Intel® WiFi Adapter Information Guide

This version of Intel® PROSet/Wireless WiFi Software is compatible with the adapters listed below. Note that newer features provided in this software are generally not supported on older generations of wireless adapters.

The following adapters are supported in Windows 11*

- Intel® Wi-Fi 7**BE201**

With your WiFi network card, you can access WiFi networks, share files or printers, or even share your Internet connection. All these features can be explored using a WiFi network in your home or office. This WiFi network solution is designed for both home and business use. Additional users and features can be added as your networking needs grow and change.

This guide contains basic information about Intel adapters. Intel® wireless adapters enable fast connectivity without wires for desktop and notebook PCs.

- Adapter Settings
- Regulatory and Safety Information
- Specifications
- Support
- Warranty

Depending on the model of your Intel WiFi adapter, your adapter is compatible with 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac , 802.11ax, 802.11be wireless standards. Operating 2.4GHz, 5GHz or 6GHz (in countries allowing it) frequency, you can now connect your computer to existing high-speed networks that use multiple access points within large or small environments. Your WiFi adapter maintains automatic data rate control according to the access point location and signal strength to achieve the fastest possible connection.

Information in this document is subject to change without notice.

Intel Corporation assumes no responsibility for errors or omissions in this document. Nor does Intel make any commitment to update the information contained herein.

IMPORTANT NOTICE FOR ALL USERS OR DISTRIBUTORS:

Intel wireless LAN adapters are engineered, manufactured, tested, and quality checked to ensure that they meet all necessary local and governmental regulatory agency requirements for the regions that they are designated and/or marked to ship into. Because wireless LANs are generally unlicensed devices that share spectrum with radars, satellites, and other licensed and unlicensed devices, it is sometimes necessary to dynamically detect, avoid, and limit usage to avoid interference with these devices. In many instances Intel is required to provide test data to prove

regional and local compliance to regional and governmental regulations before certification or approval to use the product is granted. Intel's wireless LAN's EEPROM, firmware, and software driver are designed to carefully control parameters that affect radio operation and to ensure electromagnetic compliance (EMC). These parameters include, without limitation, RF power, spectrum usage, channel scanning, and human exposure.

For these reasons Intel cannot permit any manipulation by third parties of the software provided in binary format with the wireless LAN adapters (e.g., the EEPROM and firmware). Furthermore, if you use any patches, utilities, or code with the Intel wireless LAN adapters that have been manipulated by an unauthorized party (i.e., patches, utilities, or code (including open source code modifications) which have not been validated by Intel), (i) you will be solely responsible for ensuring the regulatory compliance of the products, (ii) Intel will bear no liability, under any theory of liability for any issues associated with the modified products, including without limitation, claims under the warranty and/or issues arising from regulatory non-compliance, and (iii) Intel will not provide or be required to assist in providing support to any third parties for such modified products.

Note: Many regulatory agencies consider Wireless LAN adapters to be "modules", and accordingly, condition system-level regulatory approval upon receipt and review of test data documenting that the antennas and system configuration do not cause the EMC and radio operation to be non-compliant.

Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and/or other countries.

*Other names and brands may be claimed as the property of others.

© Intel Corporation.

April 2023

Back to Contents

Adapter Settings

The **Advanced** tab displays the device properties for the WiFi adapter installed on your computer.

How to Access

Double-click on the Intel WiFi adapter in the Network adapters section of the Device Manager and select the **Advanced** tab.

A description of the WiFi adapter settings on the Advanced tab can be found here:

https://www.intel.com/content/www/us/en/support/articles/000005585/network-and-i-o/wireless-networking.html

---

Back to Top

Back to Contents

Trademarks and Disclaimers

Back to Contents

Regulatory Information

This section provides regulatory information for the following wireless adapters:

- Intel® Wi-Fi 7 **BE201**

  NOTE: Due to the evolving state of regulations and standards in the wireless LAN field (IEEE 802.11 and similar standards), the information provided herein is subject to change. Intel Corporation assumes no responsibility for errors or omissions in this document.

Intel WiFi Adapters - 802.11b/g/a/n/ac/ax/be, Compliant

The information in this section applies to the following products:

Intel® Wi-Fi 7 **BE201**

See Specifications for complete wireless adapter specifications.

NOTE: In this section, all references to the "wireless adapter" refer to all adapters listed above.

The following information is provided:

- Information for the User
- Regulatory Information
- Regulatory ID
- Information for OEMs and Host Integrators
- Statements of European Compliance

INFORMATION FOR THE USER

Safety Notices

USA FCC Radio Frequency Exposure

The FCC with its action in ET Docket 96-8 has adopted a safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC certified equipment. The wireless adapter meets the Human Exposure requirements found in FCC Part 2, 15C, 15E along with guidance from KDB 447498, KDB 248227 and KDB 616217. Proper operation of this radio according to the instructions found in this manual will result in exposure substantially below the FCC's recommended limits.

