



			NV	30	-5000.00	-0.896057	20	PASS
			NV	40	-5000.00	-0.896057	20	PASS
			NV	45	-5000.00	-0.896057	20	PASS
	Ant1	5700	NV	0	-5000.00	-0.877193	20	PASS
			NV	10	-5000.00	-0.877193	20	PASS
			NV	20	-5000.00	-0.877193	20	PASS
			NV	30	-5000.00	-0.877193	20	PASS
			NV	40	-5490.00	-0.963158	20	PASS
			NV	45	-5000.00	-0.877193	20	PASS
			NV	0	-5000.00	-0.877193	20	PASS
	Ant2	5700	NV	10	-5490.00	-0.963158	20	PASS
			NV	20	-5490.00	-0.963158	20	PASS
			NV	30	-5490.00	-0.963158	20	PASS
			NV	40	-5990.00	-1.050877	20	PASS
			NV	45	-5000.00	-0.877193	20	PASS
			NV	0	-5000.00	-0.870322	20	PASS
			NV	10	-5990.00	-1.042646	20	PASS
	Ant1	5745	NV	20	-5490.00	-0.955614	20	PASS
			NV	30	-5490.00	-0.955614	20	PASS
			NV	40	-5490.00	-0.955614	20	PASS
			NV	45	-5490.00	-0.955614	20	PASS
			NV	0	-5000.00	-0.870322	20	PASS
			NV	10	-5000.00	-0.870322	20	PASS
			NV	20	-5490.00	-0.955614	20	PASS
	Ant2	5745	NV	30	-5490.00	-0.955614	20	PASS
			NV	40	-5000.00	-0.870322	20	PASS
			NV	45	-5490.00	-0.955614	20	PASS
			NV	0	-5000.00	-0.864304	20	PASS
			NV	10	-5000.00	-0.864304	20	PASS
			NV	20	-5000.00	-0.864304	20	PASS
			NV	30	-5000.00	-0.864304	20	PASS
	Ant1	5785	NV	40	-5000.00	-0.864304	20	PASS
			NV	45	-5000.00	-0.864304	20	PASS
			NV	0	-5490.00	-0.949006	20	PASS
			NV	10	-5490.00	-0.949006	20	PASS
			NV	20	-5490.00	-0.949006	20	PASS
			NV	30	-5000.00	-0.864304	20	PASS
			NV	40	-5000.00	-0.864304	20	PASS
	Ant2	5785	NV	45	-5490.00	-0.949006	20	PASS
			NV	0	-5490.00	-0.942489	20	PASS
			NV	10	-5490.00	-0.942489	20	PASS
			NV	20	-5490.00	-0.942489	20	PASS
			NV	30	-5490.00	-0.942489	20	PASS
			NV	40	-5000.00	-0.858369	20	PASS
			NV	45	-5000.00	-0.858369	20	PASS
	Ant1	5825	NV	0	-5000.00	-0.858369	20	PASS
			NV	10	-5000.00	-0.858369	20	PASS
			NV	20	-5000.00	-0.858369	20	PASS
			NV	30	-5000.00	-0.858369	20	PASS
			NV	40	-5000.00	-0.858369	20	PASS
			NV	45	-5000.00	-0.858369	20	PASS
			NV	0	-4500.00	-0.867052	20	PASS
40M	Ant1	5190	NV	10	-4500.00	-0.867052	20	PASS
			NV	20	-5000.00	-0.963391	20	PASS
			NV	30	-4500.00	-0.867052	20	PASS
			NV	40	-4500.00	-0.867052	20	PASS
			NV	45	-4500.00	-0.867052	20	PASS
			NV	0	-5000.00	-0.963391	20	PASS
			NV	10	-5000.00	-0.963391	20	PASS
	Ant2	5190	NV	20	-4500.00	-0.867052	20	PASS
			NV	30	-5000.00	-0.963391	20	PASS
			NV	40	-4500.00	-0.867052	20	PASS
			NV	45	-5000.00	-0.963391	20	PASS
			NV	0	-5490.00	-1.049713	20	PASS
			NV	10	-5490.00	-1.049713	20	PASS

