Notified Body EU-Type Examination Certificate

Manufacturer company name: Manufacturer address:

Description of the radio equipment: Trade /brand name or registered trademark: Model/type indication: Software version: Hardware version: Frequency bands of operation: Intel Corporation SAS 425 Rue de Goa – Le Cargo B6-B7 06600 Antibes France Intel[®] Wi-Fi 6 AX201 Intel[®] AX201NGW, version: 802.11ax, 2x2, Bluetooth[®] 5, M.2 2230 Intel[®] PROSet / Wireless WIFI version 20.x and subsequent versions TL10B 2400 MHz to 2483.5 MHz 5150 MHz to 5350 MHz 5470 MHz to 5725 MHz 5725 MHz to 5875 MHz

Technical documentation (TD) reference: ACB project number: Certificate number: RED_TD_AX201NGW_rev2 ATCB029407 ATCB029407, issue 1

ACB, Inc. is designated as a Notified Body under the U.S.-EU Mutual Recognition Agreement for the Radio Equipment Directive 2014/53/EU

ACB, Inc. Notified Body Number 1588

313 Park Ave, Suite 300 Falls Church, VA 22046, 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 Article 3.1a, Article 3.1b and Article 3.2 of the Radio Equipment Directive 2014/53/EU have been met. The conformity assessment on the radio equipment listed above and as described in Annex 1 to this EU-type examination certificate has been carried out in accordance with Annex III, Module B, of the Radio Equipment Directive 2014/53/EU. This EU-type examination certificate relates only to the documents as provided to ACB, Inc. A list of documentation forming the basis for the EU-type examination is provided in

Annex 2 to this EU-type examination certificate.

Notified Body: P.A.J.M. Robben

<u>13 September 2022</u> Date





Annex 1 to EU-type examination certificate for the Radio Equipment Directive 2014/53/EU

Date of issue: 13 September 2022 ACB project number: ATCB029407 Technical documentation (TD) reference: RED_TD_AX201NGW_rev2 Certificate number: ATCB029407, issue 1

The radio equipment as described and documented in the technical documentation as drawn up by the manufacturer is a wireless LAN module which supports the IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11a, IEEE 802.11ac and IEEE 802.11ax standards. This wireless LAN module also supports Bluetooth[®] 5 radio technologies.

The radio equipment has been assessed for use in an ambient temperature range of -10 °C to +60 °C (5150 MHz to 5350 MHz and 5470 MHz to 5725 MHz in MIMO mode) / -10 °C to +70 °C (all other supported modes and frequency ranges) and for use with a nominal input voltage of 3.3 V DC. The radio equipment has been assessed for a body worn RF exposure condition and where the resulting SAR value is 1.12 W/kg (10g). The radio equipment has been assessed assuming that each antenna port is connected to an external antenna having a peak gain of:

2400 MHz to 2483.5 MHz:

Description	Transmitter chain A (main)	Transmitter chain B (aux)
Manufacturer	SkyCross	SkyCross
Antenna type	PIFA antenna	PIFA antenna
Antenna peak gain	+3 dBi	+3 dBi

5150 MHz to 5350 MHz, 5470 MHz to 5725 MHz and 5725 MHz to 5875 MHz:

Description	Transmitter chain A (main)	Transmitter chain B (aux)
Manufacturer	SkyCross	SkyCross
Antenna type	PIFA antenna	PIFA antenna
Antenna peak gain	+5 dBi	+5 dBi

The radio equipment has been tested in order to ensure that the radio equipment remains compliant with the essential requirements of the Radio Equipment Directive 2014/53/EU when an antenna, or antennas, with lower peak gain as listed above is/are used in combination with the radio equipment. The absolute maximum allowable increase in conducted RF output power, based on an equivalent or larger decrease in peak antenna gain, is specified as being:

2400 MHz to 2483.5 MHz: +2 dB (for IEEE 802.11b/g/n/ax modes only) 5150 MHz to 5350 MHz: +3 dB 5470 MHz to 5725 MHz: +3 dB 5725 MHz to 5875 MHz: +7 dB





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When installing this radio equipment into a host product to create a new radio equipment device: the manufacturer responsible for placing the new radio equipment device on the market in the EU must assess if the combination of this radio equipment and the host product complies with the essential requirements of the Radio Equipment Directive 2014/53/EU.

