

Report No. : FZ2O0715

1



DFS TEST REPORT

FCC ID	:	TLZ-XM549
Equipment	•	IEEE 802.11 1X1 a/b/g/n/ac/ax Wireless LAN + Bluetooth 5.3 + 802.15.4 Tri-radio 12 x 12 LGA Module
Brand Name	:	AzureWave
Model Name	:	AW-XM549 , AW-XM549-I , AW-XM553 , AW-XM553-I
Applicant	:	AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Manufacturer		AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Standard	:	47 CFR FCC Part 15.407

The product was received on Dec. 16, 2022, and testing was started from Jan. 13, 2023 and completed on Jan. 13, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

TEL : 886-3-656-9065 FAX : 886-3-656-9085 Report Template No.: CB-A12_4 Ver1.1 Page Number: 1 of 31Issued Date: Oct. 12, 2023Report Version: 01

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Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FZ2O0715	01	Initial issue of report	Oct. 12, 2023



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark		
3.3	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Channel Move Time (CMT)	PASS	-		
3.3	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Channel Closing Transmission Time (CCTT)	PASS	-		
3.3	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Non-Occupancy Period (NOP)	PASS	-		
	Note: Since the product is client without radar detection function, only Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period are required to perform.					

Conformity Assessment Condition:

- 1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- 2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Viola Huang



1 General Description

1.1 Information

1.1.1 **RF General Information**

Specification Items	Descript	ion	
Frequency Range	5250 MHz – 5350 MHz 5470 MHz – 5725 MHz		
Power Type	From host system		
Channel Bandwidth	20/40/80		
	Master		
Operating Mode	Client with radar detection		
	Client without radar detection		
Communication Mode	IP Based (Load Based)	Frame Based	
TPC Function	With TPC	Without TPC	
Weather Band (5600~5650MHz)	⊠ With 5600~5650MHz	Without 5600~5650MHz	
Channel Puncturing Function	Supported	Unsupported	
Support RU	🖾 Full RU	Partial RU	
Power-on cycle	NA (No Channel Availability Check Function)		
Firmware Number	SD917718.99.1.p154.15-MX5X1834	12.p7-GPL-(FP99)	
 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation. VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation. HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM 1024QAM modulation. 			

EUT employ a TPC mechanism and TPC have the capability to operate at least 6 dB below highest RF output power.

Note: The above information was declared by manufacturer.



TPC Power Result

Mode	Min Power	Max Power	Min EIRP	Max EIRP
	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5.25-5.35GHz	13.81	19.81	18.97	24.97
5.47-5.725GHz	14.50	20.50	19.66	25.66
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	13.99	19.99	19.15	25.15
5.47-5.725GHz	14.78	20.78	19.94	25.94
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	14.04	20.04	19.20	25.20
5.47-5.725GHz	14.06	20.06	19.22	25.22
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	9.17	15.17	14.33	20.33
5.47-5.725GHz	14.42	20.42	19.58	25.58

<Partial RU>

Mode	Min Power	Max Power	Min EIRP	Max EIRP
	(dBm)	(dBm)	(dBm)	(dBm)
ax20,RU26_20MHz_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	2.45	8.45	7.61	13.61
5.47-5.725GHz	2.22	8.22	7.38	13.38
ax20,RU52_20MHz_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	4.33	10.33	9.49	15.49
5.47-5.725GHz	2.33	8.33	7.49	13.49
ax20,RU106_20MHz_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	4.38	10.38	9.54	15.54
5.47-5.725GHz	2.55	8.55	7.71	13.71
ax40,RU242_40MHz_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	4.43	10.43	9.59	15.59
5.47-5.725GHz	2.81	8.81	7.97	13.97
ax80,RU484_80MHz_Nss1,(MCS0)_1TX	-	-	-	-
5.25-5.35GHz	4.60	10.60	9.76	15.76
5.47-5.725GHz	4.49	10.49	9.65	15.65

Note: The manufacturer declared that TPC is applied to this equipment. The test result of TPC is equal to RF output power minus 6dBm which is recorded as a reference for the manufacturer.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	MAG. LAYERS	MSA-4008-25GC1-A2	PIFA Antenna	I-PEX	Note1
2	1	CEL	0032-02-07-00-001	PIFA Antenna	I-PEX	Noter
Note1:						

A 4	Gain	(dBi)
Ant.	WLAN 2.4GHz/Bluetooth/Thread	WLAN 5GHz
1	2.98	5.16
2	1.30	4.30

Note 2: The above information was declared by manufacturer.

