**Report No.:** DDT-R22100908-2E03

**Issued Date:** Nov. 22, 2022

# FCC AND ISED CERTIFICATION TEST REPORT

# FOR

| | | |
|---|---|---|
| **Applicant** | **:** | Mercku Inc. |
| **Address** | **:** | 3600 Steeles Avenue East, Suite C108B, Markham, Ontario, L3R 9Z7, Canada |
| **Equipment under Test** | **:** | M6a Plus Mesh Wi-Fi Router |
| **Model No.** | **:** | M6a Plus |
| **Trade Mark** | **:** | MERCKU |
| **FCC ID** | **:** | 2APR4-M6P |
| **IC** | **:** | 23877-M6P |
| **Manufacturer** | **:** | Mercku Technology (China), Inc. |
| **Address** | **:** | Block B1, Southern Software Park No.1 Software Road, Tangjia Zhuhai, Guangdong, China |


**Issued By: Dongguan Dongdian Testing Service Co., Ltd.**

**Add.:** No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

**Tel.:** +86-0769-38826678, **E-mail:** ddt@dgddt.com, http://www.dgddt.com


REPORT

# Table of Contents

# Test Report Declare

| | | |
|---|---|---|
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| **Address** | : | Block B1, Southern Software Park No.1 Software Road, Tangjia Zhuhai, Guangdong, China |

**Test Standard Used:** FCC Rules and Regulations Part 15.407, RSS-247 Issue 2 February 2017.

**Test procedure used:** ANSI C63.10:2013, 905462 D02 UNII DFS Compliance Procedures New Rules v02

**We Declare:**

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

**After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC&ISED standards.**

| | | | |
|---|---|---|---|
| **Report No:** | DDT-R22100908-2E03 | | |
| **Date of Receipt:** | Oct. 13, 2022 | **Date of Test:** | Oct. 13, 2022 ~ Nov. 22, 2022 |

***Prepared By:*** ***Approved By:***

Johnny Wang

_____ _____

***Johnny Wang/Engineer*** ***Damon Hu/EMC Manager***

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

# Revision History

| Rev. | Revisions | Issue Date | Revised By |
|---|---|---|---|
| --- | Initial issue | Nov. 22, 2022 | |
| | | | |

# 1. Summary of test results

| The EUT have been tested according to the applicable standards as referenced below. | | | | |
|---|---|---|---|---|
| **Description of Test Item** | **Description of Test** | **Standard** | **Verdict** | **Remark** |
| Detection Bandwidth | U-NII Detection Bandwidth | KDB 905462 7.8.1 | Pass | 100% of the 99% BW |
| Performance Requirements Check | Initial Channel Availability Check Time CAC) | KDB 905462 7.8.2.1 | Pass | CAC ≥60 sec |
| | Radar Burst at the Beginning of the CAC | KDB 905462 7.8.2.2 | Pass | Detection Threshold: -63 dBm |
| | Radar Burst at the End of the CAC | KDB 905462 7.8.2.3 | Pass | Detection Threshold: -63 dBm |
| In-Service Monitoring | Channel Move Time | KDB 905462 7.8.3 | Pass | CMT ≤ 10set |
| | Channel Closing Transmission Time | KDB 905462 7.8.3 | Pass | CCTT ≤60 ms starting at CMT 200ms |
| | Non-Occupancy Period | KDB 905462 7.8.3 | Pass | NOP≥30 Min |
| Radar Detection | Statistical Performance Check | KDB 905462 7.8.4 | Pass | Table 5- 7 (KDB 905462) |

# 2. General Test Information

## 2.1. Description of EUT

| | | |
|---|---|---|
| EUT* Name | : | M6a Plus Mesh Wi-Fi Router |
| Model Number | : | M6a Plus |
| EUT function description | : | Please reference user manual of this device |
| Power supply | : | DC 12V 1.5A from external AC/DC Adapter |
| Radio Technology | : | IEEE 802.11a/n/ac/ax |
| Operation frequency | : | IEEE 802.11a: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz<br>IEEE 802.11n HT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz<br>IEEE 802.11n HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz<br>IEEE 802.11ac HT20: 5180MHz-5240MHz, 5260MHz-5320MHz,5500MHz-5700MHz, 5745MHz-5825MHz<br>IEEE 802.11ac HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz<br>IEEE 802.11ac HT80: 5210MHz, 5290MHz, 5530MHz,5610MHz, 5775MHz<br>IEEE 802.11ax HT20: 5180MHz-5240MHz, 5260MHz-5320MHz,5500MHz-5700MHz, 5745MHz-5825MHz<br>IEEE 802.11ax HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz<br>IEEE 802.11ax HT80: 5210MHz, 5290MHz, 5530MHz,5610MHz, 5775MHz |
| Modulation | : | IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11ax: OFDM, OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK) |
| Transmitter rate | : | IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>IEEE 802.11n HT20: up to 144.4 Mbps<br>IEEE 802.11n HT40: up to 300 Mbps<br>IEEE 802.11ac VHT20: up to 173.4 Mbps<br>IEEE 802.11ac VHT40: up to 400 Mbps<br>IEEE 802.11ac VHT80: up to 866.6 Mbps<br>IEEE 802.11ax HE20: up to 286.8 Mbps<br>IEEE 802.11ax HE40: up to 573.6 Mbps<br>IEEE 802.11ax HE80: up to 1201 Mbps |
| Operating mode | : | ☒Master<br>☐Client Without Radar Detection<br>☐Client with Radar Detection |
| Communication mode | : | ☒Load Based<br>☐Frame Based |
| TPC function | : | ☐With TPC<br>☒Without TPC |
| Power-on cycle | : | 112s |
| Antenna Gain | : | Ant1: 7 dBi<br>Ant2: 7 dBi |
| Sample Number | : | S22100908-01 |

Note 1: EUT is the ab. of equipment under test.

| Antenna information | | | |
|---|---|---|---|
| | Ant1 gain | Ant2 gain | MIMO |
| IEEE 802.11a | 7 | 7 | / |
| IEEE 802.11n HT20 | 7 | 7 | 10.01 |
| IEEE 802.11n HT40 | 7 | 7 | 10.01 |
| IEEE 802.11ac VHT20 | 7 | 7 | 10.01 |
| IEEE 802.11ac VHT40 | 7 | 7 | 10.01 |
| IEEE 802.11ac VHT80 | 7 | 7 | 10.01 |
| IEEE 802.11ax HE20 | 7 | 7 | 10.01 |
| IEEE 802.11ax HE40 | 7 | 7 | 10.01 |
| IEEE 802.11ax HE80 | 7 | 7 | 10.01 |

## 2.2. Accessories of EUT

| Assistant equipment | Manufacturer | Model number | Other |
|---|---|---|---|
| AC/DC ADAPTER | Keyu Power | KA1801A-1201500US | Length: 1.20m |
| Internet cable | N/A | N/A | Length: 1.00m |

## 2.3. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | EMC Compliance | SN |
|---|---|---|---|---|
| Notebook | Lenovo Beijing Co. Ltd. | ThinkPad | FCC/CE | TP00015A |
| Wireless LAN Access Point | HUAWEI | AP6050 | 21500829352SC 5000371 | FCC ID: QISAP6050DN6150DN |

## 2.4. Test Condition

| The Worst Case Mode for following Tests | |
|---|---|
| Test Condition | Conducted measurement<br>The EUT configured to operated at the highest transmitter output power setting |

## 2.5. DFS Band Carrier Frequencies

| Frequency Band | Bandwidth | Channel No. | Frequency (MHz) |
|---|---|---|---|
| U-NII-2A | 20 MHz | 52 | 5260 |
| | | 56 | 5280 |
| | | 60 | 5300 |
| | | 64 | 5320 |
| | 40 MHz | 54 | 5270 |
| | | 62 | 5310 |
| | 80 MHz | 58 | 5290 |
| U-NII-2C | 20 MHz | 100 | 5500 |
| | | 104 | 5520 |

| | | | |
|---|---|---|---|
| | | 108 | 5540 |
| | | 112 | 5560 |
| | | 116 | 5580 |
| | | 132 | 5660 |
| | | 136 | 5680 |
| | | 140 | 5700 |
| | | 144 | 5720 |
| | 40 MHz | 102 | 5260 |
| | | 110 | 5550 |
| | | 134 | 5670 |
| | | 142 | 5710 |
| | 80 MHz | 106 | 5530 |
| | | 138 | 5690 |

## 2.6. Deviations of test standard

No Deviation.

## 2.7. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

| | |
|---|---|
| Temperature range: | 21-25℃ |
| Humidity range: | 40-75% |
| Pressure range: | 86-106 kPa |

## 2.8. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, http://www.dgddt.com, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

## 2.9. Measurement uncertainty

| Test Item | Uncertainty |
|---|---|
| Bandwidth | 1.1% |
| Peak Output Power (Conducted) (Spectrum Analyzer) | 0.86 dB (10 MHz ≤ f < 3.6 GHz); |
| | 1.38 dB (3.6 GHz ≤ f < 8 GHz) |
| Peak Output Power (Conducted) (Power Sensor) | 0.74 dB |
| Power Spectral Density | 0.74 dB (10 MHz ≤ f < 3.6 GHz); |
| | 1.38 dB (3.6 GHz ≤ f < 8 GHz) |
| Frequencies Stability | $6.7 \times 10^{-8}$ (Antenna couple method) |
| | $5.5 \times 10^{-8}$ (Conducted method) |
| Conducted Spurious Emissions | 0.86 dB (10 MHz ≤ f < 3.6 GHz); |
| | 1.40 dB (3.6 GHz ≤ f < 8 GHz) |
| | 1.66 dB (8 GHz ≤ f < 22 GHz) |
| Uncertainty for Radio Frequency (RBW < 20 kHz) | $3\times10^{-8}$ |
| Temperature | 0.4 ℃ |
| Humidity | 2 % |
| Uncertainty for Radiation Emission Test (9 kHz – 30 MHz) | 3.44 dB |
| Uncertainty for Radiation Emission Test (30 MHz - 1 GHz) | 4.70 dB (Antenna Polarize: V) |
| | 4.84 dB (Antenna Polarize: H) |
| Uncertainty for Radiation Emission Test (1 GHz - 40 GHz) | 4.10 dB (1 - 6 GHz) |
| | 4.40 dB (6 GHz - 18 GHz) |
| | 3.54 dB (18 GHz - 26 GHz) |
| | 4.30 dB (26 GHz - 40 GHz) |
| Uncertainty for Power Line Conduction Emission Test | 3.32 dB (150 kHz - 30 MHz) |
| Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. | |

# 3. Equipment Used During Test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|
| **☒RF Connected Test (Tonscend RF Measurement System 4#)** | | | | | |
| Signal &Spectrum analyzer | R&S | FSV3044 | 101173 | Apr. 13, 2022 | 1 Year |
| Vector Signal Generator | Agilent | N5182A | MY19060405 | May 18, 2022 | 1 Year |
| RF Control Unit | Tonsend | JS0806-2 | 21I8060485 | May 28, 2022 | 1 Year |
| Test Software | JS Tonscend | JS1120-3 | Ver.3.2.22 | N/A | N/A |

# 4. General DFS requirements

## 4.1. Applicability of DFS requirements

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 Device or Client with Radar Detection | ☐Client Without Radar Detection |
| DFS Detection Threshold | Yes | Not required |
| Channel Closing Transmission Time | Yes | Yes |
| Channel Move Time | Yes | Yes |
| U-NII Detection Bandwidth | Yes | Not required |

| Additional requirements for devices with multiple bandwidth modes | ☒Master Device 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 |
| Note: Frequencies selected for statistical performance check 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. | | |

## 4.2. Limit

(1) DFS Detection Thresholds

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 ≥ 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 |
| Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.<br>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.<br>Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01. | |

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

| **Parameter** | **Value** |
|---|---|
| Non-occupancy period | Minimum 30 minutes |
| Channel Availability Check Time | 60 seconds |
| Channel Move Time | 10 seconds<br>See Note 1. |
| Channel Closing Transmission Time | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2. |
| U-NII Detection Bandwidth | Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3. |
| Note 1: 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.<br>Note 2: 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 facilitating 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.<br>Note 3: During the U-NII Detection Bandwidth 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. | |

## 4.3. Parameters of radar test waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

(1) Short Pulse Radar Test Waveforms

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 | | 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. | | | | | |

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 μsec is selected, the number of pulses would be Roundup $\{(1/360)\times(19\times106/3066)\}$ = Round up {17.2} = 18.

(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 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 |

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse Radar Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type waveforms, then each additional waveform must also be unique and not repeated from the previous waveforms.

Each waveform is defined as follows:

1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
2) There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
3) Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
4) The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
5) Each pulse has a linear frequency modulated chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a transmission period will have the same chirp width. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.
6) If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the random time interval between the first and second pulses is chosen independently of the random time interval between the second and third pulses.
7) The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst Count. Each interval is of length (12,000,000 / Burst Count) microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and [(12,000,000 / Burst Count) – (Total Burst Length) + (One Random PRI Interval)] microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen randomly.

(3) Frequency Hopping 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 |

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence defined by that If a segment does not contain at least 1 frequency within the U-NII Detection Bandwidth of the UUT, then that segment is not used.

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from

the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

# 5. Calibration of radar waveform

## 5.1. DFS Threshold Level

| DFS Threshold Level | |
|---|---|
| DFS Theshold Level: -63 dBm | At the antenna connector |
| | In front of the antenna |
| The Interference Radar Detection Threshold Level is -64 dBm + 7 [dBi] + 1 dB = -56 dBm. That had been taken into account the output power range and antenna gain. | |

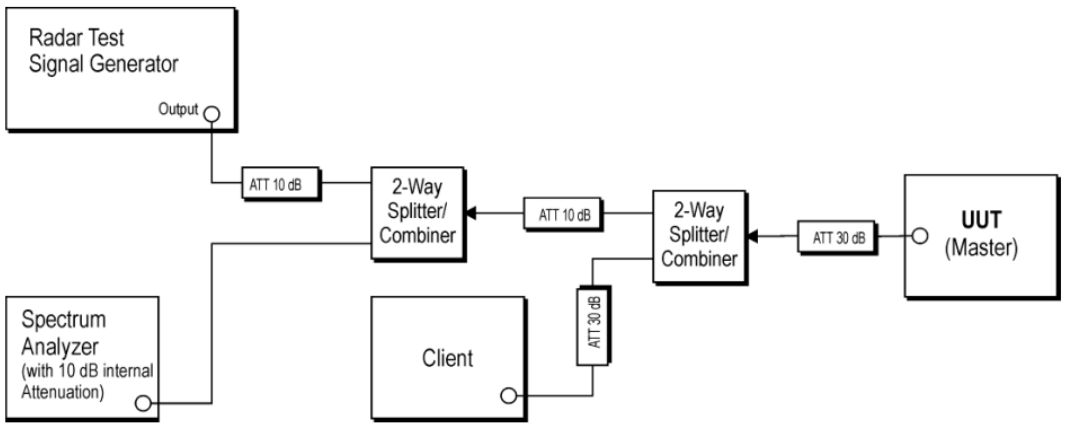
## 5.2. Radar Waveform Calibration Procedure:

(1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

(2) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0-6. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (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. The spectrum analyzer had offset -1.0 dB to compensate RF cable loss 1.0 dB.

(3) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was -64 dBm + 7 dBi +1 dB = -56 dBm. Capture the spectrum analyzer plots on radar waveform.

## 5.3. Conducted Calibration Setup




Note: 1. Use the software "Web" to set the frequency channel.

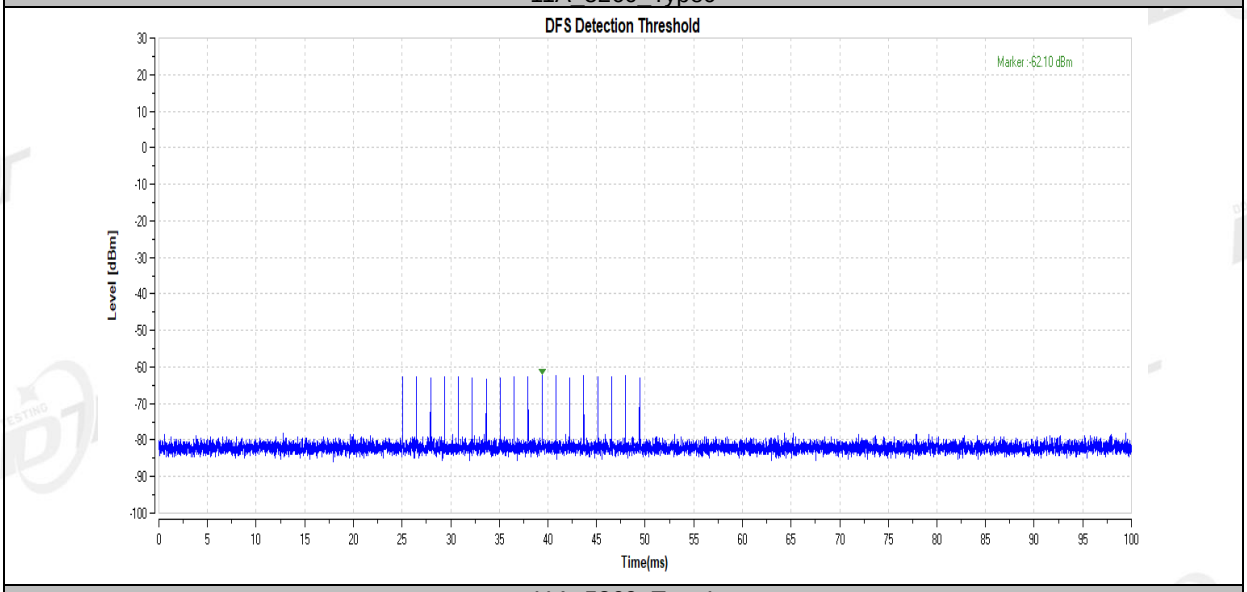
2. EUT is not support TPC and not with Radar detection.

## 5.4. Radar Waveform Calibration Result

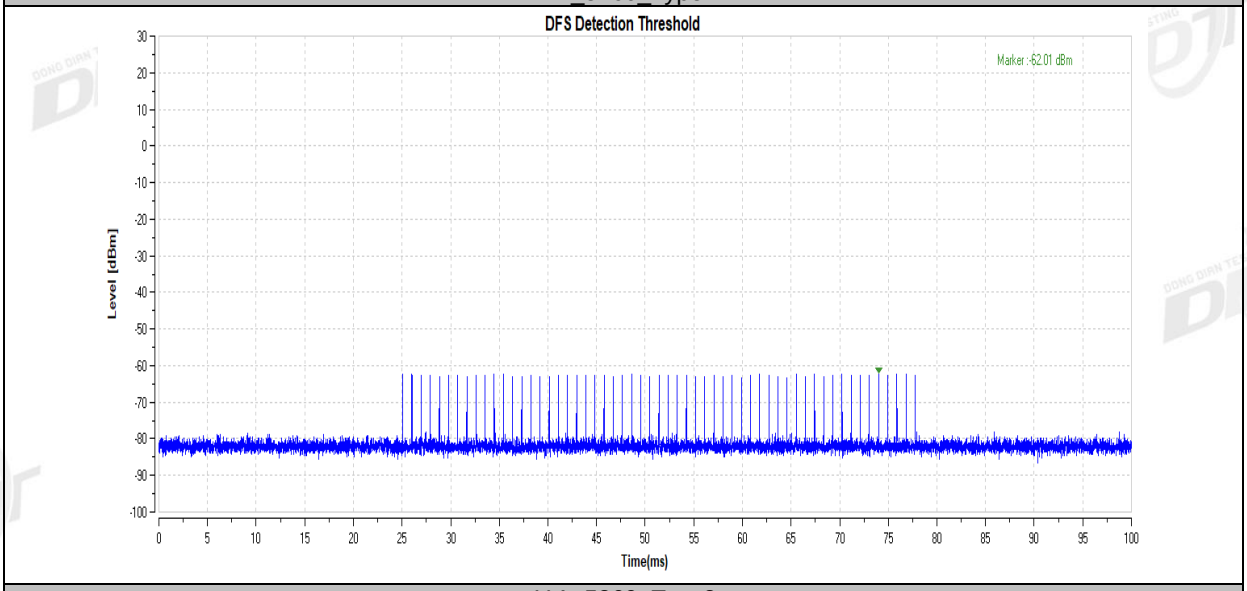
| Frequency [dBm] | Radar Type | Result | Limit[dbm] | Verdict |
|---|---|---|---|---|
| 5260 | Type0 | -62.10 | -56.00 | PASS |
| | Type1 | -62.01 | -56.00 | PASS |
| | Type2 | -62.23 | -56.00 | PASS |
| | Type3 | -62.12 | -56.00 | PASS |
| | Type4 | -62.40 | -56.00 | PASS |
| | Type5 | -62.50 | -56.00 | PASS |
| | Type6 | -62.27 | -56.00 | PASS |
| 5320 | Type0 | -62.30 | -56.00 | PASS |
| | Type1 | -62.05 | -56.00 | PASS |
| | Type2 | -62.02 | -56.00 | PASS |
| | Type3 | -62.30 | -56.00 | PASS |
| | Type4 | -62.06 | -56.00 | PASS |
| | Type5 | -62.23 | -56.00 | PASS |
| 5500 | Type0 | -62.25 | -56.00 | PASS |
| | Type1 | -62.21 | -56.00 | PASS |
| | Type2 | -62.31 | -56.00 | PASS |
| | Type3 | -62.29 | -56.00 | PASS |
| | Type4 | -62.47 | -56.00 | PASS |
| | Type5 | -62.23 | -56.00 | PASS |
| 5510 | Type0 | -62.10 | -56.00 | PASS |
| | Type1 | -62.17 | -56.00 | PASS |
| | Type2 | -62.09 | -56.00 | PASS |
| | Type3 | -62.10 | -56.00 | PASS |
| | Type4 | -62.21 | -56.00 | PASS |
| | Type5 | -62.37 | -56.00 | PASS |
| 5530 | Type0 | -62.31 | -56.00 | PASS |
| | Type1 | -62.46 | -56.00 | PASS |
| | Type2 | -62.25 | -56.00 | PASS |
| | Type3 | -62.40 | -56.00 | PASS |
| | Type4 | -62.31 | -56.00 | PASS |
| | Type5 | -62.41 | -56.00 | PASS |
| | Type6 | -62.41 | -56.00 | PASS |

