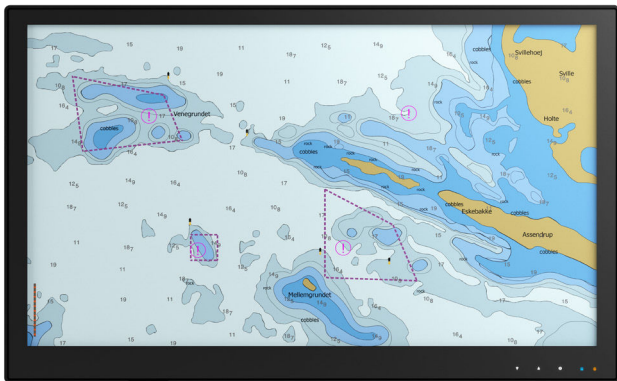


DuraPANEL 24" S-Line (Q670)

Wide Screen Panel PC for Radar & ECDIS

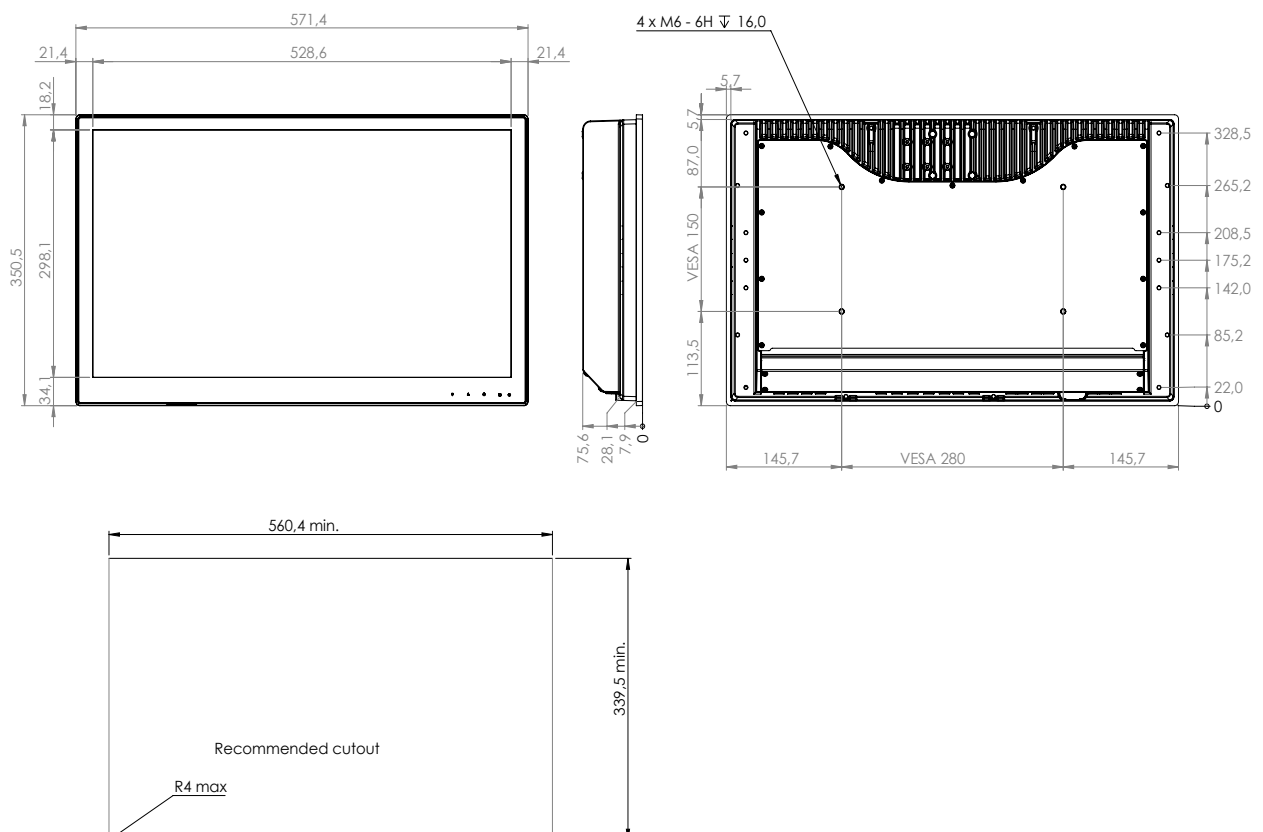


DuraPANEL 24" S-Line は、ハードウェアに対して信頼性と耐久性が求められる、船舶・海軍等の用途用にデザインされました。CAT 2 Radar用途に適用します。