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict,
Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A2

For anti-fake verification, please visit the official website of China Inspection And Testing
Society : yz.cncaq.com



			NV	20	-5490.00	-1.049713	20	PASS
			NV	30	-5490.00	-1.049713	20	PASS
			NV	40	-5490.00	-1.049713	20	PASS
			NV	45	-5000.00	-0.956023	20	PASS
Ant2	5230	NV	0	-5000.00	-0.956023	20	PASS	
		NV	10	-5000.00	-0.956023	20	PASS	
		NV	20	-5000.00	-0.956023	20	PASS	
		NV	30	-5000.00	-0.956023	20	PASS	
		NV	40	-5000.00	-0.956023	20	PASS	
		NV	45	-4500.00	-0.860421	20	PASS	
		NV	0	-5000.00	-0.948767	20	PASS	
		NV	10	-4500.00	-0.853890	20	PASS	
Ant1	5270	NV	20	-5000.00	-0.948767	20	PASS	
		NV	30	-5490.00	-1.041746	20	PASS	
		NV	40	-5000.00	-0.948767	20	PASS	
		NV	45	-4500.00	-0.853890	20	PASS	
		NV	0	-4500.00	-0.853890	20	PASS	
		NV	10	-4500.00	-0.853890	20	PASS	
Ant2	5270	NV	20	-5000.00	-0.948767	20	PASS	
		NV	30	-5000.00	-0.948767	20	PASS	
		NV	40	-5000.00	-0.948767	20	PASS	
		NV	45	-4500.00	-0.853890	20	PASS	
		NV	0	-5000.00	-0.941620	20	PASS	
		NV	10	-4500.00	-0.847458	20	PASS	
Ant1	5310	NV	20	-4500.00	-0.847458	20	PASS	
		NV	30	-5000.00	-0.941620	20	PASS	
		NV	40	-5000.00	-0.941620	20	PASS	
		NV	45	-4500.00	-0.847458	20	PASS	
		NV	0	-5990.00	-1.128060	20	PASS	
		NV	10	-5990.00	-1.128060	20	PASS	
Ant2	5310	NV	20	-5990.00	-1.128060	20	PASS	
		NV	30	-5990.00	-1.128060	20	PASS	
		NV	40	-5490.00	-1.033898	20	PASS	
		NV	45	-5490.00	-1.033898	20	PASS	
		NV	0	-5490.00	-0.996370	20	PASS	
		NV	10	-5990.00	-1.087114	20	PASS	
Ant1	5510	NV	20	-5490.00	-0.996370	20	PASS	
		NV	30	-5490.00	-0.996370	20	PASS	
		NV	40	-5490.00	-0.996370	20	PASS	
		NV	45	-5490.00	-0.996370	20	PASS	
		NV	0	-5490.00	-0.996370	20	PASS	
		NV	10	-5490.00	-0.996370	20	PASS	
Ant2	5510	NV	20	-5490.00	-0.996370	20	PASS	
		NV	30	-5490.00	-0.996370	20	PASS	
		NV	40	-5490.00	-0.996370	20	PASS	
		NV	45	-5990.00	-1.087114	20	PASS	
		NV	0	-5000.00	-0.900901	20	PASS	
		NV	10	-5490.00	-0.989189	20	PASS	
Ant1	5550	NV	20	-5490.00	-0.989189	20	PASS	
		NV	30	-5000.00	-0.900901	20	PASS	
		NV	40	-5490.00	-0.989189	20	PASS	
		NV	45	-5490.00	-0.989189	20	PASS	
		NV	0	-5000.00	-0.900901	20	PASS	
		NV	10	-5490.00	-0.989189	20	PASS	
Ant2	5550	NV	20	-5490.00	-0.989189	20	PASS	
		NV	30	-5000.00	-0.900901	20	PASS	
		NV	40	-5000.00	-0.900901	20	PASS	
		NV	45	-5000.00	-0.900901	20	PASS	
		NV	0	-5000.00	-0.881834	20	PASS	
		NV	10	-5990.00	-1.056437	20	PASS	
Ant1	5670	NV	20	-5990.00	-1.056437	20	PASS	
		NV	30	-5490.00	-0.968254	20	PASS	
		NV	40	-5490.00	-0.968254	20	PASS	
		NV	45	-5000.00	-0.881834	20	PASS	
		NV	0	-5490.00	-0.968254	20	PASS	
		NV	0	-5490.00	-0.968254	20	PASS	

