

# FCC Radio Test Report

**FCC ID: 2AF82-TDD1000C**

**Report No.** : BTL-FCCP-12-2503T049  
**Equipment** : Scheduler Docking Station  
**Model Name** : TDD-1000-C  
**Brand Name** : Qbic  
**Applicant** : Qbic Technology Co., Ltd.  
**Address** : 26F.-12, NO.99, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY  
22175, TAIWAN

**Radio Function** : RLAN 5 GHz (U-NII 2A, U-NII 2C)

**FCC Rule Part(s)** : FCC CFR Title 47, Part 15, Subpart E (15.407)  
(Only DFS)

**Date of Receipt** : 2025/4/2  
**Date of Test** : 2025/4/23 ~ 2025/5/28  
**Issued Date** : 2025/6/3

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

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**Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL's** reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the Customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

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**BTL's** laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

**BTL** is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

**Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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### REVISION HISTORY

| Report No.           | Version | Description      | Issued Date | Note  |
|----------------------|---------|------------------|-------------|-------|
| BTL-FCCP-12-2503T049 | R00     | Original Report. | 2025/6/3    | Valid |

## 1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

| Standard(s) Section | Description                       | Test Result | Judgement | Remark |
|---------------------|-----------------------------------|-------------|-----------|--------|
| 15.407(h)           | Dynamic Frequency Selection (DFS) | -----       | Pass      | -----  |

### Statement of Conformity

The statement of conformity is based on the binary decision rule according to IEC Guide 115 and ILAC G8 "simple acceptance" principle. Without considering measurement uncertainty, its specific risk is less than 50% PFA. (PFA: Probability of False Accept)

NOTE:

(1) The report format version is TP.1.1.1.

### 1.1 REFERENCE TEST GUIDANCE

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01  
FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

### 1.2 TEST FACILITY

The test locations stated below are under the TAF Accreditation Number 0659.

The test location(s) used to collect the test data in this report are:

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan  
(FCC DN: TW0659)

☐ C05      ☐ CB08      ☐ CB11      ☒ SR10      ☐ SR11

### 1.3 TEST ENVIRONMENT CONDITIONS

| Test Item                         | Environment Condition | Test Voltage | Tested by    |
|-----------------------------------|-----------------------|--------------|--------------|
| Dynamic Frequency Selection (DFS) | 23.7 °C, 54 %         | AC 120V      | Winston Fang |

## 2 EUT INFORMATION

### 2.1 EUT SPECIFICATION TABLE

|                     |                                                                                                                                                             |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment           | Scheduler Docking Station                                                                                                                                   |
| Model Name          | TDD-1000-C                                                                                                                                                  |
| Brand Name          | Qbic                                                                                                                                                        |
| Model Difference    | N/A                                                                                                                                                         |
| Power Source        | DC Voltage supplied from AC/DC adapter.                                                                                                                     |
| Power Rating        | EUT: DC 21V<br>For Adapter:<br>I/P: 100-240V~, 2.5A 50-60Hz<br>O/P: 21.0V---8.58A 180.0W                                                                    |
| Products Covered    | 1 * Adapter: HUIZHOU CITY YOUWEI CHUANGKE ELECTRONICS CO.,LTD / YW180A2-2100858<br>1 * Power cable<br>1* Type-C to Type-C cable                             |
| Operational Mode    | <input type="checkbox"/> Master<br><input type="checkbox"/> Slave with radar detection<br><input checked="" type="checkbox"/> Slave without radar detection |
| Operation Band      | UNII-2A: 5250 MHz to 5350 MHz<br>UNII-2C: 5470 MHz to 5725 MHz                                                                                              |
| Operating Frequency | UNII-2A: 5250 MHz to 5320 MHz<br>UNII-2C: 5500 MHz to 5700 MHz                                                                                              |
| Modulation          | OFDMA                                                                                                                                                       |
| Test Model          | TDD-1000-C                                                                                                                                                  |
| Sample Status       | Engineering Sample                                                                                                                                          |
| EUT Modification(s) | N/A                                                                                                                                                         |

#### NOTE:

(1) The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

(2) Channel List:

| IEEE 802.11a<br>IEEE 802.11n (HT20)<br>IEEE 802.11ac (VHT20) |                 | IEEE 802.11n (HT40)<br>IEEE 802.11ac (VHT40) |                 | IEEE 802.11ac (VHT80) |                 |
|--------------------------------------------------------------|-----------------|----------------------------------------------|-----------------|-----------------------|-----------------|
| UNII-2A                                                      |                 | UNII-2A                                      |                 | UNII-2A               |                 |
| Channel                                                      | Frequency (MHz) | Channel                                      | Frequency (MHz) | Channel               | Frequency (MHz) |
| 52                                                           | 5260            | 54                                           | 5270            | 58                    | 5290            |
| 56                                                           | 5280            | 62                                           | 5310            |                       |                 |
| 60                                                           | 5300            |                                              |                 |                       |                 |
| 64                                                           | 5320            |                                              |                 |                       |                 |

| IEEE 802.11a<br>IEEE 802.11n (HT20)<br>IEEE 802.11ac (VHT20) |                 | IEEE 802.11n (HT40)<br>IEEE 802.11ac (VHT40) |                 | IEEE 802.11ac (VHT80) |                 |
|--------------------------------------------------------------|-----------------|----------------------------------------------|-----------------|-----------------------|-----------------|
| UNII-2C                                                      |                 | UNII-2C                                      |                 | UNII-2C               |                 |
| Channel                                                      | Frequency (MHz) | Channel                                      | Frequency (MHz) | Channel               | Frequency (MHz) |
| 100                                                          | 5500            | 102                                          | 5510            | 106                   | 5530            |
| 104                                                          | 5520            | 110                                          | 5550            | 122                   | 5610            |
| 108                                                          | 5540            | 118                                          | 5590            |                       |                 |
| 112                                                          | 5560            | 126                                          | 5630            |                       |                 |
| 116                                                          | 5580            | 134                                          | 5670            |                       |                 |
| 120                                                          | 5600            |                                              |                 |                       |                 |
| 124                                                          | 5620            |                                              |                 |                       |                 |
| 128                                                          | 5640            |                                              |                 |                       |                 |
| 132                                                          | 5660            |                                              |                 |                       |                 |
| 136                                                          | 5680            |                                              |                 |                       |                 |
| 140                                                          | 5700            |                                              |                 |                       |                 |

(3) Table for Filed Antenna:

| Antenna | Brand  | Model Name            | Antenna Type | Connector     | Frequency (MHz) | Gain (dBi) |
|---------|--------|-----------------------|--------------|---------------|-----------------|------------|
| 1       | JOYMAX | TBF-V03BMP3B-W<br>015 | FPC          | I-PEX<br>MHF1 | 5150-5250       | 4.12       |
|         |        |                       |              |               | 5250-5350       | 4.19       |
|         |        |                       |              |               | 5470-5725       | 3.96       |
|         |        |                       |              |               | 5725-5850       | 4.37       |

(4) The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

## 2.2 INTRODUCTION OF DATA REFERENCING

### 2.2.1 DESCRIPTION OF EUT

The Scheduler Docking Station is with IEEE 802.11a/b/g/n/ac, Bluetooth (BT), Bluetooth Low Energy (BLE), and Near-Field Communication (NFC)/Wireless Power Transfer (WPT) technologies.

### 2.2.2 INTRODUCTION

This application for certification is leveraging the data reuse procedures from KDB 484596 D01 based on reference FCC ID: 2AF82-TDD1000 to cover variant model FCC ID: 2AF82-TDD1000C. The major differences between the parent/reference model and the variant model are the NFC and WPT functions. The NFC and WPT functions are independent parts connecting to the device, and except these, all other circuitry and features are identical.

### 2.2.3 MODEL DIFFERENCES

The manufacturer hereby declares the following for models TDD-1000 and TDD-1000-C. These models are highly similar with the only difference being the supported NFC or WPT function

| Model Name | FCC ID         | Model Difference                            |
|------------|----------------|---------------------------------------------|
| TDD-1000   | 2AF82-TDD1000  | Reference Model<br>(supported NFC function) |
| TDD-1000-C | 2AF82-TDD1000C | Variant model<br>(supported WPT function)   |

Note:

Except NFC or WPT parts, they have the same PCB layout, design, common components, antennas, antenna locations and housing cases. And the Wi-Fi, BT and BLE transmitters are identical.

