

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00000HF
Revision No:
3

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Electronic chart display and information system (ECDIS) with backup, and raster chart display system (RCDS)

with type designation(s)
SEALL ECDIS

Issued to

Jargoon Ltd
Aberdeen, United Kingdom

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2018/773**,

item No. MED/4.30. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.232(82), IMO Res. MSC.302(87), IMO MSC.1/Circ.1503

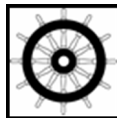
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-07-19**.

Issued at **Høvik** on **2018-08-21**

DNV GL local station:
Aberdeen

Approval Engineer:
Roger Lauritsen



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Job Id: **344.1-004477-4**
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Product description

The Seall ECDIS consist of the following components:

Unit	Location
- Panel PC, HD 24T21-MEC-M4E-PIB2	Protected
- COM module, HT 00292 OPT-A1 (optional)	Protected
- Mouning bracket, HD TMB SX1-C1 (optional)	Protected
- USB cable, JH C01 MF A-A (optional)	Protected

Software version. 1.2.xx, Pres.lib. 4.0.x
Operating system: Windows 7

Application/Limitation


- Seall ECDIS may additionally be interfaced with AIS and Radar for presentation of target information.
- Seall ECDIS may additionally be interfaced with Navtex for presentation of Navtex information.
- Seall ECDIS cannot be connected to an INS for reception of sensor data.
- Seall ECDIS shall be installed & configured according to the Installation and Commissioning Guide.
- A dual installation of the designated ECDIS is found to comply with the SOLAS requirements for ECDIS with Back-up arrangements.

Tests carried out

- Performance testing, IEC 61174 (2015)
- Environmental testing, IEC 60945 (2002)
- Serial interface testing, IEC 61162-1 (2016)
- Performance testing, presentation, IEC 62288 (2014)

Type Examination documentation

DNV GL No	Doc. Ref.	Rev.	Description
16	MR-A-6	1	Certificate: EU RO MR Hatteland Maritime computers
1		1	Manual: Seall ECDIS Maintenance Procedure
24			Manual: Seall ECDIS NMEA Sensor Interfaces
32		1.3	Manual: Seall Installation and Commissioning Manual
35		1.4	Manual: Seall User Manual
10	DOC101028-1	1	Report: Conformance test report 24T21
19	SEALLECDIS-INTERFACETEST-01	1.0	Report: Seall ECDIS Interface Test Plan
22	SEALLECDIS-TEST-01	1.1	Report: Seall ECDIS Test Plan
34	SEALLECDIS-TEST-02	1.1	Report: Seall ECDIS Test plan IEC61174 Edision 4 Upgrade Tests
36	SEALLECSIS-TEST-03	1.0	Report: Seall ECDIS v.12 Test plan



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Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.