

FCC Test Report

Client Name : Micronet Union Technology(Chengdu) Co., Ltd
Address : Room 502, Building 5, N.O. 528, Yuefei Road, Shibantan Street, Xindu District, Chengdu, Sichuan, China
Product Name : AC1200 Gigabit Dual Band Wi-Fi Router
Date : Dec. 14, 2021



Shenzhen Anbotek Compliance Laboratory Limited

Contents

1. General Information.....	4
1.1. Client Information.....	4
1.2. Description of Device (EUT).....	4
1.3. Auxiliary Equipment Used During Test.....	6
1.4. Description of Test Facility.....	6
1.5. Channel List:.....	7
1.6. Antenna Specification:.....	7
1.7. Table for Antenna Configuration:.....	8
1.8. Maximum Output Power and E.I.R.P.....	8
1.9. Transmit Power Control (TPC).....	9
2. U-NII DFS Rule Requirements.....	10
2.1. Working Modes and Required Test Items.....	10
2.2. Test Limits and Radar Signal Parameters.....	11
3. Test Equipment List.....	15
4. Dynamic Frequency Selection (DFS).....	16
4.1. DFS Measurement System.....	16
4.2. Calibration of DFS Detection Threshold Level.....	17
4.3. Deviation from Test Standard.....	17
5. Test Results.....	18
5.1. Summary of Test Results.....	18
5.2. DFS Detection Threshold.....	19
5.3. Channel Availability Check Time.....	19
5.4. Channel Move Time And Channel Closing Transmission Time.....	19
5.5. Statistical Performance Check.....	19
5.6. NON-Occupancy Period.....	19
5.7. U-NII Detection Bandwidth.....	19
APPENDIX I -- TEST SETUP PHOTOGRAPH.....	20
APPENDIX II -- EXTERNAL PHOTOGRAPH.....	21
APPENDIX III -- INTERNAL PHOTOGRAPH.....	21
APPENDIX IV -- Appendix Test Data.....	22

TEST REPORT

Applicant : Micronet Union Technology(Chengdu) Co., Ltd
Manufacturer : Micronet Union Technology(Chengdu) Co., Ltd
Product Name : AC1200 Gigabit Dual Band Wi-Fi Router
Model No. : T18-21X (X=A-Z or a-z), T18-PQX (X=A-Z or a-z), T18-BXX (X=A-Z or a-z)
(the last X=A-Z or a-z, which indicates for different appearance, dimension and color.)
Trade Mark : N.A.
Rating(s) : Input: DC 12V, 1A
Test Standard(s) : FCC Part15 Subpart E, Paragraph 15.407
Test Method(s) : FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart E requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt

Oct. 22, 2021

Date of Test

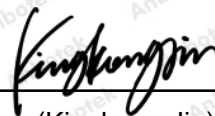
Oct. 25~Dec. 01, 2021

Prepared By



(Ella Liang)

Approved & Authorized Signer



(Kingkong Jin)

1. General Information

1.1. Client Information

Applicant	:	Micronet Union Technology(Chengdu) Co., Ltd
Address	:	Room 502, Building 5, N.O. 528, Yuefei Road, Shibantan Street, Xindu District, Chengdu, Sichuan, China
Manufacturer	:	Micronet Union Technology(Chengdu) Co., Ltd
Address	:	Room 502, Building 5, N.O. 528, Yuefei Road, Shibantan Street, Xindu District, Chengdu, Sichuan, China
Factory	:	Micronet Union Technology(Chengdu) Co., Ltd
Address	:	Room 502, Building 5, N.O. 528, Yuefei Road, Shibantan Street, Xindu District, Chengdu, Sichuan, China

1.2. Description of Device (EUT)

Product Name	:	AC1200 Gigabit Dual Band Wi-Fi Router
Model No.	:	T18-21X (X=A-Z or a-z), T18-PQX (X=A-Z or a-z), T18-BXX (X=A-Z or a-z) (the last X=A-Z or a-z, which indicates for different appearance, dimension and color.) (Note: All samples are the same except the antenna of each series model is different, the antenna structure is different, and the color, shape, size are different, so we prepare T18-21A & T18-PQA & T18-BXA model for above 1GHz radiated emission test. Other items are test for T18-21A only.)
Trade Mark	:	N.A.
Test Power Supply	:	AC 120V, 60Hz for Adapter/ AC 240V, 60Hz for Adapter
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Product Description	:	Operation Frequency: 802.11b/ g/ n(HT20): 2412-2462MHz 802.11n (HT40): 2422-2452MHz WiFi 5.2G: 5180MHz~5240MHz WiFi 5.3G: 5260MHz~5320MHz WiFi 5.6G: 5500MHz~5580MHz, 5660MHz~5700MHz WiFi 5.8G: 5745MHz~5825MHz
		Number of Channel: 802.11b/ g/ n(HT20): 11 Channels 802.11n (HT40): 7 Channels WiFi 5.2G: 4 Channels for 802.11a/n(HT20)/ac(HT20) 2 Channels for 802.11n(HT40)/ac(HT40) 1 Channels for 802.11ac(HT80)