## 5.5. Test Graphs

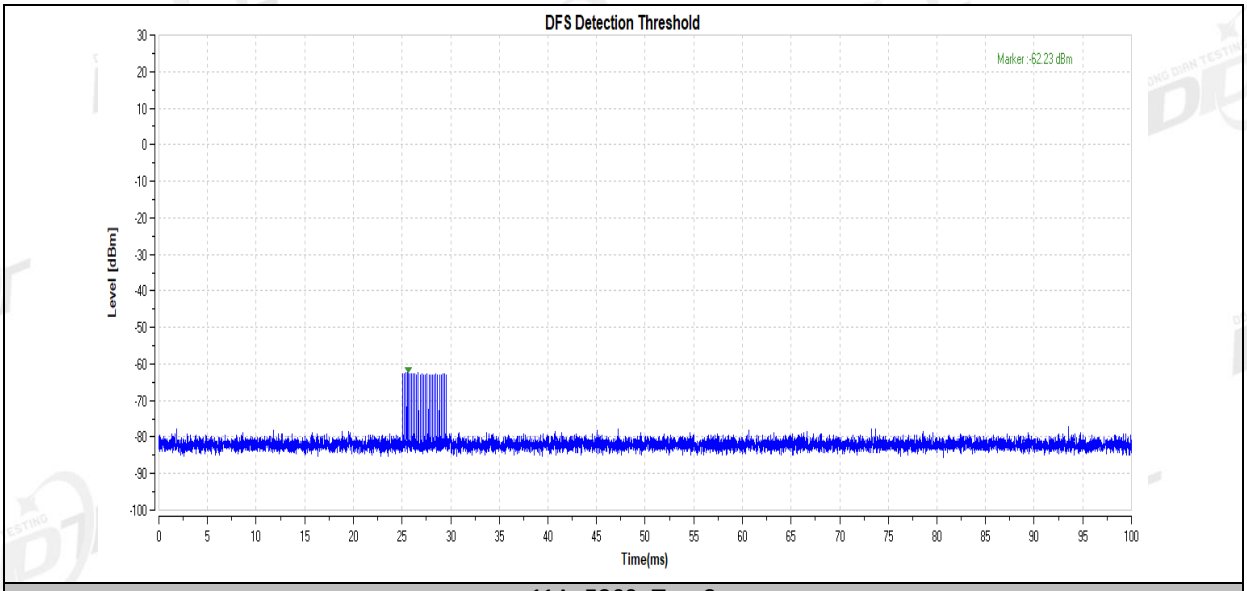
11A_5260_Type0



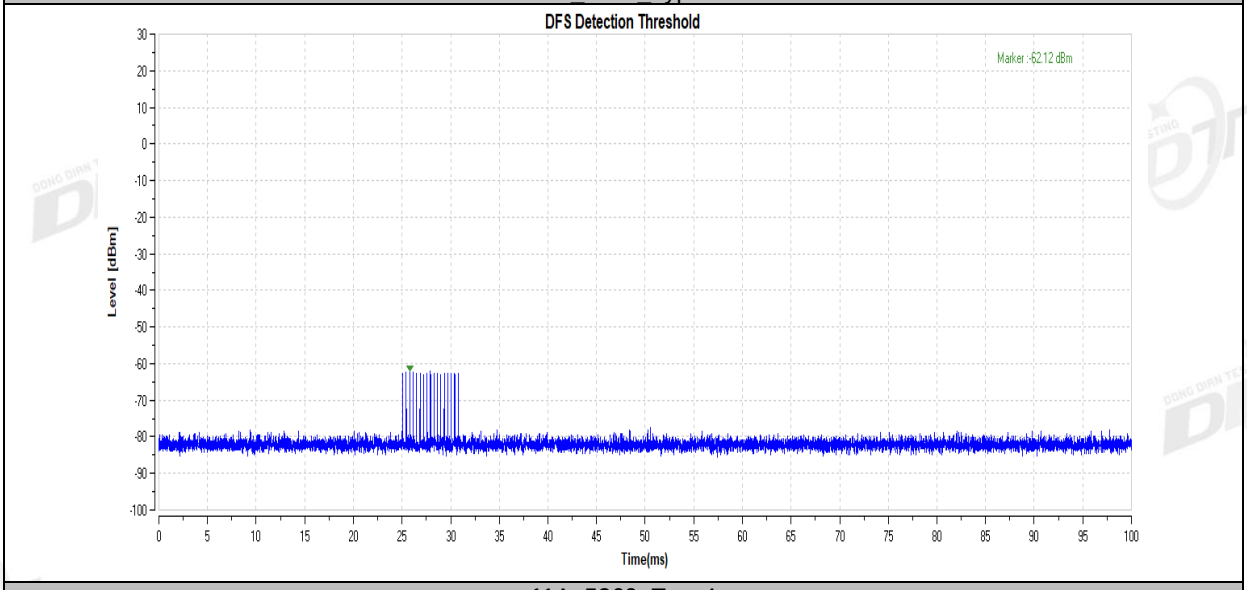

11A_5260_Type1



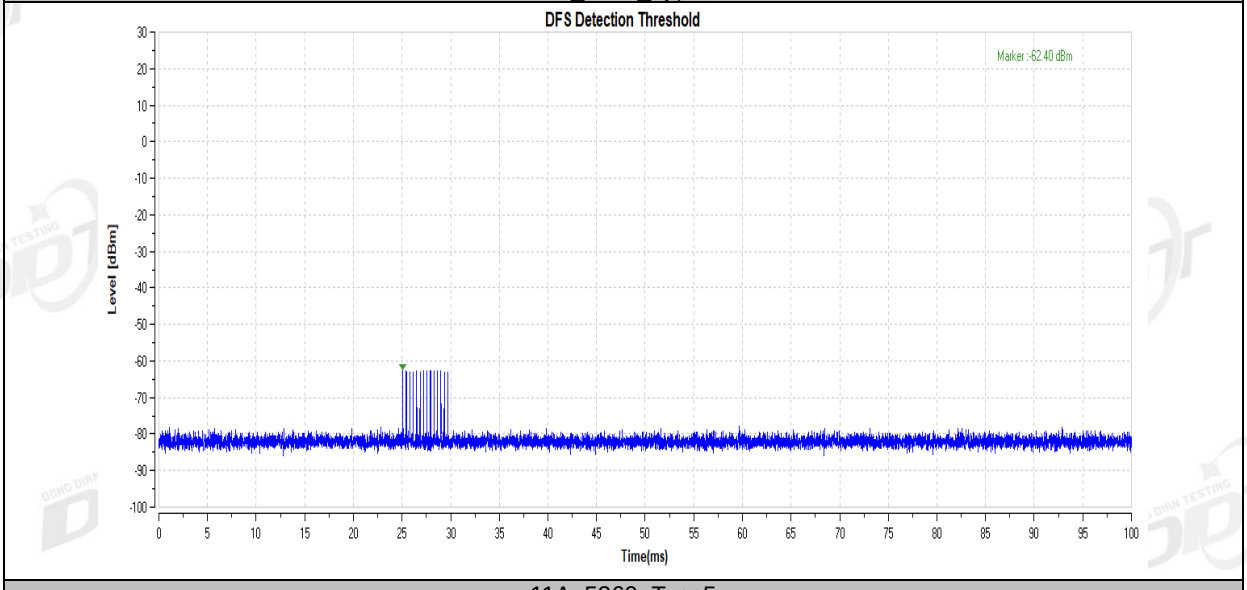

11A_5260_Type2



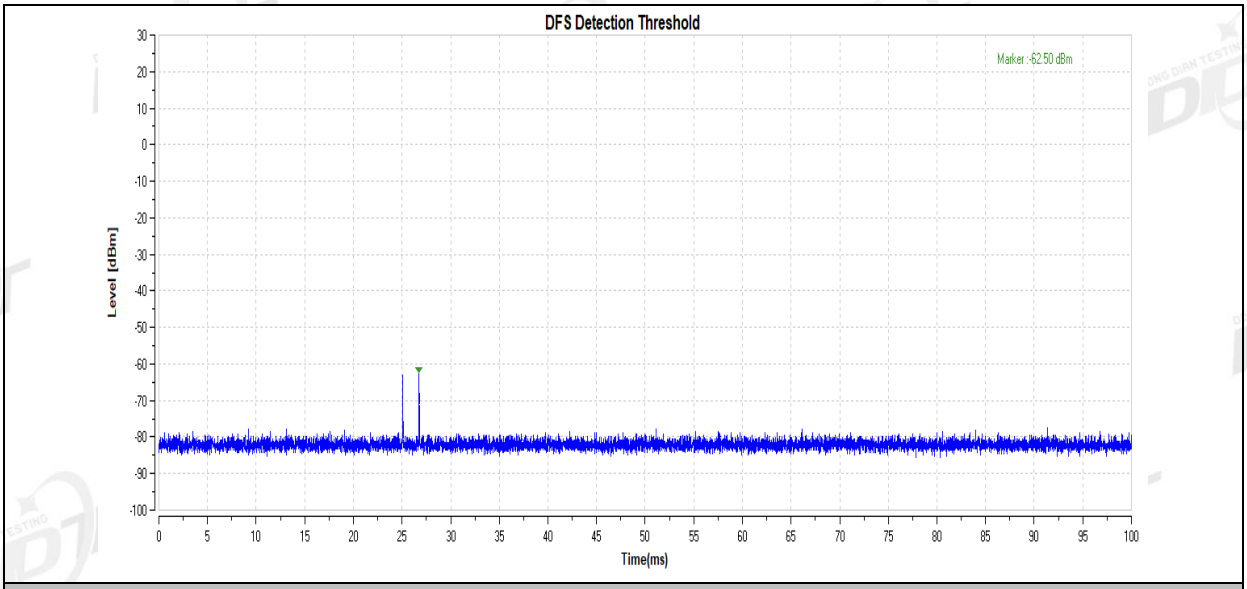

11A_5260_Type3



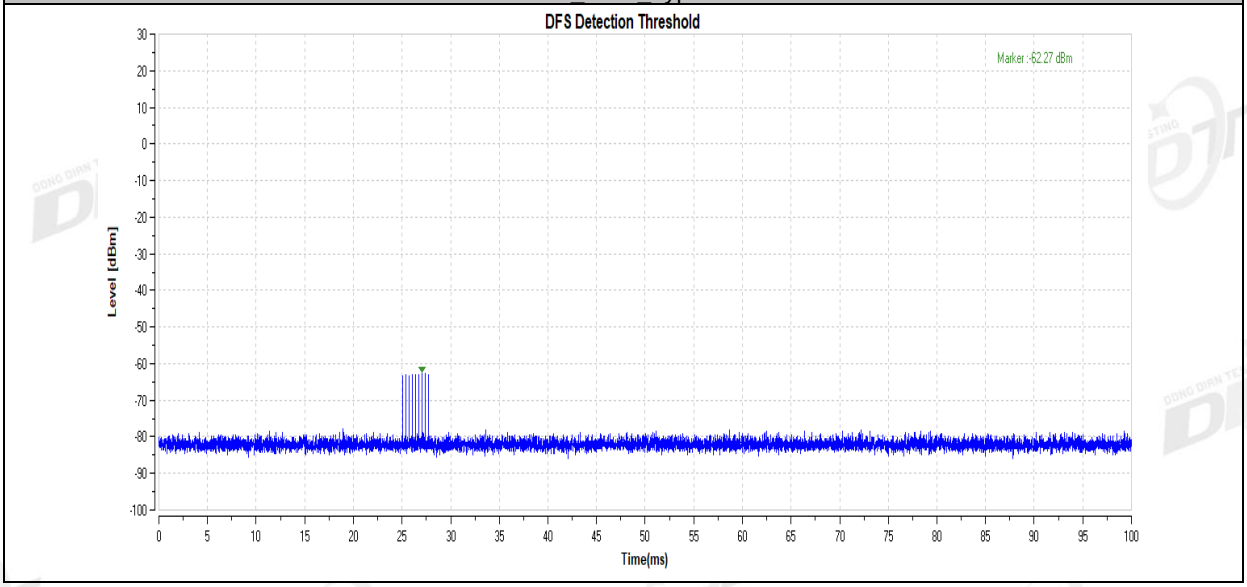

11A_5260_Type4



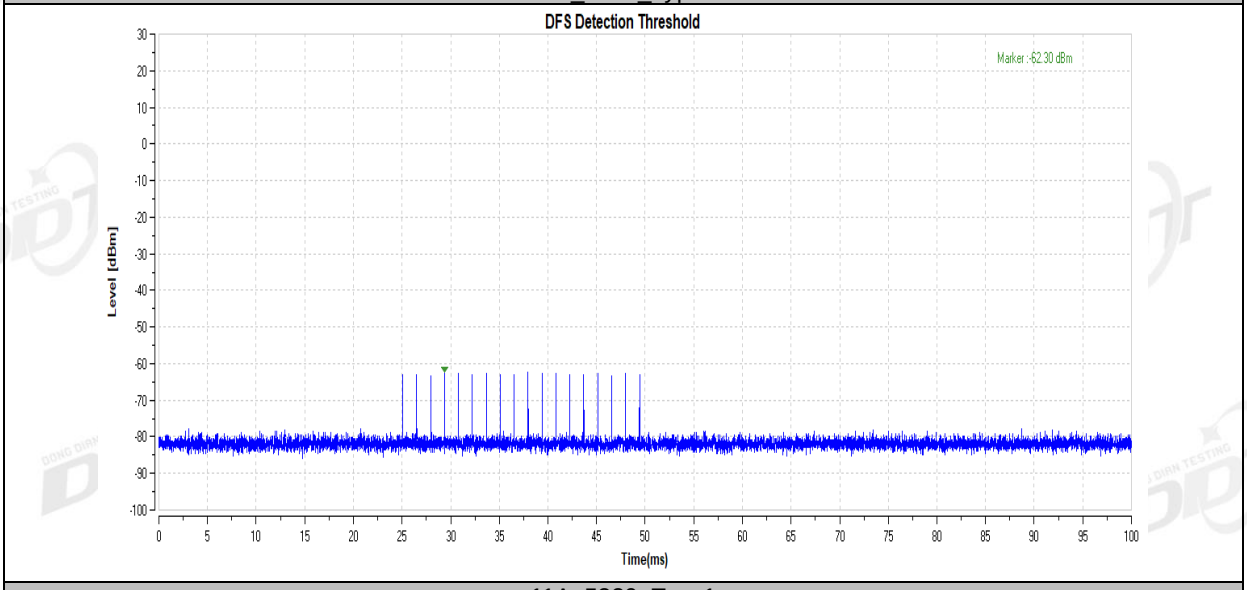

11A_5260_Type5



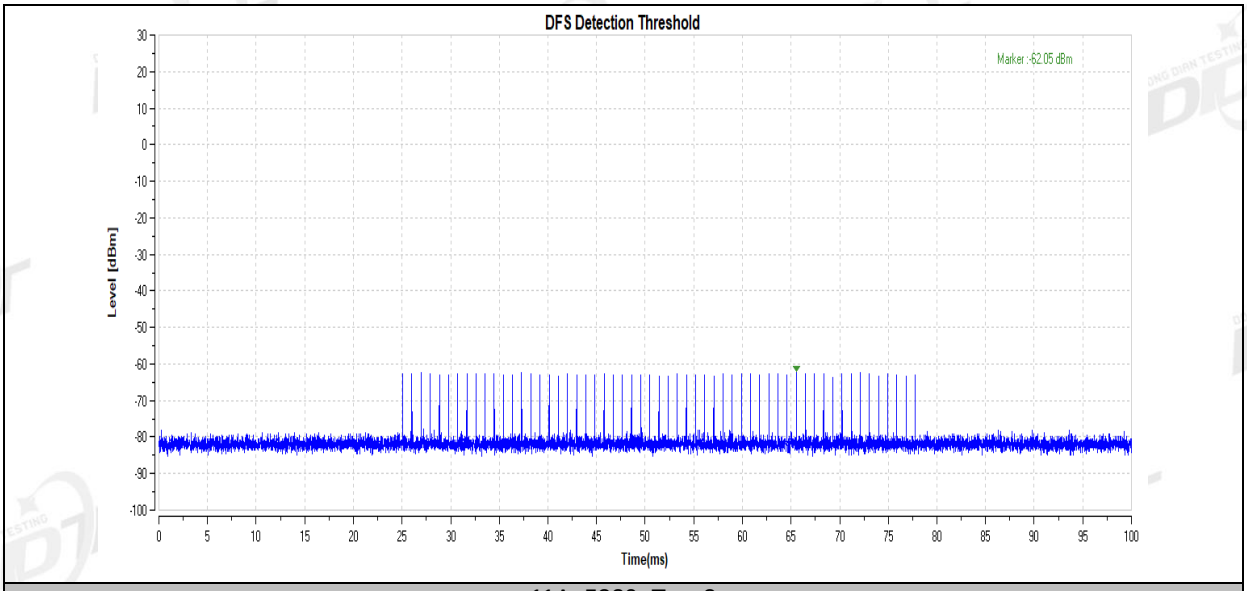

11A_5260_Type6



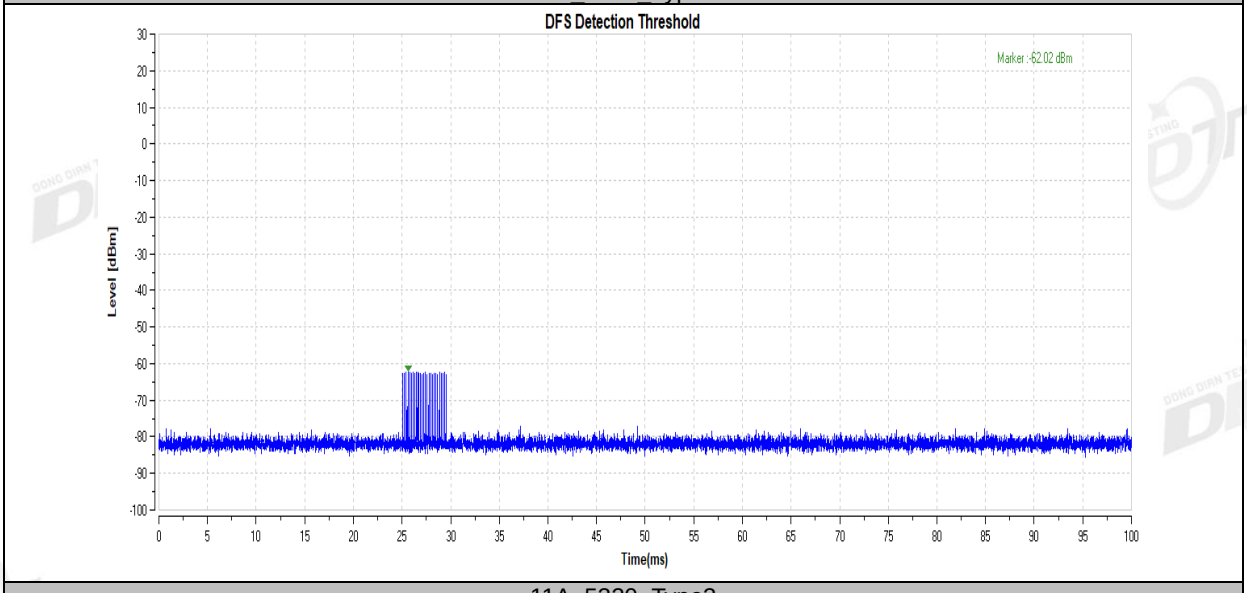

11A_5320_Type0



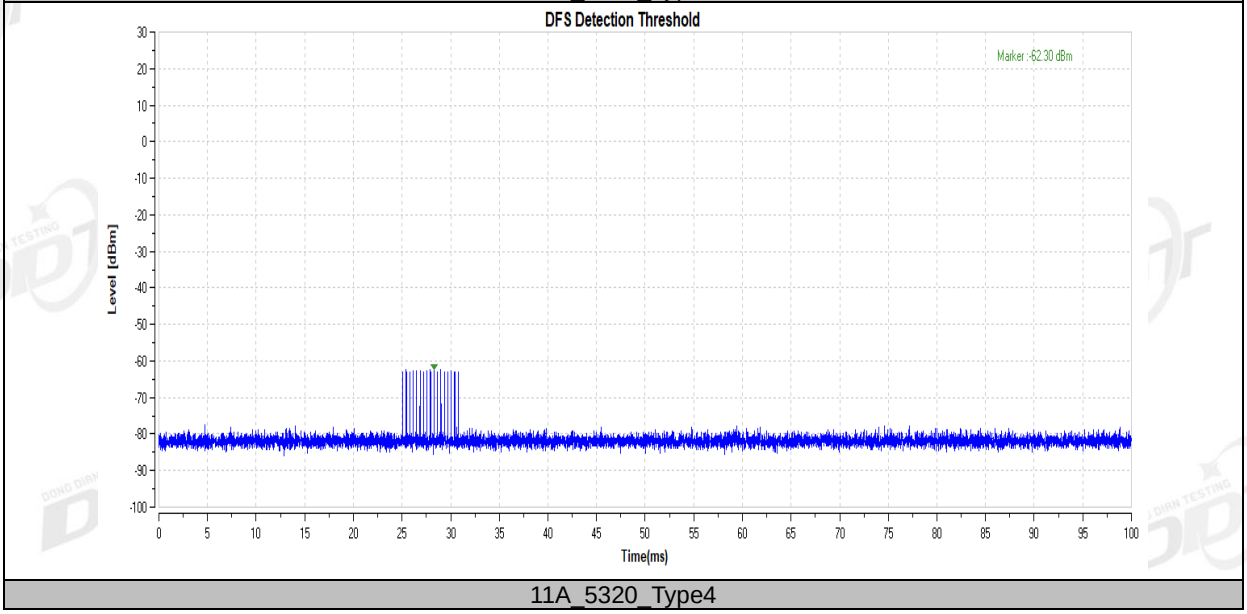

11A_5320_Type1



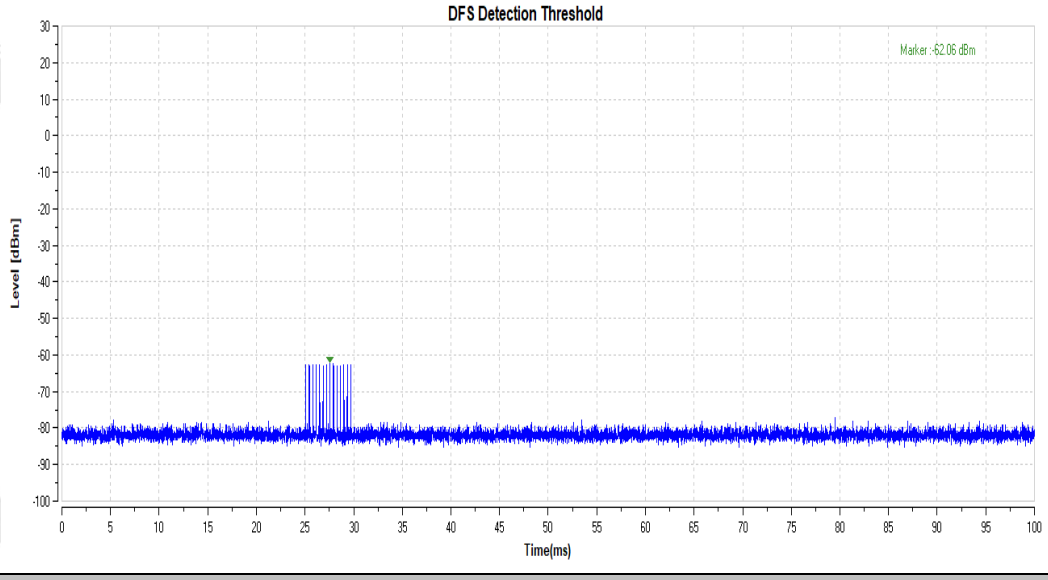

11A_5320_Type2



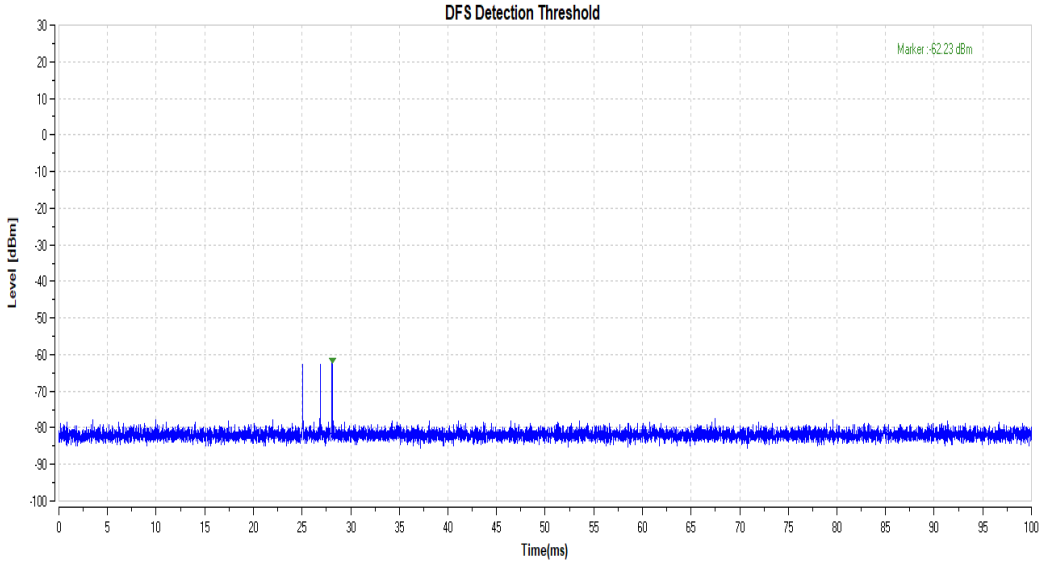

11A_5320_Type3



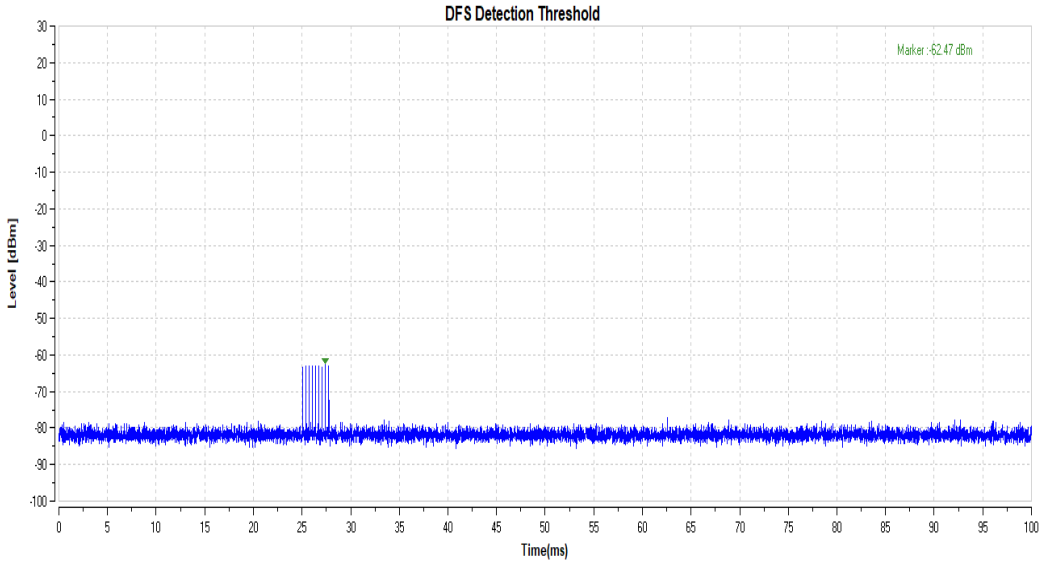

11A_5320_Type4



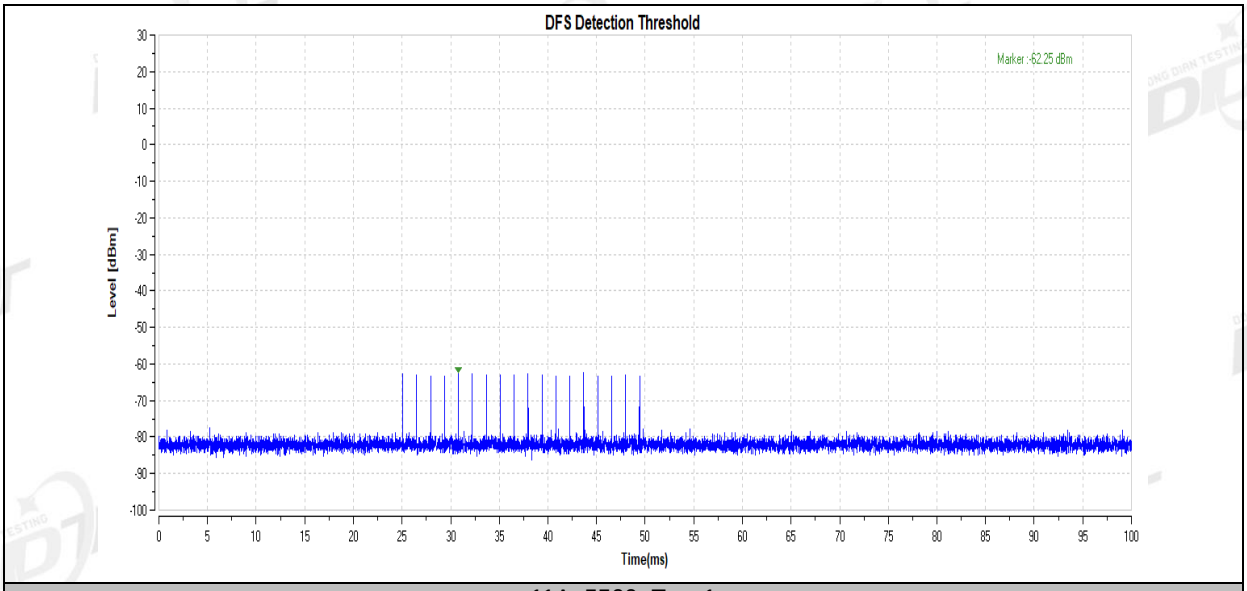

11A_5320_Type5



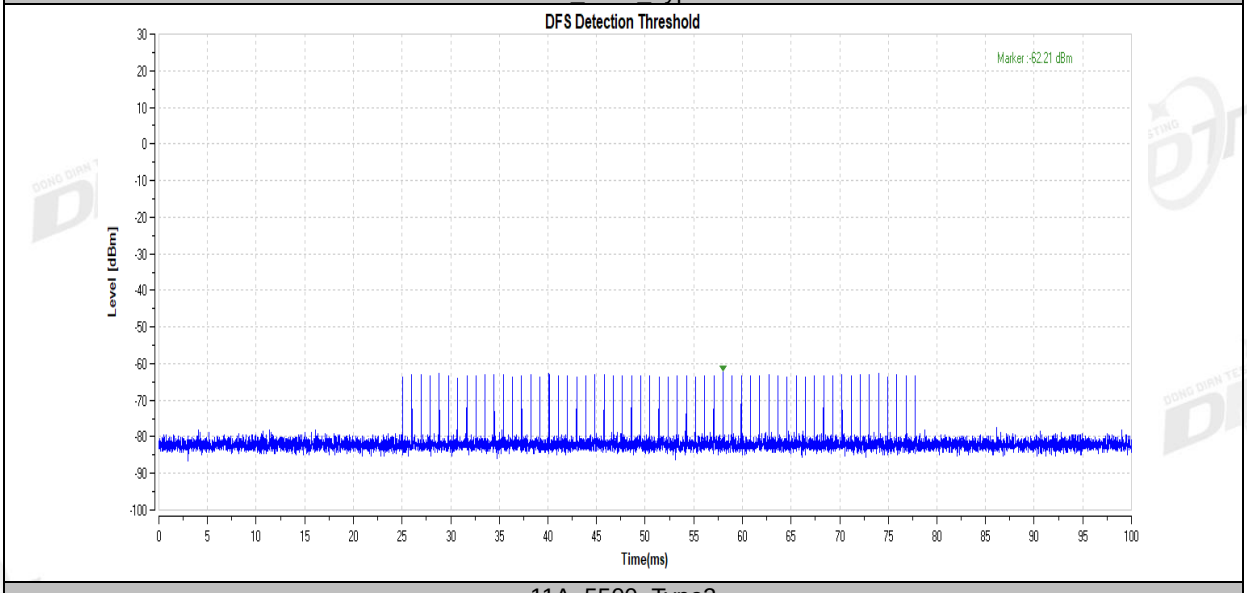

11A_5320_Type6