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict,
Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A2

For anti-fake verification, please visit the official website of China Inspection And Testing
Society : yz.cncaq.com



			NV	10	-5490.00	-0.968254	20	PASS
			NV	20	-5490.00	-0.968254	20	PASS
			NV	30	-5490.00	-0.968254	20	PASS
			NV	40	-5990.00	-1.056437	20	PASS
			NV	45	-5490.00	-0.968254	20	PASS
	Ant1	5755	NV	0	-5490.00	-0.953953	20	PASS
			NV	10	-5490.00	-0.953953	20	PASS
			NV	20	-5490.00	-0.953953	20	PASS
			NV	30	-5490.00	-0.953953	20	PASS
			NV	40	-5990.00	-1.040834	20	PASS
			NV	45	-5490.00	-0.953953	20	PASS
			NV	0	-5490.00	-0.953953	20	PASS
			NV	10	-5490.00	-0.953953	20	PASS
			NV	20	-5490.00	-0.953953	20	PASS
			NV	30	-5490.00	-0.953953	20	PASS
	Ant2	5755	NV	40	-5490.00	-0.953953	20	PASS
			NV	45	-5490.00	-0.953953	20	PASS
			NV	0	-5990.00	-1.033650	20	PASS
			NV	10	-5490.00	-0.947368	20	PASS
			NV	20	-5490.00	-0.947368	20	PASS
		5795	NV	30	-5490.00	-0.947368	20	PASS
			NV	40	-5490.00	-0.947368	20	PASS
			NV	45	-5490.00	-0.947368	20	PASS
			NV	0	-5490.00	-0.947368	20	PASS
			NV	10	-5000.00	-0.862813	20	PASS
80M			NV	20	-5490.00	-0.947368	20	PASS
			NV	30	-5490.00	-0.947368	20	PASS
			NV	40	-5000.00	-0.862813	20	PASS
			NV	45	-5490.00	-0.947368	20	PASS
			NV	0	-5000.00	-0.862813	20	PASS
	Ant2	5795	NV	10	-5490.00	-0.947368	20	PASS
			NV	20	-5490.00	-0.947368	20	PASS
			NV	30	-5490.00	-0.947368	20	PASS
			NV	40	-5000.00	-0.862813	20	PASS
			NV	45	-5490.00	-0.947368	20	PASS
		5210	NV	0	-4500.00	-0.863724	20	PASS
			NV	10	-4500.00	-0.863724	20	PASS
			NV	20	-4500.00	-0.863724	20	PASS
			NV	30	-4500.00	-0.863724	20	PASS
			NV	40	-4500.00	-0.863724	20	PASS
	Ant1	5210	NV	45	-4500.00	-0.863724	20	PASS
			NV	0	-5000.00	-0.959693	20	PASS
			NV	10	-4500.00	-0.863724	20	PASS
			NV	20	-4500.00	-0.863724	20	PASS
			NV	30	-4500.00	-0.863724	20	PASS
		5290	NV	40	-4500.00	-0.863724	20	PASS
			NV	45	-4500.00	-0.863724	20	PASS
			NV	0	-5000.00	-0.945180	20	PASS
			NV	10	-5000.00	-0.945180	20	PASS
			NV	20	-5000.00	-0.945180	20	PASS
	Ant2	5290	NV	30	-5000.00	-0.945180	20	PASS
			NV	40	-5490.00	-1.037807	20	PASS
			NV	45	-5000.00	-0.945180	20	PASS
			NV	0	-5000.00	-0.945180	20	PASS
			NV	10	-5000.00	-0.945180	20	PASS
		5530	NV	20	-5000.00	-0.945180	20	PASS
			NV	30	-5000.00	-0.945180	20	PASS
			NV	40	-5000.00	-0.945180	20	PASS
			NV	45	-5000.00	-0.945180	20	PASS
			NV	0	-5490.00	-0.992767	20	PASS
	Ant1	5530	NV	10	-5490.00	-0.992767	20	PASS
			NV	20	-5490.00	-0.992767	20	PASS
			NV	30	-5490.00	-0.992767	20	PASS
			NV	40	-5000.00	-0.904159	20	PASS
			NV	45	-5000.00	-0.904159	20	PASS
		5530	NV	0	-5000.00	-0.904159	20	PASS
			NV	10	-5000.00	-0.904159	20	PASS
			NV	20	-5000.00	-0.904159	20	PASS
			NV	30	-5000.00	-0.904159	20	PASS
			NV	40	-5000.00	-0.904159	20	PASS
	Ant2	5530	NV	45	-5490.00	-0.992767	20	PASS

