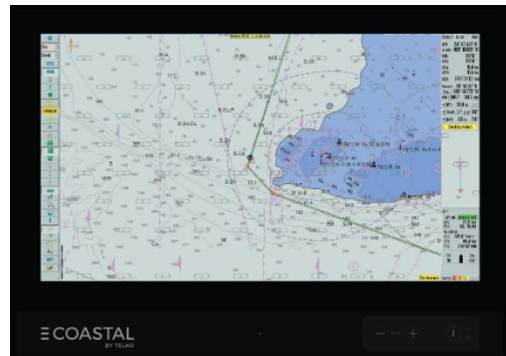


# SPECIFICATIONS: COASTAL-E 2224

COASTAL-E 2224 is the ultimate ECDIS<sup>1</sup> for workboats, fishery, SAR and other smaller crafts.

It is based on the IMO-approved TECDIS software and built with an IEC 60945-approved panel PC, measuring 22 inches diagonally.



- Approved Chart system(mini ECDIS) for Workboats , Fishery, SAR & Combat Crafts
- Go paperless with Coastal E
  - Monthly Chart update of the official ENC's
- Accepted by the Norwegian Maritime Authority - Sjøfartsdirektoratet
  - Circular RSV 12-2019 issued 2019-12-20
- Vessels from 8 to 24 meters
- Online web shop for Charts: [www.Telko.no/charts](http://www.Telko.no/charts)

## HARDWARE SPECIFICATIONS

<b>Operating system</b>	Windows 10 64-bit, English
<b>Screen</b>	21.5 inch Full HD, LED VA panel
<b>Processor</b>	Intel Atom x7- E3950 1.6 GHz processor
<b>Chipset</b>	Intel Apollo Lake
<b>Memory (RAM)</b>	4 GB
<b>Storage</b>	240 GB M.2 SSD (approx. 210GB free) 32 GB eMMC

## SOFTWARE SPECIFICATIONS

Software version	TECDIS 4.8.3.x
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Usable Charts	S-57 ed.3
	S-63 (including Primar and AVCS)
	CM-93/3 (ENC / ENC+ / CAES / CEES / Professional+ <sup>2</sup> )

### Display of data

<b>Own Ship:</b>	GPS Position, COG, HDG, SOG, STW
<b>Route:</b>	Active route name, DTG, ETA, and CTS-, DTG-, TTG to selected WP
<b>Targets:</b>	BRG, DIST, COG, SOG, POS User selectable: ARPA Target/target track color, «Save» ARPA target track.
<b>Others:</b>	EBL, VRM, EBL list, PI lines, Cursor position, True/relative cursor bearing

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<sup>1</sup> COASTAL-E 1624 is subject to national approvals, for national waters.

<sup>2</sup> C-Map Professional+ is not an official chart service, it does however provide world scale charts

## Functions

<b>Framegrabber</b>	View input from other onboard systems such as radars, CCTV, fish finding systems and more. Viewed either in full screen or as picture in picture (PiP). This functionality requires the <b>Framegrabber</b> version of Coastal-E 2224.
<b>Maritime Calculation</b>	Can calculate Range/Bearing to or from a position, with Rhumb-line or Great Circle routes, distances selectable in meters or NM. TTG, ETA, datum conversion
<b>Route monitoring</b>	Off track, Waypoint, Arrival, Grounding, Depth
<b>1-click chart loading</b>	Available for charts from the following providers: Navtor, ChartCo, Nautisk Forlag
<b>Alarms</b>	Off track, Index Lane, Channel limit, Waypoint approach, Depth, Non ENC dangers, Restricted Areas, Cautions Areas, Possible danger, Harbour Mode
<b>Autopilot output</b>	Output of: APB, RMB, RMC, RTE
<b>AIO overlay</b>	Show Temporary and Preliminary Notices as an overlay on the chart, with the Admiralty Information Overlay (AIO) service by UKHO.
<b>Other Functions</b>	<ul style="list-style-type: none"> <li>• Night/Day presentation</li> <li>• MOB</li> <li>• SAR</li> <li>• Log w/replay functionality</li> <li>• Docking Conning display</li> <li>• Tooltip</li> <li>• User defined chart presentation</li> <li>• Easy transfer of installed configuration to replacement unit</li> <li>• Easy screen dump facility when in navigation mode.</li> </ul>

## TELCARE

TELCARE gives power to the Coastal-E users.

