

## Maximum Permissible Exposure Report

### Product Information

EUT	: 4K HDMI dongle
Model Number	: SN8BADX(X=A TO Z)
Model Declaration	: All the same except for the shape and color of cover.
Test Model	: SN8BADE
Power Supply	: DC 5V by adapter
Hardware version	: SMB.225.06
Software version	: android9.0
Bluetooth Version	: V4.0
Channel Number	: 79 Channels for Bluetooth V3.0(DSS) : 40 Channels for Bluetooth V4.0(DTS)
Modulation Technology	: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V3.0(DSS) : GFSK for Bluetooth V4.0(DTS)
Data Rates	: Bluetooth V3.0(DSS): 1~3Mbps : Bluetooth V4.0(DTS): 1Mbps
WLAN	: Supported IEEE 802.11a/b/g/n/ac  IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz / 5180-5240MHz / 5745-5825MHz
WLAN FCC Operation Frequency	: IEEE 802.11n HT40:2422-2452MHz / 5190-5230MHz / 5755-5795MHz IEEE 802.11a: 5180-5240MHz / 5745-5825MHz IEEE 802.11ac VHT20: 5180-5240MHz / 5745-5825MHz IEEE 802.11ac VHT40: 5190-5230MHz / 5755-5795MHz IEEE 802.11ac VHT80: 5210MHz / 5775MHz
WLAN Channel Number	: 11 Channels for 2412-2462MHz(IEEE 802.11b/g/n HT20) 7 Channels for 2422-2452MHz(IEEE 802.11n HT40) 4 Channels for 5180-5240MHz (IEEE 802.11a/ac VHT20/n HT20) 2 Channels for 5190-5230MHz (IEEE 802.11ac VHT40/n HT40) 1 Channels for 5210MHz (IEEE 802.11ac VHT80) 5 Channels for 5745-5825MHz(IEEE 802.11a/ac VHT20/n HT20) 2 Channels for 5755-5795MHz(IEEE 802.11ac VHT40/n HT40) 1 Channels for 5775MHz(IEEE 802.11ac VHT80)
WLAN Modulation Technology	: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Type And Gain	: Three Antennas: Internal Antenna 0: 4.51dBi(Max.), for TX/RX (WLAN 2.4G Band), 4.55dBi(Max.), for TX/RX (WLAN 5.2G Band) 3.19dBi(Max.), for TX/RX (WLAN 5.8G Band) Internal Antenna 1: 3.19dBi(Max.), for TX/RX (WLAN 2.4G Band), 4.67dBi(Max.), for TX/RX (WLAN 5.2G Band) 4.61dBi(Max.), for TX/RX (WLAN 5.8G Band)

Internal Antenna 2: 3.09 dBi(Max.), for TX/RX (Bluetooth),  
802.11n/ac support 2T2R.[Antenna 0 and Antenna 1]

Directional Gain : 6.91 dBi for MIMO(2.4G Band)  
: 7.62 dBi for MIMO(5.2G Band)  
6.97 dBi for MIMO(5.8G Band)

*Note: Antenna position refer to EUT Photos.*

## 2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is  $\leq 1.0$ . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

## 3. Limit

### 3.1 Refer evaluation method

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices

**3.2 Limit**

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

\*=Plane-wave equivalent power density

**4. MPE Calculation Method**

Predication of MPE limit at a given distance  
Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density  
P=power input to antenna  
G=power gain of the antenna in the direction of interest relative to an isotropic radiator  
R=distance to the center of radiation of the antenna

**5. Antenna Information**

This Product can only use antennas certificated as follows provided by manufacturer;

Internal Identification	Antenna Description	Antenna type and antenna number	Operate frequency band	Maximum antenna gain
Antenna 0	WiFi Antenna	Internal Antenna	2400 MHz – 2500 MHz	4.51 dBi
			5150 MHz – 5240 MHz	4.55 dBi
			5725 MHz – 5900 MHz	3.19 dBi
Antenna 1	WiFi Antenna	Internal Antenna	2400 MHz – 2500 MHz	3.19 dBi
			5150 MHz – 5240 MHz	4.67 dBi
			5725 MHz – 5900 MHz	4.61 dBi
Antenna 2	BT Antenna	Internal Antenna	2400 MHz – 2500 MHz	3.09 dBi