### 2.2.4 SPOT CHECK VERIFICATION RESULTS SUMMARY

Spot check verification has been done on model TDD-1000-C and complied with the data referencing criteria from KDB 484596 D01 v03, section 3.2.

The spot checks were performed on the worst-case orientations and configurations based on the parent model of reference report.

### 2.2.5 REFERENCE DETAIL

Reference application that contains the reused reference data.

| Reference FCC ID | Variant model FCC ID | Reference Test Report / Data Referencing Section    | Equipment Class |
|------------------|----------------------|-----------------------------------------------------|-----------------|
| 2AF82-TDD1000    | 2AF82-TDD1000C       | BTL-FCCP-1-2503T049/<br>All sections, except 15.207 | DSS             |
|                  |                      | BTL-FCCP-2-2503T049/<br>All sections, except 15.207 | DTS             |
|                  |                      | BTL-FCCP-3-2503T049/<br>All sections, except 15.207 | DTS             |
|                  |                      | BTL-FCCP-4-2503T049/<br>All sections, except 15.207 | NII             |
|                  |                      | BTL-FCCP-5-2503T049/<br>All sections                | NII             |

### 2.3 EIRP POWER

|           |         |
|-----------|---------|
| Test Mode | UNII-2A |
|-----------|---------|

| Frequency (MHz) | Maximum Conducted Power (dBm) | Antenna Gain (dBi) | Maximum EIRP Power (dBm) | Maximum EIRP Power (mW) | Remark   |
|-----------------|-------------------------------|--------------------|--------------------------|-------------------------|----------|
| 5250 to 5350    | 19.26                         | 4.19               | 23.45                    | 221.31                  | NOTE (1) |

|           |         |
|-----------|---------|
| Test Mode | UNII-2C |
|-----------|---------|

| Frequency (MHz) | Maximum Conducted Power (dBm) | Antenna Gain (dBi) | Maximum EIRP Power (dBm) | Maximum EIRP Power (mW) | Remark   |
|-----------------|-------------------------------|--------------------|--------------------------|-------------------------|----------|
| 5470 to 5725    | 18.67                         | 3.96               | 22.63                    | 183.23                  | NOTE (1) |

**NOTE:**

- (1) EIRP Power (dBm) = Conducted Power (dBm) + Antenna Gain (dBi).  
Power (mW) =  $1 \text{ mW} * 10^{(\text{dBm} / 10)}$ .

### 3 U-NII DFS RULE REQUIREMENTS

#### 3.1 WORKING MODES AND REQUIRED TEST ITEMS

The manufacturer shall state whether the UUT is capable of operating as a Master and/or a Client. If the UUT is capable of operating in more than one operating mode then each operating mode shall be tested separately. See tables below for the applicability of DFS requirements for each of the operational modes.

Applicability of DFS requirements prior to use a channel

| Requirement                     | Operational Mode |                                |                             |
|---------------------------------|------------------|--------------------------------|-----------------------------|
|                                 | Master           | Client without radar detection | Client with radar detection |
| Non-Occupancy Period            | √                | √                              | √                           |
| DFS Detection Threshold         | √                | Not required                   | √                           |
| Channel Availability Check Time | √                | Not required                   | Not required                |
| U-NII Detection Bandwidth       | √                | Not required                   | √                           |

Applicability of DFS requirements during normal operation

| Requirement                       | Operational Mode |                                |                             |
|-----------------------------------|------------------|--------------------------------|-----------------------------|
|                                   | Master           | Client without radar detection | Client with radar detection |
| DFS Detection Threshold           | √                | Not required                   | √                           |
| Channel Closing Transmission Time | √                | √                              | √                           |
| Channel Move Time                 | √                | √                              | √                           |
| U-NII Detection Bandwidth         | √                | 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.

### 3.2 TEST LIMITS AND RADAR SIGNAL PARAMETERS

#### DETECTION THRESHOLD VALUES

DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection.

| Maximum Transmit Power                                                                | Value<br>(See Notes 1, 2 and 3) |
|---------------------------------------------------------------------------------------|---------------------------------|
| e.i.r.p. $\geq$ 200 milliwatt                                                         | -64 dBm                         |
| e.i.r.p. $<$ 200 milliwatt and<br>power spectral density $<$ 10 dBm/MHz               | -62 dBm                         |
| e.i.r.p. $<$ 200 milliwatt that do not meet the power<br>spectral density requirement | -64 dBm                         |

**Note 1:** This is the level at the input of the receiver assuming a 0 dBi receive antenna.

**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.

**Note3:** EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

#### TEST LIMIT

DFS Response Requirement Values

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

**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 to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

**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.

## PARAMETERS OF DFS TEST SIGNALS

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.

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                                                                     | $\text{Roundup} \left\{ \left( \frac{1}{360} \right) \cdot \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$ | 60%                                        | 30                       |
|                                                                                                                                             |                    | Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A |                                                                                                                                      |                                            |                          |
| 2                                                                                                                                           | 1-5                | 150-230                                                                                                                                                       | 23-29                                                                                                                                | 60%                                        | 30                       |
| 3                                                                                                                                           | 6-10               | 200-500                                                                                                                                                       | 16-18                                                                                                                                | 60%                                        | 30                       |
| 4                                                                                                                                           | 11-20              | 200-500                                                                                                                                                       | 12-16                                                                                                                                | 60%                                        | 30                       |
| Aggregate (Radar Types 1-4)                                                                                                                 |                    |                                                                                                                                                               |                                                                                                                                      | 80%                                        | 120                      |
| <b>Note 1:</b> 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.

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 (The center frequency for each of the 30 trials of the Bin 5 radar shall be randomly selected within 80% of the Occupied Bandwidth.) 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.

Frequency Hopping 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 |
|------------|--------------------|-------------------|------------|----------------------------|------------------|--------------------------------------------|--------------------------|
| 6          | 1                  | 333               | 9          | 0.333                      | 300              | 70%                                        | 30                       |

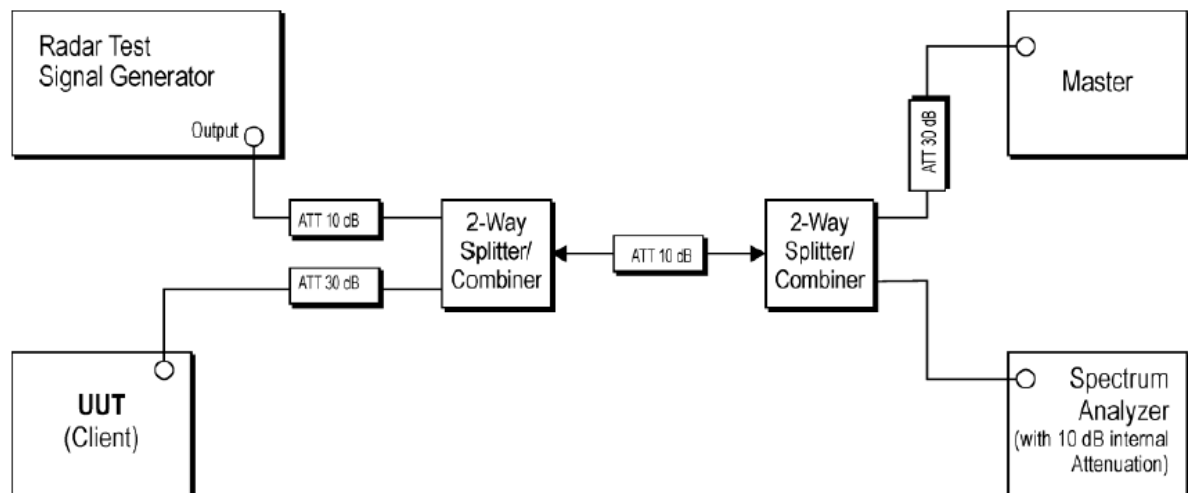
## 4 DYNAMIC FREQUENCY SELECTION (DFS) TEST

### 4.1 DFS MEASUREMENT SYSTEM

#### Test Precedure

1. Master device and client device are set up by conduction method as the following configuration.
2. The client device is connected to notebook and to access a IP address on wireless connection with the master device.
3. Then the master device is connected to another notebook to access a IP address.
4. Finally, let the two IP addresses run traffic with each other through the Run flow software "Lan test" to reach 17% channel loading as below

#### Setup



Radar Test Waveforms are injected into the Master.

