

# TEST REPORT

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## COMPLIANCE TEST REPORT

|                        |                                           |
|------------------------|-------------------------------------------|
| EUT Description        | Wireless module installed in Notebook PC  |
| Brand Name             | Intel®                                    |
| Model Name             | BE201NGW                                  |
| FCC ID                 | PD9BE201NG                                |
| Date of Test Start/End | 2025-01-02/ 2025-01-02                    |
| Features               | 2x2 Wi-Fi - Bluetooth®<br>(see section 5) |

|                      |                                                      |
|----------------------|------------------------------------------------------|
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|                            |                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------|
| Test Report identification | 240813-06.TR03                                                                                     |
| Revision Control           | Rev. 01<br>This test report revision replaces any previous test report revision<br>(see section 8) |

The test results relate only to the samples tested.  
Reference to accreditation shall be used only by full reproduction of test report

Reviewed by \_\_\_\_\_

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### 1. Standards, reference documents and applicable test methods

|     |                                                                   |
|-----|-------------------------------------------------------------------|
| FCC | 1. RF Exposure Policies and Procedures: TCB Workshop – April 2021 |
|-----|-------------------------------------------------------------------|

### 2. General conditions, competences and guarantees

- ✓ Tests performed under FCC standards identified in section 1 are covered by A2LA accreditation.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is an ISO/IEC 17025:2017 laboratory accredited by the American Association for Laboratory Accreditation (A2LA) with the certificate number 3478.01.
- ✓ Intel WRF Lab only provides testing services and is committed to providing reliable, unbiased test results and interpretations.
- ✓ Intel WRF Lab is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.
- ✓ Intel WRF Lab has developed calibration and proficiency programs for its measurement equipment to ensure correlated and reliable results to its customers.
- ✓ This report is only referred to the item that has undergone the test.
- ✓ This report does not imply an approval of the product by the Certification Bodies or competent Authorities.

### 3. Environmental Conditions

- ✓ At the site where the measurements were performed the following limits were not exceeded during the tests:

|             |                                                 |
|-------------|-------------------------------------------------|
| Temperature | Avg: 20.99 °C<br>Min: 20.86 °C<br>Max: 21.15 °C |
| Humidity    | Avg: 42.27 %<br>Min: 37.29 %<br>Max: 52.17 %    |

### 4. Test Sample

| Sample | ID #          | Description | Model | Serial #      | Note |
|--------|---------------|-------------|-------|---------------|------|
| #1     | 240813-06.S02 | Notebook PC | P135F | 2024100103551 | -    |



5. EUT Features

The herein information is provided by the customer.  
Intel WRF Lab declines any responsibility for the accuracy of the stated customer provided information, especially if it has any impact on the correctness of test results presented in this report.

|                        |                    |                              |  |
|------------------------|--------------------|------------------------------|--|
| Brand Name             | Intel®             |                              |  |
| Model Name             | BE201NGW           |                              |  |
| Driver Version         | 23.70.5.1          |                              |  |
| Prototype / Production | Production         |                              |  |
| Host Identification    | Notebook PC        |                              |  |
| Supported Radios       | 802.11b/g/n/ax/be  | 2.4GHz (2400.0 – 2483.5 MHz) |  |
|                        | 802.11a/n/ac/ax/be | 5.2GHz (5150.0 – 5250.0 MHz) |  |
|                        |                    | 5.3GHz (5250.0 – 5350.0 MHz) |  |
|                        |                    | 5.6GHz (5470.0 – 5725.0 MHz) |  |
|                        |                    | 5.8GHz (5725.0 – 5850.0 MHz) |  |
|                        |                    | 5.9GHz (5850.0 – 5895.0 MHz) |  |
|                        | 802.11ax/be        | 6.0GHz (5925.0 – 7125.0 MHz) |  |
|                        | Bluetooth          | 2.4GHz (2400.0 – 2483.5 MHz) |  |

6. Remarks and comments

- 1. The test report is a validation of the FCC TAS algorithm

7. Document Revision History

| Revision # | Date       | Modified by   | Revision Details                               |
|------------|------------|---------------|------------------------------------------------|
| Rev.00     | 2025-01-02 | Malika Faria  | First Issue.                                   |
| Rev.01     | 2025-02-20 | Robin Luciani | Target Power updated, upon customer's request. |