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luh Community, Guanhu Subdistrict,
Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A2

For anti-fake verification, please visit the official website of China Inspection And Testing
Society : yz.cncaq.com



	Ant1	5610	NV	0	-4500.00	-0.802139	20	PASS
			NV	10	-5490.00	-0.978610	20	PASS
			NV	20	-5490.00	-0.978610	20	PASS
			NV	30	-5000.00	-0.891266	20	PASS
			NV	40	-5000.00	-0.891266	20	PASS
	Ant2	5610	NV	45	-5000.00	-0.891266	20	PASS
			NV	0	-5490.00	-0.978610	20	PASS
			NV	10	-5490.00	-0.978610	20	PASS
			NV	20	-5000.00	-0.891266	20	PASS
			NV	30	-5490.00	-0.978610	20	PASS
	Ant1	5775	NV	40	-5000.00	-0.891266	20	PASS
			NV	45	-5490.00	-0.978610	20	PASS
			NV	0	-5490.00	-0.950649	20	PASS
			NV	10	-5490.00	-0.950649	20	PASS
			NV	20	-5490.00	-0.950649	20	PASS
	Ant2	5775	NV	30	-5490.00	-0.950649	20	PASS
			NV	40	-5490.00	-0.950649	20	PASS
			NV	45	-5490.00	-0.950649	20	PASS
			NV	0	-5490.00	-0.950649	20	PASS
			NV	10	-5490.00	-0.950649	20	PASS
	Ant1	5775	NV	20	-5490.00	-0.950649	20	PASS
			NV	30	-5490.00	-0.950649	20	PASS
			NV	40	-5490.00	-0.950649	20	PASS
			NV	45	-5490.00	-0.950649	20	PASS
			NV	0	-5490.00	-0.950649	20	PASS



3.8. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Test Result

Pass.



3.9. Dynamic Frequency Selection

Requirement

Table 1: 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

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device 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 each of the bonded 20 MHz channels and the channel center frequency.

**Limit****1. DFS Detection Thresholds**

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 0dBi 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.

2. DFS Response Requirements

Table 4: 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 facilitating 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.

Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. 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.



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

$$\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{3066} \right) \right\}$$

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

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

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhui Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A2

For anti-fake verification, please visit the official website of China Inspection And Testing Society : yz.cncaq.com



Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
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

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

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse Radar Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type waveforms, then each additional waveform must also be unique and not repeated from the previous waveforms.

