

# FCC RF EXPOSURE EVALUATION REPORT

**Product Name:** Set Top Box  
**Trade Mark:** Skyworth, SDT  
**Model No.:** LEAP-S1  
**Add. Model No.:** HP40A, HP40A3, HP4005  
**Report Number:** 190920001RFC-5  
**Test Standards:** FCC 47 CFR Part 1 Subpart I  
**FCC ID:** WNA-LEAP-S1  
**Test Result:** PASS  
**Date of Issue:** November 8, 2019

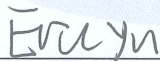
Prepared for:

**Shenzhen Skyworth Digital Technology Co., LTD**  
**Unit A14/F. Skyworth Bldg., Gaoxin Ave. 1s., Nanshan District,**  
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Prepared by:

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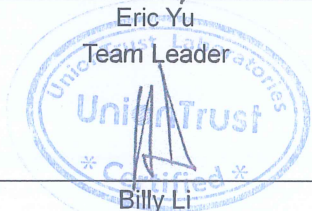
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**Version**

Version No.	Date	Description
V1.0	November 8, 2019	Original

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# 1. GENERAL INFORMATION

## 1.1 CLIENT INFORMATION

<b>Applicant:</b>	Shenzhen Skyworth Digital Technology Co., LTD
<b>Address of Applicant:</b>	Unit A14/F. Skyworth Bldg., Gaoxin Ave. 1s., Nanshan District, Shenzhen, China
<b>Manufacturer:</b>	Shenzhen Skyworth Digital Technology Co., LTD
<b>Address of Manufacturer:</b>	Unit A14/F. Skyworth Bldg., Gaoxin Ave. 1s., Nanshan District, Shenzhen, China

## 1.2 EUT INFORMATION

Product Name:	Set Top Box		
Model No.:	LEAP-S1		
Add. Model No.:	HP40A, HP40A3, HP4005		
Trade Mark:	Skyworth, SDT		
DUT Stage:	Identical Prototype		
EUT Supports Function:	2.4 GHz ISM Band:	IEEE 802.11b/g/n	
		Bluetooth V4.2	
	5 GHz U-NII Bands:	5 150 MHz to 5 250 MHz	IEEE 802.11a/n/ac
		5 250 MHz to 5 350 MHz	IEEE 802.11a/n/ac
		5 470 MHz to 5 725 MHz	IEEE 802.11a/n/ac
		5 725 MHz to 5 850 MHz	IEEE 802.11a/n/ac
Sample Received Date:	October 16, 2019		
Sample Tested Date:	October 23, 2019 to October 29, 2019		
Note: The additional model HP40A, HP40A3, HP4005 is identical with the test model LEAP-S1 except the model number for marketing purpose.			

## 1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

For BT_LE	
<b>Frequency Band:</b>	2400 MHz to 2483.5 MHz
<b>Frequency Range:</b>	2402 MHz to 2480 MHz
<b>Bluetooth Version:</b>	Bluetooth LE
<b>Type of Modulation:</b>	GFSK
<b>Number of Channels:</b>	40
<b>Channel Separation:</b>	2 MHz
<b>Antenna Type:</b>	on-board Antenna
<b>Antenna Gain:</b>	1.5 dBi
<b>Maximum Peak Power:</b>	0.03 dBm

For BT_EDR	
<b>Frequency Band:</b>	2400 MHz to 2483.5 MHz
<b>Frequency Range:</b>	2402 MHz to 2480 MHz
<b>Bluetooth Version:</b>	Bluetooth BR + EDR
<b>Modulation Technique:</b>	Frequency Hopping Spread Spectrum(FHSS)
<b>Type of Modulation:</b>	GFSK, $\pi/4$ DQPSK, 8DPSK
<b>Number of Channels:</b>	79
<b>Channel Separation:</b>	1 MHz
<b>Antenna Type:</b>	on-board Antenna

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<b>Antenna Gain:</b>	1.5 dBi
<b>Maximum Peak Power:</b>	4.26 dBm