	<p>WiFi 5.3G: 4 Channels for 802.11a/n(HT20)/ac(HT20) 2 Channels for 802.11n(HT40)/ac(HT40) 1 Channels for 802.11ac(HT80)</p> <p>WiFi 5.6G: 8 Channels for 802.11a/n(HT20)/ac(HT20) 3 Channels for 802.11n(HT40)/ac(HT40) 1 Channels for 802.11ac(HT80)</p> <p>WiFi 5.8G: 5 Channels for 802.11a/n(HT20)/ac(HT20) 2 Channels for 802.11n(HT40)/ac(HT40) 1 Channels for 802.11ac(HT80)</p>
Modulation Type:	<p>WiFi 2.4G: CCK, DQPSK, DBPSK for DSSS; 64QAM, 16QAM, QPSK, BPSK for OFDM</p> <p>WiFi 5G: OFDM with BPSK, QPSK, 16QAM, 64QAM, 256QAM</p>
Antenna Type:	<p>For T18-21A: WiFi 2.4G: External Antenna WiFi 5G: External Antenna</p> <p>For T18-PQA & T18-BXA: WiFi 2.4G: PCB Antenna WiFi 5G: PCB Antenna</p>
Antenna Gain(Peak):	<p>For T18-21A: WiFi 2.4G ANT1/ ANT2: 5dBi (Provided by customer) WiFi 5G ANT1/ ANT2: 5dBi (Provided by customer)</p> <p>For T18-PQA & T18-BXA: WiFi 2.4G ANT1/ ANT2: 4dBi (Provided by customer) WiFi 5G ANT1/ ANT2: 4dBi (Provided by customer)</p>
Directional Gain:	<p>WiFi 5.2G: 8.01dBi WiFi 5.3G: 8.01dBi WiFi 5.6G: 8.01dBi WiFi 5.8G: 8.01dBi</p>
Adapter:	<p>Model No: MAUS-1201101202 Input: 100-240V~50/ 60Hz 0.35A Output: 12V=1.0A PN: MAUS-120100200026</p>
Operating Mode(s):	<p><input checked="" type="checkbox"/> Master <input type="checkbox"/> Client device without radar detection <input type="checkbox"/> Client device with radar detection</p>
<p>Remark: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2) This report is for DFS module.</p>	

1.3. Auxiliary Equipment Used During Test

N/A	:	
-----	---	--

1.4. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

1.5. Channel List:

Frequency Band	Mode	Test channel	Frequency (MHz)
5.3GHz	OFDM 802.11a/n(HT20)/ac(HT20)	CH 52	5260
		CH 56	5280
		CH 60	5300
		CH 64	5320
	OFDM 802.11n(HT40)/ac(HT40)	CH 54	5270
		CH 62	5310
5.6GHz	OFDM 802.11a/n(HT20)/ac(HT20)	CH 58	5290
		CH 100	5500
		CH 104	5200
		CH 108	5540
		CH 112	5560
		CH 116	5580
		CH 120	5600
		CH 124	5620
		CH 128	5640
		CH 132	5660
		CH 136	5680
		CH 140	5700
	OFDM 802.11n(HT40)/ac(HT40)	CH 102	5510
		CH 110	5550
		CH 118	5590
		CH 126	5630
	OFDM 802.11ac(HT80)	CH 134	5670
		CH 106	5530
		CH 122	5610

1.6. Antenna Specification:

Ant.	Antenna Type	Connector	Gain (dBi)
1	Cylindrical	N/A	5
2	Cylindrical	N/A	5

Note: 1) This EUT supports CDD, and all antennas have the same gain, Directional gain = GANT+Array Gain.

For power measurements, Array Gain=0dB (NANT≤4), so the Directional gain=8.01.

For power spectral density measurements, NANT=2, NSS = 1.

So the Directional gain=GANT+Array Gain=GANT+10log(NANT/ NSS)dBi=5+10log(2/1)dBi=8.01.

