

Specifications:

TECDIS 2728

TECDIS 2728 is an all-in one ECDIS computer. It is type-approved according to IMO regulations, allowing paperless navigation¹. The integrated design makes it perfect for retrofit installation.



Standards compliance

TECDIS 2728 conforms to the following standards:

Marine Equipment Directive 2014/90/EU of the EC council.

Regulation (EU) 2018/773:	Item No. MED/4.30
SOLAS 74 as amended	Regulations V/18, V/19 & X/3
IMO Resolutions	A.694(17) MSC.36(63) MSC.97(73) MSC.191(79) MSC.232(82) MSC.302(87)
IMO Circulars	MSC.1/Circ 1503
IEC Standards	Performance testing – IEC 61174 (2015) Performance testing, presentation – IEC 62288 (2014) Environmental testing – IEC 60945 (2002) Serial interface testing – IEC 61162 (2010)

General specifications

Usable Charts	S-57 ed.3 S-63 (including Primar and AVCS) CM-93/3 (C-Map ENC / ENC+ / CAES / Professional+ ²)
Display	27-inch TFT LED display with Full HD resolution. Integrated in the unit.
Operating system	Windows 7 Pro 32-bit, English
Processor	Intel Core i5 6500TE 2.3 GHz
Chipset	Intel GL82 Q170
Memory (RAM)	8 GB ³

¹ Paperless navigation requires a dual ECDIS installation.

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

³ Windows 7 32bit can only allocate up to 4 GB of RAM

Storage	150 GB SATA SSD (approximately 120GB free) in a removable disk bay
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Display of data

Own Ship:	GPS Position, COG, HDG, SOG, STW
Route:	Active route name, DTG, ETA, and CTS-, DTG-, TTG to selected WP
ARPA targets:	BRG, DIST, COG, SOG, POS User selectable: ARPA Target color, ARPA target track color, «Save» ARPA target track.
Others:	EBL, VRM, EBL list, Parallel index lines, Cursor position, True or relative cursor bearing
Maritime Calculation	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
Route navigation monitoring	Off track, Waypoint, Arrival, Grounding, Depth
Alarms	Off track, Index Lane, Channel limit, Waypoint approach, Depth, Non ENC dangers, Restricted Areas, Cautions Areas, Possible danger, Harbour Mode
Other Functions	Single click chart update, Night/Day presentation, ARPA-/radar target and -bearing display #1, ARPA-/radar target and -bearing display #2, MOB, SAR, Log book w/replay functionality, docking Conning display, Tooltip, User defined chart presentation, easy transfer of installed configuration to replacement cold standby unit, easy screen dump facility when in navigation mode.

Other features

Autopilot output	Output of: APB, RMB, RMC, RTE
Presentation Modes	Type approval for installation with Raytheon Anschütz NP 5500 autopilot
Radar Overlay (option)	Display of radar echoes from any Furuno radar
Seismic streamers (option)	Streamer configuration with up to 24 streamers displayed graphically in chart.
1-click chart loading	Available for charts from the following providers: Navtor, ChartCo, Nautisk Forlag
Navtex (option)	Connects to all Navtex receivers sending in the NRX format. You can display navtex messages with position references.
Weather overlay (option)	Advanced weather overlay feature using top quality commercial maritime weather forecast data available as a subscription service from C-Map.
Piracy overlay (option)	Piracy Information is available as an overlay on top of C-MAP charts in OceanView. The C-Map OceanView navigation planning tool visualizes information to help navigators and operators identify, understand and manage risks posed by maritime crime.
AIO overlay	Show Temporary and Preliminary Notices as an overlay on the chart, with the Admiralty Information Overlay (AIO) service by UKHO.

HW Connections

No. of serial ports	1x RS-232/RS-422/RS-485 (non-isolated) 8x NMEA RS-422 (with phoenix 5-pin connectors)
Monitor out	1x Displayport (DP 1.2 dualmode, female port)
Ethernet	5x 10/100/1000 Mbps (RJ-45)
USB ports	2x USB 2.0 ports 2x USB 3.0 ports

Port description

Sensor	Sentences	IP	IEC 61162-1 Ed 4.0	IEC 61162-450	Proprietary
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 to 230 VAC, 50 ~ 60 Hz + 24 VDC
Power cons. max	125W
Power cons. typ.	50W