The following safety precautions should be observed:

- Do not touch or move antenna while the unit is transmitting or receiving.
- Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.
- Do not operate the radio or attempt to transmit data unless the antenna is connected; this behavior may cause damage to the radio.
- Use in specific environments:
  - The use of wireless adapters in hazardous locations is limited by the constraints posed by the safety directors of such environments.
  - The use of wireless adapters on airplanes is governed by the Federal Aviation Administration (FAA).
  - The use of wireless adapters in hospitals is restricted to the limits set forth by each hospital.

Explosive Device Proximity Warning

Warning: Do not operate a portable transmitter (including this wireless adapter) near unshielded blasting caps or in an explosive environment unless the transmitter has been modified to be qualified for such use.

Antenna Warnings

Warning: The wireless adapter is not designed for use with high-gain directional antennas.

Use On Aircraft Caution

Caution: Regulations of commercial airline operators may prohibit airborne operation of certain electronic devices equipped with radio-frequency wireless devices (wireless adapters) because their signals could interfere with critical aircraft instruments.

Caution: Operation of transmitter in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems

Other Wireless Devices

Safety Notices for Other Devices in the Wireless Network: See the documentation supplied with wireless adapters or other devices in the wireless network.

Wireless Interoperability

The wireless adapter is designed to be interoperable with other wireless LAN products that are based on direct sequence spread spectrum (DSSS) radio technology and to comply with the following standards:

- IEEE Std. 802.11b compliant Standard on Wireless LAN
- IEEE Std. 802.11g compliant Standard on Wireless LAN
- IEEE Std. 802.11a compliant Standard on Wireless LAN
- IEEE Std. 802.11n compliant Standard on Wireless LAN
- IEEE Std. 802.11ac compliant on Wireless LAN
- IEEE Std. 802.11ax compliant on Wireless LAN
- IEEE Std. 802.11be compliant Standard on Wireless LAN
- Wireless Fidelity certification, as defined by the Wi-Fi Alliance

The Wireless Adapter and Your Health

The wireless adapter, like other radio devices, emits radio frequency electromagnetic energy. The level of energy emitted by the wireless adapter, however, is less than the electromagnetic energy emitted by other wireless devices such as mobile phones. The wireless adapter operates within the guidelines found in radio frequency safety standards and recommendations. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature. In some situations or environments, the use of the wireless adapter may be restricted by the proprietor of the building or responsible representatives of the applicable organization. Examples of such situations may include:

- Using the wireless adapter on board airplanes, or
- Using the wireless adapter in any other environment where the risk of interference with other devices or services is perceived or identified as being harmful.

If you are uncertain of the policy that applies to the use of wireless adapters in a specific organization or environment (an airport, for example), you are encouraged to ask for authorization to use the adapter before you turn it on.

REGULATORY INFORMATION

USA - Federal Communications Commission (FCC)

This wireless adapter is restricted to indoor use due to its operation in the following frequency ranges. 5.850 to 5.895 and 5.925 to 6.425GHz and 6.875GHz to 7.125GHz frequency ranges. No configuration controls are provided for Intel® wireless adapters allowing any change in the frequency of operations outside the FCC grant of authorization for U.S. operation according to Part 15.407 of the FCC rules.

- Intel® wireless adapters are intended for OEM integrators only.
- Intel® wireless adapters cannot be co-located with any other transmitter unless approved by the FCC.

This wireless adapter complies with Part 15 of the FCC Rules. Operation of the device is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference that may cause undesired operation.

NOTE: The radiated output power of the adapter is far below the FCC radio frequency exposure limits. Nevertheless, the adapter should be used in such a manner that the potential for human contact during normal operation is minimized. To avoid the possibility of exceeding the FCC radio frequency exposure limits, you should keep a distance of at least 20cm between you (or any other person in the vicinity), or the minimum separation distance as specified by the FCC grant conditions, and the antenna that is built into the computer. Details of the authorized configurations can be found at http://www.fcc.gov/oet/ea/ by entering the FCC ID number on the device.

Class B Device Interference Statement

This wireless adapter has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This wireless adapter generates, uses, and can radiate radio frequency energy. If the wireless adapter is not installed and used in accordance with the instructions, the wireless adapter may cause harmful interference to radio communications. There is no guarantee, however, that such interference will not occur in a particular installation. If this wireless adapter does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user is encouraged to try to correct the interference by taking one or more of the following measures:

- Reorient or relocate the receiving antenna of the equipment experiencing the interference.
- Increase the distance between the wireless adapter and the equipment experiencing the interference.
- Connect the computer with the wireless adapter to an outlet on a circuit different from that to which the equipment experiencing the interference is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: The adapter must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. Any other installation or use will violate FCC Part 15 regulations.

Safety Approval Considerations

This device has been safety approved as a component and is for use only in complete equipment where the acceptability of the combination is determined by the appropriate safety agencies. When installed, consideration must be given to the following:

- It must be installed into a compliant host device meeting the requirement of UL/EN/IEC 62368-1 including the general provisions of enclosure design 1.6.2 and specifically paragraph 1.2.6.2 (Fire Enclosure).
- The device shall be supplied by a SELV source when installed in the end-use equipment.
- A heating test shall be considered in the end-use product for meeting the requirement of UL/EN/IEC 62368-1.

