

Specifications:

TELchart ECS 2121

TELchart ECS 2121 is a standalone ECS computer.

It is a cost-effective ECS solution based on the great TELchart ECS software, and hardware selected and assembled by Telko.



General specifications

Usable Charts	S-57 ed.3 ¹ S-63 ¹ (including Primar and AVCS) CM-93/3 (C-Map ENC / ENC+ / CAES / Professional+)
Display	Separate purchase. TELchart ECS 2121 is compatible with HDMI, Displayport and VGA as standard.
Operating system	Windows 10 32-bit
Barebone computer unit	Shuttle Computer SH110R4
Processor	Intel Core i3-6100 3,76 GHz
Chipset	Intel Skylake H110
Memory (RAM)	4 GB
Storage	120 GB SSD (approximately 85 GB free)

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, CPA, TCPA, User selectable: «Show graphic CPA situation», 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
Other Functions	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, three User defined chart presentation, easy screen dump facility when in navigation mode.

¹ The use of S57 and S63 charts in TELchart ECS systems require an S57 license (also known as a compiler license) issued by C-Map. The license cost is 1000 USD (per January 2018), and the license is ordered through Furuno Norway.

Other features

Autopilot output	Output of: APB, RMB, RMC, RTE
Presentation Modes	True/Relative motion North-up, True/Relative motion Course-up, Relative motion Head-up, Relative Motion Route-up
Radar Overlay (option)	Display of radar echoes from any Furuno radar
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	5 ea RS 232
Monitor	1 ea DVI-I and 1ea HDMI 1.4a
Ethernet	1 ea. 1GB/10/100Mbps (RJ-45)
USB ports	4 ea. USB 3.0 ports (2 front, 2 rear), 5 ea. USB 2.0 ports (1 front, 4 in rear)
Audio ports	3 ea. 3.5mm Jacks, Mic. in, Line in, Line out

Port description

Position 1	IEC 61162-1 (Ed. 3.0) (GNS, GGA, GLL, RMC)
Position 2:	IP or IEC 61162-1 (Ed. 3.0) (GNS, GGA, GLL, RMC, VDO)
COG/SOG1:	IEC 61162-1 (Ed. 3.0) (VTG, RMC, OSD, VDO)
COG/SOG2:	IP or IEC 61162-1 (Ed. 3.0) (VTG, RMC, OSD, VDO)
Heading 1:	IEC 61162-1 (Ed. 3.0) (HDT, OSD, VHWP, VDO, THS)
Heading 2:	IP or IEC 61162-1 (Ed. 3.0) (HDT, OSD, VHWP, VDO, THS)
Water speed:	IP or IEC 61162-1 (Ed. 3.0) (VHWP, OSD, VBWP)
Radar ARPA 1:	IP or IEC 61162-1 (Ed. 3.0) (TTM)
Radar ARPA 2:	IP or IEC 61162-1 (Ed. 3.0) (TTM)
Radar cursor 1:	IP or IEC 61162-1 (Ed. 3.0) (RSD)
Radar cursor 2:	IP or IEC 61162-1 (Ed. 3.0) (RSD)
AIS (In- and output):	IP or IEC 61162-1 (Ed. 3.0) (AIXXX)
Depth:	IP or IEC 61162-1 (Ed. 3.0) (DPT, DBT)
Rel. wind:	IP or IEC 61162-1 (Ed. 3.0) (MWV)
Route:	IP or IEC 61162-1 (Ed. 3.0) (WPL + RTE)
Monitor ctrl.	Proprietary protocol (Hatteland Display)
Navtex	IP or IEC 61162-1 (Ed. 3.0) (NRX)
Search	IEC 61162-1 (Ed. 3.0) (FLIR)
Option 1	IP, IEC 61162-1 (Ed. 3.0) or Proprietary
Option 2	IP, IEC 61162-1 (Ed. 3.0) or Proprietary
Option 3	IP, IEC 61162-1 (Ed. 3.0) or Proprietary
Option 4	IP, IEC 61162-1 (Ed. 3.0) or Proprietary