TELCARE is a subscription service for new features in TECDIS and Coastal-E. The following features are only available with a valid TELCARE subscription:

<b>TotalTide</b>	Show Tides from Admiralty TotalTide in the chart. Requires a TotalTide subscription from UKHO.
<b>Rendevous</b>	With Rendevous TECDIS will predict where on your route you will meet that target. This function works for targets within 1 NM of your route, and predicts where the target will meet your vessel (assuming the target will move along the same path your route shows).. Rendevous supports up to 8 targets simultaneously, and the prediction is updated every second.
<b>Transit conning</b>	The most important sensor and voyage information is displayed with bigger text, in a clear and very readable conning window. The conning window can be moved around on the screen.
<b>Edit route lane</b>	Edit the route corridor and turn radius visually in the chart with the cursor.
<b>1-click chart loading</b>	Available for Global Navigation Solutions – GNS

## Optional features

The following options are available for purchase with a perpetual license (onetime fee):

<b>Radar Overlay</b>	Display of radar echoes from Furuno radars: 2xx7, 2xx8, 15xx
<b>Navtex</b>	Connects to all Navtex receivers sending in the NRX format. You can display Navtex messages with position references.
<b>Weather overlay</b>	Advanced weather overlay feature using top quality commercial maritime weather forecast data available as a subscription service from C-Map.

Port description		IP	IEC 61162-1 Ed 4.0	Proprietary
Sensor	Sentences			
Position 1:	GNS, GGA, GLL, RMC		✓	
Position 2:	GNS, GGA, GLL, RMC, VDO	✓	✓	
COG/SOG1:	VTG, RMC, OSD, VDO		✓	
COG/SOG1:	VTG, RMC, OSD, VDO	✓	✓	
Heading 1:	HDT, OSD, VHW, VDO, THS		✓	
Heading 2:	HDT, OSD, VHW, VDO, THS	✓	✓	
Water speed:	VHW, OSD, VBW	✓	✓	
Radar ARPA 1:	TTM	✓	✓	
Radar ARPA 2:	TTM	✓	✓	
Radar cursor 1:	RSD	✓	✓	
Radar cursor 2:	RSD	✓	✓	
AIS (In- and output):	Aixxx	✓	✓	
Depth:	DPT, DBT	✓	✓	
Rel. wind:	MWV	✓	✓	
Route:	WPL + RTE	✓	✓	
Alarm ctrl. (In- and output)	ALR + ACK		✓	✓
Navtex	NRX	✓	✓	
Search	FLIR		✓	
Option 1		✓	✓	✓
Option 2		✓	✓	✓
Option 3		✓	✓	✓
Option 4		✓	✓	✓
Printer:	USB port printer connection only			

## Power Supply

### Power supply

Multipower - 115 & 230 VAC, 50 ~ 60 Hz + 24 VDC

### Power cons. max

54W

### Power cons. typ.

44W

## Ports

### Monitor

2x Displayport(DP)

### Monitor input

1x HDMI (for Framegrabber version only<sup>3</sup>)

### COM

4x RS422/485 isolated com ports, on phoenix 5-pin connectors  
1x RS232/422/485<sup>4</sup> non-isolated com port, on DB9M connector

### Ethernet

2x 10/100/1000 Mbps Gigabit LAN on RJ45 connectors

### USB

4x USB 2.0 (type A)