Low Halogen

Applies only to brominated and chlorinated flame retardants (BFRs/CFRs) and PVC in the final product. Intel components as well as purchased components on the finished assembly meet JS-709 requirements, and the PCB / substrate meet IEC 61249-2-21 requirements. The replacement of halogenated flame retardants and/or PVC may not be better for the environment.

Canada – Industry Canada (IC)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil se conforme aux normes Canada d'Industrie de RSS permis-exempt. L'utilisation est assujetti aux deux conditions suivantes: (1) cet appareil ne peut pas causer d'interférences, et (2) cet appareil doit accepter des interférences , y compris des interférences qui peuvent causer desopérations non désirées de l'appareil.

Caution: When using 5GHz band for wireless LAN, this product is restricted to indoor use due to its operation in the 5.150 GHz to 5.250 GHz and 5.850 GHz to 5.895 GHz frequency range. Industry Canada requires this product to be used indoors for the frequency range of 5.150 GHz to 5.250 GHz to reduce the potential for harmful interference to co-channel mobile satellite systems. High power radar is allocated as the primary user of the 5.250 GHz to 5.350 GHz and 5.650 GHz to 5.850 GHz bands. These radar stations can cause interference with and/or damage to this device. The maximum allowed antenna gain for use with this device is 6dBi in order to comply with the E.I.R.P limit for the 5.250 GHz to 5.350 GHz and 5.725 GHz to 5.850 GHz frequency range in point-to-point operation. To comply with RF exposure requirements all antennas should be located at a minimum distance of 20cm, or the minimum separation distance allowed by the module approval, from the body of all persons.

Attention: l'utilisation à 5 GHz pour un sans fil est restreinte à une utilisation en intérieur à cause du fonctionnement dans la bande de fréquence 5.150 GHz - 5.250 GHz et 5.850 GHz - 5.895 GHz. Industry Canada requiert que ce produit soit utilisé à l'intérieur des bâtiments pour la bande de fréquence 5.150 GHz - 5.250 GHz afin de réduire les possibilités d'interférences nuisibles aux canaux co-existants des systèmes de transmission satellites. Les radars de puissances ont fait l'objet d'une allocation primaire de fréquences dans les bandes 5.250 GHz - 5.350 GHz et 5.650 GHz - 5.850 GHz. Ces stations radar peuvent créer des interférences avec ce produit et/ou lui être nuisible. Le gain d'antenne maximum permissible pour une utilisation avec ce produit est de 6 dBi afin d'être conforme aux limites de puissance isotropique rayonnée équivalente (P.I.R.E.) applicable dans les bandes 5.250 GHz - 5.350 GHz et 5.725 GHz - 5.850 GHz en fonctionnement point-à-point. Pour se conformer aux conditions d'exposition de RF toutes les antennes devraient être localisées à une distance minimum de 20 cm, ou la distance de séparation minimum permise par l'approbation du module, du corps de toutes les personnes.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Selon les règlements de Canada d'Industrie, cet émetteur de radio peut seulement fonctionner en utilisant une antenne du type et de gain maximum (ou moindre) que le gain approuvé pour l'émetteur par Canada d'Industrie. Pour réduire lesinterférences radio potentielles avec les autres utilisateurs, le type d'antenne et son gain devraient être choisis de façon à ce que la puissance isotrope rayonnée équivalente(P.I.R.E.) ne soit pas supérieure à celle qui est nécessaire pour une communication réussie.

European Union

The low band 5.150 GHz - 5.350 GHz is for indoor use only.

The 6E band 5.925 GHz - 6.425GHz is for Low Power in-door (LPI) and Very Low Power (VLP)



This equipment complies with the essential requirements of the European Union directive 2014/53/EU. See Statements of European Union Compliance.

European Union Declarations of Conformity

To view the European Union Declaration of Conformity for your adapter, perform these steps.

1. Open this web site: http://www.intel.com/content/www/us/en/support/network-and-i-o/wireless-networking/000007443.html
2. Click on "User Guide."
3. Scroll to your adapter.

To view additional regulatory information for your adapter, perform these steps:

1. Open this web site: http://www.intel.com/content/www/us/en/support/network-and-i-o/wireless-networking/000007443.html
2. Click on the link for your adapter.
3. Click on **Regulatory Marking Document** for your adapter.

Waste Electrical and Electronic Equipment Directive (WEEE)



Restriction of Hazardous Substances Directive (RoHS) Compliant

All products described herein are compliant with the European Union's RoHS Directive.

For CE Mark-Related Questions related to the wireless adapter, contact:

Intel Corporation Attn: Corporate Quality 2200 Mission College Blvd. Santa Clara, CA 95054-1549 USA

Japan

5GHz 帯は室内でのみ使用のこと

5GHz band (W52, W53) and 6GHz (LPI): Indoor use only (Except communicate to W52 high power radio)

5.2GHz帯高出力データ通信システム基地局又は陸上移動中継局と通信する場合を除く

Korea

해당 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음.
해당 무선 설비는 5150 MHz-5250 MHz 대역에서 실내에서만 사용할 수 있음.