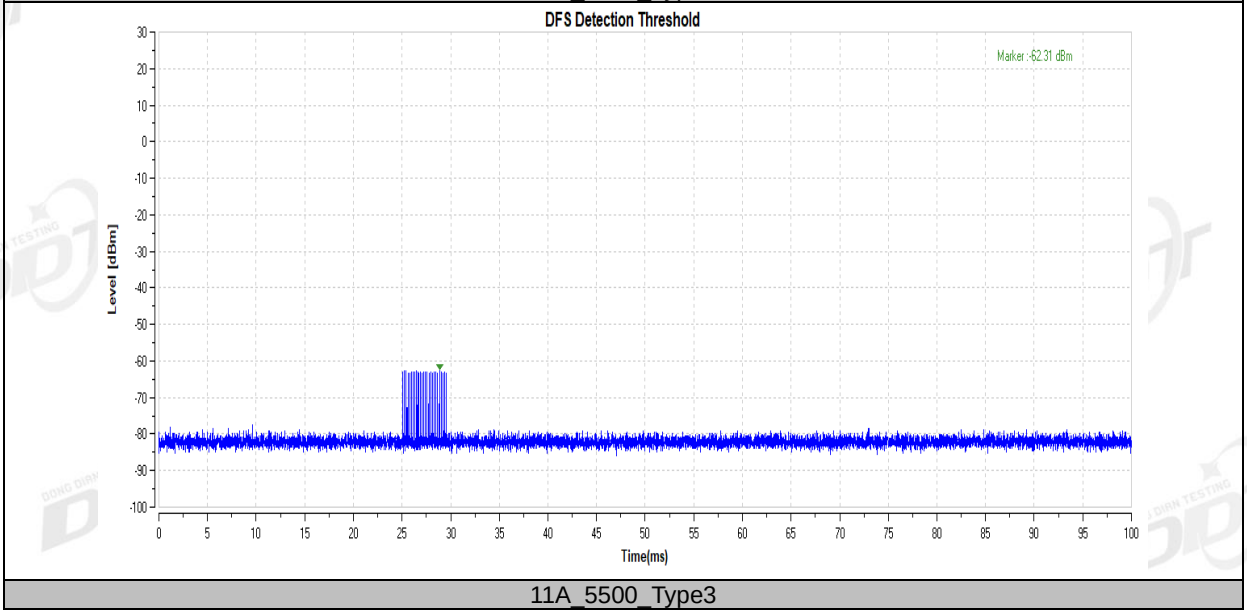

11A_5500_Type0



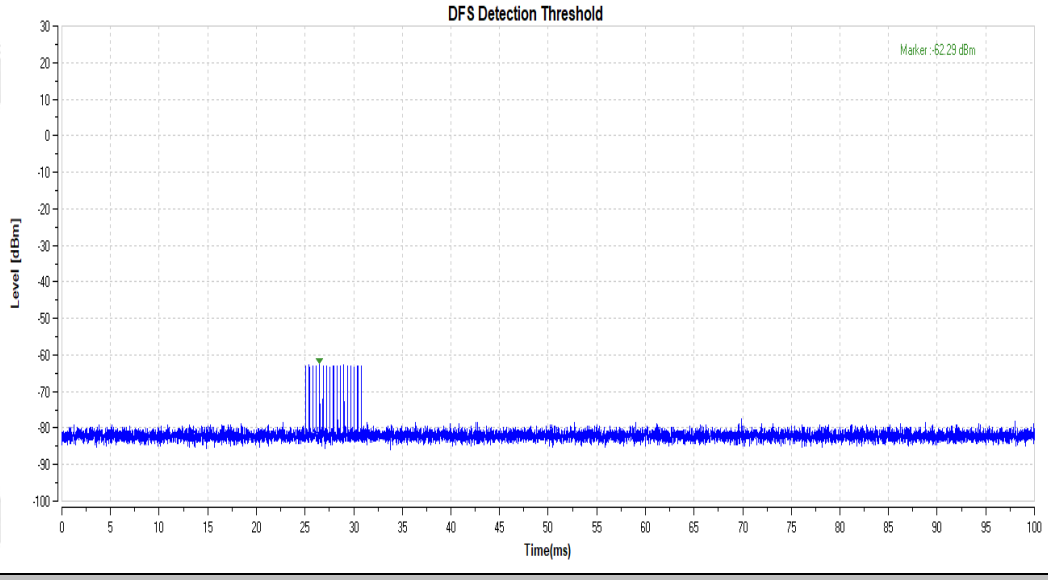

11A_5500_Type1



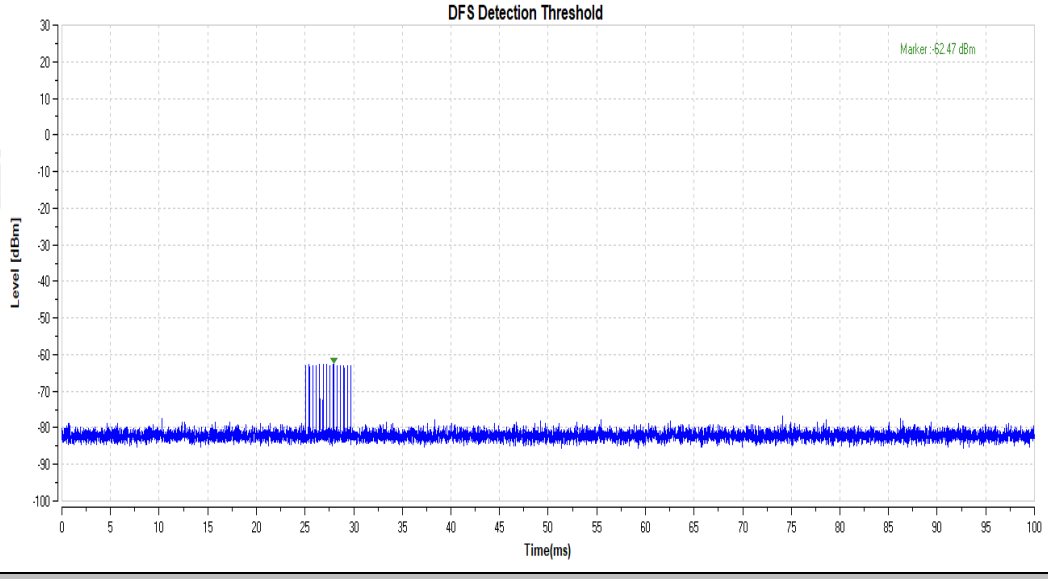

11A_5500_Type2



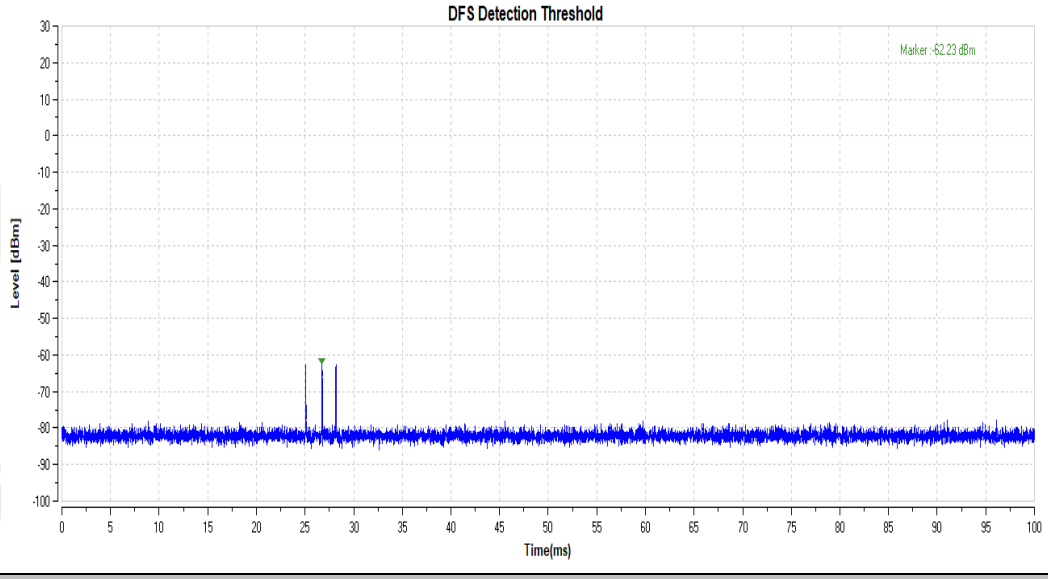

11A_5500_Type3



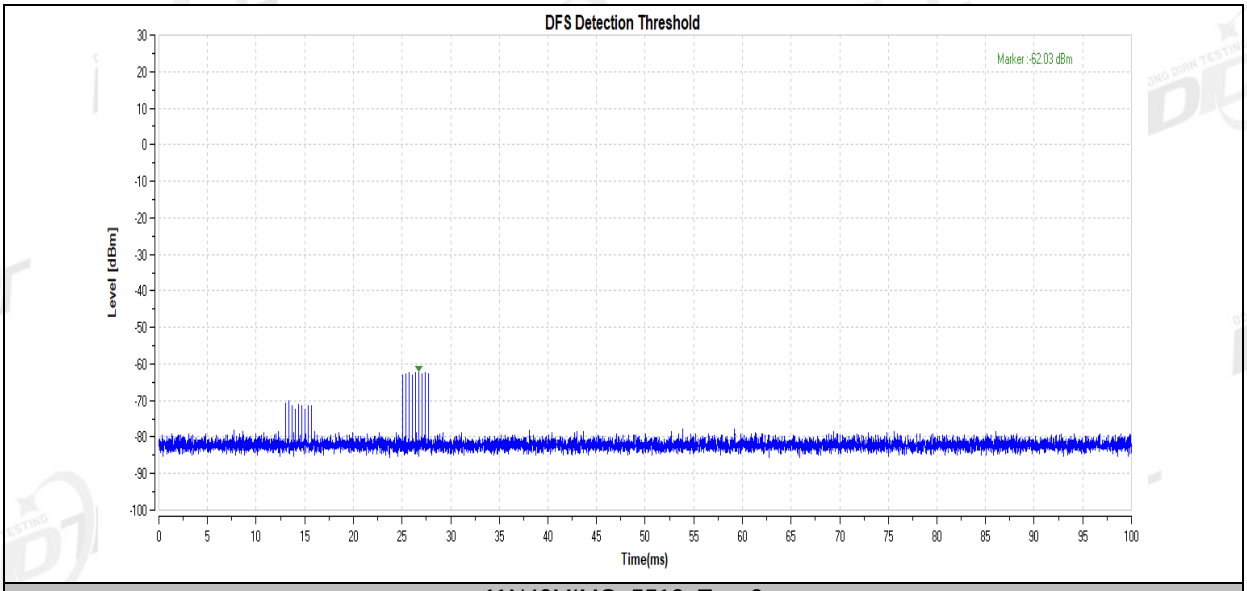

11A_5500_Type4



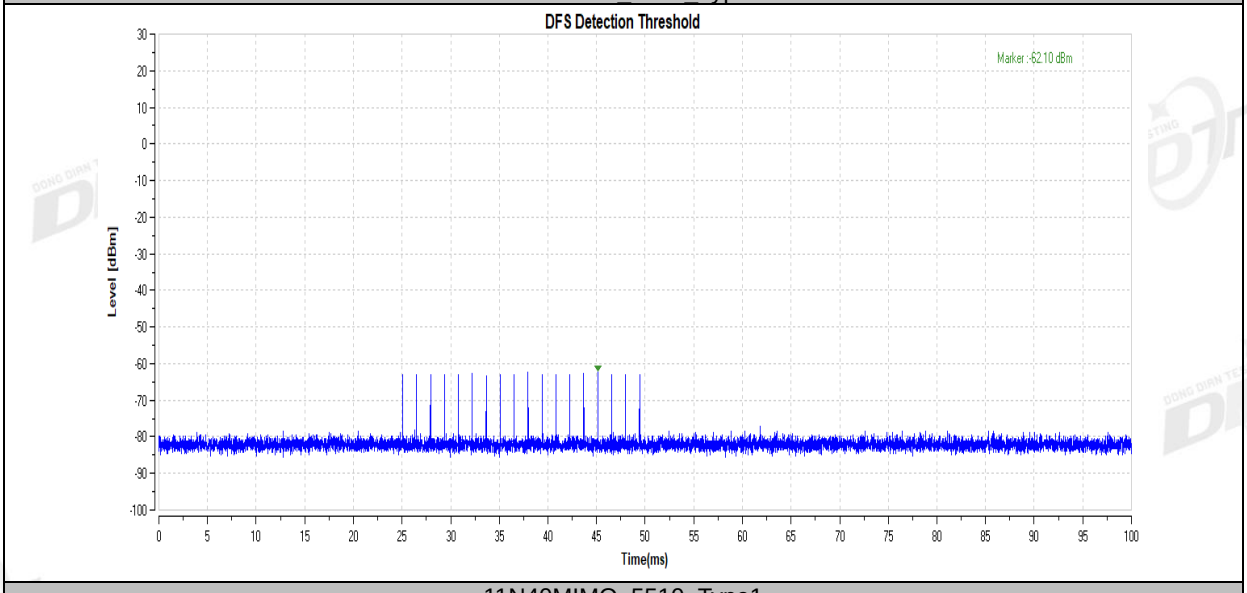

11A_5500_Type5



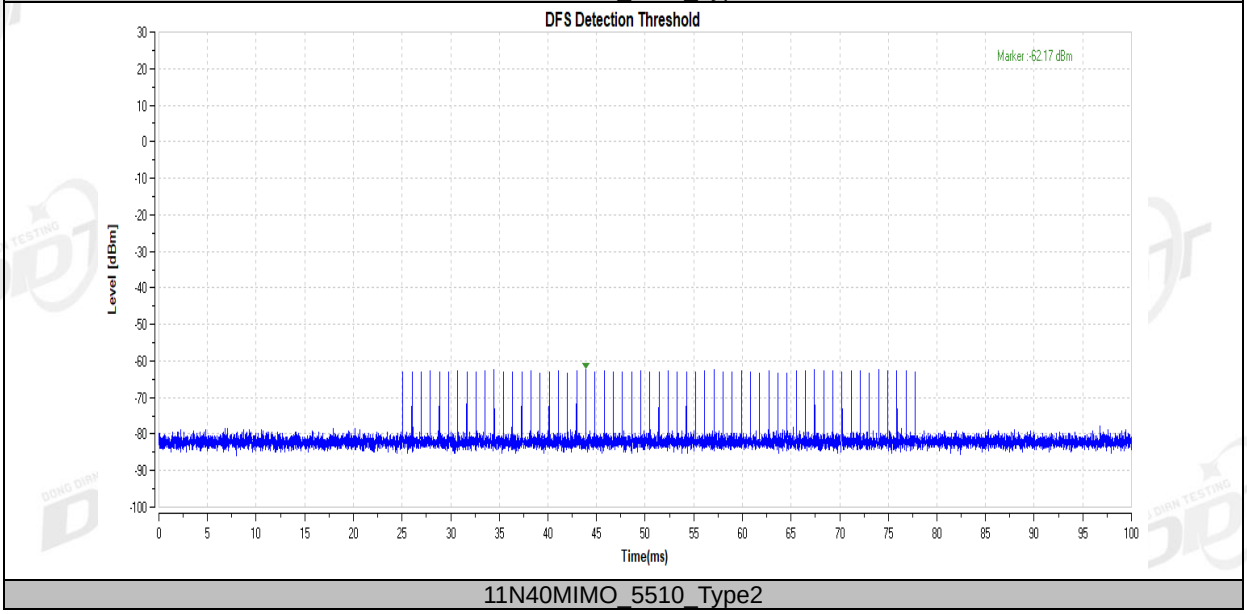

11A_5500_Type6



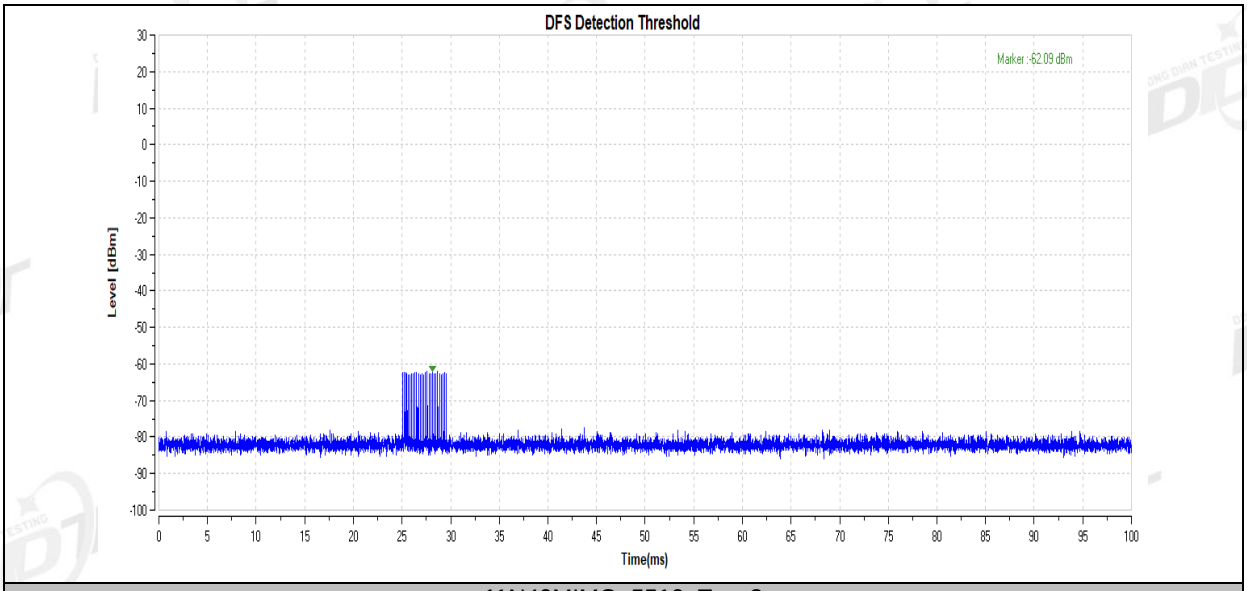

11N40MIMO_5510_Type0



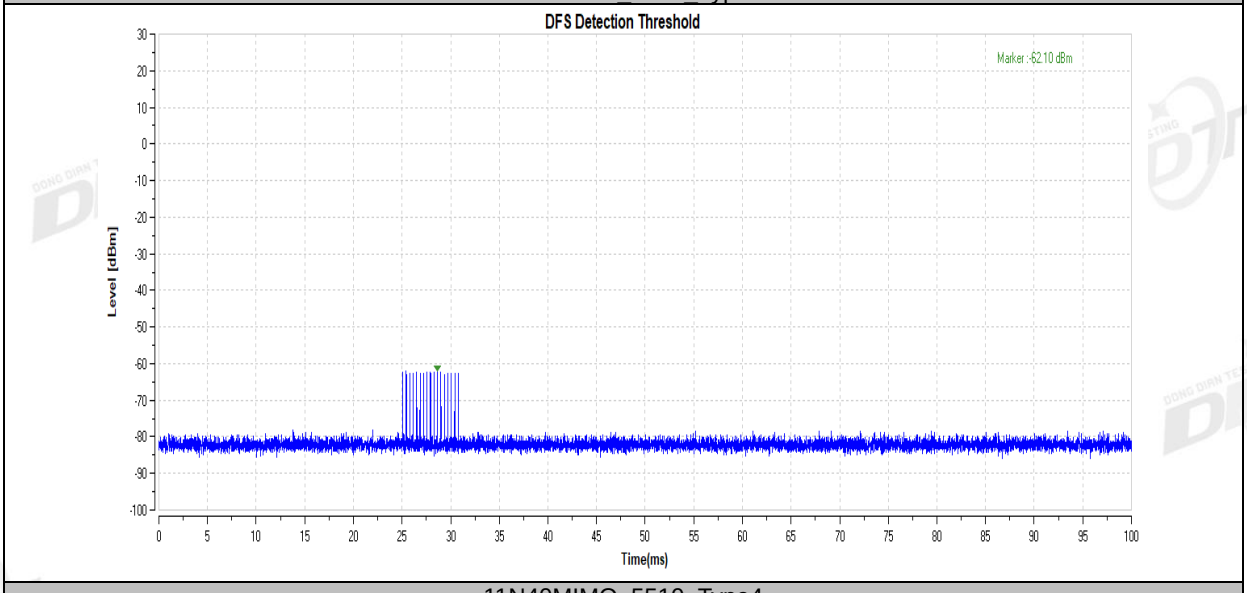

11N40MIMO_5510_Type1



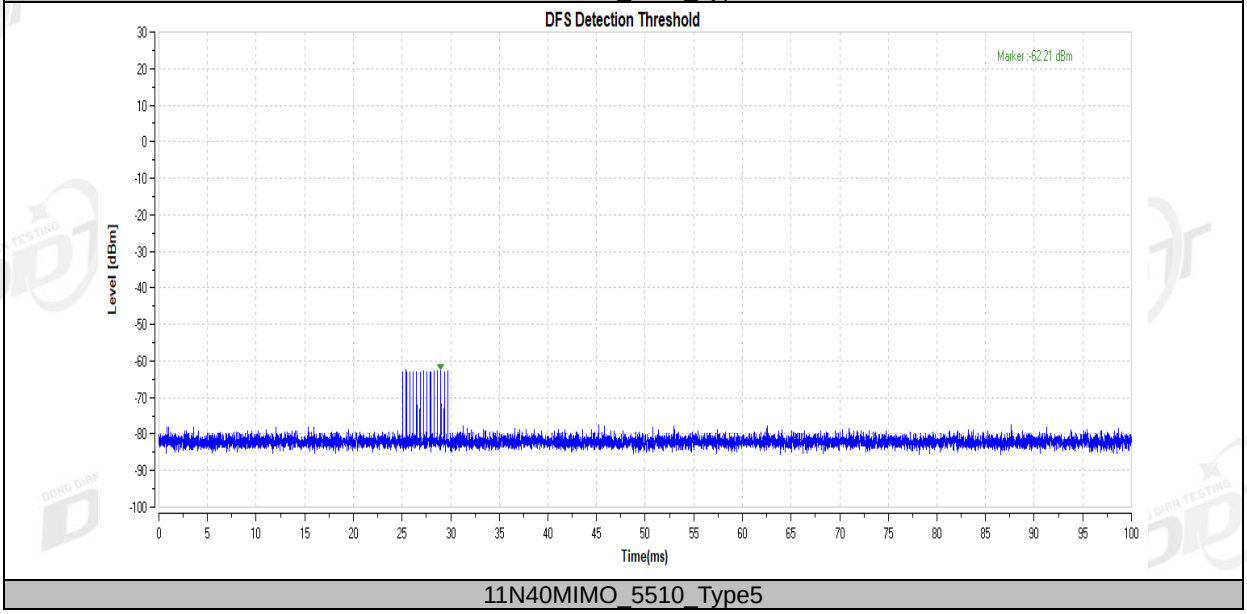

11N40MIMO_5510_Type2



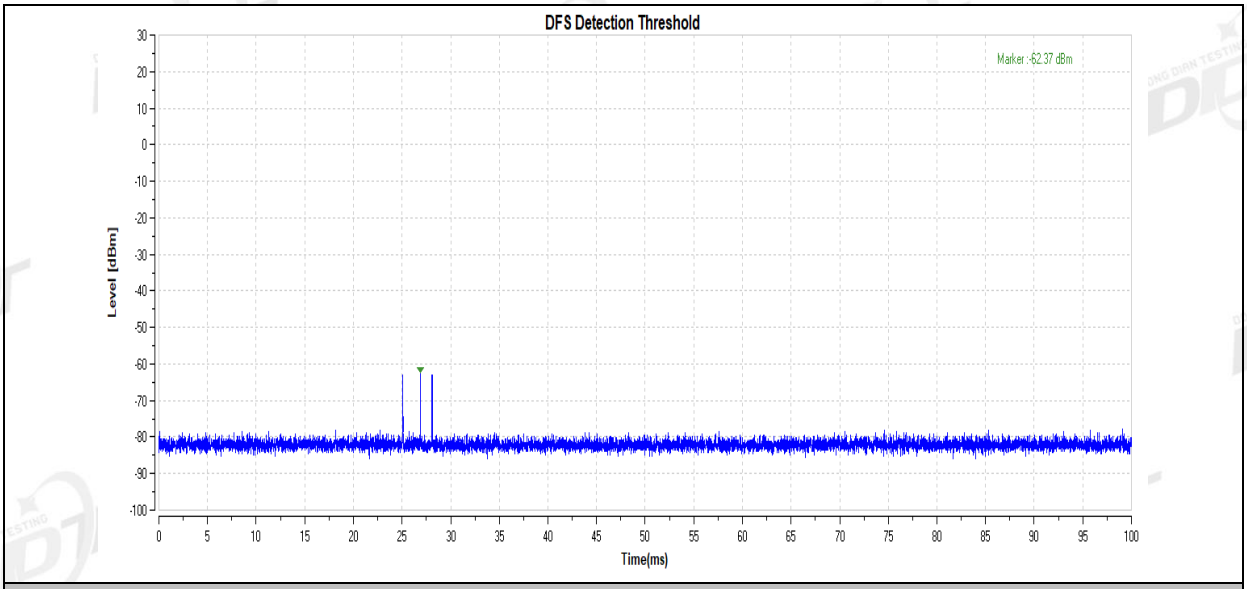

11N40MIMO_5510_Type3



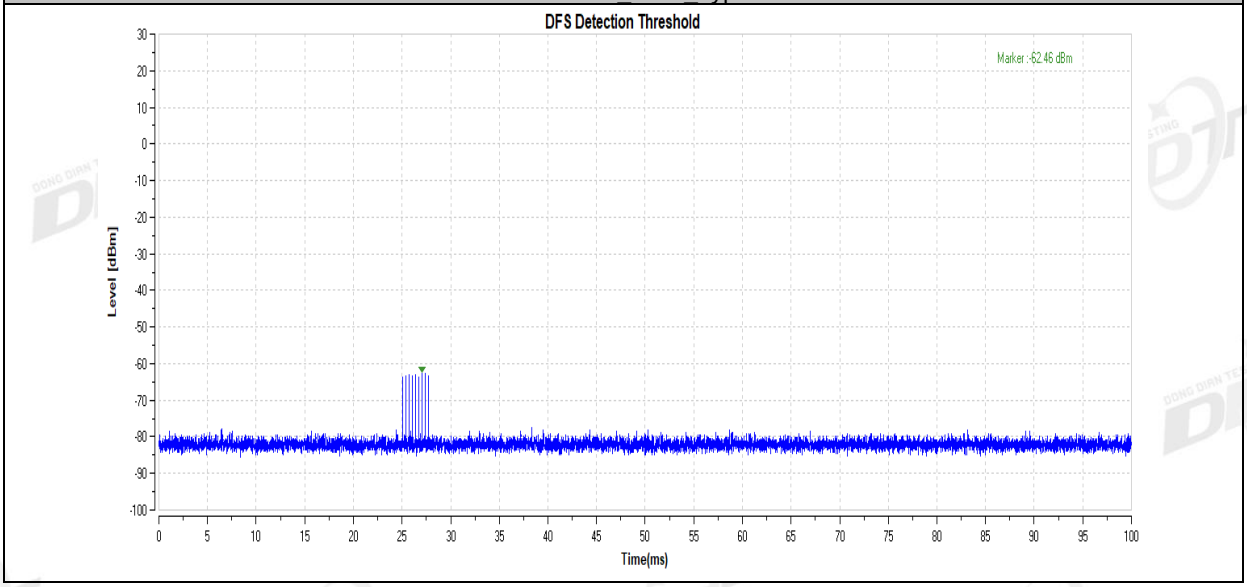

11N40MIMO_5510_Type4



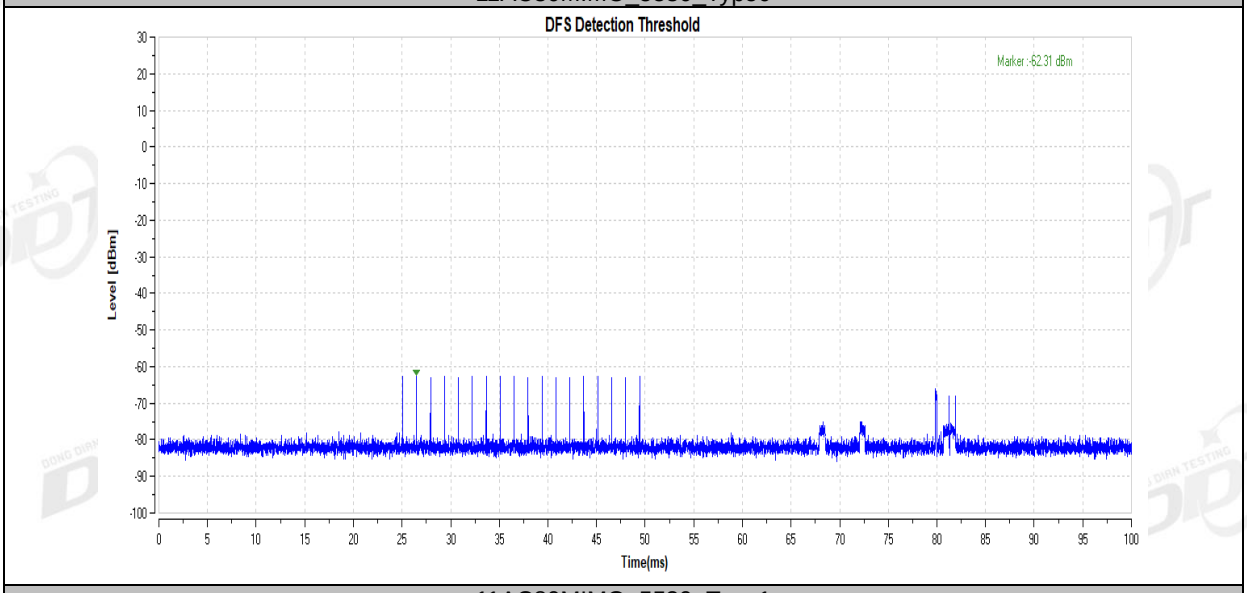

11N40MIMO_5510_Type5



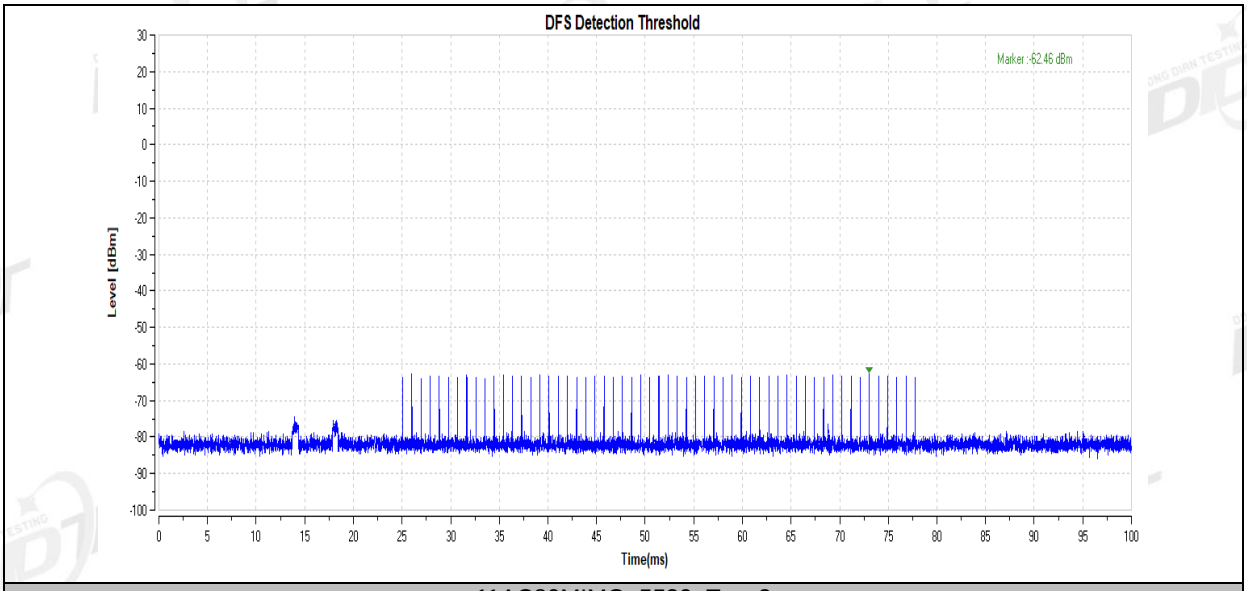