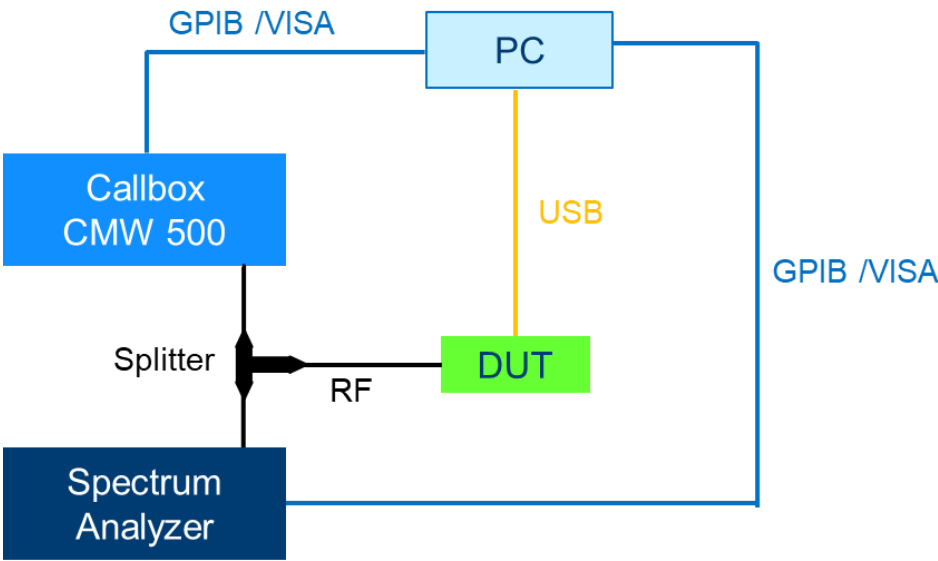
# Annex A. Test & System description

## A.1 Test Setup

The conducted power measurement test setup is described in the following and illustrated in Figure A.1.

- The DUT which BE201NGW WiFi module is installed inside Notebook PC from DELL model Dell P135F.
- A control PC is used to configure the call box as an access point to manage the uplink and downlink data traffic.
- Uplink signal power is measured with the spectrum analyzer and recorded by the PC with a maximum time resolution of 0.3333 msec.
- Uplink signal from the module is fed through a 3 dB power splitter, which delivers an equal amount of signal to the spectrum analyzer and the call box. The splitter has high isolation between the spectrum analyzer and the call box.

Figure.1 – Validation using conducted power measurement test setup.



## A.2 Test Equipment List

Equipment and accessories used for the conducted power measurement test setup are listed below. The Test Platform (DUT), test setup and associated equipment are shown in A.1.3.

| ID#     | Device               | Type/Model | Serial # | Manufacturer    | Cal. Date  | Cal. Due Date |
|---------|----------------------|------------|----------|-----------------|------------|---------------|
| 025-005 | Communication Tester | CMW500     | 161493   | Rohde & Schwarz | N/A        | N/A           |
| 271-000 | Spectrum Analyzer    | FSL6       | 102143   | Rohde & Schwarz | 2024-05-21 | 2026-05-21    |
| 455-001 | RF Cable             | -          | -        | -               | 2024-02-16 | 2025-02-16    |
| 455-002 | RF Cable             | -          | -        | -               | 2024-02-16 | 2025-02-16    |
| 455-003 | RF Splitter          | -          | -        | -               | 2024-02-16 | 2025-02-16    |

**A.3 Measurement Uncertainty Evaluation**

The system uncertainty evaluation is shown in the table below with a coverage factor of  $k = 2$  to indicate a 95% level of confidence:

| Measurement type | Uncertainty | Unit |
|------------------|-------------|------|
| Conducted Power  | $\pm 1.03$  | dB   |

# Annex B. Test Results

The herein test results were performed by:

|                       |                |
|-----------------------|----------------|
| Test case measurement | Test Personnel |
| Test case             | Malika Faria   |