2) The antenna gain is provided by the manufacturer

1.7. Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
802.11a		V (Ant. 1/ Ant. 2)
802.11n(HT20)		V (Ant. 1 + Ant. 2)
802.11ac(HT20)		V (Ant. 1 + Ant. 2)
802.11n(HT40)		V (Ant. 1 + Ant. 2)
802.11ac(HT40)		V (Ant. 1 + Ant. 2)
802.11ac(HT80)		V (Ant. 1 + Ant. 2)

1.8. Maximum Output Power and E.I.R.P.

Mode: TX (802.11a 20MHz)				
Frequency Band (MHz)	Max Average Output Power (dBm)	Gain (dBi)	Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)
5250~5350	12.640	5.00	17.640	58.076
5470~5725	12.480	5.00	17.480	55.976

Mode: TX (802.11n(HT20))				
Frequency Band (MHz)	Max Average Output Power (dBm)	Directional Gain (dBi)	Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)
5250~5350	15.390	8.01	23.400	218.776
5470~5725	15.511	8.01	23.521	224.957

Mode: TX (802.11ac(HT20))				
Frequency Band (MHz)	Max Average Output Power (dBm)	Directional Gain (dBi)	Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)
5250~5350	15.734	8.01	23.744	236.810
5470~5725	15.041	8.01	23.051	201.883

Mode: TX (802.11n(HT40))				
Frequency Band (MHz)	Max Average Output Power (dBm)	Directional Gain (dBi)	Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)
5250~5350	15.790	8.01	23.800	239.883
5470~5725	15.707	8.01	23.717	235.342

Mode: TX (802.11ac(HT40))				
Frequency Band (MHz)	Max Average Output Power (dBm)	Directional Gain (dBi)	Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)
5250~5350	15.973	8.01	23.983	250.207
5470~5725	15.471	8.01	23.481	222.895

Mode: TX (802.11ac(HT80))				
Frequency Band (MHz)	Max Average Output Power (dBm)	Directional Gain (dBi)	Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)
5250~5350	15.397	8.01	23.407	219.129
5470~5725	15.130	8.01	23.140	206.063

1.9. Transmit Power Control (TPC)

U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

Applicable	EIRP	FCC 15.407 (h)(1)
<input type="checkbox"/>	>500mW	The TPC mechanism is required for system with an EIRP of above 500mW
<input checked="" type="checkbox"/>	<500mW	The TPC mechanism is not required for system with an EIRP of less 500mW

The UUT can adjust a transmitter's output power based on the signal level present at the receiver. TPC is auto controlled by software.

2. U-NII DFS Rule Requirements

2.1. 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 6 and 7 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	√	√ ^{note}	√
DFS Detection Threshold	√	Not required	√
Channel Availability Check Time	√	Not required	Not required
U-NII Detection Bandwidth	√	Not required	√

Note: Per KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02 section (b)(5/6), 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. An analyzer plot that contains a single 30-minute sweep on the original channel.

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 (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.

2.2. 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 (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.

Note 3: 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 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.

Parameters of DFS Test Signals And Minimum Percentage of Successful Detections:

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	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \right\}$	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.					

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

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

would be Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{3066} \right) \right\} = \text{Round up } \{17.2\} = 18.$

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 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	5-100	5-20	1000-2000	1-3	8-20	80%	30

Frequency Hopping Radar Test Waveform

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

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

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

3. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Three Phase V-type Artificial Power Network	CYBERTEK	EM5040DT	E215040DT001	Jul 05, 2021	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Oct. 22, 2021	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	Oct. 22, 2021	1 Year
4.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Oct. 22, 2021	1 Year
5.	MAX Spectrum Analysis	Agilent	N9020A	MY51170037	Oct. 22, 2021	1 Year
6.	Preamplifier	SKET Electronic	BK1G18G30 D	KD17503	Oct. 22, 2021	1 Year
7.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Oct. 22, 2021	2 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Oct. 22, 2021	2 Year
9.	Loop Antenna	Schwarzbeck	FMZB1519B	00053	Oct. 22, 2021	2 Year
10.	Horn Antenna	A-INFO	LB-180400-K F	J211060628	Oct. 22, 2021	2 Year
11.	Pre-amplifier	SONOMA	310N	186860	Oct. 22, 2021	1 Year
12.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
13.	RF Test Control System	YIHENG	YH3000	2017430	Oct. 22, 2021	1 Year
14.	Power Sensor	DAER	RPR3006W	15I00041SN045	Oct. 22, 2021	1 Year
15.	Power Sensor	DAER	RPR3006W	15I00041SN046	Oct. 22, 2021	1 Year
16.	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY53280032	Oct. 22, 2021	1 Year
17.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Oct. 22, 2021	1 Year
18.	Signal Generator	Agilent	E4421B	MY41000743	Oct. 22, 2021	1 Year
19.	DC Power Supply	IVYTECH	IV3605	1804D360510	Oct. 22, 2021	1 Year
20.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80 B	N/A	Oct. 22, 2021	1 Year