<For WLAN 2.4GHz function>

For IEEE 802.11b/g/n/VHT/ax (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

<For WLAN 5GHz function>

For IEEE 802.11a/n/ac/ax (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

<For Bluetooth function> (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

<For Thread function> (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.



1.1.3 DFS Band Carrier Frequencies

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136,

140, 144.

For 40MHz bandwidth systems, use Channel 54, 62, 102, 110, 118, 126, 134, 142. For 80MHz bandwidth systems, use Channel 58, 106, 122, 138.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
	52	5260 MHz	60	5300 MHz
5250~5350 MHz	54	5270 MHz	62	5310 MHz
Band 2	56	5280 MHz	64	5320 MHz
	58	5290 MHz	-	-
	100	5500 MHz	124	5620 MHz
	102	5510 MHz	126	5630 MHz
	104	5520 MHz	128	5640 MHz
	106	5530 MHz	132	5660 MHz
	108	5540 MHz	134	5670 MHz
5470~5725 MHz Band 3	110	5550 MHz	136	5680 MHz
Danu 3	112	5560 MHz	138	5690 MHz
	116	5580 MHz	140	5700 MHz
	118	5590 MHz	142	5710 MHz
	120	5600 MHz	144	5720 MHz
	122	5610 MHz	-	-



1.1.4 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
AW-XM549	
AW-XM549-I	All the models are identical, the difference model conved as marketing strategy.
AW-XM553	All the models are identical, the difference model served as marketing strategy.
AW-XM553-I	

Note 1: From the above models, model: AW-XM549 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.5 Table for EUT Combination

EUT	Hardware Version	Description
1	01H	The difference between 01H and 02H is the layout of DC-DC power.
2	02H	All RF layouts are the same.

Note1: According to above, there is only EUT 2 were selected to test and record in the report as a result.

Note2: The above information was declared by manufacturer.



1.2 Accessories

N/A

1.3 Support Equipment

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
А	Notebook	Lenovo	L490	N/A	
В	Notebook	Acer	E4730	N/A	
С	WLAN AP	ASUS	RT-AX88U	N/A	

1.4 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15.407
- FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

1.5 Testing Location Information

Testing Location Information			
Test Lab. : Sporton International Inc. Hsinchu Laboratory			
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)		
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085		
	Test site Designation No. TW3787 with FCC.		
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.		

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
DFS	DF01-CB	Bruce Yang	16.7~17.7 / 58~62	Jan. 13, 2023



2 Test Configuration of EUT

2.1 Test Channel Frequencies Configuration

Test Channel Frequencies Configuration	
IEEE Std.	Test Channel Freq. (MHz)
802.11ax (HEW80)	5530 MHz

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests		
Tests Item	Dynamic Frequency Selection (DFS)	
Test Condition	Conducted measurement at transmit chains The EUT shall be configured to operate at the highest transmitter output power setting. If more than one antenna assembly is intended for this power setting, the gain of the antenna assembly with the lowest gain shall be used.	
Modulation Mode	802.11ax (HEW80)	
1	EUT 2	



3 Dynamic Frequency Selection (DFS) Test Result

3.1 General DFS Information

3.1.1 DFS Parameters

Table D.1: DFS requirement values		
Parameter	Value	
Non-occupancy period	Minimum 30 minutes	
Channel Availability Check Time	60 seconds	
Channel Move Time	10 seconds (Note 1).	
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second periods. (Notes 1 and 2).	
U-NII Detection Bandwidth	Minimum 100% of the 99% power bandwidth (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 Channel changes (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
 Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

Table D.2: Interference threshold values		
Value (see note)		
-64 dBm		
-62 dBm		
-64 dBm		
	Value (see note) -64 dBm -62 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 662911D01.



3.1.2 Applicability of DFS Requirements Prior to Use of a Channel

	DFS Operational mode			
Requirement	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	

3.1.3 Applicability of DFS Requirements during Normal Operation

	DFS Operational mode			
Requirement	Master	Client without radar detection	Client with radar detection	
DFS Detection Threshold	Yes	Not required	Yes	
Channel Closing Transmission Time	Yes	Yes	Yes	
Channel Move Time	Yes	Yes	Yes	
U-NII Detection Bandwidth	Yes	Not required	Yes	

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 (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.		



3.1.4 User Access Restrictions

User Access Restrictions
DFS controls (hardware or software) related to radar detection are NOT accessible to the user. Manufacturer statement confirming that information regarding the parameters of the detected Radar Waveforms is not available to the end user.