## B.1 SAR Tune-Up Power as per SAR assessment

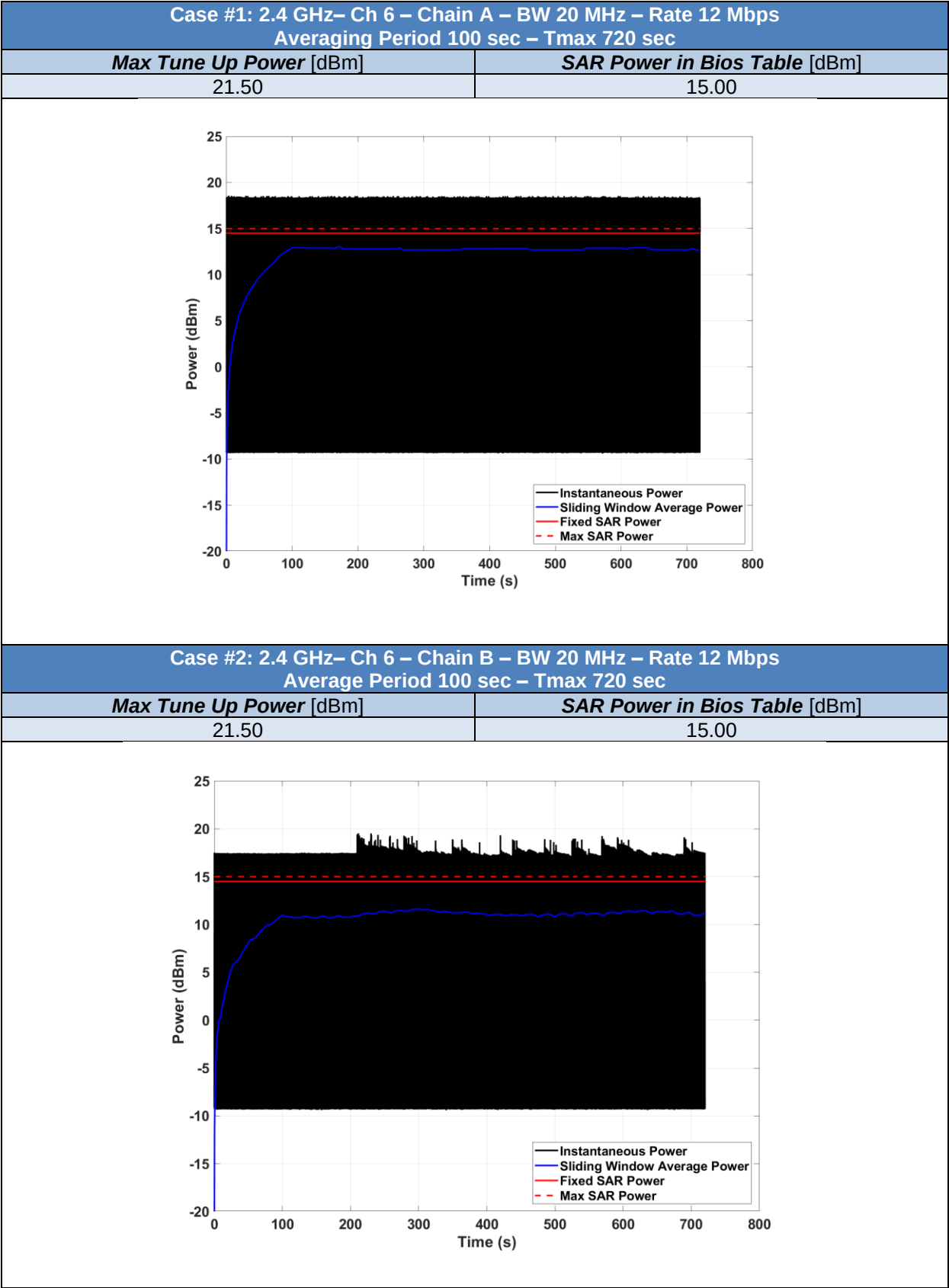
| Chain A(1)          |                       | Chain B(2)          |                       |
|---------------------|-----------------------|---------------------|-----------------------|
| IEEE 802.11g<br>CH6 | IEEE 802.11a<br>CH120 | IEEE 802.11g<br>CH6 | IEEE 802.11a<br>CH120 |
| 15.00               | 14.50                 | 15.00               | 14.50                 |

## B.2 TAS Validation for 2.4 GHz Band on Channel 6

Table B1 – Test Cases for 2.4 GHz Channel 6

| Test Case # | Channel | Chain | Channel Bandwidth | Measurement Averaging Period | Measurement Time Resolution | Max Tune-Up Power [dBm] | SAR Power in Bios Table [dBm] |
|-------------|---------|-------|-------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|
| 1           | 6       | A     | 20 MHz            | 100 sec                      | 0.3333 msec                 | 21.50                   | 15.00                         |
| 2           | 6       | B     | 20 MHz            | 100 sec                      | 0.3333 msec                 | 21.50                   | 15.00                         |

Results of test cases in Table B1 are shown in the following plots.