For 2.4 GHz ISM Band of Wi-Fi		
<b>Frequency Band:</b>	2400 MHz to 2483.5 MHz	
<b>Frequency Range:</b>	2412 MHz to 2472 MHz	
<b>Support Standards:</b>	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20, IEEE 802.11n-HT40	
<b>Type of Modulation:</b>	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM(64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n-HT20: OFDM(64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n-HT40: OFDM(64-QAM, 16-QAM, QPSK, BPSK)	
<b>Data Rate:</b>	IEEE 802.11b: Up to 11 Mbps IEEE 802.11g: Up to 54 Mbps IEEE 802.11n-HT20: Up to MCS15 IEEE 802.11n-HT40: Up to MCS15	
<b>Number of Channels:</b>	IEEE 802.11b: 13 IEEE 802.11g: 13 IEEE 802.11n-HT20: 13 IEEE 802.11n-HT40: 9	
<b>Channel Separation:</b>	5 MHz	
<b>Antenna Type:</b>	Chain 0	PCB Antenna
	Chain 1	PIFA Antenna
<b>Antenna Gain:</b>	Chain 0	3.5 dBi
	Chain 1	3.0 dBi
<b>Directional gain:</b>	6.26 dBi	
<b>Maximum Peak Power:</b>	SISO_ Chain 0	IEEE 802.11b: 18.52 dBm IEEE 802.11g: 23.82 dBm IEEE 802.11n-HT20: 22.33 dBm IEEE 802.11n-HT40: 19.27dBm
	SISO_ Chain 1	IEEE 802.11b: 14.51 dBm IEEE 802.11g: 21.64 dBm IEEE 802.11n-HT20: 19.49 dBm IEEE 802.11n-HT40: 21.50 dBm
	MIMO_ Chain 0+1	IEEE 802.11n-HT20: 24.15 dBm IEEE 802.11n-HT40: 23.20 dBm

For 5 GHz U-NII Bands of Wi-Fi	
<b>Frequency Bands:</b>	5150 MHz to 5250 MHz (U-NII-1)
	5250 MHz to 5350 MHz (U-NII-2A)
	5470 MHz to 5725 MHz (U-NII-2C)
	5 725 MHz to 5 850 MHz (U-NII-3)
<b>Frequency Ranges:</b>	5180 MHz to 5240 MHz
	5260 MHz to 5320 MHz
	5500 MHz to 5700 MHz
	5 745 MHz to 5 825 MHz
<b>Support Standards:</b>	IEEE 802.11a/n/ac
<b>TPC Function:</b>	Not Support
<b>DFS Operational mode:</b>	Slave without radar Interference detection function
<b>Type of Modulation:</b>	IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK)
	IEEE 802.11n: OFDM(64QAM, 16QAM, QPSK, BPSK)