11N40MIMO_5510_Type6



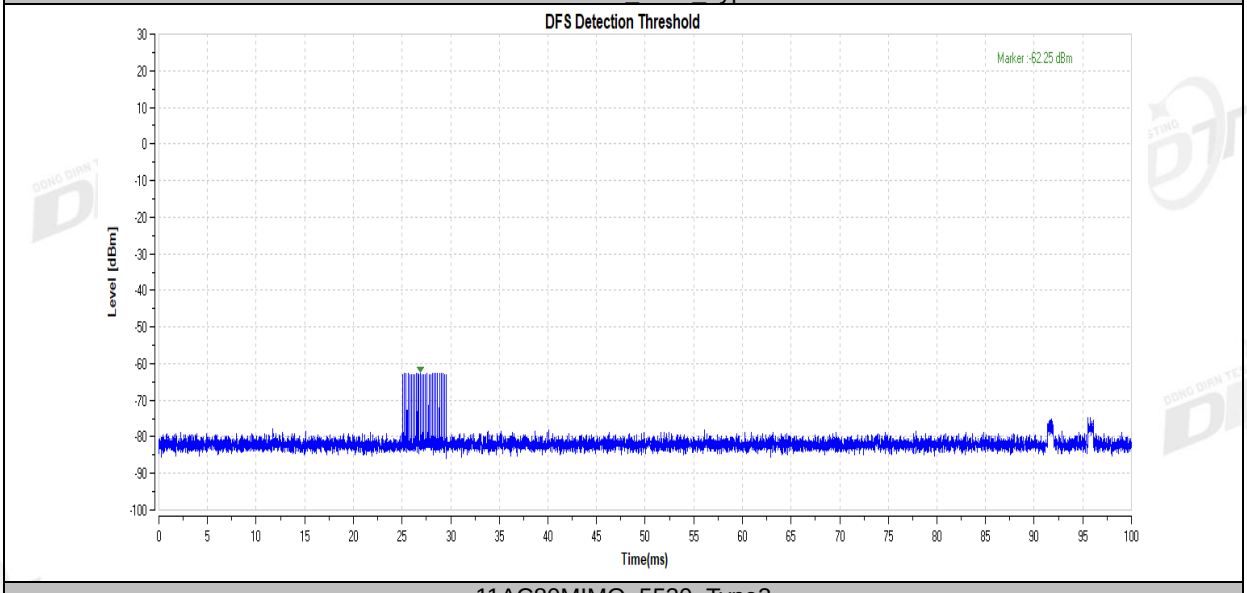

11AC80MIMO_5530_Type0



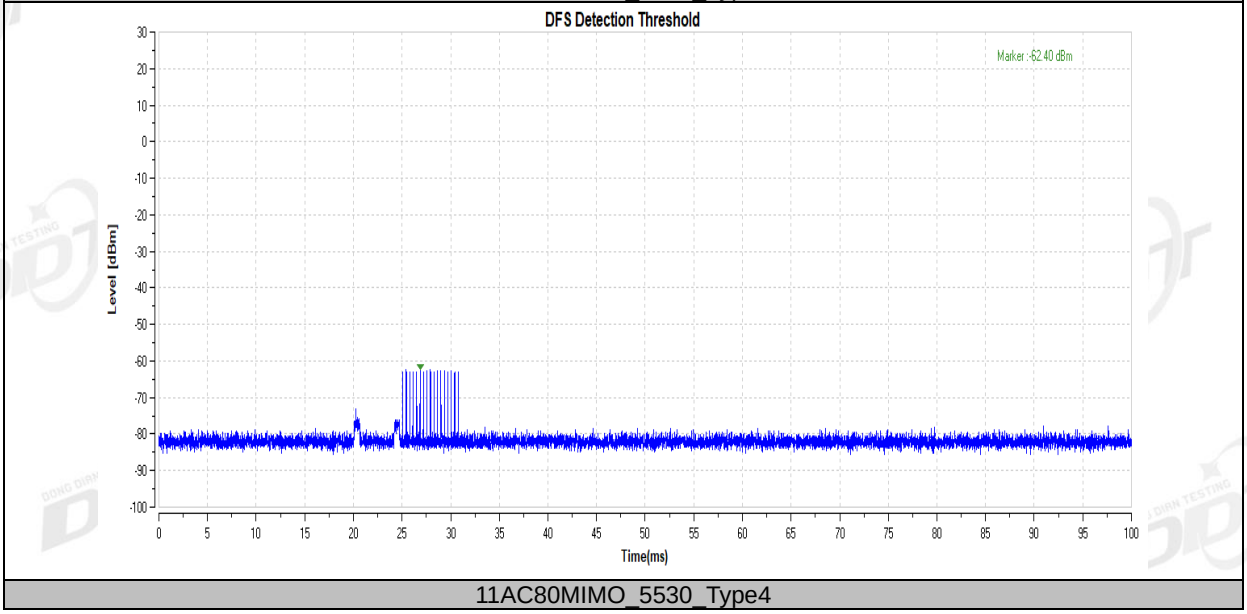

11AC80MIMO_5530_Type1



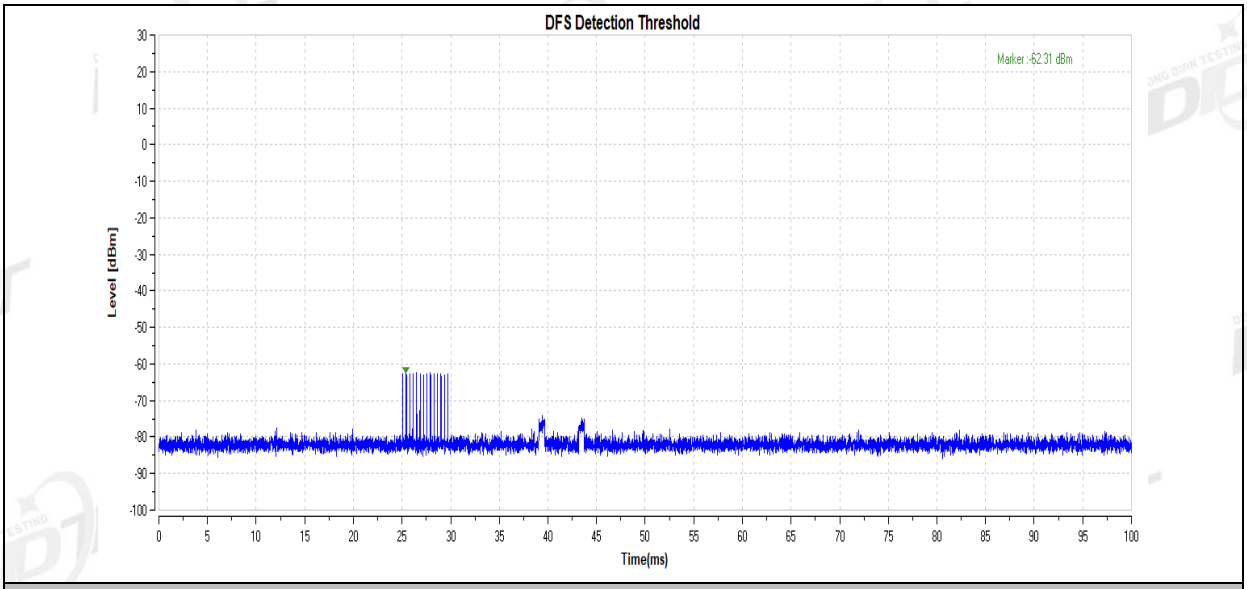

11AC80MIMO_5530_Type2



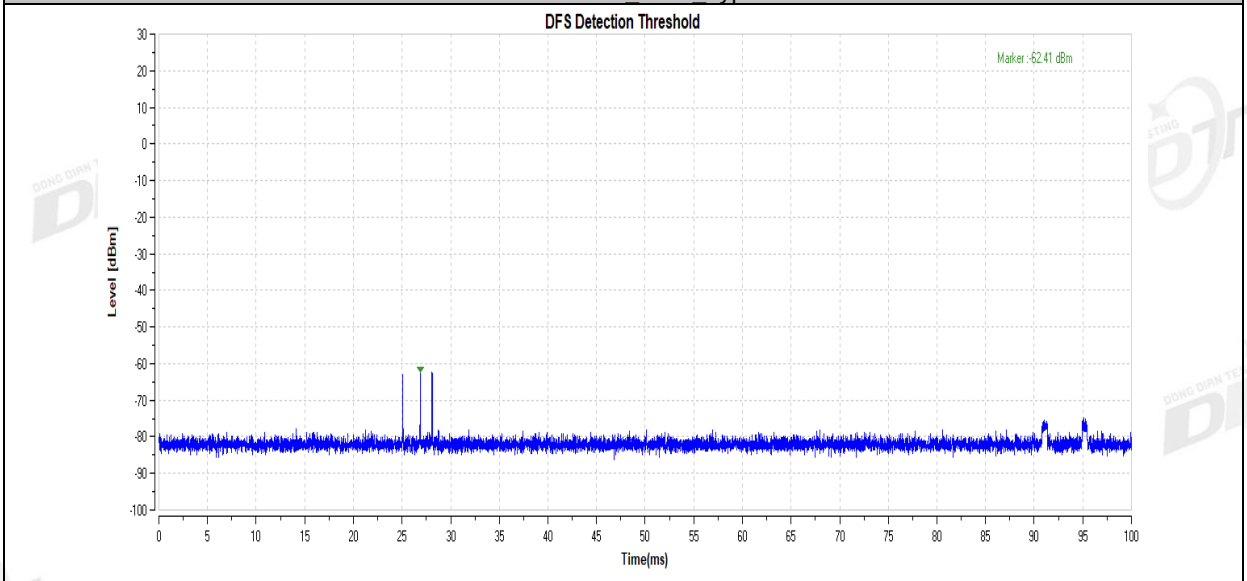

11AC80MIMO_5530_Type3



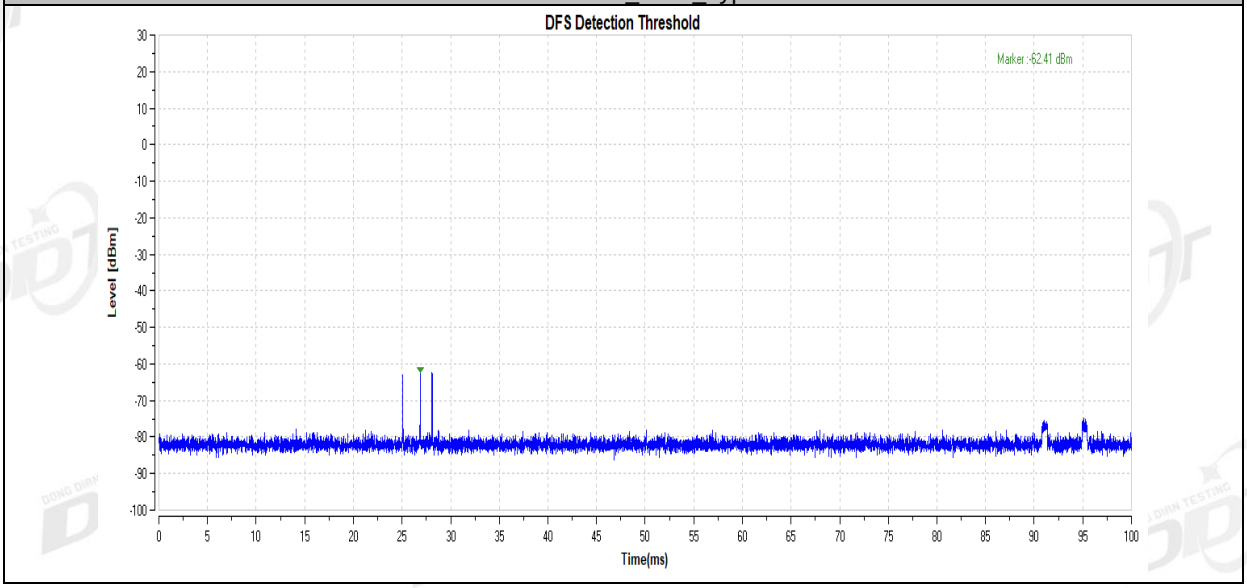

11AC80MIMO_5530_Type4




11AC80MIMO_5530_Type5




11AC80MIMO_5530_Type6



# 6. Channel Availability Check Time (CAC)

## 6.1. Channel Availability Check Limit

| Channel Availability Check Limit |
|---|
| The UUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle. |

## 6.2. Test Procedure

(1) Channel Availability Check Time (CAC)

(2) With link established on channel, apply a radar signal within 0~6 seconds after the initial power-up period; monitor the transmissions on channel from the spectrum analyzer.