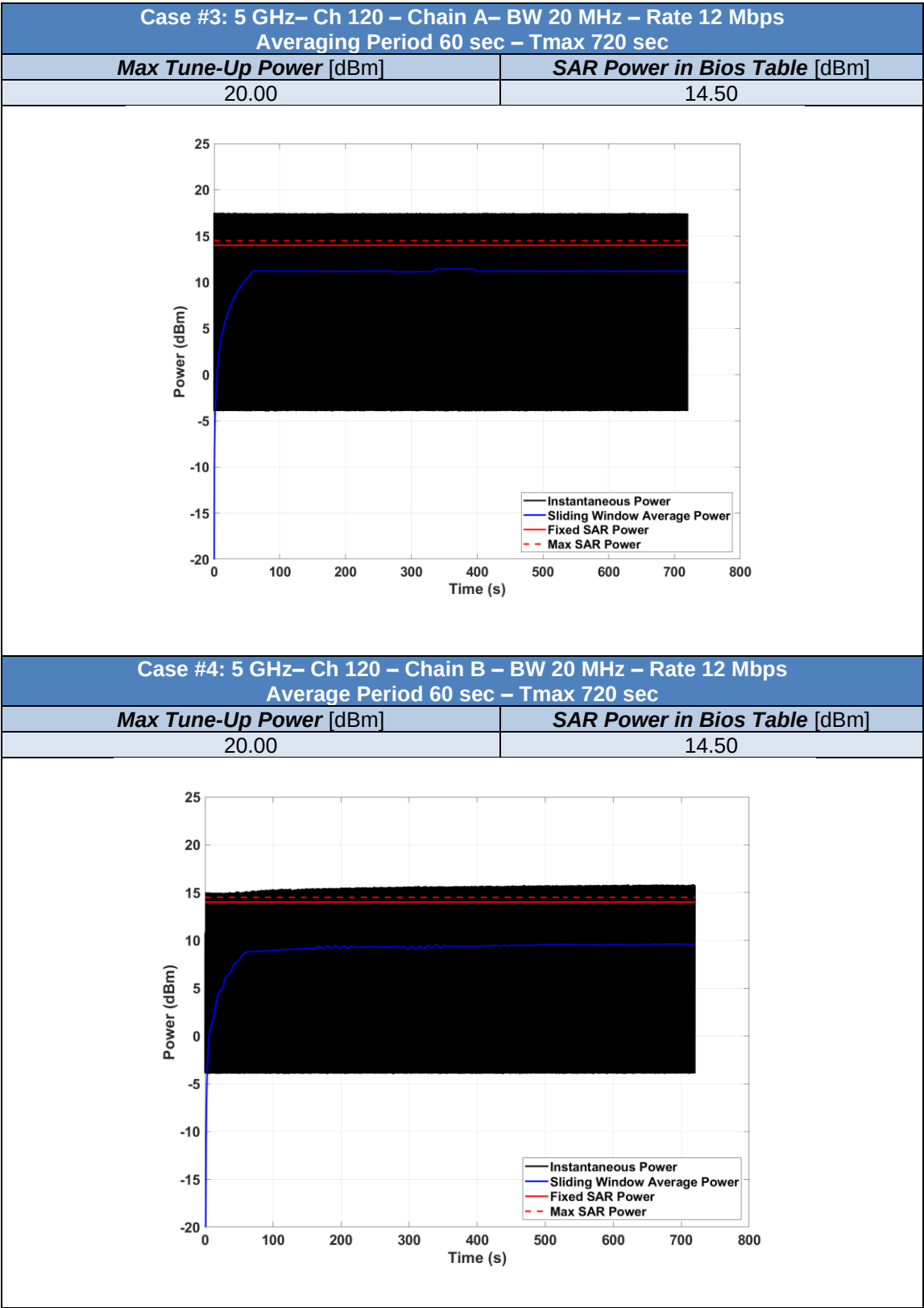


### B.3 TAS Validation for 5 GHz Band on Channel 120

Table B2 – Test Cases for 5 GHz Channel 120

| Test Case # | Channel | Chain | Channel Bandwidth | Measurement Averaging Period | Measurement Time Resolution | Max Tune-Up Power [dBm] | SAR Power in Bios Table [dBm] |
|-------------|---------|-------|-------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|
| 1           | 120     | A     | 20 MHz            | 60 sec                       | 0.3333 msec                 | 20.00                   | 14.50                         |
| 2           | 120     | B     | 20 MHz            | 60 sec                       | 0.3333 msec                 | 20.00                   | 14.50                         |

Results of test cases in Table B2 are shown in the following plots.



### **End of the report**

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