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	IEEE 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK)				
<b>Channel Spacing:</b>	IEEE 802.11a/n-HT20/ac-VHT20: 20 MHz				
	IEEE 802.11n-HT40/ac-VHT40: 40 MHz				
	IEEE 802.11ac-VHT80: 80 MHz				
<b>Data Rate:</b>	IEEE 802.11a: Up to 54 Mbps				
	IEEE 802.11n-HT20: Up to MCS15				
	IEEE 802.11n-HT40: Up to MCS15				
	IEEE 802.11ac-VHT20: Up to MCS8				
	IEEE 802.11ac-VHT40: Up to MCS9				
	IEEE 802.11ac-VHT80: Up to MCS9				
<b>Number of Channels:</b>	5150 MHz to 5250 MHz: 4 for IEEE 802.11a/n-HT20/ac-VHT20 2 for IEEE 802.11n-HT40/ac-VHT40 1 for IEEE 802.11ac-VHT80				
	5250 MHz to 5350 MHz: 4 for IEEE 802.11a/n-HT20/ac-VHT20 2 for IEEE 802.11n-HT40/ac-VHT40 1 for IEEE 802.11ac-VHT80				
	5470 MHz to 5725 MHz: 11 for IEEE 802.11a/n-HT20/ac-VHT20 5 for IEEE 802.11n-HT40/ac-VHT40 2 for IEEE 802.11ac-VHT80				
	5725 MHz to 5850 MHz: 5 for IEEE 802.11a/n-HT20/ac-VHT20 2 for IEEE 802.11n-HT40/ac-VHT40 1 for IEEE 802.11ac-VHT80				
<b>Antenna Type:</b>	Chain 0	FPCB Antenna			
	Chain 1	PIFA Antenna			
<b>Antenna Gain:</b>	Chain 0	5150 MHz to 5250 MHz: 3.0 dBi			
		5250 MHz to 5350 MHz: 3.0 dBi			
		5470 MHz to 5725 MHz: 3.0 dBi			
		5725 MHz to 5850 MHz: 3.0 dBi			
	Chain 1	5150 MHz to 5250 MHz: 4.0 dBi			
		5250 MHz to 5350 MHz: 4.0 dBi			
		5470 MHz to 5725 MHz: 4.0 dBi			
		5725 MHz to 5850 MHz: 4.0 dBi			
<b>Maximum conducted output power (dBm):</b>	<b>SISO_Chain 0</b>	<b>U-NII-1</b>	<b>U-NII-2A</b>	<b>U-NII-2C</b>	<b>U-NII-3</b>
	IEEE 802.11a:	12.61	12.84	12.98	15.84
	<b>SISO_Chain 1</b>	<b>U-NII-1</b>	<b>U-NII-2A</b>	<b>U-NII-2C</b>	<b>U-NII-3</b>
	IEEE 802.11a:	16.03	15.74	13.46	16.80
	<b>MIMO_Chain 0+1</b>	<b>U-NII-1</b>	<b>U-NII-2A</b>	<b>U-NII-2C</b>	<b>U-NII-3</b>
	IEEE 802.11n-HT20:	14.68	13.58	13.57	15.87
	IEEE 802.11n-HT40:	14.23	13.78	13.98	15.50
	IEEE 802.11ac-VHT20:	14.44	13.49	13.58	15.60
	IEEE 802.11ac-VHT40:	14.13	13.78	13.56	15.43
	IEEE 802.11ac-VHT80:	15.54	14.43	13.42	15.58

## 1.4 OTHER INFORMATION

Test channels for BT_LE				
Type of Modulation	Tx/Rx Frequency	Test RF Channel Lists		
GFSK	2402 MHz to 2480 MHz	Lowest(L)	Middle(M)	Highest(H)
		Channel 0	Channel 19	Channel 39
		2402 MHz	2440 MHz	2480 MHz

Test channels for BT_LE				
Type of Modulation	Tx/Rx Frequency	Test RF Channel Lists		
GFSK	2402 MHz to 2480 MHz	Lowest(L)	Middle(M)	Highest(H)
		Channel 0	Channel 19	Channel 39
		2402 MHz	2440 MHz	2480 MHz

Test channels for BT_EDR				
Mode	Tx/Rx Frequency	Test RF Channel Lists		
GFSK (DH1, DH3, DH5)	2402 MHz to 2480 MHz	Lowest(L)	Middle(M)	Highest(H)
		Channel 0	Channel 39	Channel 68
$\pi$ /4DQPSK (DH1, DH3, DH5)	2402 MHz to 2480 MHz	2402 MHz	2441 MHz	2480 MHz
		Channel 0	Channel 39	Channel 68
8DPSK (DH1, DH3, DH5)	2402 MHz to 2480 MHz	2402 MHz	2441 MHz	2480 MHz
		Channel 0	Channel 39	Channel 68

Mode	2Tx/2Rx Frequency	Test RF Channel Lists				
		Lowest(L)	Middle(M)	Highest(H11)	Highest(H12)	Highest(H13)
IEEE 802.11b	2412 MHz to 2472 MHz	Channel 1	Channel 6	Channel 11	Channel 12	Channel 13
		2412 MHz	2437 MHz	2462 MHz	2467 MHz	2472 MHz
IEEE 802.11g	2412 MHz to 2472 MHz	Channel 1	Channel 6	Channel 11	Channel 12	Channel 13
		2412 MHz	2437 MHz	2462 MHz	2467 MHz	2472 MHz
IEEE 802.11n- HT20	2412 MHz to 2472 MHz	Channel 1	Channel 6	Channel 11	Channel 12	Channel 13
		2412 MHz	2437 MHz	2462 MHz	2467 MHz	2472 MHz
Mode	2Tx/2Rx Frequency	Test RF Channel Lists				
		Lowest(L)	Middle(M)	Highest(H9)	Highest(H10)	Highest(H11)
IEEE 802.11n- HT40	2422 MHz to 2462 MHz	Channel 3	Channel 6	Channel 9	Channel 10	Channel 11
		2422 MHz	2437 MHz	2452 MHz	2457 MHz	2462 MHz