3.1.5 Channel Loading/Data Streaming

	The data file (MPEG-4) has been transmitting in a streaming mode.
\square	Software to ping the client is permitted to simulate data transfer with random ping intervals.
\boxtimes	Minimum channel loading of approximately 17%.
	Unicast protocol has been used.



3.2 Radar Test Waveform Calibration

3.2.1 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1	See Note 1
1A	1	15 unique PRI in KDB 905462 D02 Table 5a	$\left[(1), (19 \times 10^6) \right]$	60%	15
1B	1	15 unique PRI within 518-3066, Excluding 1A PRI	$Roundup\left\{ \left(\frac{1}{360}\right) \times \left(\frac{19 \times 10^{6}}{PRI}\right) \right\}$	60%	15
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
Aggrega	ate (Radar Type	s 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 1 through 4. If more than 30 waveforms are used for short pulse radar types 1 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. The aggregate is the average of the percentage of successful detections of short pulse radar types 1-4.

3.2.2 Long Pulse Radar Test Waveform

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

Each waveform is defined as follows:

• The transmission period for the Long Pulse Radar test signal is 12 seconds.

• 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.

• 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.

- 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.
- Each pulse has a linear FM 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.

- 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 time between the first and second pulses is chosen independently of the time between the second and third pulses.
- 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 independently.

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (ms)	Minimum Percentage of Successful Detection	Minimum 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 the following algorithm:

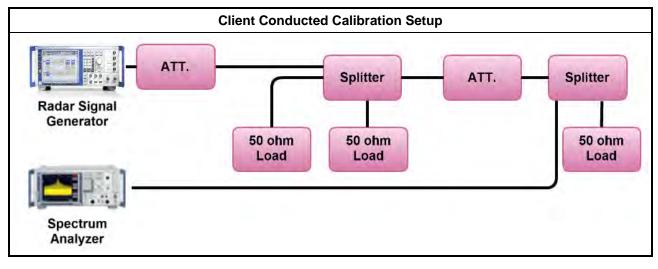
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group.

3.2.4 DFS Threshold Level

			D	OFS Threshold Level
DFS Threshold level:	-63	dBm		at the antenna connector
				in front of the antenna
The Interference Rada taken into account the				bld Level is $-64 dBm + 0 [dBi] + 1 dB = -63 dBm$. That had been and antenna gain.

