

Test Report No:
2320217R-RFUSV17S-A

RF EXPOSURE EVALUATION DECLARATION

Product Name	35b Security Router, Gigabit Broadband Router
Brand Name	DrayTek
Model No.	Vigor2767Vax (Serial models please refer to section 1.1)
FCC ID	VGY2767AX
Applicant's Name / Address	Draytek Corporaiton No. 26, Fu Shing Road, Hukou County, Hsin-Chu Industrial Park, Hsinchu, Taiwan
Manufacturer's Name	Draytek Corporaiton
Test Method Requested, Standard	FCC CFR Title 47 Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.
Verdict Summary	IN COMPLIANCE
Documented by Genie Chang	<i>Genie Chang</i>
Tested by Bill Lin	<i>Bill Lin</i>
Approved by Tim Sung	<i>Tim Sung</i>
Date of Receipt	2023/02/07
Date of Issue	2024/05/03
Report Version	V1.0

INDEX

	page
Competences and Guarantees.....	3
General Conditions	3
Revision History	4
1. General Information	5
1.1. EUT Description	5
1.2. Testing Location Information	5
2. RF Exposure Evaluation	6
2.1. Test Limit	6
2.2. Test Result of RF Exposure Evaluation.....	8

Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

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The results presented in this Test Report apply only to the particular item under test established in this document.

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General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	2024/05/03

1. General Information

1.1. EUT Description

Product Name	35b Security Router, Gigabit Broadband Router
Brand Name	DrayTek
Model No.	Vigor2767Vax

Note: For more detailed information please refer to report No.: 2320217R-RFUSV01S-A and 2320217R-RFUSV03S-A.

The difference for each model is shown as below:

Item	Model name	Product name	PCB#	DSL	Eth-RJ45	SFP	2.5G	wlan 5GHz	wlan 2.4GHz	FXS	USB port
1	Vigor 2767Vax	35b Security Router	V0x	V(vdsl2/35b)			V	V	V	2	2
2	Vigor 2767ax		V0x	V(vdsl2/35b)			V	V	V		2
3	Vigor 2136FVax	Gigabit Broadband Router	V2x			V	V	V	V	2	2
4	Vigor 2136Vax		V2x		V		V	V	V	2	2
5	Vigor 2136Fax		V2x			V	V	V	V		2
6	Vigor 2136ax		V2x		V		V	V	V		2

From the above models, model: Vigor2767Vax was selected as representative model for the test and its data was recorded in this report.

1.2. Testing Location Information

USA	FCC Registration Number: TW0033
Canada	CAB Identifier Number: TW3023 / Company Number: 26930

Site Description	Accredited by TAF
	Accredited Number: 3023

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
	Linkou Laboratory
Address	No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan, R.O.C.
Performed Location	No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	+886-3-275-7255
Fax Number	+886-3-327-8031

2. RF Exposure Evaluation

2.1. Test Limit

(A) Test Limit for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*(100)	<6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1500	-	-	f/300	<6
1500-100,000	-	-	5	<6

(B) Test Limit for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1500	-	-	f/1500	<30
1500-100,000	-	-	1.0	<30

Note: f = frequency in MHz; *Plane-wave equivalent power density

Power Density (S) is calculated by the following formula:

$$S = (P \cdot G) / 4\pi R^2$$

where:

S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

π = 3.1416

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

2.2. Test Result of RF Exposure Evaluation

Band	Maximum Conducted Output Power (dBm)	Antenna Gain (dBi)	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)	Test Result (PASS/FAIL)
Wi-Fi 2.4 GHz	23.81	2.30	26.110	408.319	0.081	1.000	PASS
Wi-Fi 5 Hz U-NII 1	25.96	3.50	29.460	883.080	0.176	1.000	PASS
Wi-Fi 5 Hz U-NII 3	25.79	3.50	29.290	849.180	0.169	1.000	PASS

Calculations for multi-transmitter

Mode	Ratios	result	Limit (mW/cm ²)	Test Result (PASS/FAIL)
Wi-Fi 2.4 GHz	0.081	0.257	1.000	PASS
Wi-Fi 5 GHz	0.176			

Ratios = Power Density / Power Density Limit

Note: The conducted output power is refer to report No.: 2320217R-RFUSV01S-A and 2320217R-RFUSV03S-A from the DEKRA.