DNV·GL

Certificate No:
TAA00001EB

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Batteryless Telephone System

with type designation(s)
HSW-5xx, HSF-5xx, HSD-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**

Approval Engineer: **Eun Sook Kim**

for **DNV GL**

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.

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Product description

The Sound powered telephone system, HSW-5xx, HSF-5xx and HSD-5xx consisting of following models :

HSW-5xx Type

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

HSF-5xx Type

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

HSD-5xx Type

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

Common Accessories

Model	Description	Location
HAH-050B	Headset	Protected

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-SPT500-17091701	1.0b	Operation & Installation Manual
2	HS-TTL210-17031102	1.0b	Circuit Drawing
3	HS-TTL320-17031101	1.0c	Mechanical Design Drawings
5	-	-	Declaration of Conformity (IEC 60945/8.12)
7	KOMERI-0311017T2010	-	EMC Test Report
8	R178R-D050	-	Environmental Test Report
10	HS-TTL330-170831	1.0a	Performance Test Report

Tests carried out

- Environmental Test : IEC 60945(2002)
- Performance test : DNVGL Type Approval Program no. 848.60

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.