## Channel Loading



| Test Band (MHz) | Frequency (MHz) | Marker Delta (ms) | Number | On Time (ms) | Total Time (ms) | Duty cycle (%) | Limit (%) |
|-----------------|-----------------|-------------------|--------|--------------|-----------------|----------------|-----------|
| 5250~5350       | 5260            | 44.58             | 1      | 44.58        | 101.8           | 43.79          | 17        |
| 5250~5350       | 5270            | 37.74             | 1      | 37.74        | 100.3           | 37.63          | 17        |
| 5250~5350       | 5290            | 32.77             | 1      | 32.77        | 99.7            | 32.86          | 17        |

## Channel Loading



| Test Band (MHz) | Frequency (MHz) | Marker Delta (ms) | Number | On Time (ms) | Total Time (ms) | Duty cycle (%) | Limit (%) |
|-----------------|-----------------|-------------------|--------|--------------|-----------------|----------------|-----------|
| 5470~5725       | 5260            | 77.37             | 1      | 77.37        | 99.7            | 77.57          | 17        |
| 5470~5725       | 5270            | 41.39             | 1      | 41.39        | 100.2           | 41.31          | 17        |
| 5470~5725       | 5290            | 29.26             | 1      | 29.26        | 99.8            | 29.31          | 17        |

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96. The frequency of the signal generator is incremented in 1 MHz steps from FL to FH for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer set to display 8001 bins on the horizontal axis. The time-domain resolution is 2 msec / bin with a 16 second sweep time, meeting the 10 second short pulse reporting criteria. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

Should multiple RF ports be utilized for the Master and/or Slave devices (for example, for diversity or MIMO implementations), additional combiner/dividers are inserted between the Master Combiner/Divider and the pad connected to the Master Device (and/or between the Slave Combiner/Divider and the pad connected to the Slave Device). Additional pads are utilized such that there is one pad at each RF port on each EUT.

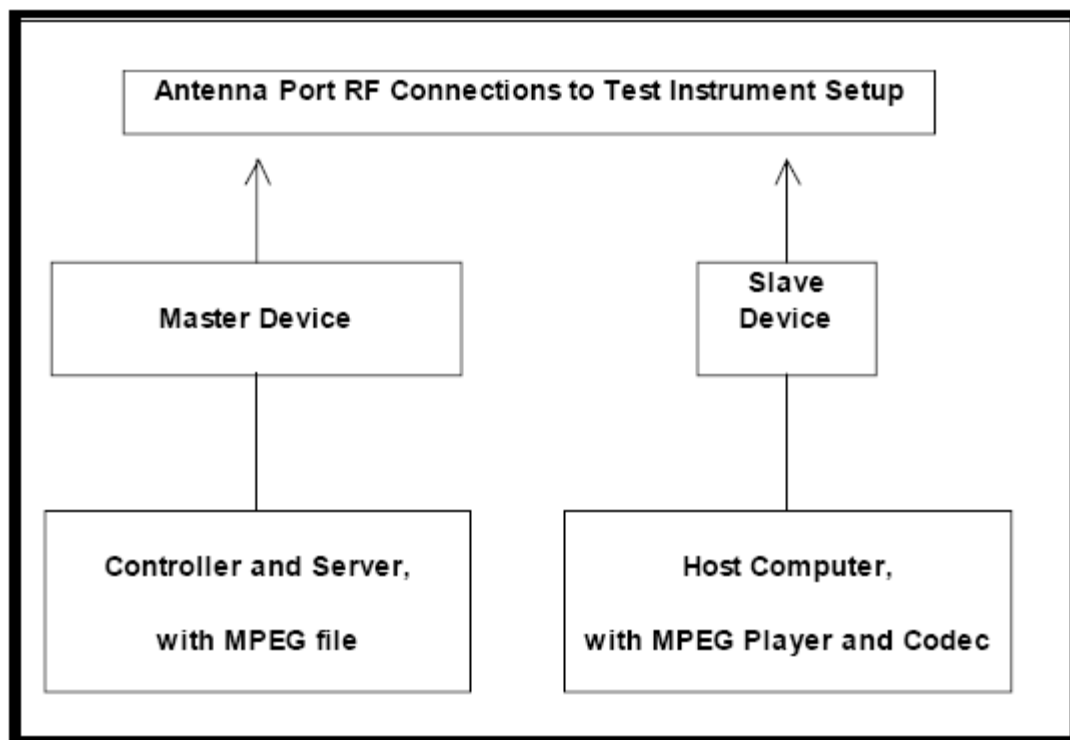
## 4.2 CALIBRATION OF DFS DETECTION THRESHOLD LEVEL

A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected in place of the master device and the signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of  $-62$  dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. Measure the amplitude and calculate the difference from  $-62$  dBm. Adjust the Reference Level Offset of the spectrum analyzer to this difference.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of  $-62$  dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

Set the signal generator to produce a radar waveform, trigger a burst manually and measure the level on the spectrum analyzer. Readjust the amplitude of the signal generator as required so that the peak level of the waveform is at a displayed level equal to the required or desired interference detection threshold. Separate signal generator amplitude settings are determined as required for each radar type.



## 4.3 DEVIATION FROM TEST STANDARD

No deviation.

## 5 LIST OF MEASURING EQUIPMENTS

| Dynamic Frequency Selection (DFS) |                             |              |          |            |                 |                  |
|-----------------------------------|-----------------------------|--------------|----------|------------|-----------------|------------------|
| Item                              | Kind of Equipment           | Manufacturer | Type No. | Serial No. | Calibrated Date | Calibrated Until |
| 1                                 | Spectrum Analyzer           | R&S          | FSP 40   | 101139     | 2025/3/7        | 2026/3/6         |
| 2                                 | MXA Signal Analyzer         | Keysight     | N9020B   | MY63490160 | 2025/2/6        | 2026/2/5         |
| 3                                 | MXG Vector Signal Generator | Agilent      | N5182B   | MY51350711 | 2025/2/21       | 2026/2/20        |

| Master Device |                   |              |          |             |                |      |
|---------------|-------------------|--------------|----------|-------------|----------------|------|
| Item          | Kind of Equipment | Manufacturer | Type No. | FCC ID      | IC             | Note |
| 1             | AP                | NETGEAR      | R7000    | PY313200233 | 4054A-13200233 | -    |

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.  
All calibration period of equipment list is one year.

## **6 EUT TEST PHOTO**

Please refer to document Appendix No.: TP-2503T049-FCCP-1 (APPENDIX-TEST PHOTOS).

## **7 EUT PHOTOS**

Please refer to document Appendix No.: EP-2503T049-1 (APPENDIX-EUT PHOTOS).