Details of operation:

Description of service: Transmit frequency: Receive frequency: Modulation: Transmit power:

Description of service: Transmit frequency: Receive frequency: Modulation: Transmit power:

Description of service: Transmit frequency:

Receive frequency:

Modulation:

Transmit power:

Bluetooth Basic Rate + EDR 2402 MHz to 2480 MHz 2402 MHz to 2480 MHz GFSK, $\pi/4$ DQPSK, 8DPSK 13.6 dBm, e.i.r.p.

Bluetooth Low Energy (BLE) 2402 MHz to 2480 MHz 2402 MHz to 2480 MHz GFSK 9.7 dBm, e.i.r.p.

IEEE 802.11b/g/n/ax WLAN 2412 MHz to 2472 MHz (20 MHz) 2422 MHz to 2462 MHz (40 MHz) 2412 MHz to 2472 MHz (20 MHz) 2422 MHz to 2462 MHz (40 MHz) DSSS (DBPSK, DQPSK, CCK), OFDM/OFDMA (BPSK, QPSK, 16QAM, 64QAM, 1024QAM, 1024QAM) 20.0 dBm, e.i.r.p.





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Description of service:	IEEE 802.11a/n/ac/ax WLAN	
Transmit frequency:	5180 MHz to 5320 MHz (20 MHz)	
	5190 MHz to 5310 MHz (40 MHz)	
	5210 MHz, 5290 MHz (80 MHz) 5250 MHz (160 MHz)	
Receive frequency:	5180 MHz to 5320 MHz (20 MHz)	
necerve nequency.	5190 MHz to 5310 MHz (40 MHz)	
	5210 MHz, 5290 MHz (80 MHz)	
	5250 MHz (160 MHz)	
Modulation:	OFDM/OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)	
Transmit power:	23.0 dBm, e.i.r.p.	
Description of service:	IEEE 802.11a/n/ac/ax WLAN	
Transmit frequency:	5500 MHz to 5700 MHz (20 MHz)	
	5510 MHz to 5670 MHz (40 MHz)	
	5530 MHz, 5610 MHz (80 MHz)	
Receive frequency:	5570 MHz (160 MHz)	
Receive frequency:	5500 MHz to 5700 MHz (20 MHz) 5510 MHz to 5670 MHz (40 MHz)	
	5530 MHz, 5610 MHz (80 MHz)	
	5570 MHz (160 MHz)	
Modulation:	OFDM/OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)	
Transmit power:	23.0 dBm, e.i.r.p.	
Description of service:	IEEE 802.11a/n/ac/ax WLAN	
Transmit frequency:	5745 MHz to 5825 MHz (20 MHz)	
1 5	5755 MHz to 5795 MHz (40 MHz)	
	5775 MHz (80 MHz)	
Receive frequency:	5745 MHz to 5825 MHz (20 MHz)	
	5755 MHz to 5795 MHz (40 MHz) 5775 MHz (80 MHz)	
Modulation:	OFDM/OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)	
Transmit power:	13.95 dBm, e.i.r.p.	





Annex 2 to EU-type examination certificate for the Radio Equipment Directive 2014/53/EU				
	ue: 13 September 2022 ect number: ATCB029407	Technical documentation (TD) refere Certificate number: ATCB029407, is		
1 Test	report:	Report number:	Dated:	
	io io io io io io	18062201.e01 180717-02.TR12 180717-02.TR13 180717-02.TR14 180717-02.TR15 180717-02.TR16 180717-02.TR17 180717-02.TR26 180717-02.TR18 463591	 12 September 2018 17 December 2018 23 January 2019 18 January 2019 17 December 2018 17 June 2020 13 June 2019 27 November 2019 13 December 2018 31 March 2022 	
Ante Asse Exte Ope	ical documentation provided: enna details embly drawing(s) ernal photographs rational description luction quality assurance	Article 10.2 declaration Block diagram Internal photographs Parts list/bill of materials Risk assessment document	Article 10.10 information Circuit diagram/schematics Label drawing/location PCB layout Software version declaration	