Mexico

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Morocco

The operation of this product in the radio channel 2 (2417 MHz) is not authorized in the following cities:

Agadir, Assa-Zag, Cabo Negro, Chaouen, Goulmima, Oujda, Tan Tan, Taourirt, Taroudant,Taza.

The operation of this product in the radio channels 4, 5, 6 et 7 (2425 MHz - 2442 MHz) is not authorized in the following cities:

Aéroport Mohamed V, Agadir, Aguelmous, Anza, Benslimane, Béni Hafida, Cabo Negro, Casablanca, Fès, Lakbab, Marrakech, Merchich, Mohammédia, Rabat, Salé, Tanger, Tan Tan, Taounate, Tit Mellil, Zag.

Pakistan

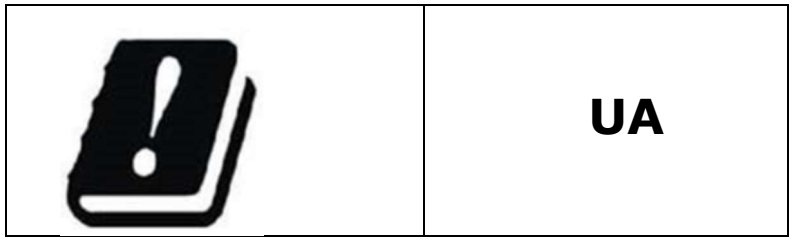
"PTA APPROVED MODEL"

Taiwan Region

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

應避免影響附近雷達系統之操作。高增益指向性天線只得應用於固定式點對點系統。

Ukraine



Radio Approvals

To determine whether you are allowed to use your wireless network device in a specific country, please check to see if the radio type number that is printed on the identification label of your device is listed in the manufacturer's OEM Regulatory Guidance document.

Modular Regulatory Certification Country Markings

A list of countries requiring regulatory markings is available. Note that the lists include only countries requiring marking but not all certified countries. To find the regulatory country marking information for your adapter, perform these steps:

1. Open this web site: http://www.intel.com/content/www/us/en/support/network-and-i-o/wireless-networking/000007443.html
2. Click on the link for your adapter.
3. Click on **Regulatory Marking Document** for your adapter.

Regulatory ID

Intel® Wi-Fi 7 BE201 (BE201NGW) and **Intel® Wi-Fi 7 BE201 (BE201D2W)**

Due to the very small size of the **BE201**NGW and **BE201**D2W, the marking has been placed in this user manual because the product label on the device is considered too small to be readable.

Argentina

- Model BE201NGW: H-30470
- Model BE201D2W: H-30471

Australia

- Model BE201NGW and BE201D2W:

Brazil

- Model BE201NGW: 23074-23-04423

23074-23-04423

- Model BE201D2W: 23073-23-04423

23073-23-04423

Canada

- Model BE201NGW: 1000M-BE201NG
- Model BE201D2W: 1000M-BE201D2

China Mainland

- Model BE201NGW: CMIIT ID: 24J99US5B685(M)
- Model BE201D2W: CMIIT ID: 24J99US56105(M)

Europe

- Model BE201NGW and BE201D2W:

Software Version	Intel® PROSet/Wireless WiFi Software 23.x and subsequent versions
Maximum Power Output	
(2400 - 2483.5 MHz) IEEE802.11 b/g/n/ax/be mode Bluetooth	20dBm EIRP max (100mW)
(2400 - 2483.5 MHz) BLE	10dBm EIRP max (10mW)
(5150 - 5725 MHz) IEEE802.11 a/n/ac/ax/be mode	23dBm EIRP max (200mW) The low band 5.15 - 5.35 GHz is for indoor use only
(5725 - 5875 MHz) IEEE802.11 a/n/ac/ax/be mode	13.98 dBm EIRP Max (25mW) For the standard EN 300 440, the device operating in 5.8 GHz is considered a category 2 receiver
(5925 - 6425 MHz) IEEE802.11ax/be	23 dBm EIRP max (200mW) The band 5.925 - 6.425GHz is for LPI (Low Power in-door)

This equipment complies with the essential requirements of the European Union directive 2014/53/EU.

CE

Indonesia

- Model BE201NGW:

	96998/SDPPI/2024	

- Model BE201D2W:

	97848/SDPPI/2024	

Japan

- Model BE201NGW:
  RF: 003-240006

TEL: D240007003



5GHz band (W52, W53) and 6GHz (LPI):
Indoor use only (Except communicate to W52 high power radio)

- Model BE201D2W:
  RF: 003-240007
  TEL: D240008003



5GHz band (W52, W53) and 6GHz (LPI):
Indoor use only (Except communicate to W52 high power radio)

New Zealand

- Model BE201NGW and BE201D2W:



Pakistan

- Model BE201NGW:



APPROVED by PTA

TAC NO:9.238/2024

- Model BE201D2W:



APPROVED by PTA

TAC NO: 9.314/2024

Paraguay

Regulatory Information

- Model BE201NGW:

2024-04-I-0330

- Model BE201D2W:

2024-04-I-0349

Singapore

- Model BE201NGW and BE201D2W:

Complies with
IMDA Standards
DA108442

South Korea

- Model BE201NGW:

R-C-INT-BE201NGW

1.상 호 명: INTEL CORPORATION
2.기자재의 명칭 (모델명): 특정소출력 무선기기(무선랜을 포함한 무선접속시스템용 무선기기) BE201NGW
3.제조시기: 2024/01
4.제 조 자/제 조 국 : INTEL CORPORATION / China, Taiwan

- Model BE201D2W:

R-C-INT-BE201D2W

1.상 호 명: INTEL CORPORATION
2.기자재의 명칭 (모델명): 특정소출력 무선기기(무선랜을 포함한 무선접속시스템용 무선기기) BE201D2W
3.제조시기: 2024/03
4.제 조 자/제 조 국 : INTEL CORPORATION / China, Taiwan

Taiwan Region

- Model BE201NGW:

CCAH24Y10150T7

- Model BE201D2W:

  CCAH24Y10410T7

United Kingdom (UK)

- Model BE201NGW and BE201D2W:

USA

- Model BE201NGW:

  FCC ID: PD9BE201NG

- Model BE201D2W:

  FCC ID: PD9BE201D2

INFORMATION FOR OEMS and HOST INTEGRATORS

The guidelines described within this document are provided to OEM integrators installing Intel® wireless adapters in notebook and tablet PC host platforms. Adherence to these requirements is necessary to meet the conditions of compliance with FCC rules, including RF exposure. When all antenna type and placement guidelines described herein are fulfilled the Intel® wireless adapters may be incorporated into notebook and tablet PC host platforms with no further restrictions. If any of the guidelines described herein are not satisfied it may be necessary for the OEM or integrator to perform additional testing and/or obtain additional approval. The OEM or integrator is responsible to determine the required host regulatory testing and/or obtaining the required host approvals for compliance. If needed, please contact the applicant/grantee (Intel) regarding detailed information on how to setup the device for any compliance testing that the OEM integrator is responsible per **KDB 996369 D04**.

- Intel® wireless adapters are intended for OEMs and host integrators only.
- The Intel® wireless adapter FCC Grant of Authorization describes any limited conditions of modular approval.
- The Intel® wireless adapters must be operated with an access point that has been approved for the country of operation.
- Changes or modification to Intel® wireless adapters by OEMs, integrators or other third parties is not permitted. Any changes or modification to Intel® wireless adapters by OEMs, integrators or other third parties will void authorization to operate the adapter.
- **Brazil:** Information to be supplied to the End User by the OEMs and Integrators: "Incorporates product approved by Anatel under number HHHH-AA-FFFFF." (Intel Module made in China Mainland/Taiwan Region/Brazil).

Antenna Type and Gains

Only antennas of the same type and with equal or less gains as 3dBi for the 2.4 GHz band and 5 dBi for the 5 GHz and 6-7 GHz bands shall be used with the Intel® wireless adapters. Other types of antennas and/or higher gain antennas may require additional authorization for operation. For testing purposes the following dual band antenna that approximates closely the above limits was used:

Antenna Peak gain with cable loss (dBi)										
Antenna type	2.4 GHz	5.2 GHz	5.3 GHz	5.6 GHz	5.8 GHz	5.9 GHz	6.2 GHz	6.5 GHz	6.7 GHz	7.0 GHz
PIFA	2.95	5.11	4.55	5.15	5.13	4.45	5.02	4.88	4.96	4.96
Dipole	2.95	4.03	4.11	5.15	5.13	4.45	5.02	4.71	4.49	4.96
Monopole	2.83	4.57	4.44	4.95	4.95	4.43	4.87	4.91	4.91	4.79
Modules: **BE201**NGW, **BE201**D2W										

Above 6 GHz. 3D Peak Antenna Gain tested within the host should be equal or greater than -2 dBi. If the host antenna design in same type with measured peak antenna gain lower than -2 dBi, then CBP(FCC)/EDT(EU) testing must be performed while the module is installed in the host.

Simultaneous Transmission of Intel® Wireless Adapters with Other Integrated or Plug-In Transmitters

Based upon FCC Knowledge Database publication number 616217, when there are multiple transmitting devices installed in a host device, an RF exposure transmitting assessment shall be performed to determine the necessary application and test requirements. OEM integrators must identify all possible combinations of simultaneous transmission configurations for all transmitters and antennas installed in the host system. This includes transmitters installed in the host as mobile devices (>20 cm separation from user) and portable devices (<20 cm separation from user). OEM integrators should consult the actual FCC KDB 616217 document for all details in making this assessment to determine if any additional requirements for testing or FCC approval is necessary.

Antenna Placement Within the Host Platform

To ensure RF exposure compliance the antenna(s) used with the Intel® wireless adapters must be installed in notebook or tablet PC host platforms to provide a minimum separation distance from all persons, in all operating modes and orientations of the host platform, with strict adherence to the table below. The antenna separation distance applies to both horizontal and vertical orientation of the antenna when installed in the host system.

Any separation distances less than those shown will require additional evaluation and FCC authorization.

