

TEST REPORT

Applicant: INFINIX MOBILITY LIMITED.

Address: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE
19-25 SHAN MEI STREET FOTAN NT HONGKONG

Product Name: Mobile Phone

FCC ID: 2AIZN-YY5-X6855

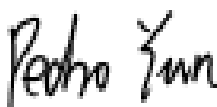
47 CFR Part 15, Subpart E(15.407)

Standard(s): FCC KDB 905462 D02 UNII DFS Compliance Procedures New
Rules v02

Report Number: 2402Y37628E-RF-00F

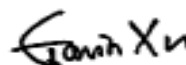
Report Date: 2024/11/19

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).



Reviewed By: Pedro Yun

Title: Project Engineer



Approved By: Gavin Xu

Title: RF Supervisor

Bay Area Compliance Laboratories Corp. (Dongguan)
No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

www.baclcorp.com.cn

Note: The information marked ▲ is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report cannot be reproduced except in full, without prior written approval of the Company. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0. This report may contain data that are not covered by the accreditation scope and shall be marked with ★. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government. Each test item follows the test standard(s) without deviation.

CONTENTS

| | |
|---|-----------|
| DOCUMENT REVISION HISTORY | 3 |
| 1. GENERAL INFORMATION | 4 |
| 1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) | 4 |
| 1.2 ACCESSORY INFORMATION: | 4 |
| 1.3 ANTENNA INFORMATION DETAIL▲: | 4 |
| 1.4 EQUIPMENT MODIFICATIONS | 4 |
| 2. DESCRIPTION OF TEST CONFIGURATION | 5 |
| 2.1 EUT OPERATION CONDITION..... | 5 |
| 2.2 SUPPORT EQUIPMENT LIST AND DETAILS | 5 |
| 2.3 SUPPORT CABLE LIST AND DETAILS | 5 |
| 2.4 BLOCK DIAGRAM OF TEST SETUP | 5 |
| 2.5 TEST FACILITY..... | 6 |
| 3. SUMMARY OF TEST RESULTS | 7 |
| 4. REQUIREMENTS AND TEST PROCEDURES | 8 |
| 4.1 DFS REQUIREMENT..... | 8 |
| 4.2 TEST PROCEDURE | 12 |
| 5. Test DATA AND RESULTS | 13 |
| 5.1 RADAR WAVEFORM CALIBRATION | 14 |
| 5.2 CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME | 15 |
| 5.2.1 Test Procedure | 15 |
| 5.2.2 Test Results | 15 |
| 5.3 NON-OCCUPANCY PERIOD..... | 16 |
| 5.3.1 Test Procedure | 16 |
| 5.3.2 Test Result | 16 |
| EXHIBIT A - EUT PHOTOGRAPHS..... | 17 |
| EXHIBIT B - TEST SETUP PHOTOGRAPHS | 18 |

DOCUMENT REVISION HISTORY

| Revision Number | Report Number | Description of Revision | Date of Revision |
|-----------------|--------------------|-------------------------|------------------|
| 1.0 | 2402Y37628E-RF-00F | Original Report | 2024/11/19 |

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

| | |
|--|---|
| EUT Name: | Mobile Phone |
| EUT Model: | X6855 |
| Operation Frequency: | 5250-5350MHz: 5260-5320 MHz (802.11a/n ht20/ac vht20) 5270-5310 MHz(802.11n ht40/ac vht40) 5290 MHz(802.11ac vht80) 5470-5725MHz: 5500-5720 MHz (802.11a/n ht20/ac vht20) 5510-5710 MHz(802.11n ht40/vht40) 5530-5690MHz(802.11ac vht80) |
| Maximum Average Output Power (Conducted): | 5250-5350MHz:13.03dBm 5470-5725MHz:8.99dBm |
| Modulation Type: | 802.11a/n/ac: OFDM-BPSK, QPSK, 16QAM, 64QAM,256QAM |
| Rated Input Voltage: | DC 3.91V from battery or DC 5.0/11/20V from adapter |
| Serial Number: | 2TA3-3 |
| EUT Received Date: | 2024/10/22 |
| EUT Received Status: | Good |
| Note: The difference between the multiple configurations is the memory and some smaller components, Please refer to the declaration letter for more detail, which was provided by manufacturer. Test was performed with Configuration 1# only. | |

