TEST REPORT

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1. Client

- Name : Kaonbroadband CO., LTD.
- Address : 884-3, Seongnam-daero, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
- Date of Receipt : 2022-02-10

2. Use of Report : Certification

3. Name of Product / Model : DOCSIS3.1 Gateway (IT) / CG3000BM

4. Manufacturer / Country of Origin : Kaonbroadband CO., LTD. / Korea

5. FCC ID : 2AXCW-CG3000BM

6. Date of Test : 2022-02-17 to 2022-04-28

7. Location of Test : ■ Permanent Testing Lab ☐ On Site Testing
(Address:65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

8. Test method used : FCC Part 15 Subpart E, 15.407

9. Test Result : Refer to the test result in the test report

Affirmation	Tested by Name : Euijung Kim (Signature)	Technical Manager Name : Heesu Ahn (Signature)

2022-07-15

KCTL Inc.

REPORT REVISION HISTORY

Date	Revision	Page No
2022-05-12	Originally issued	-
2022-07-15	Updated	4, 5, 9, 16, 33, 35

Note. The report No. KR22-SRF0066 is superseded by the report No. KR22-SRF0066-A.

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ **Statement not required by the standard or client used for type testing**

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1. General information

Client	:	Kaonbroadband CO., LTD.
Address	:	884-3, Seongnam-daero, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Manufacturer	:	Kaonbroadband CO., LTD.
Address	:	884-3, Seongnam-daero, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Laboratory	:	KCTL Inc.
Address	:	65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
Accreditations	:	FCC Site Designation No: KR0040, FCC Site Registration No: 687132
		VCCI Registration No. : R-20080, G-20078, C-20059, T-20056
		CAB Identifier: KR0040, ISED Number: 8035A
		KOLAS No.: KT231

2. Device information

Equipment under test	:	DOCSIS3.1 Gateway (IT)
Model	:	CG3000BM
Derivative Model	:	CG3000B
Frequency range	:	2 412 ㎒ ~ 2 462 ㎒ (802.11b/g/n_HT20)
		2 422 ㎒ ~ 2 452 ㎒ (802.11n_H40)
		UNII-1: 5 180 ㎒ ~ 5 240 ㎒ (802.11a/n/ac _HT20/VHT20)
		UNII-1: 5 190 ㎒ ~ 5 230 ㎒ (802.11n/ac_HT40/VHT40)
		UNII-1: 5 210 ㎒ (802.11ac_VHT80)
		UNII-2A: 5 260 ㎒ ~ 5 320 ㎒ (802.11a/n/ac_HT20/VHT20)
		UNII-2A: 5 270 ㎒ ~ 5 310 ㎒ (802.11n/ac_HT40/VHT40)
		UNII-2A: 5 290 ㎒ (802.11ac_VHT80)
		UNII-2C: 5 500 ㎒ ~ 5 720 ㎒ (802.11a/n/ac_HT20/VHT20)
		UNII-2C: 5 510 ㎒ ~ 5 710 ㎒ (802.11n/ac_HT40/VHT40)
		UNII-2C: 5 530 ㎒ ~ 5 690 ㎒ (802.11ac_VHT80)
		UNII-3: 5 745 ㎒ ~ 5 825 ㎒ (802.11a/n/ac_HT20/VHT20)
		UNII-3: 5 755 ㎒ ~ 5 795 ㎒ (802.11n/ac_HT40/VHT40)
		UNII-3: 5 775 ㎒ (802.11ac_VHT80)
Modulation technique	:	WIFI(802.11a/b/g/n/ac)_DSSS, OFDM
Number of channels	:	802.11b/g/n_HT20 : 11 ch (20 ㎒), 7 ch (40 ㎒),
		UNII-1: 4 ch (20 ㎒), 2 ch (40 ㎒), 1 ch (80 ㎒)
		UNII-2A: 4 ch (20 ㎒), 2 ch (40 ㎒), 1 ch (80 ㎒)
		UNII-2C: 12 ch (20 ㎒), 6 ch (40 ㎒), 3 ch (80 ㎒)
		UNII-3: 5 ch (20 ㎒), 2 ch (40 ㎒), 1 ch (80 ㎒)
Power source	:	DC 12 V
Antenna specification	:	PCB Antenna (33.5mm_150mm): 2.4 ㎓ ANT 0,1 / 5 ㎓ ANT 0,2,3 PCB Antenna (33.5mm_200mm): 2.4 ㎓ ANT 2 / 5 ㎓ ANT 1

Antenna gain	:	2.4 ㎓ band : ANT 0: 1.90 ㏈i, ANT 1: 1.90 ㏈i, ANT 3: 1.90 ㏈i
		UNII-1 ANT 0: 1.50 ㏈i , ANT 1: 1.60 ㏈i, ANT 2: 1.50 ㏈i, ANT 3: 1.50 ㏈i
		UNII-2A ANT 0: 1.60 ㏈i, ANT 1: 1.60 ㏈i , ANT 2: 1.60 ㏈i, ANT 3: 1.60 ㏈i
		UNII-2C ANT 0: 1.80 ㏈i, ANT 1: 2.00 ㏈i, ANT 2: 1.80 ㏈i, ANT 3: 1.80 ㏈i
		UNII-3 ANT 0: 2.00 ㏈i, ANT 1: 1.70 ㏈i, ANT 2: 2.00 ㏈i, ANT 3: 2.00 ㏈i
Software version	:	v1.01.12
Hardware version	:	REV1.0
Test device serial No.	:	N/A
Operation temperature	:	-20 ℃ ~ 50 ℃

Note. The Product equality letter includes detailed information about the differences between basic and derivative model.

2.1. Information about derivative model

The difference between basic model and derivative models is:
The basic and derivative model are the same mechanically, electrically.
All models are made up by same H/W, F/W.

The support card is different for each model.
Please refer to the below list.

	CG3000BM	CG3000B
DC DC location	Top side	Same as G3000BM, but with or without Polymer cap 1point
Docsis DX FILTER	No shield can	Shielded
DDR	1G	512M
Nand flash	512M	256M
Bottom heatsink	No Bottom heatsink	Bottom heatsink
ETH port TVS diode	TVS Diode	No TVS Diode

Both models were pre-investigated before testing, and the worst case among them was tested.
Worst case model: CG3000BM (Basic model)

2.2. Accessory information

Equipment	Manufacturer	Model	Serial No.	Power source
AC Adapter	MASS POWER	S042-1A120333VU	N/A	Input: 100-240 V, 50/60㎐/1.0 A Output: 12 V/3.33A
Smart phone	Samsung Electronics Co., Ltd.	SGH-N582	R38N301XM2M	DC 3.85 V

2.3. Description of EUT

1. The EUT operates over the 5 260 ㎒ – 5 320 ㎒ and 5 500 ㎒ – 5 720 ㎒ ranges.
2. The EUT is a Master device with radar detection.
3. In case of MIMO operation, The highest power level within these bands in 23.01 dBm EIRP in the 5 260 ㎒ – 5 320 ㎒ band and 22.89 dBm EIRP in the 5 500 ㎒ – 5 720 ㎒ band.
4. The EUT one transmitter/receiver chain connected to a coaxial cable to perform conducted tests.
5. The EUT utilizes the 802.11a/n/ac architecture. Three nominal channel bandwidth is implemented: 20 ㎒, 40 ㎒, 80 ㎒

2.4. Frequency/channel operations

This device contains the following capabilities:
2.4 ㎓ WIFI: WLAN 802.11b/g/n(HT20/HT40)
5 ㎓ WIFI: WLAN 802.11a/n(HT20/HT40)/ac(VHT20/VHT40/VHT80)

UNII-2A

Ch.	Frequency (㎒)
52	5 260
56	5 280
64	5 320

UNII-2C

Ch.	Frequency (㎒)
100	5 500
116	5 580
144	5 720

Table 2.4.1. 802.11a/n/ac_HT20/VHT20 mode

UNII-2A

Ch.	Frequency (㎒)
54	5 270
62	5 310

UNII-2C

Ch.	Frequency (㎒)
102	5 510
110	5 550
142	5 710

Table 2.4.2. 802.11n/ac_HT40/VHT40 mode

UNII-2A

Ch.	Frequency (㎒)
58	5 290

UNII-2C

Ch.	Frequency (㎒)
106	5 530
122	5 610
138	5 690

Table 2.4.3 802.11ac_VHT80 mode

Notes:
1. The device supports DFS bands between UNII-2A and UNII-2C and operates as a master device.

3. Summary of tests

FCC Part section(s)	Parameter	Test condition	Test results
15.407(h)	DFS -Non-occupied period -Channel Availability Check Time -Channel Move Time -Channel Closing Transmission Time -U-NII Detection Bandwidth	Conducted	Pass

Notes:

1. The test procedure(s) in this report were performed in accordance as following.
   - KDB 905462 D02 UNII DFS compliance procedure new rules .

4 DFS (Dynamic Frequency Selection) TEST

4.1. Applicability

Table1: 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

Table2: 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
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 ㎒ channels and the channel center frequency.		

4.2. DFS Detection Threshold

Procedure

According to §15.407(h)(2), Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. Operators shall only use equipment with a DFS mechanism that is turned on when operating in these bands. The device must sense for radar signals at 100 percent of its emission bandwidth. The minimum DFS detection threshold for devices with a maximum e.i.r.p. of 200 mW to 1 W is −64 dBm. For devices that operate with less than 200 mW e.i.r.p. and a power spectral density of less than 10 dBm in a 1 MHz band, the minimum detection threshold is −62 dBm. The detection threshold is the received power averaged over 1 microsecond referenced to a 0 dBi antenna. For the initial channel setting, the manufacturers shall be permitted to provide for either random channel selection or manual channel selection.

Table3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt 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.	

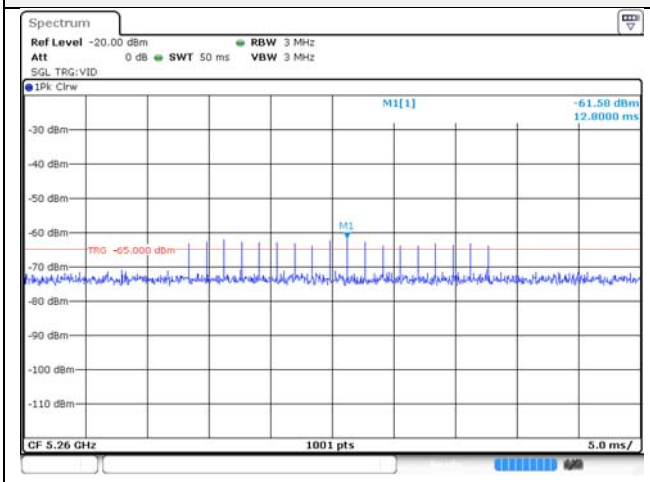
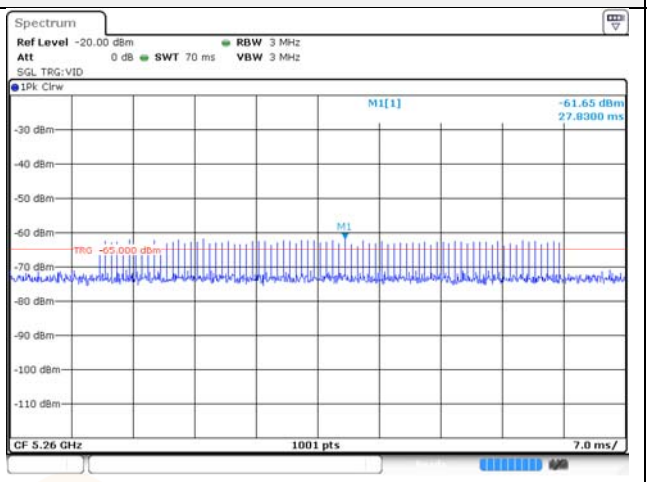
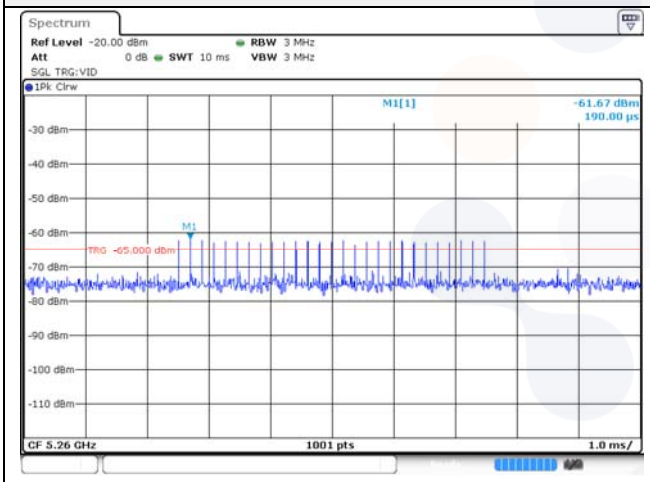
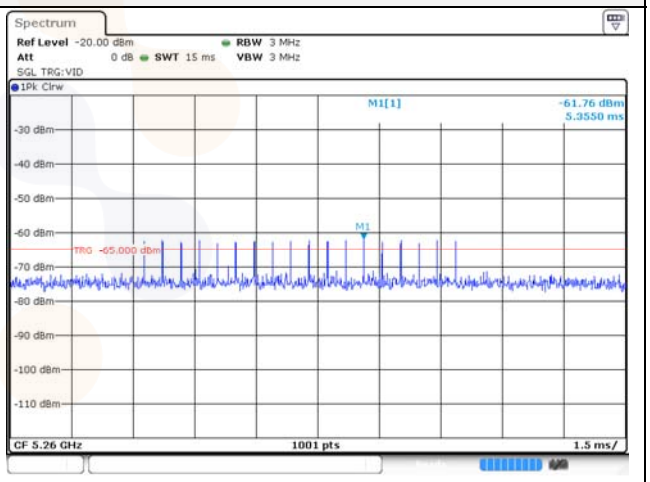
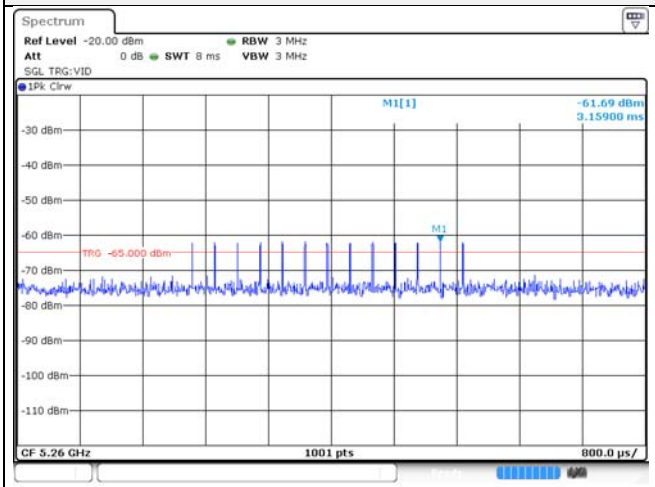
* Note:
The minimum antenna gain for the Master Device is 1.6 dBi.

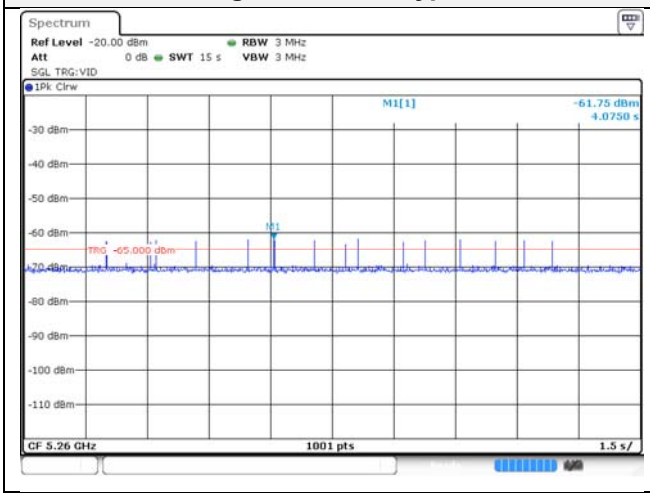
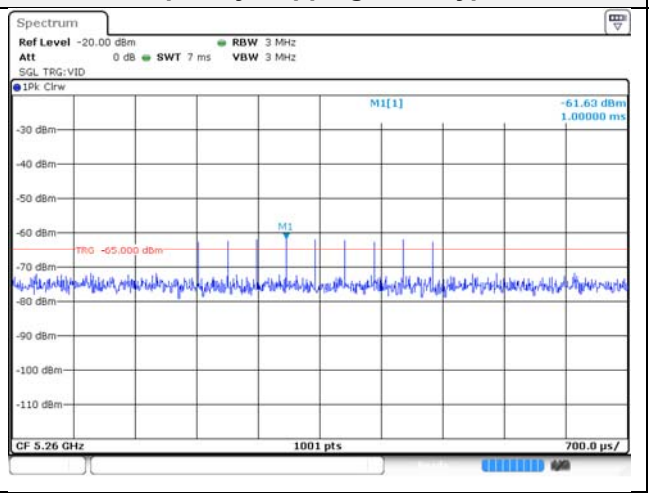
The output power of the Master unit is > 23 dBm (EIRP).
Therefore, the required interference threshold level is –64 dBm.

According to Note 2 in Table 3, the threshold is adjusted to -64 dBm + 1 dB.

The final calibrated threshold is calculated as follows.
Radar receive signal level = -64 dBm + minimum antenna gain + 1 dB
= -64 dBm + 1.6 dBi + 1 dB
= -61.4 dBm

Plot of Detection threshold

Short Pulse radar type 0	Short Pulse radar type 1
	
Short Pulse radar type 2	**Short Pulse radar type 3**
	
Short Pulse radar type 4	
	Blank

Long Pulse radar type 5	Frequency Hopping radar type 6
	

4.3. Requirements

- Requirements of Master devices

a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5 250 – 5 350 ㎒ and 5 470 – 5 725 ㎒ bands. DFS is not required in the 5 150 – 5 250 ㎒ or 5 725 – 5 825 ㎒ bands.

b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.

c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.

d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).

e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.

f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period.

g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

Table4: 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.
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.	

4.4. Parameters of DFS test signals

Table5: Short Pulse Radar Test Waveforms

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

Table6: Long Pulse Radar Test Waveform

Radar Type	Pulse Width (μs)	Chirp Width (㎒)	PRI (μs)	Number of Pulses per Burst	Number of Bursts	Minimum percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1 000-2 000	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.

Each waveform is defined as follows:

1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
2) 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.
3) 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.
4) 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.
5) Each pulse has a linear frequency modulated chirp between 5 and 20 ㎒, 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 5 300 ㎒ and a 20 ㎒ chirped signal, the chirp starts at 5 290 ㎒ and ends at 5 310 ㎒
6) If more than one pulse is present in a Burst, the time between the pulses will be between 1 000 and 2 000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the random time interval between the first and second pulses is chosen independently of the random time interval between the second and third pulses.
7) 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 randomly.

A representative example of a Long Pulse Radar Type waveform:

1) The total test waveform length is 12 seconds.
2) Eight (8) Bursts are randomly generated for the Burst Count.
3) Burst 1 has 2 randomly generated pulses.
4) The pulse width (for both pulses) is randomly selected to be 75 microseconds.
5) The PRI is randomly selected to be at 1213 microseconds.
6) Bursts 2 through 8 are generated using steps 3 – 5.
7) Each Burst is contained in even intervals of 1,500,000 microseconds. The starting location for Pulse 1, Burst 1 is randomly generated (1 to 1,500,000 minus the total Burst 1 length + 1 random PRI interval) at the 325,001 microsecond step. *Bursts* 2 through 8 randomly fall in successive 1,500,000 microsecond intervals (i.e. *Burst* 2 falls in the 1,500,001 – 3,000,000 microsecond range).

Figure 1 provides a graphical representation of the Long Pulse Radar Test Waveform.

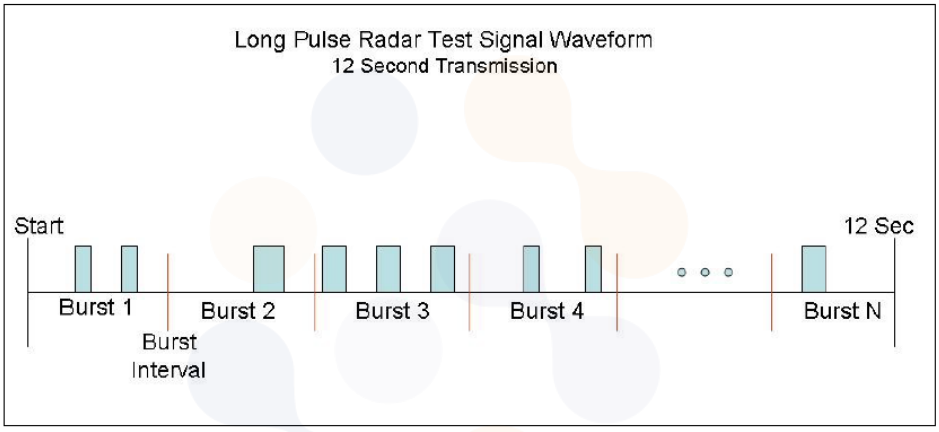


Figure 1: Graphical Representation of a Long Pulse Radar Type Waveform

Table7: Frequency Hopping Radar Test Waveform

Radar Waveform	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (㎑)	Hopping Sequence Length (μs)	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 5 250 – 5 724 ㎒. 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.

