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Test report No:
24C0528R-RF-US-P09V02

FCC TEST REPORT

Product Name	Xiaomi TV Box S
Trademark	XIAOMI;Xiaomi;
Model and /or type reference	MDZ-32-AA
FCC ID	2AIMR-MDZ32AA
IC	25940-MDZ32AA
Applicant´s name / address	Beijing Xiaomi Electronics Co., Ltd Room 802, Floor 8, Building 5, No.15 KeChuang 10th Road, Beijing Economic and Technological Development Zone, Beijing City, China
Test method requested, standard	47 CFR FCC Part 15 (Section 15.407) RSS-Gen Issue 5 RSS-247 Issue 3
Verdict Summary	IN COMPLIANCE
Tested By (name / position & signature)	Tim Cao / Project Manager
Approved by (name / position & signature)	Frank He / Technical Manager
Date of issue	2025-03-19
Report Version	V1.0
Report template No	Template_Part 15E-RF-V1.0

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COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.
In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

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The results presented in this Test Report apply only to the particular item under test established in this document.

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GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Dec. 16, 2024
Date (start test)	Dec. 16, 2024
Date (finish test)	Feb. 17, 2025

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
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ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	:	Equipment Under Test
QP	:	Quasi-Peak
CAV	:	CISPR Average
AV	:	Average
CDN	:	Coupling Decoupling Network
SAC	:	Semi-Anechoic Chamber
OATS	:	Open Area Test Site
BW	:	Bandwidth
AM	:	Amplitude Modulation
PM	:	Pulse Modulation
HCP	:	Horizontal Coupling Plane
VCP	:	Vertical Coupling Plane
U_N	:	Nominal voltage
*T*x	:	Transmitter
*R*x	:	Receiver
N/A	:	Not Applicable
N/M	:	Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
24C0528R-RF-US-P09V02	V1.0	Initial issue of report.	2025-03-19

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with 47 CFR FCC Part 15 (Section 15.407 Clauses (h)).
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:

- Chapter 1.1 General Description of the Item(s);
- Chapter 1.2 Antenna Informaion.
- Chapter 1.3 Channel List.
- Chapter 1.4 Data Rate.

USED EQUIPMENT

Dynamic Frequency Selection (DFS) / TR-8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Versiom	Software version
Wireless Connectivity Tester	R&S	CMW 270	102593	2024.05.15	2025.05.14	V 4.0.60	N/A
Coaxial Cable	N/A	N/A	2477	2024.06.11	2025.06.10	N/A	N/A
Coaxial Cable	N/A	N/A	2478	2024.06.11	2025.06.10	N/A	N/A
High and low temperature and fast temperature change test box	ASTUOD	ASTD-FBT-225K	N/A	2024.04.21	2025.04.20	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-1909	THM-032	2024.05.17	2025.05.16	N/A	N/A
Test system							
Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Versiom	Software version
MAX Signal Analyzer	Keysight	N9010A	MY48030494	2024.10.26	2025.10.25	A.14.03	N/A
RF Control Unit	Tonscend	JS0806-2	22G8060594	2025.01.26	2026.01.25	N/A	N/A
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY61252529	2024.05.12	2025.05.11	B.01.96	N/A
Frequency extender for EXG or MXG	Keysight	N5182BX07	MY59362500	2024.05.12	2025.05.11	N/A	N/A
EXG-B MW Analog Signal Generator	Keysight	N5173B	MY61252566	2024.07.06	2025.07.05	B.01.95	N/A
Test Software	Tonscend	TS1120	JS1120-3	N/A	N/A	N/A	V3.0.22

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document.The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Test item	Uncertainty
Time	± 1 ms
RF Antenna Port Conducted Emission	± 1.13 dB
Occupied Bandwidth	± 279 Hz
Power Spectral Density	± 1.13 dB
Frequency Stability	± 100 Hz

