EU-TYPE EXAMINATION (MODULE B) CERTIFICATE

Radio Equipment Directive (RED) 2014/53/EU

PHOENIX TESTLAB

Notified Body Number 0700

Recognised by Bundesnetzagentur

BNetzA-bS-02/51-55

This is to certify that:
PHOENIX TESTLAB did undertake the relevant type examination procedures for the radio equipment identified below which was found to be in compliance with the essential requirements of Radio Equipment Directive (RED) 2014/53/EU subject to any conditions in the annex attached hereto.

Certificate No.	24-111605 - 24-123461
Manufacturer	Alltek Marine Electronics Corp.
Address	14F-2, No. 237, Sec. 1, Datong Rd., Xizhi Dist., New Taipei City 22161, Taiwan
Product Description	AIS Class B Transponder (CSTDMA) with WLAN and Antenna Splitter
Brand Name Model Name	AMEC B620WS, B620, B620W, B620S

The radio equipment meets the following essential requirements

Article 3.1 a): Health and Safety	**Conform**
Article 3.1 b): Electromagnetic Compatibility	**Conform**
Article 3.2: Effective and Efficient Use of Radio Spectrum	**Conform**
Article 3.3 g) Access to emergency services	**Conform**

Date of issue: **2024-10-28** Expiry date: **2029-10-27**

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached annex are complied with. The conditions for the validity of this certificate are listed in the Annex.

The attached Annex forms part of this certificate. This certificate consists of 4 pages.

BENANNTE STELLE PHOENIX TESTLAB NOTIFIED BODY
Seal

Klaus Knörig
28.10.2024

Signed by Klaus Knörig
Notified Body

Phone +49(0)5235-9500-24
Fax +49(0)5235-9500-28
notifiedbody@phoenix-testlab.de

PHOENIX TESTLAB GmbH
Königswinkel 10
D-32825 Blomberg, Germany
www.phoenix-testlab.de

Annex

Technical Description

Frequency Range	156.025 MHz to 162.025 MHz (AIS Transponder) 2412 MHz to 2472 MHz (WLAN for B620W and B620WS) 1575.42 MHz (GPS, receive-only)
Transmit Power	33 dBm +/- 1.5 dB conducted (AIS Transponder) 19.65 dBm EIRP (WLAN for B620W and B620WS)
Hardware Version	Main Board: M-PCB-B650MBV2 WLAN Board (for B620W and B620WS): M-PCB-WFB002V2 with u-blox NINA-W151
Software Version	V2
Operating temperature range	-25°C to +55°C

System Components

Main Unit	AIS Class B Transponder B620WS series
VHF antenna	ANT-11 / TENTA-11, max. gain 2.86 dBi
GPS antenna	AMEC GA-22 or GA-25
WLAN antenna	Dipole Antenna WIESON GY196HT695-001, peak gain 2.94 dBi

B620 Series Variants

B620	Standard AIS Class B transponder
B620S	AIS Class B transponder with integrated antenna splitter
B620W	AIS Class B transponder with integrated WLAN function
B620WS	AIS Class B transponder with integrated WLAN and antenna splitter

Approval Documentation

User Manual	AMEC B620 AIS Class B Transponder (CSTDMA) User Manual
External / Internal Photos	Internal & External Photos of B620WS
Block Diagram	Block diagram of B620WS/B650WS series
Circuit Diagram	Schematics Main Board M-PCB-B650MBV2 Schematics IO Board M-PCB-B650IOBV2 Schematics USB Board M-PCB-B650USBV2 Schematics WLAN Board M-PCB-WFB002
PCB Layout and Parts Placement	Layout Main Board Layout List IO Board Layout List USB Board Layout List WLAN Board
Parts List	Parts List Main Board Parts List IO Board Parts List USB Board Parts List WLAN Board
Operational Description	Operational Description of B620WS/B650WS series

Phone +49(0)5235-9500-24
Fax +49(0)5235-9500-28
notifiedbody@phoenix-testlab.de

PHOENIX TESTLAB GmbH
Königswinkel 10
D-32825 Blomberg, Germany
www.phoenix-testlab.de

Approval Documentation

EU Declaration of Conformity	Declaration of EU Conformity for B620WS Series
Explanation of compliance Article 10(2) and Article 10(10)	Declaration of compliance with Article 10(2) & Article 10(10), 2024-10-21
Label	Label drawings B620, B62S, B620W, B620WS
Declaration Letters	Declaration of Identical GPS Module at B620WS Family and WideLinkB600 Family Hardware and Software Information for B620WS Series EU Representative authorization letter for B620 Series
Risk Assessment	Risk Assessment of B620WS Series