1.2 Accessory Information:

| Accessory Description | Manufacturer | Model | Parameters |
|-----------------------|--------------------------|---------|---|
| Adapter | INFINIX MOBILITY LIMITED | U900XSA | Input: 100-240Vac 50/60Hz 2.3A Output: 5.0Vdc 3A 15W or 5-11Vdc 8.2A MAX or 5-20Vdc 4.5A 90W MAX |
| earphone | INFINIX MOBILITY LIMITED | Unknown | Unknown |

1.3 Antenna Information Detail▲:

| Antenna Manufacturer | Antenna Type | input impedance (Ohm) | Frequency Range | Antenna Gain |
|--------------------------------------|--------------|-----------------------|-----------------|--------------|
| Shenzhen HuiKe Mold Plastic Co., Ltd | IFA | 50 | 5.25~5.35 GHz | -0.93dBi |
| | | | 5.47~5.725 GHz | -0.93dBi |

1.4 Equipment Modifications

No modifications are made to the EUT during all test items.

2. DESCRIPTION OF TEST CONFIGURATION

2.1 EUT Operation Condition

| | |
|--|--|
| EUT Operation Mode: | The system was configured for testing in Engineering Mode, which was provided by the manufacturer. |
| Equipment Modifications: | No |
| EUT Exercise Software: | Tfgen |
| WLAN traffic is generated by software “Tfgen”, software is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Data package streamed from the Access Point to the Client using the software “Tfgen”. | |

2.2 Support Equipment List and Details

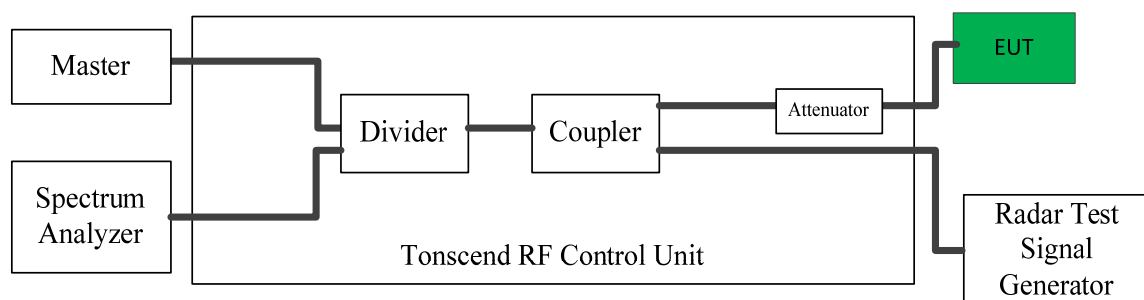
| Manufacturer | Description | Model | Serial Number |
|--------------|-------------|---------|-------------------|
| Lenovo | Laptop | T430 | AA887-03 |
| Tenda | Router | RX12PRO | ED331010215000033 |

Note: The mater Wireless Router FCC ID: V7TRX12P2.

2.3 Support Cable List and Details

| Cable Description | Shielding Type | Ferrite Core | Length (m) | From Port | To |
|-------------------|----------------|--------------|------------|-----------|----|
| / | / | / | / | / | / |

2.4 Block Diagram of Test Setup



2.5 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3. SUMMARY OF TEST RESULTS

The following result table represents the list of measurements required under the KDB: 905462 D02 UNII DFS Compliance Procedures New Rules v02

| Items | Description of Test | Result |
|--------------------------------|---|----------------|
| Detection Bandwidth | UNII Detection Bandwidth | Not applicable |
| Performance Requirements Check | Initial Channel Availability Check Time (CAC) | Not applicable |
| | Radar Burst at the Beginning of the CAC | Not applicable |
| | Radar Burst at the End of the CAC | Not applicable |
| In-Service Monitoring | Channel Move Time | Compliant |
| | Channel Closing Transmission Time | Compliant |
| | Non-Occupancy Period | Compliant |
| Radar Detection | Statistical Performance Check | Not applicable |

Note:

Not applicable: The EUT is a client unit without radar detection.