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Product Name ..... :	Xiaomi TV Box S
Model No. ..... :	MDZ-32-AA
Trademark. ..... :	XIAOMI;Xiaomi; xiaomi
FCC ID..... :	2AIMR-MDZ32AA
IC ..... :	25940-MDZ32AA
Hardware Version..... :	DKTB-OB1A-905X5M-AD
Software Version ..... :	V816.0.25.2.10.UZFAABX
Manufacturer ..... :	Beijing Xiaomi Electronics Co., Ltd
Manufacturer Address ..... :	Room 802, Floor 8, Building 5, No.15 KeChuang 10th Road, Beijing Economic and Technological Development Zone, Beijing City, China
Factory..... :	Nanchang Qinsheng Electronic Technology CO.,LTD
Factory address..... :	No.638,Hangkongcheng Avenue,Nanchang Hi-tech Development Zone,Nanchang City, Jiangxi Province
Operating temperature ..... :	0 ~ +40 ℃

Wireless Card ..... :	K265B-UU
Wireless specifiction..... :	802.11a / n / ac / ax
Frequency Range..... :	U-NII-1: 5150 MHz to 5250 MHz
	U-NII-2A: 5250 MHz to 5350 MHz
	U-NII-2C: 5470 MHz to 5725 MHz
	U-NII-3: 5725 MHz to 5850 MHz
Channel Bandwidth ..... :	802.11a 20 MHz 802.11n 20 MHz, 40 MHz 802.11ac 20 MHz, 40 MHz, 80 MHz 802.11ax 20 MHz, 40 MHz, 80 MHz
Modulation technology ..... :	OFDM / OFDMA
Product Type ..... :	Mobile Client For FCC
Type of Modulation & Data Rate .... :	Refer to Clause 1.4
Number of channels ..... :	Refer to Clause 1.3

Rated power supply..... :	Voltage and Frequency	
	☐	AC: 220 - 240 V, 50/60 Hz
	☒	AC: 100 - 240 V, 50/60 Hz 0.3A
	☒	DC: 5.2 Vdc, 2.1 A
	☐	Battery:
	☒	Adapter:
Adapter model No ..... :	AD-0100520210US-1	

INPUT ..... :	100 - 240 V, 50/60 Hz 0.3 A	
OUTPUT ..... :	5.2 V, 2.1 A	
Mounting position ..... :	☒	Tabletop equipment
	☐	Wall mounted equipment
	☐	Floor standing equipment
	☐	Hand-held/Portable equipment
	☐	Other:

1.2 Antenna Information

Antenna Delivery .....:	☒	1TX + 1RX			
	☒	2TX + 2RX			
	☐	Others:……			
Antenna technology.....:	☒	SISO			
	☒	MIMO	☒	CDD	
			☐	Beam-forming	
Antenna Type .....:	☐	External	☐	Dipole	
			☐	Sectorized	
	☒	Internal	☐	Ceramic Chip	
			☐	PIFA	
			☒	PCB	
			☐	Others……..	

Antenna Gain.....:	Wireless specification	Frequency range (MHz)	Gain (dBi)	
			Main	Aux
	Wi-Fi 5.2GHz	5180~5240	2.47	2.13
	Wi-Fi 5.3GHz	5260~5320	2.54	2.70
	Wi-Fi 5.6GHz	5500~5700	2.79	2.76
	Wi-Fi 5.8GHz	5745~5825	2.45	2.18

1.3 Channel List

U-NII-1/2A/2C/3:

802.11a/n/ac/ax(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
52	5260 MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500 MHz	104	5520 MHz	108	5540 MHz	112	5550 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz	144	5720 MHz
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	N/A	N/A	N/A	N/A	N/A	N/A
802.11n/ac/ax(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz	62	5310 MHz
102	5510 MHz	110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	142	5710 MHz	151	5755 MHz	159	5795 MHz
802.11ac/ax(80MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530MHz	122	5610 MHz
138	5690 MHz	155	5775 MHz	N/A	N/A	N/A	N/A
802.11ac/ax(160MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250 MHz	114	5570 MHz	N/A	N/A	N/A	N/A

