



TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB000013V
Revision No:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

This is to certify:

That the Electronic chart display and information system (ECDIS)

with type designation(s)
K-Bridge ECDIS, K-Bridge ECDIS Standalone

Issued to

Kongsberg Maritime AS
Kongsberg, Norway

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

Regulation **MSN 1874 Amendment 9,**

item No. UK/4.30. SOLAS 74 as amended, Regulations V/18, V/19, V27 & 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 Rev.1

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

This Certificate is valid until **2028-12-19**.

Issued at **London** on **2024-10-14**

DNV local unit:
East & South Norway CMC



for **DNV UK Ltd.**

Approval Engineer:
Steinar Kristensen

Approved Body No.: **0097**

Christine Mydlak-Röder
MER Service Responsible



**Maritime &
Coastguard
Agency**

UK Approved Body Authorised
by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved 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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Kongsberg Maritime ECDIS is available in two versions:

1. K-Bridge ECDIS, with support for Multi-Function Display (MFD) in combination with other K-Bridge systems
2. K-Bridge ECDIS Standalone, without MFD functionality

K-Bridge ECDIS comprises:

- K-Bridge Operator Station : As defined in separate certificate^{*)}
- Software modules : As defined in separate certificate^{*)}

K-Bridge ECDIS Standalone comprises:

- K-Bridge Standalone Operator Station : As defined in separate certificate^{*)}
- Software modules : As defined in separate certificate^{*)}

^{*)} Certificate TAA00000FJ for K-Bridge and K-Bridge Standalone systems (see Type Examination documentation below) in its latest revision at the date of placing the system on the market is part of this certificate. For the relevant revision see also <https://approvalfinder.dnv.com/>.

The K-Bridge ECDIS and K-Bridge Standalone ECDIS may be delivered in K-Bridge Console KM05 or as built in version for other consoles incl. KM18.

Application/Limitation

- The system shall be installed according to manufacturer's manuals. See Type Examination documentation below for details.
- A dual installation of K-Bridge ECDIS and/or K-Bridge ECDIS Standalone is found to comply with the requirements for ECDIS with Back-up arrangements.
- The K-Bridge ECDIS and K-Bridge ECDIS Standalone is found to comply with the requirements for ECDIS in RCDS mode of operation when using HCRF navigational chart data format.
- The K-Bridge ECDIS may be optional provided with radar overlay functionality.
- The K-Bridge ECDIS is found to be in compliance with the requirements for Multi-Function Display (MFD), when connected in a KM network. The MFD may serve as Radar, ECDIS, back-up ECDIS, TCS, BNWAS, CAM-HMI and Conning.

Notes

- K-Bridge ECDIS and K-Bridge ECDIS Standalone may be optionally connected to a Navtex.
- K-Bridge ECDIS and K-Bridge ECDIS Standalone may be optionally provided with C-Map weather functionality.
- K-Bridge ECDIS and K-Bridge ECDIS Standalone may be optionally provided with Site Map functionality.
- K-Bridge ECDIS and K-Bridge ECDIS Standalone may be optionally provided with WMS client functionality.
- K-Bridge ECDIS Standalone has previously been designated K-Nav ECDIS. References to K-Nav ECDIS in previously issued documentation or certificates should therefore be considered valid also for K-Bridge ECDIS Standalone.

Tests carried out

- Performance testing: IEC 61174 (2015)
- Environmental testing: IEC 60945 (2002) incl. Corr. 1 (2008)
- Serial interface testing: IEC 61162-1 (2016)
- Presentation of navigation information: IEC 62288 (2021)
- Bridge Alert Management: IEC 62923-1 (2018) and IEC 62923-2 (2018)

Type Examination documentation

DNV No	Document Id.	Rev.	Description
258	110-0061457	A	Manual: Kongsberg Maritime, K-Bridge ECDIS Standalone, Operator Manual, Release 9.1
257	455906	A	Manual: Kongsberg Maritime, ECDIS and Radar Display Distances, Installation Manual
256	110-0054818	A	Manual: Kongsberg Maritime, K-Bridge ECDIS and Planning Station, Operator Manual, Release 9.1
255	110-0052052	A	Report: Kongsberg Maritime, K-Bridge test Report IEC 62288 Ed.3 (2021)
253	110-0004215	A	Report: Kongsberg Maritime, K-Bridge v9 HMI Test Report
252	463840	C	Manual: Kongsberg Maritime, K-Bridge ECDIS and Planning Station Operator Manual, Release 9.0
250	477915	C	Report: Kongsberg Maritime, K-Bridge and K-NAV CAM BAM Type Approval Test report
249	480424	A	Report: Kongsberg Maritime, K-Bridge/K-Nav VDR communication IEC61162-450:2018 Type Approval Report
247	429329	D	Manual: Kongsberg Maritime, K-Nav ECDIS and Planning Station, Operator Manual, Release 8.2
243	429325	J	Manual: Kongsberg Maritime, K-Bridge ECDIS and Planning Station, Operator Manual, Release 8.2
241	421041	A	Report: Kongsberg Maritime, Type Approval test report, K-Bridge & K-Nav ECDIS-IEC61174 Ed.4.0
237	394793	D	Manual: Kongsberg Maritime, K-Nav ECDIS KM05 OS-650 DL Operator Station Console, Installation Manual
235	394794	D	Manual: Kongsberg Maritime, K-Nav ECDIS KM05 OS-650 DL Operator Station Console, Maintenance Manual
228	419850	A	Report: Kongsberg Maritime, K-Bridge and K-Nav ECDIS IEC 62288 (2014) test report
227	418734	A	Report: Kongsberg Maritime, S-64 Edition 3.0.1- PresLib 4.0.1
226	401093	C	Report: Kongsberg Maritime, ECDIS Performance tests with Navtor SDK
223	TAA00000FJ	Latest rev.	Certificate: DNV, K-Bridge and K-Nav system platforms
218	F917800A		Report: SP, CN8E, EMC tests IEC 60945
217	913128		Report: Intertek Semko, CN8E Climatic tests IEC 60945
216	279693	2	Report: Innventia, CN8E, Vibration test IEC 60945
215	378512A	A	Manual: QWERTY, CN8E Octal NMEA/CAN/Ethernet LWE interface, Doc. no 9554A0
214	382761	B	Manual: CN8E 8-channel NMEA/CAN/Ethernet Converter, Hardware Module Description
210	20126	1	Report: Applica, interface tests Qwerty
180	1106172/C		Report: Kongsberg Maritime, K-Bridge ECDIS, System test report
25	309463	A	Report: Kongsberg Maritime, K-Bridge ECDIS, General Performance Test
9	15.02.07		Report: KMSS, SeaMap 10 ECDIS - IEC 61174 - Edition 2 Test Programme
8	CU-0166-A/27-May-02		Report: KMSS, SeaMap 10 ECDIS IEC 61174-2 Test

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.