

FCC Part 15.407
Dynamic Frequency Selection
TEST REPORT

For

WOM ASIA CO., LTD

13F., No.192, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei 231, Taiwan

FCC ID: 2AXAMWR315GM2

Report Type:
Original Report

Product Type:
Industrial Secure Cellular Router

Report Producer : Coco Lin

Report Number : RXZ251023079RF06

Report Date : 2026-07-30

Reviewed By: Andy Shih *Andy Shih*

Prepared By: Bay Area Compliance Laboratories Corp.
(New Taipei Laboratory)
70, Lane 169, Sec. 2, Datong Road, Xizhi Dist.,
New Taipei City 22183, Taiwan, R.O.C.
Tel: +886 (2) 2647 6898
Fax: +886 (2) 2647 6895
www.baclcorp.com.tw

Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ251023079	RXZ251023079RF06	2026-07-30	Original Report	Coco Lin

TABLE OF CONTENTS

1	General Information	4
1.1	Product Description for Equipment under Test (EUT).....	4
1.2	Objective.....	5
1.3	Test Methodology	5
1.4	Statement of Compliance.....	5
1.5	Measurement Uncertainty.....	6
1.6	Environmental Conditions	6
1.7	Test Facility	6
2	System Test Configuration	7
2.1	Description of Test Configuration	7
2.2	Equipment Modifications	7
2.3	Support Equipment List and Details.....	7
2.4	External Cable List and Details	7
3	Summary of Test Results.....	8
4	Test Equipment List and Details	9
5	Applicable Standard	10
5.1	DFS Requirement	10
5.2	DFS Measurement System	12
5.3	System Block Diagram	13
5.4	Test Procedure	13
6	Test Results.....	14
6.1	Description of EUT.....	14
6.2	Channel Loading.....	14
6.3	Conducted Test Setup Configuration.....	14
6.4	Radar Waveform Calibration.....	15
7	Channel Move Time and Channel Closing Transmission Time.....	16
7.1	Test Procedure	16
7.2	Test Result	16
8	Non-Occupancy Period.....	21
8.1	Test Procedure	21
8.2	Test Results.....	21

1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	WOM ASIA CO., LTD	
	13F., No.192, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei 231, Taiwan	
Brand(Trade) Name	WoMaster	
Product (Equipment)	Industrial Secure Cellular Router	
Main Model Name	WR315GR-2C-LTE6-GAX-EC	
Operating mode	802.11a/n ht20/n ht40/ac vht20/ac vht40/ac vht80/ac vht160/ax he20/ax he40/ax he80/ax he160	
Frequency Range	5250 MHz ~ 5350 MHz , 5470 MHz ~ 5725 MHz	
Maximum Conducted Average Output Power	5250-5350 MHz: 18.04 dBm 5470-5725 MHz: 18.05 dBm	
Modulation Technique	OFDM / OFDMA	
Antenna Information	Antenna Type: PCB Antenna Input impedance: 50Ω	
	Antenna Gain (dBi)	
	Antenna 0:	Antenna 1:
	Band 2: 4.9	Band 2: 5
	Band 3: 4.9	Band 3: 5
Power Operation (Voltage Range)	24 Vdc	
Received Date	2026/01/13	

*All measurement and test data in this report was gathered from production sample serial number:

RXZ251023079-1 (Assigned by BACL, New Taipei Laboratory).

1.2 Objective

This report is made pursuant to Part 15 Subpart E, of the Federal Communications Commission Rules.

The tests were performed in order to determine compliance with FCC Part 15.407(h) Radar Detection Function of Dynamic Frequency Selection (DFS).

1.3 Test Methodology

FCC CFR 47 Part15.407 (h)

FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

1.4 Statement of Compliance

Decision Rule: No, (The test results do not include MU judgment)

1. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (New Taipei Laboratory).
2. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.
5. Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.5 Measurement Uncertainty

Parameter	Uncertainty
Conducted Power Level	± 3.05 dB
Time Domain	± 0.21 ms
Temperature	± 0.76 °C
Humidity	± 0.41 %

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

1.6 Environmental Conditions

Test Site	Test Date	Temperature (°C)	Relative Humidity (%)	Test Engineer
DFS	2026/07/06	25	48	Sean Chen

1.7 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) to collect test data is located on

☒ 70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 221, Taiwan, R.O.C.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3732) and the FCC designation No.TW3732 under the Mutual Recognition Agreement (MRA) in FCC Test.