## 8 TEST RESULTS

### 8.1 SUMMARY OF TEST RESULT

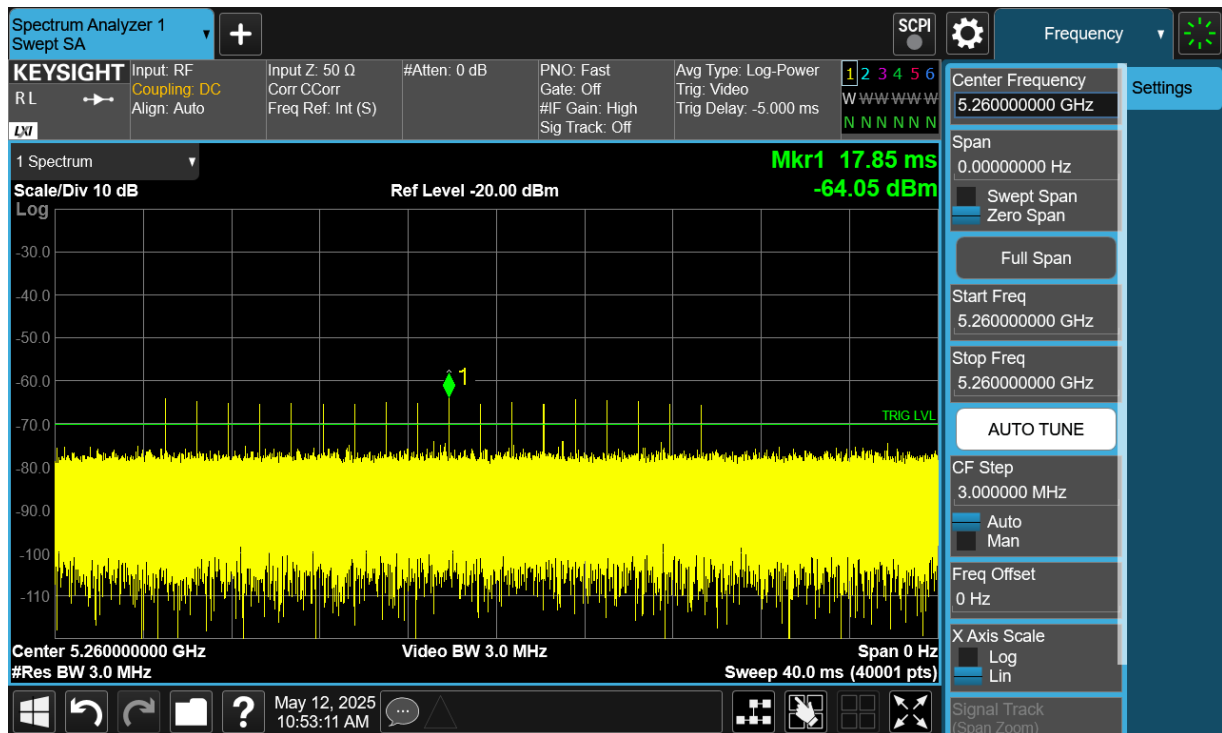
| Clause | Test Parameter                    | Test Bandwidth / Channel                                                               | Remarks        | Pass/Fail |
|--------|-----------------------------------|----------------------------------------------------------------------------------------|----------------|-----------|
| 15.407 | DFS Detection Threshold           | 20MHz / 5260 MHz, 5540 MHz<br>40MHz / 5270 MHz, 5550 MHz<br>80MHz / 5290 MHz, 5530 MHz | Applicable     | Pass      |
| 15.407 | Channel Availability Check Time   | -                                                                                      | Not Applicable | N/A       |
| 15.407 | Channel Move Time                 | 20MHz / 5260 MHz, 5540 MHz<br>40MHz / 5270 MHz, 5550 MHz<br>80MHz / 5290 MHz, 5530 MHz | Applicable     | Pass      |
| 15.407 | Channel Closing Transmission Time | 20MHz / 5260 MHz, 5540 MHz<br>40MHz / 5270 MHz, 5550 MHz<br>80MHz / 5290 MHz, 5530 MHz | Applicable     | Pass      |
| 15.407 | Non- Occupancy Period             | 20MHz / 5260 MHz, 5540 MHz<br>40MHz / 5270 MHz, 5550 MHz<br>80MHz / 5290 MHz, 5530 MHz | Applicable     | Pass      |
| 15.407 | Uniform Spreading                 | -                                                                                      | Not Applicable | N/A       |
| 15.407 | U-NII Detection Bandwidth         | -                                                                                      | Not Applicable | N/A       |

### 8.2 EST MODE: DEVICE OPERATING IN MASTER MODE.

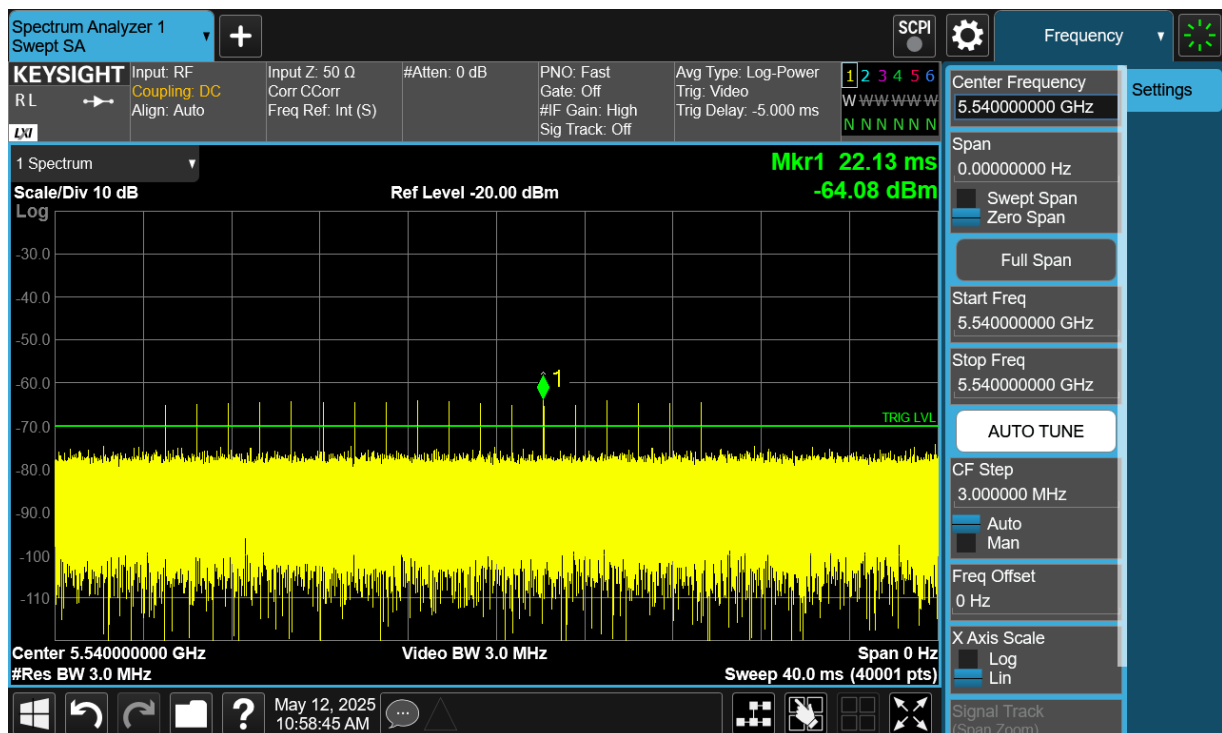
The EUT is slave equipment, it need a master device when testing.  
Client with injection at the Master. (Radar Test Waveforms are injected into the Master)

## 8.3 DFS DETECTION THRESHOLD

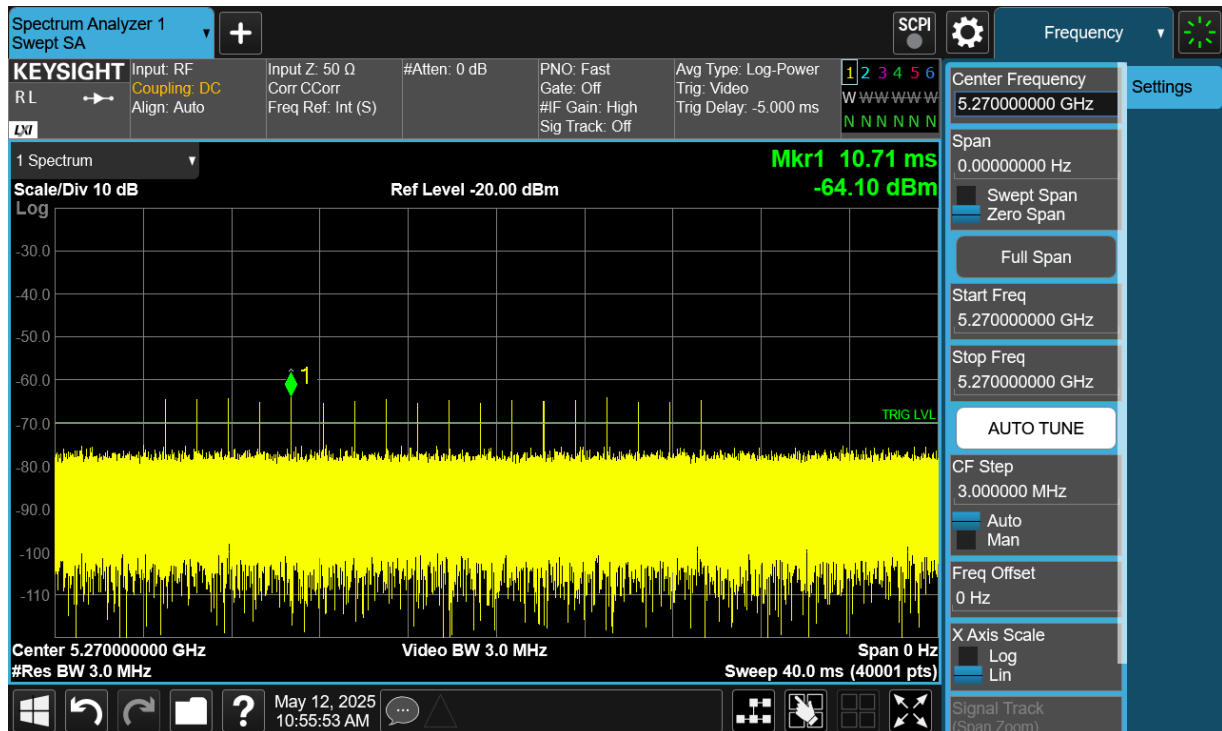
Test Bandwidth / Channel: 20MHz / 5260 MHz



