



FCC TEST REPORT

FCC ID: 2AAHW-AW869A

On Behalf of

Beijing TierTime Technology Co., Ltd.

WIFI MODULE

Model No.: AW869A

Prepared for : Beijing TierTime Technology Co., Ltd.
Address : No.2 Nanyi Street, Yanqi Economic Development Zone, Huairou
District, Beijing, 101407, P. R. China

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Report Number : A2301008-C01-R06
Date of Receipt : January 1, 2023
Date of Test : January 2, 2023- March 16, 2023
Date of Report : March 17, 2023
Version Number : V0

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TEST REPORT DECLARATION

Applicant : Beijing TierTime Technology Co., Ltd.
 Address : No.2 Nanyi Street, Yanqi Economic Development Zone, Huairou District, Beijing, 101407, P. R. China
 Manufacturer : Allwinner Technology Co., Ltd.
 Address : No.9 Technology Road 2, High-Tech Zone, Zhuhai, Guangdong, P.R.C
 EUT Description : WIFI MODULE
 (A) Model No. : AW869A
 (B) Trademark : N/A

Measurement Standard Used:

FCC Part 15 Subpart E, FCC KDB 905462 D02, FCC KDB 905462 D03

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC limits. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....: Lucas Pang
Project Engineer



Approved by (name + signature).....: Reak Yang
Project Manager



Date of issue.....: March 17, 2023

Revision History

| Revision | Issue Date | Revisions | Revised By |
|----------|----------------|------------------------|------------|
| V0 | March 17, 2023 | Initial released Issue | Lucas Pang |

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT Name : WIFI MODULE
 Model No. : AW869A
 DIFF. : N/A
 Power supply : DC 3.3V from motherboard power supply

Radio Technology : 5G WIFI

Operation Frequency : 802.11a/n(HT20)/ac(HT20) /ax20: 5180~5240MHz; 5260-5320MHz;
 5500-5700MHz; 5745~5825MHz

802.11n(HT40)/ac(HT40) /ax40: 5190~5230MHz; 5260-5320MHz;
 5510-5670MHz; 5755~5795MHz

Channel separation : 20MHz for 802.11a/ 802.11ac20/ 802.11n(HT20) / 802.11ax20
 40MHz for 802.11ac40/ 802.11n(HT40) / 802.11ax40

Modulation technology: : IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
 IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK)
 IEEE 802.11ac: OFDM (64QAM, 16QAM, QPSK, BPSK)
 IEEE 802.11ax : OFDMA
 (64QAM,16QAM,QPSK,BPSK,256QAM,1024QAM)

Antenna Type : FPC antenna max gain 3.13dBi,
 Rod antenna max gain 1.46dBi.
 (Antenna information is provided by applicant.)
 Note: All antennas have been tested, reflecting only the data for the
 maximum gain antenna.

Software version : V1.0

Hardware version : V1.0

Intend use environment : Residential, commercial and light industrial environment

1.2. Accessories of Device (EUT)

Accessories : AC ADAPTER
 Manufacturer : /
 Model : DY-1202000
 Ratings : INPUT: 100-240V AC 50/60Hz
 OUTPUT: DC12V=2A

1.3. Tested Supporting System Details

| No. | Description | Manufacturer | Model | Serial Number | Certification or SDoC |
|-----|----------------|--------------|------------------|------------------|-----------------------|
| 1. | Router(master) | HUAWEI | Echolife HG8245Q | 48575443B12E6D9D | FCC ID: QISHG8245Q |
| 2. | Notebook PC | Lenovo | T430 | N/A | N/A |

Note: master ping IP 192.168.1.3 for salve.