4. REQUIREMENTS AND TEST PROCEDURES

4.1 DFS Requirement

FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

| Requirement | Operational Mode | | |
|--|------------------|--------------------------------|-----------------------------|
| | Master | Client Without Radar Detection | Client With Radar Detection |
| <i>Non-Occupancy Period</i> | Yes | Not required | Yes |
| <i>DFS Detection Threshold</i> | Yes | Not required | Yes |
| <i>Channel Availability Check Time</i> | Yes | Not required | Not required |
| <i>U-NII Detection Bandwidth</i> | Yes | Not required | Yes |

Table 2: Applicability of DFS requirements during normal operation

| Requirement | Operational Mode | |
|--|--|--------------------------------|
| | Master Device or Client with Radar Detection | Client Without Radar Detection |
| <i>DFS Detection Threshold</i> | Yes | Not required |
| <i>Channel Closing Transmission Time</i> | Yes | Yes |
| <i>Channel Move Time</i> | Yes | Yes |
| <i>U-NII Detection Bandwidth</i> | Yes | Not required |

| Additional requirements for devices with multiple bandwidth modes | Master Device or Client with Radar Detection | Client Without Radar Detection |
|--|--|--|
| <i>U-NII Detection Bandwidth and Statistical Performance Check</i> | All BW modes must be tested | Not required |
| <i>Channel Move Time and Channel Closing Transmission Time</i> | Test using widest BW mode available | Test using the widest BW mode available for the link |
| <i>All other tests</i> | Any single BW mode | Not required |
| Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency. | | |

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

| Maximum Transmit Power | Value (See Notes 1, 2, and 3) |
|---|----------------------------------|
| EIRP \geq 200 milliwatt | -64 dBm |
| EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz | -62 dBm |
| EIRP < 200 milliwatt that do not meet the power spectral density requirement | -64 dBm |
| <p>Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.</p> <p>Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.</p> <p>Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p> | |

Table 4: DFS Response Requirement Values

| Parameter | Value |
|--|---|
| <i>Non-occupancy period</i> | Minimum 30 minutes |
| <i>Channel Availability Check Time</i> | 60 seconds |
| <i>Channel Move Time</i> | 10 seconds See Note 1. |
| <i>Channel Closing Transmission Time</i> | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2. |
| <i>U-NII Detection Bandwidth</i> | Minimum 100% of the U- NII 99% transmission power bandwidth. See Note 3. |
| <p>Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.</p> <p>Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.</p> <p>Note 3: During the <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.</p> | |

Table 5 – Short Pulse Radar Test Waveforms

| Radar Type | Pulse Width (μsec) | PRI (μsec) | Number of Pulses | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|---|--------------------|--|---|--|--------------------------|
| 0 | 1 | 1428 | 18 | See Note 1 | See Note 1 |
| 1 | 1 | Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A | Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$ | 60% | 30 |
| 2 | 1-5 | 150-230 | 23-29 | 60% | 30 |
| 3 | 6-10 | 200-500 | 16-18 | 60% | 30 |
| 4 | 11-20 | 200-500 | 12-16 | 60% | 30 |
| Aggregate (Radar Types 1-4) | | | | 80% | 120 |
| Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. | | | | | |

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 usec is selected, the number of pulses

would be $\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{3066} \right) \right\} = \text{Roundup} \{17.2\} = 18$.