Test channels for 5 GHz U-NII Bands of Wi-Fi				
Mode	2Tx/2Rx Frequency	Test RF Channel Lists		
		Lowest(L)	Middle(M)	Highest(H)
IEEE 802.11a IEEE 802.11n-HT20 IEEE 802.11ac-VHT20	5150 MHz to 5250 MHz	Channel 36	Channel 44	Channel 48
		5180 MHz	5220 MHz	5240 MHz
	5250 MHz to 5350 MHz	Channel 52	Channel 60	Channel 64
		5260 MHz	5300 MHz	5320 MHz
	5470 MHz to 5725 MHz	Channel 100	Channel 120	Channel 140
		5500 MHz	5600 MHz	5700 MHz
	5725 MHz to 5850 MHz	Channel 149	Channel 157	Channel 161

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		5745 MHz	5785 MHz	5805 MHz
IEEE 802.11n-HT40 IEEE 802.11ac-VHT40	5150 MHz to 5250 MHz	Channel 38	--	Channel 46
		5190 MHz	--	5230 MHz
	5250 MHz to 5350 MHz	Channel 54	--	Channel 62
		5270 MHz	--	5310 MHz
	5470 MHz to 5725 MHz	Channel 102	Channel 118	Channel 134
		5510 MHz	5590 MHz	5670 MHz
IEEE 802.11ac-HT80	5725 MHz to 5850 MHz	Channel 151	--	Channel 159
		5755 MHz	--	5795 MHz
	5150 MHz to 5250 MHz	--	Channel 42	--
		--	5210 MHz	--
	5250 MHz to 5350 MHz	--	Channel 58	--
		--	5290 MHz	--
	5470 MHz to 5725 MHz	Channel 106	--	Channel 122
		5530 MHz	--	5610 MHz
	5725 MHz to 5850 MHz	--	Channel 155	--
		--	5775 MHz	--

## 1.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

### **FCC 47 CFR Part 1 Subpart I**

All test items have been performed and recorded as per the above standards

## 1.6 TEST LOCATION

All tests were performed at:

### **Shenzhen UnionTrust Quality and Technology Co., Ltd.**

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## 1.7 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

### **CNAS-Lab Code: L9069**

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC/EN 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

### **A2LA-Lab Certificate No.: 4312.01**

Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence

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in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

**ISED Wireless Device Testing Laboratories**

CAB identifier: CN0032

**FCC Accredited Lab.**

Designation Number: CN1194

Test Firm Registration Number: 259480

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## **1.8 DEVIATION FROM STANDARDS**

None.

## **1.9 ABNORMALITIES FROM STANDARD CONDITIONS**

None.

## **1.10 OTHER INFORMATION REQUESTED BY THE CUSTOMER**

None.

## **2. EQUIPMENT LIST**

Please refer to the RF test report.

### 3. MPE EVALUATION

#### 3.1 REFERENCE DOCUMENTS FOR EVALUATION

No.	Identity	Document Title
1	FCC 47 CFR Part 1 Subpart I	PROCEDURES IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969
2	KDB 447498 D01 General RF Exposure Guidance v06	RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES

#### 3.2 MPE COMPLIANCE REQUIREMENT

##### 3.2.1 Limits

According to §1.1307(b)(1), system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

##### Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

##### Limits 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 <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

**Note:** f = frequency in MHz: \* = Plane-wave equivalents power density.

##### 3.2.2 Test Procedure

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

#### 3.3 MPE CALCULATION METHOD

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

S = power density (in appropriate units, e.g., mw/cm<sup>2</sup>)

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, the power gain factor is normally numeric gain.