1.4. Block Diagram of connection between EUT and simulators



2. EMC EQUIPMENT LIST

| Equipment | Manufacture | Model No. | Firmware version | Serial No. | Last cal. | Cal Interval |
|-----------------------------|---------------|----------------------|------------------|----------------------------|------------|--------------|
| 9*6*6 anechoic chamber | CHENYU | 9*6*6 | / | N/A | 2022.05.17 | 3Year |
| Spectrum analyzer | ROHDE&SCHWARZ | FSV40-N | 2.3 | 102137 | 2022.08.22 | 1Year |
| Spectrum analyzer | Agilent | N9020A | A.14.16 | MY499100060 | 2022.08.22 | 1Year |
| Receiver | ROHDE&SCHWARZ | ESR | 2.28 SP1 | 1316.3003K03-10 2082-Wa | 2022.08.22 | 1Year |
| Receiver | R&S | ESCI | 4.42 SP1 | 101165 | 2022.08.22 | 1Year |
| Bilog Antenna | Schwarzbeck | VULB 9168 | / | VULB 9168#627 | 2021.08.30 | 2Year |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | / | 2106 | 2021.08.30 | 2Year |
| Active Loop Antenna | SCHWARZBECK | FMZB 1519B | / | 00059 | 2021.08.30 | 2Year |
| RF Cable | Resenberger | Cable 1 | / | RE1 | 2022.08.22 | 1Year |
| RF Cable | Resenberger | Cable 2 | / | RE2 | 2022.08.22 | 1Year |
| RF Cable | Resenberger | Cable 3 | / | CE1 | 2022.08.22 | 1Year |
| Pre-amplifier | HP | HP8347A | / | 2834A00455 | 2022.08.22 | 1Year |
| Pre-amplifier | Agilent | 8449B | / | 3008A02664 | 2022.08.22 | 1Year |
| L.I.S.N.#1 | Schwarzbeck | NSLK8126 | / | 8126-466 | 2022.08.22 | 1Year |
| L.I.S.N.#2 | ROHDE&SCHWARZ | ENV216 | / | 101043 | 2022.08.23 | 1 Year |
| Horn Antenna | SCHWARZBECK | BBHA9170 | / | 00946 | 2021.08.30 | 2 Year |
| Preamplifier | SKET | LNPA_1840 -50 | / | SK2018101801 | 2022.08.22 | 1 Year |
| Power Meter | Agilent | E9300A | / | MY41496628 | 2022.08.22 | 1 Year |
| Power Sensor | DARE | RPR3006W | / | 15100041SNO91 | 2022.08.22 | 1 Year |
| Temp. & Humid. Chamber | Weihuang | WHTH-1000 -40-880 | / | 100631 | 2022.08.22 | 1 Year |
| Switching Mode Power Supply | JUNKE | JK12010S | / | 20140927-6 | 2022.08.22 | 1 Year |
| Adjustable attenuator | MWRfTest | N/A | / | N/A | N/A | N/A |
| 10dB Attenuator | Mini-Circuits | DC-6G | / | N/A | N/A | N/A |

Software Information

| Test Item | Software Name | Manufacturer | Version |
|-----------|---------------|--------------|----------|
| RF-CE | MTS 8310 | MW | V2.0.0.0 |

3. SUMMARY OF MEASUREMENT

3.1. Summary of test result

| UNII | Bandwidth and Channel | Description | Measured | Limit | Result |
|--------------------------|-----------------------------|---|-------------------------------------|--|--------|
| U-NII-2C 5250-5350MHz | 40MHz (CH58) 5270MHz | Channel Move Time | 1.4 sec | 10 sec | Pass |
| | | Channel Closing Transmission time | <200ms +3.6 ms (aggregate) | 200 ms + aggregate of 60 ms over remaining 10 s period | Pass |
| | | Non-Occupancy Period and Client Beacon Test | No transmission or Beacons occurred | 30 minutes | Pass |
| U-NII-2C 5470-5725MHz | 40MHz (CH106) 5510MHz | Channel Move Time | 1.4 sec | 10 sec | Pass |
| | | Channel Closing Transmission time | <200ms +3.6 ms (aggregate) | 200 ms + aggregate of 60 ms over remaining 10 s period | Pass |
| | | Non-Occupancy Period and Client Beacon Test | No transmission or Beacons occurred | 30 minutes | Pass |

Note: 1. Since the product is client without radar detection function, only Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period Test are required to be performed.