Equipment List

Standard

1. Computer, HD 27T22 DEC M53
2. TECDIS code plug
3. Accessories Box
 - a. TECDIS Installation Manual for TECDIS 2728
 - b. TECDIS User Guide
 - c. USB extension cable 1.0m
 - d. CD-bag
 - i. Driver CD from Hatteland
 - ii. Chart database DVD C-Map Professional+
 - iii. Chart database DVD C-Map CAES
 - iv. TECDIS Service Key (USB memory stick)
 - e. AC power cables 220 VAC/50Hz euro type F and 115 VAC/60Hz US type B power cable
4. Cherry G84-4100LCMGB-2, keyboard
5. Logitech TrackMan Marble ELK, mouse
6. Declaration of Conformity

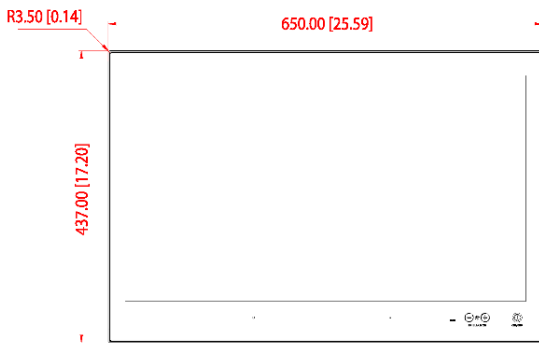
Options

1. Mounting brackets incl. screws for console mount
2. Mounting brackets incl. screws for table mount
3. External CD/DVD-drive via USB
4. Telko Alarm Interface TEA-01
5. Conning Adapter analog interface CA-xxxx (configurable number of analog and digital inputs)
6. Conning software
7. Track Control System, TECDIS SW option programmed in code plug
8. Seismic streamers, TECDIS SW option programmed in code plug
9. Navtex, TECDIS SW option programmed in code plug
10. Weather overlay, TECDIS SW option programmed in code plug
11. Piracy overlay, TECDIS SW option programmed in code plug
12. Radar Overlay, TECDIS SW option programmed in code plug

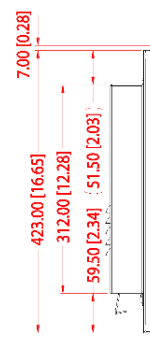
Document revision history

1.0	25 th April 2018	Initial release	Cato Haugland
2.0	11 th June 2018	Second release. Updated font, sizing and logo use	Cato Haugland
3.0	14 th August 2018	Third release. Updated technical drawing presentation and logo placement	Cato Haugland
4.0	20 th August 2018	Fourth release. Updated Standards Compliance	Cato Haugland

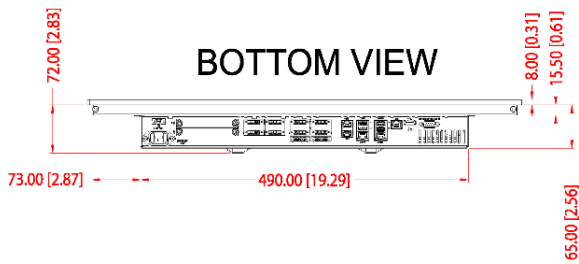
FRONT VIEW



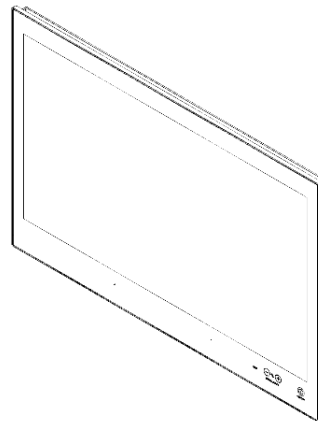
SIDE VIEW



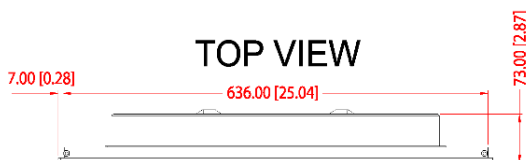
BOTTOM VIEW



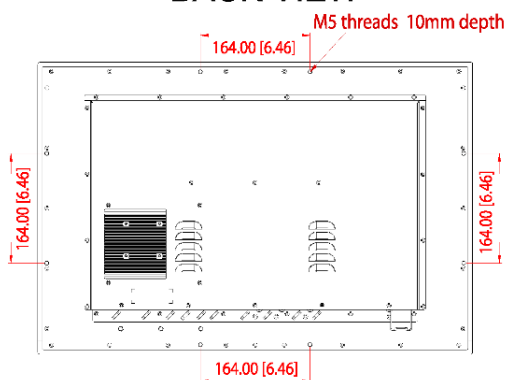
ISOMETRIC VIEW



TOP VIEW



BACK VIEW



PANEL CUTOUT