The S-Line product family プロダクトファミリーは、統合された調光Key & 超スリムなデザイン・ナローベゼル・軽量・低消費電力を特徴とする最新且つコストパフォーマンスの高さが特徴の製品です。

- ✓ 60945 Type Approval
- ✓ ECDIS Applications
- ✓ Radar Applications

Mechanical outline



Display properties

Size	23.8" wide screen
Aspect ratio	16:9
Active area	527.0 x 296.5 mm
Luminance	450 cd/m ²
Contrast	1000:1
Native resolution	1920 x 1080 (full HD)
View angle	89° (L/R/T/B) typical
View distance	944 mm minimum
Glass	Anti reflective and thermal toughened

Motherboard

Chipset	Intel® Q670E (12th/13th Gen.)
TPM	Onboard TPM 2.0 IC
Watchdog timer	1-255 steps by software programming
HW monitoring	Temperature, Voltage
Wake-on-LAN/PXE	Yes (WOL/PXE)
Power state	S3, S4, S5
On board graphics	Intel® UHD Graphics 730/770
Graphics supports	DirectX 12, Open GL 4.5, Open CL 2.1

CPU options

Core i3-13100TE	2.4(4.1) GHz 4P cores, TDP 35W
Core i5-13500TE	1.3(4.5) GHz 6P+8E cores, TDP 35W
Core i7-13700TE	1(4.8) GHz 8P+8E cores, TDP 35W
Core i9-13900TE	1.0 (5.0) GHz 8P+16E cores, TDP 35W

Memory and storage

Memory	Up to 64 GB DDR5 RAM, 2 x SO-DIMM
Storage ports	SSD - 2 x 2.5" SATA 3.0, 1 x M.2
Storage size	128GB SSD up to state of the art

Power supply/power consumption

AC Power	100-240 VAC 50/60Hz (Nominel Marine)
DC Power	24 VDC (Nominel Marine) optional
AC/DC dual power	230 VAC + 24 VDC combined optional
Power(P)	<100W (VA)

Operator interface front panel

Power	Power on/off (press for 10 sec. to turn off)
Up	Adjust backlight up
Down	Adjust backlight down

OS options

Windows	Windows 10 IoT Enterprise LTSC
Windows	Win 11 IoT Enterprise LTSC 2024

Input/output terminals

DisplayPort	2 x DP 1.2 up to 4096 x 2160 @ 60Hz
HDMI	2 x HDMI 2.0 up to 4096 x 2160 @ 60Hz
Ethernet	2 x Gbit LAN, Intel i210AT, Intel i219LM
USB	4 x USB 3.2 Gen. 2

Input/output options

Touch	P-Cap multi-touch
NMEA	Up to 2 x 4 isolated RS422 (NMEA comp.)
Serial Port	1 x RS232/422/485 (un-isolated)
Digital I/O	4 x Digital input + 4 x Digital output
USB	4 x USB 2.0
Ethernet	1 x Gbit LAN extra

Environmental

Operating temp.	- 15 to 55° C
Storage temp.	- 25 to 70° C
Humidity	8 to 95% RH (5 to 90% RH storage)
Protection	IP56 from front - IP22 from rear
Compass SD	145 cm (stand.) 90 cm (steer.)

Physical dimensions

Dimensions	572 (W) x 351 (H) x 76 (D) mm
Dimensions in box	670 (W) x 490 (H) x 160 (D) mm
Weight	13 kg 15 kg in box

Options & accessories

ECDIS	Colour calibration for ECDIS applications
Console bracket	Console mount bracket kit (10585-124)
Table bracket	Table mount bracket (10123-000)
Table bracket VESA	Table Mount VESA bracket (07317-000)
Wall bracket VESA	Wall mount VESA bracket (07317-001)
Buzzer	75-85 dBA
Removable SSD	2 x removable SSD trays on rear

Approvals & Certificates

Marine	IEC 60945 ed. 4 & IACS E10 rev. 9
ECDIS	IEC 61174 ed. 4
Radar/Navigation	IEC 62388 ed. 2 & IEC 62288 2021
Certificate	DNV EU RO MR