4.5. Test and measurement system

Procedure

The tests in this section are run sequentially and the UUT must pass all tests successfully. If the UUT fails any one of the tests it will count as a failure of compliance. To show compliance, all tests must be performed with waveforms randomly generated as specified with test results meeting the required percentage of successful detection criteria. All test results must be reported to the FCC. One frequency will be chosen from the operating Channels of the UUT within the 5 250-5 350 ㎒ or 5 470-5 725 ㎒ bands.

- Setup for Master with injection at the Master

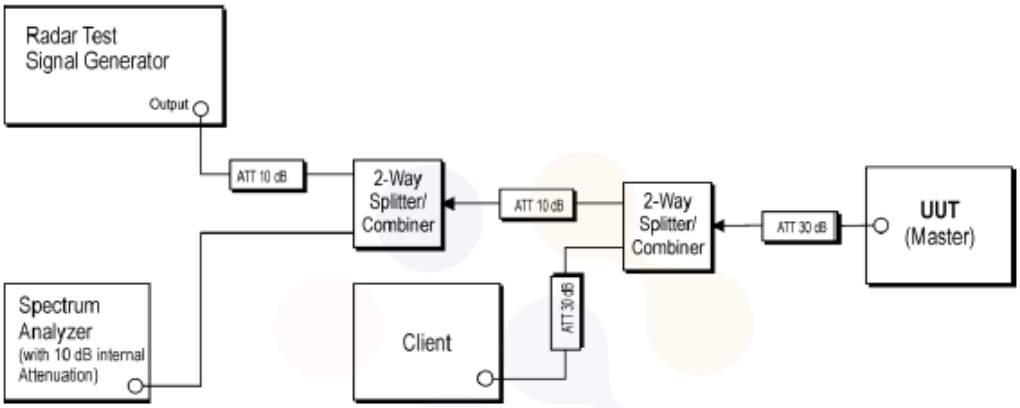


Figure 1. Conducted Test Setup for DFS

- Spectrum analyzer setting parameter

This setting parameter is shown below and it according to the 905462 D02 UNII DFS Compliance Procedures New Rules.

1) RBW/VBW ≥ 3 ㎒
2) Detector = peak
3) Span = zero span

- Channel Loading

System testing will be performed with channel-loading using means appropriate to the data types that are used by the unlicensed device. The following requirements apply:

a)	The data file must be of a type that is typical for the device (i.e., MPEG-2, MPEG-4, WAV, MP3, MP4, AVI, etc.) and must generally be transmitting in a streaming mode.	-
b)	Software to ping the client is permitted to simulate data transfer but must have random ping intervals.	-
c)	Timing plots are required with calculations demonstrating a minimum channel loading of approximately 17% or greater. For example, channel loading can be estimated by setting the spectrum analyzer for zero span and approximate the Time On/ (Time On + Off Time). This can be done with any appropriate channel BW and modulation type.	O
d)	Unicast or Multicast protocols are preferable but other protocols may be used. The appropriate protocol used must be described in the test procedures.	-

4.6. Test result

4.6.1 U-NII Detection Bandwidth

Adjust the equipment to produce a single Burst of any one of the Short Pulse Radar Types 0 – 4 in **Table 5** at the center frequency of the UUT Operating Channel at the specified DFS Detection Threshold level found in **Table 3**.

Set the UUT up as a standalone device (no associated Client or Master, as appropriate) and no traffic. Frame based systems will be set to a talk/listen ratio reflecting the worst case (maximum) that is user configurable during this test.

Generate a single radar Burst, and note the response of the UUT. Repeat for a minimum of 10 trials. The UUT must detect the Radar Waveform within the DFS band using the specified U-NII Detection Bandwidth criterion shown in **Table 4**. In cases where the channel bandwidth may exceed past the DFS band edge on specific channels (i.e., 802.11ac or wideband frame based systems) select a channel that has the entire emission bandwidth within the DFS band. If this is not possible, test the detection BW to the DFS band edge.

Starting at the center frequency of the UUT operating Channel, increase the radar frequency in 5 ㎒ steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in **Table 4**. Repeat this measurement in 1 ㎒ steps at frequencies 5 ㎒ below where the detection rate begins to fall. Record the highest frequency (denote as F_H) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above FH is not required to demonstrate compliance.

Starting at the center frequency of the UUT operating Channel, decrease the radar frequency in 5 ㎒ steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in **Table 4**. Repeat this measurement in 1 ㎒ steps at frequencies 5 ㎒ above where the detection rate begins to fall. Record the lowest frequency (denote as F_L) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below F_L is not required to demonstrate compliance.

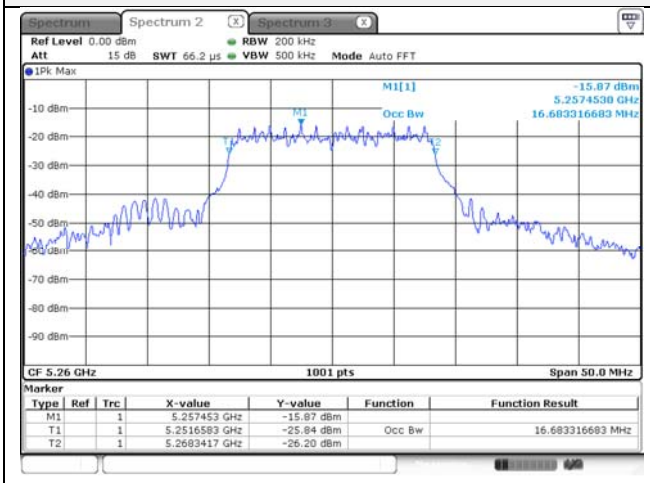
The U-NII Detection Bandwidth is calculated as follows:

U-NII Detection Bandwidth = $F_H – F_L$

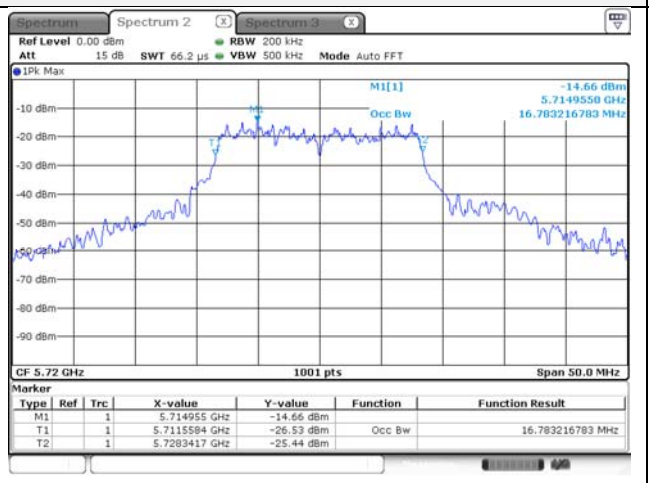
The U-NII Detection Bandwidth must meet the U-NII Detection Bandwidth criterion specified in **Table 4**. Otherwise, the UUT does not comply with DFS requirements. This is essential to ensure that the UUT is capable of detecting Radar Waveforms across the same frequency spectrum that contains the significant energy from the system. In the case that the U-NII Detection Bandwidth is greater than or equal to the 99 percent power bandwidth for the measured F_H and F_L, the test can be truncated and the U-NII Detection Bandwidth can be reported as the measured F_H and F_L.

Plot of 99% Bandwidth

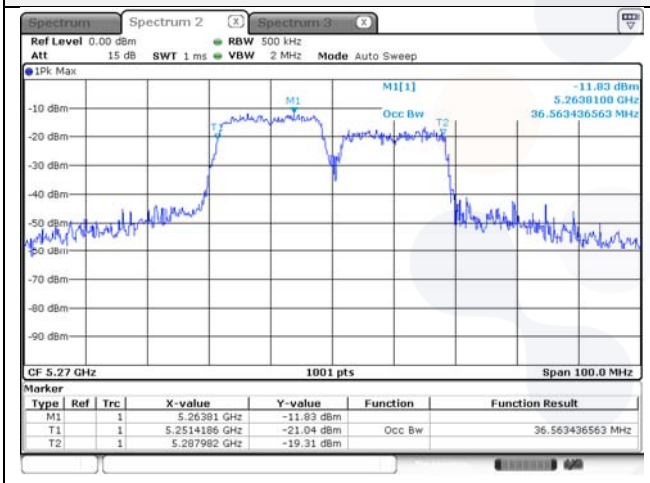
802.11a - 5 260 ㎒



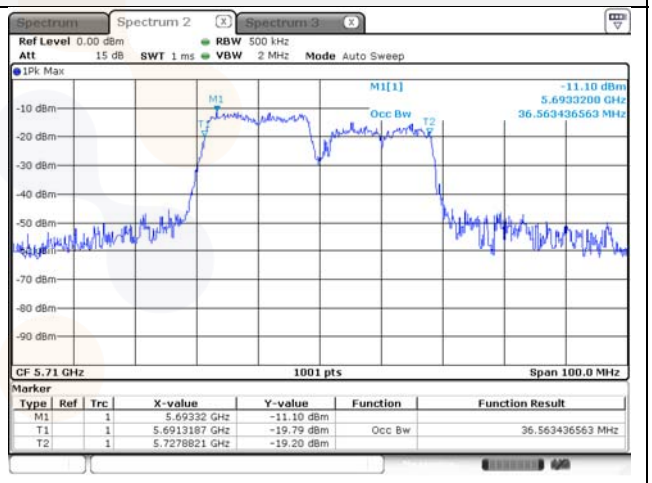
802.11a - 5 720 ㎒



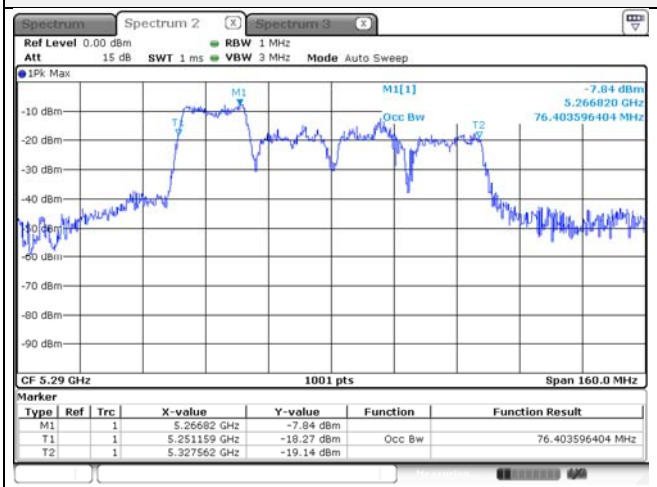
802.11n(HT40) - 5 270 ㎒



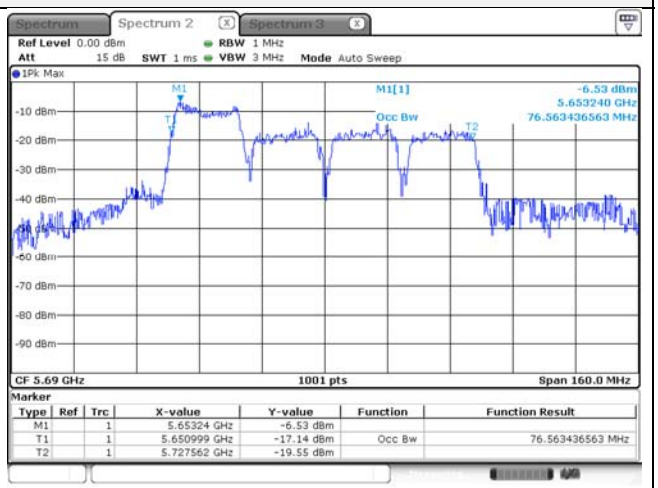
802.11n(HT40) - 5 710 ㎒



802.11ac(VHT80) - 5 290 ㎒



802.11ac(VHT80) - 5 690 ㎒



U-NII 2A / EUT Frequency = 5 260 ㎒ 802.11a (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
-14											
-13											
-12											
-11	X	X	X	X							<90%
-10	O	O	O	O	O	O	O	O	O	O	100%
-9	O	O	O	O	O	O	O	O	O	O	100%
-8	O	O	O	O	O	O	O	O	O	O	100%
-7	O	O	O	O	O	O	O	O	O	O	100%
-6	O	O	O	O	O	O	O	O	O	O	100%
-5	O	O	O	O	O	O	O	O	O	O	100%
-4	O	O	O	O	O	O	O	O	O	O	100%
-3	O	O	O	O	O	O	O	O	O	O	100%
-2	O	O	O	O	O	O	O	O	O	O	100%
-1	O	O	O	O	O	O	O	O	O	O	100%
Frequency 5 260 (㎒)	O	O	O	O	O	O	O	O	O	O	100%
+1	O	O	O	O	O	O	O	O	O	O	100%
+2	O	O	O	O	O	O	O	O	O	O	100%
+3	O	O	O	O	O	O	O	O	O	O	100%
+4	O	O	O	O	O	O	O	O	O	O	100%
+5	O	O	O	O	O	O	O	O	O	O	100%
+6	O	O	O	O	O	O	O	O	O	O	100%
+7	O	O	O	O	O	O	O	O	O	O	100%
+8	O	O	O	O	O	O	O	O	O	O	100%
+9	O	O	O	O	O	O	O	O	O	O	100%
+10	O	O	O	O	O	O	O	O	O	O	100%
+11	X	X	X	X							<90%
+12											
+13											
+14											
Detection Bandwidth = $F_H - F_L$ = 5 270 - 5 250 = 20 ㎒											
EUT 99% Bandwidth = 16.68 ㎒ (ref. bandwidth channel 5 260 ㎒)											
For each frequency step the minimum percentage detection is 90%											

U-NII 2C / EUT Frequency = 5 720 ㎒ 802.11a (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
-14											
-13											
-12											
-11	X	X	X	X							<90%
-10	O	O	O	O	O	O	O	O	O	O	100%
-9	O	O	O	O	O	O	O	O	O	O	100%
-8	O	O	O	O	O	O	O	O	O	O	100%
-7	O	O	O	O	O	O	O	O	O	O	100%
-6	O	O	O	O	O	O	O	O	O	O	100%
-5	O	O	O	O	O	O	O	O	O	O	100%
-4	O	O	O	O	O	O	O	O	O	O	100%
-3	O	O	O	O	O	O	O	O	O	O	100%
-2	O	O	O	O	O	O	O	O	O	O	100%
-1	O	O	O	O	O	O	O	O	O	O	100%
Frequency 5 720 (㎒)	O	O	O	O	O	O	O	O	O	O	100%
+1	O	O	O	O	O	O	O	O	O	O	100%
+2	O	O	O	O	O	O	O	O	O	O	100%
+3	O	O	O	O	O	O	O	O	O	O	100%
+4	O	O	O	O	O	O	O	O	O	O	100%
+5	O	O	O	O	O	O	O	O	O	O	100%
+6	O	O	O	O	O	O	O	O	O	O	100%
+7	O	O	O	O	O	O	O	O	O	O	100%
+8	O	O	O	O	O	O	O	O	O	O	100%
+9	O	O	O	O	O	O	O	O	O	O	100%
+10	O	O	O	O	O	O	O	O	O	O	100%
+11	X	X	X	X							<90%
+12											
+13											
+14											
Detection Bandwidth = $F_H - F_L$ = 5 730 - 5 710 = 20 ㎒											
EUT 99% Bandwidth = 16.78 ㎒ (ref. bandwidth channel 5 720 ㎒)											
For each frequency step the minimum percentage detection is 90%											

U-NII 2A / EUT Frequency = 5 270 ㎒ 802.11n HT40 (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
-24											
-23											
-22											
-21	X	X	X	X							<90%
-20	O	O	O	O	O	O	O	O	O	O	100%
-19	O	O	O	O	O	O	O	O	O	O	100%
-18	O	O	O	O	O	O	O	O	O	O	100%
-17	O	O	O	O	O	O	O	O	O	O	100%
-16	O	O	O	O	O	O	O	O	O	O	100%
-15	O	O	O	O	O	O	O	O	O	O	100%
-14	O	O	O	O	O	O	O	O	O	O	100%
-13	O	O	O	O	O	O	O	O	O	O	100%
-12	O	O	O	O	O	O	O	O	O	O	100%
-11	O	O	O	O	O	O	O	O	O	O	100%
-10	O	O	O	O	O	O	O	O	O	O	100%
-9	O	O	O	O	O	O	O	O	O	O	100%
-8	O	O	O	O	O	O	O	O	O	O	100%
-7	O	O	O	O	O	O	O	O	O	O	100%
-6	O	O	O	O	O	O	O	O	O	O	100%
-5	O	O	O	O	O	O	O	O	O	O	100%
-4	O	O	O	O	O	O	O	O	O	O	100%
-3	O	O	O	O	O	O	O	O	O	O	100%
-2	O	O	O	O	O	O	O	O	O	O	100%
-1	O	O	O	O	O	O	O	O	O	O	100%
Frequency 5 270 (㎒)	O	O	O	O	O	O	O	O	O	O	100%

U-NII 2A / EUT Frequency = 5 270 ㎒ 802.11n HT40 (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
Frequency 5 270 (㎒)	O	O	O	O	O	O	O	O	O	O	
+1	O	O	O	O	O	O	O	O	O	O	100%
+2	O	O	O	O	O	O	O	O	O	O	100%
+3	O	O	O	O	O	O	O	O	O	O	100%
+4	O	O	O	O	O	O	O	O	O	O	100%
+5	O	O	O	O	O	O	O	O	O	O	100%
+6	O	O	O	O	O	O	O	O	O	O	100%
+7	O	O	O	O	O	O	O	O	O	O	100%
+8	O	O	O	O	O	O	O	O	O	O	100%
+9	O	O	O	O	O	O	O	O	O	O	100%
+10	O	O	O	O	O	O	O	O	O	O	100%
+11	O	O	O	O	O	O	O	O	O	O	100%
+12	O	O	O	O	O	O	O	O	O	O	100%
+13	O	O	O	O	O	O	O	O	O	O	100%
+14	O	O	O	O	O	O	O	O	O	O	100%
+15	O	O	O	O	O	O	O	O	O	O	100%
+16	O	O	O	O	O	O	O	O	O	O	100%
+17	O	O	O	O	O	O	O	O	O	O	100%
+18	O	O	O	O	O	O	O	O	O	O	100%
+19	O	O	O	O	O	O	O	O	O	O	100%
+20	O	O	O	O	O	O	O	O	O	O	100%
+21	X	X	X	X							<90%
+22											
+23											
+24											
Detection Bandwidth = $F_H - F_L$ = 5 290 - 5 250 = 40 ㎒											
EUT 99% Bandwidth = 36.56 ㎒ (ref. bandwidth channel 5 270 ㎒)											
For each frequency step the minimum percentage detection is 90%											

U-NII 2C / EUT Frequency = 5 710 ㎒ 802.11n HT40 (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
-24											
-23											
-22											
-21	X	X	X	X							<90%
-20	O	O	O	O	O	O	O	O	O	O	100%
-19	O	O	O	O	O	O	O	O	O	O	100%
-18	O	O	O	O	O	O	O	O	O	O	100%
-17	O	O	O	O	O	O	O	O	O	O	100%
-16	O	O	O	O	O	O	O	O	O	O	100%
-15	O	O	O	O	O	O	O	O	O	O	100%
-14	O	O	O	O	O	O	O	O	O	O	100%
-13	O	O	O	O	O	O	O	O	O	O	100%
-12	O	O	O	O	O	O	O	O	O	O	100%
-11	O	O	O	O	O	O	O	O	O	O	100%
-10	O	O	O	O	O	O	O	O	O	O	100%
-9	O	O	O	O	O	O	O	O	O	O	100%
-8	O	O	O	O	O	O	O	O	O	O	100%
-7	O	O	O	O	O	O	O	O	O	O	100%
-6	O	O	O	O	O	O	O	O	O	O	100%
-5	O	O	O	O	O	O	O	O	O	O	100%
-4	O	O	O	O	O	O	O	O	O	O	100%
-3	O	O	O	O	O	O	O	O	O	O	100%
-2	O	O	O	O	O	O	O	O	O	O	100%
-1	O	O	O	O	O	O	O	O	O	O	100%
Frequency 5 710 (㎒)	O	O	O	O	O	O	O	O	O	O	100%