2. The conclusion of this test report is judged by actual test data without considering measurement uncertainty.

3.2. Equipment Type

Master Device

Client Device (No Ad-Hoc mode, without radar detection function and TPC)

3.3.Channel list

U-NII-2A:

| Mode | Data rate (Mbps) see Note | Channel | Frequency (MHz) |
|------------------------|------------------------------|---------|--------------------|
| IEEE 802.11a | 6 | CH52 | 5260 |
| | 6 | CH56 | 5280 |
| | 6 | CH64 | 5320 |
| IEEE 802.11n HT20 | 6.5 | CH52 | 5260 |
| | 6.5 | CH56 | 5280 |
| | 6.5 | CH64 | 5320 |
| IEEE 802.11n HT40 | 13.5 | CH54 | 5270 |
| | 13.5 | CH62 | 5310 |
| IEEE 802.11ac VHT20 | 6.5 | CH52 | 5260 |
| | 6.5 | CH56 | 5280 |
| | 6.5 | CH64 | 5320 |
| IEEE 802.11ac VHT40 | 13.5 | CH54 | 5270 |
| | 13.5 | CH62 | 5310 |

Note: According exploratory test and product specification EUT will have maximum output power in those data rate, so those data rate were used for all test.

U-NII-2C:

| Tested mode, channel, and data rate information | | | |
|---|---------------------------------|---------|--------------------|
| Mode | Data rate (Mbps) see Note | Channel | Frequency (MHz) |
| IEEE 802.11a | 6 | CH100 | 5500 |
| | 6 | CH116 | 5580 |
| | 6 | CH140 | 5700 |
| IEEE 802.11n HT20 | 6.5 | CH100 | 5500 |
| | 6.5 | CH116 | 5580 |
| | 6.5 | CH140 | 5700 |
| IEEE 802.11n HT40 | 13.5 | CH102 | 5510 |
| | 13.5 | CH134 | 5670 |
| IEEE 802.11ac VHT20 | 6.5 | CH100 | 5500 |
| | 6.5 | CH116 | 5580 |
| | 6.5 | CH140 | 5700 |
| IEEE 802.11ac VHT40 | 13.5 | CH102 | 5510 |
| | 13.5 | CH134 | 5670 |

Note: According exploratory test and product specification EUT will have maximum output power in those data rate, so those data rate were used for all test.

3.4. Test Conditions and channel

| | |
|-------------------|-----------|
| Temperature range | 21-25°C |
| Humidity range | 40-75% |
| Pressure range | 86-106kPa |

| Channel List for 802.11a | | |
|--------------------------|-------------|----------------------|
| Band Frequency | EUT Channel | Test Frequency (MHz) |
| Band II | CH60 | 5300 |
| Band III | CH100 | 5500 |

Note: (1) The measurements are performed at the lowest available channels.

3.5. Measurement Uncertainty (95% confidence levels, k=2)

| Item | MU | Remark |
|------------------------------------|--------|--------|
| Uncertainty for conducted RF Power | 0.37dB | |

4. DFS PARAMETERS

4.1. DFS Parameters

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

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

Table 2: Applicability of DFS requirements during normal operation

| Requirement | Operational Mode | | |
|-----------------------------------|------------------|--------------------------------|-----------------------------|
| | Master | Client Without Radar Detection | Client With Radar Detection |
| DFS Detection Threshold | Yes | Not required | Yes |
| Channel Closing Transmission Time | Yes | Yes | Yes |
| Channel Move Time | Yes | Yes | Yes |
| U-NII Detection Bandwidth | Yes | Not required | Yes |
| Client Beacon Test | N/A | Yes | Yes |

| Additional requirements for devices with multiple bandwidth modes | Operational Mode | |
|--|---------------------------------------|--|
| | Master or Client With Radar Detection | Client Without Radar Detection |
| U-NII Detection Bandwidth and Statistical Performance Check | All BW modes must be tested | Not required |
| Channel Move Time and Channel Closing Transmission Time | Test using widest BW mode available | Test using the widest BW mode available for the link |
| All other tests | Any single BW mode | Not required |
| <p align="center">Note</p> <p>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.</p> | | |

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>Note 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p> | |

The radar Detection Threshold, lowest antenna gain is the parameter of Interference radar DFS detection threshold, The Interference Detection Threshold is the (-62dBm) + (0) [dBi]+ 1 dB= -61 dBm.

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 99% power bandwidth See Note 3. |
| <p>Note 1: The instant that the <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> begins is as follows:</p> <ul style="list-style-type: none"> • For the Short pulse radar Test Signals this instant is the end of the <i>Burst</i>. • For the Frequency Hopping radar Test Signal, this instant is the end of the last radar <i>Burst</i> generated. • For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission. <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 <i>Channel</i> changes (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 is used and for each frequency step the minimum percentage of detection is 90%. 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 | Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$ | 60% | 30 |
| | | 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 | | | |
| 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. | | | | | |

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.