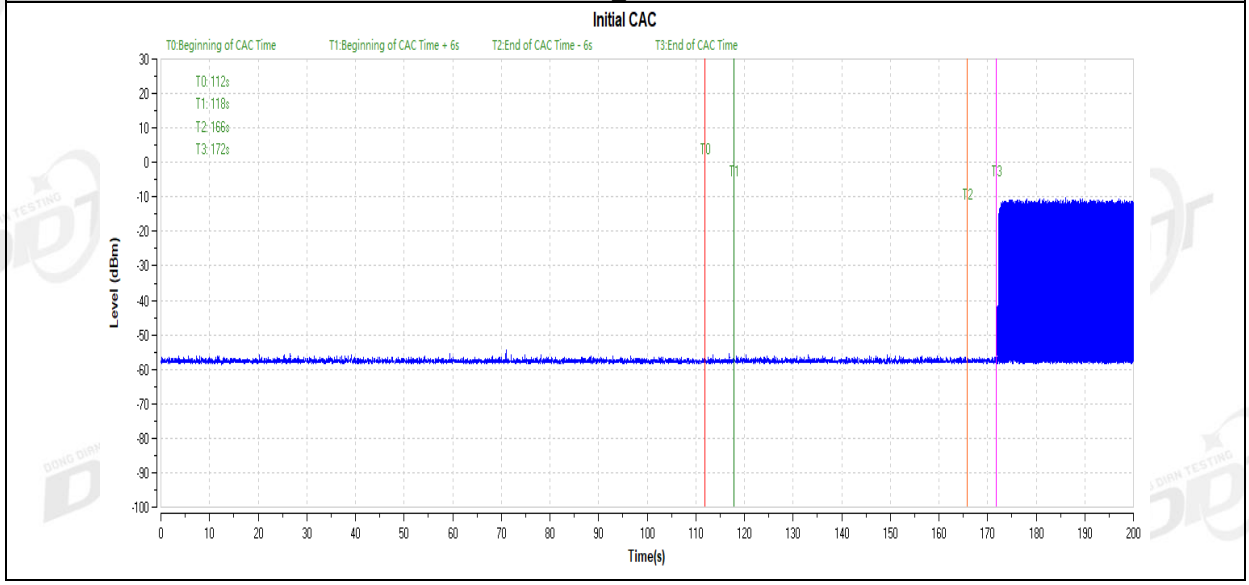
(3) Reboot EUT, with a link established on channel, apply a radar signal within 54~60 seconds after the initial power-up period, and monitor the transmission on channel from the spectrum analyzer.

## 6.3. Test Result

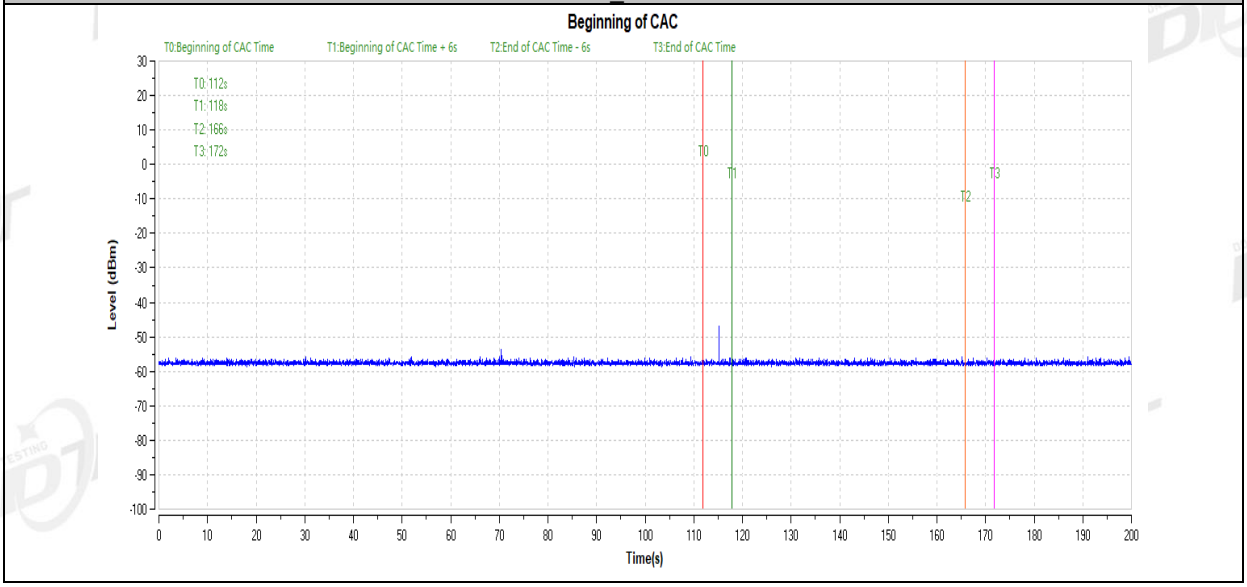
| Item | Result | Verdict |
|---|---|---|
| Initial Channel Availability Check Time | See test Graph | --- |
| Beginning of Channel Availability Check Time | See test Graph | PASS |
| End of Channel Availability Check Time | See test Graph | PASS |

Note: All the modulation modes were tested, and the worst case was recorded.

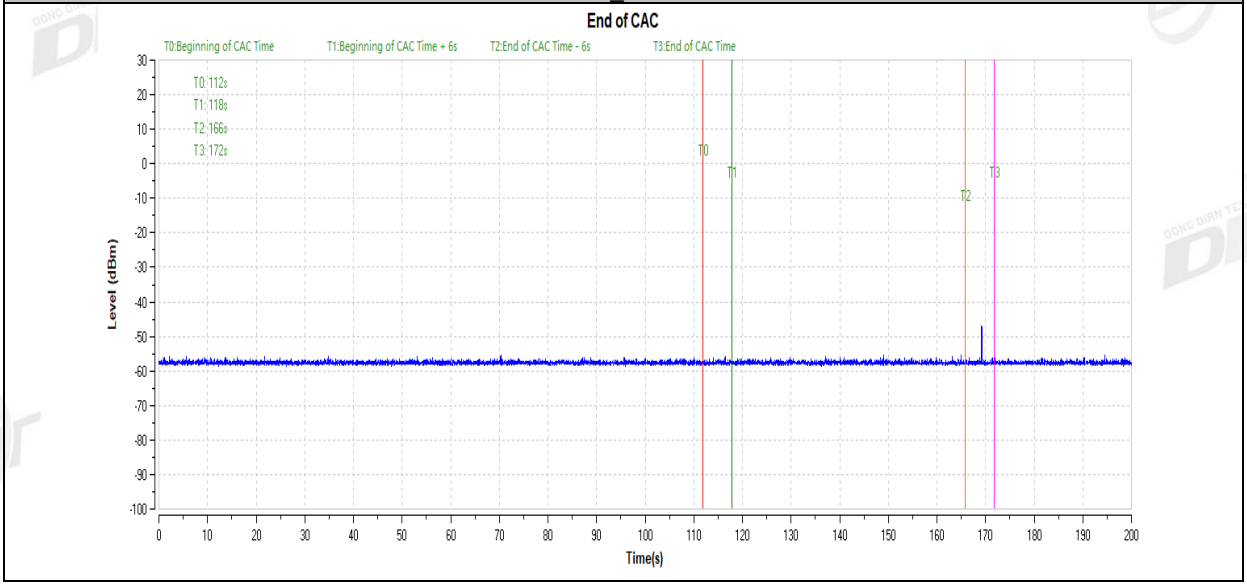
## 6.4. Test Graphs

| Initial Channel Availability Check Time |
|---|
| 11A_5260 |
|  |

| Beginning of Channel Availability Check Time |
|---|
| 11A_5260 |




| End of Channel Availability Check Time |
|---|
| 11A_5260 |



# 7. Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period

## 7.1. In-service Monitoring Limit

| In-service Monitoring Limit | |
|---|---|
| Channel Move Time | 10 sec |
| Channel Closing Transmission Time | 200 ms + an aggregate of 60 ms over remaining 10 sec periods. |
| Non-Occupancy Period | Minimum 30 minutes |

## 7.2. Test Procedure

(1) 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 1428us PRI is used for the testing.

(2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

(3) 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.

(4) Stream the channel loading test file from the Master Device to the Client Device on the test Channel

(5) for the entire period of the test. When 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.

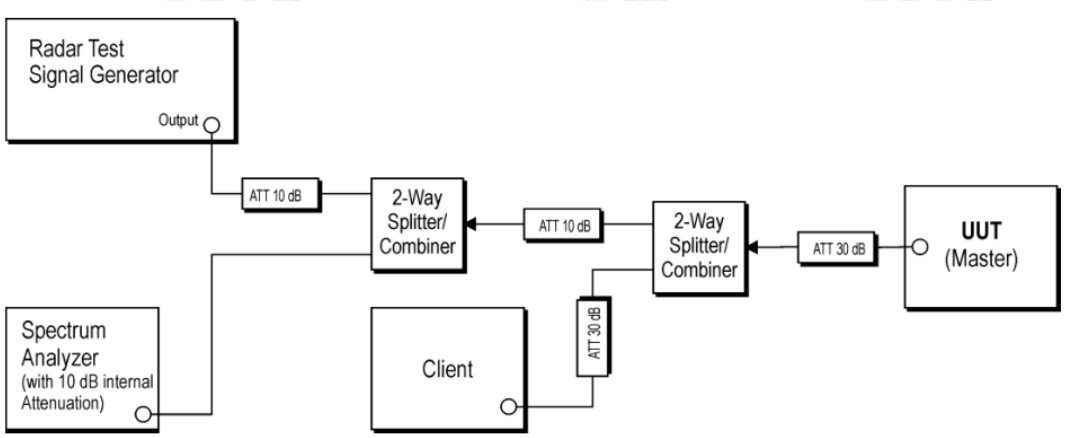
(6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types 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.

(7) Measurement of the aggregate duration of the Channel Closed 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 (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is 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 (ms)= N X Dwell (0.3ms); 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.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

## 7.3. Test setup

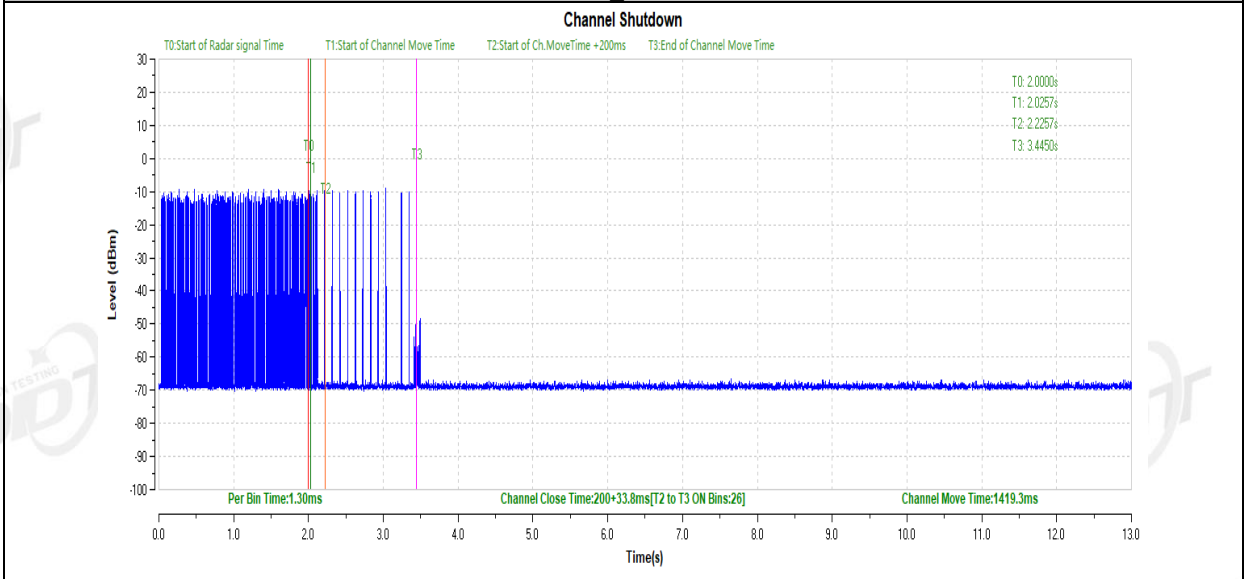



## 7.4. Test result

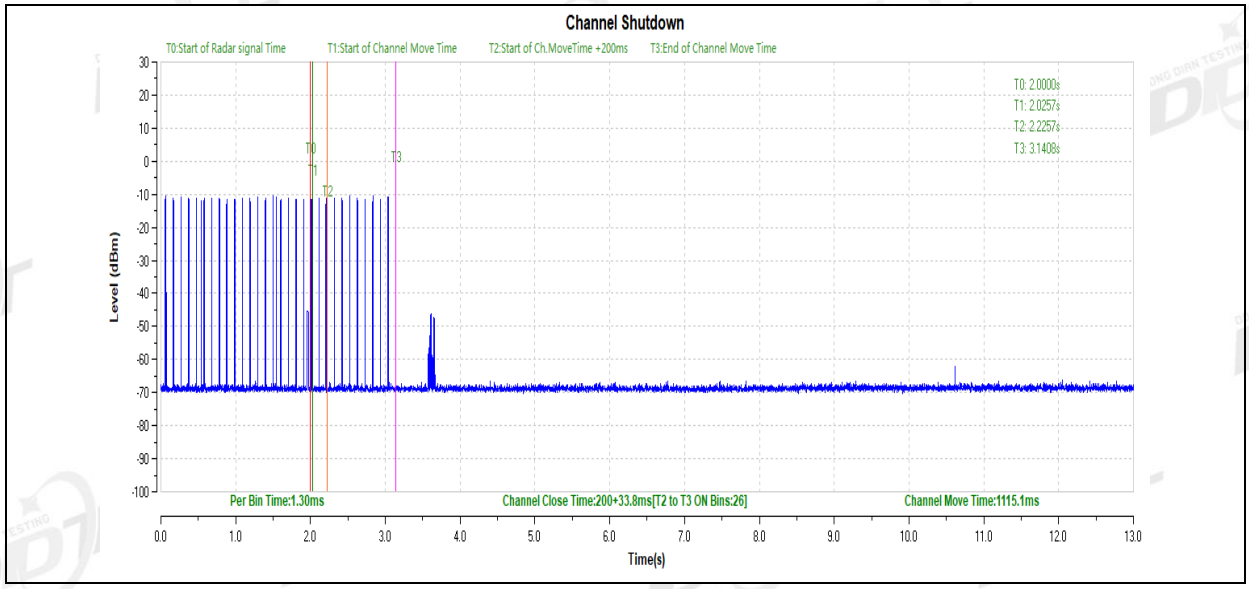
Channel Move Time and Channel Closing Transmission Time:

| Frequency[MHz] | CCTT[ms] | Limit[ms] | CMT[ms] | Limit[ms] | Verdict |
|---|---|---|---|---|---|
| 5260 | 200+33.8 | 200+60 | 1419.3 | 10000 | PASS |
| 5530 | 200+33.8 | 200+60 | 1115.1 | 10000 | PASS |

11A_5260



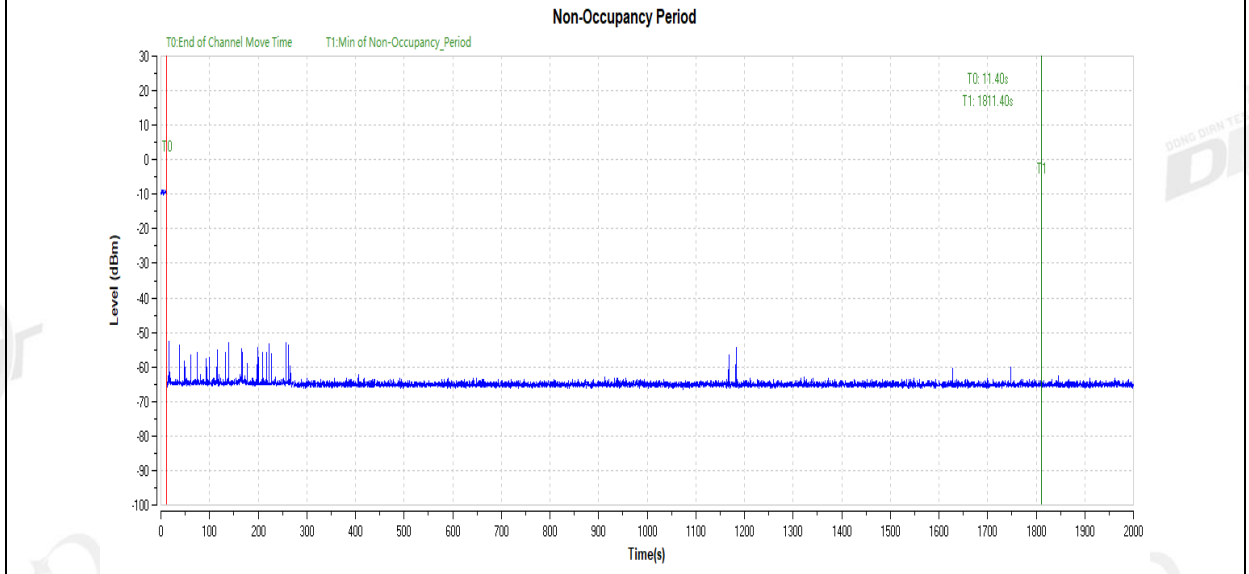

11AC80MIMO_5530



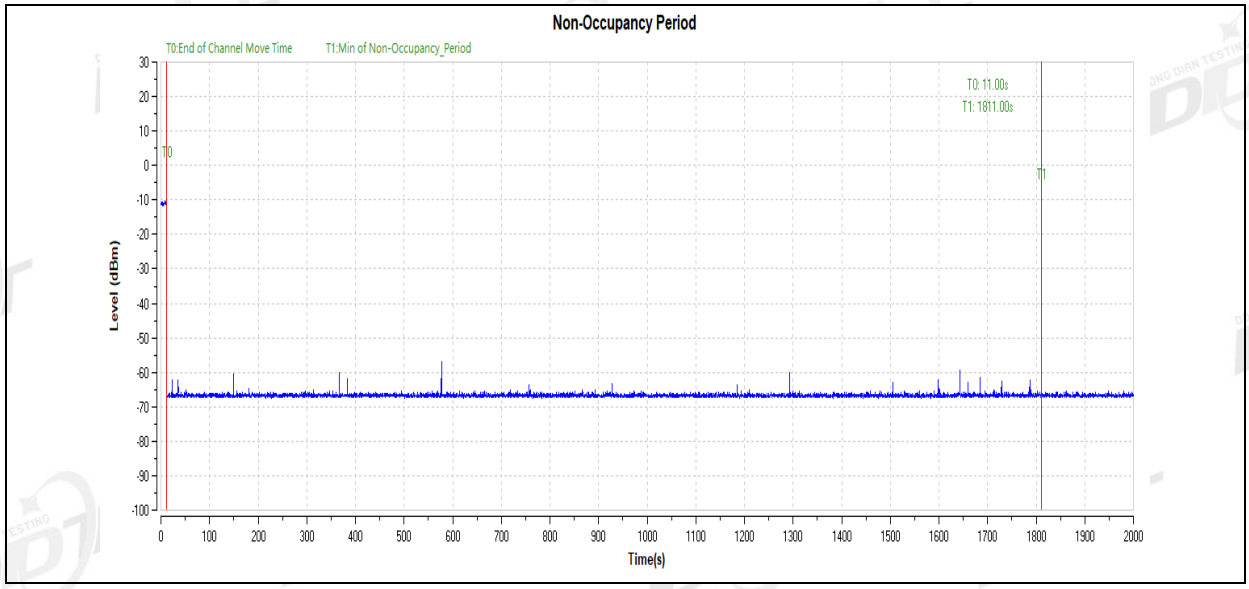

Non-Occupancy Period:

| Frequency[MHz] | Result | Limit[s] | Verdict |
|---|---|---|---|
| 5260 | see test graph | ≥1800 | PASS |
| 5530 | see test graph | ≥1800 | PASS |

11A_5260




11AC80MIMO_5530


Non-Occupancy Period
T0:End of Channel Move Time
T1:Min of Non-Occupancy_Period
T0: 11.00s
T1: 1811.00s
T0
T1
Level (dBm)
Time(s)

# 8. Detection Bandwidth

## 8.1. Detection Bandwidth Limit

| Channel Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | UNII Detection Bandwidth (MHz) |
|---|---|---|
| 20 | 19.29 | 20 |
| 40 | 37.51 | 38 |
| 80 | 76.74 | 77 |
| U-NII Detection Bandwidth is Minimum 100% of the U-NII 99% transmission power bandwidth. 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. | | |

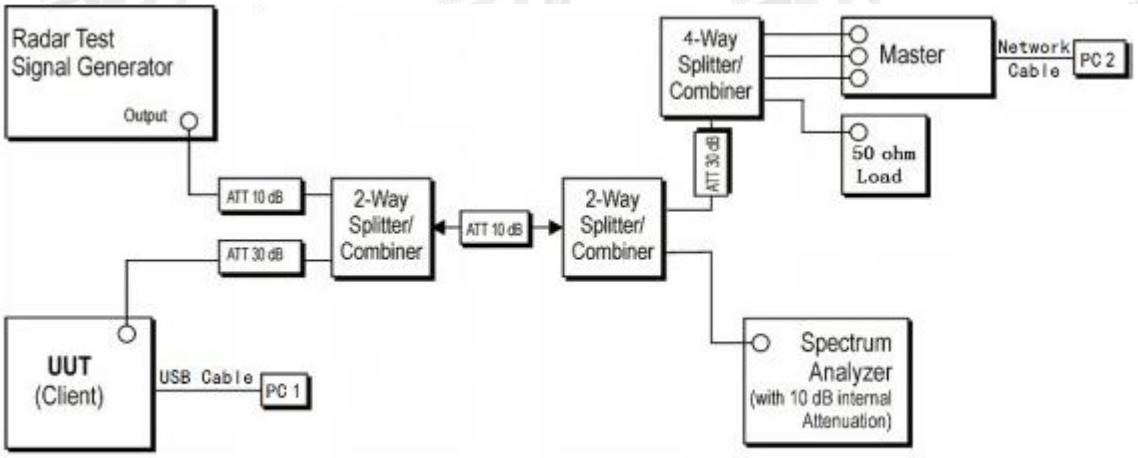
## 8.2. Test Procedure

(1) Starting at the center frequency of the UUT operating Channel, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in Table 4. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as FH) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above FH is not required to demonstrate compliance. Starting at the center frequency of the UUT operating Channel, decrease the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in Table 4. Repeat this measurement in 1MHz steps at frequencies 5 MHz above where the detection rate begins to fall. Record the lowest frequency (denote as FL) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below FL is not required to demonstrate compliance.

(2) The U-NII Detection Bandwidth is calculated as follows: U-NII Detection Bandwidth = FH – FL

(3) The U-NII Detection Bandwidth must meet the U-NII Detection Bandwidth criterion specified in Table 4. Otherwise, the UUT does not comply with DFS requirements. This is essential to ensure that the UUT is capable of detecting Radar Waveforms across the same frequency spectrum that contains the significant energy from the system. In the case that the U-NII Detection Bandwidth is greater than or equal to the 99 percent power bandwidth for the measured FH and FL, the test can be truncated and the U-NII Detection Bandwidth can be reported as the measured FH and FL.