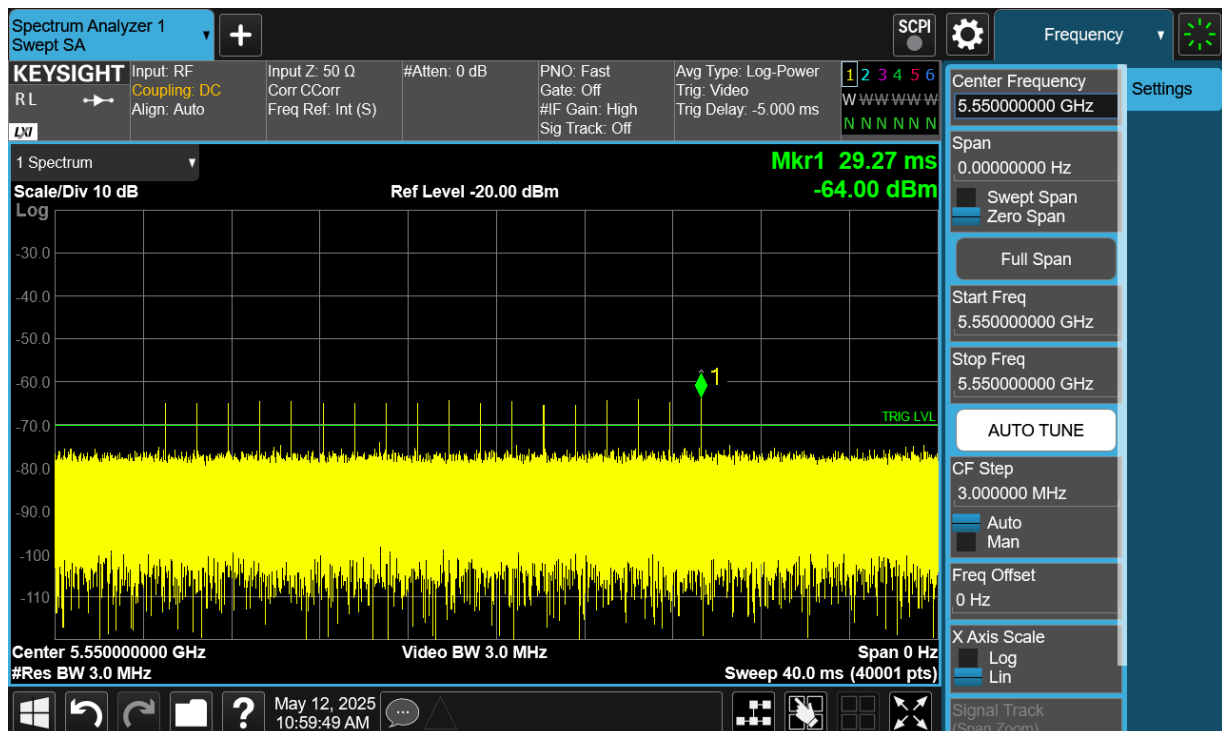
Test Bandwidth / Channel: 20MHz / 5540 MHz



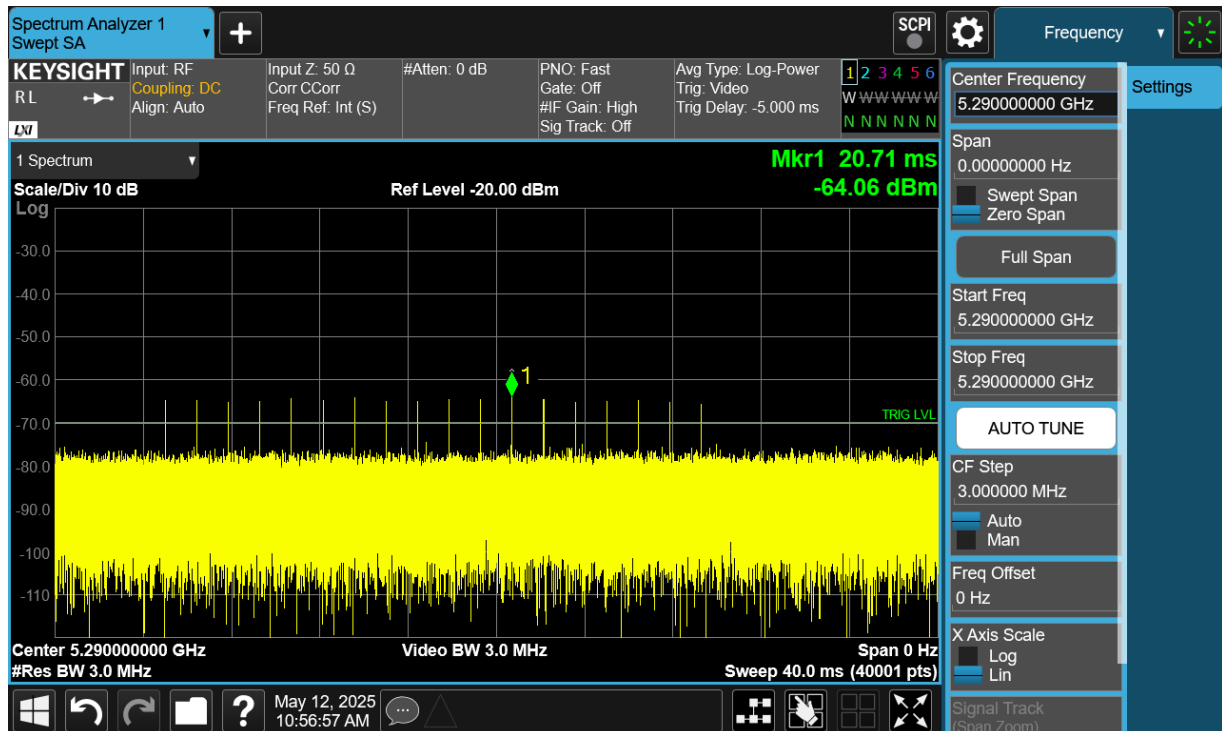
## Test Bandwidth / Channel: 40MHz / 5270 MHz



