

# RF Exposure Evaluation declaration

Product Name : Wireless-AC2900 Dual Band Gigabit Router  
ROG Rapture GT-AC2900 Dual-band Gaming Router

Trade Name : ASUS

Model No. : RT-AC86U, RT-AC68U Extreme, RT-AC86A, RT-AC86P,  
RT-AC86R, RT-AC86X, RT-AC2900, AC2900, GT-AC2900

FCC ID. : MSQ-RTACHN00

Applicant : ASUSTeK COMPUTER INC.

Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : Oct. 12, 2018 ~ Dec. 05, 2018

Date of Declaration : Apr. 14, 2021

Report No. : 18A0006R-RF-US-Exp

Report Version : V2.0



The declaration results relate only to the samples calculated.

The declaration shall not be reproduced except in full without the written approval of DEKRA Testing and Certification Co., Ltd.

## 1. RF Exposure Evaluation

### 1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

R = distance between observation point and center of the radiator in cm

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

### 1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

### 1.3. Test Result of RF Exposure Evaluation

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_CDD mode
Test Condition	RF Exposure Evaluation

#### Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.33 dBi or 1.36 dBi in linear scale.

#### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11b (ANT 0+1+2)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
1	2412	546.7641	0.14793
6	2437	984.2377	0.26630
11	2462	341.5860	0.09242

IEEE 802.11g (ANT 0+1+2)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
1	2412	311.2433	0.08421
6	2437	988.0980	0.26734
11	2462	135.4565	0.03665

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ MIMO Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.33 dBi or 1.36 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (20MHz) (ANT 0+1+2)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
1	2412	255.9175	0.06924
6	2437	976.1128	0.26410
11	2462	135.1450	0.03657

IEEE 802.11n (40MHz) (ANT 0+1+2)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
3	2422	124.3942	0.03366
6	2437	137.9749	0.03733
9	2452	53.8022	0.01456

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.33 dBi or 1.36 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (20MHz) (ANT 0+1+2)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
1	2412	214.8325	0.05813
6	2437	854.0828	0.23108
11	2462	68.2025	0.01845

IEEE 802.11n (40MHz) (ANT 0+1+2)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
3	2422	108.2680	0.02929
6	2437	85.7235	0.02319
9	2452	30.4649	0.00824

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_CDD Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.2 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11a (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
36	5180	367.9595	0.10541
40	5220	571.8735	0.16383
44	5240	608.5552	0.17434

IEEE 802.11a (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
149	5745	954.1134	0.29042
157	5785	974.0921	0.29650
165	5825	994.9471	0.30285

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_MIMO Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.2 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
36	5180	335.8149	0.09620
40	5220	594.4290	0.17029
44	5240	638.4105	0.18289

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
149	5745	992.2018	0.30201
157	5785	983.1052	0.29924
165	5825	992.2018	0.30201

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ MIMO Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.2 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
38	5190	182.0120	0.05214
46	5230	657.8093	0.18845

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
151	5755	986.5066	0.30028
159	5795	983.1052	0.29924

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ MIMO Mode
Test Condition	RF Exposure Evaluation

**Antenna Gain**

5.2Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

**Output Power into Antenna & RF Exposure Evaluation Distance:**

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
42	5210	230.7278	0.06610

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
155	5775	957.4145	0.29142

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.2 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
36	5180	286.8138	0.08217
40	5220	594.4290	0.17029
44	5240	638.4105	0.18289

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
149	5745	841.9766	0.25628
157	5785	847.8129	0.25806
165	5825	859.6071	0.26165

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.2 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
38	5190	124.1081	0.03555
46	5230	468.5975	0.13424

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
151	5755	209.8940	0.06389
159	5795	214.7830	0.06538

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

**Antenna Gain**

5.2 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.57 dBi or 1.44 dBi in linear scale.

5.8 Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.85 dBi or 1.53 dBi in linear scale.

**Output Power into Antenna & RF Exposure Evaluation Distance:**

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
42	5210	130.3467	0.03734

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
155	5775	855.2636	0.26033

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_CDD Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11a (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
52	5260	135.3044	0.03903
60	5300	150.3370	0.04337
64	5320	157.2507	0.04536

IEEE 802.11a (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
100	5500	113.6104	0.03413
116	5580	132.2322	0.03972
140	5700	126.1306	0.03789

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ MIMO Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
52	5260	163.1529	0.04706
60	5300	159.6102	0.04604
64	5320	153.7525	0.04435

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
100	5500	125.0536	0.03757
116	5580	127.8839	0.03842
140	5700	123.5585	0.03712

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ MIMO Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
54	5270	246.2198	0.07103
62	5310	141.1963	0.04073

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
102	5510	197.8464	0.05943
110	5550	238.9695	0.07179
134	5670	235.4033	0.07072

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ MIMO Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
58	5290	118.7994	0.03427

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
106	5530	186.6685	0.05608
122	5610	246.2165	0.07396

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
52	5260	163.1529	0.04706
60	5300	159.6102	0.04604
64	5320	114.3716	0.03299

IEEE 802.11n (20MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
100	5500	131.7874	0.03959
116	5580	119.0135	0.03575
140	5700	109.4148	0.03287

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
54	5270	184.3153	0.05317
62	5310	74.0141	0.02135

IEEE 802.11n (40MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
102	5510	113.4521	0.03408
110	5550	202.3951	0.06066
134	5670	118.9366	0.03573

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit_ Beamforming Mode
Test Condition	RF Exposure Evaluation

### Antenna Gain

5.3G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6 dBi or 1.45 dBi in linear scale.

5.5G Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.78 dBi or 1.51 dBi in linear scale.

### Output Power into Antenna & RF Exposure Evaluation Distance:

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
58	5290	50.4456	0.01455

IEEE 802.11ac (80MHz) (ANT 0+1+2+3)			
WLAN Function			
Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
106	5530	77.8607	0.02339
122	5610	216.4356	0.06502

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.

The results are evaluated using the maximum power.

Product	Wireless-AC2900 Dual Band Gigabit Router ROG Rapture GT-AC2900 Dual-band Gaming Router
Test Mode	Transmit
Test Condition	RF Exposure Evaluation

Power Density (2.4GHz) (mW/cm <sup>2</sup> )	Power Density (5GHz) (mW/cm <sup>2</sup> )	Total Power Density (2.4GHz+5GHz) (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
0.267	0.302	0.569	1