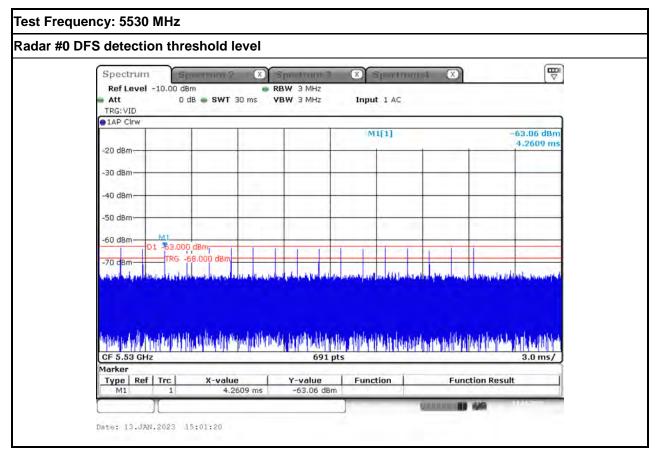


3.2.5 Calibration Setup





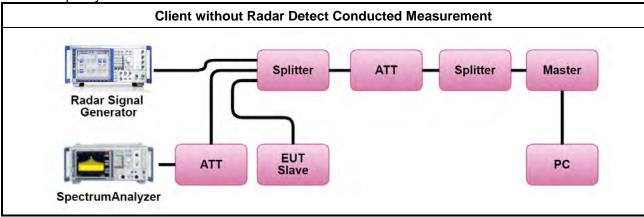
3.2.6 Radar Waveform calibration Plot





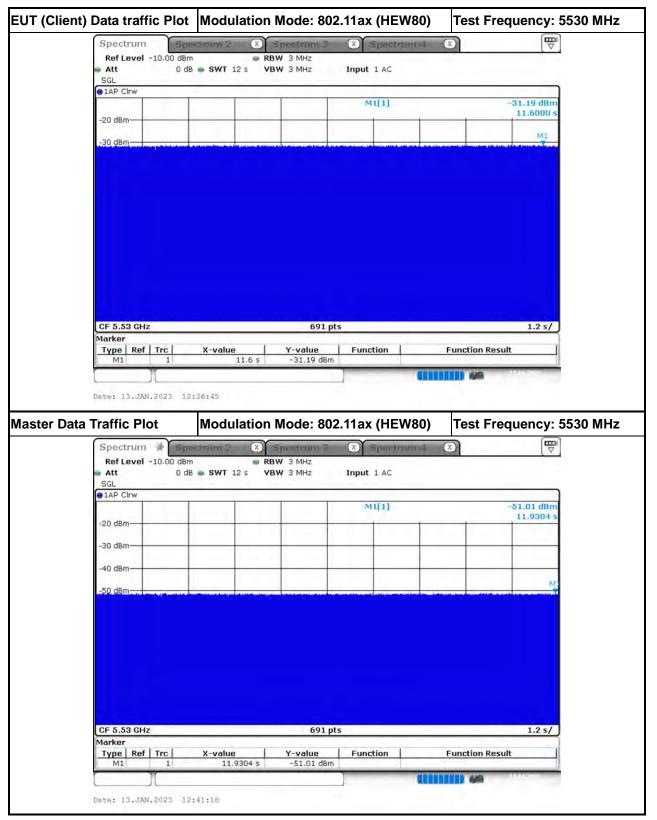
3.2.7 Test Setup

A spectrum analyzer is used as a monitor to verify that the EUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the detection and Channel move.



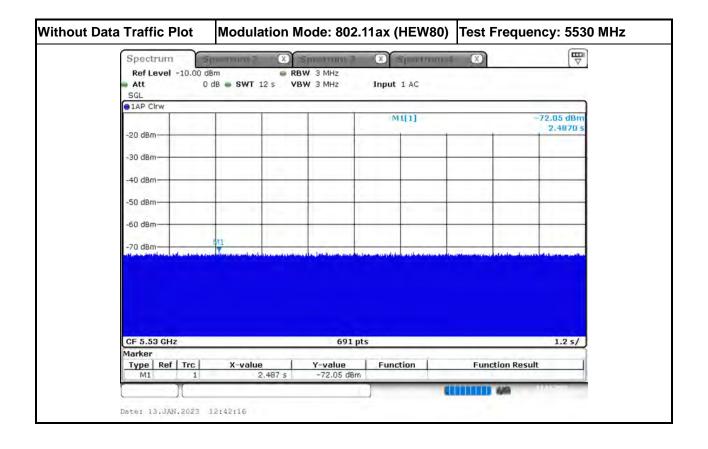


3.2.8 Data traffic Plot



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3.3 In-service Monitoring

3.3.1 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

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

	Test Method
\boxtimes	Verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time limits.
	Verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. One 12 sec plot needs to be reported for the Short Pulse Radar Types 0. And zoom-in a 60 ms plot verified channel closing time for the aggregate transmission time starting from 200ms after the end of the radar signal to the completion of the channel move.
	Verified during In-Service Monitoring; Non-Occupancy Period. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Non-Occupancy Period). Compare the Non-Occupancy Period limits.

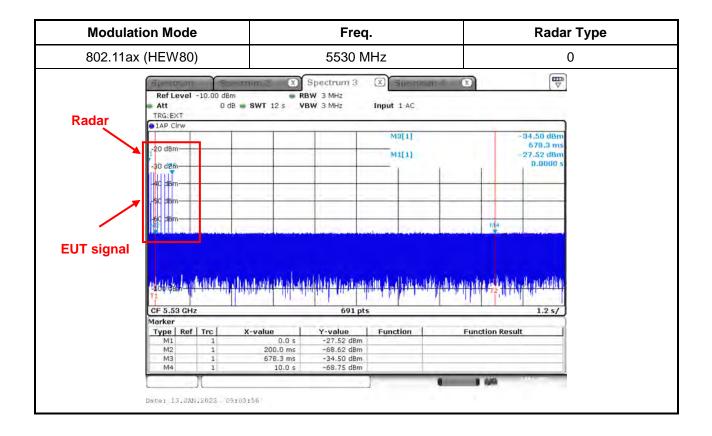


3.3.4 Test Result of Channel Move Time

Modulation Mode: 802.11ax (HEW80)

Decemeter	Test Result	Limit
Parameter	Туре 0	Limit
Test Channel (MHz)	5530 MHz	-
Channel Move Time (sec.)	0.678	< 10s