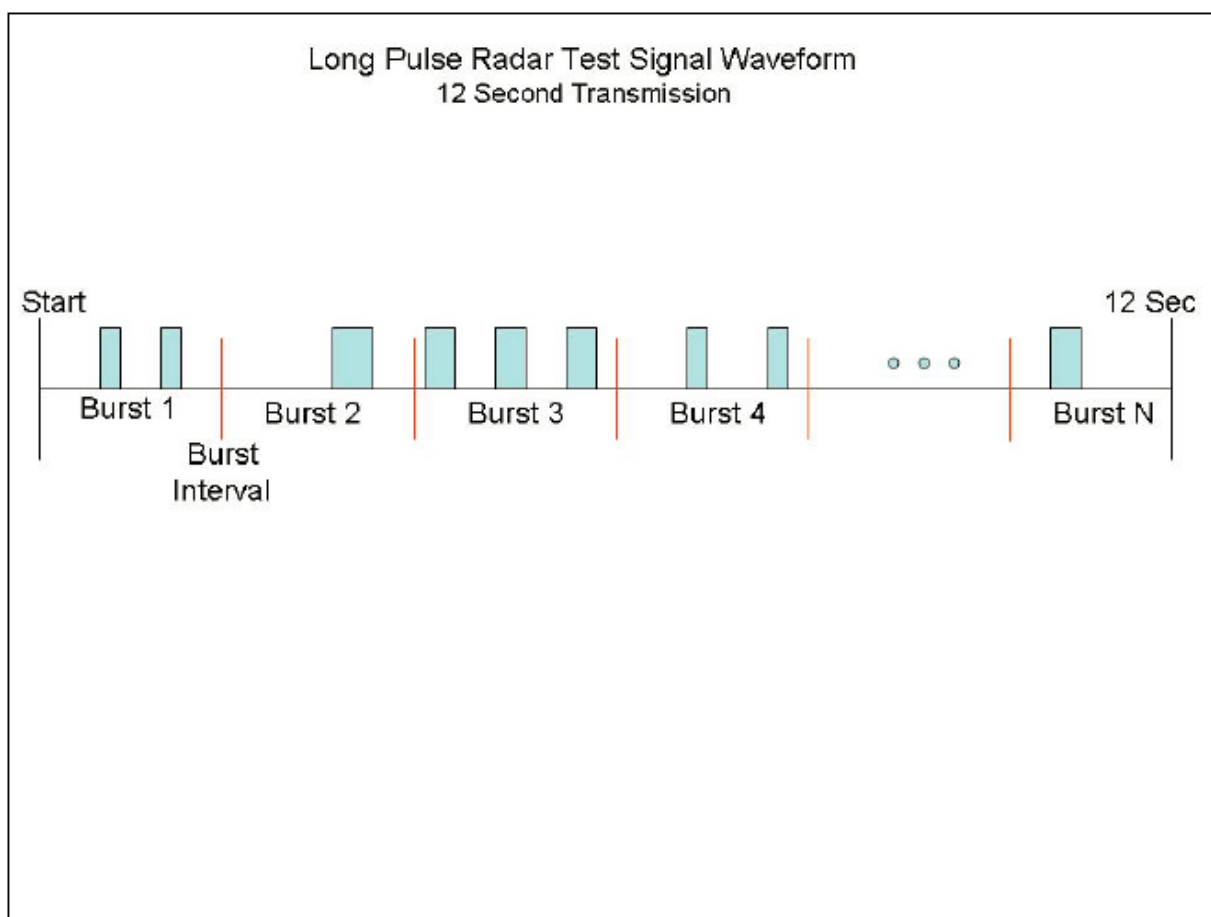
| Radar Type | Number of Trials | Number of Successful Detections | Minimum Percentage of Successful Detection |
|--|------------------|---------------------------------|--|
| 1 | 35 | 29 | 82.9% |
| 2 | 30 | 18 | 60% |
| 3 | 30 | 27 | 90% |
| 4 | 50 | 44 | 88% |
| Aggregate $(82.9\% + 60\% + 90\% +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

Long Pulse Radar Test Waveform

Table 6 – Long Pulse Radar Test Waveform

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

Figure 1 provides a graphical representation of the Long Pulse Radar Test Waveform.

