

REM-EMIESS25D767DAV-01Av0

MPE test report**According to the standard:****CFR 47 FCC PART 15****Equipment under test:*****DB-261ACNBT*****FCC ID: *2AUQC-DB261ACNBT*****Company:****DAVEY BICKFORD SAS****Distribution:** Mrs STOJANOVIC**(Company:** DAVEY BICKFORD SAS)**Number of pages:** 8

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Information in italics are declared by the manufacturer/customer and are under his responsibility

DESIGNATION OF PRODUCT: *DB-261ACNBT*

Serial number (S/N): *2416002100416*

Reference / model (P/N): *DB-261ACNBT*

Software version: *QRCT_CONN-v30161*

MANUFACTURER: *DAVEY BICKFORD SAS*

COMPANY SUBMITTING THE PRODUCT:

Company: DAVEY BICKFORD SAS

Address: LE MOULIN GASPARD
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Responsible: Mrs STOJANOVIC

DATES OF TEST: From 30-Sep-25 to 13-Oct-25

TESTING LOCATION: EMITECH ANGERS laboratory at BEAUCOUZE (49) FRANCE

FCC Accredited under US-EU MRA Designation Number: FR0009
Test Firm Registration Number: 873677

TESTED BY: B. VOVARD

VISA:

WRITTEN BY: B. VOVARD



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REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	27-Oct-25	/	Creation

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: **DB-261ACNBT**, in accordance with normative reference.

The equipment under test integrates:

- 2.4 GHz Wi-Fi module referenced WPEQ-261ACN 'manufacturer: Sparklan' already certified,
- 5 GHz Wi-Fi module referenced WPEQ-261ACN 'manufacturer: Sparklan' already certified,
- 2.4 GHz BT / BLE module referenced WPEQ-261ACN 'manufacturer: Sparklan' already certified.

Bluetooth and Bluetooth Low Energy radio part are logically inhibited.

In case of integration a new antenna (Siretta Tango 24) that is not listed as a certified module, full testing is carried out. Moreover, The module has two RF chains (M and A) and only chain A was used.

2. PRODUCT DESCRIPTION

For WiFi 2.4 GHz :

Antenna type and gain: Dedicated antenna (reference Tango 24 from Siretta) connected to chain A.
Gain: +1.50 dBi maximum

2400 MHz: -2.77 dBi
2500 MHz: +0.41 dBi
5100 MHz: +1.50 dBi
5200 MHz: +0.74 dBi
5300 MHz: +0.29 dBi
5400 MHz: -0.24 dBi
5500 MHz: -0.84 dBi
5600 MHz: -1.40 dBi
5700 MHz: -1.37 dBi
5800 MHz: -1.51 dBi

Operating frequency band: From 2400 MHz to 2483.5 MHz

Number of channels: 11 for band 2400 MHz to 2483.5 MHz

Channel bandwidth: 20 MHz

Channel spacing: 5MHz

Mode tested: 802.11g
802.11n

Channel tested:

Channel 1: 2412 MHz
Channel 2: 2417 MHz
Channel 3: 2422 MHz
Channel 4: 2427 MHz
Channel 5: 2432 MHz
Channel 6: 2437 MHz
Channel 7: 2442 MHz
Channel 8: 2447 MHz
Channel 9: 2452 MHz
Channel 10: 2457 MHz
Channel 11: 2462 MHz

Data rate:

For 802.11g: 6 Mbit/s
For 802.11n: MCS0

For WiFi 5 GHz :

Antenna type and gain:

Dedicated antenna (reference Tango 24 from Siretta) connected to chain A.
Gain: +1.50 dBi maximum

2400 MHz: -2.77 dBi
2500 MHz: +0.41 dBi
5100 MHz: +1.50 dBi
5200 MHz: +0.74 dBi
5300 MHz: +0.29 dBi
5400 MHz: -0.24 dBi
5500 MHz: -0.84 dBi
5600 MHz: -1.40 dBi
5700 MHz: -1.37 dBi
5800 MHz: -1.51 dBi

Operating frequency band:

From 5150 MHz to 5250 MHz band U-NII-1
From 5250 MHz to 5350 MHz band U-NII-2A
From 5470 MHz to 5725 MHz band U-NII-2C
From 5725 MHz to 5850 MHz band U-NII-3

Number of channels:

7 for band 5150 MHz to 5250 MHz (4 for 20 MHz / 2 for 40 MHz / 1 for 80 MHz)
7 for band 5250 MHz to 5350 MHz (4 for 20 MHz / 2 for 40 MHz / 1 for 80 MHz)
21 for band 5470 MHz to 5725 MHz (12 for 20 MHz / 6 for 40 MHz / 3 for 80 MHz)
8 for band 5725 MHz to 5850 MHz (5 for 20 MHz / 2 for 40 MHz / 1 for 80 MHz)

Channel bandwidth:

20 / 40 / 80 MHz

Mode tested:

802.11a (20 MHz)
802.11n (20 and 40 MHz)
802.11ac (20, 40 and 80 MHz)

Channel tested in 20 MHz:

- Channel 36: 5180 MHz
- Channel 40: 5200 MHz
- Channel 48: 5240 MHz
- Channel 52: 5260 MHz
- Channel 60: 5300 MHz
- Channel 64: 5320 MHz
- Channel 100: 5500 MHz
- Channel 124: 5620 MHz
- Channel 140: 5700 MHz
- Channel 144: 5720 MHz
- Channel 149: 5745 MHz
- Channel 157: 5785 MHz
- Channel 165: 5825 MHz

Channel tested in 40 MHz:

- Channel 38: 5190 MHz
- Channel 46: 5230 MHz
- Channel 54: 5270 MHz
- Channel 62: 5310 MHz
- Channel 102: 5510 MHz
- Channel 118: 5590 MHz
- Channel 134: 5670 MHz
- Channel 142: 5710 MHz
- Channel 151: 5755 MHz
- Channel 159: 5795 MHz

Channel tested in 80 MHz:

- Channel 42: 5210 MHz
- Channel 58: 5290 MHz
- Channel 106: 5530 MHz
- Channel 122: 5610 MHz
- Channel 138: 5690 MHz
- Channel 155: 5775 MHz

Data rate:

- For 802.11a: 6 Mbit/s
- For 802.11n: MCS0
- For 802.11ac: MCS0

Power source: 3.3 Vdc from host equipment

3. NORMATIVE REFERENCE

The standards and testing methods related throughout this report are those listed below.

They are applied on the whole test report even though the extensions (version, date and amendment) are not repeated.

CFR 47 (2025)	Radio Frequency Devices
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ANSI C63.10	2020 + Corrigendum (2023) + Amendment 1 (2024) Procedures for Compliance Testing of Unlicensed Wireless Devices.
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447498 D04 Interim General RF Exposure Guidance v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
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4. RF EXPOSURE**WiFi 2.4 GHz Radio Part in standalone:**

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01, paragraph 1.4.2 :

Maximum Permissive Exemption according paragraph 1.1310(d)(2) of CFR 47 FCC Part 15

Maximum measured power = 16.682 dBm conducted with antenna gain of -0.80 dBi. at 2462 MHz in 802.11g with BW of 20 MHz.

EIRP= 15.882 dBm = 38.74 mW

PSD= $EIRP / (4 * \pi * R^2)$

$$\Rightarrow 38.74 / (4 * \pi * (20 \text{ cm})^2) = 0.007707 \text{ mW/cm}^2 \text{ limit} = 1 \text{ mW/cm}^2$$

The equipment fulfils the requirements on power density for general population/uncontrolled exposure and therefore fulfils the requirements of 47 CFR §1.1310.

WiFi 5 GHz Radio Part in standalone:

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01, paragraph 1.4.2 :

Maximum Permissive Exemption according paragraph 1.1310(d)(2) of CFR 47 FCC Part 15

Maximum measured power = 11.989 dBm conducted with antenna gain of 0.74 dBi. at 5200 MHz in 802.11a with BW of 20 MHz.

EIRP= 12.729 dBm = 18.75 mW

PSD= $EIRP / (4 * \pi * R^2)$

$$\Rightarrow 18.75 / (4 * \pi * (20 \text{ cm})^2) = 0.003729 \text{ mW/cm}^2 \text{ limit} = 1 \text{ mW/cm}^2$$

The equipment fulfils the requirements on power density for general population/uncontrolled exposure and therefore fulfils the requirements of 47 CFR §1.1310.

☐☐☐ End of report, 1 appendix to be forwarded ☐☐☐