



**Task – T2409604**  
**Product Design Assessment (PDA)**  
**Marine Monitoring and Alarm System**  
**PDA No.: 23-2409604-PDA**

Attention: Dear Mr. Chen,  
SHANGHAI NORIS-SIBO AUTOMATION CO., LTD (WCN: 411438)

The documents shown in the attached list are reviewed in accordance with the applicable requirements indicated in the PDA along with the service restrictions and comments.

We recommend that you monitor the ABS Rules, Guides and other standards used in the Assessment. These Rules, Guides and standards often change on an annual basis, and you must comply with the new Rules, Guides and standards in order for the product to be used on an ABS classed vessel or facility contracted under the new Rules, Guides or specifications.

Additionally, we acknowledge the PDA request form warranting that the materials used in the product(s) are free from asbestos.

For any clarifications, contact Lan-Lan, Li at +86-21-23270815 or ([LanLanLi@eagle.org](mailto:LanLanLi@eagle.org))

Very truly yours,

Bin-Hong Wang  
Director of Engineering

Electronically Signed by: Hua-Lin, Li

Documents List

Drawing No.	Rev. No.	Title	Status
J22-012-ZC-02	-	Radiated Emission and Electromagnetic Field Test Report	Reviewed
A17-007-WT	-	Electrostatic Discharge Test Report	Reviewed
J22-012-ZC-01	-	Surge Test Report	Reviewed

Electronic copies of the documents, appropriately stamped, are available in the ABS Client Portal.

Include: PDA Certificate



CERTIFICATE NUMBER 23-2409604-PDA  
EFFECTIVE DATE 01-Jun-2023  
EXPIRATION DATE 31-May-2028  
ABS TECHNICAL OFFICE CN Shanghai ESD

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## CERTIFICATE OF

# Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**SHANGHAI NORIS-SIBO AUTOMATION CO., LTD**

located at

1ST FLOOR, NO.8 BUILDING SOUTH, NO.2716 PING LIANG RD,  
YANGPU, SHANGHAI, China, 200090

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product Marine Monitoring and Alarm System**

**Model N3500**

**Endorsement: 2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 31/May/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

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Bin-Hong Wang Director

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement

**SHANGHAI NORIS-SIBO AUTOMATION CO., LTD**

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**Tier: 2 - PDA Issued**

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**Product:** Marine Monitoring and Alarm System

**Model:** N3500

**Endorsements:**

**Intended Service:**

Monitoring and Alarm System for ACC, ACCU, and ABCU Class Vessels.

**Description:**

N3500 Monitoring and Alarm System for measuring, display, monitoring, alarm, recording of main/auxiliary machinery, consists of the following hardwares:

AMS SAU; GATEWAY; STM7-IN32 Binary measuring module; STM7-INOUT I/O module; STM7-AinOut Integrated I/O module; STM7-I/V1 Current /Voltage measuring module; STM7-PT100 Thermal resistance measuring module; STM7-MV1 Thermocouple measuring module; STM7-SAFT Binary measuring module; D/A Analog output module; N3510 Extend Alarm panel (with Fire alarm); N3511 Extend Alarm panel (without Fire alarm); N3520 Color LCD display (with Fire alarm); N3521 Color LCD display (without Fire alarm); TANK-600 Industrial computer; V-1000 UPS; TL-SF1008+ TP-LINK; PHILIPS Monitors; N3500-MU220-17/19/21/23 Monitor Units; N3500-HUB-SF1016D Switch; LQ-300K+II Printer; N3500-KB-1 Keyboard.

N3500 Monitoring and Alarm System consists of the following softwares:

TANK-600 Rev 2.1 for Industrial Computer; GATEWAY N3500 GW-00 for GATEWAY.

**Rating:**

UPS, Industrial computer, Monitor, Printer: AC220V;

Other components: DC24V.

**Service Restriction:**

1. Unit Certification is required for this product.
2. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
3. After assembled to a complete assembly unit or sub-assembly unit, each production unit of equipment is to be tested at the manufacturer's shop in the presence of the ABS Surveyor to verify the tests in 4-9-9/Table 2 of the ABS MVR;
4. For Applications of ACC, ACCU or ABCU Vessels, detailed wiring diagram of each particular application is to be specifically approved.

**Comments:**

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

**Notes/Drawing/Documentation:**

Drawing No. NS-3500-YJ Alarm & Monitoring System Revision: 0, Pages: 1

Drawing No. - NS-3500 FMEA report; Revision: 0, Pages: 1

Drawing No. - NS-3500 Alarm & Monitoring System Revision: 0, Pages: 1

Drawing No. A16-024-WT, Test Report, Revision: 0, Pages: 1

Test report No.: A16-024-WT, dated 07-Dec-2016, Shanghai Inspection and Testing Institute of Instruments and Automatics Systems(SITIIAS)

Drawing No. A17-001-WT, Test Report, Revision: 0, Pages: 1

Drawing No. N3500-YJ, Modification Drawings, Revision: 0, Pages: 1

Test report No.: A17-001-WT, dated 23-Jan-2017, Shanghai Inspection and Testing Institute of Instruments and Automatics Systems(SITIIAS)

Drawing No. N-A, Test Program, Revision: 0, Pages: 10

Drawing No. A17-007-WT, Electrostatic Discharge Test Report, Revision: -, Pages: 11(Testing Laboratory: Shanghai

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Inspection and Testing Institute of Instruments and Automatics Systems, Report No: A17-007-WT, Date: 10-May-2017)

Drawing No. J22-012-ZC-01, Surge Test Report, Revision: -, Pages: 10(Testing Laboratory: Shanghai Inspection and Testing Institute of Instruments and Automatics Systems Co., Ltd., Report No: J22-012-ZC-01, Date: 16-Jan-2023)

Drawing No. J22-012-ZC-02, Radiated Emission and Electromagnetic Field Test Report, Revision: -, Pages: 16(Testing Laboratory: Shanghai Inspection and Testing Institute of Instruments and Automatics Systems Co., Ltd., Report No: J22-012-ZC-02, Date: 16-Jan-2023)

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 31/May/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

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**STANDARDS**

**ABS Rules:**

1-1-4/7.7, 1-1-Appendix 3 and 4, 4-9-2/7, 4-9-3/5.1, 5.3, 7, 9, 11, 13.1, 4-9-6/19, 4-9-9/13.1 and 4-9-9/Tables 1 & 2 of Marine Vessel Rules (2023)

1-1-4/9.7, 1-1-Appendix 2 and 3, 4-3-4/5 of Mobile Offshore Unit Rules (2023)

1-1-4/11.9, 1-1-Appendix 2 and 3, 4-7-8/3, 5, 7, 9, 4-7-9/15, Table 9 & 10 of High-Speed Craft Rules (2023)

**National:**

NA

**International:**

IEC 60945: 2002

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

IACS UR E10: Rev.8 Feb 2021