

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 22-2290728-PDA 21-Sep-2022 20-Sep-2027 London Engineering Department

CERTIFICATE OF Product Design Assessment

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

ZENITEL NORWAY AS

located at

P.O. BOX 4498 NYDALEN, Sandakerveien 24C., , OSLO, Norway, N-0403

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:	Sound Reception System
Model:	Phontech 8300 Mkll and Phontech 8301 Mkll
Endorsements:	
Tier:	2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 20/Sep/2027 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

SBalakan

Serkan Balakan, Engineer/Consultant

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 (2010)

ZENITEL NORWAY AS P.O. BOX 4498 NYDALEN Sandakerveien 24C. OSLO Norway N-0403 Telephone: + 47 40002727 Fax: +47 67 14 69 36 Email: bjorn.grading@zenitel.com Web: www.zenitel.com Tier: 2 - PDA Issued

Product:Sound Reception SystemModel:Phontech 8300 MkII and Phontech 8301 MkIIEndorsements:Figure 100 ms and Phontech 8301 MkII

Intended Service:

For use on ABS Classed Vessels and Offshore Installations in accordance with the listed ABS Rules and International Standards.

Description:

The Phontech Sound Reception System 8300 MkII is a navigation aid Sound Reception system required on ships with enclosed bridge.

The Phontech Sound Reception System 8300 MkII consists of one omnidirectional microphone/antenna unit (Phontech 8301 MkII) and a Phontech 8300 MkII display unit is installed in the bridge. The system enables the navigational officer to receive and detect foghorn from other vessels and determine their direction.

Option: The bridge main panel interface designs can accommodate additional slave display units Phontech 8300 MkII.

Rating:

Phontech 8300 MkII Display Unit: Operating Voltage: 21 - 32 VDC; Panel Enclosure: IP 22; Operating temperature range: -15 to 70 Deg.C;

Microphone/antenna Phontech 8301 MkII: Audio: 70 to 2100 Hz; Unit: IP56; Operating temperature range: -60 to 55 Deg. C;

Service Restriction:

Unit Certification is not required for this product.

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. Where equipment is to be installed in a Hazardous Area it is to be certified accordingly.

Comments:

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

Notes/Drawing/Documentation:

Drawings submitted under 22-2279587-PDA

Drawing No. E16052.01, Display Performance Test Report, Nemko Scandinavia AS, Norway, Date: 16.06.2022, Rev: -, Pages: 17.

Drawing No. E22112.02, Environmental, and Performance Test Report, Nemko Scandinavia AS, Norway, Date: 15.06.2022, Rev: -, Pages: 21.

Drawing No. E16004.01 Test Report, Nemko Scandinavia AS, Norway, Date: 21.02.2021, Rev: 02, Pages: 61 Drawing No. A100K12112, Vingtor Stentofon Test Report, Zenitel Norway AS, Norway, Date: 29.06.2021, Rev: 04, Pages: 14.

Drawing No. A100K12112, Vingtor Stentofon Test Report with DNV witness, Zenitel Norway AS, Norway, Date: 02.07.2021, Rev: 04, Pages: 14.

Drawing No. 800162, ISO Certificate, Pages: 1

Drawing No. ABS SR P-8300 MkII DoC, Declaration of conformity, Pages: 1

Electronically published by ABS London. Reference T2290728, dated 21-SEP-2022.

ZENITEL NORWAY AS

P.O. BOX 4498 NYDALEN Sandakerveien 24C. OSLO Norway N-0403 Telephone: + 47 40002727 Fax: +47 67 14 69 36 Email: bjorn.grading@zenitel.com Web: www.zenitel.com

Tier: 2 - PDA Issued

Drawing No. MEDD00001WF, DNV QS - Certificate of Assessment - EC (Module D), Page: 2 Drawing No. MEDB00005E7, DNV EC-Type Examination Certificate (Module B), Page:2 Drawing No. 4000019415, Data Sheet - Zenitel P-8300 MkII Sound Reception Display Unit , Page: 4 Drawing No. 4000019416, Data Sheet - Zenitel-P-8301 MkII Microphone Unit, Page: 4 Drawing No. Authorisation Letter, Zenitel Norway AS acquisition of the Phontech operations from Jotron AS, Page: 1 Drawings submitted under 16-LD1523338-PDA Drawing No. 19490, Phontech 8300;

Drawing No. 19490-DS-8300, Technical Data Sheet; Drawing No. 19502-19490 - 8300 - label 54x101; Drawing No. 19590, Phontech 8301 Mic Unit; Drawing No. 19590-DS-8301, Technical Data Sheet; Drawing No. 19598/P0, Phontech 8301 Graphics; Drawing No. 295456 - 1 Test Report (07 March 2016); Drawing No. 295456r01 Test Report (15 March 2016); Drawing No. BOM X-19094, Parts List; Drawing No. BOM X-19250, Parts List; Drawing No. BOM X-89646, Parts List; Drawing No. Declaration of Conformity, Declaration of Conformity; Drawing No. E16004.01 Test Report (15 March 2016); Drawing No. E16004.01 Test Report (15 March 2016); Drawing No. E16052.00 Test Report (11 March 2016); Drawing No. MED-B-16111 EC Type Examination Certificate (File No: 295456 Annex A1 item No: A.1/4.58 – 16 March 2016);

Drawing No. Phontech 8300 MkII User Manual;

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 20/Sep/2027 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.

STANDARDS

ABS Rules:

-Marine Vessels Rules (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/7.15; 4-8-3/1.11, 4-9-9/3, 4-9-9 Table 1 and Table 2; - Facilities on Offshore Installations (2022): 1-1-4/9.7, 1-1-A2, 1-1-A3;

- Mobile Offshore Units (2022): 1-1-4/9.7, 1-1-A3, 1-1-A4, 6-1-1/9, 6-1-1/13; 4-3-1/15;

- Steel Vessels for Service on Rivers and Intracoastal Waterways (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/21, 4-5-1/17;

- High Speed Crafts (2022): 1-1-4/11.9, 1-1-A2, 1-1-A3; 4-1-1/37; 4-6-1/15, 4-7-9/3, 4-7-9 Table 9 and Table 10; - Steel Barge Rules (2022): 1-1-4/7.9, 1-1-A3, 1-1-A4;

National:

NA

Electronically published by ABS London. Reference T2290728, dated 21-SEP-2022.

ZENITEL NORWAY AS

P.O. BOX 4498 NYDALEN Sandakerveien 24C. OSLO Norway N-0403 Telephone: + 47 40002727 Fax: +47 67 14 69 36 Email: bjorn.grading@zenitel.com Web: www.zenitel.com

Tier: 2 - PDA Issued

International:

IACS UR E10:Rev.8 Corr1: 2022 BS EN 60945 (2002) including IEC60945 Corr. 1 : 2008; IEC 61162-450 Ed. 2.0 b:2018 IEC 62288 Ed. 3.0:2021

Government: NA

EUMED: NA

OTHERS:

NA