U-NII 2C / EUT Frequency = 5 710 ㎒ 802.11n HT40 (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
Frequency 5 710 (㎒)	O	O	O	O	O	O	O	O	O	O	
+1	O	O	O	O	O	O	O	O	O	O	100%
+2	O	O	O	O	O	O	O	O	O	O	100%
+3	O	O	O	O	O	O	O	O	O	O	100%
+4	O	O	O	O	O	O	O	O	O	O	100%
+5	O	O	O	O	O	O	O	O	O	O	100%
+6	O	O	O	O	O	O	O	O	O	O	100%
+7	O	O	O	O	O	O	O	O	O	O	100%
+8	O	O	O	O	O	O	O	O	O	O	100%
+9	O	O	O	O	O	O	O	O	O	O	100%
+10	O	O	O	O	O	O	O	O	O	O	100%
+11	O	O	O	O	O	O	O	O	O	O	100%
+12	O	O	O	O	O	O	O	O	O	O	100%
+13	O	O	O	O	O	O	O	O	O	O	100%
+14	O	O	O	O	O	O	O	O	O	O	100%
+15	O	O	O	O	O	O	O	O	O	O	100%
+16	O	O	O	O	O	O	O	O	O	O	100%
+17	O	O	O	O	O	O	O	O	O	O	100%
+18	O	O	O	O	O	O	O	O	O	O	100%
+19	O	O	O	O	O	O	O	O	O	O	100%
+20	O	O	O	O	O	O	O	O	O	O	100%
+21	X	X	X	X							<90%
+22											
+23											
+24											
Detection Bandwidth = $F_H - F_L$ = 5 730 - 5 690 = 40 ㎒											
EUT 99% Bandwidth = 36.56 ㎒ (ref. bandwidth channel 5 710 ㎒)											
For each frequency step the minimum percentage detection is 90%											

U-NII 2A / EUT Frequency = 5 290 ㎒ 802.11ac VHT80 (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
-42											
-41	X	X	X	X							<90%
-40	O	O	O	O	O	O	O	O	O	O	100%
-39	O	O	O	O	O	O	O	O	O	O	100%
-38	O	O	O	O	O	O	O	O	O	O	100%
-37	O	O	O	O	O	O	O	O	O	O	100%
-36	O	O	O	O	O	O	O	O	O	O	100%
-35	O	O	O	O	O	O	O	O	O	O	100%
-34	O	O	O	O	O	O	O	O	O	O	100%
-33	O	O	O	O	O	O	O	O	O	O	100%
-32	O	O	O	O	O	O	O	O	O	O	100%
-31	O	O	O	O	O	O	O	O	O	O	100%
-30	O	O	O	O	O	O	O	O	O	O	100%
-29	O	O	O	O	O	O	O	O	O	O	100%
-28	O	O	O	O	O	O	O	O	O	O	100%
-27	O	O	O	O	O	O	O	O	O	O	100%
-26	O	O	O	O	O	O	O	O	O	O	100%
-25	O	O	O	O	O	O	O	O	O	O	100%
-24	O	O	O	O	O	O	O	O	O	O	100%
-23	O	O	O	O	O	O	O	O	O	O	100%
-22	O	O	O	O	O	O	O	O	O	O	100%
-21	O	O	O	O	O	O	O	O	O	O	100%
-20	O	O	O	O	O	O	O	O	O	O	100%
-19	O	O	O	O	O	O	O	O	O	O	100%
-18	O	O	O	O	O	O	O	O	O	O	100%
-17	O	O	O	O	O	O	O	O	O	O	100%
-16	O	O	O	O	O	O	O	O	O	O	100%
-15	O	O	O	O	O	O	O	O	O	O	100%
-14	O	O	O	O	O	O	O	O	O	O	100%
-13	O	O	O	O	O	O	O	O	O	O	100%
-12	O	O	O	O	O	O	O	O	O	O	100%
-11	O	O	O	O	O	O	O	O	O	O	100%
-10	O	O	O	O	O	O	O	O	O	O	100%
-9	O	O	O	O	O	O	O	O	O	O	100%
-8	O	O	O	O	O	O	O	O	O	O	100%

-7	O	O	O	O	O	O	O	O	O	O	100%
-6	O	O	O	O	O	O	O	O	O	O	100%
-5	O	O	O	O	O	O	O	O	O	O	100%
-4	O	O	O	O	O	O	O	O	O	O	100%
-3	O	O	O	O	O	O	O	O	O	O	100%
-2	O	O	O	O	O	O	O	O	O	O	100%
-1	O	O	O	O	O	O	O	O	O	O	100%
Frequency 5 290 (㎒)	O	O	O	O	O	O	O	O	O	O	100%
+1	O	O	O	O	O	O	O	O	O	O	100%
+2	O	O	O	O	O	O	O	O	O	O	100%
+3	O	O	O	O	O	O	O	O	O	O	100%
+4	O	O	O	O	O	O	O	O	O	O	100%
+5	O	O	O	O	O	O	O	O	O	O	100%
+6	O	O	O	O	O	O	O	O	O	O	100%
+7	O	O	O	O	O	O	O	O	O	O	100%
+8	O	O	O	O	O	O	O	O	O	O	100%
+9	O	O	O	O	O	O	O	O	O	O	100%
+10	O	O	O	O	O	O	O	O	O	O	100%
+11	O	O	O	O	O	O	O	O	O	O	100%
+12	O	O	O	O	O	O	O	O	O	O	100%
+13	O	O	O	O	O	O	O	O	O	O	100%
+14	O	O	O	O	O	O	O	O	O	O	100%
+15	O	O	O	O	O	O	O	O	O	O	100%
+16	O	O	O	O	O	O	O	O	O	O	100%
+17	O	O	O	O	O	O	O	O	O	O	100%
+18	O	O	O	O	O	O	O	O	O	O	100%
+19	O	O	O	O	O	O	O	O	O	O	100%
+20	O	O	O	O	O	O	O	O	O	O	100%
+21	O	O	O	O	O	O	O	O	O	O	100%
+22	O	O	O	O	O	O	O	O	O	O	100%
+23	O	O	O	O	O	O	O	O	O	O	100%
+24	O	O	O	O	O	O	O	O	O	O	100%
+25	O	O	O	O	O	O	O	O	O	O	100%
+26	O	O	O	O	O	O	O	O	O	O	100%
+27	O	O	O	O	O	O	O	O	O	O	100%
+28	O	O	O	O	O	O	O	O	O	O	100%
+29	O	O	O	O	O	O	O	O	O	O	100%
+30	O	O	O	O	O	O	O	O	O	O	100%
+31	O	O	O	O	O	O	O	O	O	O	100%

+32	O	O	O	O	O	O	O	O	O	O	100%
+33	O	O	O	O	O	O	O	O	O	O	100%
+34	O	O	O	O	O	O	O	O	O	O	100%
+35	O	O	O	O	O	O	O	O	O	O	100%
+36	O	O	O	O	O	O	O	O	O	O	100%
+37	O	O	O	O	O	O	O	O	O	O	100%
+38	O	O	O	O	O	O	O	O	O	O	100%
+39	O	O	O	O	O	O	O	O	O	O	100%
+40	O	O	O	O	O	O	O	O	O	O	100%
+41	X	X	X	X							<90%
+42											
Detection Bandwidth = F_H – F_L = 5 330 - 5 250 = 80 ㎒											
EUT 99% Bandwidth = 76.40 ㎒ (ref. bandwidth channel 5 290 ㎒)											
For each frequency step the minimum percentage detection is 90%											

U-NII 2C / EUT Frequency = 5 690 ㎒ 802.11ac VHT80 (Detection = O, No Detection = X)											
Radar Frequency (㎒)	0	1	2	3	4	5	6	7	8	9	Detection Rate
-42											
-41	X	X	X	X							<90%
-40	O	O	O	O	O	O	O	O	O	O	100%
-39	O	O	O	O	O	O	O	O	O	O	100%
-38	O	O	O	O	O	O	O	O	O	O	100%
-37	O	O	O	O	O	O	O	O	O	O	100%
-36	O	O	O	O	O	O	O	O	O	O	100%
-35	O	O	O	O	O	O	O	O	O	O	100%
-34	O	O	O	O	O	O	O	O	O	O	100%
-33	O	O	O	O	O	O	O	O	O	O	100%
-32	O	O	O	O	O	O	O	O	O	O	100%
-31	O	O	O	O	O	O	O	O	O	O	100%
-30	O	O	O	O	O	O	O	O	O	O	100%
-29	O	O	O	O	O	O	O	O	O	O	100%
-28	O	O	O	O	O	O	O	O	O	O	100%
-27	O	O	O	O	O	O	O	O	O	O	100%
-26	O	O	O	O	O	O	O	O	O	O	100%
-25	O	O	O	O	O	O	O	O	O	O	100%
-24	O	O	O	O	O	O	O	O	O	O	100%
-23	O	O	O	O	O	O	O	O	O	O	100%
-22	O	O	O	O	O	O	O	O	O	O	100%
-21	O	O	O	O	O	O	O	O	O	O	100%
-20	O	O	O	O	O	O	O	O	O	O	100%
-19	O	O	O	O	O	O	O	O	O	O	100%
-18	O	O	O	O	O	O	O	O	O	O	100%
-17	O	O	O	O	O	O	O	O	O	O	100%
-16	O	O	O	O	O	O	O	O	O	O	100%
-15	O	O	O	O	O	O	O	O	O	O	100%
-14	O	O	O	O	O	O	O	O	O	O	100%
-13	O	O	O	O	O	O	O	O	O	O	100%
-12	O	O	O	O	O	O	O	O	O	O	100%
-11	O	O	O	O	O	O	O	O	O	O	100%
-10	O	O	O	O	O	O	O	O	O	O	100%
-9	O	O	O	O	O	O	O	O	O	O	100%
-8	O	O	O	O	O	O	O	O	O	O	100%

-7	O	O	O	O	O	O	O	O	O	O	100%
-6	O	O	O	O	O	O	O	O	O	O	100%
-5	O	O	O	O	O	O	O	O	O	O	100%
-4	O	O	O	O	O	O	O	O	O	O	100%
-3	O	O	O	O	O	O	O	O	O	O	100%
-2	O	O	O	O	O	O	O	O	O	O	100%
-1	O	O	O	O	O	O	O	O	O	O	100%
Frequency 5 690 (㎒)	O	O	O	O	O	O	O	O	O	O	100%
+1	O	O	O	O	O	O	O	O	O	O	100%
+2	O	O	O	O	O	O	O	O	O	O	100%
+3	O	O	O	O	O	O	O	O	O	O	100%
+4	O	O	O	O	O	O	O	O	O	O	100%
+5	O	O	O	O	O	O	O	O	O	O	100%
+6	O	O	O	O	O	O	O	O	O	O	100%
+7	O	O	O	O	O	O	O	O	O	O	100%
+8	O	O	O	O	O	O	O	O	O	O	100%
+9	O	O	O	O	O	O	O	O	O	O	100%
+10	O	O	O	O	O	O	O	O	O	O	100%
+11	O	O	O	O	O	O	O	O	O	O	100%
+12	O	O	O	O	O	O	O	O	O	O	100%
+13	O	O	O	O	O	O	O	O	O	O	100%
+14	O	O	O	O	O	O	O	O	O	O	100%
+15	O	O	O	O	O	O	O	O	O	O	100%
+16	O	O	O	O	O	O	O	O	O	O	100%
+17	O	O	O	O	O	O	O	O	O	O	100%
+18	O	O	O	O	O	O	O	O	O	O	100%
+19	O	O	O	O	O	O	O	O	O	O	100%
+20	O	O	O	O	O	O	O	O	O	O	100%
+21	O	O	O	O	O	O	O	O	O	O	100%
+22	O	O	O	O	O	O	O	O	O	O	100%
+23	O	O	O	O	O	O	O	O	O	O	100%
+24	O	O	O	O	O	O	O	O	O	O	100%
+25	O	O	O	O	O	O	O	O	O	O	100%
+26	O	O	O	O	O	O	O	O	O	O	100%
+27	O	O	O	O	O	O	O	O	O	O	100%
+28	O	O	O	O	O	O	O	O	O	O	100%
+29	O	O	O	O	O	O	O	O	O	O	100%
+30	O	O	O	O	O	O	O	O	O	O	100%
+31	O	O	O	O	O	O	O	O	O	O	100%

+32	O	O	O	O	O	O	O	O	O	O	100%
+33	O	O	O	O	O	O	O	O	O	O	100%
+34	O	O	O	O	O	O	O	O	O	O	100%
+35	O	O	O	O	O	O	O	O	O	O	100%
+36	O	O	O	O	O	O	O	O	O	O	100%
+37	O	O	O	O	O	O	O	O	O	O	100%
+38	O	O	O	O	O	O	O	O	O	O	100%
+39	O	O	O	O	O	O	O	O	O	O	100%
+40	O	O	O	O	O	O	O	O	O	O	100%
+41	X	X	X	X							<90%
+42											
Detection Bandwidth = F_H – F_L = 5 730 - 5 650 = 80 ㎒											
EUT 99% Bandwidth = 76.56 ㎒ (ref. bandwidth channel 5 690 ㎒)											
For each frequency step the minimum percentage detection is 90%											

4.6.2 Initial Channel Availability Check Time

The Initial Channel Availability Check Time tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms and only needs to be performed one time.

b) The U-NII devices will be powered on and be instructed to operate on the appropriate U-NII *Channel* that must incorporate DFS functions. At the same time the UUT is powered on, the spectrum analyzer will be set to zero span mode with a 3 ㎒ RBW and 3 ㎒ VBW on the *Channel* occupied by the radar (Ch_r) with a 2.5 minute sweep time. The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.

c) The UUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.

d) Confirm that the UUT initiates transmission on the channel

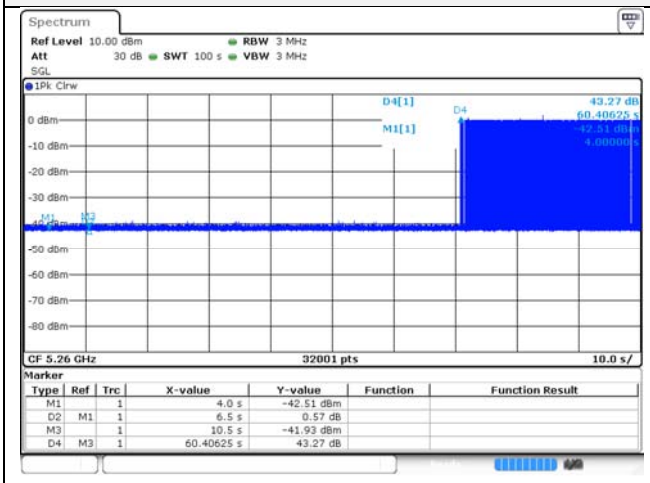
This measurement can be used to determine the length of the power-on cycle if it is not supplied by the manufacturer. If the spectrum analyzer sweep is started at the same time the UUT is powered on and the UUT does not begin transmissions until it has completed the cycle, the power-on time can be determined by comparing the two times.

Notes:

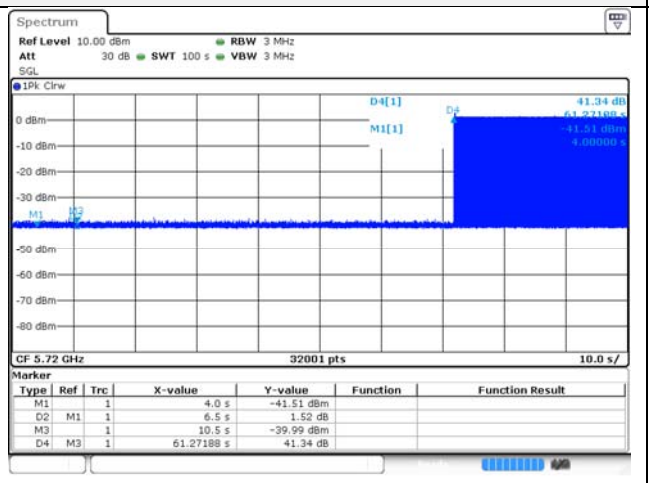
1. M1 ~ D2: The UUT is powered on at M1. D2 denotes the instant when the UUT has completed its power-up sequence (power up).

Plot of Initial Channel Availability Check Time

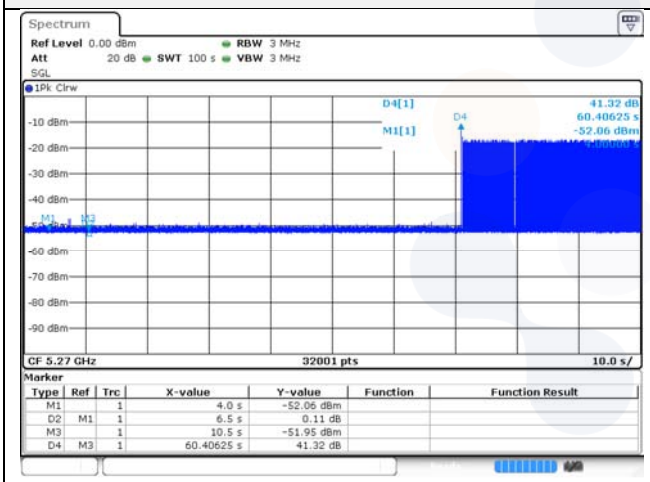
802.11a - 5 260 ㎒ = 60.41 s



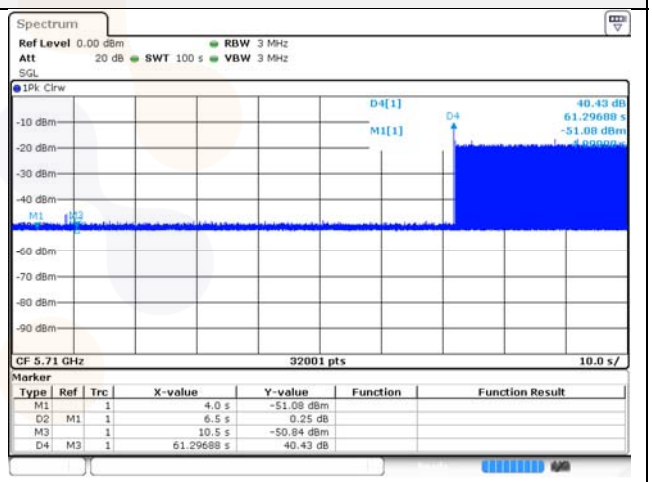
802.11a - 5 720 ㎒ = 61.27 s



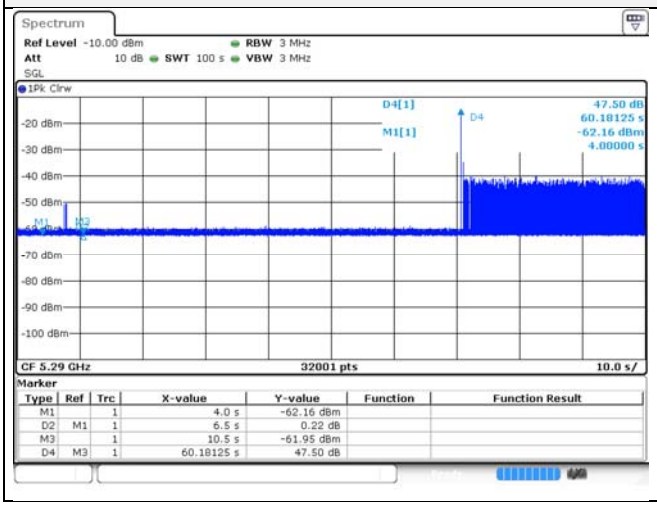
802.11n(HT40) - 5 270 ㎒ = 60.41 s



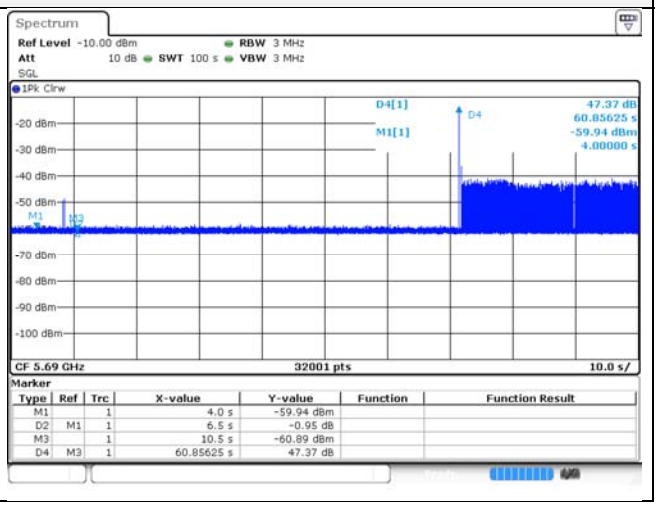
802.11n(HT40) - 5 710 ㎒ = 61.30 s



802.11ac(VHT80) - 5 290 ㎒ = 60.18 s



802.11ac(VHT80) - 5 690 ㎒ = 60.86 s



4.6.3 Radar Burst at the Beginning of the Channel Availability Check Time

The steps below define the procedure to verify successful radar detection on the test Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time. This is illustrated in **Figure 15**.

a) The Radar Waveform generator and UUT are connected using the applicable test setup described in the sections on configuration for Conducted Tests (7.2) or Radiated Tests (7.3) and the power of the UUT is switched off.

b) The UUT is powered on at T_0. T_1 denotes the instant when the UUT has completed its power-up sequence (T_{power_up}). The Channel Availability Check Time commences on Ch_r at instant T_1 and will end no sooner than $T_1 + T_{ch\_avail\_check}$.

c) A single Burst of one of the Short Pulse Radar Types 0-4 will commence within a 6 second window starting at T_1. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

d) Visual indication or measured results on the UUT of successful detection of the radar Burst will be recorded and reported. Observation of Ch_r for UUT emissions will continue for 2.5 minutes after the radar Burst has been generated.

e) Verify that during the 2.5 minute measurement window no UUT transmissions occurred on Ch_r. The Channel Availability Check results will be recorded.