For WiFi/Bluetooth combination adapters it is recommended that a 5 cm separation distance between transmitting antennas be provided within the host system to maintain an adequate separation ratio for simultaneous WiFi and Bluetooth transmission. For less than 5 cm separation the separation ratio must be verified according to FCC publication KDB 447498 for the specific adapter.

	Minimum required antenna-to-user separation distance for a Pifa antenna	
Wireless Adapter	**Using a PIFA antenna**	**using a Dipole/Monopole antenna**
Intel® Wi-Fi 7 **BE201** (**BE201**NGW)	49 mm	20 cm
Intel® Wi-Fi 7 **BE201** (**BE201**D2W)	38 mm	20 cm
The Monopole and Dipole antennas are certified under mobile configurations and require > 20 cm separation from the body of user.		

Information To Be Supplied to the End User by the OEM or Integrator

The following regulatory and safety notices must be published in documentation supplied to the end user of the product or system incorporating the Intel® wireless adapter, in compliance with local regulations. Host system must be labeled with "Contains FCC ID: XXXXXXXX", FCC ID displayed on label.

The wireless adapter must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. For country-specific approvals, see Radio Approvals. Intel Corporation is not responsible for any radio or television interference caused by unauthorized modification of the devices included with the wireless adapter kit or the substitution or attachment of connecting cables and equipment other than that specified by Intel Corporation. The correction of interference caused by such unauthorized modification, substitution or attachment is the responsibility of the user. Intel Corporation and authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from the user failing to comply with these guidelines.

China Mainland:

模块通过型号核准并不代表嵌入或使用该模块的最终设备符合相关无线电管理技术规定或标准，最终设备厂商须对产品的技术特性是否符合无线电管理技术规定或标准负责

Local Restriction of 802.11b/g/a/n/ac/ax/be Radio Usage

The following statement on local restrictions must be published as part of the compliance documentation for all 802.11b/g/a/n/ac/ax/be products.

⚠ **Caution**: Due to the fact that the frequencies used by 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac, 802.11ax and 802.11be wireless LAN devices may not yet be harmonized in all countries, 802.11a, 802.11b, 802.11g and 802.11n, 802.11ac, 802.11ax and 802.11be products are designed for use only in specific countries, and are not allowed to be operated in countries other than those of designated use. As a user of these products, you are responsible for ensuring that the products are used only in the countries for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country of use. Any deviation from permissible settings and restrictions in the country of use could be an infringement of national law and may be punished as such.

Statements of European Compliance

Each of the adapters listed below comply with the essential requirements of the European Union directive 2014/53/EU.

- Intel® Wi-Fi 7 **BE201**

Back to Top

Back to Contents

Trademarks and Disclaimers

Back to Contents

Specifications

This section provides specification information for the family of Intel® wireless adapters. The following list may not be all inclusive.

Intel® Wi-Fi 7 **BE201**

Intel® Wi-Fi 7 BE201 (BE201NGW/BE201D2W)

General	
Dimensions (H x W x D)	• M.2 2230: 22 mm x 30 mm x 2.4 mm [1.5 mm max (top side)/ 0.1 mm max (bottom side)] • M.2 1216: 12 mm x 16 mm x 1.7(±0.1) mm
Weight	• M.2 2230: 3.07 (±0.15) g M.2 1216: 0.75 (±0.04) g
Radio ON/OFF Control	Supported
Connector Interface	M.2: CNVio3
Operating Temperature (Ambient oven)	0 to +50 degrees Celsius
Humidity	50% to 90% RH non-condensing (at temperatures of 25 °C to 35 °C)
Operating Systems	Microsoft Windows 11*, Microsoft Windows 10*, Linux*
Wi-Fi Alliance* certification	Wi-Fi 7 Technology support, Wi-Fi CERTIFIED* 6 with Wi-Fi 6E, Wi-Fi CERTIFIED* a/b/g/n/ac, WMM*, WMM-PS*, WPA3*, PMF*, Wi-Fi Direct*, Wi-Fi Agile Multiband*, and Wi-Fi Location R2 HW readiness
IEEE WLAN Standard	IEEE 802.11-2020 and select amendments (selected feature coverage) IEEE 802.11a, b, d, e, g, h, i, k, n, r, u, v, w, ac, ax, be; Fine Timing Measurement based on 802.11-2016 Wi-Fi Location R2 (802.11az) HW readiness