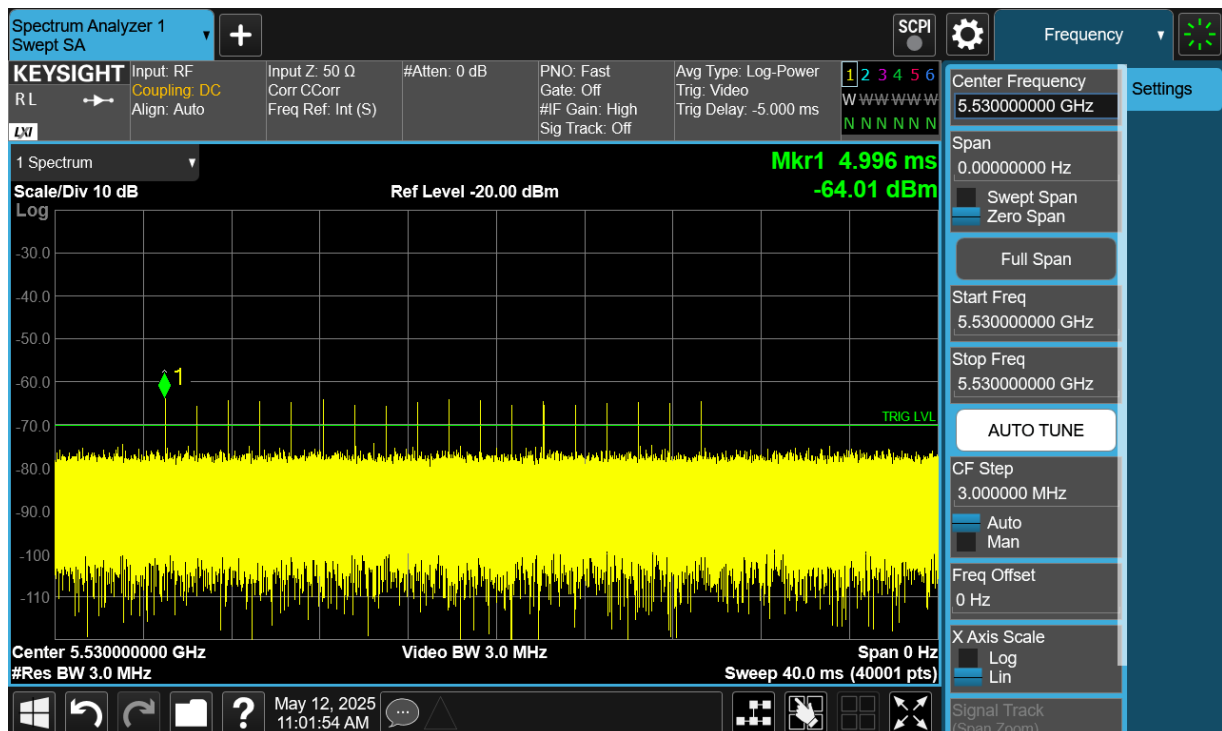
## Test Bandwidth / Channel: 40MHz / 5550 MHz



## Test Bandwidth / Channel: 80MHz / 5290 MHz



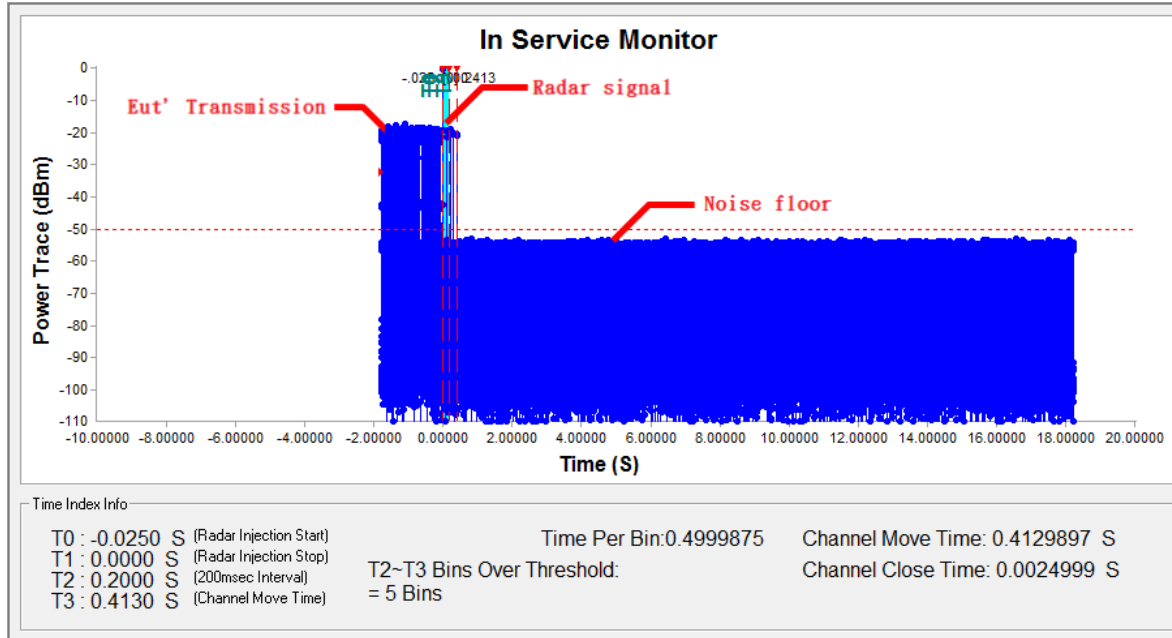
## Test Bandwidth / Channel: 80MHz / 5530 MHz



## 8.4 CHANNEL CLOSING TRANSMISSION AND CHANNEL MOVE TIME WLAN TRAFFIC

Test Bandwidth / Channel: 20MHz / 5260 MHz

Radar signal 0



**Note:** T0 denotes the Radar Injection Start.

T1 denotes the start of Channel Move Time upon the end of the last Radar burst.

T2 denotes the data transmission time of 200ms from T1.

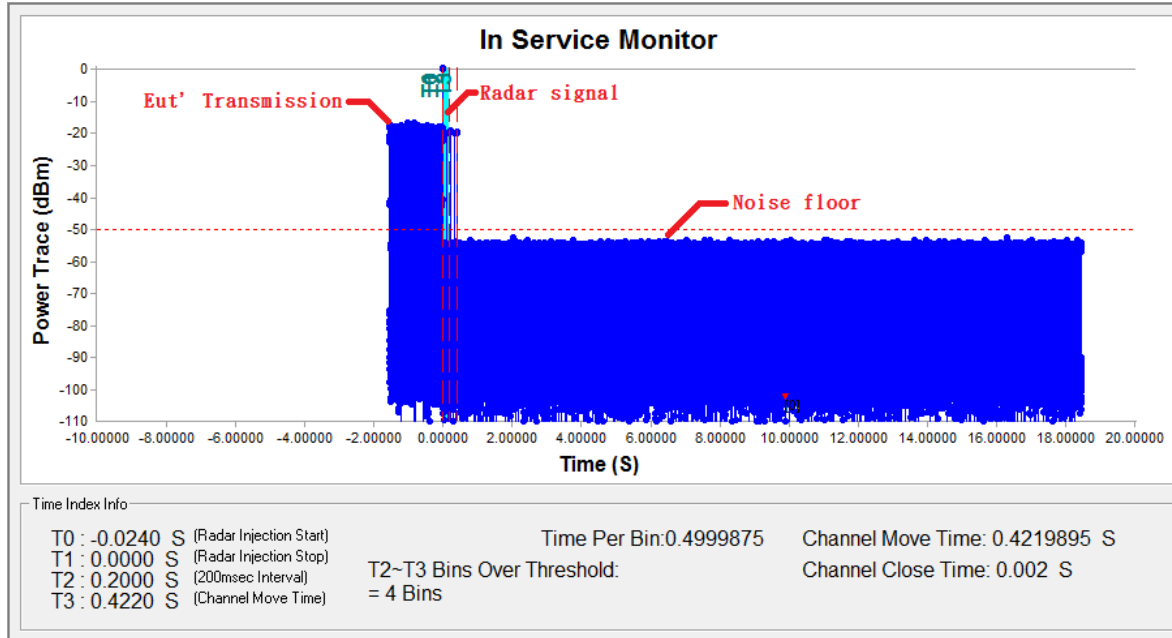
T3 denotes the end of Channel Move Time.