## 8.3. Test setup




## 8.4. Test Result

| Frequency (MHz) | Bandwidth Systems (MHz) | FL(MHz) | FH(MHz) | Detection Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit | Result |
|---|---|---|---|---|---|---|---|
| 5320 | 20 | 5310 | 5330 | 20 | 19.29 | 100% | Pass |
| 5510 | 40 | 5491 | 5529 | 38 | 37.51 | 100% | Pass |
| 5530 | 80 | 5491 | 5569 | 77 | 76.74 | 100% | Pass |

| 20MHz Bandwidth, EUT Frequency = 5320MHz | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DFS Detection Trials (1 = Detected, 0 = No Detected) | | | | | | | | | | | |
| Radar Frequency (MHz) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Detection Rate (%) |
| 5310($F_L$) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5311 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5312 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5313 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5314 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5315 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5316 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5317 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5318 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5319 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| **5320** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5321 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5322 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5323 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5324 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5325 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5326 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5327 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5328 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5329 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5330(FH) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| Detection Bandwidth = FH – FL = 5330-5310 = 20 MHz | | | | | | | | | | | |

| EUT 99% BW = 19.29 MHz; | Result: Pass |
|---|---|

| 40MHz Bandwidth, EUT Frequency = 5510MHz | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DFS Detection Trials (1 = Detected, 0 = No Detected) | | | | | | | | | | | |
| Radar Frequency (MHz) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Detection Rate (%) |
| 5491($F_L$) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5492 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5493 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5494 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5495 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5496 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5497 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5498 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5499 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5500 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5501 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5502 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5503 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5504 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5505 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5506 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5507 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5508 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5509 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| **5510** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5511 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5512 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5513 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5514 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5515 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5516 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5517 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5518 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5519 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5520 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5521 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5522 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5523 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5524 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5525 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5526 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5527 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5528 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5529(FH) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| Detection Bandwidth = FH – FL = 5529-5491 = 38 MHz | | | | | | | | | | | |
| EUT 99% BW = 37.51 MHz; | | | | | | | | | | | Result: Pass |

| 80MHz Bandwidth, EUT Frequency = 5530MHz | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DFS Detection Trials (1 = Detected, 0 = No Detected) | | | | | | | | | | | |
| Radar Frequency (MHz) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Detection Rate (%) |
| 5491($F_L$) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5492 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5493 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5494 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5495 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5496 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5497 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5498 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5499 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5500 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5501 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5502 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5503 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5504 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5505 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5506 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5507 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5508 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5509 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5510 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5511 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5512 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5513 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5514 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5515 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5516 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5517 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5518 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5519 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5520 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5521 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5522 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5523 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5524 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5525 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5526 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5527 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5528 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5529 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| **5530** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5531 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5532 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5533 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5534 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5535 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5536 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5537 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5538 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5539 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5540 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5541 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5542 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5543 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5544 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5545 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5546 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5547 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5548 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5549 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5550 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5551 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5552 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5553 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5554 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5555 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5556 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5557 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5558 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5559 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5560 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5561 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5562 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5563 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5564 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5565 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5566 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5567 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5568 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5569(FH) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| Detection Bandwidth = FH – FL = 5569-5491 = 78MHz | | | | | | | | | | | |
| EUT 99% BW = 76.74 MHz; | | | | | | | | | | | Result: Pass |

# 9. Statistical Performance Check

## 9.1. Statistical Performance Check Limit

| Radar Type | Minimum Percentage of Successful Detection | Minimum Trials |
|---|---|---|
| 1 | 60% | 30 |
| 2 | 60% | 30 |
| 3 | 60% | 30 |
| 4 | 60% | 30 |
| Aggregate (Type1 to 4) | 80% | 120 |
| 5 | 80% | 30 |
| 6 | 70% | 30 |

$$\frac{TotalWaveformDetections}{TotalWaveformTrials} \times 100 = \text{Percentage of Successful Detection } \textit{Radar Waveform } N = P_d N$$

In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows:

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4}$$

## 9.2. Test Procedure

The steps below define the procedure to determine the minimum percentage of successful detection requirements found in Tables 5-7 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 (In-Service Monitoring).

a) One frequency will be chosen from the Operating Channels of the UUT within the 5250-5350 MHz or 5470-5725 MHz bands.

b) In case the UUT is a U-NII device operating as a Client Device (with or without Radar Detection), a U-NII device operating as a Master Device will be used to allow the UUT (Client device) to Associate with the Master Device. In case the UUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will Associate with the UUT (Master). In both cases for conducted tests, the Radar Waveform generator will be connected to the Master Device. For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.

c) Stream the channel loading test file from the Master Device to the Client Device on the test Channel for the entire period of the test.

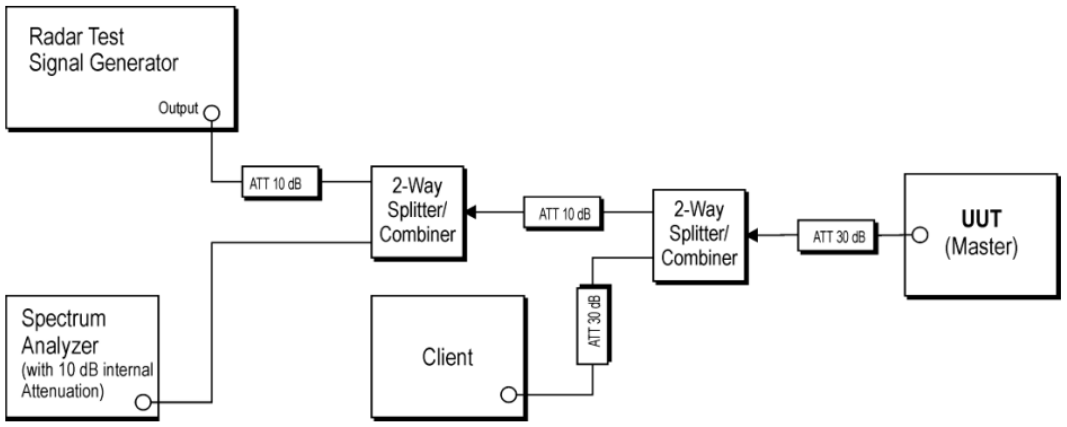
d) At time T0 the Radar Waveform generator sends the individual waveform for each of the Radar Types 1- 6 in Tables 5-7, at levels defined in Table 3, on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

e) Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Radar Type 0 to ensure detection occurs.

f) Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs.

g) In case the UUT is a U-NII device operating as a Client Device with In-Service Monitoring, perform steps a) to f).

## 9.3. Test setup




## 9.4. Test Result

Modulation Mode: 802.11ac (VHT20)

| Radar Signal Type | Waveform/ Trial Number | Detection (%) | Limit | Result |
|---|---|---|---|---|
| 1 | 30 | 100% | 60% | Pass |
| 2 | 30 | 100% | 60% | Pass |
| 3 | 30 | 100% | 60% | Pass |
| 4 | 30 | 100% | 60% | Pass |
| Aggregate (Type1 to 4) | 120 | 100% | 80% | Pass |

| | | | | |
|---|---|---|---|---|
| 5 | 30 | 100% | 80% | Pass |
| 6 | 30 | 100% | 70% | Pass |

Radar Type 1 Statistical Performance

| Trial # | Fc (MHz) | Pulse Width (μS) | PRI(pps) | Number of Bursts | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 0 | 5320 | 1 | 938 | 57 | 1 |
| 1 | 5320 | 1 | 698 | 76 | 1 |
| 2 | 5320 | 1 | 618 | 86 | 1 |
| 3 | 5320 | 1 | 538 | 99 | 1 |
| 4 | 5320 | 1 | 878 | 61 | 1 |
| 5 | 5320 | 1 | 3066 | 18 | 1 |
| 6 | 5320 | 1 | 638 | 83 | 1 |
| 7 | 5320 | 1 | 918 | 58 | 1 |
| 8 | 5320 | 1 | 838 | 63 | 1 |
| 9 | 5320 | 1 | 858 | 62 | 1 |
| 10 | 5320 | 1 | 798 | 67 | 1 |
| 11 | 5320 | 1 | 718 | 74 | 1 |
| 12 | 5320 | 1 | 578 | 92 | 1 |
| 13 | 5320 | 1 | 598 | 89 | 1 |
| 14 | 5320 | 1 | 558 | 95 | 1 |
| 15 | 5320 | 1 | 2536 | 21 | 1 |
| 16 | 5320 | 1 | 966 | 55 | 1 |
| 17 | 5320 | 1 | 827 | 64 | 1 |
| 18 | 5320 | 1 | 2501 | 22 | 1 |
| 19 | 5320 | 1 | 2595 | 21 | 1 |
| 20 | 5320 | 1 | 1114 | 48 | 1 |
| 21 | 5320 | 1 | 1302 | 41 | 1 |
| 22 | 5320 | 1 | 3045 | 18 | 1 |
| 23 | 5320 | 1 | 1624 | 33 | 1 |
| 24 | 5320 | 1 | 2878 | 19 | 1 |
| 25 | 5320 | 1 | 1027 | 52 | 1 |
| 26 | 5320 | 1 | 2485 | 22 | 1 |
| 27 | 5320 | 1 | 1600 | 33 | 1 |
| 28 | 5320 | 1 | 1172 | 46 | 1 |
| 29 | 5320 | 1 | 1177 | 45 | 1 |

| Trial # | Fc (MHz) | Pulse Width (μS) | PRI(pps) | Number of Bursts | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 0 | 5500 | 1 | 938 | 57 | 1 |
| 1 | 5500 | 1 | 698 | 76 | 1 |
| 2 | 5500 | 1 | 618 | 86 | 1 |
| 3 | 5500 | 1 | 538 | 99 | 1 |
| 4 | 5500 | 1 | 878 | 61 | 1 |
| 5 | 5500 | 1 | 3066 | 18 | 1 |
| 6 | 5500 | 1 | 638 | 83 | 1 |
| 7 | 5500 | 1 | 918 | 58 | 1 |
| 8 | 5500 | 1 | 838 | 63 | 1 |
| 9 | 5500 | 1 | 858 | 62 | 1 |
| 10 | 5500 | 1 | 798 | 67 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| 11 | 5500 | 1 | 718 | 74 | 1 |
| 12 | 5500 | 1 | 578 | 92 | 1 |
| 13 | 5500 | 1 | 598 | 89 | 1 |
| 14 | 5500 | 1 | 558 | 95 | 1 |
| 15 | 5500 | 1 | 2536 | 21 | 1 |
| 16 | 5500 | 1 | 966 | 55 | 1 |
| 17 | 5500 | 1 | 827 | 64 | 1 |
| 18 | 5500 | 1 | 2501 | 22 | 1 |
| 19 | 5500 | 1 | 2595 | 21 | 1 |
| 20 | 5500 | 1 | 1114 | 48 | 1 |
| 21 | 5500 | 1 | 1302 | 41 | 1 |
| 22 | 5500 | 1 | 3045 | 18 | 1 |
| 23 | 5500 | 1 | 1624 | 33 | 1 |
| 24 | 5500 | 1 | 2878 | 19 | 1 |
| 25 | 5500 | 1 | 1027 | 52 | 1 |
| 26 | 5500 | 1 | 2485 | 22 | 1 |
| 27 | 5500 | 1 | 1600 | 33 | 1 |
| 28 | 5500 | 1 | 1172 | 46 | 1 |
| 29 | 5500 | 1 | 1177 | 45 | 1 |

Radar Type 2 Statistical Performance

| Trial # | Fc (MHz) | Pulse/Burst | Pulse Width (μS) | PRI (μs) | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 1 | 5320 | 3.2 | 179.0 | 26 | 1 |
| 2 | 5320 | 1.1 | 207.0 | 23 | 1 |
| 3 | 5320 | 2.1 | 230.0 | 24 | 1 |
| 4 | 5320 | 4.8 | 200.0 | 29 | 1 |
| 5 | 5320 | 3.9 | 214.0 | 28 | 1 |
| 6 | 5320 | 2.9 | 222.0 | 26 | 1 |
| 7 | 5320 | 3.2 | 204.0 | 26 | 1 |
| 8 | 5320 | 2.5 | 192.0 | 25 | 1 |
| 9 | 5320 | 3.1 | 164.0 | 26 | 1 |
| 10 | 5320 | 1.2 | 156.0 | 23 | 1 |
| 11 | 5320 | 3.9 | 210.0 | 27 | 1 |
| 12 | 5320 | 4.6 | 201.0 | 29 | 1 |
| 13 | 5320 | 3.2 | 162.0 | 26 | 1 |
| 14 | 5320 | 2.2 | 197.0 | 25 | 1 |
| 15 | 5320 | 4.5 | 163.0 | 29 | 1 |
| 16 | 5320 | 3.0 | 203.0 | 26 | 1 |
| 17 | 5320 | 5.0 | 168.0 | 29 | 1 |
| 18 | 5320 | 2.4 | 217.0 | 25 | 1 |
| 19 | 5320 | 2.9 | 191.0 | 26 | 1 |
| 20 | 5320 | 2.3 | 166.0 | 25 | 1 |
| 21 | 5320 | 3.7 | 150.0 | 27 | 1 |
| 22 | 5320 | 2.2 | 176.0 | 25 | 1 |
| 23 | 5320 | 4.9 | 195.0 | 29 | 1 |
| 24 | 5320 | 2.9 | 202.0 | 26 | 1 |
| 25 | 5320 | 2.5 | 178.0 | 25 | 1 |
| 26 | 5320 | 1.1 | 206.0 | 23 | 1 |
| 27 | 5320 | 3.8 | 155.0 | 27 | 1 |
| 28 | 5320 | 4.7 | 157.0 | 29 | 1 |
| 29 | 5320 | 2.4 | 224.0 | 25 | 1 |
| 30 | 5320 | 4.2 | 159.0 | 28 | 1 |
| Detection Percentage: 90 % (>60%) | | | | | |

| Trial # | Fc (MHz) | Pulse/Burst | Pulse Width (μS) | PRI (μs) | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 1 | 5500 | 3.2 | 179.0 | 26 | 1 |
| 2 | 5500 | 1.1 | 207.0 | 23 | 1 |
| 3 | 5500 | 2.1 | 230.0 | 24 | 1 |
| 4 | 5500 | 4.8 | 200.0 | 29 | 1 |
| 5 | 5500 | 3.9 | 214.0 | 28 | 1 |
| 6 | 5500 | 2.9 | 222.0 | 26 | 1 |
| 7 | 5500 | 3.2 | 204.0 | 26 | 1 |
| 8 | 5500 | 2.5 | 192.0 | 25 | 1 |
| 9 | 5500 | 3.1 | 164.0 | 26 | 1 |
| 10 | 5500 | 1.2 | 156.0 | 23 | 1 |
| 11 | 5500 | 3.9 | 210.0 | 27 | 1 |
| 12 | 5500 | 4.6 | 201.0 | 29 | 1 |
| 13 | 5500 | 3.2 | 162.0 | 26 | 1 |
| 14 | 5500 | 2.2 | 197.0 | 25 | 1 |
| 15 | 5500 | 4.5 | 163.0 | 29 | 1 |
| 16 | 5500 | 3.0 | 203.0 | 26 | 1 |
| 17 | 5500 | 5.0 | 168.0 | 29 | 1 |
| 18 | 5500 | 2.4 | 217.0 | 25 | 1 |
| 19 | 5500 | 2.9 | 191.0 | 26 | 1 |
| 20 | 5500 | 2.3 | 166.0 | 25 | 1 |
| 21 | 5500 | 3.7 | 150.0 | 27 | 1 |
| 22 | 5500 | 2.2 | 176.0 | 25 | 1 |
| 23 | 5500 | 4.9 | 195.0 | 29 | 1 |
| 24 | 5500 | 2.9 | 202.0 | 26 | 1 |
| 25 | 5500 | 2.5 | 178.0 | 25 | 1 |
| 26 | 5500 | 1.1 | 206.0 | 23 | 1 |
| 27 | 5500 | 3.8 | 155.0 | 27 | 1 |
| 28 | 5500 | 4.7 | 157.0 | 29 | 1 |
| 29 | 5500 | 2.4 | 224.0 | 25 | 1 |
| 30 | 5500 | 4.2 | 159.0 | 28 | 1 |
| Detection Percentage: 90 % (>60%) | | | | | |

Radar Type 3 Statistical Performance

| Trial # | Fc (MHz) | Pulse/Burst | Pulse Width (μS) | PRI (μs) | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 1 | 5320 | 8.2 | 355.0 | 17 | 1 |
| 2 | 5320 | 6.1 | 487.0 | 16 | 1 |
| 3 | 5320 | 7.1 | 344.0 | 16 | 1 |
| 4 | 5320 | 9.8 | 288.0 | 18 | 1 |
| 5 | 5320 | 8.9 | 230.0 | 18 | 1 |
| 6 | 5320 | 7.9 | 432.0 | 17 | 1 |
| 7 | 5320 | 8.2 | 207.0 | 17 | 1 |
| 8 | 5320 | 7.5 | 443.0 | 17 | 1 |
| 9 | 5320 | 8.1 | 439.0 | 17 | 1 |
| 10 | 5320 | 6.2 | 223.0 | 16 | 1 |
| 11 | 5320 | 8.9 | 208.0 | 18 | 1 |
| 12 | 5320 | 9.6 | 463.0 | 18 | 1 |
| 13 | 5320 | 8.2 | 441.0 | 17 | 1 |
| 14 | 5320 | 7.2 | 323.0 | 16 | 1 |
| 15 | 5320 | 9.5 | 297.0 | 18 | 1 |
| 16 | 5320 | 8.0 | 412.0 | 17 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| 17 | 5320 | 10.0 | 324.0 | 18 | 1 |
| 18 | 5320 | 7.4 | 271.0 | 17 | 1 |
| 19 | 5320 | 7.9 | 349.0 | 17 | 1 |
| 20 | 5320 | 7.3 | 409.0 | 16 | 1 |
| 21 | 5320 | 8.7 | 373.0 | 18 | 1 |
| 22 | 5320 | 7.2 | 254.0 | 16 | 1 |
| 23 | 5320 | 9.9 | 274.0 | 18 | 1 |
| 24 | 5320 | 7.9 | 278.0 | 17 | 1 |
| 25 | 5320 | 7.5 | 317.0 | 17 | 1 |
| 26 | 5320 | 6.1 | 260.0 | 16 | 1 |
| 27 | 5320 | 8.8 | 211.0 | 18 | 1 |
| 28 | 5320 | 9.7 | 272.0 | 18 | 1 |
| 29 | 5320 | 7.4 | 264.0 | 17 | 1 |
| 30 | 5320 | 9.2 | 284.0 | 18 | 1 |
| Detection Percentage: 100 % (>60%) | | | | | |

| Trial # | Fc (MHz) | Pulse/Burst | Pulse Width (μS) | PRI (μs) | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 1 | 5500 | 8.2 | 355.0 | 17 | 1 |
| 2 | 5500 | 6.1 | 487.0 | 16 | 1 |
| 3 | 5500 | 7.1 | 344.0 | 16 | 1 |
| 4 | 5500 | 9.8 | 288.0 | 18 | 1 |
| 5 | 5500 | 8.9 | 230.0 | 18 | 1 |
| 6 | 5500 | 7.9 | 432.0 | 17 | 1 |
| 7 | 5500 | 8.2 | 207.0 | 17 | 1 |
| 8 | 5500 | 7.5 | 443.0 | 17 | 1 |
| 9 | 5500 | 8.1 | 439.0 | 17 | 1 |
| 10 | 5500 | 6.2 | 223.0 | 16 | 1 |
| 11 | 5500 | 8.9 | 208.0 | 18 | 1 |
| 12 | 5500 | 9.6 | 463.0 | 18 | 1 |
| 13 | 5500 | 8.2 | 441.0 | 17 | 1 |
| 14 | 5500 | 7.2 | 323.0 | 16 | 1 |
| 15 | 5500 | 9.5 | 297.0 | 18 | 1 |
| 16 | 5500 | 8.0 | 412.0 | 17 | 1 |
| 17 | 5500 | 10.0 | 324.0 | 18 | 1 |
| 18 | 5500 | 7.4 | 271.0 | 17 | 1 |
| 19 | 5500 | 7.9 | 349.0 | 17 | 1 |
| 20 | 5500 | 7.3 | 409.0 | 16 | 1 |
| 21 | 5500 | 8.7 | 373.0 | 18 | 1 |
| 22 | 5500 | 7.2 | 254.0 | 16 | 1 |
| 23 | 5500 | 9.9 | 274.0 | 18 | 1 |
| 24 | 5500 | 7.9 | 278.0 | 17 | 1 |
| 25 | 5500 | 7.5 | 317.0 | 17 | 1 |
| 26 | 5500 | 6.1 | 260.0 | 16 | 1 |
| 27 | 5500 | 8.8 | 211.0 | 18 | 1 |
| 28 | 5500 | 9.7 | 272.0 | 18 | 1 |
| 29 | 5500 | 7.4 | 264.0 | 17 | 1 |
| 30 | 5500 | 9.2 | 284.0 | 18 | 1 |
| Detection Percentage: 100 % (>60%) | | | | | |

Radar Type 4 Statistical Performance

| Trial # | Fc (MHz) | Pulse/Burst | Pulse Width (μS) | PRI (μs) | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 1 | 5320 | 16.0 | 355.0 | 14 | 1 |
| 2 | 5320 | 11.3 | 487.0 | 12 | 1 |
| 3 | 5320 | 13.5 | 344.0 | 13 | 1 |
| 4 | 5320 | 19.4 | 288.0 | 16 | 1 |
| 5 | 5320 | 17.5 | 230.0 | 15 | 1 |
| 6 | 5320 | 15.3 | 432.0 | 14 | 1 |
| 7 | 5320 | 15.9 | 207.0 | 14 | 1 |
| 8 | 5320 | 14.3 | 443.0 | 13 | 1 |
| 9 | 5320 | 15.8 | 439.0 | 14 | 1 |
| 10 | 5320 | 11.5 | 223.0 | 12 | 1 |
| 11 | 5320 | 17.4 | 208.0 | 15 | 1 |
| 12 | 5320 | 19.0 | 463.0 | 16 | 1 |
| 13 | 5320 | 16.0 | 441.0 | 14 | 1 |
| 14 | 5320 | 13.8 | 323.0 | 13 | 1 |
| 15 | 5320 | 18.9 | 297.0 | 16 | 1 |
| 16 | 5320 | 15.5 | 412.0 | 14 | 1 |
| 17 | 5320 | 19.9 | 324.0 | 16 | 1 |
| 18 | 5320 | 14.1 | 271.0 | 13 | 1 |
| 19 | 5320 | 15.2 | 349.0 | 14 | 1 |
| 20 | 5320 | 13.8 | 409.0 | 13 | 1 |
| 21 | 5320 | 17.1 | 373.0 | 15 | 1 |
| 22 | 5320 | 13.8 | 254.0 | 13 | 1 |
| 23 | 5320 | 19.8 | 274.0 | 16 | 1 |
| 24 | 5320 | 15.3 | 278.0 | 14 | 1 |
| 25 | 5320 | 14.5 | 317.0 | 13 | 1 |
| 26 | 5320 | 11.3 | 260.0 | 12 | 1 |
| 27 | 5320 | 17.3 | 211.0 | 15 | 1 |
| 28 | 5320 | 19.2 | 272.0 | 16 | 1 |
| 29 | 5320 | 14.2 | 264.0 | 13 | 1 |
| 30 | 5320 | 18.2 | 284.0 | 15 | 1 |
| Detection Percentage: 100 % (>60%) | | | | | |

| Trial # | Fc (MHz) | Pulse/Burst | Pulse Width (μS) | PRI (μs) | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|
| 1 | 5500 | 16.0 | 355.0 | 14 | 1 |
| 2 | 5500 | 11.3 | 487.0 | 12 | 1 |
| 3 | 5500 | 13.5 | 344.0 | 13 | 1 |
| 4 | 5500 | 19.4 | 288.0 | 16 | 1 |
| 5 | 5500 | 17.5 | 230.0 | 15 | 1 |
| 6 | 5500 | 15.3 | 432.0 | 14 | 1 |
| 7 | 5500 | 15.9 | 207.0 | 14 | 1 |
| 8 | 5500 | 14.3 | 443.0 | 13 | 1 |
| 9 | 5500 | 15.8 | 439.0 | 14 | 1 |
| 10 | 5500 | 11.5 | 223.0 | 12 | 1 |
| 11 | 5500 | 17.4 | 208.0 | 15 | 1 |
| 12 | 5500 | 19.0 | 463.0 | 16 | 1 |
| 13 | 5500 | 16.0 | 441.0 | 14 | 1 |
| 14 | 5500 | 13.8 | 323.0 | 13 | 1 |
| 15 | 5500 | 18.9 | 297.0 | 16 | 1 |
| 16 | 5500 | 15.5 | 412.0 | 14 | 1 |
| 17 | 5500 | 19.9 | 324.0 | 16 | 1 |
| 18 | 5500 | 14.1 | 271.0 | 13 | 1 |
| 19 | 5500 | 15.2 | 349.0 | 14 | 1 |
| 20 | 5500 | 13.8 | 409.0 | 13 | 1 |
| 21 | 5500 | 17.1 | 373.0 | 15 | 1 |
| 22 | 5500 | 13.8 | 254.0 | 13 | 1 |
| 23 | 5500 | 19.8 | 274.0 | 16 | 1 |
| 24 | 5500 | 15.3 | 278.0 | 14 | 1 |
| 25 | 5500 | 14.5 | 317.0 | 13 | 1 |
| 26 | 5500 | 11.3 | 260.0 | 12 | 1 |
| 27 | 5500 | 17.3 | 211.0 | 15 | 1 |
| 28 | 5500 | 19.2 | 272.0 | 16 | 1 |
| 29 | 5500 | 14.2 | 264.0 | 13 | 1 |
| 30 | 5500 | 18.2 | 284.0 | 15 | 1 |
| Detection Percentage: 100 % (>60%) | | | | | |