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

For the Frequency Hopping Radar Type, the same Burst parameters are used for each wave form. The hopping sequence is different for each wave form and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

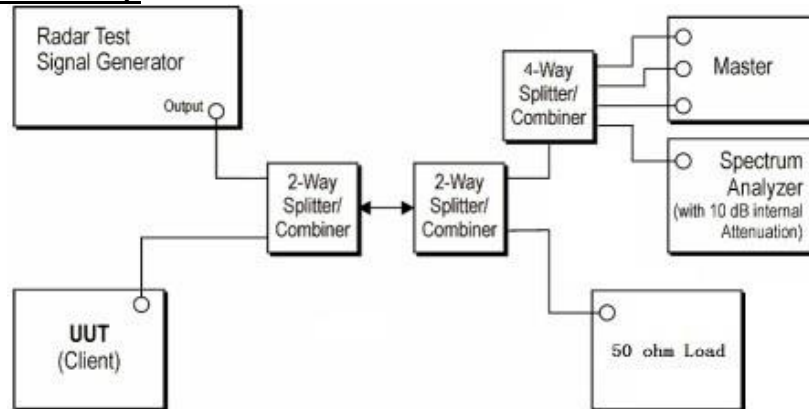
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250–5724MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until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

Calibration of Radar Waveform

Radar Waveform Calibration Procedure

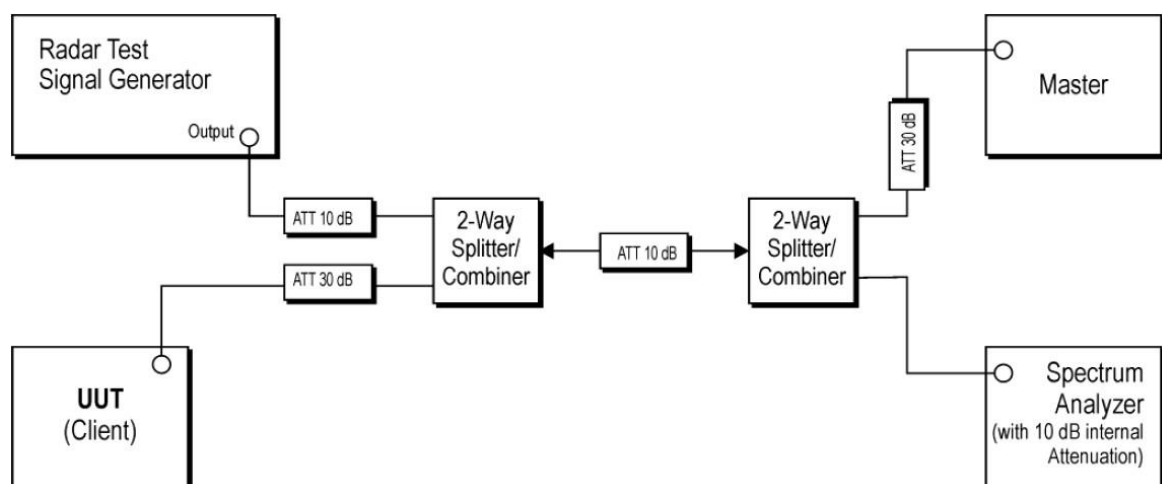
- 1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master
- 2) The interference Radar Detection Threshold Level is $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$ that had been taken into account the output power range and antenna gain.
- 3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB.
- 4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup



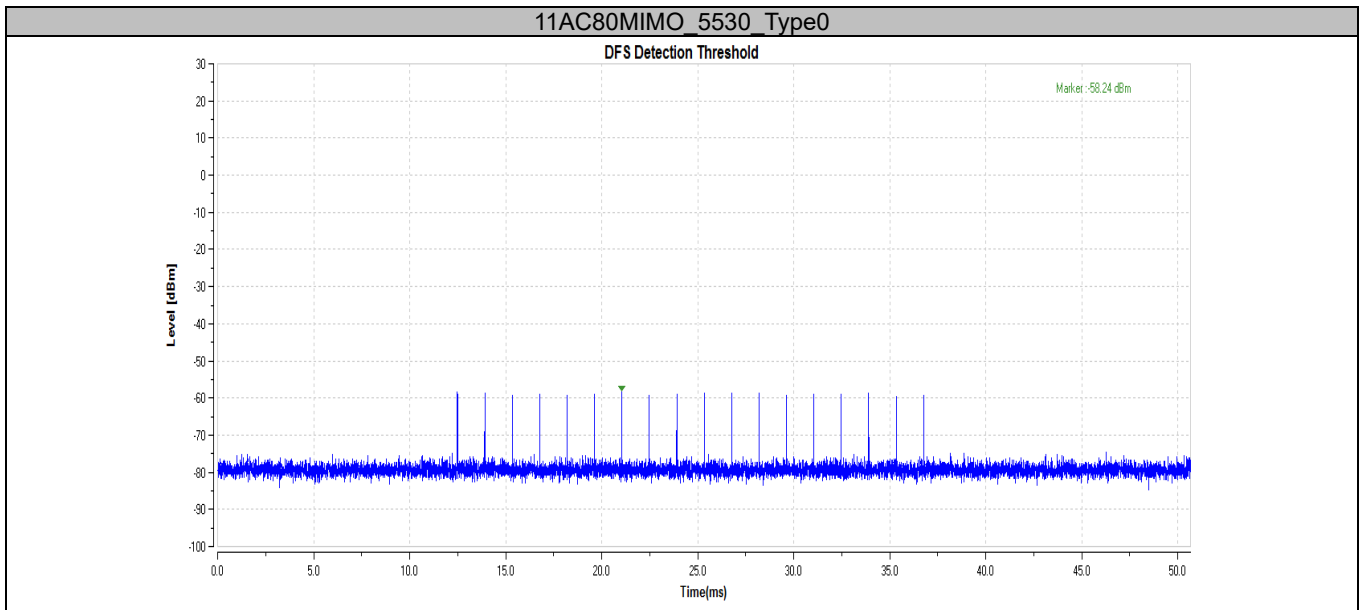
Test Configuration

Setup for Client with injection at the Master





Radar Waveform Calibration Result



Test Procedure

1. The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
2. The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device
3. A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
4. EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
5. When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
6. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type
7. Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell (0.3ms) = S (12000ms) / B (4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C (ms) = N \times Dwell (0.3ms)$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
8. Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Test Mode

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A2

For anti-fake verification, please visit the official website of China Inspection And Testing Society : yz.cncaq.com



Please refer to the clause 2.4.