Bluetooth	Bluetooth* 5.4		
Security			
Authentication	WPA3* personal and enterprise WPA2* transition mode		
Authentication Protocols	802.1X EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA')		
Encryption	128-bit AES-CCMP, 256-bit AES-GCMP		
Compliance			
Regulatory	For a list of country approvals, please contact your local Intel representatives.		
US Government	FIPS 140-2		
Product Safety	UL, C-UL, CB (IEC 62368-1)		
Model Numbers			
Models	**BE201**NGW	Wi-Fi 7, 2x2, Bluetooth* 5.4, M.2 2230	
	BE201D2W	Wi-Fi 7, 2x2, Bluetooth* 5.4, M.2 1216	
Frequency Modulation	**6-7GHz (802.11ax R2) (802.11be)**	**5GHz (802.11a/n/ac/ax/be)**	**2.4GHz (802.11b/g/n/ax/be)**
Frequency band	FCC: 5.925 GHz-7.125 GHz EU: 5.925 GHz- 6.425 GHz (dependent on country)	5.150 GHz - 5.895 GHz (dependent on country)	2.400 GHz - 2.4835 GHz (dependent on country)
Modulation	BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM, 1024 QAM, 4k-QAM (4096-QAM)	BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM, 1024 QAM. 4k-QAM (4096-QAM)	CCK, DQPSK, DBPSK, 16 QAM, 64 QAM, 256 QAM, 1024 QAM, 4k-QAM (4096-
Wireless Medium	6-7GHz: Orthogonal Frequency Division Multiple Access (OFDMA)	5GHz UNII: Orthogonal Frequency Division Multiple Access (OFDMA)	2.4GHz ISM: Orthogonal Frequency Division Multiple Access (OFDMA)
Channels	All channels as defined by the relevant specification and country rules.		
Data Rates	All data rates are theoretical maximums.		
IEEE 802.11be Data Rates	Up to 5.7Gbps		
IEEE 802.11ax Data Rates	Up to 2.4 Gbps		
IEEE 802.11ac Data Rates	Up to 867 Mbps		
IEEE 802.11n Data Rates	Tx/Rx (Mbps): 300, 270, 243, 240, 216.7, 195, 180, 173.3, 150, 144, 135, 130, 120, 117, 115.5, 90, 86.667, 72.2, 65, 60, 57.8, 45, 43.3, 30, 28.9, 21.7, 15, 14.4, 7.2		
IEEE 802.11a Data Rates	54, 48, 36, 24, 18, 12, 9, 6 Mbps		
IEEE 802.11g Data Rates	54, 48, 36, 24, 18, 12, 9, 6 Mbps		
IEEE 802.11b Data Rates	11, 5.5, 2, 1 Mbps		

Back to Top

Back to Contents

Trademarks and Disclaimers

Back to Contents

Customer Support

Intel support is available online or by telephone. Available services include the most up-to-date product information, installation instructions about specific products, and troubleshooting tips.

Online Support

Technical Support: http://www.intel.com/support

Network Product Support: http://www.intel.com/network

Corporate Web Site: http://www.intel.com

Back to Top

Back to Contents

Trademarks and Disclaimers

Back to Contents

Warranty Information

One-Year Limited Hardware Warranty

Limited Warranty

In this warranty statement, the term "Product" applies to the wireless adapters listed in Specifications.

Intel warrants to the purchaser of the Product that the Product, if properly used and installed, will be free from defects in material and workmanship and will substantially conform to Intel's publicly available specifications for the Product for a period of one (1) year beginning on the date the Product was purchased in its original sealed packaging.

SOFTWARE OF ANY KIND DELIVERED WITH OR AS PART OF THE PRODUCT IS EXPRESSLY PROVIDED "AS IS", SPECIFICALLY EXCLUDING ALL OTHER WARRANTIES, EXPRESS, IMPLIED (INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE), provided however, that Intel warrants that the media on which the software is furnished will be free from defects for a period of ninety (90) days from the date of delivery. If such a defect appears within the warranty period, you may return the defective media to Intel for replacement or alternative delivery of the software at Intel's discretion and without charge. Intel does not warrant or assume responsibility for the accuracy or completeness of any information, text, graphics, links or other items contained within the software.

If the Product which is the subject of this Limited Warranty fails during the warranty period for reasons covered by this Limited Warranty, Intel, at its option, will:

- **REPAIR** the Product by means of hardware and/or software; OR
- **REPLACE** the Product with another product, OR, if Intel is unable to repair or replace the Product,
- **REFUND** the then-current Intel price for the Product at the time a claim for warranty service is made to Intel under this Limited Warranty.

THIS LIMITED WARRANTY, AND ANY IMPLIED WARRANTIES THAT MAY EXIST UNDER APPLICABLE STATE, NATIONAL, PROVINCIAL OR LOCAL LAW, APPLY ONLY TO YOU AS THE ORIGINAL PURCHASER OF THE PRODUCT.

Extent of Limited Warranty

Intel does not warrant that the Product, whether purchased stand-alone or integrated with other products, including without limitation, semi-conductor components, will be free from design defects or errors known as "errata." Current characterized errata are available upon request. Further, this Limited Warranty does NOT cover: (i) any costs associated with the replacement or repair of the Product, including labor, installation or other costs incurred by you, and in particular, any costs relating to the removal or replacement of any Product soldered or otherwise permanently affixed to any printed circuit board or integrated with other products; (ii) damage to the Product due to external causes, including accident, problems with electrical power, abnormal, mechanical or environmental conditions, usage not in accordance with product instructions, misuse, neglect, accident, abuse, alteration, repair, improper or unauthorized installation or improper testing, or (iii) any Product which has been modified or operated outside of Intel's publicly available specifications or where the original product identification markings (trademark or serial number) have been removed, altered or obliterated from the Product; or (iv) issues resulting from modification (other than by Intel) of software products provided or included in the Product, (v) incorporation of software products, other than those software products provided or included in the Product by Intel, or (vi) failure to apply Intel-supplied modifications or corrections to any software provided with or included in the Product.