Printer: USB port printer connection only

Power Supply

Processor unit: 100 to 240 VAC, 300W

Equipment List

Standard

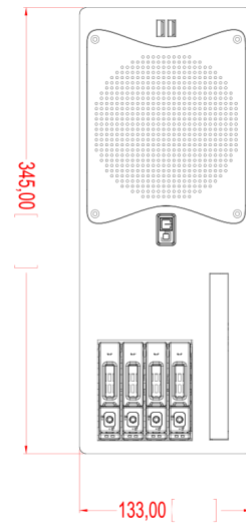
1. Assembled Computer, Shuttle SH110R4
2. Logitech keyboard
3. Logitech Trackman Marble ELK

Document revision history

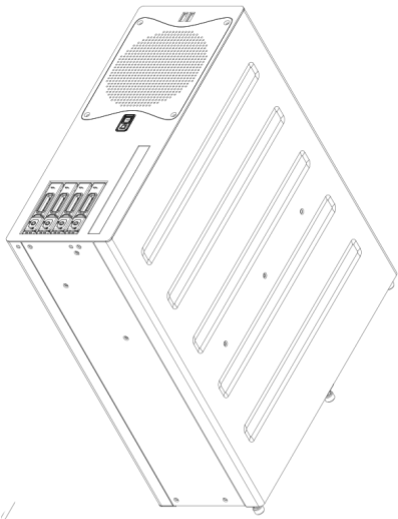
1.0	04 th January 2018	Initial release	Cato Haugland
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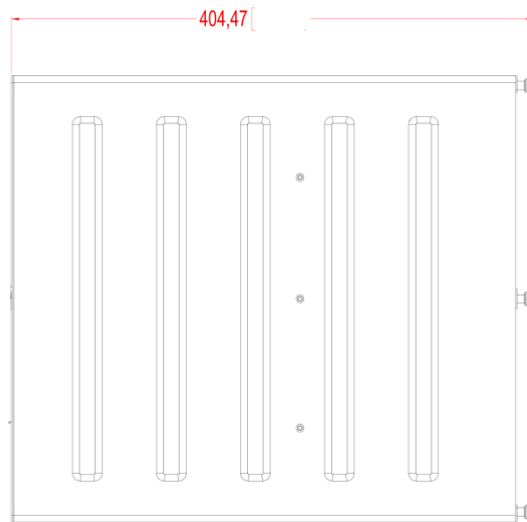
SIDE VIEW



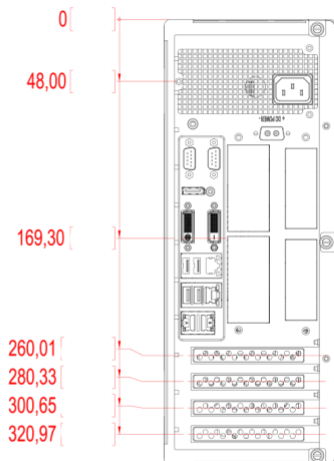
FRONT VIEW



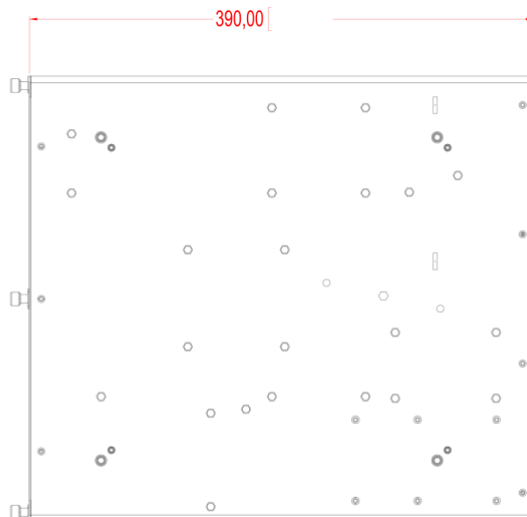
ISOMETRIC VIEW



TOP VIEW



BACK VIEW



BOTTOM VIEW