Table 5a - Pulse Repetition Intervals Values for Test A

| Pulse Repetition Frequency Number | Pulse Repetition Frequency (Pulses Per Second) | Pulse Repetition Interval (Microseconds) |
|--|---|---|
| 1 | 1930.5 | 518 |
| 2 | 1858.7 | 538 |
| 3 | 1792.1 | 558 |
| 4 | 1730.1 | 578 |
| 5 | 1672.2 | 598 |
| 6 | 1618.1 | 618 |
| 7 | 1567.4 | 638 |
| 8 | 1519.8 | 658 |
| 9 | 1474.9 | 678 |
| 10 | 1432.7 | 698 |
| 11 | 1392.8 | 718 |
| 12 | 1355 | 738 |
| 13 | 1319.3 | 758 |
| 14 | 1285.3 | 778 |
| 15 | 1253.1 | 798 |
| 16 | 1222.5 | 818 |
| 17 | 1193.3 | 838 |
| 18 | 1165.6 | 858 |
| 19 | 1139 | 878 |
| 20 | 1113.6 | 898 |
| 21 | 1089.3 | 918 |
| 22 | 1066.1 | 938 |
| 23 | 326.2 | 3066 |

The aggregate is the average of the percentage of successful detections of Short Pulse Radar Types 1-4. For example, the following table indicates how to compute the aggregate of percentage of successful detections.

| Radar Type | Number of Trials | Number of Successful Detections | Minimum Percentage of Successful Detection |
|--|-------------------------|--|---|
| 1 | 35 | 29 | 82.9% |
| 2 | 30 | 18 | 60% |
| 3 | 30 | 27 | 90% |
| 4 | 50 | 44 | 88% |
| Aggregate $(82.9\% + 60\% + 90\% + 88\%)/4 = 80.2\%$ | | | |

Table 6 – Long Pulse Radar Test Waveform

| Radar Type | Pulse Width (μsec) | Chirp Width (MHz) | PRI (μsec) | Number of Pulses per Burst | Number of Bursts | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|------------|--------------------|-------------------|------------|----------------------------|------------------|--|--------------------------|
| 5 | 50-100 | 5-20 | 1000-2000 | 1-3 | 8-20 | 80% | 30 |

Table 7 – Frequency Hopping Radar Test Waveform

| Radar Type | Pulse Width (μsec) | PRI (μsec) | Pulses per Hop | Hopping Rate (kHz) | Hopping Sequence Length (msec) | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|------------|--------------------|------------|----------------|--------------------|--------------------------------|--|--------------------------|
| 6 | 1 | 333 | 9 | 0.333 | 300 | 70% | 30 |

4.2 Test Procedure

A spectrum analyzer is used as a monitor verifies that the EUT status including Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the diction and Channel move.

5. Test DATA AND RESULTS

| | | | |
|----------------|------------|--------------|------------|
| Serial Number: | 2TA3-3 | Test Date: | 2024/10/26 |
| Test Site: | RF | Test Mode: | Traffic |
| Tester: | Tower Qing | Test Result: | Pass |

| | | | | | |
|---------------------------|------|---------------------------|----|------------------------|-------|
| Environmental Conditions: | | | | | |
| Temperature: (°C) | 24.8 | Relative Humidity: (%) | 40 | ATM Pressure: (kPa) | 100.8 |

Test Equipment List and Details:

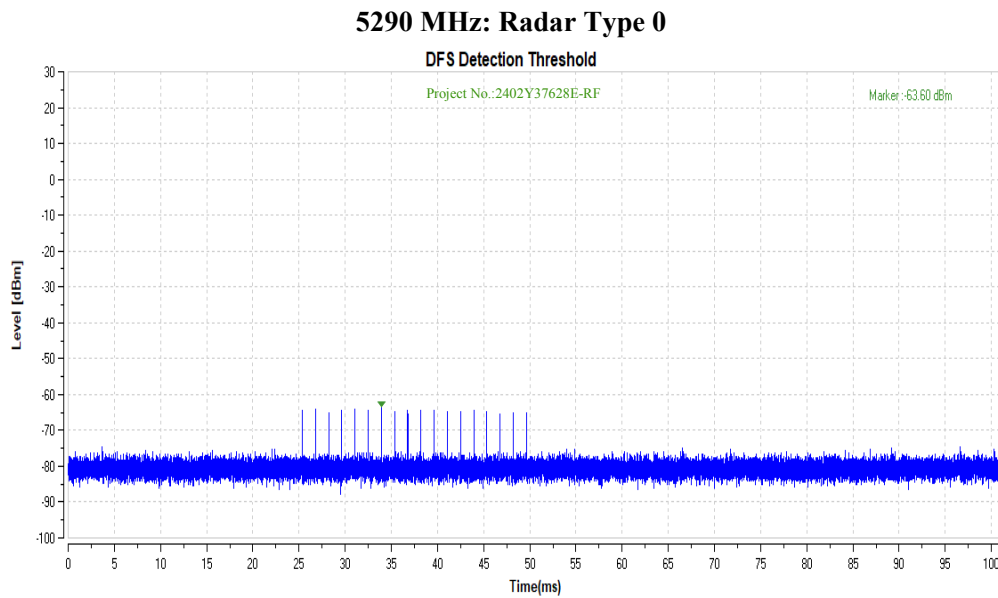
| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|--------------|-------------------------|-------------------|---------------|------------------|----------------------|
| Eastsheep | Coaxial Attenuator | 2W-SMA-JK-6G-10dB | F-08-EM505 | 2024/06/07 | 2025/06/06 |
| Eastsheep | Coaxial Attenuator | 2W-SMA-JK-6G-10dB | F-08-EM509 | 2024/06/07 | 2025/06/06 |
| Eastsheep | Coaxial Attenuator | 2W-SMA-JK-6G-10dB | F-08-EM510 | 2024/06/07 | 2025/06/06 |
| Agilent | Vector Signal Generator | N5182A | MY49060274 | 2024/09/05 | 2025/09/04 |
| Keysight | MXA Signal Analyzer | N9020A | MY48490106 | 2024/09/05 | 2025/09/04 |
| Tonscend | RF Control Unit | JS0806-2 | 19G8060171 | 2024/09/05 | 2025/09/04 |

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

5.1 Radar Waveform Calibration

| Test Bandwidth | Frequency [MHz] | Radar Type | Result [dBm] |
|----------------|--------------------|------------|-----------------|
| 80M | 5290 | Type0 | -63.60 |

Plots of Radar Waveforms



5.2 Channel Move Time And Channel Closing Transmission Time

5.2.1 Test Procedure

Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

The aggregate channel closing transmission time is calculated as follows:

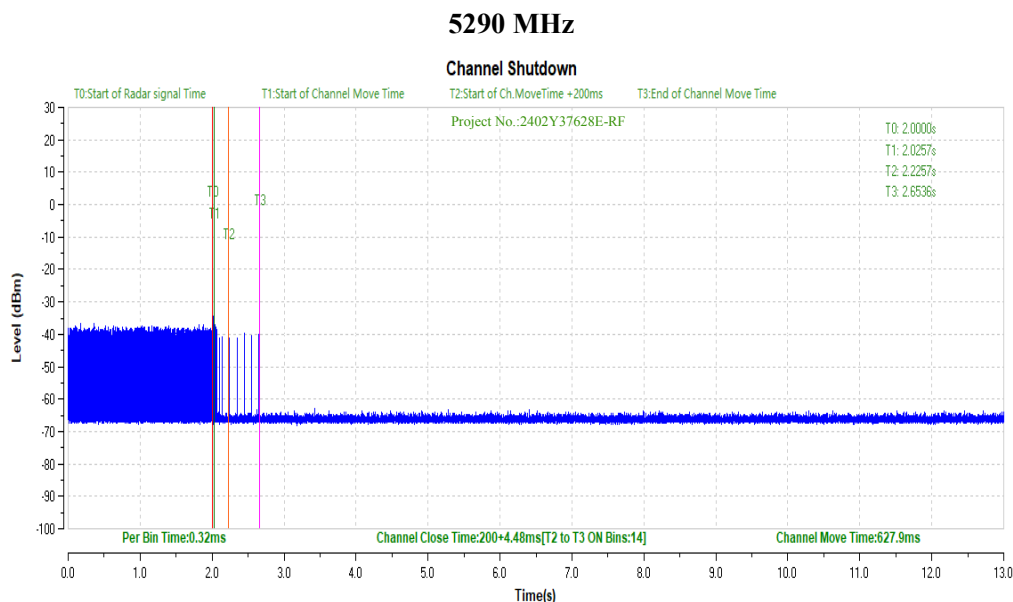
$$\text{Aggregate Transmission Time} = N * \text{Dwell Time}$$

