


Approved Body Type Examination Certificate

Manufacturer company name: VEGA Grieshaber KG
Manufacturer address: Am Hohenstein 113, 77761 Schiltach, Germany
Description of the radio equipment: Radar sensors for continuous level measurement of liquids
Trade name/brand name: VEGA
Model/type indication: VEGAPULS 11
VEGAPULS 21
VEGAPULS 31
Software version: 1.2.1
Hardware version: 1.3.0
Frequency bands of operation: Bluetooth LE
FMCW Radar sensor
TD reference: VEGAPULS series
ACB project number: ATCB027898
Certificate number: ATCB027898

ACB, Inc. is designated as an Approved Body under the
U.S.-UK Mutual Recognition Agreement (Telecommunications Equipment & EMC Annexes)

ACB, Inc.
Approved Body Number 1588
6731 Whittier Avenue, Suite C110
McLean, VA 22101, USA

In the opinion of ACB, Inc., the examination of the technical documentation as drawn up by the manufacturer demonstrates that the essential requirements of Regulation 6 (1)(a), Regulation 6 (1)(b) and Regulation 6 (2) of the Radio Equipment Regulations 2017 (S.I. No. 1206) have been met. The conformity assessment on the radio equipment listed above and as described in Annex 1 to this type examination certificate has been carried out in accordance with Schedule 3, Module B, of the Radio Equipment Regulations 2017 (S.I. No. 1206). This type examination certificate relates only to the documents as provided to ACB, Inc. A list of documentation forming the basis for the type examination is provided in Annex 2 to this type examination certificate.


Approved Body: Kerwin Chen

18 February 2022, issue 2
Date



The radio equipment as described and documented in the technical documentation as drawn up by the manufacturer is a Radar sensor for level measurement.

It supports FMCW Radar technology in the 80 GHz band.

It supports Bluetooth Wireless PAN technology in the 2.4 GHz band with BLE.

Details of operation:

Description of service:	Bluetooth Low Energy (BLE)
Transmit frequency:	2402 MHz to 2480 MHz
Receive frequency:	2402 MHz to 2480 MHz
Modulation:	GFSK
Transmit power:	2.2 dBm, e.i.r.p.

Description of service:	FMCW
Transmit frequency:	78 GHz to 82 GHz
Receive frequency:	78 GHz to 82 GHz
Modulation:	FMCW
Transmit power:	27.2 dBm, maximum peak power

Annex 2 to type examination certificate for the Radio Equipment Regulations 2017 (S.I. No. 1206)

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1 Test report:

Report number:

Dated:

EMC	5-1_PULS 31H_F1_1	16 January 2019
EMC	5-2_PULS 31H_F1_1	29 January 2019
EMC	4-1_PULS 31H_F1_2	29 January 2019
EMC	4-2_PULS 31H_F1_1	28 January 2019
EMC	4-3_PULS 21H_F2_1	10 October 2019
EMC	4-4_PULS 21H_F2_1	10 October 2019
EMC	4-6_PULS 31H_F1_1	22 January 2019
EMC	4-8_PULS 31H_F1_1	31 January 2019
EMC	MDE_VEGA_1902_EMC01_REV01	08 December 2021
Radio	MDE_VEGA_1902_RADIO_02_REV01	03 August 2021
Radio	MDE_VEGA_1902_RADIO_04_REV01	18 May 2020
Radio	MDE_VEGA_1902_RADIO_06_REV01	18 May 2020
RF safety	MDE_VEGA_1902_MPE_02	04 February 2022
Product safety	20TH0161-62368-1_0	10 February 2020
Product safety	2-01_PULS 31H_F1_1	12 March 2019
Product safety	2-02_PULS 31H_F1_1	09 April 2019
Product safety	2-03_PULS 31H_F1_1	09 April 2019
Product safety	2-04_PULS 31H_F1_1	12 March 2019
Product safety	2-05_PULS 31H_F1_1	25 March 2019
Product safety	2-06_PULS 31H_F1_1	09 April 2019
Product safety	2-07_PULS 31H_F1_1	02 April 2019
Product safety	2-08_PULS 31H_F1_1	12 March 2019