1.4 Data Rate

IEEE 802.11a/n

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)				
		802.11a	20MHz Bandwidth		40MHz Bandwidth	
			800ns GI	400ns GI	800ns GI	400ns GI
0	1	6	6.5	7.2	13.5	15.0
1	1	9	13.0	14.4	27.0	30.0
2	1	12	19.5	21.7	40.5	45.0
3	1	18	26.0	28.9	54.0	60.0
4	1	24	39.0	43.3	81.0	90.0
5	1	36	52.0	57.8	108.0	120.0
6	1	48	58.5	65.0	121.5	135.0
7	1	54	65.0	72.2	135.0	150.0
8	2	---	13.0	14.4	27.0	30.0
9	2	---	26.0	28.9	54.0	60.0
10	2	---	39.0	43.3	81.0	90.0
11	2	---	52.0	57.8	108.0	120.0
12	2	---	78.0	86.7	162.0	180.0
13	2	---	104.0	115.6	216.0	240.0
14	2	---	117.0	130.0	243.0	270.0
15	2	---	130.0	144.0	270.0	300.0

Note1: The blue form is the maximum power data rate.

IEEE 802.11ac/ax

Spatial streames	MCS Index	Modulation	R	Data Rate(Mb/s)								
				800ns GI			1600ns GI			3200ns GI		
				20MHz	40MHz	80MHz	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz
1	0	BPSK	1/2	8.6	17.2	36	8.1	16.3	34	7.3	14.6	30.6
1	1	QPSK	1/2	17.2	34.4	72.1	16.3	32.5	68.1	14.6	29.3	61.3
1	2	QPSK	3/4	25.8	51.6	108.1	24.4	48.8	102.1	21.9	43.9	91.9
1	3	16-QAM	1/2	34.4	68.8	144.1	32.5	65	136.1	29.3	58.5	122.5
1	4	16-QAM	3/4	51.6	103.2	216.2	48.8	97.5	204.2	43.9	87.8	183.8
1	5	64-QAM	2/3	68.8	137.6	288.2	65	130	272.2	58.5	117	245
1	6	64-QAM	3/4	77.4	154.9	324.3	73.1	146.3	306.3	65.8	131.6	275.6
1	7	64-QAM	5/6	86	172.1	360.3	81.3	162.5	340.3	73.1	146.3	306.3
1	8	256QAM	3/4	103.2	206.5	432.4	97.5	195	408.3	87.8	175.5	367.5
1	9	256QAM	5/6	114.7	229.4	480.4	108.3	216.7	453.7	97.5	195	408.3
1	10	1024QAM	3/4	129	258.1	540.4	121.9	243.8	510.4	109.7	219.4	459.4
1	11	1024QAM	5/6	143.4	286.8	600.5	135.4	270.8	567.1	121.9	243.8	510.4
2	0	BPSK	1/2	17.2	34.4	72	16.2	32.6	68	14.6	29.2	61.2
2	1	QPSK	1/2	34.4	68.8	144.2	32.6	65	136.2	29.2	58.6	122.6
2	2	QPSK	3/4	51.6	103.2	216.2	48.8	97.6	204.2	43.8	87.8	183.8
2	3	16-QAM	1/2	68.8	137.6	288.2	65	130	272.2	58.6	117	245
2	4	16-QAM	3/4	103.2	206.4	432.4	97.6	195	408.4	87.8	175.6	367.6
2	5	64-QAM	2/3	137.6	275.2	576.4	130	260	544.4	117	234	490
2	6	64-QAM	3/4	154.8	309.8	648.6	146.2	292.6	612.6	131.6	263.2	551.2
2	7	64-QAM	5/6	172	344.2	720.6	162.6	325	680.6	146.2	292.6	612.6
2	8	256QAM	3/4	206.4	413	864.8	195	390	816.6	175.6	351	735
2	9	256QAM	5/6	229.4	458.8	960.8	216.6	433.4	907.4	195	390	816.6
2	10	1024QAM	3/4	258	516.2	1080.8	243.8	487.6	1020.8	219.4	438.8	918.8
2	11	1024QAM	5/6	286.8	573.6	1201	270.8	541.6	1134.2	243.8	487.6	1020.8

Note 1: We have evaluated low/mid/high data rate, the blue font is the highest power data rate.
Note 2: The general description of the Item(s), antenna information, data rate, channel list and equipment categories in clause 1 are provided and confirmed by the client.