2 System Test Configuration

2.1 Description of Test Configuration

The EUT was configured for testing in a normal mode which was provided by the Applicant.

2.2 Equipment Modifications

No modification was made to the EUT.

2.3 Support Equipment List and Details

Description	Manufacturer	Model Number
NB	DELL	E6410
DC Power Supply	KIKUSUI	PMC35-2
AP Router	NETGEAR	RAX36S

AP Router FCC ID: PY318300430

2.4 External Cable List and Details

Description	Manufacturer	Cable length
RJ-45 Cable	BACL	2m

3 Summary of Test Results

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

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

Note: This device does not support “802.11ax Channel Puncturing” function.

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Room					
Signal Analyzer	Rohde & Schwarz	FSV40	101140	2026/2/3	2027/2/3
Vector Signal Generator	Rohde & Schwarz	SMBV100A	261748	2026/2/13	2027/2/13
Cable	UTIFLEX	UFA210A	9432	2025/9/30	2026/9/30
Cable	UTIFLEX	UFA210A	9434	2025/9/30	2026/9/30
Cable	UTIFLEX	UFA210A	9435	2025/9/30	2026/9/30
Attenuator	MCL	BW-S10W5+	605	2026/1/16	2027/1/16
Power Splitter	Mini-Circuits	ZFRSC-183-S+	S F448201614	2026/1/20	2027/1/20
Power Splitter	Mini-Circuits	ZFRSC-183-S+	S F112701513	2026/1/20	2027/1/20

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements

5 Applicable Standard

5.1 DFS Requirement

CFR §47 Part 15.407(h),

FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

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

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

Table 2: Applicability of DFS requirements during normal operation

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

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

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

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

Table 4: DFS Response Requirement Values

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

Table 5 – Short Pulse Radar Test Waveforms

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

Table 6 – Long Pulse Radar Test Waveform

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

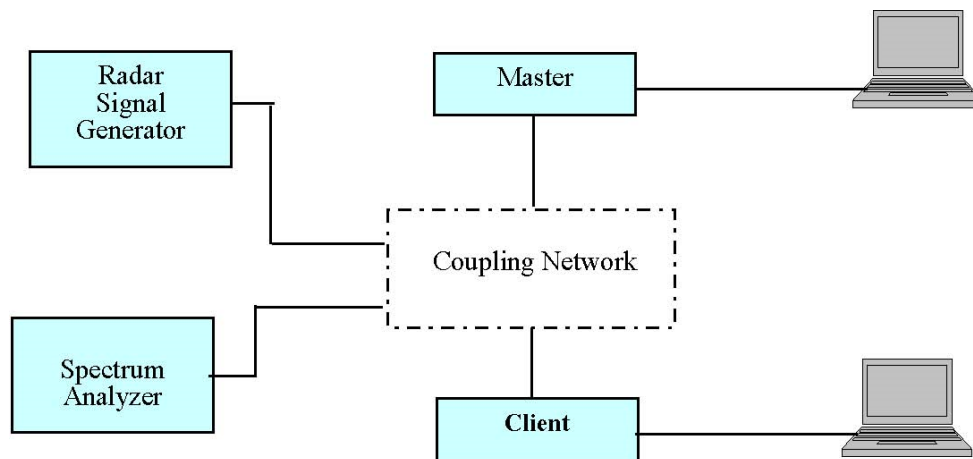
Table 7 – Frequency Hopping Radar Test Waveform

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

5.2 DFS Measurement System

BACL DFS measurement system consists of two subsystems: (1) The radar signal generating subsystem and (2) the traffic monitoring subsystem.