3 Standards applied in full or in part or other solutions adopted to demonstrate conformity with the essential requirements of the Radio Equipment Directive 2014/53/EU:

Test setup photographs

Radio spectrum (Article 3.2):	EN 300 328 V2.2.2 EN 300 440 V2.2.1	EN 301 893 V2.1.1
EMC (Article 3.1b):	EN 301 489-1 V2.2.3 EN 301 489-3 V2.1.1	EN 301 489-17 V3.2.4
RF safety (Article 3.1a): Product safety (Article 3.1a):	EN 50566: 2017 EN IEC 62368-1: 2020 + EN	IEC 62368-1: 2020/A11: 2020
		IEE 02500 1. 2020/1111. 2020

Note: Essential requirements of Article 3 of the Radio Equipment Directive 2014/53/EU not listed above have been deemed as not being applicable to the radio equipment as described in this EU-type examination certificate.



Test reports

Declaration of conformity



User manual

Annex 2 to EU-type examination certificate for the Radio Equipment Directive 2014/53/EU

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4 Additional information:

The conditions for use of the radio spectrum in the 5150-5250 MHz, 5250-5350 MHz and 5470-5725 MHz frequency bands shall be based on EC Decision (EU) 2022/179 of 8 February 2022.

<u>Radio Equipment Directive 2014/53/EU, Article 10.4</u>: Manufacturers shall keep the technical documentation and the EU declaration of conformity for 10 years after the radio equipment has been placed on the market.

<u>Radio Equipment Directive 2014/53/EU, Article 10.6</u>: 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.

<u>Radio Equipment Directive 2014/53/EU, Article 10.7</u>: 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.

<u>Radio Equipment Directive 2014/53/EU, Article 10.8</u>: 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 Member State concerned. 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.

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.

<u>Radio Equipment Directive 2014/53/EU, Article 10.9</u>: Manufacturers shall ensure that each item of radio equipment is accompanied by a copy of the EU declaration of conformity or by a simplified EU declaration of conformity. Where a simplified EU declaration of conformity is provided, it shall contain the exact internet address where the full text of the EU declaration of conformity can be obtained.

<u>Radio Equipment Directive 2014/53/EU, Article 10.10</u>: 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 Member States or the geographical area within a Member State 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.

<u>Radio Equipment Directive 2014/53/EU, Article 19.2</u>: On account of the nature of radio equipment, the height of the CE marking affixed to radio equipment may be lower than 5 mm, provided that it remains visible and legible.

<u>Radio Equipment Directive 2014/53/EU</u>, <u>Article 20.1</u>: The CE 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 CE marking shall also be affixed visibly and legibly to the packaging.





Annex 2 to EU-type examination certificate for the Radio Equipment Directive 2014/53/EU

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<u>Radio Equipment Directive 2014/53/EU, Annex III, Module B.7</u>: The manufacturer shall inform the notified body that holds the technical documentation relating to the EU-type examination certificate of all modifications to the approved type that may affect the conformity of the radio equipment with the essential requirements of this Directive or the conditions for validity of that certificate. Such modifications shall require additional approval in the form of an addition to the original EU-type examination certificate.

This Notified Body EU-type examination certificate has a validity of 10 years from the date of issue.

As per guidance in REDCA document TGN 29 v2.0a of March 2020 this EU-type examination certificate automatically expires in the following cases:

- Changes in the product identification and/or the manufacturer's identification at stated on this EU-type examination certificate (without any technical change);

- Technical modifications in the product(s) covered by this EU-type examination certificate that affect the compliance of the product(s) with the essential requirements of the Radio Equipment Directive 2014/53/EU;

- Revisions and/or updates in the (harmonized) standards applied in full or in part or other solutions adopted as listed in this EU-type examination certificate which affect the demonstration of compliance of the product(s) with the essential requirements of the Radio Equipment Directive 2014/53/EU.

To avoid the automatic expiration of the EU-type examination certificate, any of the three cases above would require a re-assessment of (parts of) the updated technical documentation of the product(s) and an update/re-issue of the EU-type examination certificate by the Notified Body.

5 Contact information:

For contact with ACB or questions regarding this type examination certificate: Web: <u>www.acbcert.com</u> <u>http://acbcert.com/contact</u>

Tel.: (+1) 703 847 4700