N is the number of spectrum analyzer bins showing a device transmission Dwell Time is the dwell time per bin (i.e. Dwell Time = S/B, S is the sweep time and B is the number of bin, i.e. 8192)

5.2.2 Test Results

| Test Mode | Frequency [MHz] | CCTT [ms] | Limit [ms] | CMT [ms] | Limit [ms] | Verdict |
|------------|-----------------|-----------|------------|----------|------------|---------|
| 11AC80SISO | 5290 | 200+4.48 | 200+60 | 627.9 | 10000 | PASS |

Please refer to the following tables and plots.



5.3 Non-occupancy Period

5.3.1 Test Procedure

Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this channel. Provide one plot to demonstrate no transmission on the channel for the non-occupancy period (30 minutes observation time)

5.3.2 Test Result

| Test Mode | Frequency [MHz] | Result | Limit [s] | Verdict |
|------------|-----------------|----------------|-----------|---------|
| 11AC80SISO | 5290 | see test graph | ≥1800 | PASS |

Please refer to the following plots.

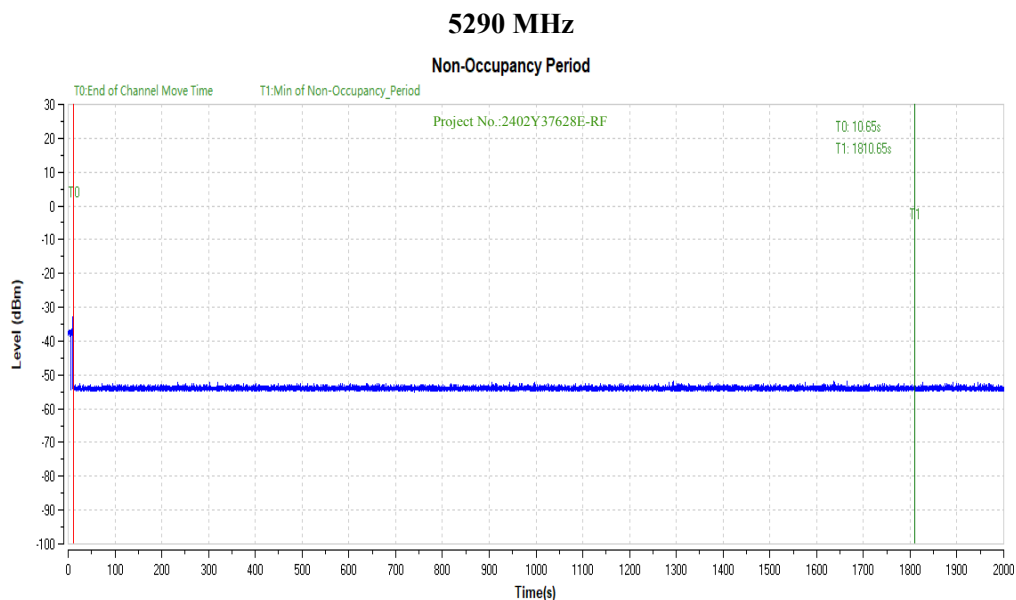


EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402Y37628E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Y37628E-RF-INP EUT INTERNAL PHOTOGRAPHS.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402Y37628E-RF-00F-TSP TEST SETUP PHOTOGRAPHS.

******* END OF REPORT *******