5.3 System Block Diagram



5.4 Test Procedure

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

6 Test Results

6.1 Description of EUT

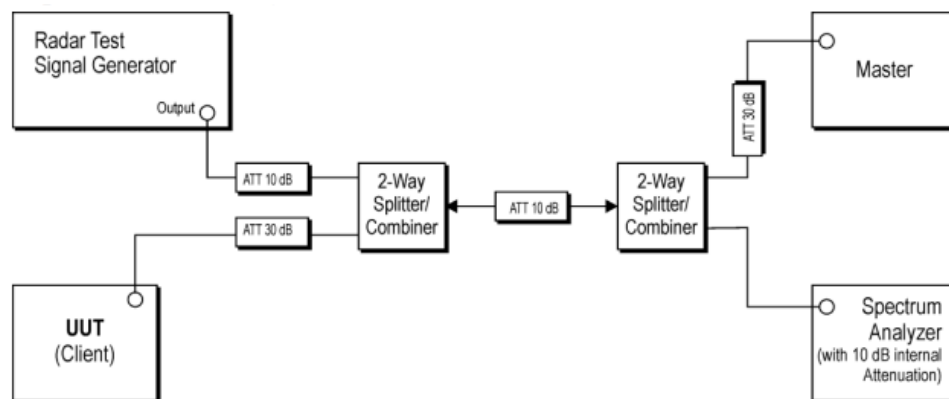
The calibrated radiated DFS detection threshold level is set to -62dBm.

6.2 Channel Loading

WLAN traffic is generated by software “Lan Test20”, software is used by IP and Frame based systems for loading the test channel during the In service compliance testing of the U-NII device.

Data package streamed from the Access Point to the Client using the software “Lan Test20”.