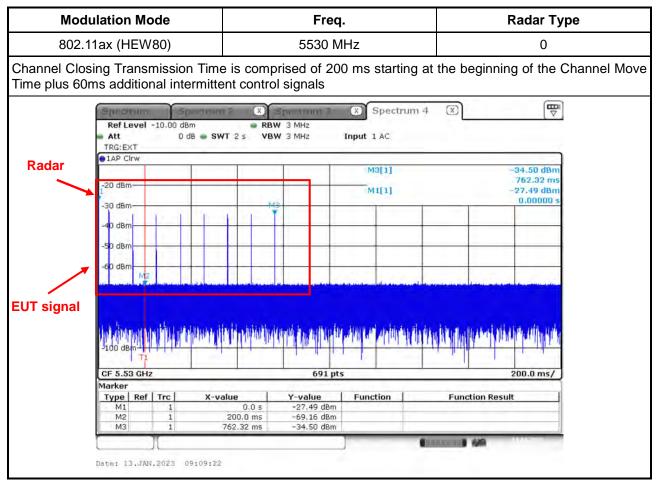
3.3.5 Test Result of Channel Closing Transmission Time

Modulation Mode: 802.11ax (HEW80)

Devemator	Test Result	1 :
Parameter	Туре 0	Limit
Test Channel (MHz)	5530 MHz	-
Channel Closing Transmission Time (ms) (Note)	20.290	< 60ms

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





Dwell is the dwell time per spectrum analyzer sampling bin.

S is the sweep time

B is the number of spectrum analyzer sampling bins

C is the intermittent control signals of Channel Closing Transmission Time

N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission

Dwell (2.9 ms)= S (2000 ms) / B (690)

C (20.290 ms) = N (7) X Dwell (2.9 ms)



3.3.6 Test Result of Non-Occupancy Period

Modulation Mode: 802.11ax (HEW80)

Devemator	Test Result	I inc 14
Parameter	Туре 0	Limit
Test Channel (MHz)	5530 MHz	-
Non-Occupancy Period (min.)	≧30	\geq 30 min



802.11ax (HEW80) 5530 MHz During the 30 minutes observation time, UUT did not make any transmissions on a channel after a signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Signal was detected on the channel availability of the service Monitor Signal was detected on the channel was detected on the service Monitor Signal was detected on the service was detected on the service Monitor Signal was detected on		Modul	ation	Mode		Freq.				
CF 5.53 GHz 691 pts 200.0 s/ Marker Type Ref I Trc X-value Y-value Function Function Result		802.11ax (HEW80)				5530 MHz				
During the 30 minutes observation time, UUT did not make any transmissions on a channel after a signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor Spectrum 2 Processor Procesor Processor Processor Processor Procesor Pro	lon-Occupa	ancy Perio	d							
Ref Level -10.00 dBm RBW 3 MHz Input 1 AC SGL Input 1 AC GL Input 1 AC <th>During the 3</th> <th>0 minutes</th> <th>obser</th> <th>vation time, UI hannel by eithe</th> <th>JT did not r er the Chann</th> <th>nake any tr iel Availabili</th> <th>ansmissions ty Check or th</th> <th>on a channel af ne In-Service Mo</th> <th>ter a ra</th>	During the 3	0 minutes	obser	vation time, UI hannel by eithe	JT did not r er the Chann	nake any tr iel Availabili	ansmissions ty Check or th	on a channel af ne In-Service Mo	ter a ra	
Att 0 dB SWT 2000 s VBW 3 MHz Input 1 AC SGL Imput 1 AC Imput 1 AC IAP Cirw M1[1] -25.44 dBm -20 dBm 100.00 s 100.00 s -30 dBm -0 -0 -0 -30 dBm -0 -0 -0 -0 -0 -30 dBm -0 -0 -0 -0 -0 -0 -30 dBm -0 -0 -0 -0 -0 -0 -0 -30 dBm -0		Spectrum	s	pectrum 2 🛛 🕅	Smannin 3	(X) Sportm	m 4 🛛 🕅			
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Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101026	9kHz~40GHz	Nov. 25, 2022	Nov. 24, 2023	Conducted (DF01-CB)
Vector Signal generator	R&S	SMU200A	102782	100kHz-6GHz	Sep. 04, 2022	Sep. 03, 2023	Conducted (DF01-CB)
RF Power Divider	MTJ	2 Way	DF01-DV-03	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF01-CB)
RF Power Divider	MTJ	2 Way	DF01-DV-02	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF01-CB)
RF Power Divider	MTJ	4 Way	DF01-DV-01	1GHz ~ 6GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-52	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-53	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-54	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-56	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF01-CB)

4 Test Equipment and Calibration Data

Note: Calibration Interval of instruments listed above is one year.



5 Measurement Uncertainty

Test Items	Uncertainty	Remark
Conducted Emission	2.5 dB	Confidence levels of 95%