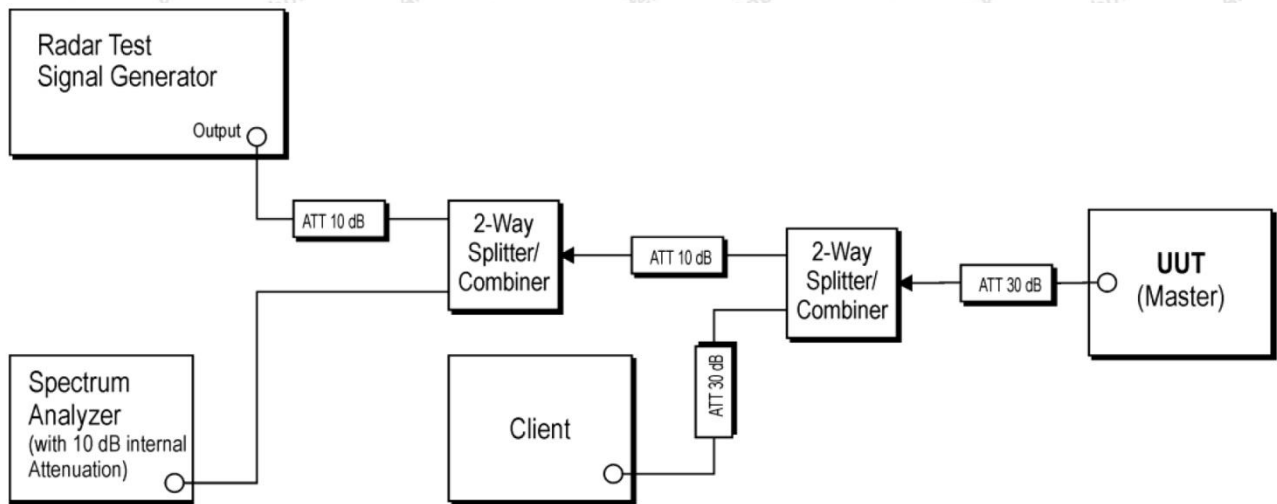
4. Dynamic Frequency Selection (DFS)

4.1. DFS Measurement System

Test Procedure:

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 “iPerf.exe” to reach 17% channel loading as below.

Setup for Master with injection at the Master



Radar Test Waveforms are injected into the Master.

Channel Loading Please refer to Appendix B: Channel Loading of the Appendix Test Data.

4.2. Calibration of DFS Detection Threshold Level

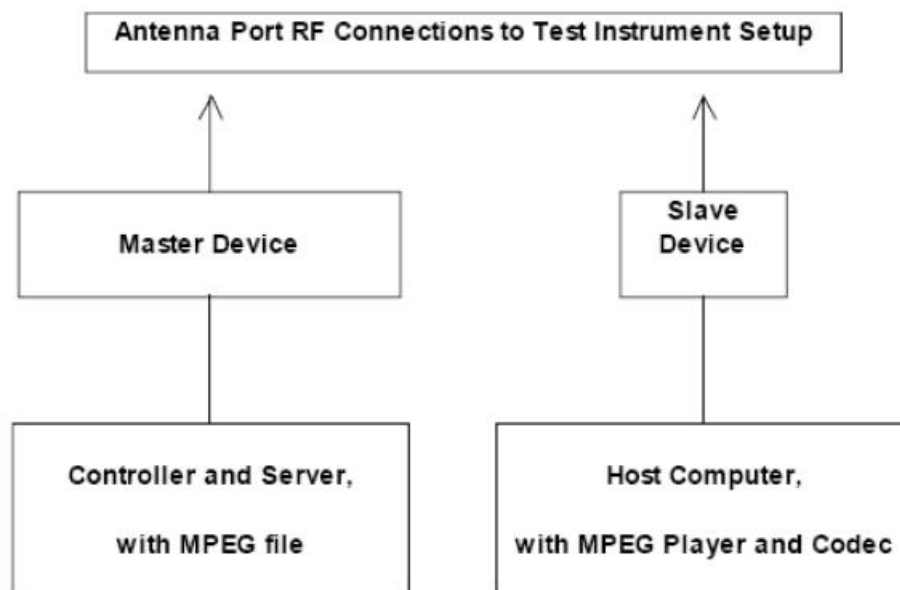
A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected in place of the master device and the signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of -64dBm as measured on the spectrum analyzer.