## 6. Conducted Power

2.4G Band:

### Antenna 2

Bluetooth(BDR+EDR)

Test Mode	Channel	Frequency (MHz)	Measured Peak Output Power (dBm)
GFSK	00	2402	10.434
	39	2441	10.435
	78	2480	10.299
$\pi/4$ -DQPSK	00	2402	11.489
	39	2441	11.970
	78	2480	12.290
8-DPSK	00	2402	12.387
	39	2441	12.914
	78	2480	12.733

Bluetooth(BLE)

Test Mode	Channel	Frequency (MHz)	Measured Peak Output Power (dBm)
GFSK	00	2402	11.768
	39	2441	12.289
	78	2480	12.175

### Antenna 0/Antenna 1

WiFi 2.4GHz Band

Test Mode	Channel	Frequency (MHz)	Measured Peak Output Power (dBm)		
			Antenna 0	Antenna 1	Sum
IEEE 802.11b	1	2412	20.228	20.537	-/-
	6	2437	20.196	20.283	-/-
	11	2462	20.201	19.961	-/-
IEEE 802.11g	1	2412	16.288	16.856	-/-
	6	2437	16.382	16.463	-/-
	11	2462	15.974	16.019	-/-
IEEE 802.11n HT20	1	2412	16.264	16.221	19.25
	6	2437	16.222	16.418	19.33
	11	2462	15.843	16.003	18.93
IEEE 802.11n HT40	3	2422	16.126	16.660	19.41
	6	2437	16.250	16.220	19.25
	9	2452	15.932	15.815	18.88

5G Band  
UNII-1 Band

Test Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)		
			Antenna 0	Antenna 1	Sum
IEEE 802.11a	36	5180	10.14	10.16	/
	40	5200	10.54	8.35	/
	48	5240	10.33	10.05	/
IEEE 802.11n HT20	36	5180	8.16	8.95	11.58
	40	5200	8.01	8.23	11.13
	48	5240	8.42	9.14	11.80
IEEE 802.11ac VHT20	36	5180	8.22	7.88	11.06
	40	5200	7.83	8.32	11.09
	48	5240	8.68	8.713	11.71
IEEE 802.11n HT40	38	5190	10.25	8.46	12.46
	46	5230	11.78	9.17	13.68
IEEE 802.11ac VHT40	38	5190	9.55	9.17	12.38
	46	5230	10.53	9.44	13.03
IEEE 802.11ac VHT80	42	5210	6.79	5.78	9.32

## UNII-3 Band

Test Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)		
			Antenna 0	Antenna 1	Sum
IEEE 802.11a	149	5745	7.686	6.969	/
	157	5785	7.319	7.368	/
	165	5825	9.567	9.064	/
IEEE 802.11n HT20	149	5745	7.605	7.38	10.50
	157	5785	7.136	6.936	10.05
	165	5825	9.105	8.843	11.99
IEEE 802.11ac VHT20	149	5745	7.905	7.257	10.60
	157	5785	7.462	7.062	10.28
	165	5825	9.071	9.289	12.19
IEEE 802.11n HT40	151	5755	7.20	6.92	10.08
	159	5795	7.29	6.71	10.02
IEEE 802.11ac VHT40	151	5755	7.79	7.49	10.65
	159	5795	7.21	7.18	10.20
IEEE 802.11ac VHT80	155	5775	-0.39	1.08	3.41

## 7. Manufacturing Tolerance

## Bluetooth(BDR+EDR)

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
$\pi/4$ -DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	11.0	11.5	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
8-DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	12.0	12.5	12.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0

## Bluetooth(BLE)

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	11.5	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