1.5 Test Facility

USA	**:**	**FCC Designation Number: CN1199**
IC	**:**	**ISED Designation Number: CN0040**

2 UNII DEVICE DESCRIPTION

The UUT operates in the following band:
1. 5250-5350 MHz
2. 5470-5725 MHz, 5470-5600 MHz

The UUT is a Client Device that does not have radar detection capability and ad-hoc function. The highest gain antenna assembly utilized with the EUT has a maximum gain refer to clause 1.2. The 50-ohm Tx/Rx antenna port is connected to the test system to perform conducted tests. TPC is not required since the maximum EIRP is less than 500mW (27dBm).

The UUT utilizes 802.11a/n/ac/ax IP based architecture. Three nominal channel bandwidths, 20 MHz, 40MHz and 80MHz are implemented.

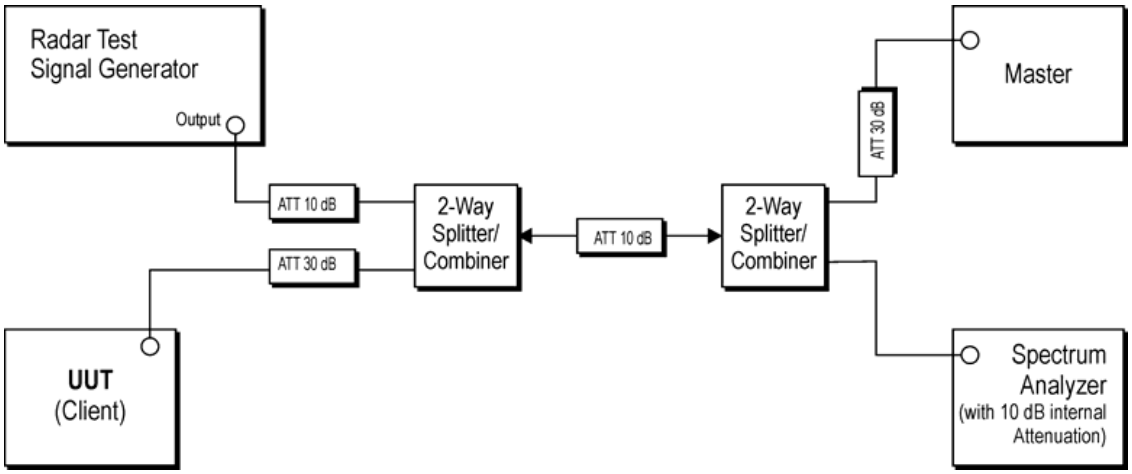
The master device is an ASUS 802.11a/b/g/n/ac/ax Access Point. The ASUS Access Point FCC ID: MSQ-RTAXHP00

The UUT is a client device without radar detection therefore the interference threshold level is not required.

Statement: Information regarding the parameters of the detected Radar Waveforms is not available to the end user.

3 TEST DESCRIPTION

3.1 Test Setup



DFS Set-up Photo: Slave and Spectrum Analyzer

3.2 Limits

According to §15.407(h)&RSS-247, 905462 D02 UNII DFS Compliance Procedures New Rules v01, 905462 D03 UNII Clients Without Radar Detection New Rules v01r02 and FCC 14-30 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	**Not Required**	Yes
DFS Detection Threshold	Yes	**Not Required**	Yes
Channel Availability Check Time	Yes	**Not Required**	Not Required
U-NII Detection Bandwidth	Yes	**Not Required**	Yes

Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master or Client (with radar detection)	Client (without radar detection)
DFS Detection Threshold	Yes	**Not Required**
Channel Closing Transmission Time	Yes	**Yes**
Channel Move Time	Yes	**Yes**
U-NII Detection Bandwidth	Yes	**Not required**

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client (without radar detection)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	**Not required**
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	**Test using the widest BW mode available for the link**
All other tests	Any single BW mode	**Not required**
Note: Frequencies selected for statistical performance check (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 all 20 MHz channel blocks and a null frequencies between the bonded 20 MHz channel blocks.		

DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (see note)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-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 662911 D01.	

DFS Response requirement values

Parameter	Value
Non-Occupancy Period	Minimum 30 minutes
Channel Availability Check Time	60 Seconds
Channel Move Time	10 Seconds (See Note1)
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. 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.	

Short Pulse Radar Test Waveforms

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{PRI_{\mu sec}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 usec is selected, the number of

pulses would be = Roundup $\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{3066}\right)\right\}$ = Roundup{17.2} = 18.

Table 5a - Pulse Repetition Intervals Values for Test A

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355	738
13	1319.3	758
14	1285.3	778
15	1253.1	798
16	1222.5	818
17	1193.3	838
18	1165.6	858
19	1139	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066

The aggregate is the average of the percentage of successful detections of Short Pulse Radar Types 1-4.

Long Pulse Radar Test Signal

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

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the long pulse radar test signal. If more than 30 waveforms are used for the long pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms.

Frequency Hopping Radar Test Signal

Radar Waveform	Pulse Width (μsec)	PRI (μsec)	Hopping Sequence Length (msec)	Pulses Per Hop	Hopping Rate (kHz)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	300	9	0.333	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. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

3.3 Client Device requreiment

a) A Client Device will not transmit before having received appropriate control signals from a Master Device.

b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.

c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.

d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.

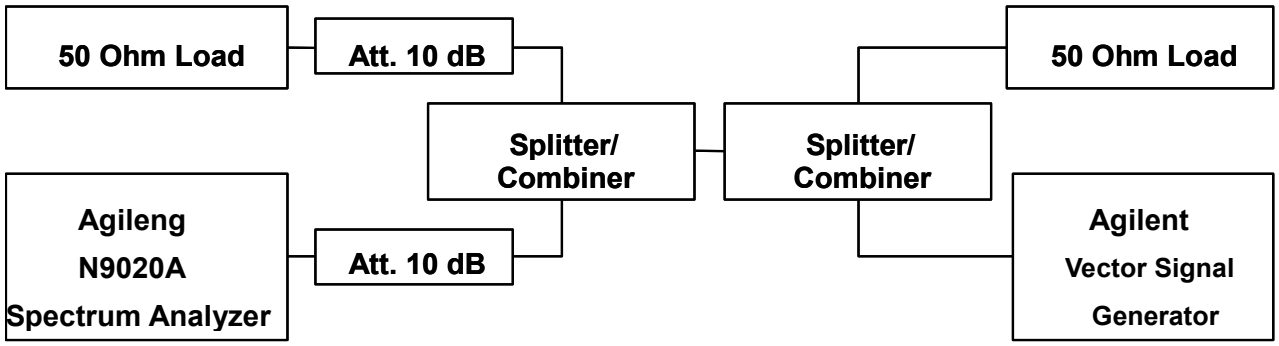
e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

3.4 Radar Waveform Calibration

The following equipment setup was used to calibrate the conducted radar waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were replace 50ohm terminal from master and client device and no transmissions by either the master or client device. The spectrum analyzer was switched to the zero span (time domain) at the frequency of the radar waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3MHz and 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was -61dBm due to the interference threshold level is not required.

