

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Electronic chart display and information system (ECDIS)

with type designation(s)

ECPINS Warship, ECPINS Submarine, ECPINS-W, ECPINS-W Sub, ECPINS 5000, ECPINS

Issued to

**OSI Maritime Systems Ltd.
Burnaby BC, Canada**

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

Regulation **(EU) 2017/306,**

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.

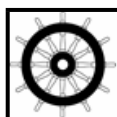
MSC.232(82), IMO Res. MSC.302(87), MSC.1/Circ.1503

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

This Certificate is valid until **2021-08-31**.

Issued at **Hamburg** on **2017-12-07**

DNV GL local station:
Vancouver



for **DNV GL SE**

Approval Engineer:
Harald Bluhm

Notified Body
No.: **0098**

Sven Dudszus
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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

The ECPINS ECDIS System contains the following main parts necessary for functioning:

1. Main Processing Unit

Refer to Annex

2. Software version:

ECPINS 6.2.x for ECPINS, ECPINS Warship, ECPINS Submarine

Approved to display and use digital chart data in the following formats:

- S-57,
- S-63 (IHO),
- SENC (C-MAP),
- ARCS (UKHO),
- AusRNC (Australia),
- BSB (NOAA/CHS/NZMariner),
- DNC (NGA),
- TOD (NGA),
- AML (NATO)

Operating system:

- MS Windows XP SP2 & SP3,
- MS Windows Embedded XP SP2 & SP3,
- MS Windows 7 SP1,
- MS Windows 7 Embedded,
- MS Windows 10 Pro,
- MS Windows 10 IoT,
- MS Windows Enterprise LTSB

3. Display unit

Refer to Annex

4. Operating units

ECDIS operator control panel flush mount	P-300109, A-200055, P-300356, P-300387 or MDD-A101
ECDIS operator control panel Desktop	P-300111, P-300211, A-200050, P-300388 or NTD-A8-50 or NTD-78-1
ECDIS operator control panel slide rail mount	P-300488
ECDIS operator control panel MIL-SPEC	P-300137, P-300378

5. Optional equipment

AIS operation and display unit	P-300122 or P-603003
AIS transponder	P-300123 or P-603002 or P-603005
Sensor interface connection unit * with 3 up to 24 serial interfaces according to IEC 61162-1 and IEC 61162-2	A-300093 or A-300245
Sensor interface connection box * with 3 up to 24 serial interfaces according to IEC 61162-1 and IEC 61162-2 and digital input and output contacts, analogue inputs	NTD-A71-1
Sensor interface connection box, 24 Vdc * with 3 up to 24 serial interfaces according to IEC 61162-1 and IEC 61162-2 and digital input and output contacts, analogue inputs	A-300162
NavTac DDU, sensor distribution	A-300150 or A-150XXX Note: XXX Versions with different number and type of serial & network interfaces
RADAR Image Overlay (RIBNet)	A-300088

Job Id: **344.1-007687-4**
Certificate No: **MEDB00003HN**

RIBNet Server	A-300141
Bridgemaster E RADAR Signal Demultiplexer	A-300029
KVM, Remote	A-300101
KVM, Local	A-300102
KVM, Power supply	A-300103
KVM, Local w/ Power Supply	A-300105
Primary Backup Switch	A-300038
UPS & Power Distribution Panel	A-300094 & A-300095 or A-300196
Network Switch, Gigabit, 9 Port	P-300347
Network Switch, 24 Port, 10 Gigabit	P-300517
Network Switch, 48 Port, 10 Gigabit	P-300493
Network Switch, 24 Port, 1 Gigabit	P-300577
Time Server	P-609900

6. Documentation

ECPINS 6.2 Technician's Guide	A-900511
ECPINS 6.2 Operator's Manual	A-900503, A-900505, A-900506
ECPINS 6.2 Modules Operator's Manual	A-900507, A-900509, A-900510

Backup arrangements: In case of a primary system failure a second independent ECDIS connected to an independent position sensor may be installed.

Note: The Radar Video may be displayed from the following RADAR/ARPA:

Furuno: FAR 28x5, FAR 28x7, FR 21x5, FAR 21x7, FAR 3xx0

Kelvin Hughes: SharpEye, Nucleus, Manta and NTD series

Raytheon Anschütz: NSC and Synapsis series

* Reference: IMO SN.1/Circ.266 Rev.1. ECDIS that is not updated for the latest version of IHO Standards may not meet the chart carriage requirements as set out in SOLAS regulation V/19.2.1.4.

Additional place of production:

L-3 Oceania
108 Marine Terrace
Fremantle, WA
Australia, 6160

And for Non-Convention vessel only:

Kelvin Hughes Ltd.
Voltage, Mollison Avenue
Enfield EN3 7XQ
United Kingdom

Type Examination documentation

Tests carried out

IEC 60945:2002 (Ed.4) incl. Corr. 1 (2008)

IEC 61162 series:

- IEC 61162-1 (Ed.4)

- IEC 61162-2 (Ed.1)

- IEC 61162-450 (Ed.4)

IEC 61174:2015 (Ed. 4)

IEC 62288:2014 (Ed. 2)

IEC 61924-2:2015 (Ed 1)

IHO S-52 Ed 6.1.1 with Annex A to S-52 IHO ECDIS Presentation Library Ed 4.0.2

IHO S-57 Ed 3.1.3
IHO S-63 Ed 1.2.0

ECPINS Warship, ECPINS Submarine, ECPINS-W, and ECPINS-W Sub have been tested in accordance with STANAG 4564 (Ed.2), STANAG 7170 (Ed.2) and MIL-STD-2525C

Marking of product

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.