

EC TYPE-EXAMINATION (MODULE B) CERTIFICATE

Marine Equipment Directive (MED) 2014/90/EU

PHOENIX TESTLAB
Notified Body Number **0700**

Recognised by



0800S11/4822/007

This is to certify that:

PHOENIX TESTLAB did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the schedule attached hereto.

Certificate No.	PTL-MED-B-21-111150
Manufacturer Address	Alltek Marine Electronics Corp. 14F-2, No. 237, Sec. 1, Datong Rd., Xizhi District New Taipei City 22161, Taiwan, R.O.C.
Authorised Representative Address	Netwave Systems BV Blauw-roodlaan 100 2718 SJ Zoetermeer The Netherlands
Directive Reference (No & Item designation)	Directive 2014/90/EU, Regulation (EU) 2021/1158 MED/4.32 Universal automatic identification system equipment (AIS)
Product Description	Automatic Identification System (AIS)
Product Name / Trade Name	Type: Z601 / McMurdo Smartfind M5

Specified Standards

IMO Resolution A.694(17)	IEC 61108-1 Ed. 2.0 (2003)	IEC 61993-2 Ed. 3.0 (2018)
IMO Resolution MSC.74(69)	IEC 60945 Ed. 4.0 (2002)	IEC 62288 Ed. 2.0 (2014)
IMO Resolution MSC.191(79)	incl. Corr. 1 (2008)	IEC 62923-1 Ed. 1.0 (2018)
IMO Resolution MSC.302(87)	IEC 61162-1 Ed. 5.0 (2016)	IEC 62923-2 Ed. 1.0 (2018)
ITU-R M.1371-5 (Class A), 2014	IEC 61162-2 Ed. 1.0 (1998)	

Date of issue: **2021-09-15** Expiry date: **2026-09-14**
USCG Approval Category: **165.155**

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

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



Signed by Klaus Knörig
Notified Body

Schedule of Approval

System Components

Component	Part No.	Remarks
Class A AIS Transponder Unit	Z601	Software Version 1.0.6.XX
Junction Box Unit	JB-712	
Extension Cable	EC-713	
GPS Antenna	ANT-21	
VHF Antenna	ANT-11	Or equivalent VHF antenna

Optional Components

Component	Part No.	Remarks
Pilot Plug Unit	PP-714	

Approval documentation

Block Diagram	Block Diagram of CAMINO-701 with Functional Description
Circuit Diagrams	Schematic DCB, Document No. M-PCB-AISADCBV3, Rev. V3 Schematic JB, Document No. M-PCB-AISAJBV1, Rev. V1 Schematic MB, Document No. M-PCB-AISAMBV4, Rev. V4 Schematic Power, Document No. M-PCB-AISAPOWRV4, Rev. V4
PCB Layout and Parts Placement	PCB layout DCB, PCB layout JB, PCB layout MB, PCB layout Power
Parts List	Parts list DCB, Parts list JB, Parts list MB, Parts list Power
Label	Type: Z601, McMurdo Smartfind M5 label drawing
Declaration letters	EU representative letter, 2021-08-06
Waiver letter IEC 60945	Technical Construction File Waiver Document, TCF_CAMINO-701_WD_R3, 2017-03-28
GPS Antenna Datasheets	GPS Antenna AGGRESSOR-111-C Datasheet GPS Antenna AGGRESSOR-21 Datasheet GPS Antenna AGGRESSOR-21 Specification
Installation and Operation Manual	McMurdo Smartfind M5 AIS Class A User Manual, Issue 15
Risk Assessment	Risk Assessment of AIS Class A Transponder (Brand Name: McMurdo; Type: Z601; Model Name: Smartfind M5)

Applied Standards and Test Reports

Specification	Laboratory	Test Report Number / Version
IEC 61993-2 Ed. 2.0 (2012-10), Sections 14, 16-20, Annex D IEC 61162-1 Ed. 4.0 (2010) IEC 61162-2 (1998) IEC 61162-1 Ed. 5.0 (2016)	BSH AMEC	BSH/46121/4322163/13-1, 2013-05-13 CAMINO-701 Technical Notes_TN- 190627-1, 2019-06-27
IEC 61993-2 Ed. 2.0 (2012-10), Sections 15, D.2	PHOENIX TESTLAB	F123924E1, 2012-10-22
IEC 61993-2 Ed. 2 (2012-10) Section 15	BSH	BSH/46121/4322163/13-4, 2013-04-12
IEC 61993-2 Ed. 3.0 (2018-07)	BSH	BSH/454.AIS-A/AMEC CAMINO-701/1, 2019-10-22
IEC 62288 Ed. 1.0 (2008-07), Sections 4, 7	BSH	BSH/46121/4322163/13-3, 2013-05-13
IEC 62288 Ed. 2.0 (2014-07), Sections 4, 7	BSH	BSH/4543/001/4322868/14, 2014-12-15
IEC 61993-2 Ed. 2.0 (2012-10) ITU-R M.1371-5		
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Sections 6, 11.1, 13-15	BSH	BSH/46121/4322163/13-6, 2013-04-11
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 5.2.3	CCS	T130218W04-OT, 2013-03-08
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Sections 8.2 Dry Heat, 8.3 Damp Heat, 8.4 Low Temperature	PHOENIX TESTLAB	U123924E1, 2012-11-07
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Sections 8.7 Vibration, 12.1 Access to dangerous voltages	SGS	HC60123B/2012, 2012-11-28
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 8.8 Rain and spray	SGS	HCD0137A/2009, 2010-04-13
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 8.7 Vibration	SGS	HC20023A, 2013-03-20
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Sections 9, 10 EMC	CCS	T130218W04-E, 2013-04-30
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 8.12 Corrosion	IST	HS1204120137A Version C, 2012-11-21
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 11.2, Compass safe distance	BSH	Certificate No. 777, 2012-08-09
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 12.2 Electromagnetic radio frequency radiation	CCS	T130102W05-E, 2013-01-14


Specification	Laboratory	Test Report Number / Version
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Sections 8.2 Dry Heat, 8.3 Damp Heat, 8.4 Low Temperature, 8.7 Vibration	PHOENIX TESTLAB	U092025E1, 2009-12-01
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 8.12 Corrosion	PHOENIX TESTLAB	U092663E1, 2009-12-01
IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008) Section 10.9 ESD	PHOENIX TESTLAB	F100511E1, 2010-03-02
IEC 61108-1 Ed. 2.0 (2003-07)	BSH	BSH/4612/4322163/12-2, 2013-05-13
IEC 62923-1 Ed. 1.0 (2018)	AMEC	FRD-TR-A701BAM-V1.3, 2020-10-16
IEC 62923-2 Ed. 1.0 (2018)		

Limitations / Restrictions

- None -

Notes

1. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with PHOENIX TESTLAB.
2. During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards of the Commission Implementing Regulation may change, therefore the product conformity may need to be re-assessed by the Notified Body.

3.  The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX II of the Directive is fully complied with.

U.S. Coast Guard Approval

This equipment is covered by the scope of the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004 and amended by Decision No.1/2008 dated February 18th, 2019 according to U.S. Coast Guard approval category 165.155.

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) as allowed by the MRA.

The AIS radio transmitter is required to be authorized by the U.S. Federal Communications Commission (FCC).