

FCC RF EXPOSURE EVALUATION REPORT

Product Name: 4K UHD Streaming Box
Trade Mark: SKYWORTH, SDT, DIRECTV, THOMSON, STRONG, Tesla, MECOOL, CoLoVu
Model No.: LEAP-S1
Add. Model No.: OTT-01, HP40A, HP40A3, HP4005, SRT401, THA100, THA 100, HP4035, XA400, KM2, C1 Plus, Leap-S1
Report Number: 210406006RFC-5
Test Standards: FCC 47 CFR Part 1 Subpart I
FCC ID: WNA-LEAP-S1
Test Result: PASS
Date of Issue: June 23, 2021

Prepared for:

Shenzhen Skyworth Digital Technology Co., LTD
Unit A14/F. Skyworth Bldg., Gaoxin Ave. 1s., Nanshan District, Shenzhen, China

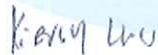
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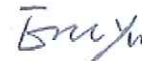
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Version

| Version No. | Date | Description |
|-------------|---------------|-------------|
| V1.0 | June 23, 2021 | Original |

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1. GENERAL INFORMATION

1.1 CLIENT INFORMATION

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

1.2 EUT INFORMATION

| | | | |
|-------------------------------|--|------------------------|-------------------|
| Product Name: | 4K UHD Streaming Box | | |
| Model No.: | LEAP-S1 | | |
| Add. Model No.: | OTT-01, HP40A, HP40A3, HP4005, SRT401, THA100, THA 100, HP4035, XA400, KM2, C1 Plus, Leap-S1 | | |
| Trade Mark: | SKYWORTH, SDT, DIRECTV, THOMSON, | | |
| 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 | |

1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

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

| | |
|------------------------------|---|
| For BT_EDR | |
| Frequency Band: | 2400 MHz to 2483.5 MHz |
| Frequency Range: | 2402 MHz to 2480 MHz |
| Bluetooth Version: | Bluetooth BR + EDR |
| Modulation Technique: | Frequency Hopping Spread Spectrum(FHSS) |
| Type of Modulation: | GFSK, $\pi/4$ DQPSK, 8DPSK |
| Number of Channels: | 79 |
| Channel Separation: | 1 MHz |
| Antenna Type: | on-board Antenna |
| Antenna Gain: | 1.5 dBi |
| Maximum Peak Power: | 4.3 dBm |

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| For 2.4 GHz ISM Band of Wi-Fi | | |
|-------------------------------|---|--|
| Frequency Band: | 2400 MHz to 2483.5 MHz | |
| Frequency Range: | 2412 MHz to 2472 MHz | |
| Support Standards: | IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20, IEEE 802.11n-HT40 | |
| Type of Modulation: | 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) | |
| Data Rate: | 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 | |
| Number of Channels: | IEEE 802.11b: 13 IEEE 802.11g: 13 IEEE 802.11n-HT20: 13 IEEE 802.11n-HT40: 11 | |
| Channel Separation: | 5 MHz | |
| Antenna Type: | Chain 0 | PIFA Antenna |
| | Chain 1 | PIFA Antenna |
| Antenna Gain: | Chain 0 | 3.5 dBi |
| | Chain 1 | 3.0 dBi |
| Directional gain: | 6.26 dBi | |
| Maximum Peak Power: | 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 | |
|--------------------------------|---|
| Frequency Bands: | 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) |
| Frequency Ranges: | 5180 MHz to 5240 MHz |
| | 5260 MHz to 5320 MHz |
| | 5500 MHz to 5700 MHz |
| | 5 745 MHz to 5 825 MHz |
| Support Standards: | IEEE 802.11a/n/ac |
| TPC Function: | Not Support |
| DFS Operational mode: | Slave without radar Interference detection function |
| Type of Modulation: | IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK) |
| | IEEE 802.11n: OFDM(64QAM, 16QAM, QPSK, BPSK) |
| | IEEE 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK) |
| Channel Spacing: | IEEE 802.11a/n-HT20/ac-VHT20: 20 MHz |
| | IEEE 802.11n-HT40/ac-VHT40: 40 MHz |

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| | | | | | |
|--|---|-------------------------------|-----------------|-----------------|----------------|
| Data Rate: | IEEE 802.11ac-VHT80: 80 MHz | | | | |
| | 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 | | | | |
| Number of Channels: | 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 802.11acVHT80 | | | | |
| | 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 802.11acVHT80 | | | | |
| | 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 | | | | |
| Antenna Type: | Chain 0 | PIFA Antenna | | | |
| | Chain 1 | PIFA Antenna | | | |
| Antenna Gain: | 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 | | | |
| Maximum conducted output power (dBm): | SISO_Chain 0 | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |
| | IEEE 802.11a: | 12.61 | 12.84 | 12.98 | 15.84 |
| | SISO_Chain 1 | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |
| | IEEE 802.11a: | 16.03 | 15.74 | 13.46 | 16.80 |
| | MIMO_Chain 0+1 | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |
| | 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: | 11.49 | 14.20 | 13.42 | 15.58 | |

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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 |
| π /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 | | | | |
| IEEE 802.11n- HT40 | 2422 MHz to 2462 MHz | Lowest(L) | Middle(M) | Highest(H9) | Highest(H10) | Highest(H11) |
| | | 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 |
| 5725 MHz to 5850 MHz | Channel 151 | -- | Channel 159 | |
| | 5755 MHz | -- | 5795 MHz | |
| IEEE 802.11ac-HT80 | 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:

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Telephone: +86 (0) 755 2823 0888

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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 manufacturers 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

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 ²) | Averaging Times 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)* | 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 ²) | Averaging Times 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)* | 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/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, 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

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: PIFA 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: 3.0 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: 2412MHz to 2472 MHz: 3.0 dBi
 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

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 = $10 \log[(10^{G1} / 20 + 10^{G2} / 20 + \dots + 10^{GN} / 20)^2 / NANT]$ dBi = 6.26 dBi (2.4GHz)

The Directional gain = $10 \log[(10^{G1} / 20 + 10^{G2} / 20 + \dots + 10^{GN} / 20)^2 / NANT]$ dBi = 6.52 dBi (5GHz)

3.4.1.3 Results for WLAN

| 3.4.1.4 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) | | | | | | | |
| 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) | | | | | | | |
| 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) | | | | | | | |
| 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 |
| | IEEE 802.11ac-VHT20 | 5755-5795 | 13 | 2 | 6.52 | 21.52 | 141.9058 | 1 | 0.0282 |
| | | 5180-5700 | 11 | 2 | 6.52 | 19.52 | 89.5365 | 1 | 0.0178 |
| | IEEE 802.11ac-VHT40 | 5745-5825 | 13 | 2 | 6.52 | 21.52 | 141.9058 | 1 | 0.0282 |
| | | 5190-5670 | 11 | 2 | 6.52 | 19.52 | 89.5365 | 1 | 0.0178 |
| | IEEE 802.11ac-VHT80 | 5755-5795 | 13 | 2 | 6.52 | 21.52 | 141.9058 | 1 | 0.0282 |
| | | 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 ²) | |
| 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 ²) | | | Limits (mw/cm ²) |
|-----|---------------------|---|--------|-------------------------|------------------------------|
| | | 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 ***

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of UnionTrust, this report can't be reproduced except in full.