Conducted Calibration Setup

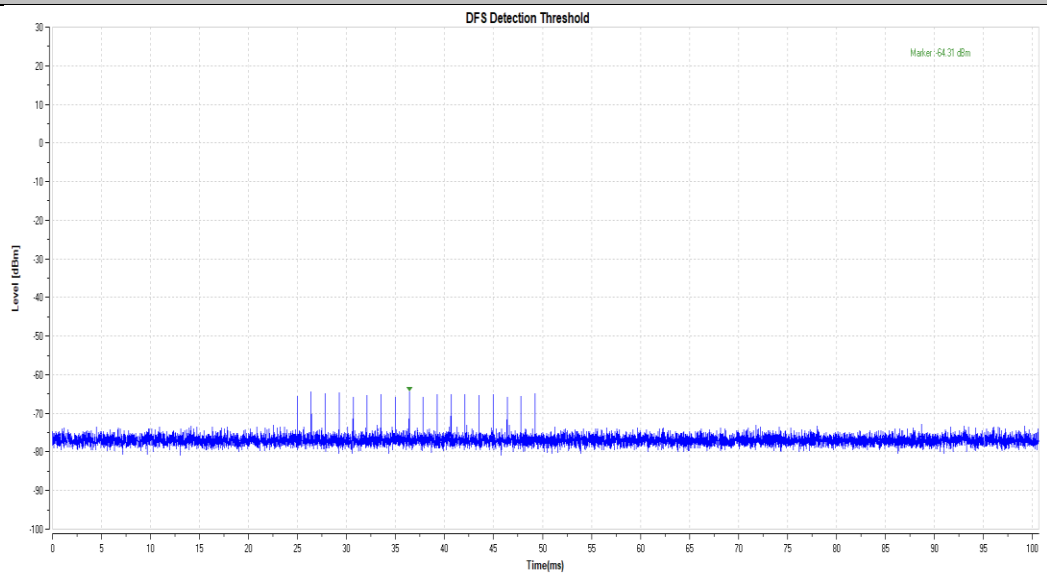


3.5 Radar Waveform Calibration Result

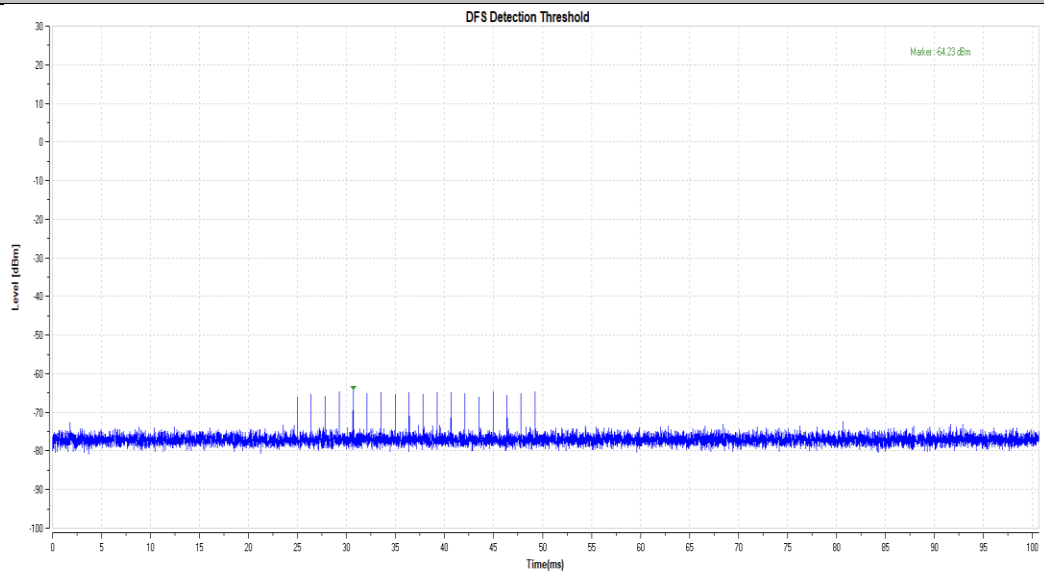
TestMode	Frequency[dbm]	Radar Type	Result	Limit[dbm]	Verdict
11AC80SISO	5290	Type0	-64.31	-64.00	PASS
	5530	Type0	-64.23	-64.00	PASS

Test Graphs

11AC80SISO_5290_Type0



11AC80SISO_5530_Type0



4 CHANNEL MOVE TIME ,CHANNEL CLOSING TRANSMISSION TIME AND NON-OCCUPANCY PERIOD

4.1 Test Procedure

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time and Channel Move Time.

The steps below define the procedure to determine the above mentioned parameters when a radar burst with a level -61dBm is generated on the operating channel of the U-NII device.

A U-NII device operating as a Client device will associate with the Master device at 5500MHz.

During the in-service monitoring detection probability and channel moving tests the system was configured with a streaming video file from the master device (sourced by the PC connected to the master device via an Ethernet interface) to the client device. The streamed file was the “FCC” test file and the client device was using Media Player Classic as required by FCC Part 15 Subpart E.