**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 |

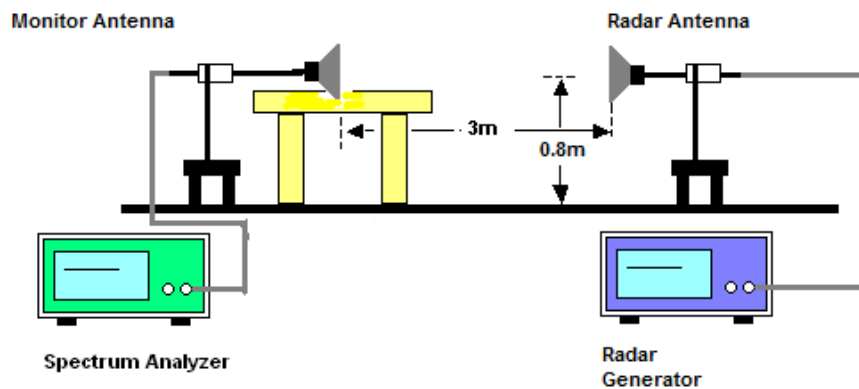
4.2. Calibration Setup and DFS Test Results

4.2.1. Calibration of Radar Waveform

4.2.1.1. Radar Waveform Calibration Procedure

The Interference **Radar Detection Threshold Level** is $(-62\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -61\text{dBm}$ that had been taken into account the output power range and antenna gain. The following equipment setup was used to calibrate the radiated Radar Waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) at the frequency of the Radar Waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz to measure the type 0 radar waveform. The spectrum analyzer had offset -8.26dB to compensate receiving horn antenna gain 11.80dBi and RF cable loss 3.54dB. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $(-62\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -61 \text{ dBm}$. Capture the spectrum analyzer plots on short pulse radar waveform.

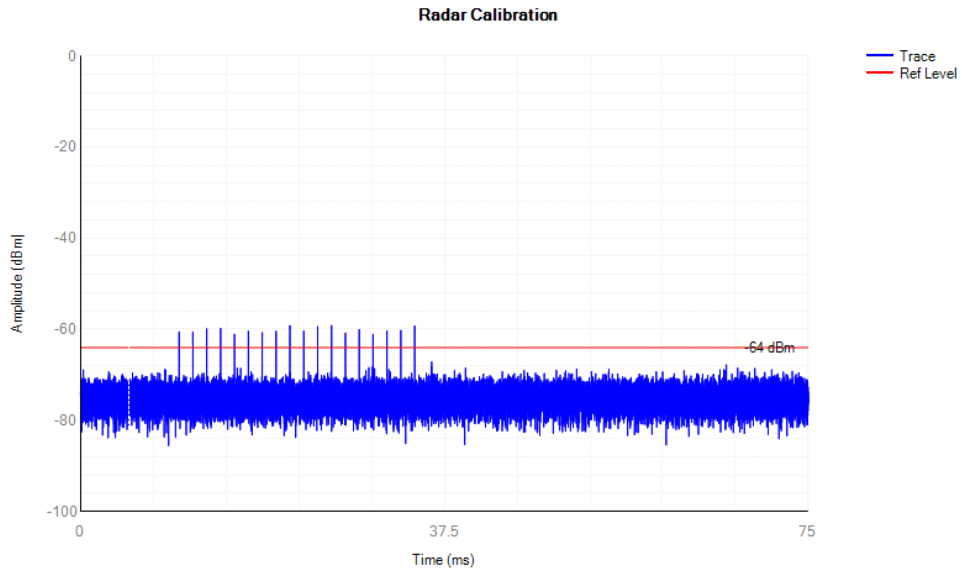
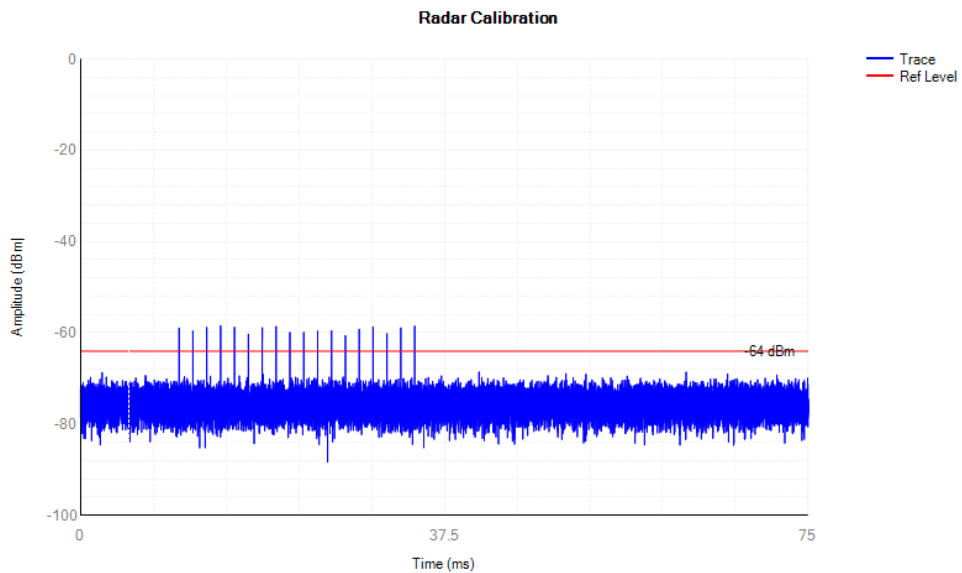
4.2.1.2. Radiated Calibration Setup