Notes:

1. M1 ~ D2: The UUT is powered on at M1. D2 denotes the instant when the UUT has completed its power-up sequence (power up).
2. M3 ~ M4: Radar signal applied within 6 seconds after power-up is completed.
3. M5 ~ M6: Not applicable. (End of the Channel Availability Check Time)

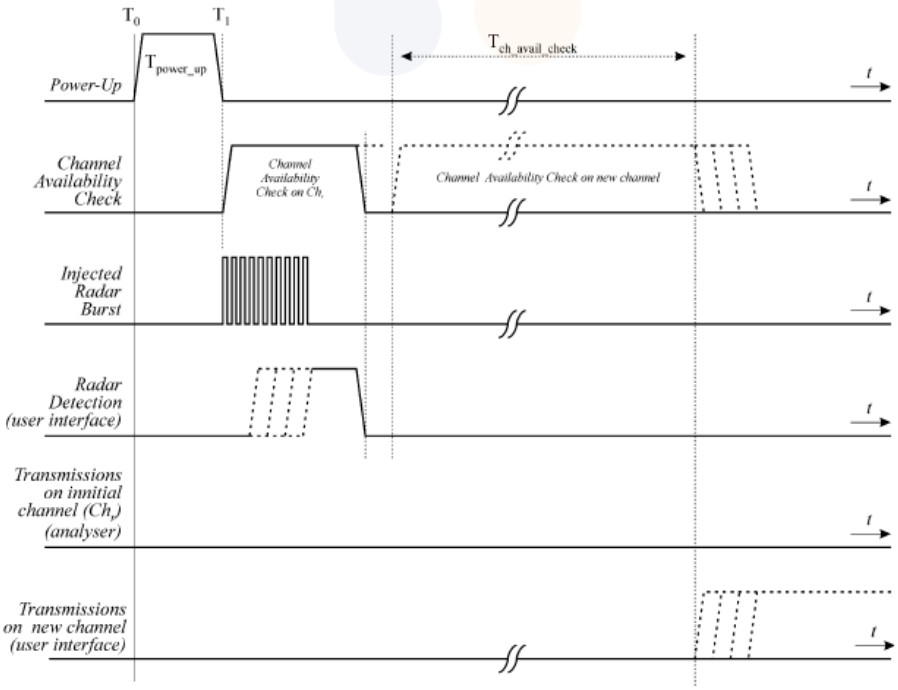
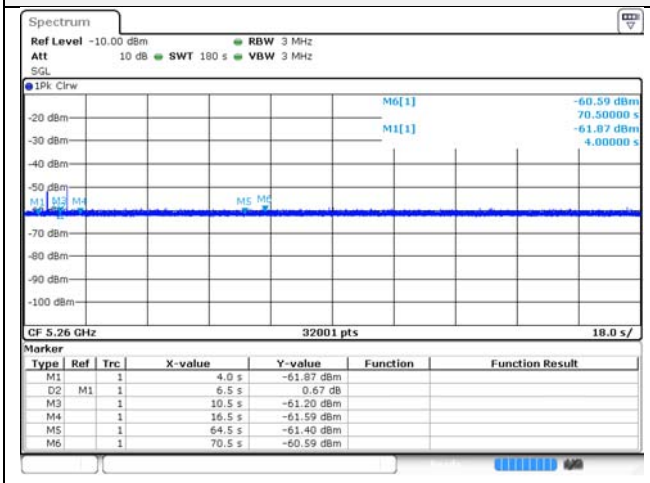


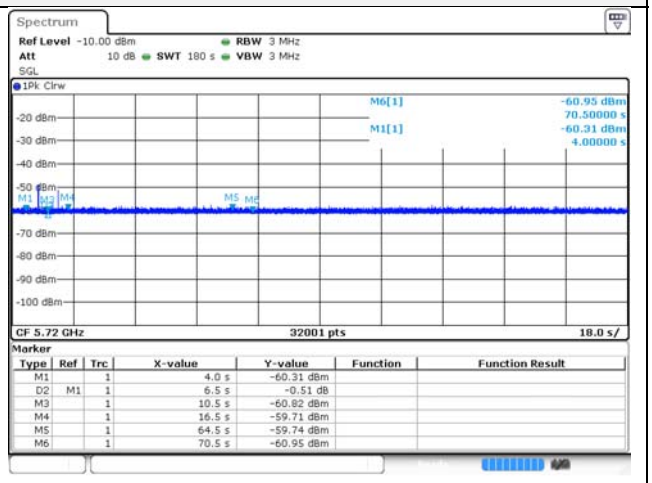
Figure 15: Example of timing for radar testing at the beginning of the Channel Availability Check Time

Plot of Radar Burst at the Beginning of the Channel Availability Check Time

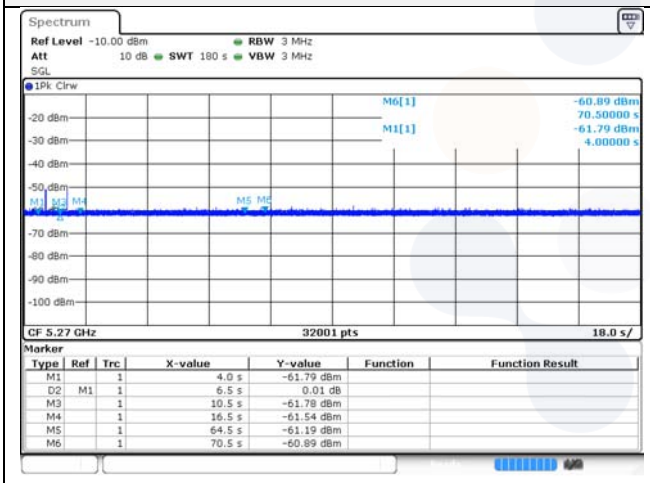
802.11a - 5 260 ㎒



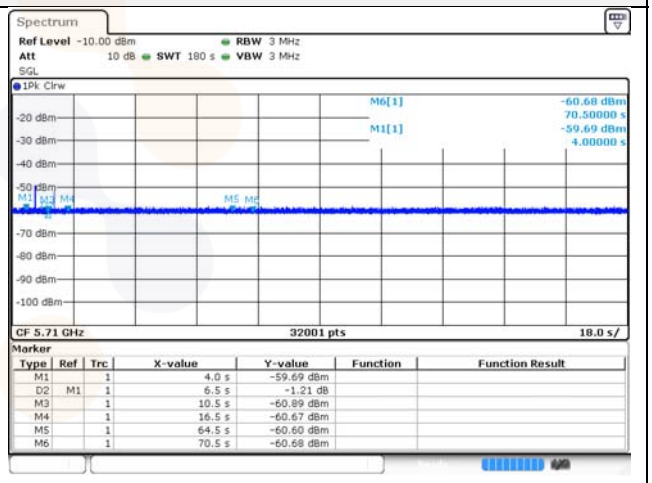
802.11a - 5 720 ㎒



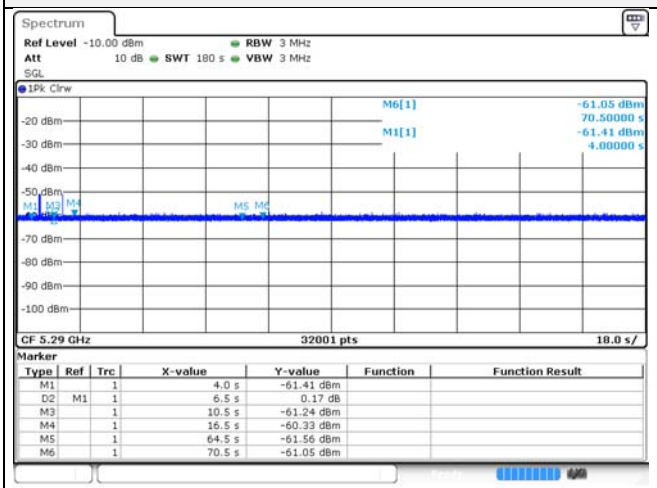
802.11n(HT40) - 5 270 ㎒



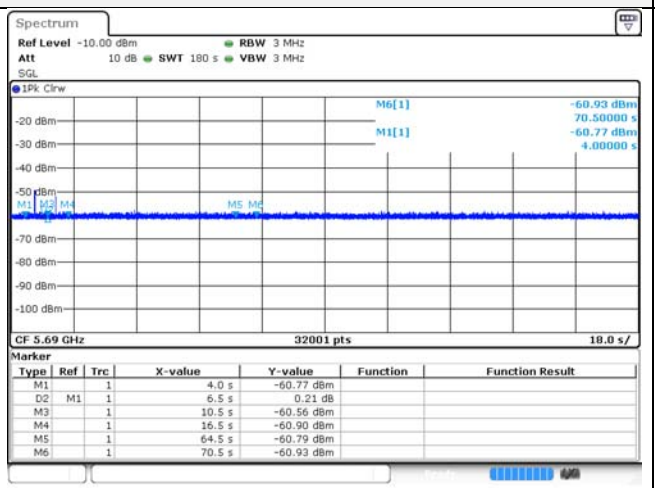
802.11n(HT40) - 5 710 ㎒



802.11ac(VHT80) - 5 290 ㎒



802.11ac(VHT80) - 5 690 ㎒



4.6.4 Radar Burst at the End of the Channel Availability Check Time

The steps below define the procedure to verify successful radar detection on the test Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1dB occurs at the end of the Channel Availability Check Time. This is illustrated in **Figure 16**.

a) The Radar Waveform generator and UUT are connected using the applicable test setup described in the sections for Conducted Tests (7.2) or Radiated Tests (7.3) and the power of the UUT is switched off.

b) The UUT is powered on at T_0. T_1 denotes the instant when the UUT has completed its power-up sequence (T_{power_up}). The Channel Availability Check Time commences on Ch_r at instant T_1 and will end no sooner than $T_1 + T_{ch\_avail\_check}$.

c) A single Burst of one of the Short Pulse Radar Types 0-4 will commence within a 6 second window starting at T_1 + 54 seconds. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

d) Visual indication or measured results on the UUT of successful detection of the radar Burst will be recorded and reported. Observation of Ch_r for UUT emissions will continue for 2.5 minutes after the radar Burst has been generated.

e) Verify that during the 2.5 minute measurement window no UUT transmissions occurred on Ch_r. The Channel Availability Check results will be recorded.

Notes:

1. M1 ~ D2: The UUT is powered on at M1. D2 denotes the instant when the UUT has completed its power-up sequence (power up).
2. M3 ~ M4: Not applicable. (Beginning of the Channel Availability Check Time)
3. M5 ~ M6: M5 is 54 seconds after power-up is completed. The radar signal is then applied within 6 seconds.

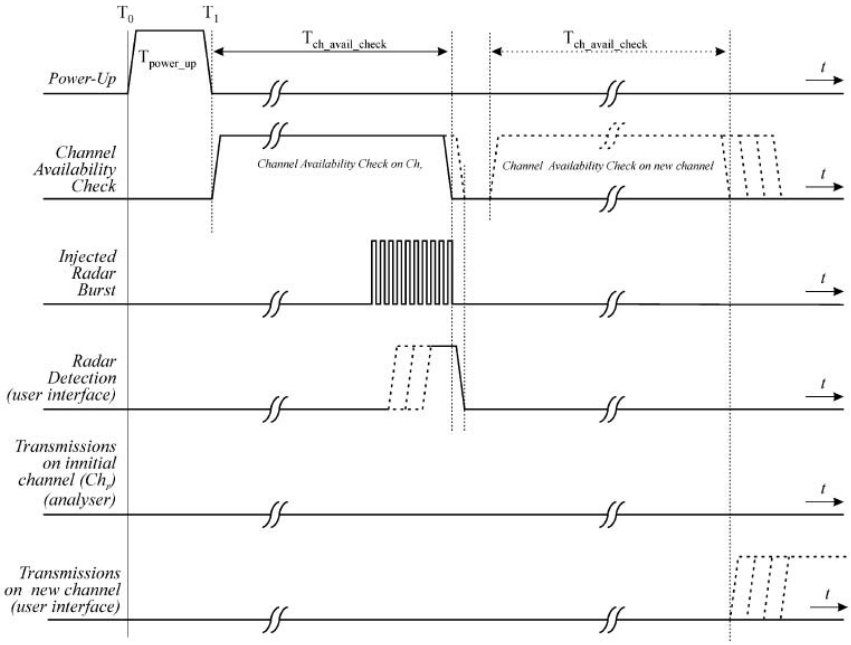
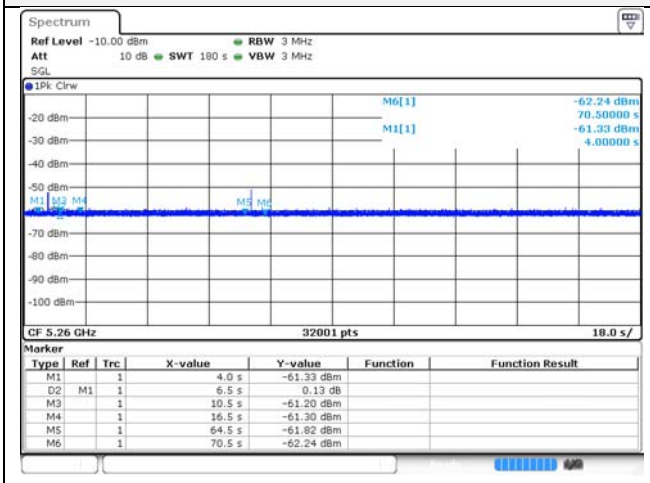


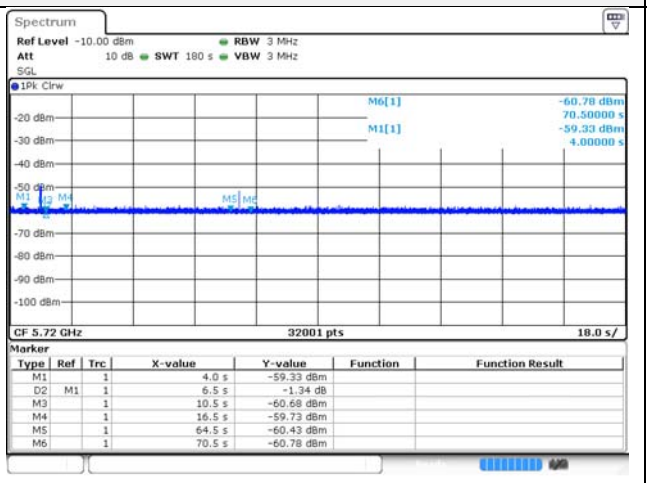
Figure 16: Example of timing for radar testing towards the end of the Channel Availability Check Time

Plot of Radar Burst at the End of the Channel Availability Check Time

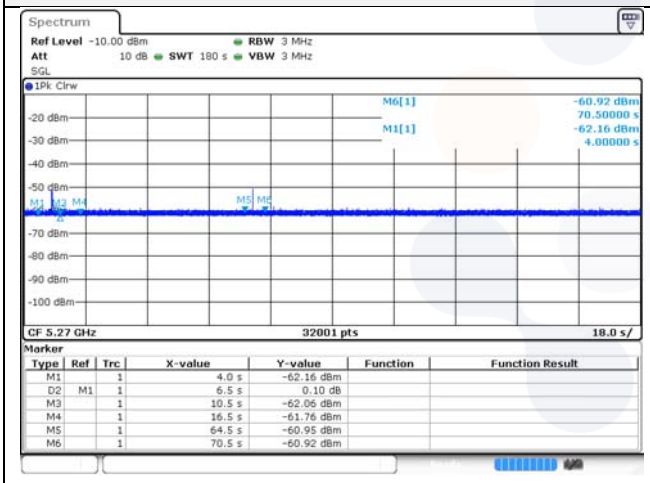
802.11a - 5 260 ㎒



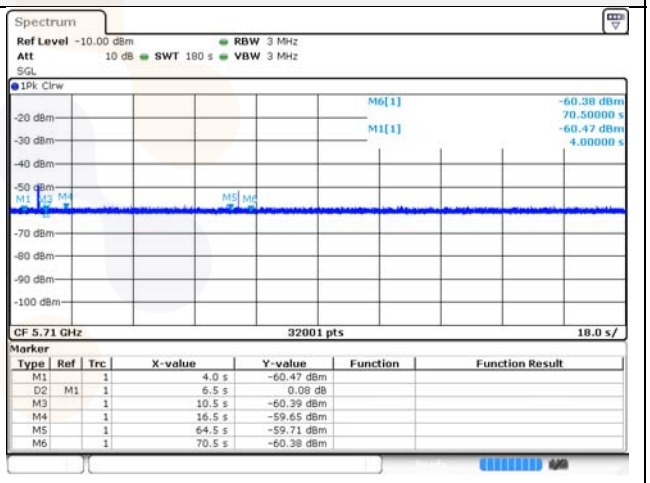
802.11a - 5 720 ㎒



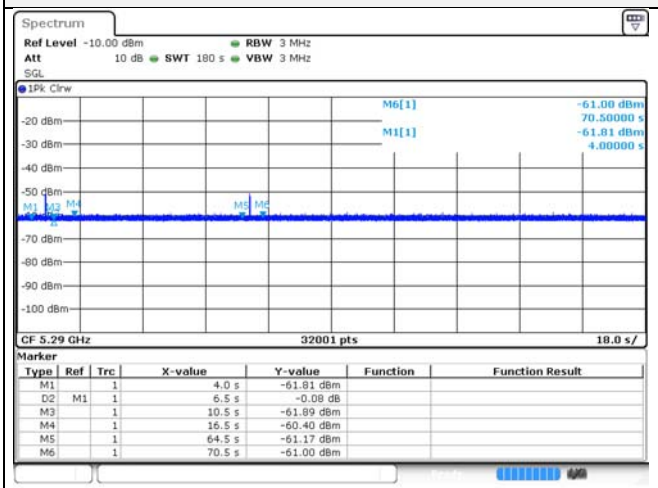
802.11n(HT40) - 5 270 ㎒



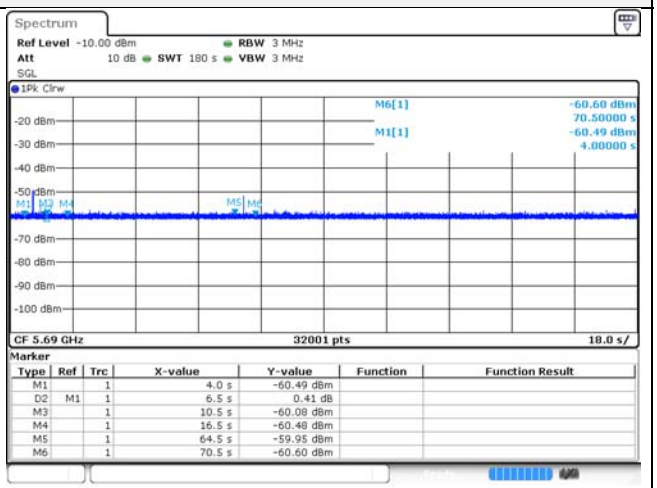
802.11n(HT40) - 5 710 ㎒



802.11ac(VHT80) - 5 290 ㎒



802.11ac(VHT80) - 5 690 ㎒



4.6.5 In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

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

- Channel Move Time

- Non-Occupancy Period

The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1㏈ is generated on the Operating Channel of the U-NII device (In- Service Monitoring).

a) One frequency will be chosen from the Operating Channels of the UUT within the 5 250-5 350 ㎒ or 5 470-5 725 ㎒ bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals are detected, another frequency must be selected within the emission bandwidth where control signals are detected.

b) In case the UUT is a U-NII device operating as a Client Device (with or without DFS), a U-NII device operating as a Master Device will be used to allow the UUT (Client device) to Associate with the Master Device. In case the UUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will Associate with the UUT (Master). In both cases for conducted tests, the Radar Waveform generator will be connected to the Master Device. For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.

c) Stream the channel loading test file from the Master Device to the Client Device on the test Channel for the entire period of the test.

d) At time T_0 the Radar Waveform generator sends a Burst of pulses for one of the Radar Type 0 in **Table 5** at levels defined in **Table 3**, on the Operating Channel. An additional 1 ㏈ is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

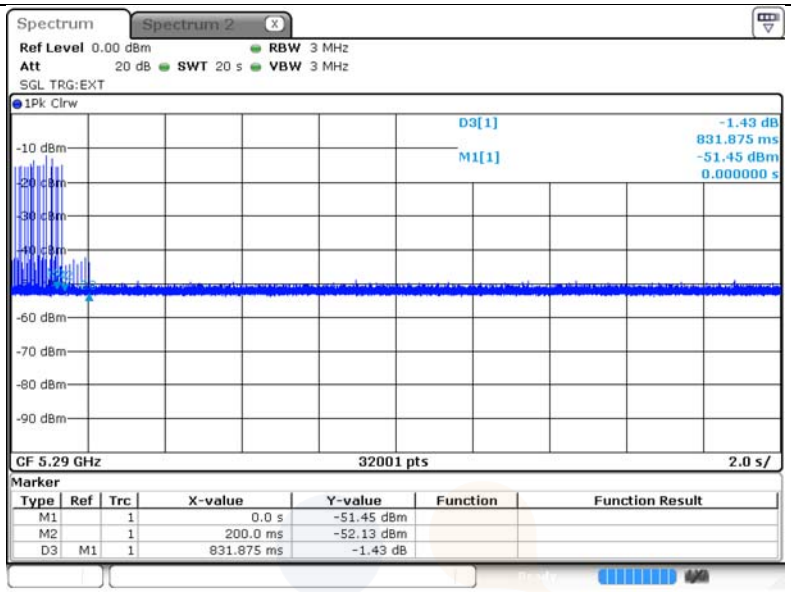
e) Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Measure and record the Channel Move Time and Channel Closing Transmission Time if radar detection occurs. **Figure 17** illustrates Channel Closing Transmission Time.

f) When operating as a Master Device, monitor the UUT for more than 30 minutes following instant T_2 to verify that the UUT does not resume any transmissions on this Channel. Perform this test once and record the measurement result.

g) In case the UUT is a U-NII device operating as a Client Device with In-Service Monitoring, perform steps a) to f).