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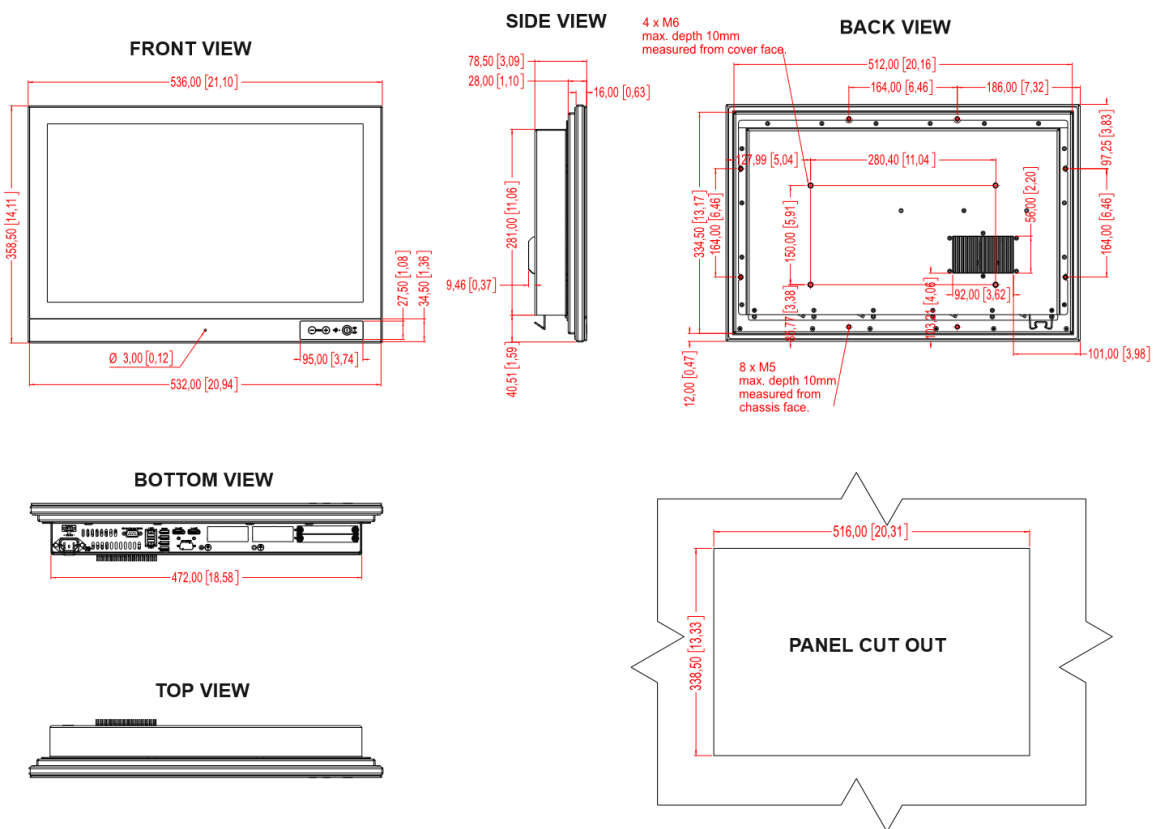
<sup>3</sup> Framegrabber is an optional hardware configuration for COASTAL-E

<sup>4</sup> Change RS mode in BIOS

## EQUIPMENT LIST

1. Computer, HD 22T30
2. COASTAL-E/TECDIS 4.8.3.x software
3. COASTAL-E code plug
4. Accessories Box
  - a. CD-bag
    - i. Driver CD from Hatteland
    - ii. Chart database DVD C-Map Professional+
    - iii. Chart database DVD C-Map CAES
5. Cherry G84-4100 keyboard
6. Logitech Trackman Marble ELK trackball

## HARDWARE DIMENSIONS



## DOCUMENT REVISION HISTORY

1.0	18 <sup>th</sup> September 2019	Initial release	Cato Haugland
2.0	8 <sup>th</sup> January 2020	Added Circular number	Cato Haugland