Radar Type 5 Case1 Statistical Performance

Statistics 0 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 636185.0 | 77.8 | 13 | 2 | 1665.0 | 1477.0 | - | 1 |
| 1 | 32674.0 | 51.9 | 13 | 1 | 1074.0 | - | - | |
| 2 | 226294.0 | 63.8 | 13 | 1 | 1584.0 | - | - | |
| 3 | 417976.0 | 96.6 | 13 | 3 | 1682.0 | 1786.0 | 1843.0 | |
| 4 | 611152.0 | 85.9 | 13 | 3 | 1795.0 | 1215.0 | 1729.0 | |
| 5 | 8789.0 | 73.7 | 13 | 2 | 1198.0 | 1549.0 | - | |
| 6 | 201917.0 | 77.2 | 13 | 2 | 1837.0 | 1819.0 | - | |
| 7 | 395530.0 | 68.4 | 13 | 2 | 1587.0 | 1114.0 | - | |
| 8 | 588564.0 | 76.7 | 13 | 2 | 2000.0 | 1155.0 | - | |
| 9 | 783794.0 | 53.2 | 13 | 1 | 1147.0 | - | - | |
| 10 | 177933.0 | 85.7 | 13 | 3 | 1433.0 | 1695.0 | 1394.0 | |
| 11 | 370624.0 | 94.3 | 13 | 3 | 1670.0 | 1426.0 | 1935.0 | |
| 12 | 564893.0 | 77.6 | 13 | 2 | 1294.0 | 1671.0 | - | |
| 13 | 759583.0 | 65.7 | 13 | 1 | 1512.0 | - | - | |
| 14 | 154262.0 | 93.5 | 13 | 3 | 1444.0 | 1130.0 | 1468.0 | |

Statistics 1 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 653020.0 | 75.0 | 5 | 2 | 1880.0 | 1527.0 | - | 1 |
| 1 | 1015643.0 | 99.4 | 5 | 3 | 1401.0 | 1262.0 | 1257.0 | |
| 2 | 1379398.0 | 67.4 | 5 | 2 | 1531.0 | 1403.0 | - | |
| 3 | 245489.0 | 73.6 | 5 | 2 | 1449.0 | 1041.0 | - | |
| 4 | 609113.0 | 65.9 | 5 | 1 | 1432.0 | - | - | |
| 5 | 970852.0 | 83.8 | 5 | 3 | 1356.0 | 1292.0 | 1419.0 | |
| 6 | 1335913.0 | 65.5 | 5 | 1 | 1543.0 | - | - | |
| 7 | 200406.0 | 98.6 | 5 | 3 | 1548.0 | 1796.0 | 1728.0 | |

Statistics 2 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 409565.0 | 73.8 | 9 | 2 | 1806.0 | 1538.0 | - | 1 |
| 1 | 673692.0 | 69.5 | 9 | 2 | 1117.0 | 1649.0 | - | |
| 2 | 938562.0 | 51.9 | 9 | 1 | 1651.0 | - | - | |
| 3 | 113209.0 | 84.6 | 9 | 3 | 1976.0 | 1032.0 | 1271.0 | |
| 4 | 376726.0 | 95.4 | 9 | 3 | 1060.0 | 1903.0 | 1388.0 | |
| 5 | 641212.0 | 68.0 | 9 | 2 | 1368.0 | 1351.0 | - | |
| 6 | 903714.0 | 89.6 | 9 | 3 | 1338.0 | 1514.0 | 1573.0 | |
| 7 | 80863.0 | 81.9 | 9 | 2 | 1022.0 | 1689.0 | - | |
| 8 | 344067.0 | 88.3 | 9 | 3 | 1810.0 | 1330.0 | 1838.0 | |
| 9 | 609331.0 | 53.7 | 9 | 1 | 1597.0 | - | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10 | 871542.0 | 91.3 | 9 | 3 | 1961.0 | 1106.0 | 1001.0 | |

Statistics 3 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 26541.0 | 68.1 | 19 | 2 | 1339.0 | 1355.0 | - | 1 |
| 1 | 171821.0 | 58.7 | 19 | 1 | 1251.0 | - | - | |
| 2 | 316229.0 | 75.3 | 19 | 2 | 1136.0 | 1640.0 | - | |
| 3 | 461864.0 | 56.4 | 19 | 1 | 1753.0 | - | - | |
| 4 | 8677.0 | 99.7 | 19 | 3 | 1196.0 | 1708.0 | 1159.0 | |
| 5 | 153995.0 | 57.7 | 19 | 1 | 1013.0 | - | - | |
| 6 | 299238.0 | 59.5 | 19 | 1 | 1072.0 | - | - | |
| 7 | 443177.0 | 80.0 | 19 | 2 | 1482.0 | 1369.0 | - | |
| 8 | 587671.0 | 82.0 | 19 | 2 | 1993.0 | 1197.0 | - | |
| 9 | 135674.0 | 82.8 | 19 | 2 | 1883.0 | 1005.0 | - | |
| 10 | 279928.0 | 88.0 | 19 | 3 | 1061.0 | 1928.0 | 1101.0 | |
| 11 | 424279.0 | 93.2 | 19 | 3 | 1207.0 | 1907.0 | 1223.0 | |
| 12 | 570132.0 | 70.4 | 19 | 2 | 1526.0 | 1360.0 | - | |
| 13 14 | 117439.0 | 95.3 | 19 | 3 | 1171.0 | 1955.0 | 1775.0 | |
| 15 | 262502.0 | 81.9 | 19 | 2 | 1690.0 | 1545.0 | - | |
| 16 | 406573.0 | 98.5 | 19 | 3 | 1975.0 | 1169.0 | 1062.0 | |
| 17 | 553328.0 | 65.0 | 19 | 1 | 1767.0 | - | - | |
| 18 | 99799.0 | 85.4 | 19 | 3 | 1011.0 | 1637.0 | 1425.0 | |
| 19 | 244095.0 | 91.6 | 19 | 3 | 1878.0 | 1445.0 | 1325.0 | |

Statistics 4 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 629614.0 | 67.9 | 16 | 2 | 1320.0 | 1133.0 | - | 1 |
| 1 | 96856.0 | 62.3 | 16 | 1 | 1957.0 | - | - | |
| 2 | 267719.0 | 53.3 | 16 | 1 | 1592.0 | - | - | |
| 3 | 436784.0 | 90.0 | 16 | 3 | 1900.0 | 1153.0 | 1346.0 | |
| 4 | 608289.0 | 77.1 | 16 | 2 | 1166.0 | 1646.0 | - | |
| 5 | 75610.0 | 83.9 | 16 | 3 | 1278.0 | 1232.0 | 1459.0 | |
| 6 | 245638.0 | 89.1 | 16 | 3 | 1240.0 | 1384.0 | 1939.0 | |
| 7 | 416355.0 | 81.8 | 16 | 2 | 1833.0 | 1676.0 | - | |
| 8 | 588736.0 | 50.3 | 16 | 1 | 1075.0 | - | - | |
| 9 | 54571.0 | 87.1 | 16 | 3 | 1116.0 | 1996.0 | 1756.0 | |
| 10 | 225175.0 | 71.3 | 16 | 2 | 1225.0 | 1815.0 | - | |
| 11 | 394825.0 | 97.5 | 16 | 3 | 1884.0 | 1465.0 | 1132.0 | |
| 12 | 565361.0 | 90.6 | 16 | 3 | 1561.0 | 1040.0 | 1354.0 | |
| 13 | 33643.0 | 86.3 | 16 | 3 | 1596.0 | 1183.0 | 1792.0 | |
| 14 | 203957.0 | 97.6 | 16 | 3 | 1365.0 | 1073.0 | 1361.0 | |
| 15 | 373812.0 | 84.7 | 16 | 3 | 1021.0 | 1718.0 | 1854.0 | |
| 16 | 544060.0 | 99.7 | 16 | 3 | 1150.0 | 1244.0 | 1988.0 | |

Statistics 5 (ChirpCenter Frequency: 5320 MHz)

| Trial | Burst | Pulse | Chirp(MHz) | Number | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection |
|---|---|---|---|---|---|---|---|---|

| # | Offset(us) | Width (μS) | | of Pulses per Burst | | | | (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 15438.0 | 92.9 | 12 | 3 | 1085.0 | 1564.0 | 1407.0 | 1 |
| 1 | 222486.0 | 67.7 | 12 | 2 | 1744.0 | 1747.0 | - | |
| 2 | 430731.0 | 65.8 | 12 | 1 | 1092.0 | - | - | |
| 3 | 637784.0 | 56.3 | 12 | 1 | 1851.0 | - | - | |
| 4 | 845342.0 | 53.7 | 12 | 1 | 1727.0 | - | - | |
| 5 | 196720.0 | 83.5 | 12 | 3 | 1679.0 | 1930.0 | 1025.0 | |
| 6 | 404955.0 | 65.8 | 12 | 1 | 1519.0 | - | - | |
| 7 | 610711.0 | 85.9 | 12 | 3 | 1134.0 | 1034.0 | 1808.0 | |
| 8 | 818057.0 | 76.3 | 12 | 2 | 1606.0 | 1926.0 | - | |
| 9 | 171459.0 | 81.5 | 12 | 2 | 1891.0 | 1714.0 | - | |
| 10 | 377969.0 | 89.4 | 12 | 3 | 1310.0 | 1594.0 | 1827.0 | |
| 11 | 586875.0 | 63.4 | 12 | 1 | 1568.0 | - | - | |
| 12 | 792834.0 | 69.6 | 12 | 2 | 1307.0 | 1925.0 | - | |
| 13 | 146044.0 | 74.5 | 12 | 2 | 1264.0 | 1846.0 | - | |

Statistics 6 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 329022.0 | 96.6 | 13 | 3 | 1182.0 | 1609.0 | 1581.0 | 1 |
| 1 | 521718.0 | 96.7 | 13 | 3 | 1829.0 | 1799.0 | 1154.0 | |
| 2 | 714222.0 | 86.5 | 13 | 3 | 1923.0 | 1396.0 | 1865.0 | |
| 3 | 112450.0 | 73.3 | 13 | 2 | 1908.0 | 1318.0 | - | |
| 4 | 306283.0 | 55.8 | 13 | 1 | 1688.0 | - | - | |
| 5 | 500239.0 | 55.4 | 13 | 1 | 1145.0 | - | - | |
| 6 | 690932.0 | 85.3 | 13 | 3 | 1336.0 | 1504.0 | 1820.0 | |
| 7 | 88645.0 | 79.4 | 13 | 2 | 1344.0 | 1893.0 | - | |
| 8 | 282508.0 | 65.7 | 13 | 1 | 1476.0 | - | - | |
| 9 | 475842.0 | 68.6 | 13 | 2 | 1008.0 | 1028.0 | - | |
| 10 | 667887.0 | 77.7 | 13 | 2 | 1972.0 | 1835.0 | - | |
| 11 | 64845.0 | 79.6 | 13 | 2 | 1882.0 | 1331.0 | - | |
| 12 | 257755.0 | 94.9 | 13 | 3 | 1830.0 | 1070.0 | 1349.0 | |
| 13 | 452335.0 | 61.4 | 13 | 1 | 1451.0 | - | - | |
| 14 | 643395.0 | 90.6 | 13 | 3 | 1233.0 | 1562.0 | 1887.0 | |
| 15 | 329022.0 | 96.6 | 13 | 3 | 1182.0 | 1609.0 | 1581.0 | |

Statistics 7 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 51446.0 | 52.6 | 10 | 1 | 1210.0 | - | - | 1 |
| 1 | 292696.0 | 84.1 | 10 | 3 | 1314.0 | 1725.0 | 1529.0 | |
| 2 | 533989.0 | 97.7 | 10 | 3 | 1139.0 | 1868.0 | 1805.0 | |
| 3 | 775564.0 | 97.3 | 10 | 3 | 1341.0 | 1446.0 | 1755.0 | |
| 4 | 21542.0 | 98.8 | 10 | 3 | 1544.0 | 1386.0 | 1302.0 | |
| 5 | 263385.0 | 72.2 | 10 | 2 | 1771.0 | 1184.0 | - | |
| 6 | 505581.0 | 67.6 | 10 | 2 | 1175.0 | 1027.0 | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 | 747058.0 | 75.7 | 10 | 2 | 1026.0 | 1871.0 | - | |
| 8 | 989976.0 | 60.9 | 10 | 1 | 1798.0 | - | - | |
| 9 | 234024.0 | 64.2 | 10 | 1 | 1138.0 | - | - | |
| 10 | 475207.0 | 78.8 | 10 | 2 | 1784.0 | 1604.0 | - | |
| 11 | 715825.0 | 87.5 | 10 | 3 | 1511.0 | 1712.0 | 1683.0 | |

Statistics 8 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 823112.0 | 54.1 | 13 | 1 | 1415.0 | - | - | 1 |
| 1 | 174965.0 | 50.7 | 13 | 1 | 1221.0 | - | - | |
| 2 | 382216.0 | 52.3 | 13 | 1 | 1974.0 | - | - | |
| 3 | 587395.0 | 99.8 | 13 | 3 | 1558.0 | 1696.0 | 1949.0 | |
| 4 | 796897.0 | 68.4 | 13 | 2 | 1014.0 | 1099.0 | - | |
| 5 | 149042.0 | 80.8 | 13 | 2 | 1736.0 | 1505.0 | - | |
| 6 | 356750.0 | 62.5 | 13 | 1 | 1778.0 | - | - | |
| 7 | 563824.0 | 74.8 | 13 | 2 | 1149.0 | 1204.0 | - | |
| 8 | 772314.0 | 50.8 | 13 | 1 | 1049.0 | - | - | |
| 9 | 123796.0 | 54.0 | 13 | 1 | 1417.0 | - | - | |
| 10 | 331215.0 | 63.0 | 13 | 1 | 1730.0 | - | - | |
| 11 | 537402.0 | 91.8 | 13 | 3 | 1143.0 | 1270.0 | 1347.0 | |
| 12 | 744805.0 | 79.3 | 13 | 2 | 1274.0 | 1992.0 | - | |
| 13 | 98172.0 | 64.3 | 13 | 1 | 1937.0 | - | - | |

Statistics 9 (ChirpCenter Frequency: 5320 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 535615.0 | 63.4 | 6 | 1 | 1043.0 | - | - | 1 |
| 1 | 898668.0 | 52.0 | 6 | 1 | 1863.0 | - | - | |
| 2 | 1259235.0 | 97.2 | 6 | 3 | 1973.0 | 1605.0 | 1583.0 | |
| 3 | 127106.0 | 78.7 | 6 | 2 | 1466.0 | 1743.0 | - | |
| 4 | 490358.0 | 74.2 | 6 | 2 | 1280.0 | 1219.0 | - | |
| 5 | 852409.0 | 88.7 | 6 | 3 | 1293.0 | 1934.0 | 1273.0 | |
| 6 | 1217152.0 | 54.3 | 6 | 1 | 1991.0 | - | - | |
| 7 | 82296.0 | 95.4 | 6 | 3 | 1580.0 | 1555.0 | 1791.0 | |

Radar Type 5 Case2 Statistical Performance

Statistics 10 (ChirpCenter Frequency: 5316.4 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 209249.0 | 73.7 | 16 | 2 | 1208.0 | 1497.0 | - | 1 |
| 1 | 378386.0 | 97.4 | 16 | 3 | 1942.0 | 1754.0 | 1613.0 | |
| 2 | 548411.0 | 91.7 | 16 | 3 | 1999.0 | 1702.0 | 1462.0 | |
| 3 | 17733.0 | 66.2 | 16 | 1 | 1393.0 | - | - | |
| 4 | 187952.0 | 70.8 | 16 | 2 | 1968.0 | 1821.0 | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | 359277.0 | 52.3 | 16 | 1 | 1740.0 | - | - | |
| 6 | 528886.0 | 78.9 | 16 | 2 | 1308.0 | 1984.0 | - | |
| 7 | 700166.0 | 70.9 | 16 | 2 | 1050.0 | 1358.0 | - | |
| 8 | 167197.0 | 75.6 | 16 | 2 | 1437.0 | 1430.0 | - | |
| 9 | 338262.0 | 59.1 | 16 | 1 | 1697.0 | - | - | |
| 10 | 508324.0 | 77.0 | 16 | 2 | 1397.0 | 1304.0 | - | |
| 11 | 678689.0 | 67.9 | 16 | 2 | 1803.0 | 1083.0 | - | |
| 12 | 146031.0 | 81.2 | 16 | 2 | 1720.0 | 1932.0 | - | |
| 13 | 316923.0 | 78.7 | 16 | 2 | 1247.0 | 1121.0 | - | |
| 14 | 488056.0 | 63.3 | 16 | 1 | 1634.0 | - | - | |
| 15 | 657326.0 | 68.9 | 16 | 2 | 1849.0 | 1423.0 | - | |
| 16 | 125509.0 | 59.3 | 16 | 1 | 1093.0 | - | - | |

Statistics 11 (ChirpCenter Frequency: 5317.6MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 263736.0 | 98.9 | 19 | 3 | 1381.0 | 1680.0 | 1488.0 | |
| 1 | 416459.0 | 82.3 | 19 | 2 | 1716.0 | 1855.0 | - | |
| 2 | 567902.0 | 86.7 | 19 | 3 | 1211.0 | 1400.0 | 1919.0 | |
| 3 | 92979.0 | 89.7 | 19 | 3 | 1861.0 | 1068.0 | 1282.0 | |
| 4 | 245155.0 | 98.6 | 19 | 3 | 1507.0 | 1194.0 | 1461.0 | |
| 5 | 397609.0 | 71.1 | 19 | 2 | 1921.0 | 1789.0 | - | |
| 6 | 551431.0 | 55.9 | 19 | 1 | 1947.0 | - | - | |
| 7 | 74413.0 | 67.9 | 19 | 2 | 1350.0 | 1372.0 | - | |
| 8 | 226559.0 | 84.4 | 19 | 3 | 1203.0 | 1107.0 | 1443.0 | |
| 9 | 380056.0 | 58.8 | 19 | 1 | 1715.0 | - | - | 1 |
| 10 | 533408.0 | 65.6 | 19 | 1 | 1017.0 | - | - | |
| 11 | 55547.0 | 78.5 | 19 | 2 | 1911.0 | 1704.0 | - | |
| 12 | 207876.0 | 82.3 | 19 | 2 | 1845.0 | 1686.0 | - | |
| 13 | 359771.0 | 90.1 | 19 | 3 | 1938.0 | 1071.0 | 1266.0 | |
| 14 | 511297.0 | 90.2 | 19 | 3 | 1989.0 | 1089.0 | 1950.0 | |
| 15 | 36803.0 | 83.1 | 19 | 2 | 1943.0 | 1406.0 | - | |
| 16 | 189652.0 | 58.8 | 19 | 1 | 1742.0 | - | - | |
| 17 | 341809.0 | 77.0 | 19 | 2 | 1187.0 | 1657.0 | - | |
| 18 | 495737.0 | 55.0 | 19 | 1 | 1012.0 | - | - | |

Statistics 12 (ChirpCenter Frequency: 5315.2MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 22911.0 | 58.1 | 13 | 1 | 1929.0 | - | - | |
| 1 | 216473.0 | 52.1 | 13 | 1 | 1910.0 | - | - | |
| 2 | 410004.0 | 59.9 | 13 | 1 | 1971.0 | - | - | |
| 3 | 603671.0 | 60.2 | 13 | 1 | 1812.0 | - | - | |
| 4 | 794160.0 | 95.9 | 13 | 3 | 1399.0 | 1906.0 | 1608.0 | |
| 5 | 192251.0 | 79.9 | 13 | 2 | 1626.0 | 1859.0 | - | 1 |
| 6 | 385590.0 | 78.5 | 13 | 2 | 1238.0 | 1917.0 | - | |
| 7 | 579862.0 | 53.8 | 13 | 1 | 1763.0 | - | - | |
| 8 | 773423.0 | 64.7 | 13 | 1 | 1800.0 | - | - | |
| 9 | 168898.0 | 61.4 | 13 | 1 | 1390.0 | - | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10 | 361606.0 | 83.2 | 13 | 2 | 1692.0 | 1858.0 | - | |
| 11 | 553866.0 | 84.7 | 13 | 3 | 1533.0 | 1677.0 | 1638.0 | |
| 12 | 747241.0 | 88.7 | 13 | 3 | 1703.0 | 1528.0 | 1058.0 | |
| 13 | 144710.0 | 78.3 | 13 | 2 | 1258.0 | 1951.0 | - | |
| 14 | 337856.0 | 69.3 | 13 | 2 | 1731.0 | 1717.0 | - | |

Statistics 13 (ChirpCenter Frequency: 5314MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 664275.0 | 75.3 | 10 | 2 | 1994.0 | 1612.0 | - | 1 |
| 1 | 907886.0 | 56.3 | 10 | 1 | 1456.0 | - | - | |
| 2 | 151316.0 | 67.7 | 10 | 2 | 1617.0 | 1185.0 | - | |
| 3 | 393746.0 | 55.6 | 10 | 1 | 1337.0 | - | - | |
| 4 | 635093.0 | 75.2 | 10 | 2 | 1421.0 | 1267.0 | - | |
| 5 | 876993.0 | 76.3 | 10 | 2 | 1359.0 | 1305.0 | - | |
| 6 | 121278.0 | 85.7 | 10 | 3 | 1547.0 | 1362.0 | 1924.0 | |
| 7 | 362696.0 | 98.4 | 10 | 3 | 1873.0 | 1550.0 | 1249.0 | |
| 8 | 604342.0 | 86.4 | 10 | 3 | 1779.0 | 1439.0 | 1046.0 | |
| 9 | 846453.0 | 93.6 | 10 | 3 | 1059.0 | 1031.0 | 1452.0 | |
| 10 | 91871.0 | 63.3 | 10 | 1 | 1328.0 | - | - | |
| 11 | 333050.0 | 92.4 | 10 | 3 | 1412.0 | 1673.0 | 1322.0 | |

Statistics14 (ChirpCenter Frequency: 5317.2 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 361323.0 | 93.3 | 18 | 3 | 1983.0 | 1912.0 | 1535.0 | 1 |
| 1 | 515261.0 | 69.1 | 18 | 2 | 1102.0 | 1794.0 | - | |
| 2 | 39025.0 | 86.9 | 18 | 3 | 1044.0 | 1152.0 | 1148.0 | |
| 3 | 190900.0 | 84.9 | 18 | 3 | 1894.0 | 1948.0 | 1118.0 | |
| 4 | 343941.0 | 72.3 | 18 | 2 | 1094.0 | 1916.0 | - | |
| 5 | 497624.0 | 51.7 | 18 | 1 | 1447.0 | - | - | |
| 6 | 20319.0 | 58.3 | 18 | 1 | 1429.0 | - | - | |
| 7 | 172999.0 | 60.8 | 18 | 1 | 1979.0 | - | - | |
| 8 | 325872.0 | 57.1 | 18 | 1 | 1641.0 | - | - | |
| 9 | 475841.0 | 88.9 | 18 | 3 | 1886.0 | 1964.0 | 1489.0 | |
| 10 | 1489.0 | 72.0 | 18 | 2 | 1909.0 | 1297.0 | - | |
| 11 | 153647.0 | 90.9 | 18 | 3 | 1261.0 | 1566.0 | 1370.0 | |
| 12 | 307096.0 | 59.8 | 18 | 1 | 1552.0 | - | - | |
| 13 | 458804.0 | 70.0 | 18 | 2 | 1759.0 | 1291.0 | - | |
| 14 | 610798.0 | 67.2 | 18 | 2 | 1625.0 | 1881.0 | - | |
| 15 | 134759.0 | 91.2 | 18 | 3 | 1382.0 | 1832.0 | 1661.0 | |
| 16 | 288306.0 | 56.5 | 18 | 1 | 1483.0 | - | - | |
| 17 | 441296.0 | 51.2 | 18 | 1 | 1237.0 | - | - | |
| 18 | 592780.0 | 74.1 | 18 | 2 | 1471.0 | 1245.0 | - | |

Statistics 15 (ChirpCenter Frequency: 5314.8 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|

| | | | | per Burst | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | 158286.0 | 76.9 | 12 | 2 | 1110.0 | 1140.0 | - | 1 |
| 1 | 366024.0 | 50.2 | 12 | 1 | 1316.0 | - | - | |
| 2 | 573452.0 | 62.9 | 12 | 1 | 1520.0 | - | - | |
| 3 | 780619.0 | 64.7 | 12 | 1 | 1902.0 | - | - | |
| 4 | 132455.0 | 83.8 | 12 | 3 | 1410.0 | 1097.0 | 1621.0 | |
| 5 | 340207.0 | 65.4 | 12 | 1 | 1944.0 | - | - | |
| 6 | 548208.0 | 53.2 | 12 | 1 | 1024.0 | - | - | |
| 7 | 755333.0 | 51.7 | 12 | 1 | 1603.0 | - | - | |
| 8 | 107117.0 | 78.7 | 12 | 2 | 1804.0 | 1168.0 | - | |
| 9 | 314500.0 | 72.4 | 12 | 2 | 1030.0 | 1343.0 | - | |
| 10 | 522447.0 | 53.8 | 12 | 1 | 1327.0 | - | - | |
| 11 | 728517.0 | 73.6 | 12 | 2 | 1524.0 | 1553.0 | - | |
| 12 | 81611.0 | 66.7 | 12 | 2 | 1722.0 | 1122.0 | - | |
| 13 | 288948.0 | 82.5 | 12 | 2 | 1404.0 | 1019.0 | - | |