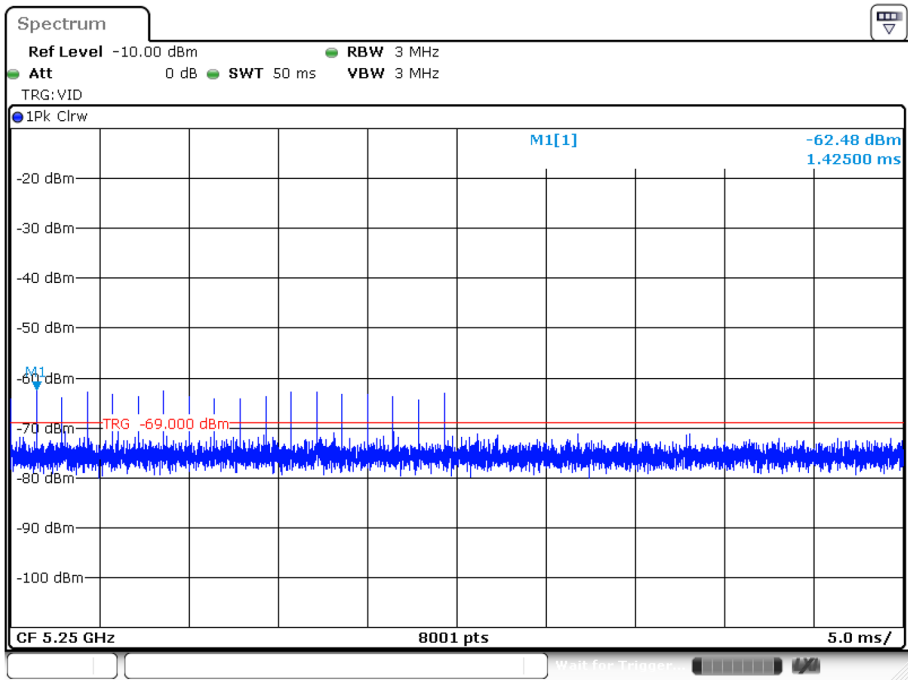
6.3 Conducted Test Setup Configuration



6.4 Radar Waveform Calibration

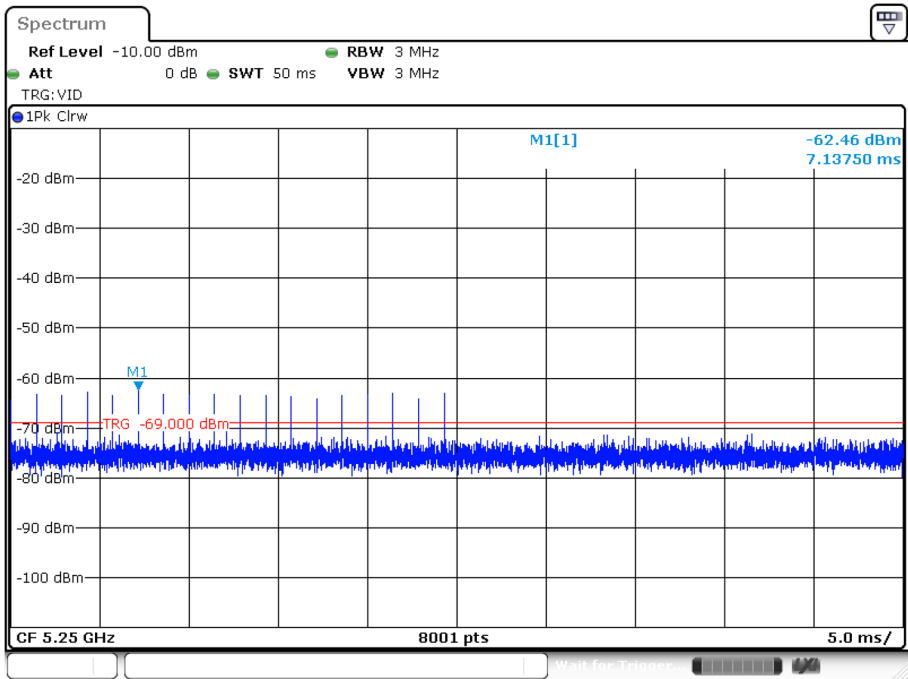
Radar Type 0

5250 MHz



ProjectNo.: RXZ251023079 Tester: Sean
Date: 6 JUL 2026 14:15:20

5570 MHz



ProjectNo.: RXZ251023079 Tester: Sean
Date: 6 JUL 2026 14:16:05

7 Channel Move Time and Channel Closing Transmission Time

7.1 Test Procedure

Perform type 0 short pulse radar waveform. The aggregate channel closing transmission time is calculated as follows:

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

N is the number of spectrum analyzer bins showing a device transmission Dwell Time is the dwell time per bin (i.e. $\text{Dwell Time} = S/B$, S is the sweep time and B is the number of bin, i.e. 10000)

7.2 Test Result

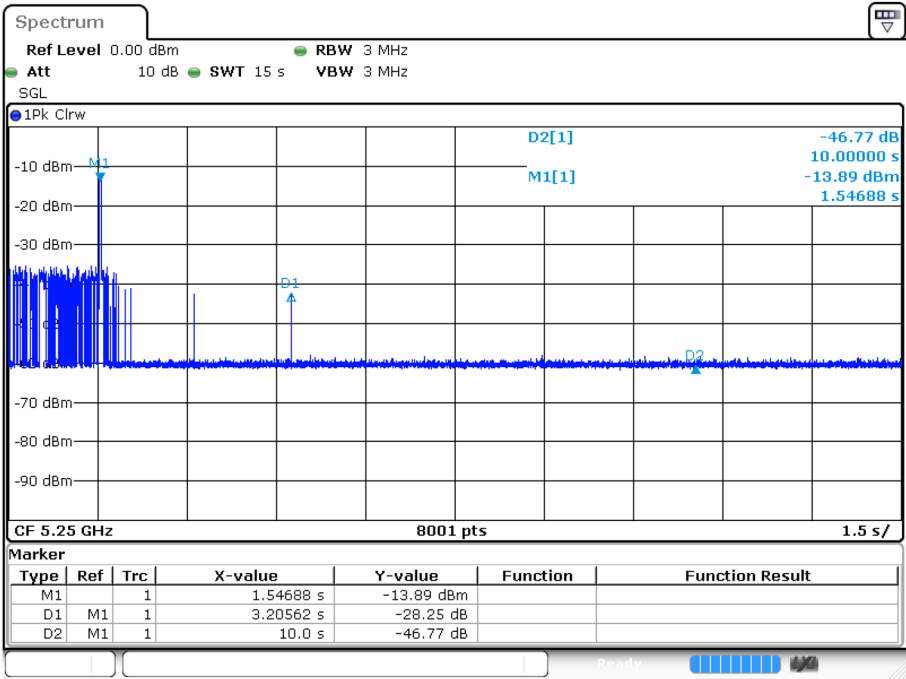
Frequency (MHz)	Bandwidth (MHz)	Radar Type	Results
5250	160	Type 0	Compliant
5570	160	Type 0	Compliant