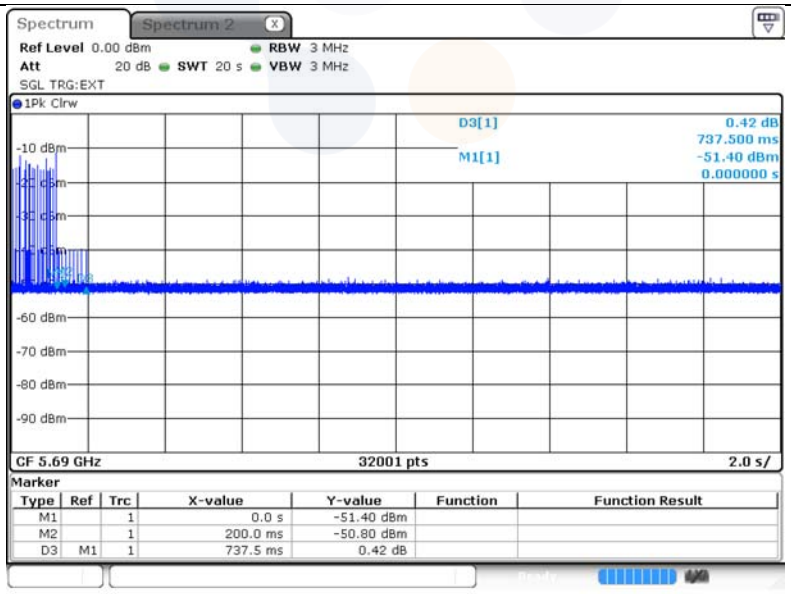
Plot of Channel Move Time and Closing Transmission Time

UNII-2A : 802.11 ac VHT80, 5 290 ㎒



Channel move time = 0.831 875 s
Closing time = 0.000 625 s x 26 = 0.016 250 s
(Closing time : Burst unit time(20 s / 32 001 points) * Number of burst(between 2 markers))

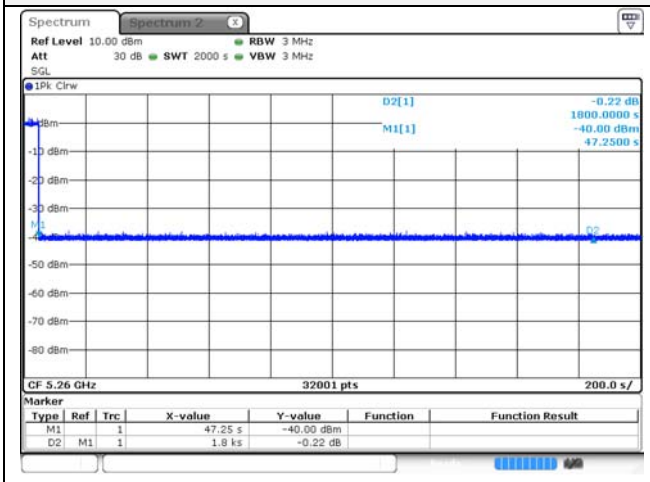
UNII-2C : 802.11 ac VHT80, 5 690 ㎒



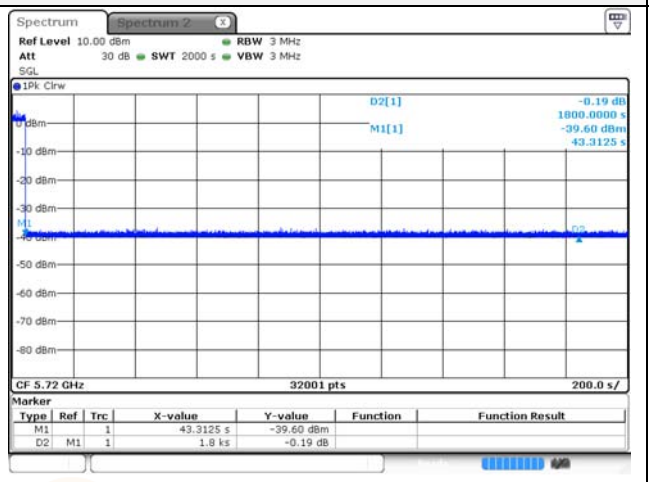
Channel move time = 0.737 500 s
Closing time = 0.000 625 s x 15 = 0.009 375 s
(Closing time : Burst unit time(20 s / 32 001 points) * Number of burst(between 2 markers))

Plot of Non-Occupancy Period

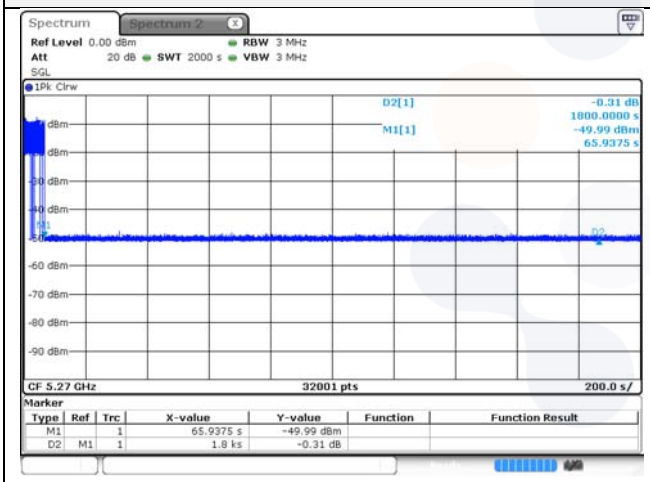
802.11a - 5 260 ㎒



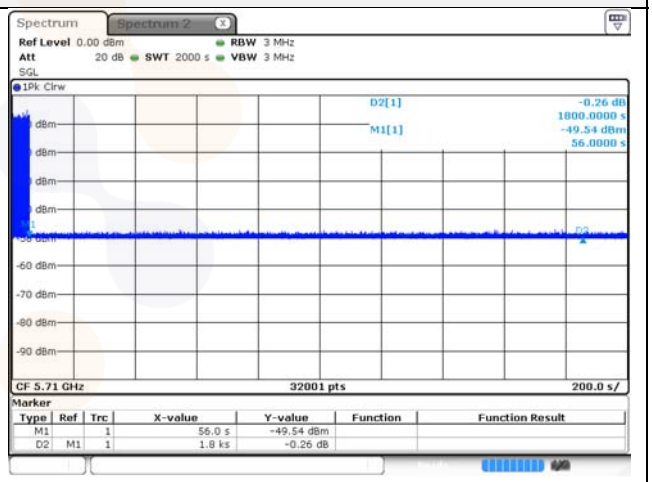
802.11a - 5 720 ㎒



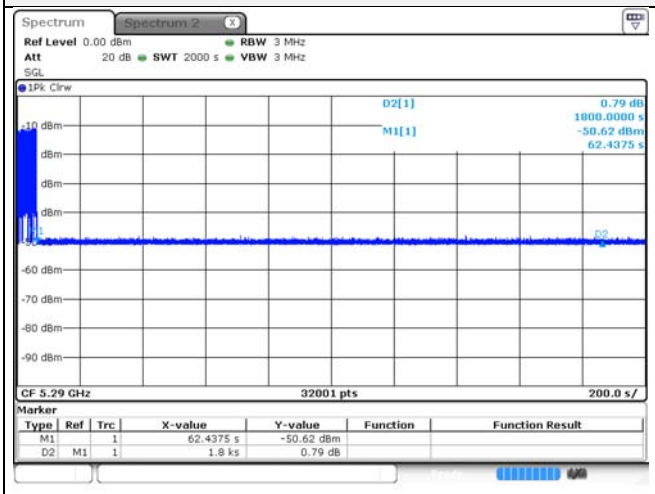
802.11n(HT40) - 5 270 ㎒



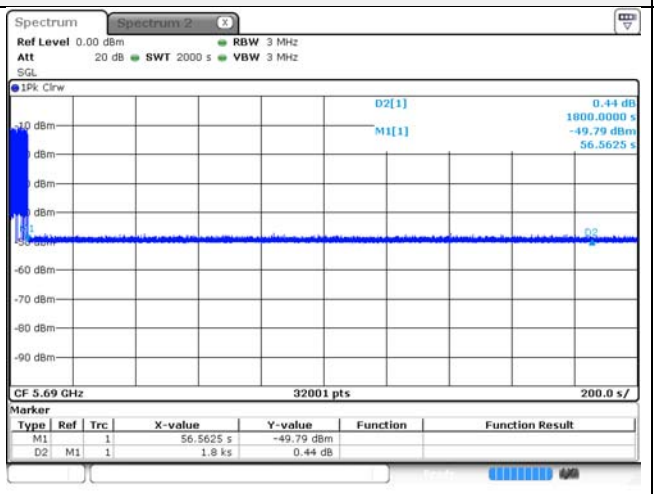
802.11n(HT40) - 5 710 ㎒



802.11ac(VHT80) - 5 290 ㎒



802.11ac(VHT80) - 5 690 ㎒



4.6.6 Statistical Performance Check

The steps below define the procedure to determine the minimum percentage of successful detection requirements found in **Tables 5-7** when a radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device (In- Service Monitoring).

a) One frequency will be chosen from the Operating Channels of the UUT within the 5 250-5 350 ㎒ or 5 470-5 725 ㎒ bands.

b) In case the UUT is a U-NII device operating as a Client Device (with or without Radar Detection), a U-NII device operating as a Master Device will be used to allow the UUT (Client device) to Associate with the Master Device. In case the UUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will Associate with the UUT (Master). In both cases for conducted tests, the Radar Waveform generator will be connected to the Master Device. For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.

c) Stream the **channel loading*** test file from the Master Device to the Client Device on the test Channel for the entire period of the test.

d) At time T0 the Radar Waveform generator sends the individual waveform for each of the Radar Types 1- 6 in **Tables 5-7**, at levels defined in **Table 3**, on the Operating Channel. An additional 1 ㏈ is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

e) Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Radar Type 0 to ensure detection occurs.

f) Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs.

g) In case the UUT is a U-NII device operating as a Client Device with In-Service Monitoring, perform steps a) to f).

Summary of the short radar detection probability results for 802.11a - 5 260 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
1	100.00	60.00	40.00
2	96.67	60.00	36.67
3	100.00	60.00	40.00
4	100.00	60.00	40.00
Aggregate	99.17	80.00	19.17

Summary of the short radar detection probability results for 802.11a - 5 720 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
1	100.00	60.00	40.00
2	100.00	60.00	40.00
3	100.00	60.00	40.00
4	100.00	60.00	40.00
Aggregate	100.00	80.00	20.00

Summary of the short radar detection probability results for 802.11n(HT40) - 5 270 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
1	100.00	60.00	40.00
2	100.00	60.00	40.00
3	100.00	60.00	40.00
4	100.00	60.00	40.00
Aggregate	100.00	80.00	20.00

Summary of the short radar detection probability results for 802.11n(HT40) - 5 710 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
1	100.00	60.00	40.00
2	100.00	60.00	40.00
3	100.00	60.00	40.00
4	93.33	60.00	33.33
Aggregate	98.33	80.00	18.33

Summary of the short radar detection probability results for 802.11ac(VHT80) - 5 290 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
1	100.00	60.00	40.00
2	100.00	60.00	40.00
3	100.00	60.00	40.00
4	96.67	60.00	36.67
Aggregate	99.17	80.00	19.17

Summary of the short radar detection probability results for 802.11ac(VHT80) - 5 690 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
1	100.00	60.00	40.00
2	100.00	60.00	40.00
3	100.00	60.00	40.00
4	100.00	60.00	40.00
Aggregate	100.00	80.00	20.00

Radar type 1 detection probability results

Type 1						
Trial	802.11a - 5 260 ㎒		802.11n(HT40) - 5 270 ㎒		802.11ac(VHT80) - 5 290 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 251	O	5 251	O	5 251
2	O	5 251	O	5 251	O	5 251
3	O	5 251	O	5 251	O	5 251
4	O	5 251	O	5 251	O	5 251
5	O	5 251	O	5 251	O	5 251
6	O	5 251	O	5 251	O	5 251
7	O	5 251	O	5 251	O	5 280
8	O	5 251	O	5 251	O	5 280
9	O	5 251	O	5 251	O	5 280
10	O	5 251	O	5 251	O	5 280
11	X	5 260	O	5 270	O	5 280
12	O	5 260	O	5 270	O	5 280
13	O	5 260	O	5 270	O	5 290
14	O	5 260	O	5 270	O	5 290
15	O	5 260	O	5 270	O	5 290
16	O	5 260	O	5 270	O	5 290
17	O	5 260	O	5 270	O	5 290
18	O	5 260	O	5 270	O	5 290
19	O	5 260	O	5 270	O	5 300
20	O	5 260	O	5 270	O	5 300
21	O	5 269	O	5 289	O	5 300
22	O	5 269	O	5 289	O	5 300
23	O	5 269	O	5 289	O	5 300
24	O	5 269	O	5 289	O	5 300
25	O	5 269	O	5 289	O	5 329
26	O	5 269	O	5 289	O	5 329
27	O	5 269	O	5 289	O	5 329
28	O	5 269	O	5 289	O	5 329
29	O	5 269	O	5 289	O	5 329
30	O	5 269	O	5 289	O	5 329

Type 1						
Trial	802.11a - 5 720 ㎒		802.11n(HT40) - 5 710 ㎒		802.11ac(VHT80) - 5 690 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 711	O	5 691	O	5 651
2	O	5 711	O	5 691	O	5 651
3	O	5 711	O	5 691	O	5 651
4	O	5 711	O	5 691	O	5 651
5	O	5 711	O	5 691	O	5 651
6	O	5 711	O	5 691	O	5 651
7	O	5 711	O	5 691	O	5 680
8	O	5 711	O	5 691	O	5 680
9	O	5 711	O	5 691	O	5 680
10	O	5 711	O	5 691	O	5 680
11	O	5 720	O	5 710	O	5 680
12	O	5 720	O	5 710	O	5 680
13	O	5 720	O	5 710	O	5 690
14	O	5 720	O	5 710	O	5 690
15	O	5 720	O	5 710	O	5 690
16	O	5 720	O	5 710	O	5 690
17	O	5 720	O	5 710	O	5 690
18	O	5 720	O	5 710	O	5 690
19	O	5 720	O	5 710	O	5 700
20	O	5 720	O	5 710	O	5 700
21	O	5 729	O	5 729	O	5 700
22	O	5 729	O	5 729	O	5 700
23	O	5 729	O	5 729	O	5 700
24	O	5 729	O	5 729	O	5 700
25	O	5 729	O	5 729	O	5 729
26	O	5 729	O	5 729	O	5 729
27	O	5 729	O	5 729	O	5 729
28	O	5 729	O	5 729	O	5 729
29	O	5 729	O	5 729	O	5 729
30	O	5 729	O	5 729	O	5 729

Radar type 1 trials details

Trial #	Number of Pulses per Burst	Pulse Width (μs)	PRI (μs)
1	92	1.0	578
2	63	1.0	838
3	81	1.0	658
4	68	1.0	778
5	62	1.0	858
6	57	1.0	938
7	59	1.0	898
8	76	1.0	698
9	83	1.0	638
10	65	1.0	818
11	72	1.0	738
12	74	1.0	718
13	89	1.0	598
14	70	1.0	758
15	61	1.0	878
16	25	1.0	2180
17	51	1.0	1051
18	33	1.0	1597
19	29	1.0	1835
20	24	1.0	2209
21	33	1.0	1633
22	25	1.0	2183
23	28	1.0	1888
24	47	1.0	1140
25	41	1.0	1313
26	20	1.0	2768
27	64	1.0	832
28	23	1.0	2350
29	44	1.0	1208
30	88	1.0	605

Radar type 2 detection probability results

Type 2						
Trial	802.11a - 5 260 ㎒		802.11n(HT40) - 5 270 ㎒		802.11ac(VHT80) - 5 290 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 251	O	5 251	O	5 251
2	O	5 251	O	5 251	O	5 251
3	O	5 251	O	5 251	O	5 251
4	O	5 251	O	5 251	O	5 251
5	O	5 251	O	5 251	O	5 251
6	O	5 251	O	5 251	O	5 251
7	O	5 251	O	5 251	O	5 280
8	O	5 251	O	5 251	O	5 280
9	O	5 251	O	5 251	O	5 280
10	O	5 251	O	5 251	O	5 280
11	X	5 260	O	5 270	O	5 280
12	O	5 260	O	5 270	O	5 280
13	O	5 260	O	5 270	O	5 290
14	O	5 260	O	5 270	O	5 290
15	O	5 260	O	5 270	O	5 290
16	O	5 260	O	5 270	O	5 290
17	O	5 260	O	5 270	O	5 290
18	O	5 260	O	5 270	O	5 290
19	O	5 260	O	5 270	O	5 300
20	O	5 260	O	5 270	O	5 300
21	O	5 269	O	5 289	O	5 300
22	O	5 269	O	5 289	O	5 300
23	O	5 269	O	5 289	O	5 300
24	O	5 269	O	5 289	O	5 300
25	O	5 269	O	5 289	O	5 329
26	O	5 269	O	5 289	O	5 329
27	O	5 269	O	5 289	O	5 329
28	O	5 269	O	5 289	O	5 329
29	O	5 269	O	5 289	O	5 329
30	O	5 269	O	5 289	O	5 329