**Note:** An expanded plot for the device vacates the channel in the required 500ms

Test Bandwidth / Channel: 20MHz / 5540 MHz

Radar signal 0



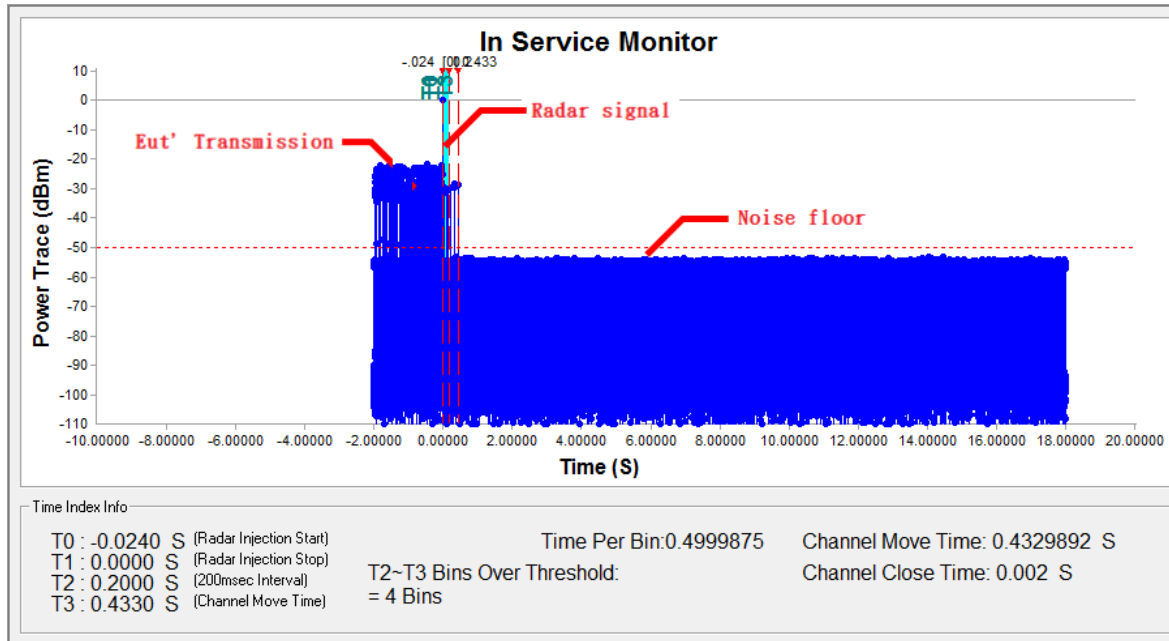
**Note:** T0 denotes the Radar Injection Start.  
T1 denotes the start of Channel Move Time upon the end of the last Radar burst.  
T2 denotes the data transmission time of 200ms from T1.  
T3 denotes the end of Channel Move Time.



**Note:** An expanded plot for the device vacates the channel in the required 500ms

Test Bandwidth / Channel: 40MHz / 5270 MHz

Radar signal 0

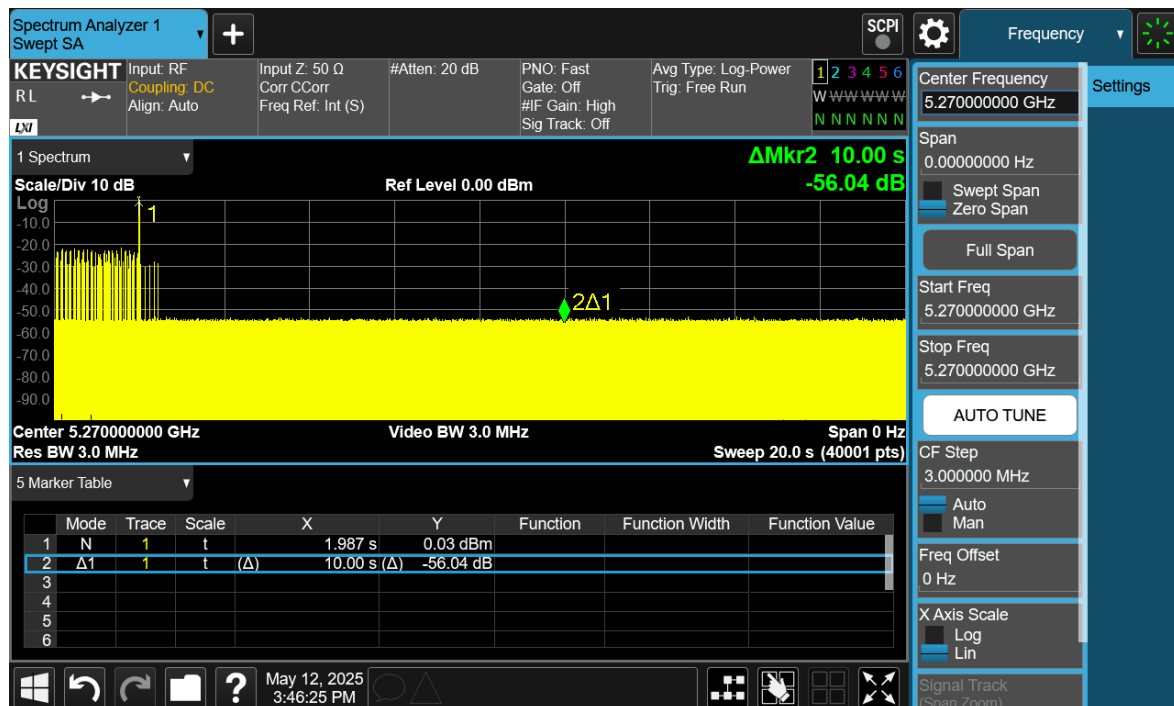


**Note:** T0 denotes the Radar Injection Start.

T1 denotes the start of Channel Move Time upon the end of the last Radar burst.

T2 denotes the data transmission time of 200ms from T1.

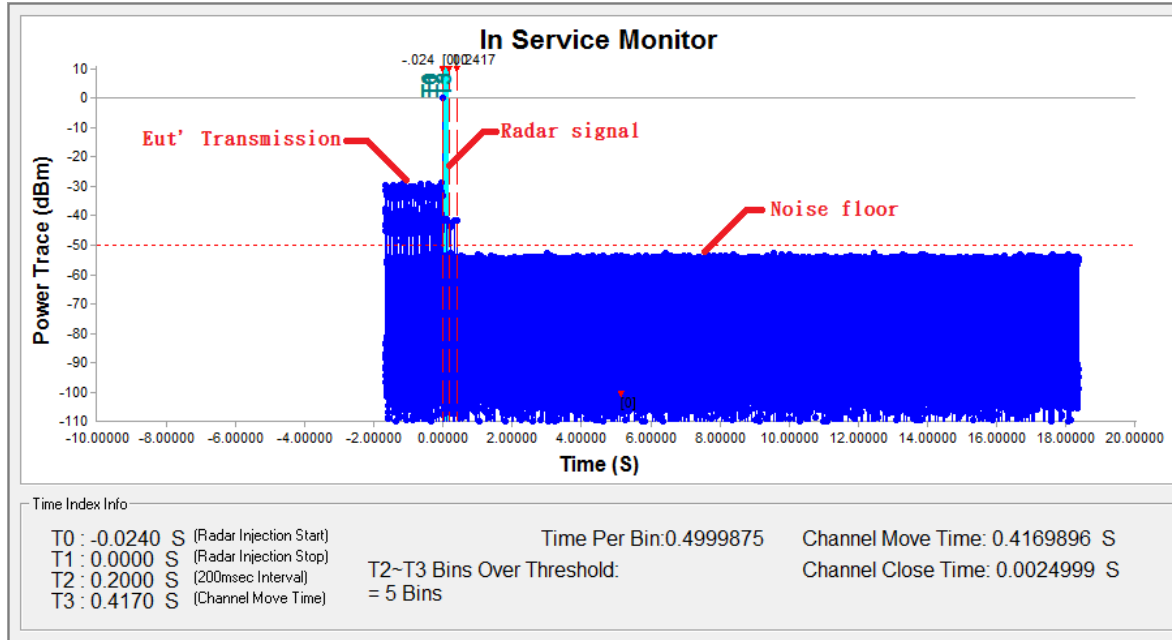
T3 denotes the end of Channel Move Time.