Please refer to the following tables and plots.

5250 MHz

Type 0 radar channel move time result:

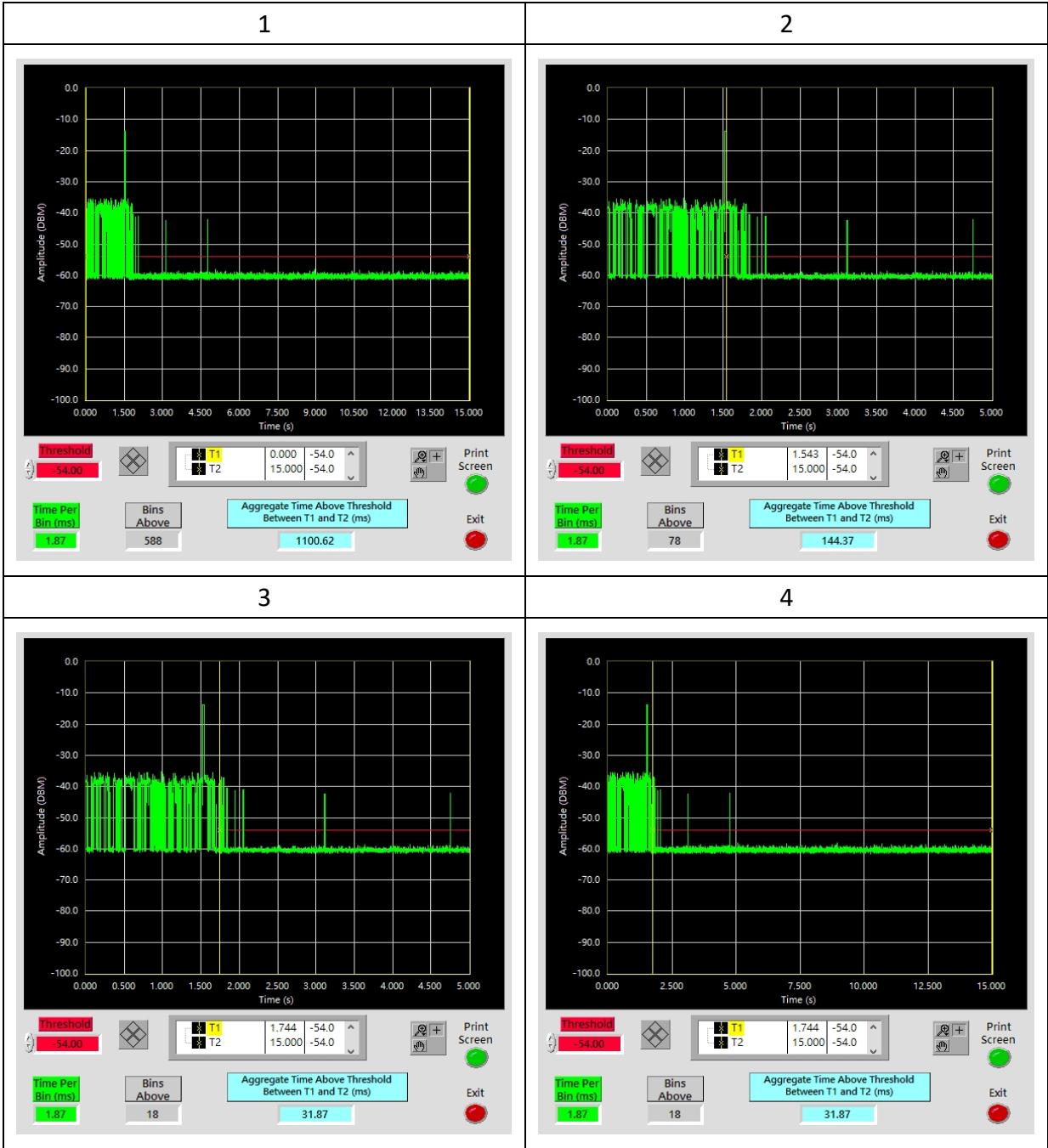
Item	Time (s)	Limit (s)
Channel move time	3.21	10