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

#### 3.4 MPE CALCULATION RESULTS

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**Note:** For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

### 3.4.1 For WLAN

For Wi-Fi function, operating at 2412MHz to 2472 MHz for IEEE802.11b/g/n and  
operating at 5150 MHz to 5250 MHz for IEEE802.11a/n/ac and  
operating at 5250 MHz to 5350 MHz for IEEE802.11a/n/ac and  
operating at 5470 MHz to 5725 MHz for IEEE802.11a/n/ac and  
operating at 5725 MHz to 5850 MHz for IEEE802.11a/n/ac.

#### 3.4.1.1 Antenna Type:

**Chain 0:** PCB Antenna

**Chain 1:** PIFA Antenna

#### 3.4.1.2 Antenna Gain:

**Chain 0:** 2412MHz to 2472 MHz: 3.5 dBi  
5150 MHz to 5250 MHz: 3 dBi  
5250 MHz to 5350 MHz: 3 dBi  
5470 MHz to 5725 MHz: 3 dBi  
5725 MHz to 5850 MHz: 3 dBi

**Chain 1:** 2412MHz to 2472 MHz: 3.0 dBi  
5150 MHz to 5250 MHz: 4 dBi  
5250 MHz to 5350 MHz: 4 dBi  
5470 MHz to 5725 MHz: 4 dBi  
5725 MHz to 5850 MHz: 4 dBi

For MIMO mode (2Tx/2Rx), there are two transmission antennas. Both Chain 0 and Chain 1 used at the same time and antenna ports have uniform output powers. The Chain 0 and Chain 1 antenna ports can be used alone. The transmit signals are correlated with each other.

The Directional gain =  $10 \log[(10^{G_1}/20 + 10^{G_2}/20 + \dots + 10^{G_N}/20)^2 / N_{ANT}]$  dBi = 6.26 dBi (2.4GHz)

The Directional gain =  $10 \log[(10^{G_1}/20 + 10^{G_2}/20 + \dots + 10^{G_N}/20)^2 / N_{ANT}]$  dBi = 6.52 dBi (5GHz)

### 3.4.1.3 Results for WLAN

Operating Mode		Freq.	Declared maximum conducted average output power	Max. positive tolerance according manufacturer	Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	MPE Limit	MPE Value
		(MHz)	(dBm)		(dBi)	(dBm)	(mW)	(mw/cm <sup>2</sup> )	
SISO Ant. 0	IEEE 802.11b	2412-2462	16	2	3.5	21.5	141.2538	1	0.0281
		2467-2472	14	2	3.5	19.5	89.1251	1	0.0177
	IEEE 802.11g	2412-2462	15	2	3.5	20.5	112.2018	1	0.0223
		2467-2472	12	2	3.5	17.5	56.2341	1	0.0112
	IEEE 802.11a	5180-5700	13	2	3	18	63.0957	1	0.0126
		5745-5825	16	2	3	21	125.8925	1	0.0250

Operating Mode		Freq.	Declared maximum conducted average output power	Max. positive tolerance according manufacturer	Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	MPE Limit	MPE Value
		(MHz)	(dBm)		(dBi)	(dBm)	(mW)	(mw/cm <sup>2</sup> )	
SISO Ant. 1	IEEE 802.11b	2412-2462	12	2	3	17	50.1187	1	0.0100
		2467-2472	10	2	3	15	31.6228	1	0.0063
	IEEE 802.11g	2412-2462	12	2	3	17	50.1187	1	0.0100
		2467-2472	10	2	3	15	31.6228	1	0.0063
	IEEE 802.11a	5180-5700	15	2	4	21	125.8925	1	0.0250
		5745-5825	16	2	4	22	158.4893	1	0.0315

