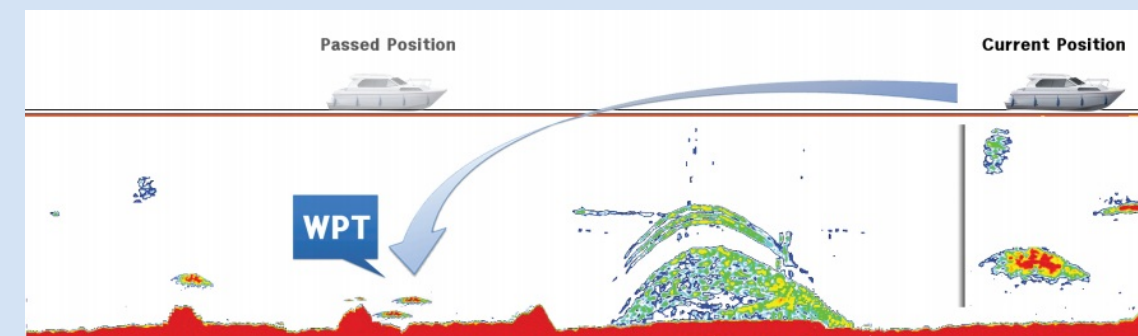
Finder
The finder function supports to search for ports, local tide and current easily.

FISHFINDER SPECIFICATION

What is "Digital fishfinder technology"?



Scrolling The Passed Image



Time-machine function, if you passed or missed any important fishing point or dangerous area, provides you to go back to the passed point.

It is great to find any missed point and as GPS is supporting, it's easy to add the WPT on the MAP.

Hopefully, enjoy your fishing life!

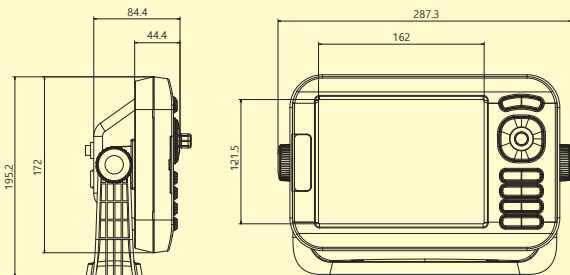
GENERAL SPECIFICATION

1. Display Screen
 - Smart 8 : 8 inch color LCD with LED backlight
 - Smart 10 : 10.2 inch color LCD with LED backlight
 - Smart 12 : 12.1 inch color LCD with LED backlight
2. Resolution
 - Smart 8 : SVGA
 - Smart 10 : WVGA
 - Smart 12 : WVGA
3. Power Supply
 - DC 12V~36V(±10%)
4. Operating Temperature
 - Display Unit -15°C~+50°C
 - Antenna Unit -25°C~+70°C
5. Performance Standard
 - IMO Resolution MSC.112(73)

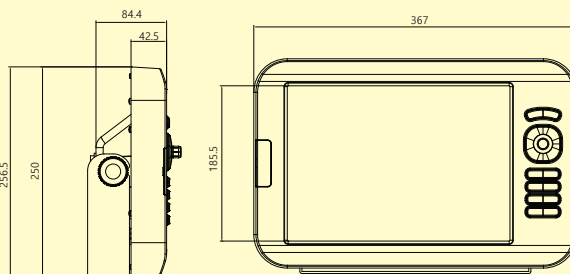
CHARTPLOTTER SPECIFICATION

1. Display Method Mercado Projection
2. Display Mode
 - True motion / N/S/E/W up / Course up / Head up
3. Latitude Limits Between 85°N to 85°S
4. Map Scale 0.05nm to 1500nm
5. Map Datum WGS-84
6. Waypoint 30,000 points
 - *Total of 16 colors and 16 icons are selectable each point with name tag (8 alphanumeric characters)
7. Track Point 50,000 points (2 types)
8. Route
 - Max capacity 100 Routes
 - *20 WPTs per each Route. Each with name tags (8 alphanumeric characters)
9. Draw Point 1,000 points
10. Area Name 1,000 points
11. Chart Data HY-MAP(Built-in or External)/ C-MAP/ Navionics
12. Output Data NMEA-0183
13. Input Data NMEA-0183
14. Alarm Arrival, Anchor, XTE, Interval timer, Userline

Dimension(Smart 8)



Dimension(Smart 12)



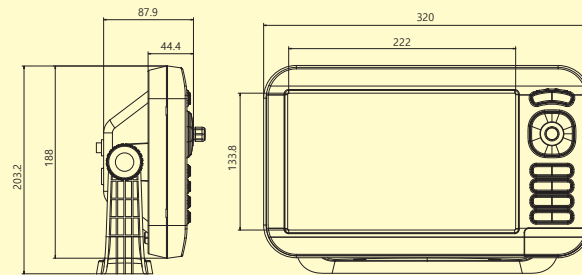
GPS RECEIVER SPECIFICATION

1. GNSS Receiver Capabilities
 - GPS L1 C/A code
 - GLONASS L1OF/
 - QZSS L1 C/A code
 - Galileo E1B/E1C/L1
2. Number of Channel
 - 52 channels
3. Horizontal Positioning Accuracy
 - Autonomous 2.5m (CEP 50%)
4. Sensitivity
 - Acquisition -148 dBm
 - Tracking -165 dBm
 - Reacquisition -162 dBm
5. Nav Update
 - 1Hz, 5Hz