Type 2						
Trial	802.11a - 5 720 ㎒		802.11n(HT40) - 5 710 ㎒		802.11ac(VHT80) - 5 690 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 711	O	5 691	O	5 651
2	O	5 711	O	5 691	O	5 651
3	O	5 711	O	5 691	O	5 651
4	O	5 711	O	5 691	O	5 651
5	O	5 711	O	5 691	O	5 651
6	O	5 711	O	5 691	O	5 651
7	O	5 711	O	5 691	O	5 680
8	O	5 711	O	5 691	O	5 680
9	O	5 711	O	5 691	O	5 680
10	O	5 711	O	5 691	O	5 680
11	O	5 720	O	5 710	O	5 680
12	O	5 720	O	5 710	O	5 680
13	O	5 720	O	5 710	O	5 690
14	O	5 720	O	5 710	O	5 690
15	O	5 720	O	5 710	O	5 690
16	O	5 720	O	5 710	O	5 690
17	O	5 720	O	5 710	O	5 690
18	O	5 720	O	5 710	O	5 690
19	O	5 720	O	5 710	O	5 700
20	O	5 720	O	5 710	O	5 700
21	O	5 729	O	5 729	O	5 700
22	O	5 729	O	5 729	O	5 700
23	O	5 729	O	5 729	O	5 700
24	O	5 729	O	5 729	O	5 700
25	O	5 729	O	5 729	O	5 729
26	O	5 729	O	5 729	O	5 729
27	O	5 729	O	5 729	O	5 729
28	O	5 729	O	5 729	O	5 729
29	O	5 729	O	5 729	O	5 729
30	O	5 729	O	5 729	O	5 729

Radar type 2 trials details

Trial #	Number of Pulses per Burst	Pulse Width (μs)	PRI (μs)
1	23	2.8	159
2	25	2.8	205
3	25	3.4	187
4	23	1.4	171
5	29	3.5	195
6	29	4.5	170
7	27	2.6	176
8	26	3.4	184
9	27	4.3	203
10	24	4.9	164
11	27	2.3	205
12	27	2.9	187
13	24	4.8	196
14	28	4.3	160
15	25	2.6	205
16	24	3.4	159
17	23	4.4	185
18	26	1.1	228
19	23	5.0	213
20	24	4.2	175
21	24	2.7	151
22	23	3.2	205
23	29	4.2	225
24	28	1.0	159
25	24	4.6	222
26	23	2.7	225
27	27	4.9	183
28	27	3.6	189
29	27	2.4	204
30	26	3.5	155

Radar type 3 detection probability results

Type 3						
Trial	802.11a - 5 260 ㎒		802.11n(HT40) - 5 270 ㎒		802.11ac(VHT80) - 5 290 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 251	O	5 251	O	5 251
2	O	5 251	O	5 251	O	5 251
3	O	5 251	O	5 251	O	5 251
4	O	5 251	O	5 251	O	5 251
5	O	5 251	O	5 251	O	5 251
6	O	5 251	O	5 251	O	5 251
7	O	5 251	O	5 251	O	5 280
8	O	5 251	O	5 251	O	5 280
9	O	5 251	O	5 251	O	5 280
10	O	5 251	O	5 251	O	5 280
11	O	5 260	O	5 270	O	5 280
12	O	5 260	O	5 270	O	5 280
13	O	5 260	O	5 270	O	5 290
14	O	5 260	O	5 270	O	5 290
15	O	5 260	O	5 270	O	5 290
16	O	5 260	O	5 270	O	5 290
17	O	5 260	O	5 270	O	5 290
18	O	5 260	O	5 270	O	5 290
19	O	5 260	O	5 270	O	5 300
20	O	5 260	O	5 270	O	5 300
21	O	5 269	O	5 289	O	5 300
22	O	5 269	O	5 289	O	5 300
23	O	5 269	O	5 289	O	5 300
24	O	5 269	O	5 289	O	5 300
25	O	5 269	O	5 289	O	5 329
26	O	5 269	O	5 289	O	5 329
27	O	5 269	O	5 289	O	5 329
28	O	5 269	O	5 289	O	5 329
29	O	5 269	O	5 289	O	5 329
30	O	5 269	O	5 289	O	5 329

Type 3						
Trial	802.11a - 5 720 ㎒		802.11n(HT40) - 5 710 ㎒		802.11ac(VHT80) - 5 690 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 711	O	5 691	O	5 651
2	O	5 711	O	5 691	O	5 651
3	O	5 711	O	5 691	O	5 651
4	O	5 711	O	5 691	O	5 651
5	O	5 711	O	5 691	O	5 651
6	O	5 711	O	5 691	O	5 651
7	O	5 711	O	5 691	O	5 680
8	O	5 711	O	5 691	O	5 680
9	O	5 711	O	5 691	O	5 680
10	O	5 711	O	5 691	O	5 680
11	O	5 720	O	5 710	O	5 680
12	O	5 720	O	5 710	O	5 680
13	O	5 720	O	5 710	O	5 690
14	O	5 720	O	5 710	O	5 690
15	O	5 720	O	5 710	O	5 690
16	O	5 720	O	5 710	O	5 690
17	O	5 720	O	5 710	O	5 690
18	O	5 720	O	5 710	O	5 690
19	O	5 720	O	5 710	O	5 700
20	O	5 720	O	5 710	O	5 700
21	O	5 729	O	5 729	O	5 700
22	O	5 729	O	5 729	O	5 700
23	O	5 729	O	5 729	O	5 700
24	O	5 729	O	5 729	O	5 700
25	O	5 729	O	5 729	O	5 729
26	O	5 729	O	5 729	O	5 729
27	O	5 729	O	5 729	O	5 729
28	O	5 729	O	5 729	O	5 729
29	O	5 729	O	5 729	O	5 729
30	O	5 729	O	5 729	O	5 729

Radar type 3 trials details

Trial #	Number of Pulses per Burst	Pulse Width (μs)	PRI (μs)
1	16	6.1	433
2	17	9.4	381
3	16	9.8	220
4	17	8.8	373
5	16	9.0	304
6	17	9.5	425
7	18	6.0	361
8	18	9.1	274
9	18	6.4	380
10	18	9.3	268
11	16	7.1	465
12	17	6.8	293
13	17	7.4	340
14	16	9.0	403
15	17	8.9	296
16	17	7.5	421
17	17	6.2	459
18	16	8.8	319
19	17	8.1	406
20	17	6.2	258
21	18	6.9	318
22	17	9.3	437
23	16	7.8	250
24	17	9.7	376
25	17	8.3	344
26	16	8.3	263
27	16	6.9	322
28	18	6.7	285
29	17	9.2	376
30	17	7.5	265

Radar type 4 detection probability results

Type 4						
Trial	802.11a - 5 260 ㎒		802.11n(HT40) - 5 270 ㎒		802.11ac(VHT80) - 5 290 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 251	O	5 251	O	5 251
2	O	5 251	O	5 251	O	5 251
3	O	5 251	O	5 251	O	5 251
4	O	5 251	O	5 251	O	5 251
5	O	5 251	O	5 251	O	5 251
6	O	5 251	O	5 251	O	5 251
7	O	5 251	O	5 251	O	5 280
8	O	5 251	O	5 251	O	5 280
9	O	5 251	O	5 251	O	5 280
10	O	5 251	O	5 251	O	5 280
11	O	5 260	O	5 270	X	5 280
12	O	5 260	O	5 270	O	5 280
13	O	5 260	O	5 270	O	5 290
14	O	5 260	O	5 270	O	5 290
15	O	5 260	O	5 270	O	5 290
16	O	5 260	O	5 270	O	5 290
17	O	5 260	O	5 270	O	5 290
18	O	5 260	O	5 270	O	5 290
19	O	5 260	O	5 270	O	5 300
20	O	5 260	O	5 270	O	5 300
21	O	5 269	O	5 289	O	5 300
22	O	5 269	O	5 289	O	5 300
23	O	5 269	O	5 289	O	5 300
24	O	5 269	O	5 289	O	5 300
25	O	5 269	O	5 289	O	5 329
26	O	5 269	O	5 289	O	5 329
27	O	5 269	O	5 289	O	5 329
28	O	5 269	O	5 289	O	5 329
29	O	5 269	O	5 289	O	5 329
30	O	5 269	O	5 289	O	5 329

Type 4						
Trial	802.11a - 5 720 ㎒		802.11n(HT40) - 5 710 ㎒		802.11ac(VHT80) - 5 690 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 711	O	5 691	O	5 651
2	O	5 711	O	5 691	O	5 651
3	O	5 711	O	5 691	O	5 651
4	O	5 711	O	5 691	O	5 651
5	O	5 711	X	5 691	O	5 651
6	O	5 711	O	5 691	O	5 651
7	O	5 711	O	5 691	O	5 680
8	O	5 711	O	5 691	O	5 680
9	O	5 711	O	5 691	O	5 680
10	O	5 711	O	5 691	O	5 680
11	O	5 720	O	5 710	O	5 680
12	O	5 720	O	5 710	O	5 680
13	O	5 720	O	5 710	O	5 690
14	O	5 720	O	5 710	O	5 690
15	O	5 720	O	5 710	O	5 690
16	O	5 720	O	5 710	O	5 690
17	O	5 720	O	5 710	O	5 690
18	O	5 720	O	5 710	O	5 690
19	O	5 720	O	5 710	O	5 700
20	O	5 720	O	5 710	O	5 700
21	O	5 729	O	5 729	O	5 700
22	O	5 729	O	5 729	O	5 700
23	O	5 729	O	5 729	O	5 700
24	O	5 729	O	5 729	O	5 700
25	O	5 729	O	5 729	O	5 729
26	O	5 729	X	5 729	O	5 729
27	O	5 729	O	5 729	O	5 729
28	O	5 729	O	5 729	O	5 729
29	O	5 729	O	5 729	O	5 729
30	O	5 729	O	5 729	O	5 729

Radar type 4 trials details

Trial #	Number of Pulses per Burst	Pulse Width (μs)	PRI (μs)
1	13	19.8	420
2	14	18.5	443
3	16	15.1	264
4	13	14.9	242
5	15	17.1	205
6	14	16.6	265
7	15	11.1	248
8	14	13.5	239
9	15	17.9	448
10	12	18.2	406
11	13	18.8	290
12	13	15.1	262
13	16	16.0	277
14	15	14.8	305
15	12	17.2	286
16	13	19.1	345
17	15	17.2	467
18	16	17.6	277
19	13	17.7	378
20	15	17.3	375
21	16	14.9	449
22	15	11.0	393
23	15	11.2	236
24	16	13.2	319
25	14	12.0	315
26	13	11.5	234
27	13	11.1	417
28	14	13.6	218
29	14	18.5	448
30	15	16.0	266

Summary of the long radar detection probability results for 802.11a - 5 260 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
5	100	80	20

Summary of the long radar detection probability results for 802.11a - 5 720 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
5	100	80	20

Summary of the long radar detection probability results for 802.11n(HT40) - 5 270 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
5	100	80	20

Summary of the long radar detection probability results for 802.11n(HT40) - 5 710 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
5	100	80	20

Summary of the long radar detection probability results for 802.11ac(VHT80) - 5 290 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
5	100	80	20

Summary of the long radar detection probability results for 802.11ac(VHT80) - 5 690 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
5	100	80	20

Radar Type 5 detection probability test results for 802.11a - 5 260 ㎒

802.11a - 5 260 ㎒						
Trial	Chrip width [㎒]	F_{OBL} [㎒]	F_{OBH} [㎒]	Radar pulse offset [㎒]	Radar frequency [㎒]	Detection
1	19	5 251.7	5 268.3	Center of channel	5 260.0	O
2	17			Center of channel	5 260.0	O
3	7			Center of channel	5 260.0	O
4	15			Center of channel	5 260.0	O
5	6			Center of channel	5 260.0	O
6	6			Center of channel	5 260.0	O
7	14			Center of channel	5 260.0	O
8	5			Center of channel	5 260.0	O
9	20			Center of channel	5 260.0	O
10	10			Center of channel	5 260.0	O
11	16			6.4	5 258.1	O
12	15			6.0	5 257.7	O
13	8			3.2	5 254.9	O
14	18			7.2	5 258.9	O
15	19			7.6	5 259.3	O
16	17			6.8	5 258.5	O
17	15			6.0	5 257.7	O
18	17			6.8	5 258.5	O
19	9			3.6	5 255.3	O
20	9			3.6	5 255.3	O
21	5			2.0	5 266.3	O
22	19			7.6	5 260.7	O
23	13			5.2	5 263.1	O
24	6			2.4	5 265.9	O
25	18			7.2	5 261.1	O
26	5			2.0	5 266.3	O
27	13			5.2	5 263.1	O
28	19			7.6	5 260.7	O
29	12			4.8	5 263.5	O
30	19			7.6	5 260.7	O

The center frequency of the Radar signal calculation:
$F_{C\_Radar\_L} = F_{OBL} + (0.4 * ChirpWidth)$
$F_{C\_Radar\_H} = F_{OBH} - (0.4 * ChirpWidth)$
Example of Radar frequencies calculation:
Chirp width of Radar signal is 15 ㎒ (Trial 17)
EUT F_{OBL} = 5 251.7 ㎒
$F_{C\_Radar\_L}$ = 5 251.7 + (0.4 × 15) = 5 251.7 + 6.0 = 5 257.7 ㎒
Chirp width of Radar signal is 18 ㎒ (Trial 25)
EUT F_{OBH} = 5 268.3 ㎒
$F_{C\_Radar\_H}$ = 5 268.3 − (0.4 × 18) = 5 268.3 − 7.2 = 5 261.1 ㎒

Radar Type 5 detection probability test results for 802.11a - 5 720 ㎒

802.11a - 5 720 ㎒						
Trial	Chrip width [㎒]	F_{OBL} [㎒]	F_{OBH} [㎒]	Radar pulse offset [㎒]	Radar frequency [㎒]	Detection
1	19	5 711.6	5 728.3	Center of channel	5 720.0	O
2	17			Center of channel	5 720.0	O
3	7			Center of channel	5 720.0	O
4	15			Center of channel	5 720.0	O
5	6			Center of channel	5 720.0	O
6	6			Center of channel	5 720.0	O
7	14			Center of channel	5 720.0	O
8	5			Center of channel	5 720.0	O
9	20			Center of channel	5 720.0	O
10	10			Center of channel	5 720.0	O
11	16			6.4	5 718.0	O
12	15			6.0	5 717.6	O
13	8			3.2	5 714.8	O
14	18			7.2	5 718.8	O
15	19			7.6	5 719.2	O
16	17			6.8	5 718.4	O
17	15			6.0	5 717.6	O
18	17			6.8	5 718.4	O
19	9			3.6	5 715.2	O
20	9			3.6	5 715.2	O
21	5			2.0	5 726.3	O
22	19			7.6	5 720.7	O
23	13			5.2	5 723.1	O
24	6			2.4	5 725.9	O
25	18			7.2	5 721.1	O
26	5			2.0	5 726.3	O
27	13			5.2	5 723.1	O
28	19			7.6	5 720.7	O
29	12			4.8	5 723.5	O
30	19			7.6	5 720.7	O

The center frequency of the Radar signal calculation:
$F_{C\_Radar\_L} = F_{OBL} + (0.4 * ChirpWidth)$
$F_{C\_Radar\_H} = F_{OBH} - (0.4 * ChirpWidth)$
Example of Radar frequencies calculation:
Chirp width of Radar signal is 15 ㎒ (Trial 17)
EUT F_{OBL} = 5 711.6 ㎒
$F_{C\_Radar\_L}$ = 5 711.6 + (0.4 × 15) = 5 711.6 + 6.0 = 5 717.6 ㎒
Chirp width of Radar signal is 18 ㎒ (Trial 25)
EUT F_{OBH} = 5 728.3 ㎒
$F_{C\_Radar\_H}$ = 5 728.3 − (0.4 × 18) = 5 728.3 − 7.2 = 5 721.1 ㎒

Radar Type 5 detection probability test results for 802.11n(HT40) - 5 270 ㎒

802.11n(HT40) - 5 270 ㎒						
Trial	Chrip width [㎒]	F_{OBL} [㎒]	F_{OBH} [㎒]	Radar pulse offset [㎒]	Radar frequency [㎒]	Detection
1	19	5 251.4	5 288.0	Center of channel	5 270.0	O
2	17			Center of channel	5 270.0	O
3	7			Center of channel	5 270.0	O
4	15			Center of channel	5 270.0	O
5	6			Center of channel	5 270.0	O
6	6			Center of channel	5 270.0	O
7	14			Center of channel	5 270.0	O
8	5			Center of channel	5 270.0	O
9	20			Center of channel	5 270.0	O
10	10			Center of channel	5 270.0	O
11	16			6.4	5 257.8	O
12	15			6.0	5 257.4	O
13	8			3.2	5 254.6	O
14	18			7.2	5 258.6	O
15	19			7.6	5 259.0	O
16	17			6.8	5 258.2	O
17	15			6.0	5 257.4	O
18	17			6.8	5 258.2	O
19	9			3.6	5 255.0	O
20	9			3.6	5 255.0	O
21	5			2.0	5 286.0	O
22	19			7.6	5 280.4	O
23	13			5.2	5 282.8	O
24	6			2.4	5 285.6	O
25	18			7.2	5 280.8	O
26	5			2.0	5 286.0	O
27	13			5.2	5 282.8	O
28	19			7.6	5 280.4	O
29	12			4.8	5 283.2	O
30	19			7.6	5 280.4	O

The center frequency of the Radar signal calculation:
$F_{C\_Radar\_L} = F_{OBL} + (0.4 * ChirpWidth)$
$F_{C\_Radar\_H} = F_{OBH} - (0.4 * ChirpWidth)$
Example of Radar frequencies calculation:
Chirp width of Radar signal is 15 ㎒ (Trial 17)
EUT F_{OBL} = 5 251.4 ㎒
$F_{C\_Radar\_L}$ = 5 251.4 + (0.4 × 15) = 5 251.4 + 6.0 = 5 257.4 ㎒
Chirp width of Radar signal is 18 ㎒ (Trial 25)
EUT F_{OBH} = 5 288.0 ㎒
$F_{C\_Radar\_H}$ = 5 288.0 − (0.4 × 18) = 5 288.0 − 7.2 = 5 280.8 ㎒

Radar Type 5 detection probability test results for 802.11n(HT40) - 5 710 ㎒

802.11n(HT40) - 5 710 ㎒						
Trial	Chrip width [㎒]	F_{OBL} [㎒]	F_{OBH} [㎒]	Radar pulse offset [㎒]	Radar frequency [㎒]	Detection
1	19	5 691.3	5 727.9	Center of channel	5 710.0	O
2	17			Center of channel	5 710.0	O
3	7			Center of channel	5 710.0	O
4	15			Center of channel	5 710.0	O
5	6			Center of channel	5 710.0	O
6	6			Center of channel	5 710.0	O
7	14			Center of channel	5 710.0	O
8	5			Center of channel	5 710.0	O
9	20			Center of channel	5 710.0	O
10	10			Center of channel	5 710.0	O
11	16			6.4	5 697.7	O
12	15			6.0	5 697.3	O
13	8			3.2	5 694.5	O
14	18			7.2	5 698.5	O
15	19			7.6	5 698.9	O
16	17			6.8	5 698.1	O
17	15			6.0	5 697.3	O
18	17			6.8	5 698.1	O
19	9			3.6	5 694.9	O
20	9			3.6	5 694.9	O
21	5			2.0	5 725.9	O
22	19			7.6	5 720.3	O
23	13			5.2	5 722.7	O
24	6			2.4	5 725.5	O
25	18			7.2	5 720.7	O
26	5			2.0	5 725.9	O
27	13			5.2	5 722.7	O
28	19			7.6	5 720.3	O
29	12			4.8	5 723.1	O
30	19			7.6	5 720.3	O

The center frequency of the Radar signal calculation:
$F_{C\_Radar\_L} = F_{OBL} + (0.4 * ChirpWidth)$
$F_{C\_Radar\_H} = F_{OBH} - (0.4 * ChirpWidth)$
Example of Radar frequencies calculation:
Chirp width of Radar signal is 15 ㎒ (Trial 17)
EUT F_{OBL} = 5 691.3 ㎒
$F_{C\_Radar\_L}$ = 5 691.3 + (0.4 × 15) = 5 691.3 + 6.0 = 5 697.3 ㎒
Chirp width of Radar signal is 18 ㎒ (Trial 25)
EUT F_{OBH} = 5 727.9 ㎒
$F_{C\_Radar\_H}$ = 5 727.9 − (0.4 × 18) = 5 727.9 − 7.2 = 5 720.7 ㎒