Statistics 16 (ChirpCenter Frequency: 5318 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 345766.0 | 87.6 | 20 | 3 | 1565.0 | 1055.0 | 1840.0 | 1 |
| 1 | 490019.0 | 85.2 | 20 | 3 | 1735.0 | 1541.0 | 1408.0 | |
| 2 | 39073.0 | 84.8 | 20 | 3 | 1534.0 | 1889.0 | 1463.0 | |
| 3 | 183923.0 | 77.9 | 20 | 2 | 1749.0 | 1460.0 | - | |
| 4 | 328777.0 | 76.5 | 20 | 2 | 1518.0 | 1485.0 | - | |
| 5 | 474728.0 | 60.9 | 20 | 1 | 1540.0 | - | - | |
| 6 | 21394.0 | 83.0 | 20 | 2 | 1080.0 | 1010.0 | - | |
| 7 | 165992.0 | 80.4 | 20 | 2 | 1824.0 | 1752.0 | - | |
| 8 | 310973.0 | 67.5 | 20 | 2 | 1764.0 | 1181.0 | - | |
| 9 | 456884.0 | 62.1 | 20 | 1 | 1495.0 | - | - | |
| 10 | 3515.0 | 86.4 | 20 | 3 | 1773.0 | 1966.0 | 1263.0 | |
| 11 | 147928.0 | 84.3 | 20 | 3 | 1593.0 | 1188.0 | 1788.0 | |
| 12 | 293225.0 | 76.9 | 20 | 2 | 1226.0 | 1537.0 | - | |
| 13 | 436922.0 | 95.8 | 20 | 3 | 1192.0 | 1298.0 | 1844.0 | |
| 14 | 584015.0 | 55.2 | 20 | 1 | 1644.0 | - | - | |
| 15 | 130832.0 | 59.0 | 20 | 1 | 1402.0 | - | - | |
| 16 | 274684.0 | 94.5 | 20 | 3 | 1296.0 | 1700.0 | 1283.0 | |
| 17 | 418579.0 | 91.9 | 20 | 3 | 1970.0 | 1978.0 | 1165.0 | |
| 18 | 563464.0 | 85.2 | 20 | 3 | 1732.0 | 1551.0 | 1189.0 | |
| 19 | 112787.0 | 69.5 | 20 | 2 | 1038.0 | 1224.0 | - | |

Statistics 17 (ChirpCenter Frequency: 5314 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 429224.0 | 86.4 | 10 | 3 | 1259.0 | 1918.0 | 1455.0 | 1 |
| 1 | 670241.0 | 92.2 | 10 | 3 | 1598.0 | 1719.0 | 1895.0 | |
| 2 | 912880.0 | 80.4 | 10 | 2 | 1816.0 | 1899.0 | - | |
| 3 | 158603.0 | 54.3 | 10 | 1 | 1335.0 | - | - | |
| 4 | 400824.0 | 53.1 | 10 | 1 | 1303.0 | - | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | 641915.0 | 69.4 | 10 | 2 | 1503.0 | 1546.0 | - | |
| 6 | 883823.0 | 69.1 | 10 | 2 | 1279.0 | 1639.0 | - | |
| 7 | 128373.0 | 100.0 | 10 | 3 | 1375.0 | 1438.0 | 1595.0 | |
| 8 | 370379.0 | 79.6 | 10 | 2 | 1239.0 | 1705.0 | - | |
| 9 | 611194.0 | 88.4 | 10 | 3 | 1374.0 | 1579.0 | 1623.0 | |
| 10 | 855665.0 | 53.3 | 10 | 1 | 1016.0 | - | - | |
| 11 | 98897.0 | 65.3 | 10 | 1 | 1709.0 | - | - | |

Statistics 18 (ChirpCenter Frequency: 5314.8 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 292143.0 | 55.3 | 12 | 1 | 1920.0 | - | - | 1 |
| 1 | 499633.0 | 58.3 | 12 | 1 | 1797.0 | - | - | |
| 2 | 706377.0 | 72.3 | 12 | 2 | 1610.0 | 1039.0 | - | |
| 3 | 58989.0 | 84.8 | 12 | 3 | 1131.0 | 1761.0 | 1721.0 | |
| 4 | 266161.0 | 82.5 | 12 | 2 | 1875.0 | 1431.0 | - | |
| 5 | 474469.0 | 63.3 | 12 | 1 | 1095.0 | - | - | |
| 6 | 680544.0 | 80.0 | 12 | 2 | 1119.0 | 1913.0 | - | |
| 7 | 33519.0 | 90.3 | 12 | 3 | 1660.0 | 1853.0 | 1123.0 | |
| 8 | 240319.0 | 91.1 | 12 | 3 | 1539.0 | 1783.0 | 1172.0 | |
| 9 | 447400.0 | 96.6 | 12 | 3 | 1525.0 | 1036.0 | 1385.0 | |
| 10 | 654516.0 | 82.7 | 12 | 2 | 1710.0 | 1990.0 | - | |
| 11 | 8083.0 | 50.7 | 12 | 1 | 1234.0 | - | - | |
| 12 | 215435.0 | 78.4 | 12 | 2 | 1047.0 | 1109.0 | - | |
| 13 | 421325.0 | 99.5 | 12 | 3 | 1299.0 | 1965.0 | 1869.0 | |

Statistics 19 (ChirpCenter Frequency: 5314 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 733725.0 | 88.6 | 10 | 3 | 1501.0 | 1067.0 | 1927.0 | 1 |
| 1 | 977882.0 | 57.4 | 10 | 1 | 1723.0 | - | - | |
| 2 | 221197.0 | 96.6 | 10 | 3 | 1086.0 | 1658.0 | 1324.0 | |
| 3 | 462915.0 | 69.7 | 10 | 2 | 1751.0 | 1945.0 | - | |
| 4 | 705071.0 | 77.9 | 10 | 2 | 1642.0 | 1317.0 | - | |
| 5 | 947923.0 | 62.0 | 10 | 1 | 1866.0 | - | - | |
| 6 | 191373.0 | 88.4 | 10 | 3 | 1997.0 | 1077.0 | 1366.0 | |
| 7 | 432561.0 | 97.3 | 10 | 3 | 1790.0 | 1896.0 | 1367.0 | |
| 8 | 674004.0 | 96.2 | 10 | 3 | 1391.0 | 1787.0 | 1672.0 | |
| 9 | 915842.0 | 95.4 | 10 | 3 | 1020.0 | 1892.0 | 1414.0 | |
| 10 | 162176.0 | 54.8 | 10 | 1 | 1084.0 | - | - | |
| 11 | 403553.0 | 80.4 | 10 | 2 | 1850.0 | 1436.0 | - | |

Radar Type 5 Case3 Statistical Performance

Statistics 20 (ChirpCenter Frequency: 5324MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|

| | | | | Burst | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | 483470.0 | 74.7 | 15 | 2 | 1619.0 | 1611.0 | - | 1 |
| 1 | 666072.0 | 57.1 | 15 | 1 | 1560.0 | - | - | |
| 2 | 98810.0 | 91.9 | 15 | 3 | 1392.0 | 1475.0 | 1276.0 | |
| 3 | 279914.0 | 83.1 | 15 | 2 | 1809.0 | 1772.0 | - | |
| 4 | 462536.0 | 50.7 | 15 | 1 | 1003.0 | - | - | |
| 5 | 642324.0 | 79.2 | 15 | 2 | 1574.0 | 1600.0 | - | |
| 6 | 76831.0 | 58.7 | 15 | 1 | 1186.0 | - | - | |
| 7 | 257785.0 | 71.0 | 15 | 2 | 1521.0 | 1567.0 | - | |
| 8 | 438554.0 | 79.0 | 15 | 2 | 1777.0 | 1960.0 | - | |
| 9 | 620397.0 | 68.5 | 15 | 2 | 1284.0 | 1428.0 | - | |
| 10 | 54310.0 | 73.5 | 15 | 2 | 1904.0 | 1352.0 | - | |
| 11 | 235506.0 | 70.5 | 15 | 2 | 1864.0 | 1115.0 | - | |
| 12 | 417036.0 | 76.6 | 15 | 2 | 1045.0 | 1300.0 | - | |
| 13 | 597974.0 | 81.2 | 15 | 2 | 1160.0 | 1675.0 | - | |
| 14 | 32086.0 | 61.8 | 15 | 1 | 1277.0 | - | - | |
| 15 | 212751.0 | 94.9 | 15 | 3 | 1450.0 | 1206.0 | 1860.0 | |

Statistics 21 (ChirpCenter Frequency: 5326.4 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 526149.0 | 78.5 | 9 | 2 | 1653.0 | 1698.0 | - | 1 |
| 1 | 767135.0 | 89.8 | 9 | 3 | 1174.0 | 1962.0 | 1167.0 | |
| 2 | 12955.0 | 59.4 | 9 | 1 | 1982.0 | - | - | |
| 3 | 254612.0 | 79.6 | 9 | 2 | 1633.0 | 1890.0 | - | |
| 4 | 496588.0 | 76.0 | 9 | 2 | 1112.0 | 1811.0 | - | |
| 5 | 739728.0 | 53.6 | 9 | 1 | 1144.0 | - | - | |
| 6 | 980872.0 | 80.9 | 9 | 2 | 1220.0 | 1053.0 | - | |
| 7 | 225249.0 | 61.6 | 9 | 1 | 1724.0 | - | - | |
| 8 | 467279.0 | 53.4 | 9 | 1 | 1901.0 | - | - | |
| 9 | 709720.0 | 59.9 | 9 | 1 | 1379.0 | - | - | |
| 10 | 951847.0 | 60.4 | 9 | 1 | 1453.0 | - | - | |
| 11 | 194839.0 | 91.4 | 9 | 3 | 1768.0 | 1726.0 | 1227.0 | |

Statistics 22 (ChirpCenter Frequency: 5322MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 261858.0 | 77.0 | 20 | 2 | 1191.0 | 1363.0 | - | 1 |
| 1 | 407646.0 | 58.1 | 20 | 1 | 1248.0 | - | - | |
| 2 | 552319.0 | 62.1 | 20 | 1 | 1836.0 | - | - | |
| 3 | 99107.0 | 76.9 | 20 | 2 | 1334.0 | 1236.0 | - | |
| 4 | 243514.0 | 80.0 | 20 | 2 | 1914.0 | 1852.0 | - | |
| 5 | 389464.0 | 52.0 | 20 | 1 | 1701.0 | - | - | |
| 6 | 531093.0 | 88.6 | 20 | 3 | 1693.0 | 1995.0 | 1905.0 | |
| 7 | 81159.0 | 72.9 | 20 | 2 | 1922.0 | 1387.0 | - | |
| 8 | 225245.0 | 98.5 | 20 | 3 | 1839.0 | 1746.0 | 1389.0 | |
| 9 | 371906.0 | 57.9 | 20 | 1 | 1193.0 | - | - | |
| 10 | 514197.0 | 95.9 | 20 | 3 | 1659.0 | 1870.0 | 1066.0 | |
| 11 | 63561.0 | 53.5 | 20 | 1 | 1162.0 | - | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12 | 207510.0 | 92.0 | 20 | 3 | 1745.0 | 1654.0 | 1458.0 | |
| 13 | 353638.0 | 57.3 | 20 | 1 | 1834.0 | - | - | |
| 14 | 497515.0 | 70.5 | 20 | 2 | 1684.0 | 1586.0 | - | |
| 15 | 45553.0 | 70.0 | 20 | 2 | 1042.0 | 1664.0 | - | |
| 16 | 189821.0 | 84.0 | 20 | 3 | 1765.0 | 1630.0 | 1176.0 | |
| 17 | 335330.0 | 76.1 | 20 | 2 | 1557.0 | 1057.0 | - | |
| 18 | 478825.0 | 93.2 | 20 | 3 | 1985.0 | 1018.0 | 1340.0 | |
| 19 | 27594.0 | 96.8 | 20 | 3 | 1760.0 | 1614.0 | 1817.0 | |

Statistics 23 (ChirpCenter Frequency: 5325.2MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 247117.0 | 50.1 | 12 | 1 | 1841.0 | - | - | 1 |
| 1 | 453362.0 | 93.5 | 12 | 3 | 1590.0 | 1081.0 | 1413.0 | |
| 2 | 660875.0 | 68.8 | 12 | 2 | 1707.0 | 1577.0 | - | |
| 3 | 14140.0 | 56.3 | 12 | 1 | 1056.0 | - | - | |
| 4 | 220734.0 | 86.0 | 12 | 3 | 1953.0 | 1108.0 | 1987.0 | |
| 5 | 428367.0 | 75.2 | 12 | 2 | 1572.0 | 1536.0 | - | |
| 6 | 636681.0 | 54.4 | 12 | 1 | 1517.0 | - | - | |
| 7 | 843157.0 | 71.1 | 12 | 2 | 1329.0 | 1243.0 | - | |
| 8 | 195585.0 | 76.2 | 12 | 2 | 1940.0 | 1770.0 | - | |
| 9 | 403231.0 | 80.2 | 12 | 2 | 1098.0 | 1209.0 | - | |
| 10 | 610202.0 | 79.7 | 12 | 2 | 1588.0 | 1214.0 | - | |
| 11 | 815229.0 | 90.9 | 12 | 3 | 1615.0 | 1862.0 | 1601.0 | |
| 12 | 170267.0 | 68.7 | 12 | 2 | 1377.0 | 1441.0 | - | |
| 13 | 377306.0 | 67.4 | 12 | 2 | 1872.0 | 1313.0 | - | |

Statistics 24 (ChirpCenter Frequency: 5325.6 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 628071.0 | 94.0 | 11 | 3 | 1643.0 | 1748.0 | 1941.0 | 1 |
| 1 | 853391.0 | 70.8 | 11 | 2 | 1177.0 | 1201.0 | - | |
| 2 | 156223.0 | 56.3 | 11 | 1 | 1006.0 | - | - | |
| 3 | 378734.0 | 96.7 | 11 | 3 | 1230.0 | 1163.0 | 1332.0 | |
| 4 | 601331.0 | 90.6 | 11 | 3 | 1217.0 | 1582.0 | 1498.0 | |
| 5 | 825462.0 | 74.5 | 11 | 2 | 1569.0 | 1281.0 | - | |
| 6 | 128265.0 | 92.6 | 11 | 3 | 1065.0 | 1669.0 | 1222.0 | |
| 7 | 351161.0 | 89.0 | 11 | 3 | 1493.0 | 1135.0 | 1380.0 | |
| 8 | 573425.0 | 96.5 | 11 | 3 | 1607.0 | 1822.0 | 1602.0 | |
| 9 | 798431.0 | 70.5 | 11 | 2 | 1141.0 | 1178.0 | - | |
| 10 | 100737.0 | 94.0 | 11 | 3 | 1009.0 | 1629.0 | 1956.0 | |
| 11 | 324661.0 | 55.8 | 11 | 1 | 1290.0 | - | - | |
| 12 | 546278.0 | 87.7 | 11 | 3 | 1435.0 | 1963.0 | 1164.0 | |

Statistics 25 (ChirpCenter Frequency: 5328 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per | PRI-1(μS) | PRI-2(μS) | PRI-3(μS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|

| | | | | Burst | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | 1253842.0 | 68.6 | 5 | 2 | 1306.0 | 1161.0 | - | 1 |
| 1 | 119486.0 | 83.1 | 5 | 2 | 1420.0 | 1315.0 | - | |
| 2 | 482958.0 | 60.9 | 5 | 1 | 1687.0 | - | - | |
| 3 | 845641.0 | 77.7 | 5 | 2 | 1776.0 | 1158.0 | - | |
| 4 | 1208428.0 | 77.4 | 5 | 2 | 1793.0 | 1510.0 | - | |
| 5 | 74748.0 | 66.8 | 5 | 2 | 1576.0 | 1323.0 | - | |
| 6 | 438300.0 | 63.7 | 5 | 1 | 1333.0 | - | - | |
| 7 | 800152.0 | 91.2 | 5 | 3 | 1409.0 | 1681.0 | 1275.0 | |

Statistics 26 (ChirpCenter Frequency: 5323.6 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 545865.0 | 83.6 | 16 | 3 | 1632.0 | 1195.0 | 1000.0 | 1 |
| 1 | 14067.0 | 89.4 | 16 | 3 | 1173.0 | 1627.0 | 1656.0 | |
| 2 | 184953.0 | 55.8 | 16 | 1 | 1532.0 | - | - | |
| 3 | 353759.0 | 90.9 | 16 | 3 | 1981.0 | 1554.0 | 1998.0 | |
| 4 | 526388.0 | 54.7 | 16 | 1 | 1825.0 | - | - | |
| 5 | 694806.0 | 97.7 | 16 | 3 | 1734.0 | 1202.0 | 1250.0 | |
| 6 | 163568.0 | 67.5 | 16 | 2 | 1571.0 | 1434.0 | - | |
| 7 | 333410.0 | 96.7 | 16 | 3 | 1589.0 | 1469.0 | 1268.0 | |
| 8 | 504006.0 | 68.3 | 16 | 2 | 1750.0 | 1954.0 | - | |
| 9 | 675297.0 | 78.3 | 16 | 2 | 1591.0 | 1082.0 | - | |
| 10 | 142890.0 | 55.0 | 16 | 1 | 1427.0 | - | - | |
| 11 | 312479.0 | 84.9 | 16 | 3 | 1129.0 | 1936.0 | 1199.0 | |
| 12 | 482953.0 | 74.6 | 16 | 2 | 1959.0 | 1856.0 | - | |
| 13 | 655022.0 | 63.3 | 16 | 1 | 1885.0 | - | - | |
| 14 | 121457.0 | 99.8 | 16 | 3 | 1035.0 | 1515.0 | 1120.0 | |
| 15 | 292606.0 | 63.6 | 16 | 1 | 1647.0 | - | - | |
| 16 | 461322.0 | 87.3 | 16 | 3 | 1931.0 | 1051.0 | 1831.0 | |

Statistics 27 (ChirpCenter Frequency: 5322.4 MHz)

| Trial # | Burst Offset(us) | Pulse Width (µS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(µS) | PRI-2(µS) | PRI-3(µS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 565136.0 | 85.6 | 19 | 3 | 1946.0 | 1078.0 | 1015.0 | 1 |
| 1 | 89970.0 | 68.6 | 19 | 2 | 1029.0 | 1780.0 | - | |
| 2 | 243121.0 | 54.2 | 19 | 1 | 1111.0 | - | - | |
| 3 | 396034.0 | 61.2 | 19 | 1 | 1104.0 | - | - | |
| 4 | 546225.0 | 97.1 | 19 | 3 | 1157.0 | 1969.0 | 1100.0 | |
| 5 | 70998.0 | 98.3 | 19 | 3 | 1142.0 | 1699.0 | 1622.0 | |
| 6 | 224093.0 | 62.4 | 19 | 1 | 1655.0 | - | - | |
| 7 | 376127.0 | 80.2 | 19 | 2 | 1126.0 | 1769.0 | - | |
| 8 | 527806.0 | 87.5 | 19 | 3 | 1216.0 | 1448.0 | 1179.0 | |
| 9 | 52247.0 | 85.8 | 19 | 3 | 1847.0 | 1348.0 | 1472.0 | |
| 10 | 204582.0 | 88.1 | 19 | 3 | 1023.0 | 1124.0 | 1631.0 | |
| 11 | 357941.0 | 65.3 | 19 | 1 | 1848.0 | - | - | |
| 12 | 510977.0 | 52.5 | 19 | 1 | 1470.0 | - | - | |
| 13 | 33698.0 | 52.3 | 19 | 1 | 1312.0 | - | - | |
| 14 | 186023.0 | 74.1 | 19 | 2 | 1915.0 | 1200.0 | - | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 15 | 339327.0 | 54.9 | 19 | 1 | 1479.0 | - | - | |
| 16 | 491053.0 | 76.2 | 19 | 2 | 1376.0 | 1502.0 | - | |
| 17 | 14858.0 | 60.4 | 19 | 1 | 1758.0 | - | - | |
| 18 | 167387.0 | 81.5 | 19 | 2 | 1491.0 | 1103.0 | - | |

Statistics 28 (ChirpCenter Frequency: 5326 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | Pulse 2-3 spacing(μS) | Pulse Start(mS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 507709.0 | 50.5 | 10 | 1 | 1857.0 | - | - | 1 |
| 1 | 750249.0 | 55.7 | 10 | 1 | 1246.0 | - | - | |
| 2 | 989003.0 | 85.8 | 10 | 3 | 1774.0 | 1002.0 | 1967.0 | |
| 3 | 235634.0 | 76.9 | 10 | 2 | 1125.0 | 1474.0 | - | |
| 4 | 477675.0 | 75.1 | 10 | 2 | 1254.0 | 1052.0 | - | |
| 5 | 718312.0 | 92.3 | 10 | 3 | 1180.0 | 1486.0 | 1492.0 | |
| 6 | 960895.0 | 78.1 | 10 | 2 | 1301.0 | 1757.0 | - | |
| 7 | 205370.0 | 92.2 | 10 | 3 | 1898.0 | 1252.0 | 1713.0 | |
| 8 | 446940.0 | 89.0 | 10 | 3 | 1260.0 | 1706.0 | 1411.0 | |
| 9 | 689225.0 | 70.9 | 10 | 2 | 1578.0 | 1620.0 | - | |
| 10 | 932305.0 | 63.1 | 10 | 1 | 1782.0 | - | - | |
| 11 | 176231.0 | 55.3 | 10 | 1 | 1522.0 | - | - | |

Statistics 29 (ChirpCenter Frequency: 5323.2 MHz)

| Trial # | Burst Offset(us) | Pulse Width (μS) | Chirp(MHz) | Number of Pulses per Burst | PRI-1(μS) | Pulse 2-3 spacing(μS) | Pulse Start(mS) | Detection (1:yes;0:no) |
|---|---|---|---|---|---|---|---|---|
| 0 | 437880.0 | 97.3 | 17 | 3 | 1319.0 | 1826.0 | 1635.0 | 1 |
| 1 | 598445.0 | 90.4 | 17 | 3 | 1079.0 | 1986.0 | 1674.0 | |
| 2 | 97088.0 | 91.8 | 17 | 3 | 1563.0 | 1151.0 | 1802.0 | |
| 3 | 257251.0 | 98.2 | 17 | 3 | 1876.0 | 1977.0 | 1766.0 | |
| 4 | 419893.0 | 59.5 | 17 | 1 | 1952.0 | - | - | |
| 5 | 580724.0 | 80.0 | 17 | 2 | 1253.0 | 1137.0 | - | |
| 6 | 77366.0 | 86.5 | 17 | 3 | 1054.0 | 1128.0 | 1828.0 | |
| 7 | 238032.0 | 91.1 | 17 | 3 | 1105.0 | 1599.0 | 1442.0 | |
| 8 | 398605.0 | 93.5 | 17 | 3 | 1867.0 | 1373.0 | 1087.0 | |
| 9 | 562025.0 | 60.7 | 17 | 1 | 1033.0 | - | - | |
| 10 | 57684.0 | 67.2 | 17 | 2 | 1288.0 | 1405.0 | - | |
| 11 | 219083.0 | 61.8 | 17 | 1 | 1585.0 | - | - | |
| 12 | 379234.0 | 79.4 | 17 | 2 | 1933.0 | 1667.0 | - | |
| 13 | 540896.0 | 81.4 | 17 | 2 | 1096.0 | 1464.0 | - | |
| 14 | 37916.0 | 65.7 | 17 | 1 | 1496.0 | - | - | |
| 15 | 198794.0 | 76.0 | 17 | 2 | 1733.0 | 1255.0 | - | |
| 16 | 359754.0 | 81.0 | 17 | 2 | 1326.0 | 1668.0 | - | |
| 17 | 437880.0 | 97.3 | 17 | 3 | 1319.0 | 1826.0 | 1635.0 | |

Radar Type 6 Statistical Performance

| Trial # | Pulse Width (μS) | PRI (μs) | Pulse Per Hop | Hopping Rate (KHz) | Hopping Sequence Length (ms) | Visible Frequency Number | Detection (1:yes; 0:no) |
|---|---|---|---|---|---|---|---|
| 0 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 32 | 1 |
| 1 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 27 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 25 | 1 |
| 3 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 33 | 1 |
| 4 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 37 | 1 |
| 5 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 30 | 1 |
| 6 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 33 | 1 |
| 7 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 27 | 1 |
| 8 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 33 | 1 |
| 9 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 30 | 1 |
| 10 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 37 | 1 |
| 11 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 36 | 1 |
| 12 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 38 | 1 |
| 13 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 35 | 1 |
| 14 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 28 | 1 |
| 15 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 37 | 1 |
| 16 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 35 | 1 |
| 17 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 37 | 1 |
| 18 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 27 | 1 |
| 19 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 34 | 1 |
| 20 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 35 | 1 |
| 21 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 37 | 1 |
| 22 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 41 | 1 |
| 23 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 36 | 1 |
| 24 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 29 | 1 |
| 25 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 32 | 1 |
| 26 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 30 | 1 |
| 27 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 31 | 1 |
| 28 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 31 | 1 |
| 29 | 1.0 | 333.3 | 9 | 0.3333 | 300.0000000 | 40 | 1 |