

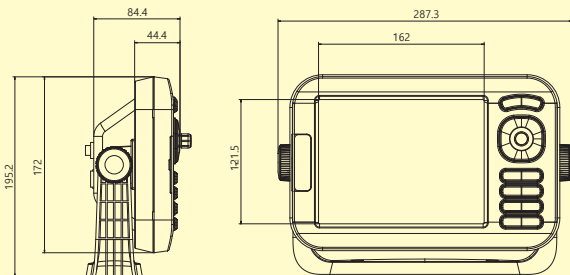
GENERAL SPECIFICATION

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)

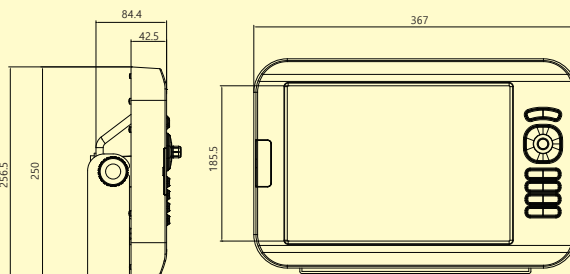
CHARTPLOTTER SPECIFICATION

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)



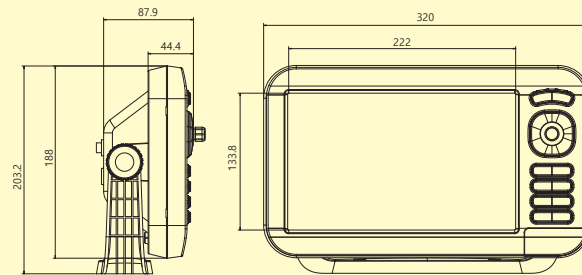
GPS RECEIVER SPECIFICATION

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

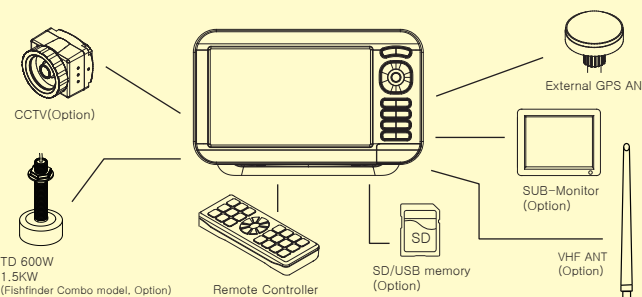
SONAR SPECIFICATION

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

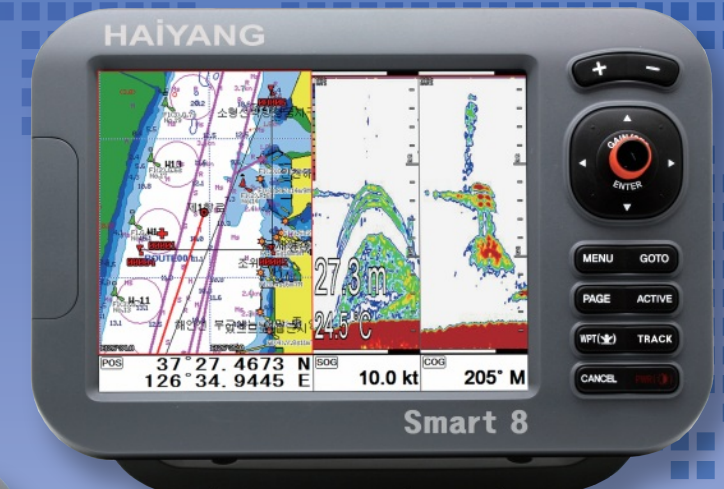
HAİYANG

The Pioneer of Marine Equipments

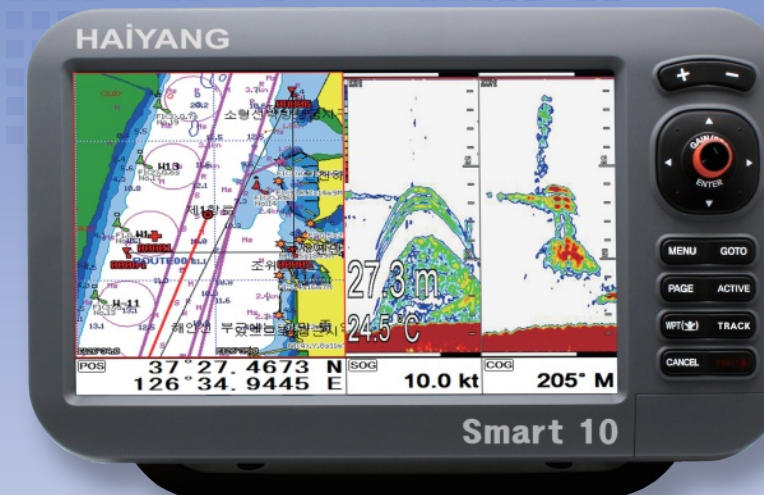
Move to the future!