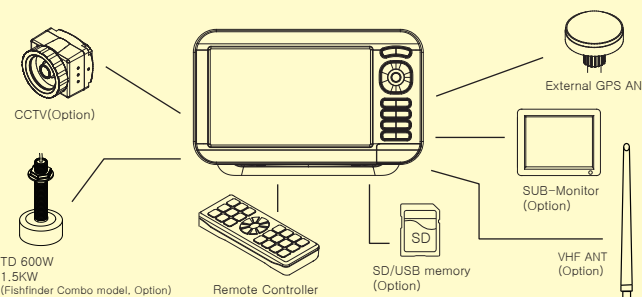
SONAR SPECIFICATION

1. Display Mode
 - Normal (single/dual-frequency), Bottom-lock, Bottom-zoom, Partial-zoom, A-scope
2. Frequency
 - Fishfinder : 50 KHz and 200 KHz
 - DownImaging : Over 455 KHz
3. Output Power
 - 600W/ 1.5KW
4. Range
 - 600W : 2.5m ~ 600m
 - 1.5KW : 2.5m ~ 1,200m
5. Image speed
 - Fixed 8 speeds (4/1, 2/1, 1/1, 1/2, 1/4, 1/8, 1/16, 1/32) and stop
6. Rejection
 - Interferencs rejection: 3 levels
 - Noise rejection: 4 levels
7. Function
 - Gain(auto/manual), Range(auto/manual), Shift(auto/manual), White/Black line
 - Support speed sensor, Water temperature

Dimension(Smart 10)



Interconnection(AIS Conbo unit)



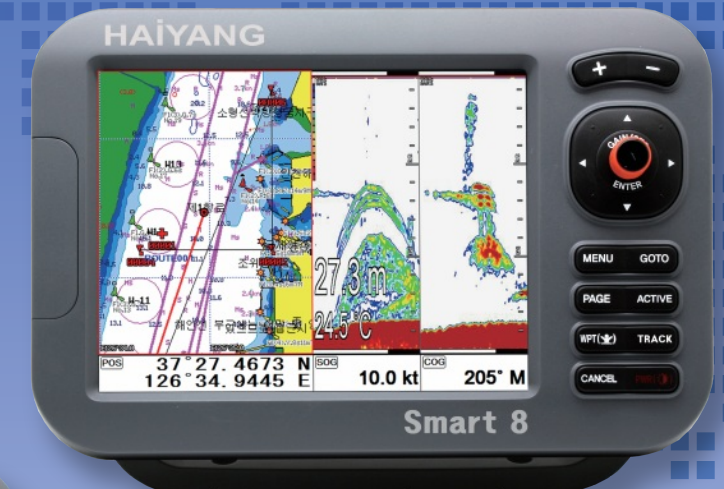
*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

HAIYANG
The Pioneer of Marine Equipments

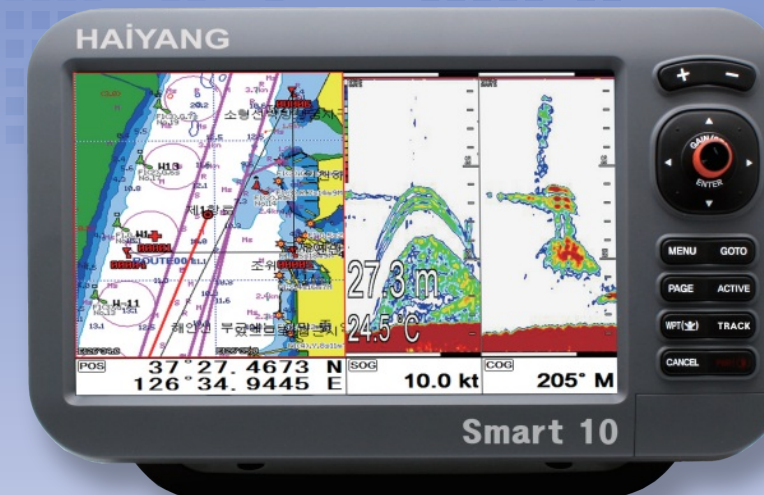
Move to the future!

New Smart HD series

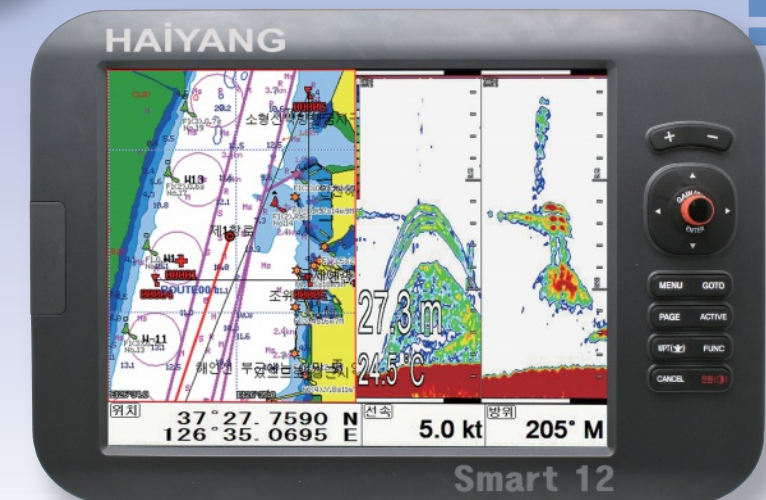
HD-880CFA/HD-880CA, HD-1000CFA/HD-1000CA,
HD1200CFA/HD-1200CA



HD-880CFA
(Chartplotter/Fishfinder/AIS)



HD-1000CFA
(Chartplotter/Fishfinder/AIS)



HD-1200CFA
(Chartplotter/Fishfinder/AIS)

Haiyang OLIX CO., LTD.
103-903 Bucheon Technopark 364 Samjeongdong Ojeonggu
Bucheon Gyeonggi, Korea
Tel : +82 2 3274712 Fax: +82 32 3274713
Web-site: <http://www.haiyang.co.kr>
E-mail: sales@haiyang.co.kr

POWERED BY WINDOWS

www.haiyang.co.kr