4.2.1.3. Calibration Deviation

There is no deviation with the original standard.

4.2.1.4. Radar Waveform Calibration Result

<a / 5300 MHz> In-Service Monitoring**Radar / DFS detection threshold level and the burst of pulses on the Channel frequency****<a / 5500 MHz> In-Service Monitoring****Radar / DFS detection threshold level and the burst of pulses on the Channel frequency**

Note: All the test modes completed for test. The worst case of Ant 1, the test data of this mode was reported.

4.3. In-Service Monitoring: Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

4.3.1. Limit of In-Service Monitoring

The EUT has In-Service Monitoring function to continuously monitor the radar signals, If radar is detected, it must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current Channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. The total duration of *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 *Channel* changes (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.

Non-Occupancy Period time is 30 minute during which a Channel will not be utilized after a Radar Waveform is detected on that Channel. The non-associated Client Beacon Test is during the 30 minutes observation time. The EUT should not make any transmissions in the DFS band after EUT power up.

4.3.2. Test Procedures

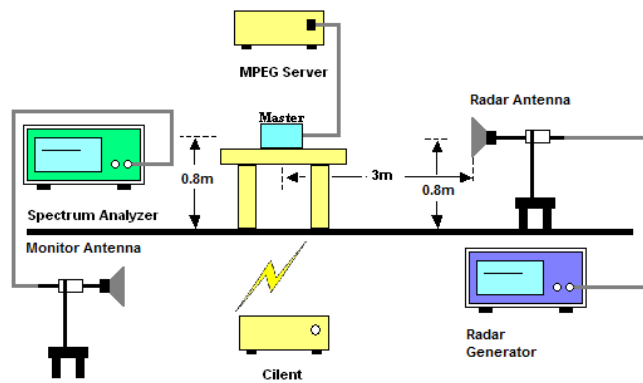
- a. The radar pulse generator is setup to provide a pulse at frequency that the Master and Client are operating. A type 0 radar pulse with a 1us pulse width and a 1428 us PRI is used for the testing.
- b. The vector signal generator is adjusted to provide the radar burst (18 pulses) at a level of approximately -62dBm at the antenna of the Master device.
- c. A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- d. A U-NII device operating as a Client Device will associate with the Master at Channel. The MPEG file "TestFile.mpg" specified by the FCC is streamed from the "file computer" through the Master to the Client Device and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- e. When a radar Burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. At time T0 the Radar Waveform generator sends a Burst of pulse of the radar waveform at Detection Threshold + 1dB.
- f. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). One 12 seconds plot is reported for the Short Pulse Radar Types 1. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- g. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: **Dwell (0.4ms) = S (12000ms) / B (30000)**, where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing

Transmission Time is calculated by: $C \text{ (ms)} = N \times \text{Dwell (0.4 ms)}$, where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

- h. Measure the EUT for more than 30 minutes following the channel move time to verify that no transmissions or beacons occur on this Channel.