Applied Standards and Test Reports

Specification	Laboratory	Test Report Number / Version
IEC 62368-1 Ed. 4.0 (2023-05)	DEKRA Taiwan	SN2404023
EN 62311 Ed. 2.0 (2020-01)	DEKRA Taiwan	2420103R-RFCEV26S-A
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04)	DEKRA Taiwan	2420103R-0E3012100126-A 2420103R-Product Photos
ETSI EN 301 843-1 V 2.2.1 (2017-11) ETSI EN 301 843-2 V2.2.1 (2017-11)	DEKRA Taiwan	2420103R-0E3012100188-A 2420103R-Product Photos
ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09)	DEKRA Taiwan	2420103R-0E3012100146-A 2420103R-Product Photos
ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-19 V2.2.1 (2022-09)	DEKRA Taiwan	2420103R-0E3012100147-A 2420103R-Product Photos
IEC 62287-1 Ed. 3.0 (2017-04) Clause 11, C.4	Phoenix Testlab	F241031E1
IEC 62287-1 Ed. 3.0 (2017-04) Clause 11, C.4	Phoenix Testlab	F241120E1
IEC 62287-1 Ed. 3.0 (2017-04) + AMD1:2022 CSV Clause 10, 12, 13, Annex C.3 ITU-R M.1371-5 (2014) IEC 61162-1 Ed. 6.0: 2024 IEC 61162-2 Ed. 2.0:2024	BSH	BSH/454.AIS-BCS / 004 - AMEC B620
IEC 62287-1 Ed. 3.0 (2017-04) Clause 9.4	Alltek	Waiver Document of B620WS series, Issue 1.0, 2024-10-25
IEC 61108-1:2003 Clause 4.2, 4.3	BSH	BSH/4543/001/4143083/16
ETSI EN 300 328 V2.1.1 (2016-11)	Phoenix Testlab	F170297E1
ETSI EN 300 328 V2.2.2 (2019-07)	Phoenix Testlab	F200955E1
ETSI EN 300 328 V2.2.2 (2019-07)	DEKRA Taiwan	2420103R-RFNAV03S-1
ETSI EN 303 413 V1.2.1 (2021-04),	DEKRA Taiwan	2420103R-RFCEV21S-A
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 8.2.2, 8.3, 8.4.2, 8.12	Intertek Taiwan	240200008TPE-001

Specification	Laboratory	Test Report Number / Version
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 8.4.2.6	Intertek Taiwan	241000041TPE-001
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 8.7	SGS Taiwan	HCD0052/2023
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 11.2	BSH	Certificate No. 1138, 2024-02-20
IEC 60529 Ed. 2.2:2013, IP68	SGS Taiwan	HCD0052A/2023
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 8.2, 8.3, 8.4, 8.12	SGS Taiwan	HC20045/2017
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04), Clause 8.7	SGS Taiwan	HHD0021A/2016
IEC 60529 Ed: 2.2:2013, IPX6	SGS Taiwan	HH40002A/2017
IEC 60529 Ed. 2.2:2013, IP67	SGS Taiwan	HHD0021B/2016
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 8.2, 8.3, 8.4, 8.7	SGS Taiwan	HC70065E/2021
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04) Clause 8.12	ETC Taiwan	21-11-EAT-053-E02
IEC 60945 Ed. 4.0 (2002-08) incl. Cor. 1 (2008-04), Clause 8.8	SGS Taiwan	HC70065C/2021
IEC 60529 Ed. 2.2:2013, IP68	SGS Taiwan	HC70065B/2021

Limitations / Restrictions

- None -

Notes

1. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with PHOENIX TESTLAB.

2. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/them being placed on the market.

3. The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure conformity of the manufactured radio equipment with the approved type described in the EU-type examination certificate and with the requirements of Directive 2014/53/EU that apply to it.

4. CE The manufacturer shall affix the CE marking to each item of radio equipment that is in conformity with the type described in the EU-type examination certificate and satisfies the applicable requirements of the Directive.

5. The manufacturer shall draw up a written EU declaration of conformity for each radio equipment type and keep it at the disposal of the national authorities for 10 years after the radio equipment has been placed on the market. The EU declaration of conformity shall identify the radio equipment type for which it has been drawn up. A copy of the EU declaration of conformity shall be made available to the relevant authorities upon request.

Phone +49(0)5235-9500-24
Fax +49(0)5235-9500-28
notifiedbody@phoenix-testlab.de

PHOENIX TESTLAB GmbH
Königswinkel 10
D-32825 Blomberg, Germany
www.phoenix-testlab.de