New Smart HD series

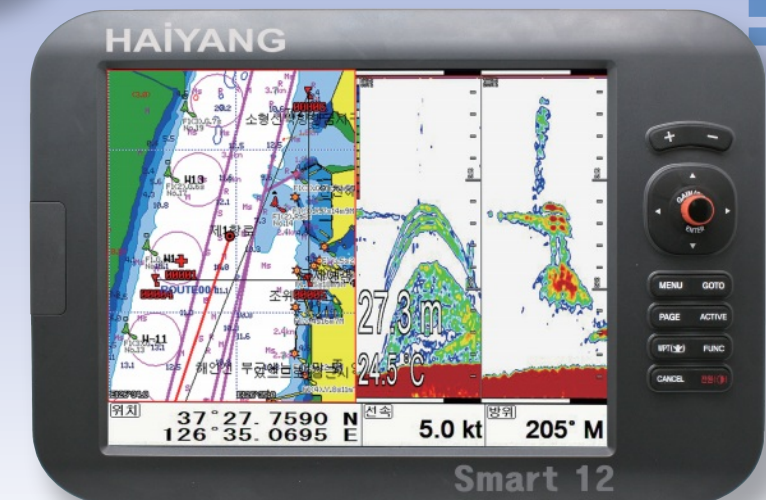
HD-880CFA/HD-880CA, HD-1000CFA/HD-1000CA,
HD1200CFA/HD-1200CA



HD-880CFA
(Chartplotter/Fishfinder/AIS)



HD-1000CFA
(Chartplotter/Fishfinder/AIS)



HD-1200CFA
(Chartplotter/Fishfinder/AIS)

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HD-880CA (Chartplotter/AIS)



HD-1000CA (Chartplotter/AIS)

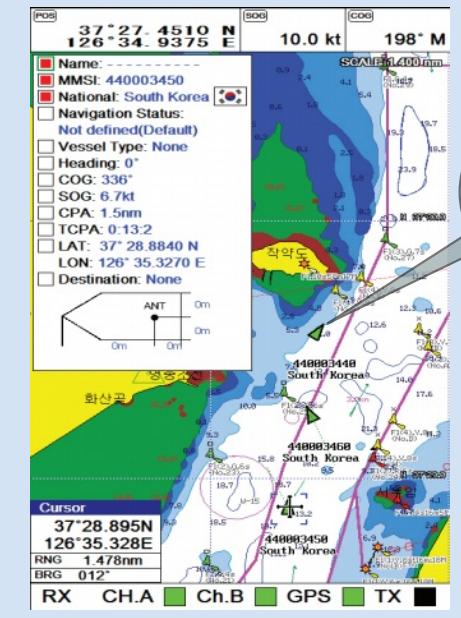


HD-1200CA (Chartplotter/AIS)

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
±10PPM(-20℃ ~ +60℃)
- 4. Data Rate
25kHz GMSK (AIS, TX and RX)
25kHz AFSK (DSC, RX only)
- 5. Output power
2W(33dBm ± 1.5dB)
- 6. Demodulation
GMSK



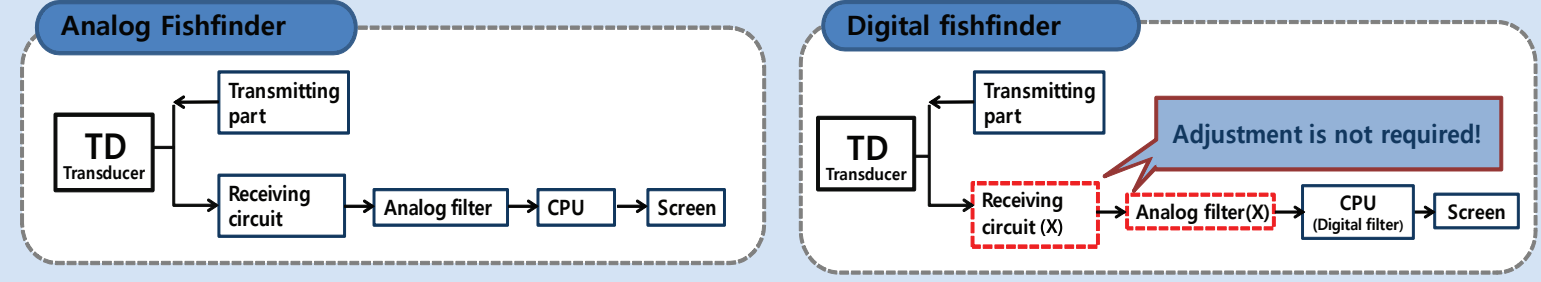
AIS INFO Window

CHARTPLOTTER SPECIFICATION

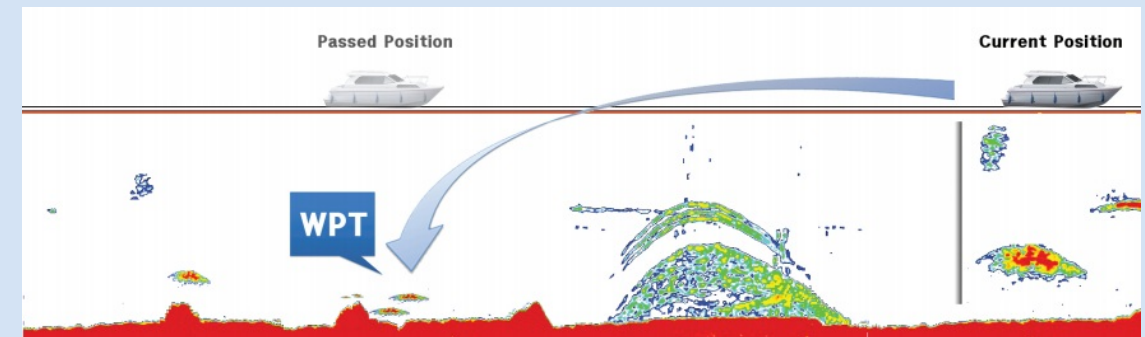
- LED Backlight Display**
Super wide color LED backlight provides the optimum viewing under direct sunlight.
- High Accuracy**
New Haiyang's GPS ANT, accuracy of the position. Real-time head-moving is available.
- Various Chart Systems**
Three chart systems C-MAP or NAVIONICS HY Chart(Inter/Exter) are 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!