How to Obtain Warranty Service

To obtain warranty service for the Product, you may contact your original place of purchase in accordance with its instructions or you may contact Intel. To request warranty service from Intel, you must contact the Intel Customer Support ("ICS") center in your region (http://www.intel.com/support/wireless/) within the warranty period during normal business hours (local time), excluding holidays and return the Product to the designated ICS center. Please be prepared to provide: (1) your name, mailing address, email address, telephone numbers and, in the USA, valid

credit card information; (2) proof of purchase; (3) model name and product identification number found on the Product; and (4) an explanation of the problem. The Customer Service Representative may need additional information from you depending on the nature of the problem. Upon ICS's verification that the Product is eligible for warranty service, you will be issued a Return Material Authorization ("RMA") number and provided with instructions for returning the Product to the designated ICS center. When you return the Product to the ICS center, you must include the RMA number on the outside of the package. Intel will not accept any returned Product without an RMA number, or that has an invalid RMA number, on the package. You must deliver the returned Product to the designated ICS center in the original or equivalent packaging, with shipping charges pre-paid (within the USA), and assume the risk of damage or loss during shipment. Intel may elect to repair or replace the Product with either a new or reconditioned Product or components, as Intel deems appropriate. The repaired or replaced product will be shipped to you at the expense of Intel within a reasonable period of time after receipt of the returned Product by ICS. The returned Product shall become Intel's property on receipt by ICS. The replacement product is warranted under this written warranty and is subject to the same limitations of liability and exclusions for ninety (90) days or the remainder of the original warranty period, whichever is longer. If Intel replaces the Product, the Limited Warranty period for the replacement Product is not extended.

WARRANTY LIMITATIONS AND EXCLUSIONS

THIS WARRANTY REPLACES ALL OTHER WARRANTIES FOR THE PRODUCT AND INTEL DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, COURSE OF DEALING AND USAGE OF TRADE. **Some states (or jurisdictions) do not allow the exclusion of implied warranties so this limitation may not apply to you.** ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD. **Some states (or jurisdictions) do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.**

LIMITATIONS OF LIABILITY

INTEL'S RESPONSIBILITY UNDER THIS OR ANY OTHER WARRANTY, IMPLIED OR EXPRESS, IS LIMITED TO REPAIR, REPLACEMENT OR REFUND, AS SET FORTH ABOVE. THESE REMEDIES ARE THE SOLE AND EXCLUSIVE REMEDIES FOR ANY BREACH OF WARRANTY. TO THE MAXIMUM EXTENT PERMITTED BY LAW, INTEL IS NOT RESPONSIBLE FOR ANY DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, LOST PROFITS, DOWNTIME, LOSS OF GOODWILL, DAMAGE TO OR REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH A SYSTEM CONTAINING THE PRODUCT), EVEN IF INTEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. **Some states (or jurisdictions) do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.** THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY BY STATE OR JURISDICTION. ANY AND ALL DISPUTES ARISING UNDER OR RELATED TO THIS LIMITED WARRANTY SHALL BE ADJUDICATED IN THE FOLLOWING FORUMS AND GOVERNED BY THE FOLLOWING LAWS: FOR THE UNITED STATES OF AMERICA, CANADA, NORTH AMERICA AND SOUTH AMERICA, THE FORUM SHALL BE SANTA CLARA, CALIFORNIA, USA AND THE APPLICABLE LAW SHALL BE THAT OF THE STATE OF DELAWARE. FOR THE ASIA PACIFIC REGION (EXCEPT FOR MAINLAND CHINA), THE FORUM SHALL BE SINGAPORE AND THE APPLICABLE LAW SHALL BE THAT OF SINGAPORE. FOR EUROPE AND THE REST OF THE WORLD, THE FORUM SHALL BE LONDON AND THE APPLICABLE LAW SHALL BE THAT OF ENGLAND AND WALES IN THE EVENT OF ANY CONFLICT BETWEEN THE ENGLISH LANGUAGE VERSION AND ANY OTHER TRANSLATED VERSION(S)OF THIS LIMITED WARRANTY (WITH THE EXCEPTION OF THE SIMPLIFIED CHINESE VERSION), THE ENGLISH LANGUAGE VERSION SHALL CONTROL.

IMPORTANT! UNLESS OTHERWISE AGREED IN WRITING BY INTEL, THE INTEL PRODUCTS SOLD HEREUNDER ARE NOT DESIGNED, OR INTENDED FOR USE IN ANY MEDICAL, LIFE SAVING OR LIFE SUSTAINING SYSTEMS, TRANSPORTATION SYSTEMS, NUCLEAR SYSTEMS, OR FOR ANY OTHER MISSION CRITICAL APPLICATION IN WHICH THE FAILURE OF THE INTEL PRODUCT COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR.

WEEE



Back to Top

Back to Contents

Trademarks and Disclaimers