2 Technical documentation provided:

Antenna details	Block diagram	Circuit diagram/schematics
External photographs	Internal photographs	Label drawing/location
Operational description	Parts list/bill of materials	PCB layout
Risk assessment	Test reports	Test setup photographs
User manual	Declaration of conformity	



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3 Standards used to demonstrate conformity with the essential requirements of the Radio Equipment Regulations 2017 (S.I. No. 1206):

Radio spectrum (Regulation 6 (2)):	EN 300 328 V2.2.2 EN 302 372 V2.1.1	EN 302 729 V2.1.1
EMC (Regulation 6 (1)(b)):	EN 301 489-1 V2.1.1 EN 301 489-33 V2.1.1 EN 61326-1: 2013	EN 301 489-17 V3.1.1 EN 61326-2-3: 2013
RF safety (Regulation 6 (1)(a)):	EN 62311: 2008	
Product safety (Regulation 6 (1)(a)):	EN 62368-1: 2014 + AC: 2015 + A11: 2017 EN 61010-1: 2010	

4 Additional information:

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 11: Manufacturers shall keep the technical documentation and the declaration of conformity for 10 years after the radio equipment has been placed on the market.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 12 (1): Manufacturers shall ensure that radio equipment which they have placed on the market bears a type, batch or serial number or other element allowing its identification, or, where the size or nature of the radio equipment does not allow it, that the required information is provided on the packaging, or in a document accompanying the radio equipment.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 12 (2)-(5): Manufacturers shall indicate on the radio equipment their name, registered trade name or registered trade mark and the postal address at which they can be contacted or, where the size or nature of radio equipment does not allow it, on its packaging, or in a document accompanying the radio equipment. The address shall indicate a single point at which the manufacturer can be contacted. The contact details shall be in a language easily understood by end-users and market surveillance authorities.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 13 (1): Manufacturers shall ensure that the radio equipment is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the UK. Instructions shall include the information required to use radio equipment in accordance with its intended use. Such information shall include, where applicable, a description of accessories and components, including software, which allow the radio equipment to operate as intended. Such instructions and safety information, as well as any labelling, shall be clear, understandable and intelligible.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 13 (2): The following information shall also be included in the case of radio equipment intentionally emitting radio waves:

- (a) frequency band(s) in which the radio equipment operates;
- (b) maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates.



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Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 13 (3): Manufacturers shall ensure that each item of radio equipment is accompanied by a copy of the declaration of conformity or by a simplified declaration of conformity drawn up in accordance with regulation 43 (simplified declaration of conformity). Where a simplified declaration of conformity is provided, it shall contain the exact internet address where the full text of the declaration of conformity can be obtained.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 14: In cases of restrictions on putting into service or of requirements for authorization of use, information available on the packaging shall allow the identification of the geographical area within the UK where restrictions on putting into service or requirements for authorization of use exist. Such information shall be completed in the instructions accompanying the radio equipment.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 44 (1)-(2): The UK marking shall be affixed visibly, legibly and indelibly to the radio equipment or to its data plate, unless that is not possible or not warranted on account of the nature of radio equipment. The UK marking shall also be affixed visibly and legibly to the packaging.

Radio Equipment Regulations 2017 (S.I. No. 1206), Regulation 44 (3): On account of the nature of radio equipment, the height of the UK marking affixed to radio equipment may be lower than 5 mm, provided that it remains visible and legible.

Radio Equipment Regulations 2017 (S.I. No. 1206), Schedule 7 (2): The manufacturer shall inform the approved body that holds the technical documentation relating to the type examination certificate of all modifications to the approved type that may affect the conformity of the radio equipment with the essential requirements of the Radio Equipment Regulations 2017 (S.I. No. 1206) or the conditions for validity of that certificate. Such modifications shall require additional approval in the form of an addition to the original type examination certificate.

Non-designated standards were used to demonstrate conformity with parts of the essential requirements in Regulation 6 (1)(a), Regulation 6 (1)(b) and Regulation 6(2).

In accordance with Approved Body guidance; if there are no changes, an Approved Body type examination certificate has a validity of 10 years from the date of issue.

5 Contact information:

For contact with ACB or questions regarding this type examination certificate:

Web: www.acbcert.com

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