Operating Mode		Freq.	Declared maximum conducted average output power	Max. positive tolerance according manufacturer	Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	MPE Limit	MPE Value
		(MHz)	(dBm)		(dBi)	(dBm)	(mW)	(mw/cm <sup>2</sup> )	
MIMO Ant. 0 + Ant.1	IEEE 802.11n-HT20	2412-2462	11	2	6.26	19.26	84.3335	1	0.0168
		2467-2472	9	2	6.26	17.26	53.2108	1	0.0106
		5180-5700	11	2	6.52	19.52	89.5365	1	0.0178
		5745-5825	13	2	6.52	21.52	141.9058	1	0.0282
	IEEE 802.11n-HT40	2422-2452	9	2	6.26	17.26	53.2108	1	0.0106
		2457-2462	8	2	6.26	16.26	42.2669	1	0.0084
		5190-5670	11	2	6.52	19.52	89.5365	1	0.0178
		5755-5795	13	2	6.52	21.52	141.9058	1	0.0282
	IEEE 802.11ac-VHT20	5180-5700	11	2	6.52	19.52	89.5365	1	0.0178
		5745-5825	13	2	6.52	21.52	141.9058	1	0.0282
	IEEE 802.11ac-VHT40	5190-5670	11	2	6.52	19.52	89.5365	1	0.0178
		5755-5795	13	2	6.52	21.52	141.9058	1	0.0282
	IEEE 802.11ac-VHT80	5210-5610	11	2	6.52	19.52	89.5365	1	0.0178
		5775	13	2	6.52	21.52	141.9058	1	0.0282

### 3.4.2 For BT

For BT\_LE function, operating at 2402MHz to 2480 MHz for GFSK and

For BT\_EDR function, operating at 2402MHz to 2480 MHz for GFSK,  $\pi/4$  DQPSK, 8DPSK

#### 3.4.2.1 Antenna Type:

Chain 0: on-board Antenna

#### 3.4.2.2 Antenna Gain:

Chain 0: 2402MHz to 2480 MHz: 1.5 dBi

#### 3.4.2.3 Results for BT

Operating Mode	Freq.	Declared maximum conducted average output power	Max. positive tolerance according manufacturer	Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	MPE Limit	MPE Value
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(mW)	(mw/cm <sup>2</sup> )	
LE	2402	0	1	1.5	2.5	1.778	1	0.0004
	2440	-1	2	1.5	2.5	1.778	1	0.0004
	2480	-1	2	1.5	2.5	1.7783	1	0.0004
EDR	2402	4	2	1.5	7.5	5.6234	1	0.0011
	2441	1	1	1.5	3.5	2.239	1	0.0004
	2480	-2	2	1.5	1.5	1.413	1	0.0003

### 3.4.3 Simultaneous Multi-band Transmission MPE Analysis

#### 3.4.4.1 List of Mode for Simultaneous Multi-band Transmission

No.	Configurations	Support/Not Support
1	2.4G_WLAN_SISO + BT	Support
3	2.4G_WLAN_MIMO + BT	Support
4	5G_WLAN_SISO + BT	Support
5	5G_WLAN_MIMO + BT	Support
10	2.4G_WLAN_SISO + 5G_WLAN_SISO	Not Support
11	2.4G_WLAN_MIMO + 5G_WLAN_MIMO	Not Support

#### 3.4.4.2 Results for transmit simultaneously

No.	Configurations	Maximum MPE Value (mw/cm <sup>2</sup> )			Limits (mw/cm <sup>2</sup> )
		WLAN	BT	Transmit simultaneously	
1	2.4G_WLAN_SISO + BT	0.0315	0.0011	0.0326	1
2	2.4G_WLAN_MIMO + BT	0.0168	0.0011	0.0179	1
3	5G_WLAN_SISO + BT	0.0282	0.0011	0.0293	1
4	5G_WLAN_MIMO + BT	0.0282	0.0011	0.0293	1

**Note 1:** According to KDB 447498 D01 General RF Exposure Guidance v06, At the transmit simultaneously calculation method is as follows:

$$\text{Transmit simultaneously MPE} = \Sigma \text{ of MPE ratios}$$

$$\text{MPE ratios} = \text{Field strengths or power density} / \text{MPE limit at the test frequency}$$



## APPENDIX 1 PHOTOS OF TEST SETUP

N/A

## APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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