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 spectrum analyzer during the observation time (Channel Move Time). Compare the channel move time and channel closing transmission time results to the limits defined in the DFS Response requirement values table.

The client and DFS-certified master device are associated, and a movie can be streamed as specified in the DFS Order for a non-occupancy period test

The test frequency has been monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

4.2 Test Requirement

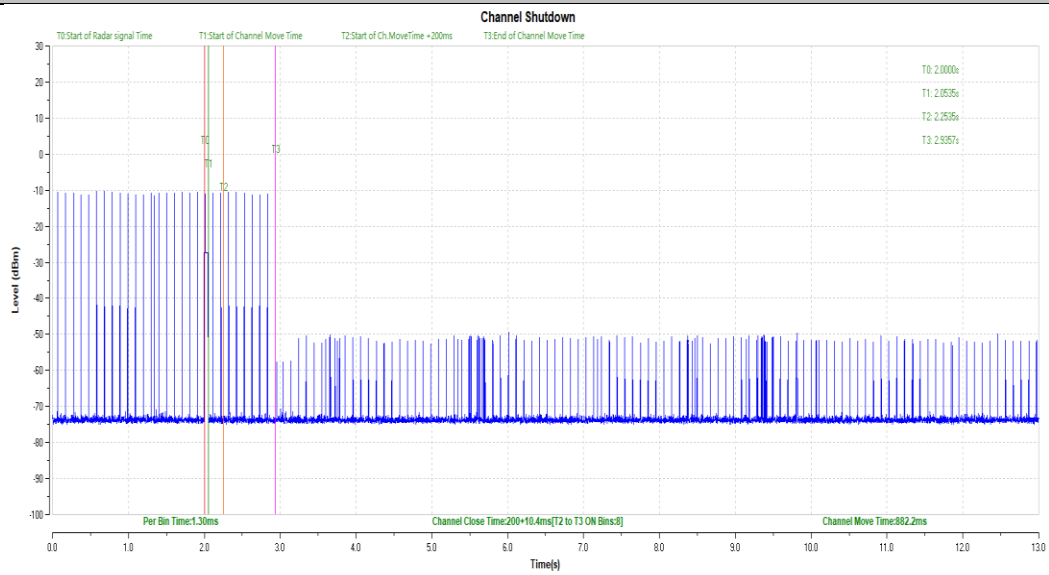
Parameter	Value
Channel Move Time	10 Seconds
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Non-Occupancy	the device is considered compliant if nothing appears in the client non-occupancy period test

4.3 Test Result Channel Move Time and Channel Closing Transmission Time

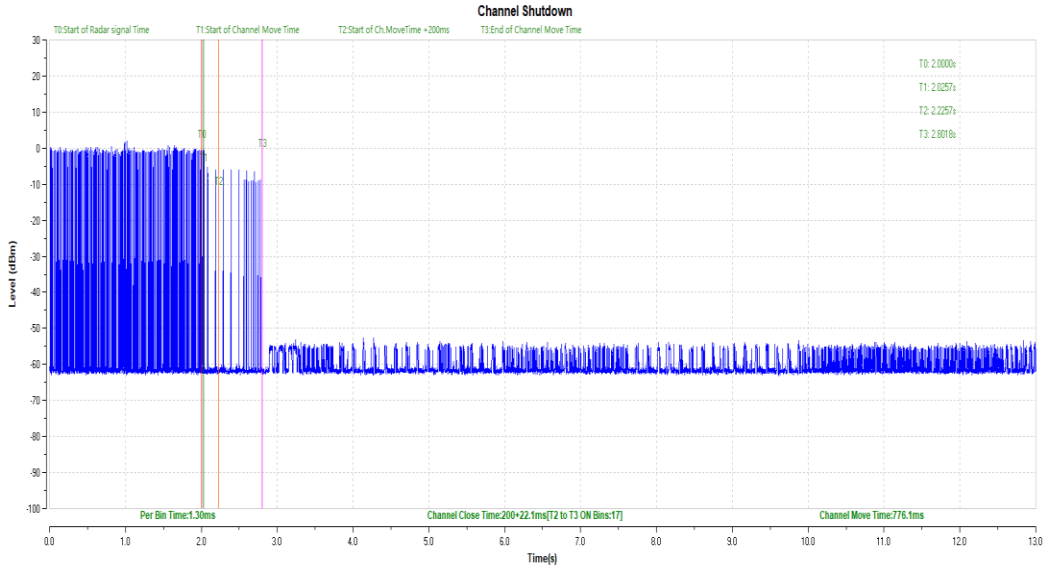
TestMode	Frequency[MHz]	CCTT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11AC80SISO	5290	200+10.4	200+60	882.2	10000	PASS
	5530	200+22.1	200+60	776.1	10000	PASS