4.3.3. Test Setup

Radiated Test Setup Photo



4.3.4. Test Deviation

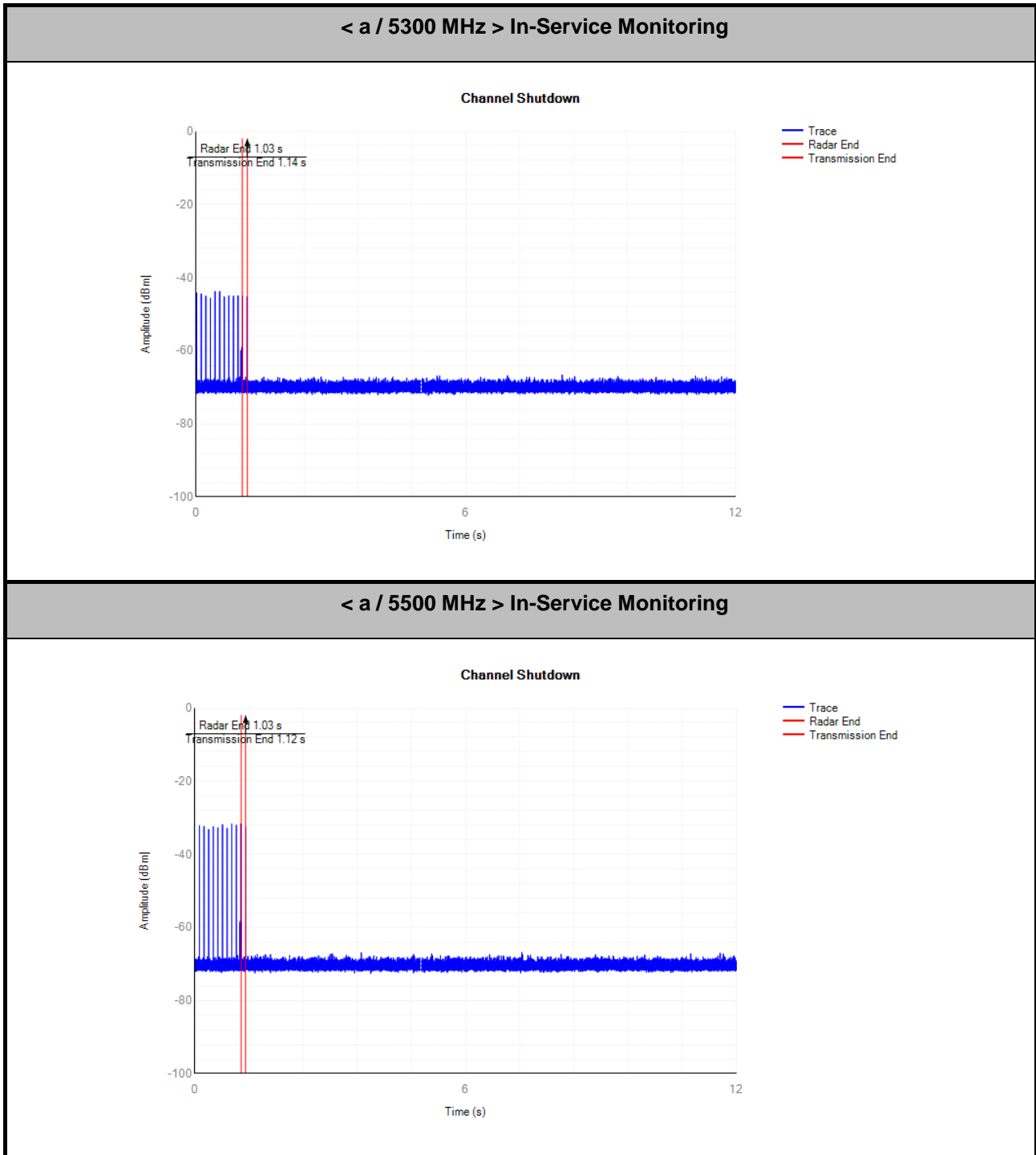
There is no deviation with the original standard.

