

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miscellaneous Internal Communication Equipment

with type designation(s)
HCW-5xx, HCF-5xx, HCD-5xx

Issued to

HANSHIN ELECTRONICS CO.,LTD.
Busan, Republic of Korea

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Issued at **Busan** on **2017-10-12**

This Certificate is valid until **2022-10-11**.

DNV GL local station: **Gimhae Station**

for **DNV GL**

Approval Engineer: **Eun Sook Kim**

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Michael Jost Auf der Stroth
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.



Product description

The Common battery telephone system, HCW-5xx, HCF-5xx and HCD-5xx consisting of following models :

HCW-5xx Type

Model	Description	Location	Remark
HCW-510 *	Wall type handset	Protected	Direct
HCW-520	Wall type handset		12 selections
HCW-530	Wall type handset		24 selections
HCW-511 *	Wall type handset		Direct with sub receiver
HCW-521	Wall type handset		12 selections with sub receiver
HCW-531	Wall type handset		24 selections with sub receiver
HCW-512 *	Wall type handset		Direct with headset
HCW-522	Wall type handset		12 selections with headset
HCW-532	Wall type handset		24 selections with headset
HCW-514 *	Wall type handset (noise cancel type)		Direct
HCW-524	Wall type handset (noise cancel type)		12 selections
HCW-534	Wall type handset (noise cancel type)		24 selections
HCW-525	Wall type handset (cable entry type)		12 selections
HCW-535	Wall type handset (cable entry type)		24 selections

HCF-5xx Type

Model	Description	Location	Remark
HCF-510 *	Flush type handset	Protected	Direct
HCF-520	Flush type handset		12 selections
HCF-530	Flush type handset		24 selections
HCF-513 *	Flush type handset		Direct with dimmer
HCF-523	Flush type handset		12 selections with dimmer
HCF-533	Flush type handset		24 selections with dimmer
HCF-514 *	Flush type handset (noise cancel type)		Direct
HCF-524	Flush type handset (noise cancel type)		12 selections
HCF-534	Flush type handset (noise cancel type)		24 selections

HCD-5xx Type

Model	Description	Location	Remark
HCD-510 *	Desk type handset	Protected	Direct
HCD-520	Desk type handset		12 selections
HCD-530	Desk type handset		24 selections

Common Accessories

Model	Description	Location
HAH-050B	Headset	Protected

Job Id: **262.1-024669-1**
Certificate No: **TAA00001FV**

Application/Limitation

- The system shall be installed in accordance with operation & installation manual
- Models marked with "*" do not comply with the requirement of back-up telephone in DNVGL Rules for classification of ships (2017 July) Pt.6 Ch.3 Sec.3

Type Approval documentation

DNVGL No.	Document No.	Rev. No.	Title
1	HS-CBT500-17091701	1.0b	Operation & Installation Manual
2	HS-TTL220-17031102	1.0b	Circuit Drawing
3	HS-TTL320-17031101	1.0c	Mechanical Design Drawings
5	-	-	Declaration of Conformity (IEC 60945/8.12)
7	KOMERI-0311-17T2011	-	EMC Test Report
8	R178R-D050	-	Environmental Test Report
10	HS-TTL330-170830	1.0a	Performance Test Report

Tests carried out

- Environmental Test : IEC 60945(2002)
- Performance test : DNV Type Approval Program no. 848.90

Marking of product

The manufacturer and Type Designation to be applied to the equipment in a clearly 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

Periodical assessment is to be performed at least every second year and at renewal of this certificate. The scope of the periodical/renewal survey is to verify that the production quality conditions stipulated for the type approval are complied with and no alterations are made to the product design or its components and/or materials without appraisal by the Society.