## WiFi 2.4GHz Band – Antenna 0

IEEE 802.11b (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	20.0	20.0	20.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11g (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	16.0	16.0	15.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	16.0	16.0	15.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	16.0	16.0	15.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0

## WiFi 2.4GHz Band – Antenna 1

IEEE 802.11b (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	20.0	20.0	19.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11g (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	16.5	16.0	16.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	16.0	16.0	16.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	16.5	16.0	15.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0

## UNII-1 Band – Antenna 0

IEEE 802.11a (Maximum)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	10.5	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Maximum)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	7.5	7.5	7.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11ac VHT20 (Maximum)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.5	8.5	8.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Maximum)			
Channel	Channel 38	Channel 46	--
Target (dBm)	10.0	11.5	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT40 (Maximum)			
Channel	Channel 38	Channel 46	--
Target (dBm)	9.0	10.0	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT80 (Maximum)			
Channel	Channel 42	--	--
Target (dBm)	6.5	--	--
Tolerance $\pm$ (dB)	1.0	--	--

## UNII-1 Band – Antenna 1

IEEE 802.11a (Maximum)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	8.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Maximum)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11ac VHT20 (Maximum)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.5	8.5	8.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Maximum)			
Channel	Channel 38	Channel 46	--
Target (dBm)	8.0	9.0	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT40 (Maximum)			
Channel	Channel 38	Channel 46	--
Target (dBm)	9.0	9.0	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT80 (Maximum)			
Channel	Channel 42	--	--
Target (dBm)	5.5	--	--
Tolerance $\pm$ (dB)	1.0	--	--

## UNII-3 Band – Antenna 0

IEEE 802.11a (Maximum)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.5	7.0	9.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Maximum)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.5	7.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11ac VHT20 (Maximum)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.5	7.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Maximum)			
Channel	Channel 151	Channel 159	--
Target (dBm)	7.0	7.0	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT40 (Maximum)			
Channel	Channel 151	Channel 159	--
Target (dBm)	7.5	7.0	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT80 (Maximum)			
Channel	Channel 155	--	--
Target (dBm)	-1.0	--	--
Tolerance $\pm$ (dB)	1.0	--	--

## UNII-3 Band – Antenna 1

IEEE 802.11a (Maximum)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	6.5	7.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Maximum)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.0	6.5	8.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11ac VHT20 (Maximum)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.0	7.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Maximum)			
Channel	Channel 151	Channel 159	--
Target (dBm)	6.5	6.5	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT40 (Maximum)			
Channel	Channel 151	Channel 159	--
Target (dBm)	7.0	7.0	--
Tolerance $\pm$ (dB)	1.0	1.0	--
IEEE 802.11ac VHT80 (Maximum)			
Channel	Channel 155	--	--
Target (dBm)	0.5	--	--
Tolerance $\pm$ (dB)	1.0	--	--



## 8. Measurement Results

### 8.1 Standalone MPE

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance,  $r = 20\text{cm}$ , as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

#### Bluetooth(BDR+EDR)

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
GFSK	11.00	12.5893	3.09	2.0370	100%	0.0051	1.0000
$\pi/4$ -DQPSK	13.00	19.9526	3.09	2.0370	100%	0.0081	1.0000
8-DPSK	13.50	22.3872	3.09	2.0370	100%	0.0091	1.0000

#### Bluetooth(BLE)

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
GFSK	13.00	19.9526	3.09	2.0370	100%	0.0081	1.0000

#### WiFi 2.4GHz Band – Ant 0

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
IEEE 802.11b	21.00	125.8925	4.51	2.8249	100%	0.0708	1.0000
IEEE 802.11g	17.00	50.1187	4.51	2.8249	100%	0.0282	1.0000
IEEE 802.11n HT20	17.00	50.1187	4.51	2.8249	100%	0.0282	1.0000
IEEE 802.11n HT40	17.00	50.1187	4.51	2.8249	100%	0.0282	1.0000