Test Graphs

11AC80SISO_5290



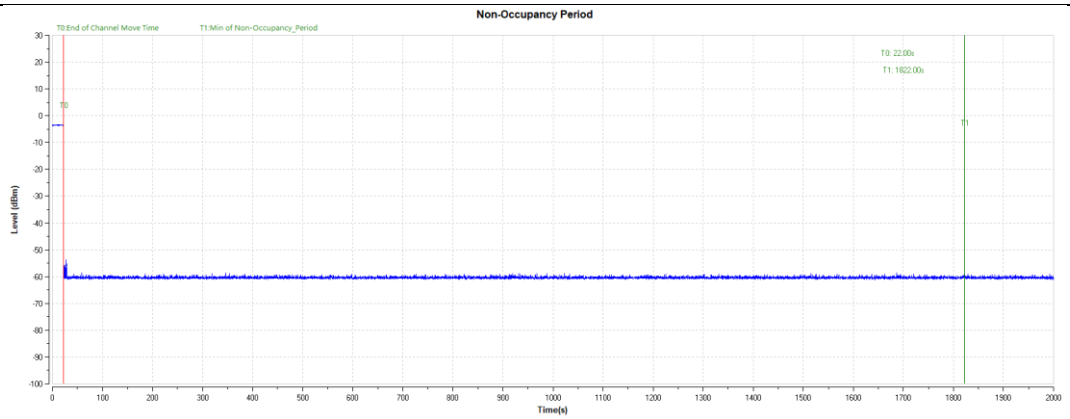
11AC80SISO_5530



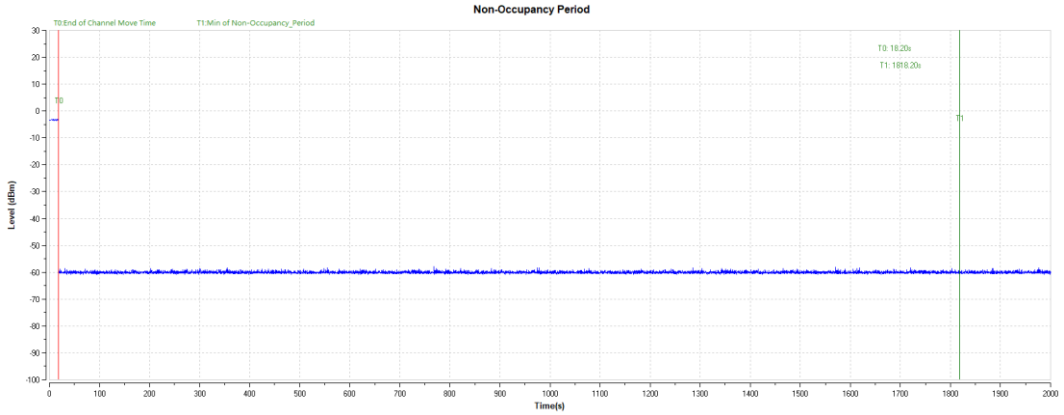
4.4 Test Result Non-Occupancy Period

TestMode	Frequency[MHz]	Result	Limit[s]	Verdict
11AC80SISO	5290	see test graph	≥1800	PASS
	5530	see test graph	≥1800	PASS

Test Graphs



11AC80SISO-5290-Type0-PASS



11AC80SISO-5530-Type0-PASS

The End