ProjectNo.:RXZ251023079 Tester:Sean
Date: 6.JUL.2026 16:42:50

Type0 radar channel closing transmission time result:

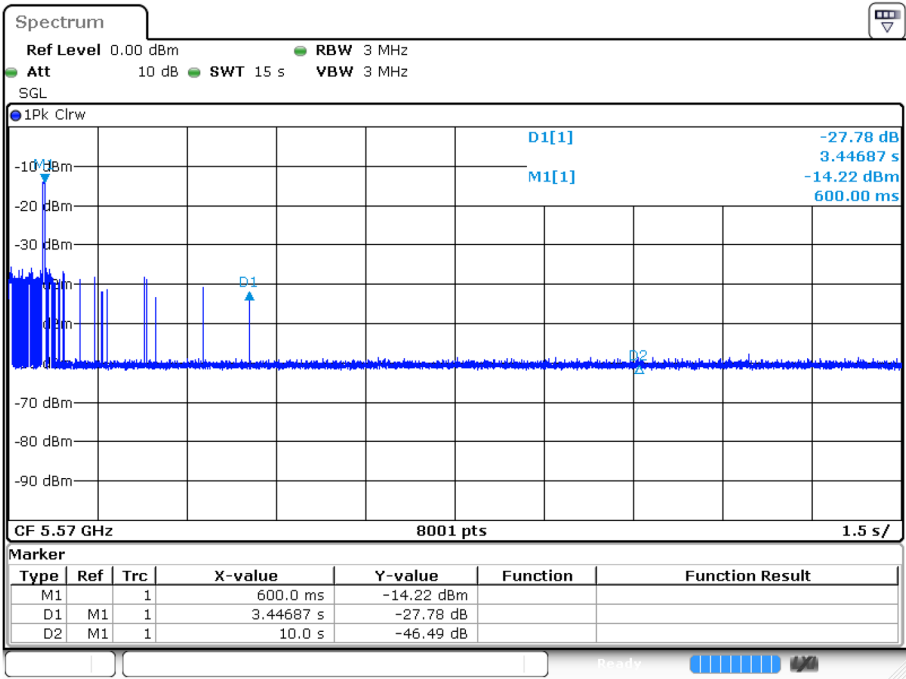
Item	Aggregate Transmission Time After 200ms Delay (ms)	Limit (ms)
Closing Transmission Time	31.87	60



5570 MHz

Type 0 radar channel move time result:

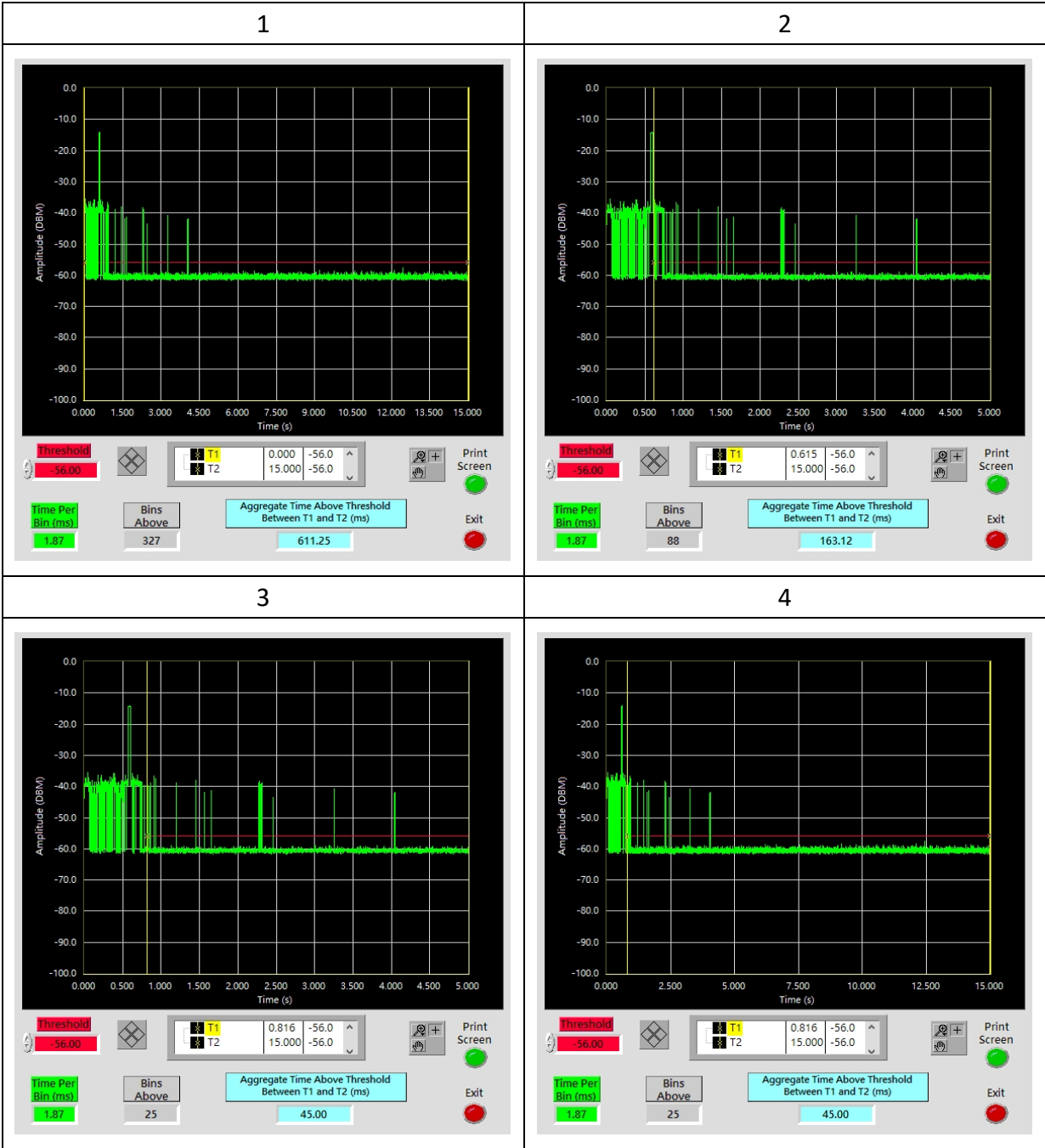
Item	Time (s)	Limit (s)
Channel move time	3.45	10



ProjectNo.:RXZ251023079 Tester:Sean
Date: 6.JUL.2026 15:38:01

Type0 radar channel closing transmission time result:

Item	Aggregate Transmission Time After 200ms Delay (ms)	Limit (ms)
Closing Transmission Time	45.00	60