#### WiFi 2.4GHz Band – Ant 1

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
IEEE 802.11b	21.00	125.8925	3.19	2.0845	100%	0.0522	1.0000
IEEE 802.11g	17.50	56.2341	3.19	2.0845	100%	0.0233	1.0000
IEEE 802.11n HT20	17.00	50.1187	3.19	2.0845	100%	0.0208	1.0000
IEEE 802.11n HT40	17.50	56.2341	3.19	2.0845	100%	0.0233	1.0000

## UNII-1 Band – Ant 0

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
IEEE 802.11a	11.50	14.1254	4.55	2.8510	100%	0.0080	1.0000
IEEE 802.11n HT20	8.50	7.0795	4.55	2.8510	100%	0.0040	1.0000
IEEE 802.11ac VHT20	9.50	8.9125	4.55	2.8510	100%	0.0051	1.0000
IEEE 802.11n HT40	12.50	17.7828	4.55	2.8510	100%	0.0101	1.0000
IEEE 802.11ac VHT40	11.00	12.5893	4.55	2.8510	100%	0.0071	1.0000
IEEE 802.11ac VHT80	7.50	5.6234	4.55	2.8510	100%	0.0032	1.0000

## UNII-1 Band – Ant 1

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
IEEE 802.11a	11.00	12.5893	4.67	2.9309	100%	0.0073	1.0000
IEEE 802.11n HT20	11.00	12.5893	4.67	2.9309	100%	0.0073	1.0000
IEEE 802.11ac VHT20	9.50	8.9125	4.67	2.9309	100%	0.0052	1.0000
IEEE 802.11n HT40	10.00	10.0000	4.67	2.9309	100%	0.0058	1.0000
IEEE 802.11ac VHT40	10.00	10.0000	4.67	2.9309	100%	0.0058	1.0000
IEEE 802.11ac VHT80	6.50	4.4668	4.67	2.9309	100%	0.0026	1.0000

## UNII-3 Band – Ant 0

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
IEEE 802.11a	10.50	11.2202	3.19	2.0845	100%	0.0047	1.0000
IEEE 802.11n HT20	10.00	10.0000	3.19	2.0845	100%	0.0041	1.0000
IEEE 802.11ac VHT20	10.00	10.0000	3.19	2.0845	100%	0.0041	1.0000
IEEE 802.11n HT40	8.00	6.3096	3.19	2.0845	100%	0.0026	1.0000
IEEE 802.11ac VHT40	8.50	7.0795	3.19	2.0845	100%	0.0029	1.0000
IEEE 802.11ac VHT80	0.00	1.0000	3.19	2.0845	100%	0.0004	1.0000

## UNII-3 Band – Ant 1

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm <sup>2</sup> )	MPE Limits (mW/cm <sup>2</sup> )
	dBm	mW					
IEEE 802.11a	10.00	10.0000	4.61	2.8907	100%	0.0058	1.0000
IEEE 802.11n HT20	9.50	8.9125	4.61	2.8907	100%	0.0051	1.0000
IEEE 802.11ac VHT20	10.00	10.0000	4.61	2.8907	100%	0.0058	1.0000
IEEE 802.11n HT40	7.5	5.6234	4.61	2.8907	100%	0.0032	1.0000
IEEE 802.11ac VHT40	8.00	6.3096	4.61	2.8907	100%	0.0036	1.0000
IEEE 802.11ac VHT80	1.50	1.4125	4.61	2.8907	100%	0.0008	1.0000

**Remark:**

1. Output power including tune-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer;

### 8.2 Simultaneous Transmission MPE

Maximum Simultaneous transmission MPE Ratios for Antenna 1 and Antenna 2

Maximum MPE(mW/cm <sup>2</sup> ) Ant.0	Maximum MPE(mW/cm <sup>2</sup> ) Ant.1	Maximum MPE(mW/cm <sup>2</sup> ) Ant.2	ΣMPE (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Results
0.0091	0.0708	0.0522	0.1321	1.0	PASS

### 9. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

-----THE END OF REPORT-----