



## ***Confirmation of Product Type Approval***

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 12-FEB-2023. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

**Product Name:** Touch Control Panel  
**Model Name(s):** X2 extreme Series (Sealed Type)

**Presented to:**  
BEIJER ELECTRONICS CORP.  
4F, NO.501-15, ZHONGZHENG RD.  
XINDIAN DIST.  
23148  
Taiwan, R.O.C.

<b>Intended Service:</b>	Human Machine Interface (HMI) for monitoring and control systems in Marine Applications.
<b>Description:</b>	Human Machine Interface (HMI) with 7/12/15 inch TFT-LCD with LED back-light display and touch screen.
<b>Tier:</b>	3
<b>Ratings:</b>	Detailed datasheet listed as attachment.
<b>Service Restrictions:</b>	1. Unit Certification is not required for BEIJER ELECTRONICS AB (843070) as the original supplier. However, unit certification in accordance with 4-9-3/Table 2 & 3 of the Steel Vessel Rules is required by the user to customize this equipment where this equipment is used for Category II or III services in 4-9-3/Table 1 in presence of the Surveyor after assemblage. The tests are to be carried out preferably at the assembled plant before installation onboard. However, if it is impracticable, the tests may be carried out after installation on-board. 2. Failure analysis for safety related functions only and Analysis regarding existence and fulfillment of programming procedures for safety related functions in association with 4-9-3/Table 2 & 3 of the Steel Vessel Rules is to be additionally submitted when this component is used for systems assigned as Category III.
<b>Comments:</b>	The Manufacturer has provided a declaration about the control of, or the lack of

Asbestos in this product.

**Notes / Documentation:**

Drawing No. NA1, Beijer\_SW flow, Revision: 0, Drawing No. NA10, Beijer\_X2 extreme FMEA, Revision: 0, Drawing No. NA11, Beijer\_SW Quality, Revision: 0, Drawing No. NA12, Beijer\_DDOC-00025A (7 inch assy), Revision: 0, Drawing No. NA13, X2\_extreme\_SL\_HP\_MAEN240\_English, Revision: 0, Drawing No. NA14, Beijer\_DDOC-00027A (15 inch assy), Revision: 0, Drawing No. NA15, Beijer\_DDOC-00026A (12 inch assy), Revision: 0, Drawing No. NA16, Beijer\_iX\_Developer\_MAEN831Q\_English, Revision: 0, Drawing No. NA17, iX HMI SoftControl, Revision: 0, Drawing No. NA18, BREN576 - Softmotion, Revision: 0, Drawing No. NA2, Beijer\_Global Product Development Process, Revision: 0, Drawing No. NA3, Beijer\_DDOC-00028A (7 inch outline), Revision: 0, Drawing No. NA4, Beijer\_DDOC-00029A (12 inch outline), Revision: 0, Drawing No. NA5, Beijer\_DDOC-00030A (15 inch outline), Revision: 0, Drawing No. NA6, Beijer\_iX\_Developer\_MAEN832H\_English, Revision: 0, Drawing No. NA7, Beijer\_Selftest Information, Revision: 0, Drawing No. NA8, Beijer\_X2 extreme Elec Block Diagram, Revision: 0, Drawing No. NA9, Beijer\_X2 extreme Sealed Variants Spec, Revision: 0, Drawing No. OS Description, Windows Embedded Compact 2013 - Datasheet, Revision: 0, Test Report No.: IP-A106-263-E ~ IP-A106-265-E, Report Title: Degrees of protection provided by enclosures (IP Code), by Cheng Shiu University Electrical Technology Center, dated 12 October 2017; Test Report No.: TH1\_17\_0252-1, Report Title: Acoustic Noise Test Report, by PAL Acoustics Technology Ltd. dated 24 August 2017; Test Report No.: 170817001T-2, Report Title: Compass Safe Distance Test, Cal-Tech Technology Co., Ltd.-Consolidated Laboratory, dated 31 August 2017; Test Report No.: GO17091301, Report Title: Dry heat test, Cold Test and Damp Test, by Great One Global Certification Co., Ltd., dated 16 October 2017; Test Report No.: GO17112002, Report Title: Flame Retardant Test, by Great One Global Certification Co., Ltd., dated 27 November 2017; Test Report No.: 170817001T-1, Report Title: High voltage and insulation test, by Cal-Tech Technology Co., Ltd.-Consolidated Laboratory, dated 31 August 2017; Test Report No.: 171121001T, Report Title: Inclination Test, by Cal-Tech Technology Co., Ltd.-Consolidated Laboratory, dated 15 December 2017; Test Report No.: 17-08-MAS-124-01, Report Title: Power Supply Variation Test, by ETC Electronics Testing Center, Taiwan, dated 30 September 2017; Test Report No.: SS-A106-120-E, Report Title: Salt Mist Test, by Cheng Shiu University Electrical Technology Center, dated 8 December 2017; Test Report No.: T170814D07-E, T170814D08-E, T170814D09-E, Report Title: EMC & External Electrical Power Supply Failure Test, by CCSRF Compliance Certification Services Inc. Xiandian Lab. dated 24 August 2017; Test Report No.: VS-TS-060901-02, VS-TS-060904-02, VS-TS-060907-02, Report Title: Shock Test, by Vibration Source Technology Co., Ltd., dated 1 September 2017; Test Report No.: VS-TV-060901-01, VS-TV-060904-01, VS-TV-060907-01, Report Title: Vibration Test, by Vibration Source Technology Co., Ltd., dated 1 September 2017;

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 18-SQ1704662-PDA-DUP, dated 13/Feb/2018 remains valid until 12/Feb/2023 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**ABS Rules:**

2018 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-1-1/Table 3, 4-8-3/15, 4-9-1/7.3.9, 4-9-3 (Category III), 4-9-8/7 and 4-9-8/13; 2018 Steel Vessel Rules (Under 90 Meters) 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-1-1/Table 3C, 4-7-1/7.19, 4-7-2/9, 4-7-2/15.3 and 4-7-2/17; 2018 Offshore Support Vessel Rules (OSV Rules) 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-1-1/Table 3, 4-8-3/15, 4-9-1/7.3.9, 4-9-3 (Category III), 4-9-8/7 and 4-9-8/13; 2018 High-Speed Craft Rules 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-7-1/7.3.12, 4-7-8 (Category III), 4-7-9/7 and 4-7-9/15

**National Standards:**

**International Standards:**

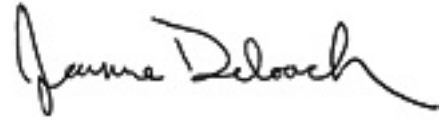
IACS UR E10 (Rev. 6 Oct 2014) IACS UR E22 (Rev. 2 Jun 2016), IEC 60945 (2002).

**Government Authority:**

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA-DUP	18-SQ1704662-PDA-DUP	13-FEB-2018	12-FEB-2023



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.