



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 04/DEC/2021. 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 28/JUL/2021 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: Monitor, Graphic Panels
Model Name(s): X2 Series

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

Intended Service: Human Machine Interface (HMI) for monitoring and control systems in Marine Applications.

Description: Human Machine Interface (HMI) with 4.3/7/10/12/15 inch TFT-LCD with LED back-light display and touch screen.

Ratings: Detailed datasheet listed as attachment.

Service Restrictions: 1. Unit Certification is not required for BEIJER ELECTRONICS CORP. (436089) 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 on-board. 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. 3. The equipment is to be installed indoor purpose, not to be installed in marine weather exposed area.

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

Notes / Documentation:

Drawing No. NA-1, X2_MAEN202, Revision: 0, Drawing No. NA-2, X2_Datasheet_160119, Revision: 0, Drawing No. NA-3, TP7204001_IMX7_2015-05-06_A1, Revision: 0, Drawing No. NA-4, SW_Users Guide, Revision: 0, Drawing No. NA-5, SW_Reference Manual, Revision: 0, Drawing No. NA-6, SRS TxAB (PDM_PROJ_DOC - 1031421 - 1 - A2) - 1, Revision: 0, Drawing No. NA-7, Self test Information 1004, Revision: 0, Drawing No. NA-8, Power Supply, Revision: 0, Drawing No. NA-9, iX HMI SoftControl AD_210x297, Revision:0, Drawing No. NA-10, Global Product Development Process_WIP_9 DEC 15, Revision: 0, Drawing No. NA-11, FMEA_X2_TxB-2, Revision: 0, Drawing No. NA-12, DDOC-00009rA, Revision: 0, Drawing No. NA-13, DDOC-00008A, Revision: 0, Drawing No. NA-14, DDOC-00007A, Revision: 0, Drawing No. NA-15, DDOC-00006rA, Revision:0, Drawing No. NA-16, DDOC-00005A, Revision: 0, Drawing No. NA-17, DDOC-00004rA, Revision:0, Drawing No. NA-18, DDOC-00003B, Revision: 2, Drawing No. NA-19, DDOC-00002A, Revision: 0, Drawing No. NA-20, DDOC-00001A, Revision:0, Drawing No. NA-21, BREN576 - Softmotion_low, Revision: 0, Drawing No. NA-22, Block Diagram, Revision: 0, Drawing No. NA-23, Beijer SW Quality, Revision: 0, Drawing No. NA-24, Beijer SW flow, Revision: 0, Drawing No. NA-25, Beijer Models TxB-2 project, Revision: 0, Drawing No. NA-26, Copy of DOC-Z8100-102A (PDM_DRW - 1147710 - 1 - A1) - 1, Revision: 0, Drawing No. NA-27, dok-z8100-001a, Revision: 0, Drawing No. NA-28, dok-z8100-002a, Revision: 0, Drawing No. OS description, WEC2013 software description, Revision: 1. ABS POWER SUPPLY VARIATION TEST of 16-06-MAS-087-01, dated 28 Jun 2016 by ELECTRONICS TESTING CENTER, TAIWAN Dry Heat Test, Damp Test and Cold Test of 16-02-EAT-074-E01/-E02, dated 15 Feb 2016 by ELECTRONICS TESTING CENTER, TAIWAN Dry Heat Test, Damp Test and Cold Test of 16-05-EAT-008-E01, dated 3 May 2016 by ELECTRONICS TESTING CENTER, TAIWAN Vibration Test of VS-TV-050321-01, dated 4 Apr 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050321-02, dated 5 Apr 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050321-03, dated 5 Apr 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050321-04/-05, dated 9 Apr 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050321-06, dated 28 Apr 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050518-01, dated 23 May 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050518-03, dated 5 Jun 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Vibration Test of VS-TV-050518-05, dated 10 Jun 2016 by VIBRATION SOURCE TECHNOLOGY CO., LTD. Vibration Testing Laboratory Inclination Test of 16-02-EAT-074-E03, dated 15 Feb 2016 by ELECTRONICS TESTING CENTER, TAIWAN Inclination Test of 16-02-EAT-008-E02, dated 3 May 2016 by ELECTRONICS TESTING CENTER, TAIWAN Insulation Resistance Test and High Voltage Test of 151202001T-1 ~ -5, dated 23 Mar 2016 by CAL-TECH Technology Co.,Ltd. Insulation Resistance Test and High Voltage Test of 151202001T-13 ~ -15, dated 27 May 2016 by CAL-TECH Technology Co.,Ltd. EMC Test and Power Supply Failure Test of T160325D05-E/ T160406D07-E/ T160406D08-E/ T160406D10-E/ T160407D01-E/ T160408D01-E, dated 7 July 2016 by Compliance Certification Services Inc. Xindian EMC Test and Power Supply Failure Test of T160407D02-E/ T160408D08-E, dated 12 July 2016 by Compliance Certification Services Inc. Xindian Flame Retardant Test of UT105063 ~ UT105066, dated 27 May 2016 by Universal Testing Inc. Flame Retardant Test of UT105076 ~ UT105079, dated 17 Jun 2016 by Universal Testing Inc. Compass Safe Distance Test 151202001T-7 ~ -12, dated 23 Mar 2016 by CAL-TECH Technology Co.,Ltd. Compass Safe Distance Test 151202001T-18 ~ -20, dated 27 May 2016 by CAL-TECH Technology Co.,Ltd. Acoustic Test TH2_16_0115, dated 13 May 2016 by PAL Acoustics Technology Ltd. Enclosure Test IP-A105-168-E, dated 28 Apr 2016 by Cheng Shiu University Environmental & Reliability Testing Laboratory, Electrical Technology Center Enclosure Test IP-A105-165-E ~ IP-A105-167-E, dated 30 Apr 2016 by Cheng Shiu University Environmental & Reliability Testing Laboratory, Electrical Technology Center Enclosure Test IP-A105-190-E ~ IP-A105-192-E/ IP-A105-195-E, dated 6 Jun 2016 by Cheng Shiu University Environmental & Reliability Testing Laboratory, Electrical Technology Center

Term of Validity:

This Product Design Assessment (PDA) Certificate 16-SQ1516745-PDA, dated

16/Nov/2016 remains valid until 28/Jul/2021 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:

2016 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; 2016 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; 2016 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; 2016 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. 1 Sept 2010), IEC 60945 (2002).

Government Authority:

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	16-SQ1516745-PDA	15/NOV/2016	28/JUL/2021



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.