8 Non-Occupancy Period

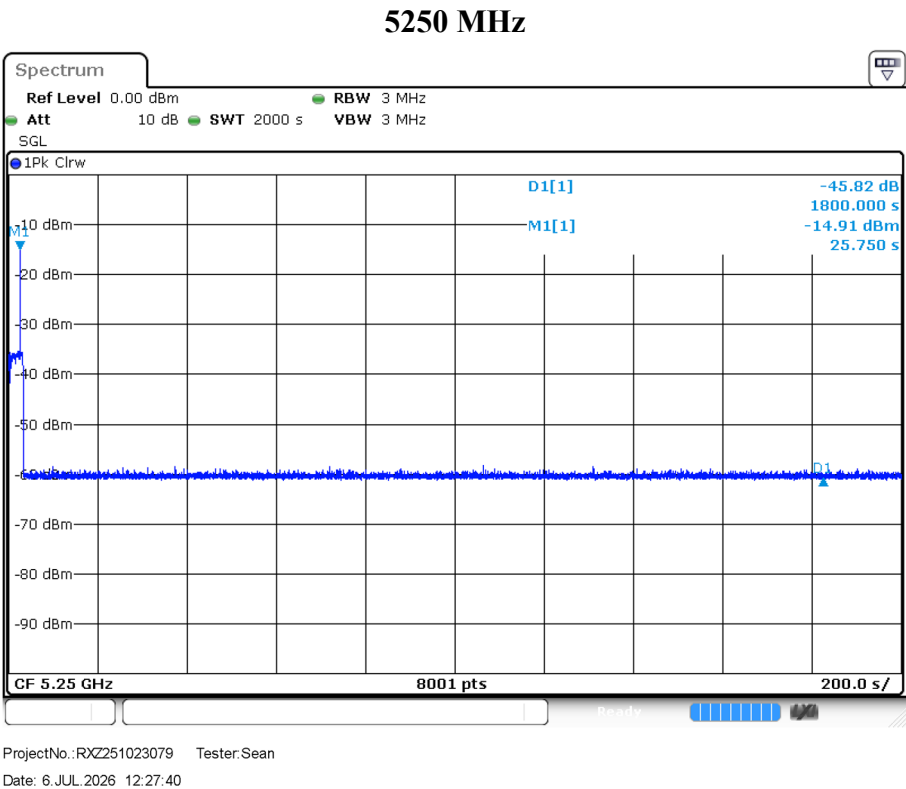
8.1 Test Procedure

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

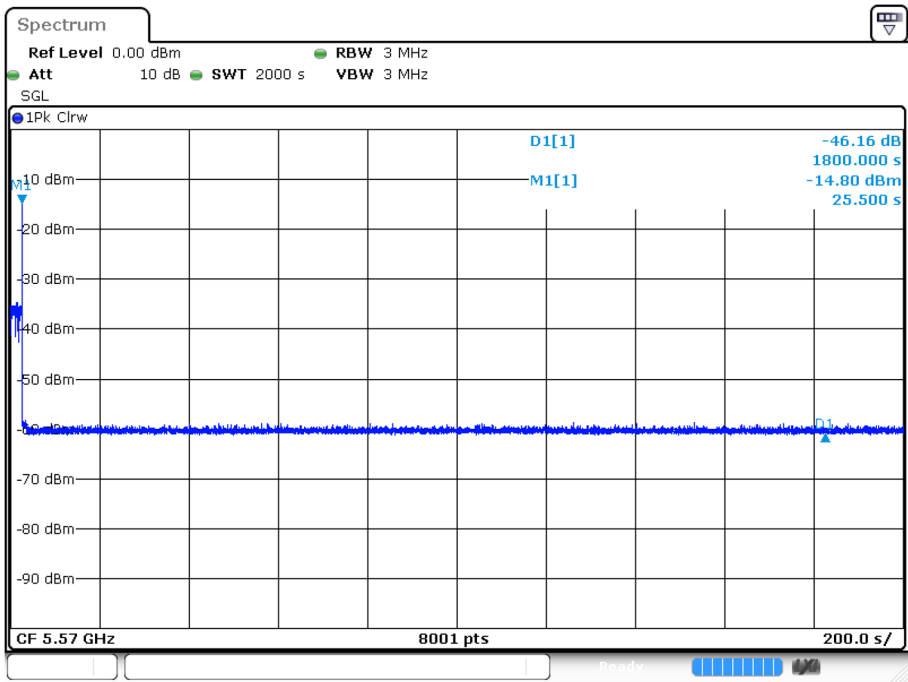
8.2 Test Results

Frequency(MHz)	Bandwidth (MHz)	Spectrum Analyzer Display
5250	160	No transmission within 30 minutes
5570	160	No transmission within 30 minutes

Please refer to the following plots.



5570 MHz



ProjectNo.: RXZ251023079 Tester: Sean
Date: 6 JUL 2026 14:09:48

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