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 -64 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 -64 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. Test Results

5.1. Summary of Test Results

Standard	Test Type	Remarks	Result
FCC 15.407	DFS Detection Threshold	Applicable	PASS
FCC 15.407	Channel Availability Check Time	Applicable	PASS
FCC 15.407	Channel Move Time	Applicable	PASS
FCC 15.407	Channel Closing Transmission Time	Applicable	PASS
FCC 15.407	Non- Occupancy Period	Applicable	PASS
FCC 15.407	U-NII Detection Bandwidth and Statistical Performance Check	Applicable	PASS

5.2. DFS Detection Threshold

Calibration:

DFS Threshold Level	
DFS Threshold Level(5dBi antenna):-56dBm	<input checked="" type="checkbox"/> At the antenna connector
DFS Threshold Level(4dBi antenna):-57dBm	<input type="checkbox"/> In front of the antenna

Note: For SISO mode, the maximum EIRP is less than 200 milliwatt, the antenna gain is 5dBi. For MIMO mode, the maximum EIRP is more than 200 milliwatt, the directional gain is 8.01dBi, According to clause 2.2 of this report. The detection threshold level is -56dBm. The same method for 4dBi antenna gain.

Please refer to Appendix A of the Appendix Test Data.

5.3. Channel Availability Check Time

If the UUT successfully detected the radar burst, it should be observed as the UUT has no transmissions occurred until the UUT starts transmitting on another channel.

Please refer to Appendix C of the Appendix Test Data.

5.4. Channel Move Time And Channel Closing Transmission Time

Please refer to Appendix D of the Appendix Test Data.

5.5. Statistical Performance Check

Please refer to Appendix G of the Appendix Test Data.

5.6. 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.

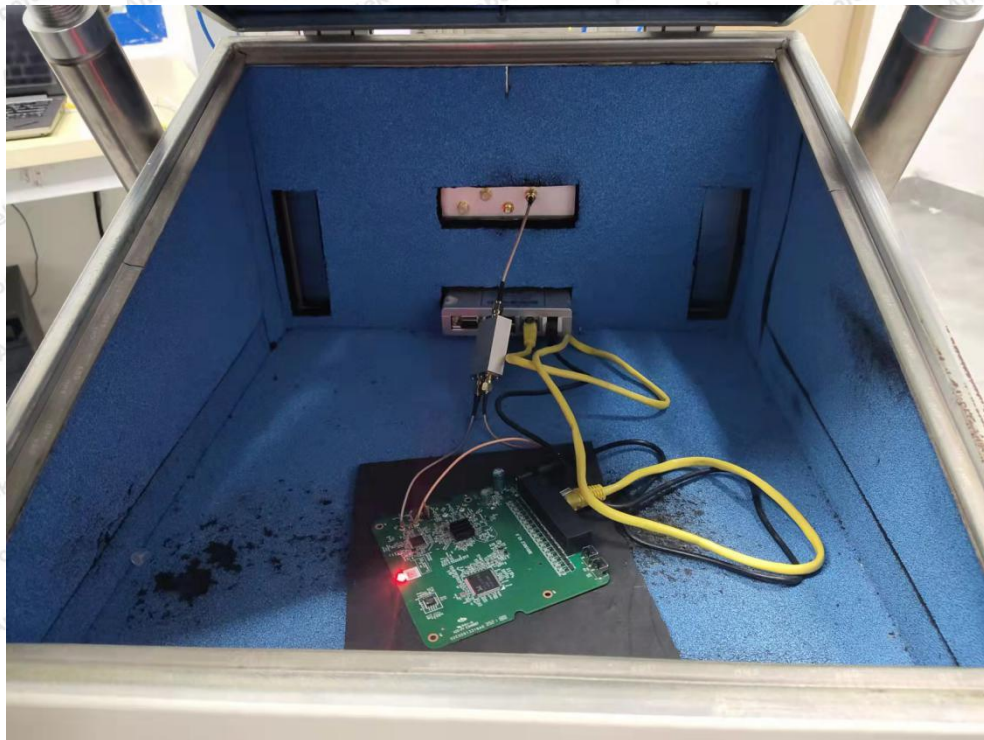
Please refer to Appendix E of the Appendix Test Data.

5.7. U-NII Detection Bandwidth

Please refer to Appendix F of the Appendix Test Data.



APPENDIX I -- TEST SETUP PHOTOGRAPH



APPENDIX II -- EXTERNAL PHOTOGRAPH

Reference to the test report 18220WC10233901.

APPENDIX III -- INTERNAL PHOTOGRAPH

Reference to the test report 18220WC10233901.

APPENDIX IV – Appendix Test Data