

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Automatic Telephone System**with type designation(s)
HXV-2000 Series

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
IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the
global maritime distress and safety system (GMDSS) and for electronic navigational aids**Application :****See page 2.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed**
by DNV GL.Issued at **Høvik** on **2020-05-08**This Certificate is valid until **2025-05-07**.for **DNV GL**DNV GL local station: **Gimhae Station**Approval Engineer: **Steinar Kristensen****Marta Alonso Pontes**
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **262.1-030488-1**
Certificate No: **TAA00002RH**

Product description

The HXV-2000 Automatic Telephone System consists of the following components ¹⁾:

Component	Description	Module Name	Comments
Central units	Automatic Telephone System main unit	Acrobox200 MAIN	4 slots for FXO, FXS, TPA or DCM interface cards, RJ45 connectors
	Automatic Telephone System expansion unit	Acrobox200 EXPANSION	4 slots for FXO, FXS, TPA or DCM interface cards, RJ45 connectors
	Network Switch	GS1920-24HP	24 Ethernet ports, RJ45 connectors
Handset Unit	Desk Type IP Telephone	IP-10P	
	Desk & Wall Type IP Telephone	IP-10PW	
	Flush & Wall Type IP Telephone	HIF-540 HIF-544 HIW-540 HIW-542 HIW-544 HIW-545	
	Flush type IP Telephone with dimmer	IPT-3000FD	
Option	Firewall	USG-110	

All units listed above are to be installed in a protected environment, i.e. indoor.

Application/Limitation

- The HXV-2000 system is to be installed in accordance with manufacturers documentation.
- Interconnection to other IP network/LAN is subject to separate case-by-case approval.

Type Approval documentation

DNV GL No	Drawing No	Rev.	Title
14	HS-TEX800-PT-v1.0d	1.0d	Report: Hanshin Electronics, Performance test report for HXV-2000_PerformanceTest_v1_0d
13	F690501/RF-EMC004086(H), DREKETC1910-0211	00	Report: Dt&C, EMC Test Report for HXV-2000
12	DRCREL1912-0892,-0893,-0633 & 1901-01394-001,-002,-003,-004	2019-12-05	Reports: DtC & KRISS, Environmental test report for HXV-2000 VoIP System
9			Manual: Hanshin Electronics, User Manual IP10/IP10P
7			Manual: Hanshin Electronics, User Manual IP10PW
5			Manual: Hanshin Electronics, User Manual HIX-54x Series
4	acrobox 200	V1.0b	Manual: Hanshin Electronics, acrobox 200 Operation Manual

Tests carried out

- Environmental test: IEC60945 (2002)
- Performance test: DNV GL Type Approval Program 848.25

¹⁾ Actual configuration may vary based on requirements for individual installations. Only modules listed in certificate are approved for installation.

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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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnvgl.com>