4.3.5. Result of Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test

| BW / Channel | Test Item | Test Result | Limit | Pass/Fail |
|----------------------|-----------------------------------|------------------|----------|-----------|
| 160MHz / 5570 MHz | Channel Move Time | 1.4s | < 10s | Pass |
| | Channel Closing Transmission Time | 200ms + 3.6ms | < 260ms | Pass |
| | Non-Occupancy Period | ≥ 30 | ≥ 30 min | Pass |

Note: 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 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.

4.3.6. Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test Plots



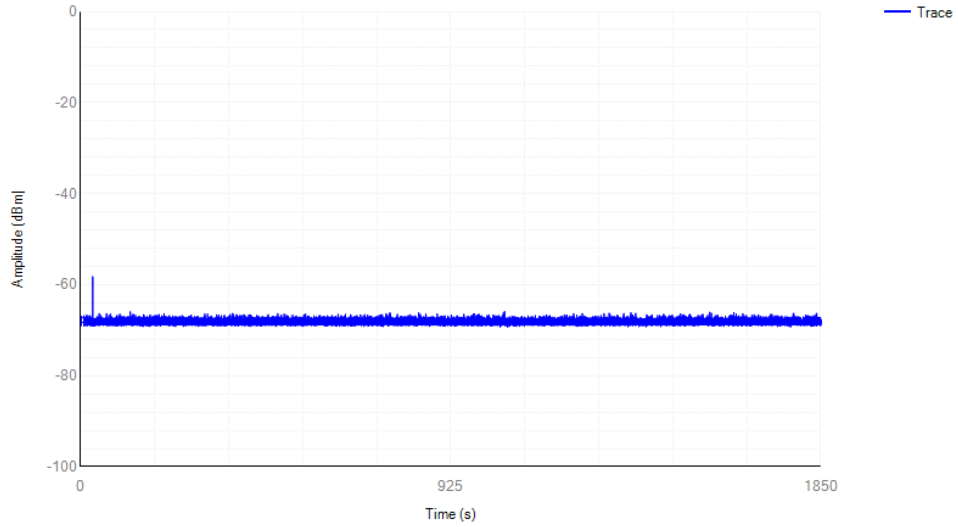
Note: All the test modes completed for test. The worst case of Ant 1, the test data of this mode was reported

4.3.7. Data Traffic and Noise Floor Plots

Noise Floor (No transmission)

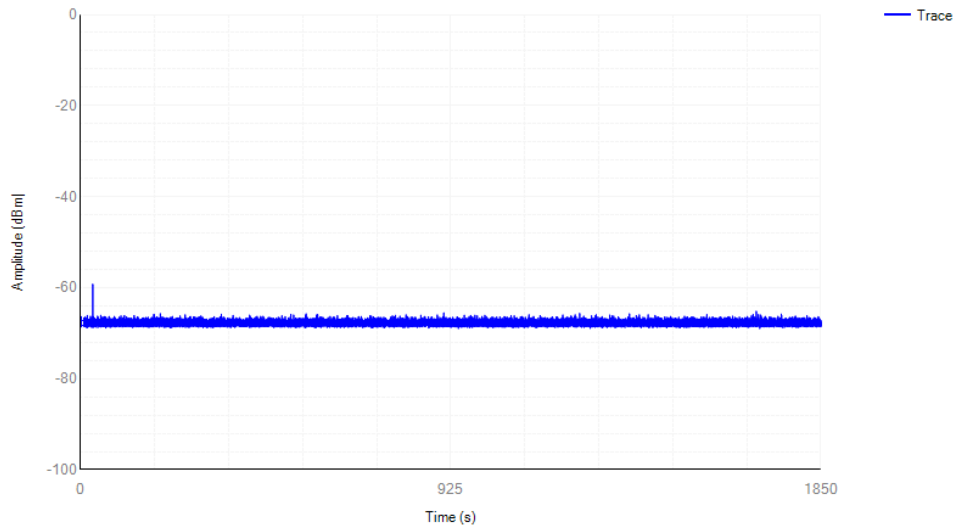
< a / 5300 MHz Non-Occupancy >

Non-Occupancy period



< a / 5500 MHz Non-Occupancy >

Non-Occupancy period



Note: All the test modes completed for test, the test data of this mode was reported.

5. TEST SETUP PHOTO



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