DNV·GL

Certificate No:
TAA00000HY

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miscellaneous Internal Communication Equipment

with type designation(s)
Marine Common Battery Telephone

Issued to
NIPPON HAKUYO electronics, ltd.
Yokohama KANAGAWA, Japan

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Type	Temperature	Humidity	Vibration	EMC	Enclosure
Desk type handset	**D**	**B**	**A**	**B**	**A**
Wall type handset			**B**		**B**
Flush type handset			**A**		**A**
Portable type handset			**A**		**B**
Headset (ODZ-9209)			**A**		**B**
Headset (ODZ-9211)			**A**		**B**

*** Please see the page 2 for the detail.**

This Certificate is valid until **2021-08-03**.

Issued at **Busan** on **2016-08-04**

for **DNV GL**

DNV GL local station: **Yokohama**

Approval Engineer: **Kwang Whan Cho**

Baeg Soon Choi
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **262.1-019245-1**
Certificate No: **TAA00000HY**

Product description

The Marine Common Battery Telephone consists of the following components :

Component	Description	Module number	Remark
Handset	Desk type handset	ODC-3180	Multi-link type (Maximum number of extension is 12)
	Wall type handset	ODC-3310	
	Small wall type handset	ODC-3381	
	Flush type handset	ODC-3780	
	Portable type handset	ODC-3980	
	Desk type handset	ODC-2180	Direct-link type (1:1, 1:2, 1:3)
	Wall type handset	ODC-2310	
		ODC-2312	
		ODC-2313	
	Small wall type handset	ODC-2381	
	Flush type handset	ODC-2780	
		ODC-2781	
		ODC-2782	
	Portable type handset	ODC-2980	
Headset	-	ODZ-9209	
		ODZ-9211	

Application/Limitation

- The system shall be installed in accordance with the operation & installation manual.
- The components except for ODC-3780 shall be positioned more than 5 meters away from a standard or a steering magnetic compass.
- The external power supply (DC 24V) shall be supplied from an appropriate source of power. And, at least 30 minutes of capacity by a transitional source may be required to comply with DNVGL-RU-SHIP-Pt.6 Ch.3.
- The power filter(which is non-EUT) ensuring a protection against over current shall be provided.

Type Approval documentation

DNVGL No.	Drawing No	Rev. No.	Title
3	122860	-	EMC Test Report (OEG) –(1)
9	132232	-	EMC Test Report (OEG) –(2)
10	RA1164-9535	-	Instruction manual for marine common battery telephone equipment
11	RA1164-9533	1.2	Installation & Maintenance manual
12	15-487(E)	-	Test report on power supply variation, Insulation resistance test and etc.
13	16S-OKI 03-0011	-	ODC3180 : Report on Vibration Test
14	16S-OKI 03-0012	-	ODC3180 : Report on Temperature/Humidity Test
15	16S-OKI 03-0013	-	ODC3310 : Report on Vibration Test
16	16S-OKI 03-0014	-	ODC3310 : Report on Temperature/Humidity Test

17	16S-OKI 03-0015	-	ODC3780 : Report on Vibration Test
18	16S-OKI 03-0016	-	ODC3780 : Report on Temperature/Humidity Test
19	15-568(E)	-	Test report for acoustic noise and compass safe distance
20	16S-OKI 03-0017	-	ODC3980 : Report on Vibration Test
21	16S-OKI 03-0018	-	ODC3980 : Report on Temperature/Humidity Test
22	RA1164-9537-1	3	Performance Test Report
25	16S-OKI 04-0011	-	Headset ODZ-9209-1B : Rerport on Vibration Test
26	16S-OKI 04-0012	-	Headset ODZ9209-1B : Report on Temperature/Humidity Test
27	16S-OKI 04-0013	-	Headset ODZ9211-1B Report on Vibration Test
28	16S-OKI 04-0014	-	Headset ODZ-9211-1B Report on TemperatureHumidity Test

Tests carried out

- Performance Test : DNV Type approval Program No.A-848.90
- Environmental Test : DNV Standard for Certification No.2.4

Marking of product

The manufacturer and Type Designation to be applied to the equipment in a clear visible location. In addition, the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.
The main elements of the assessment are :

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that system, software versions, components and/or materials used comply with type approved documents and/or referenced system, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer’s product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.