Radar Type 5 detection probability test results for 802.11ac(VHT80) - 5 290 ㎒

802.11ac(VHT80) - 5 290 ㎒						
Trial	Chrip width [㎒]	F_{OBL} [㎒]	F_{OBH} [㎒]	Radar pulse offset [㎒]	Radar frequency [㎒]	Detection
1	19	5 251.2	5 327.6	Center of channel	5 290.0	O
2	17			Center of channel	5 290.0	O
3	7			Center of channel	5 290.0	O
4	15			Center of channel	5 290.0	O
5	6			Center of channel	5 290.0	O
6	6			Center of channel	5 290.0	O
7	14			Center of channel	5 290.0	O
8	5			Center of channel	5 290.0	O
9	20			Center of channel	5 290.0	O
10	10			Center of channel	5 290.0	O
11	16			6.4	5 257.6	O
12	15			6.0	5 257.2	O
13	8			3.2	5 254.4	O
14	18			7.2	5 258.4	O
15	19			7.6	5 258.8	O
16	17			6.8	5 258.0	O
17	15			6.0	5 257.2	O
18	17			6.8	5 258.0	O
19	9			3.6	5 254.8	O
20	9			3.6	5 254.8	O
21	5			2.0	5 325.6	O
22	19			7.6	5 320.0	O
23	13			5.2	5 322.4	O
24	6			2.4	5 325.2	O
25	18			7.2	5 320.4	O
26	5			2.0	5 325.6	O
27	13			5.2	5 322.4	O
28	19			7.6	5 320.0	O
29	12			4.8	5 322.8	O
30	19			7.6	5 320.0	O

The center frequency of the Radar signal calculation:
$F_{C\_Radar\_L} = F_{OBL} + (0.4 * ChirpWidth)$
$F_{C\_Radar\_H} = F_{OBH} - (0.4 * ChirpWidth)$
Example of Radar frequencies calculation:
Chirp width of Radar signal is 15 ㎒ (Trial 17)
EUT F_{OBL} = 5 251.2 ㎒
$F_{C\_Radar\_L}$ = 5 251.2 + (0.4 × 15) = 5 251.2 + 6.0 = 5 257.2 ㎒
Chirp width of Radar signal is 18 ㎒ (Trial 25)
EUT F_{OBH} = 5 327.6 ㎒
$F_{C\_Radar\_H}$ = 5 327.6 − (0.4 × 18) = 5 327.6 − 7.2 = 5 320.4 ㎒

Radar Type 5 detection probability test results for 802.11ac(VHT80) - 5 690 MHz

802.11ac(VHT80) - 5 690 MHz						
Trial	Chrip width [MHz]	F_{OBL} [MHz]	F_{OBH} [MHz]	Radar pulse offset [MHz]	Radar frequency [MHz]	Detection
1	19	5 651.0	5 727.6	Center of channel	5 690.0	O
2	17			Center of channel	5 690.0	O
3	7			Center of channel	5 690.0	O
4	15			Center of channel	5 690.0	O
5	6			Center of channel	5 690.0	O
6	6			Center of channel	5 690.0	O
7	14			Center of channel	5 690.0	O
8	5			Center of channel	5 690.0	O
9	20			Center of channel	5 690.0	O
10	10			Center of channel	5 690.0	O
11	16			6.4	5 657.4	O
12	15			6.0	5 657.0	O
13	8			3.2	5 654.2	O
14	18			7.2	5 658.2	O
15	19			7.6	5 658.6	O
16	17			6.8	5 657.8	O
17	15			6.0	5 657.0	O
18	17			6.8	5 657.8	O
19	9			3.6	5 654.6	O
20	9			3.6	5 654.6	O
21	5			2.0	5 725.6	O
22	19			7.6	5 720.0	O
23	13			5.2	5 722.4	O
24	6			2.4	5 725.2	O
25	18			7.2	5 720.4	O
26	5			2.0	5 725.6	O
27	13			5.2	5 722.4	O
28	19			7.6	5 720.0	O
29	12			4.8	5 722.8	O
30	19			7.6	5 720.0	O

The center frequency of the Radar signal calculation:
$F_{C\_Radar\_L} = F_{OBL} + (0.4 * ChirpWidth)$
$F_{C\_Radar\_H} = F_{OBH} - (0.4 * ChirpWidth)$
Example of Radar frequencies calculation:
Chirp width of Radar signal is 15 MHz (Trial 17)
EUT F_{OBL} = 5 651.0 MHz
$F_{C\_Radar\_L}$ = 5 651.0 + (0.4 × 15) = 5 651.0 + 6.0 = 5 657.0 MHz
Chirp width of Radar signal is 18 MHz (Trial 25)
EUT F_{OBH} = 5 727.6 MHz
$F_{C\_Radar\_H}$ = 5 727.6 − (0.4 × 18) = 5 727.6 − 7.2 = 5 720.4 MHz

Long Pulse Radar Waveforms, Trial number 1 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	76.5	19			753.82
2	2	53.1	19	1 231		64.13
3	2	77.3	19	1 733		152.98
4	2	97.8	19	1 028		259.25
5	2	80.5	19	1 066		205.88
6	3	58.8	19	1 989	1 159	383.04
7	3	71.9	19	1 999	1 234	795.73
8	1	53.7	19			846.50
9	2	54.4	19	1 606		371.90
10	1	61.4	19			431.09
11	2	93.3	19	1 601		348.40
12	3	89.1	19	1 496	1 265	974.00

Long Pulse Radar Waveforms, Trial number 2 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	56.4	17	1 294		620.75
2	1	67.8	17			260.70
3	2	80.9	17	1 495		840.91
4	1	64.2	17			753.41
5	1	90.2	17			75.25
6	2	88.3	17	1 763		645.09
7	2	91.6	17	1 049		802.51
8	2	80.8	17	1 496		151.42
9	2	88.2	17	1 048		201.12
10	1	94.9	17			51.83
11	2	74.0	17	1 104		271.77
12	1	52.8	17			689.93
13	1	97.7	17			430.89
14	3	63.3	17	1 512	1 939	119.64

Long Pulse Radar Waveforms, Trial number 3 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	2	56.0	7	1 123		549.12
2	1	71.8	7			312.78
3	3	86.9	7	1 810	1 373	602.88
4	3	60.1	7	1 300	1 379	558.79
5	1	60.0	7			496.06
6	3	95.4	7	1 941	1 783	280.66
7	2	64.9	7	1 644		551.23
8	1	93.5	7			483.32
9	1	83.7	7			256.18
10	2	91.7	7	1 988		290.52
11	2	72.0	7	1 480		734.73
12	2	78.0	7	1 263		647.64
13	2	77.3	7	1 900		686.52
14	2	78.0	7	1 925		54.24
15	1	59.1	7			92.70
16	2	64.4	7	1 006		334.10

Long Pulse Radar Waveforms, Trial number 4 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	3	88.7	15	1 507	1 167	262.09
2	3	66.6	15	1 305	1 984	122.34
3	1	86.1	15			265.63
4	3	94.5	15	1 379	1 284	159.16
5	3	77.2	15	1 768	1 816	314.34
6	2	59.0	15	1 489		29.39
7	2	96.8	15	1 480		295.17
8	1	78.7	15			573.57
9	1	71.4	15			267.26
10	1	82.6	15			451.73
11	3	85.8	15	1 267	1 162	605.64
12	3	98.5	15	1 520	1 263	630.22
13	2	79.6	15	1 824		544.49
14	2	95.3	15	1 564		410.78
15	1	51.5	15			537.84
16	2	50.5	15	1 272		632.10
17	2	70.5	15	1 081		123.63
18	3	62.1	15	1 866	1 024	427.67

Long Pulse Radar Waveforms, Trial number 5 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	2	86.2	6	1 237		362.51
2	1	86.2	6			632.53
3	3	72.4	6	1 511	1 111	1 015.86
4	1	51.5	6			451.11
5	3	63.8	6	1 270	1 166	184.72
6	2	91.8	6	1 601		837.98
7	2	58.4	6	1 570		178.43
8	2	51.7	6	1 181		262.01
9	3	80.2	6	1 331	1 978	203.60
10	2	88.7	6	1 197		1 023.12
11	2	57.4	6	1 051		146.61

Long Pulse Radar Waveforms, Trial number 6 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	2	62.3	6	1 874		1 019.11
2	1	70.7	6			993.08
3	3	73.4	6	1 339	1 381	215.70
4	2	58.5	6	1 572		259.84
5	3	85.1	6	1 930	1 363	89.26
6	3	60.5	6	1 495	1 157	1 171.10
7	2	75.3	6	1 813		1 002.74
8	3	58.1	6	1 570	1 078	979.07
9	2	98.7	6	1 102		905.30
10	2	67.7	6	1 586		694.20

Long Pulse Radar Waveforms, Trial number 7 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	2	90.2	14	1 267		230.01
2	2	60.3	14	1 295		258.56
3	3	80.1	14	1 680	1 784	129.58
4	3	58.2	14	1 017	1 600	438.39
5	2	58.3	14	1 327		294.86
6	2	92.5	14	1 561		335.64
7	2	85.9	14	1 357		597.08
8	2	64.9	14	1 400		626.34
9	3	88.2	14	1 918	1 523	22.04
10	2	52.3	14	1 363		384.01
11	3	63.3	14	1 334	1 114	579.56
12	3	75.3	14	1 669	1 432	521.16
13	2	65.8	14	1 178		645.77
14	1	69.7	14			197.08
15	2	67.4	14	1 681		349.25
16	3	99.2	14	1 854	1 839	582.47
17	1	76.4	14			121.08

Long Pulse Radar Waveforms, Trial number 8 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	76.2	5	1 794		680.21
2	2	87.8	5	1 674		827.95
3	2	77.5	5	1 542		769.63
4	1	80.5	5			141.64
5	2	98.0	5	1 471		942.86
6	2	91.8	5	1 557		383.23
7	2	78.8	5	1 704		493.44
8	1	74.6	5			162.19
9	3	76.3	5	1 905	1 031	1 092.23

Long Pulse Radar Waveforms, Trial number 9 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	74.2	20	1 565		185.75
2	2	57.1	20	1 001		410.87
3	1	98.2	20			503.80
4	2	77.1	20	1 336		256.79
5	2	88.8	20	1 225		304.44
6	2	52.7	20	1 019		411.07
7	2	51.9	20	1 308		331.62
8	3	84.8	20	1 505	1 902	522.85
9	3	73.7	20	1 259	1 092	51.24
10	2	57.1	20	1 994		160.40
11	3	66.3	20	1 419	1 213	306.68
12	1	59.1	20			274.19
13	1	78.8	20			226.10
14	3	77.2	20	1 835	1 072	14.13
15	2	52.8	20	1 551		260.55
16	1	68.8	20			536.72
17	2	59.2	20	1 869		510.04
18	3	52.4	20	1 575	1 494	494.16
19	1	77.8	20			408.68

Long Pulse Radar Waveforms, Trial number 10 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	54.0	10			589.43
2	2	86.5	10	1 166		32.57
3	2	92.8	10	1 991		276.62
4	3	89.8	10	1 606	1 605	459.08
5	1	72.8	10			35.24
6	2	98.2	10	1 609		599.47
7	2	64.4	10	1 657		1.85
8	1	70.2	10			612.07
9	3	99.8	10	1 333	1 653	528.08
10	3	59.1	10	1 005	1 367	420.61
11	1	76.2	10			618.00
12	1	75.7	10			480.85
13	2	61.0	10	1 790		436.80
14	2	76.5	10	1 882		418.63
15	3	55.6	10	1 832	1 966	262.01
16	2	79.7	10	1 107		119.00
17	2	67.7	10	1 208		622.04
18	3	80.9	10	1 935	1 978	545.36
19	1	99.1	10			289.78

Long Pulse Radar Waveforms, Trial number 11 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	82.0	16	1 928		431.06
2	2	99.6	16	1 427		535.56
3	1	56.7	16			492.81
4	2	69.2	16	1 863		322.94
5	1	58.8	16			719.32
6	1	58.7	16			686.67
7	2	88.4	16	1 184		246.71
8	1	72.2	16			22.07
9	3	67.8	16	1 791	1 401	568.78
10	1	55.7	16			209.00
11	2	83.5	16	1 627		79.06
12	3	57.1	16	1 673	1 144	92.46
13	2	50.1	16	1 161		626.88
14	3	52.4	16	1 570	1 557	610.40
15	1	88.2	16			10.30
16	2	79.9	16	1 874		708.80

Long Pulse Radar Waveforms, Trial number 12 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	1	90.8	15			35.95
2	3	87.4	15	1 870	1 752	473.39
3	2	51.9	15	1 454		107.57
4	2	95.8	15	1 055		173.77
5	3	88.2	15	1 060	1 557	19.85
6	2	76.2	15	1 148		19.84
7	2	93.8	15	1 815		217.19
8	3	88.3	15	1 002	1 455	558.34
9	2	72.5	15	1 639		395.89
10	2	79.0	15	1 044		444.31
11	2	97.5	15	1 517		291.68
12	2	85.6	15	1 399		365.28
13	2	85.2	15	1 081		460.43
14	1	58.8	15			182.27
15	2	65.8	15	1 253		134.75
16	2	50.1	15	1 917		398.97
17	2	58.6	15	1 539		360.98

Long Pulse Radar Waveforms, Trial number 13 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	3	68.6	8	1 005	1 680	945.34
2	1	89.7	8			933.55
3	2	94.2	8	1 998		7.05
4	1	69.3	8			863.60
5	3	64.3	8	1 184	1 752	850.02
6	3	95.1	8	1 242	1 185	25.85
7	2	88.3	8	1 695		241.38
8	3	98.7	8	1 581	1 340	183.60
9	3	96.9	8	1 048	1 660	1 004.74
10	2	52.3	8	1 936		372.32
11	2	57.3	8	1 457		160.41

Long Pulse Radar Waveforms, Trial number 14 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	87.7	18	1 066	1 079	233.36
2	1	54.6	18			635.48
3	2	99.6	18	1 642		600.80
4	1	78.7	18			510.15
5	1	72.7	18			376.45
6	2	76.5	18	1 943		51.58
7	2	99.6	18	1 258		528.24
8	2	85.4	18	1 563		569.75
9	1	65.6	18			604.82
10	2	84.8	18	1 882		332.40
11	1	93.3	18			521.66
12	1	76.1	18			542.08
13	1	74.4	18			222.76
14	2	69.0	18	1 907		509.35
15	2	93.1	18	1 424		279.06
16	1	94.3	18			44.70
17	1	79.7	18			52.93
18	3	51.2	18	1 247	1 396	521.87

Long Pulse Radar Waveforms, Trial number 15 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	59.0	19	1 306		331.43
2	1	71.7	19			174.28
3	3	52.6	19	1 470	1 658	648.70
4	1	86.2	19			307.40
5	2	78.1	19	1 242		169.55
6	2	83.3	19	1 510		710.02
7	1	54.1	19			346.16
8	2	79.0	19	1 843		246.28
9	2	67.6	19	1 395		752.23
10	3	56.0	19	1 578	1 653	334.49
11	2	97.9	19	1 058		177.34
12	2	78.4	19	1 950		183.05
13	2	84.3	19	1 544		809.08

Long Pulse Radar Waveforms, Trial number 16 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	85.4	17	1 538	1 218	170.83
2	2	99.5	17	1 890		249.60
3	3	93.3	17	1 710	1 997	213.61
4	3	74.2	17	1 458	1 441	529.80
5	3	86.7	17	1 791	1 669	94.27
6	3	90.9	17	1 200	1 107	434.18
7	1	95.2	17			529.50
8	1	94.8	17			107.32
9	3	86.0	17	1 586	1 792	432.22
10	1	94.3	17			128.49
11	2	94.9	17	1 963		95.77
12	1	53.8	17			226.31
13	2	57.8	17	1 342		463.21
14	2	70.5	17	1 355		455.35
15	1	99.1	17			149.19
16	2	77.0	17	1 300		411.41
17	2	76.2	17	1 091		256.04
18	2	55.4	17	1 848		282.46
19	2	82.4	17	1 603		587.68

Long Pulse Radar Waveforms, Trial number 17 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	74.6	15	1 644		545.38
2	2	75.3	15	1 585		213.88
3	3	72.6	15	1 456	1 229	90.17
4	2	70.2	15	1 909		303.03
5	3	72.9	15	1 664	1 600	109.79
6	2	73.4	15	1 367		46.65
7	1	83.6	15			189.15
8	2	56.0	15	1 467		577.78
9	2	65.9	15	1 819		509.90
10	2	61.5	15	1 073		341.31
11	3	94.2	15	1 297	1 008	461.25
12	1	93.0	15			129.59
13	2	51.6	15	1 252		296.07
14	1	84.9	15			185.55
15	1	71.0	15			56.10
16	2	82.6	15	1 164		374.30
17	3	97.4	15	1 707	1 002	336.26
18	3	99.3	15	1 496	1 397	202.10
19	2	99.1	15	1 760		270.60
20	1	93.1	15			562.20

Long Pulse Radar Waveforms, Trial number 18 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	59.6	17	1 942	1 352	623.56
2	2	70.2	17	1 231		471.70
3	2	52.5	17	1 287		963.73
4	2	72.6	17	1 742		731.73
5	1	76.9	17			726.59
6	2	73.5	17	1 600		712.96
7	2	77.6	17	1 398		680.71
8	1	55.2	17			799.32
9	2	92.1	17	1 309		241.00
10	2	90.7	17	1 739		1 171.70

Long Pulse Radar Waveforms, Trial number 19 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	97.4	9	1 097		637.00
2	1	50.7	9			160.00
3	3	94.4	9	1 712	1 123	531.91
4	1	85.5	9			91.58
5	3	56.8	9	1 616	1 567	430.70
6	1	91.0	9			410.33
7	2	60.1	9	1 066		563.54
8	1	89.0	9			125.95
9	2	52.6	9	1 139		227.78
10	2	60.9	9	1 692		688.95
11	3	96.5	9	1 752	1 886	155.16
12	3	75.5	9	1 805	1 407	346.33
13	2	86.8	9	1 711		444.52
14	2	61.5	9	1 167		16.01
15	1	65.7	9			547.50
16	1	76.9	9			47.10

Long Pulse Radar Waveforms, Trial number 20 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	73.3	9	1 170	1 232	1 179.81
2	2	54.3	9	1 340		1 278.47
3	1	72.4	9			553.83
4	1	91.1	9			1 139.54
5	1	73.2	9			259.64
6	1	61.9	9			561.59
7	1	93.0	9			763.61
8	1	83.4	9			186.21
9	3	67.7	9	1 748	1 992	986.43

Long Pulse Radar Waveforms, Trial number 21 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	56.3	5	1 316		121.83
2	2	94.1	5	1 444		282.84
3	2	56.5	5	1 280		481.92
4	3	65.2	5	1 901	1 194	43.55
5	2	58.7	5	1 363		545.17
6	2	55.7	5	1 504		128.01
7	1	99.6	5			479.70
8	3	71.2	5	1 154	1 094	218.78
9	2	82.0	5	1 493		533.22
10	2	73.1	5	1 202		410.60
11	2	76.5	5	1 716		658.56
12	3	57.2	5	1 277	1 446	221.04
13	2	61.7	5	1 603		539.46
14	1	65.7	5			349.81
15	2	69.6	5	1 529		251.09
16	1	86.3	5			573.90
17	2	63.7	5	1 625		5.43
18	2	54.2	5	1 689		430.37

Long Pulse Radar Waveforms, Trial number 22 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	57.6	19	1 130	1 098	218.42
2	2	84.0	19	1 153		420.01
3	1	87.1	19			688.22
4	1	96.0	19			175.76
5	3	82.1	19	1 724	1 822	517.92
6	3	78.6	19	1 241	1 188	971.78
7	1	79.2	19			683.00
8	1	61.0	19			1 017.21
9	2	81.6	19	1 420		503.58
10	2	75.3	19	1 953		808.12
11	2	75.0	19	1 305		353.71

Long Pulse Radar Waveforms, Trial number 23 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	99.7	13	1 503		45.74
2	3	85.6	13	1 579	1 219	1 167.87
3	2	62.0	13	1 264		1 051.50
4	1	64.9	13			53.69
5	2	59.2	13	1 187		768.18
6	2	95.0	13	1 057		772.92
7	1	60.0	13			856.14
8	2	69.7	13	1 040		1 172.17
9	1	78.4	13			993.53

Long Pulse Radar Waveforms, Trial number 24 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	67.8	6	1 805	1 480	190.10
2	1	75.1	6			977.80
3	2	59.9	6	1 794		281.38
4	2	91.3	6	1 488		98.75
5	1	95.4	6			59.03
6	2	89.8	6	1 682		235.16
7	1	74.7	6			222.98
8	2	53.4	6	1 967		142.45
9	2	58.0	6	1 701		1 057.25
10	1	87.6	6			515.62
11	2	86.6	6	1 831		538.71