Test Result

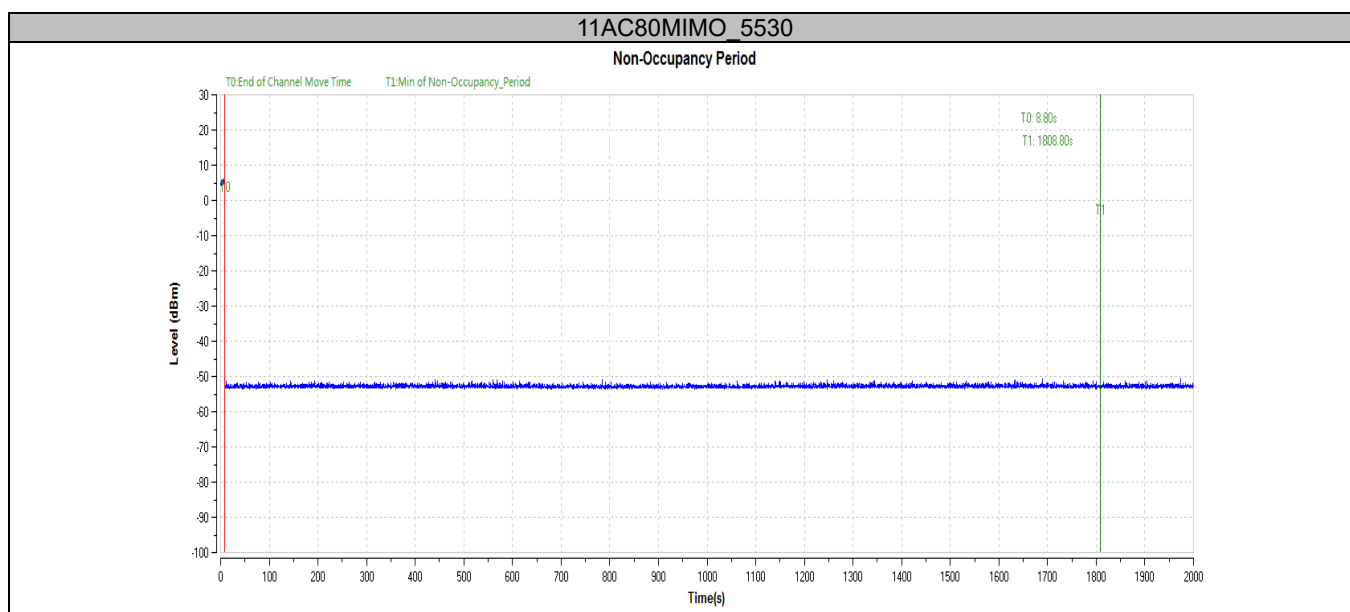
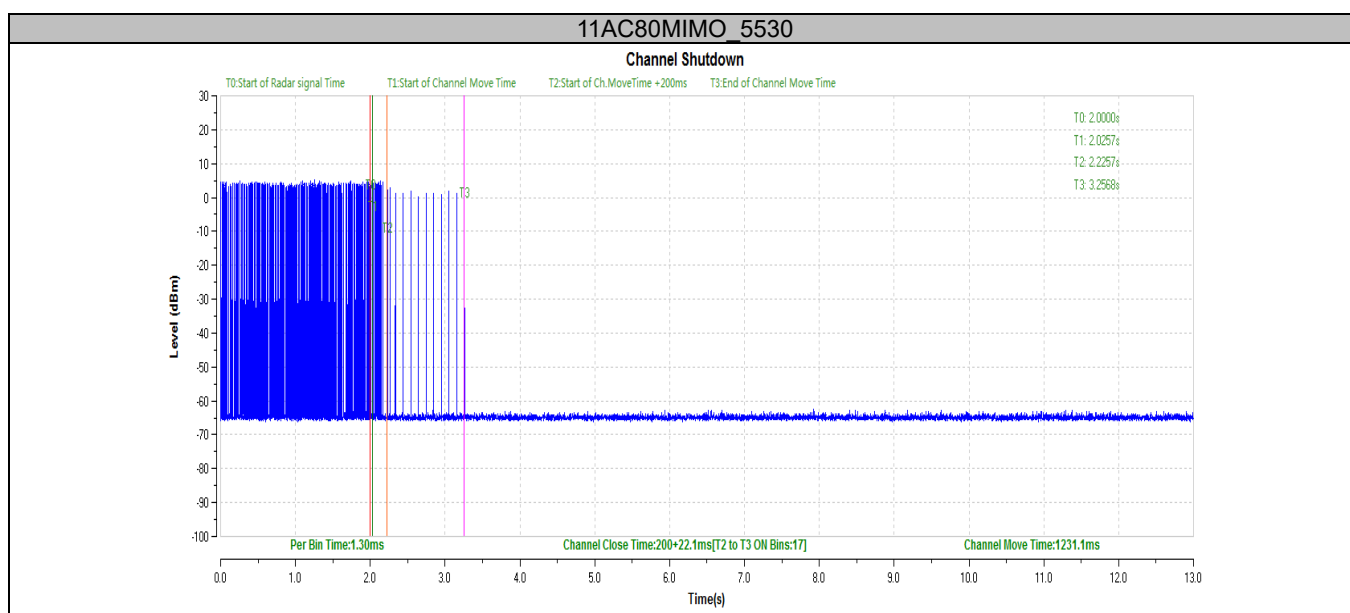
☒ Passed

☐ Not Applicable

The product in this report belongs to Client Without Radar Detection.

TestMode	Frequency[MHz]	CCTT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11AC80MIMO	5530	200+22.1	200+60	1231.1	10000	PASS

TestMode	Frequency[MHz]	Result	Limit[s]	Verdict
11AC80MIMO	5530	see test graph	≥1800	PASS



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

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luh Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China
Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A2

For anti-fake verification, please visit the official website of China Inspection And Testing Society : yz.cncaq.com