**Note:** An expanded plot for the device vacates the channel in the required 500ms

Test Bandwidth / Channel: 40MHz / 5550 MHz

Radar signal 0



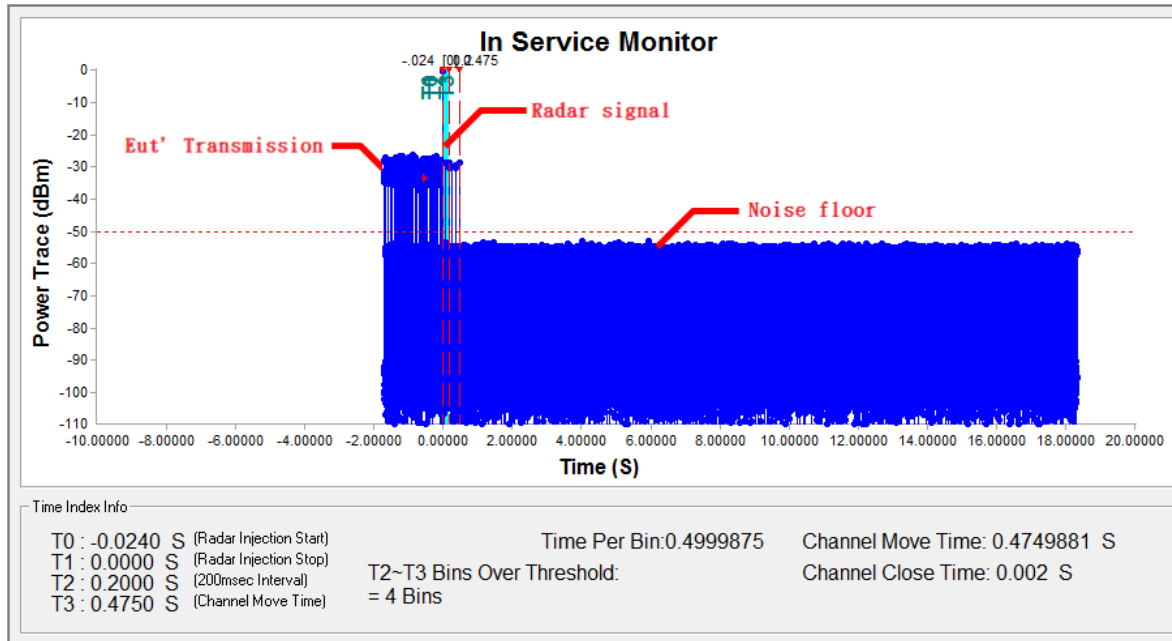
**Note:** T0 denotes the Radar Injection Start.  
T1 denotes the start of Channel Move Time upon the end of the last Radar burst.  
T2 denotes the data transmission time of 200ms from T1.  
T3 denotes the end of Channel Move Time.



**Note:** An expanded plot for the device vacates the channel in the required 500ms

Test Bandwidth / Channel: 80MHz / 5290 MHz

Radar signal 0



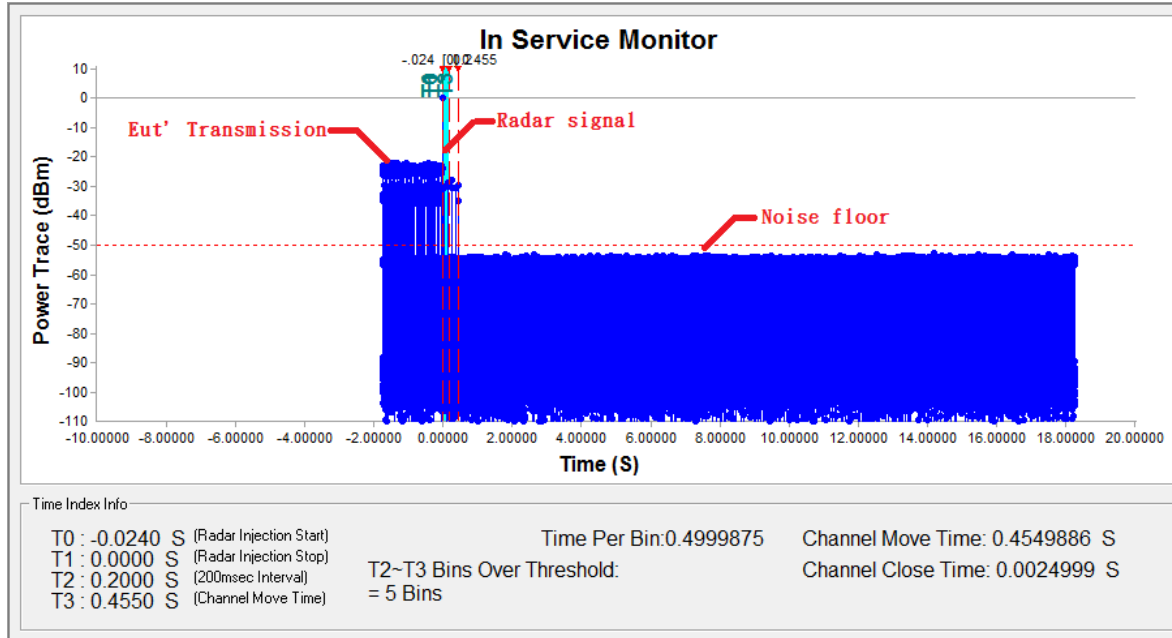
**Note:** T0 denotes the Radar Injection Start.  
T1 denotes the start of Channel Move Time upon the end of the last Radar burst.  
T2 denotes the data transmission time of 200ms from T1.  
T3 denotes the end of Channel Move Time.



**Note:** An expanded plot for the device vacates the channel in the required 500ms

Test Bandwidth / Channel: 80MHz / 5530 MHz

Radar signal 0



**Note:** T0 denotes the Radar Injection Start.  
T1 denotes the start of Channel Move Time upon the end of the last Radar burst.  
T2 denotes the data transmission time of 200ms from T1.  
T3 denotes the end of Channel Move Time.



**Note:** An expanded plot for the device vacates the channel in the required 500ms

| Bandwidth          | 20 MHz / 5260 MHz |                                                                                    |
|--------------------|-------------------|------------------------------------------------------------------------------------|
| Item               | Measured Value(s) | Limit(s)                                                                           |
| Channel Move Time  | 0.4129897         | 10                                                                                 |
| Channel Close Time | 0.0024999         | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period |

| Bandwidth          | 20MHz / 5540 MHz  |                                                                                    |
|--------------------|-------------------|------------------------------------------------------------------------------------|
| Item               | Measured Value(s) | Limit(s)                                                                           |
| Channel Move Time  | 0.4219895         | 10                                                                                 |
| Channel Close Time | 0.002             | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period |

| Bandwidth          | 40MHz / 5270 MHz  |                                                                                    |
|--------------------|-------------------|------------------------------------------------------------------------------------|
| Item               | Measured Value(s) | Limit(s)                                                                           |
| Channel Move Time  | 0.4329892         | 10                                                                                 |
| Channel Close Time | 0.002             | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period |

| Bandwidth          | 40MHz / 5550 MHz  |                                                                                    |
|--------------------|-------------------|------------------------------------------------------------------------------------|
| Item               | Measured Value(s) | Limit(s)                                                                           |
| Channel Move Time  | 0.4169896         | 10                                                                                 |
| Channel Close Time | 0.0024999         | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period |

| Bandwidth          | 80MHz / 5290 MHz  |                                                                                    |
|--------------------|-------------------|------------------------------------------------------------------------------------|
| Item               | Measured Value(s) | Limit(s)                                                                           |
| Channel Move Time  | 0.4749881         | 10                                                                                 |
| Channel Close Time | 0.002             | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period |

| Bandwidth          | 80MHz / 5530 MHz  |                                                                                    |
|--------------------|-------------------|------------------------------------------------------------------------------------|
| Item               | Measured Value(s) | Limit(s)                                                                           |
| Channel Move Time  | 0.4549886         | 10                                                                                 |
| Channel Close Time | 0.0024999         | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period |

## 8.5 NON-OCCUPANCY PERIOD

During the 30 minutes observation time, UUT did not make any transmissions on a channel after a radar signal was detected on that channel by either the Channel Availability Check or the In-Service Monitoring.

### Test Bandwidth / Channel: 20MHz / 5260 MHz



### Test Bandwidth / Channel: 20MHz / 5540 MHz



## Test Bandwidth / Channel: 40MHz / 5270 MHz



## Test Bandwidth / Channel: 40MHz / 5550 MHz



## Test Bandwidth / Channel: 80MHz / 5290 MHz



## Test Bandwidth / Channel: 80MHz / 5530 MHz



End of Test Report