Long Pulse Radar Waveforms, Trial number 25 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	89.7	18	1 606		541.60
2	2	96.0	18	1 119		144.05
3	2	67.3	18	1 554		78.33
4	1	72.0	18			130.73
5	3	52.7	18	1 884	1 896	634.04
6	1	73.3	18			417.09
7	3	89.4	18	1 626	1 257	28.15
8	3	81.5	18	1 524	1 288	77.10
9	3	68.3	18	1 760	1 411	116.62
10	3	68.0	18	1 203	1 830	432.58
11	3	56.8	18	1 177	1 170	525.80
12	3	98.3	18	1 637	1 428	504.03
13	3	61.7	18	1 102	1 605	785.50
14	2	94.7	18	1 765		259.10
15	3	58.3	18	1 741	1 434	585.30

Long Pulse Radar Waveforms, Trial number 26 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	53.6	5	1 252	1 628	884.65
2	1	94.3	5			751.26
3	2	50.3	5	1 336		1 134.82
4	3	58.5	5	1 771	1 894	721.69
5	1	68.0	5			672.38
6	1	83.9	5			115.83
7	3	63.3	5	1 098	1 798	888.55
8	2	83.2	5	1 067		1 274.67
9	3	99.7	5	1 469	1 020	138.53

Long Pulse Radar Waveforms, Trial number 27 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	95.7	13	1 330		429.17
2	1	60.2	13			1 029.68
3	2	89.7	13	1 817		50.91
4	2	51.5	13	1 838		812.65
5	2	64.0	13	1 514		388.37
6	1	54.5	13			215.94
7	2	62.1	13	1 402		2.04
8	2	99.4	13	1 546		565.32
9	2	99.6	13	1 850		689.47
10	2	53.7	13	1 564		3.34
11	1	82.7	13			1 040.61

Long Pulse Radar Waveforms, Trial number 28 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	95.5	19	1 435	1 797	1 139.70
2	2	91.8	19	1 811		977.34
3	3	97.0	19	1 518	1 589	102.56
4	3	65.3	19	1 210	1 234	168.20
5	2	56.2	19	1 066		1 243.97
6	2	58.6	19	1 607		308.15
7	2	65.5	19	1 385		498.24
8	2	66.2	19	1 004		864.80

Long Pulse Radar Waveforms, Trial number 29 details

Burst	Number of Pulses	Pulse Width (μsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	70.5	12			643.10
2	2	90.8	12	1 532		403.02
3	2	58.7	12	1 574		160.70
4	2	75.2	12	1 492		625.53
5	2	63.6	12	1 803		289.91
6	1	55.0	12			814.05
7	2	60.4	12	1 033		796.21
8	3	72.9	12	1 627	1 649	458.54
9	3	54.8	12	1 413	1 730	542.44
10	2	76.2	12	1 045		310.39
11	2	59.7	12	1 999		508.18
12	3	54.7	12	1 887	1 316	461.65
13	1	87.0	12			840.69
14	2	67.0	12	1 106		134.14

Long Pulse Radar Waveforms, Trial number 30 details

Burst	Number of Pulses	Pulse Width (µsec)	Chirp Width (㎒)	Pulse 1-to-2 PRI (µsec)	Pulse 2-to-3 PRI (µsec)	Start Location Within Interval (msec)
1	1	72.7	19			852.82
2	3	63.2	19	1 916	1 815	221.28
3	1	54.4	19			647.29
4	2	71.0	19	1 224		317.54
5	1	94.4	19			763.80
6	2	67.1	19	1 006		564.37
7	3	76.4	19	1 446	1 059	331.10
8	2	52.2	19	1 316		599.24
9	3	86.2	19	1 825	1 156	130.25
10	2	54.9	19	1 789		935.07
11	2	73.6	19	1 904		324.10
12	3	98.2	19	1 338	1 293	395.00

Summary of the frequency hopping radar detection probability results for 802.11a - 5 260 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
6	100	70	30

Summary of the frequency hopping radar detection probability results for 802.11a - 5 720 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
6	100	70	30

Summary of the frequency hopping radar detection probability results for 802.11n(HT40) - 5 270 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
6	100	70	30

Summary of the frequency hopping radar detection probability results for 802.11n(HT40) - 5 710 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
6	100	70	30

Summary of the frequency hopping radar detection probability results for 802.11ac(VHT80) - 5 290 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
6	100	70	30

Summary of the frequency hopping radar detection probability results for 802.11ac(VHT80) - 5 690 ㎒

Radar type	Detection probability (Pd), %	Minimum Limit, %	Margin, %
6	100	70	30

Frequency hopping Radar detection probability results

Frequency hopping Radar						
Trial	802.11a - 5 260 ㎒		802.11n(HT40) - 5 270 ㎒		802.11ac(VHT80) - 5 290 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 260	O	5 270	O	5 290
2	O	5 260	O	5 270	O	5 290
3	O	5 260	O	5 270	O	5 290
4	O	5 260	O	5 270	O	5 290
5	O	5 260	O	5 270	O	5 290
6	O	5 260	O	5 270	O	5 290
7	O	5 260	O	5 270	O	5 290
8	O	5 260	O	5 270	O	5 290
9	O	5 260	O	5 270	O	5 290
10	O	5 260	O	5 270	O	5 290
11	O	5 260	O	5 270	O	5 290
12	O	5 260	O	5 270	O	5 290
13	O	5 260	O	5 270	O	5 290
14	O	5 260	O	5 270	O	5 290
15	O	5 260	O	5 270	O	5 290
16	O	5 260	O	5 270	O	5 290
17	O	5 260	O	5 270	O	5 290
18	O	5 260	O	5 270	O	5 290
19	O	5 260	O	5 270	O	5 290
20	O	5 260	O	5 270	O	5 290
21	O	5 260	O	5 270	O	5 290
22	O	5 260	O	5 270	O	5 290
23	O	5 260	O	5 270	O	5 290
24	O	5 260	O	5 270	O	5 290
25	O	5 260	O	5 270	O	5 290
26	O	5 260	O	5 270	O	5 290
27	O	5 260	O	5 270	O	5 290
28	O	5 260	O	5 270	O	5 290
29	O	5 260	O	5 270	O	5 290
30	O	5 260	O	5 270	O	5 290

Frequency hopping Radar						
Trial	802.11a - 5 720 ㎒		802.11n(HT40) - 5 710 ㎒		802.11ac(VHT80) - 5 690 ㎒	
	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]	Detected	Radar Frequency [㎒]
1	O	5 720	O	5 710	O	5 690
2	O	5 720	O	5 710	O	5 690
3	O	5 720	O	5 710	O	5 690
4	O	5 720	O	5 710	O	5 690
5	O	5 720	O	5 710	O	5 690
6	O	5 720	O	5 710	O	5 690
7	O	5 720	O	5 710	O	5 690
8	O	5 720	O	5 710	O	5 690
9	O	5 720	O	5 710	O	5 690
10	O	5 720	O	5 710	O	5 690
11	O	5 720	O	5 710	O	5 690
12	O	5 720	O	5 710	O	5 690
13	O	5 720	O	5 710	O	5 690
14	O	5 720	O	5 710	O	5 690
15	O	5 720	O	5 710	O	5 690
16	O	5 720	O	5 710	O	5 690
17	O	5 720	O	5 710	O	5 690
18	O	5 720	O	5 710	O	5 690
19	O	5 720	O	5 710	O	5 690
20	O	5 720	O	5 710	O	5 690
21	O	5 720	O	5 710	O	5 690
22	O	5 720	O	5 710	O	5 690
23	O	5 720	O	5 710	O	5 690
24	O	5 720	O	5 710	O	5 690
25	O	5 720	O	5 710	O	5 690
26	O	5 720	O	5 710	O	5 690
27	O	5 720	O	5 710	O	5 690
28	O	5 720	O	5 710	O	5 690
29	O	5 720	O	5 710	O	5 690
30	O	5 720	O	5 710	O	5 690

List of frequencies of hopping radar type 6 for Trial 1

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.443	51	5.641
2	5.423	52	5.467
3	5.531	53	5.420
4	5.349	54	5.675
5	5.481	55	5.713
6	5.301	56	5.645
7	5.520	57	5.634
8	5.281	58	5.615
9	5.690	59	5.609
10	5.590	60	5.562
11	5.500	61	5.663
12	5.469	62	5.408
13	5.321	63	5.670
14	5.606	64	5.601
15	5.419	65	5.538
16	5.280	66	5.649
17	5.506	67	5.375
18	5.414	68	5.585
19	5.356	69	5.353
20	5.371	70	5.323
21	5.435	71	5.511
22	5.352	72	5.686
23	5.335	73	5.630
24	5.547	74	5.616
25	5.556	75	5.406
26	5.648	76	5.584
27	5.479	77	5.603
28	5.534	78	5.515
29	5.380	79	5.492
30	5.262	80	5.553
31	5.636	81	5.680
32	5.436	82	5.275
33	5.373	83	5.464
34	5.642	84	5.567
35	5.592	85	5.564
36	5.646	86	5.305
37	5.260	87	5.661
38	5.709	88	5.548
39	5.710	89	5.476
40	5.554	90	5.724
41	5.410	91	5.598
42	5.490	92	5.412
43	5.583	93	5.382
44	5.313	94	5.334
45	5.638	95	5.516
46	5.508	96	5.385
47	5.707	97	5.258
48	5.621	98	5.677
49	5.551	99	5.629
50	5.605	100	5.699

List of frequencies of hopping radar type 6 for Trial 2

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.405	51	5.506
2	5.686	52	5.291
3	5.345	53	5.325
4	5.319	54	5.349
5	5.374	55	5.419
6	5.486	56	5.434
7	5.648	57	5.455
8	5.379	58	5.493
9	5.299	59	5.685
10	5.333	60	5.698
11	5.310	61	5.414
12	5.318	62	5.428
13	5.432	63	5.661
14	5.517	64	5.552
15	5.668	65	5.280
16	5.607	66	5.378
17	5.281	67	5.356
18	5.614	68	5.523
19	5.283	69	5.367
20	5.370	70	5.535
21	5.307	71	5.674
22	5.695	72	5.395
23	5.575	73	5.300
24	5.445	74	5.590
25	5.715	75	5.357
26	5.472	76	5.296
27	5.705	77	5.618
28	5.565	78	5.537
29	5.308	79	5.504
30	5.430	80	5.330
31	5.619	81	5.337
32	5.268	82	5.666
33	5.681	83	5.719
34	5.582	84	5.346
35	5.532	85	5.407
36	5.617	86	5.467
37	5.305	87	5.334
38	5.562	88	5.622
39	5.462	89	5.449
40	5.527	90	5.549
41	5.680	91	5.301
42	5.586	92	5.621
43	5.361	93	5.266
44	5.257	94	5.652
45	5.429	95	5.604
46	5.331	96	5.417
47	5.343	97	5.687
48	5.399	98	5.516
49	5.476	99	5.391
50	5.631	100	5.368

List of frequencies of hopping radar type 6 for Trial 3

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.278	51	5.647
2	5.309	52	5.353
3	5.691	53	5.464
4	5.466	54	5.597
5	5.399	55	5.443
6	5.488	56	5.284
7	5.722	57	5.687
8	5.660	58	5.652
9	5.541	59	5.678
10	5.390	60	5.664
11	5.459	61	5.598
12	5.569	62	5.683
13	5.615	63	5.699
14	5.434	64	5.302
15	5.352	65	5.492
16	5.275	66	5.415
17	5.394	67	5.289
18	5.264	68	5.710
19	5.294	69	5.288
20	5.280	70	5.478
21	5.661	71	5.420
22	5.281	72	5.690
23	5.528	73	5.553
24	5.402	74	5.586
25	5.719	75	5.632
26	5.531	76	5.321
27	5.307	77	5.380
28	5.473	78	5.630
29	5.374	79	5.267
30	5.269	80	5.545
31	5.618	81	5.520
32	5.510	82	5.695
33	5.704	83	5.649
34	5.686	84	5.496
35	5.435	85	5.414
36	5.515	86	5.490
37	5.588	87	5.721
38	5.252	88	5.550
39	5.717	89	5.681
40	5.446	90	5.403
41	5.373	91	5.587
42	5.646	92	5.323
43	5.318	93	5.559
44	5.609	94	5.308
45	5.499	95	5.629
46	5.511	96	5.679
47	5.607	97	5.547
48	5.436	98	5.500
49	5.367	99	5.685
50	5.656	100	5.397

List of frequencies of hopping radar type 6 for Trial 4

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.665	51	5.648
2	5.437	52	5.530
3	5.283	53	5.576
4	5.377	54	5.401
5	5.701	55	5.284
6	5.303	56	5.504
7	5.661	57	5.529
8	5.321	58	5.310
9	5.623	59	5.616
10	5.575	60	5.617
11	5.251	61	5.340
12	5.589	62	5.605
13	5.539	63	5.635
14	5.281	64	5.521
15	5.406	65	5.698
16	5.468	66	5.491
17	5.574	67	5.376
18	5.568	68	5.573
19	5.397	69	5.535
20	5.619	70	5.370
21	5.719	71	5.394
22	5.438	72	5.387
23	5.407	73	5.639
24	5.669	74	5.439
25	5.429	75	5.317
26	5.515	76	5.472
27	5.483	77	5.271
28	5.580	78	5.273
29	5.306	79	5.613
30	5.367	80	5.685
31	5.266	81	5.455
32	5.714	82	5.577
33	5.655	83	5.549
34	5.419	84	5.269
35	5.341	85	5.567
36	5.369	86	5.290
37	5.547	87	5.494
38	5.346	88	5.556
39	5.681	89	5.583
40	5.480	90	5.295
41	5.396	91	5.718
42	5.326	92	5.677
43	5.543	93	5.447
44	5.674	94	5.442
45	5.381	95	5.721
46	5.336	96	5.585
47	5.668	97	5.375
48	5.368	98	5.643
49	5.673	99	5.533
50	5.599	100	5.285

List of frequencies of hopping radar type 6 for Trial 5

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.532	51	5.654
2	5.467	52	5.584
3	5.315	53	5.341
4	5.356	54	5.271
5	5.605	55	5.536
6	5.345	56	5.386
7	5.433	57	5.471
8	5.554	58	5.480
9	5.466	59	5.476
10	5.715	60	5.375
11	5.717	61	5.456
12	5.429	62	5.687
13	5.338	63	5.287
14	5.497	64	5.528
15	5.453	65	5.362
16	5.439	66	5.372
17	5.597	67	5.544
18	5.258	68	5.399
19	5.268	69	5.478
20	5.301	70	5.300
21	5.293	71	5.261
22	5.336	72	5.262
23	5.445	73	5.328
24	5.549	74	5.588
25	5.603	75	5.589
26	5.348	76	5.583
27	5.326	77	5.455
28	5.636	78	5.530
29	5.351	79	5.663
30	5.591	80	5.277
31	5.354	81	5.347
32	5.713	82	5.566
33	5.587	83	5.274
34	5.377	84	5.290
35	5.514	85	5.623
36	5.585	86	5.700
37	5.353	87	5.674
38	5.432	88	5.458
39	5.288	89	5.273
40	5.484	90	5.251
41	5.655	91	5.702
42	5.291	92	5.473
43	5.250	93	5.324
44	5.612	94	5.355
45	5.664	95	5.415
46	5.257	96	5.586
47	5.711	97	5.390
48	5.349	98	5.316
49	5.657	99	5.392
50	5.385	100	5.563

List of frequencies of hopping radar type 6 for Trial 6

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.464	51	5.268
2	5.344	52	5.577
3	5.354	53	5.569
4	5.482	54	5.427
5	5.376	55	5.642
6	5.669	56	5.517
7	5.484	57	5.281
8	5.513	58	5.470
9	5.634	59	5.325
10	5.623	60	5.311
11	5.339	61	5.338
12	5.336	62	5.418
13	5.518	63	5.624
14	5.507	64	5.677
15	5.553	65	5.493
16	5.273	66	5.548
17	5.504	67	5.494
18	5.503	68	5.448
19	5.549	69	5.666
20	5.558	70	5.683
21	5.374	71	5.702
22	5.593	72	5.720
23	5.265	73	5.499
24	5.631	74	5.561
25	5.604	75	5.685
26	5.692	76	5.509
27	5.314	77	5.256
28	5.531	78	5.487
29	5.414	79	5.676
30	5.439	80	5.284
31	5.275	81	5.440
32	5.570	82	5.653
33	5.392	83	5.250
34	5.551	84	5.437
35	5.379	85	5.585
36	5.412	86	5.401
37	5.587	87	5.672
38	5.291	88	5.383
39	5.459	89	5.636
40	5.608	90	5.267
41	5.280	91	5.413
42	5.272	92	5.377
43	5.395	93	5.438
44	5.335	94	5.607
45	5.403	95	5.525
46	5.544	96	5.709
47	5.450	97	5.313
48	5.436	98	5.535
49	5.573	99	5.460
50	5.586	100	5.628

List of frequencies of hopping radar type 6 for Trial 7

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.361	51	5.259
2	5.532	52	5.524
3	5.401	53	5.442
4	5.375	54	5.689
5	5.469	55	5.283
6	5.499	56	5.432
7	5.719	57	5.487
8	5.594	58	5.577
9	5.543	59	5.260
10	5.256	60	5.451
11	5.447	61	5.505
12	5.632	62	5.381
13	5.699	63	5.662
14	5.294	64	5.494
15	5.382	65	5.574
16	5.579	66	5.624
17	5.444	67	5.251
18	5.331	68	5.580
19	5.362	69	5.530
20	5.472	70	5.589
21	5.696	71	5.608
22	5.329	72	5.615
23	5.593	73	5.653
24	5.388	74	5.654
25	5.535	75	5.513
26	5.400	76	5.322
27	5.687	77	5.512
28	5.289	78	5.670
29	5.595	79	5.267
30	5.591	80	5.642
31	5.537	81	5.365
32	5.313	82	5.479
33	5.603	83	5.389
34	5.254	84	5.330
35	5.663	85	5.533
36	5.644	86	5.508
37	5.459	87	5.339
38	5.600	88	5.515
39	5.666	89	5.420
40	5.379	90	5.571
41	5.263	91	5.601
42	5.348	92	5.312
43	5.683	93	5.558
44	5.412	94	5.296
45	5.637	95	5.334
46	5.651	96	5.613
47	5.614	97	5.392
48	5.286	98	5.716
49	5.691	99	5.374
50	5.531	100	5.706

List of frequencies of hopping radar type 6 for Trial 8

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.708	51	5.548
2	5.295	52	5.363
3	5.499	53	5.321
4	5.721	54	5.474
5	5.588	55	5.630
6	5.625	56	5.355
7	5.324	57	5.269
8	5.586	58	5.711
9	5.569	59	5.508
10	5.618	60	5.300
11	5.604	61	5.512
12	5.400	62	5.666
13	5.686	63	5.386
14	5.252	64	5.698
15	5.465	65	5.560
16	5.380	66	5.561
17	5.554	67	5.333
18	5.434	68	5.445
19	5.671	69	5.309
20	5.283	70	5.535
21	5.626	71	5.296
22	5.494	72	5.332
23	5.545	73	5.611
24	5.263	74	5.414
25	5.575	75	5.581
26	5.442	76	5.658
27	5.449	77	5.339
28	5.610	78	5.469
29	5.356	79	5.459
30	5.260	80	5.599
31	5.552	81	5.457
32	5.614	82	5.540
33	5.541	83	5.377
34	5.426	84	5.704
35	5.504	85	5.481
36	5.323	86	5.583
37	5.520	87	5.471
38	5.574	88	5.320
39	5.665	89	5.598
40	5.394	90	5.276
41	5.532	91	5.486
42	5.383	92	5.587
43	5.307	93	5.316
44	5.631	94	5.633
45	5.682	95	5.484
46	5.389	96	5.369
47	5.287	97	5.378
48	5.403	98	5.461
49	5.695	99	5.440
50	5.476	100	5.699

List of frequencies of hopping radar type 6 for Trial 9

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.461	51	5.305
2	5.717	52	5.348
3	5.668	53	5.322
4	5.608	54	5.489
5	5.415	55	5.576
6	5.446	56	5.563
7	5.644	57	5.696
8	5.511	58	5.600
9	5.618	59	5.369
10	5.584	60	5.251
11	5.365	61	5.699
12	5.401	62	5.370
13	5.381	63	5.272
14	5.443	64	5.648
15	5.303	65	5.324
16	5.581	66	5.458
17	5.651	67	5.567
18	5.252	68	5.616
19	5.553	69	5.441
20	5.397	70	5.346
21	5.297	71	5.554
22	5.477	72	5.516
23	5.591	73	5.454
24	5.551	74	5.594
25	5.318	75	5.275
26	5.499	76	5.284
27	5.617	77	5.286
28	5.661	78	5.627
29	5.283	79	5.592
30	5.331	80	5.518
31	5.543	81	5.386
32	5.660	82	5.347
33	5.351	83	5.597
34	5.473	84	5.485
35	5.355	85	5.710
36	5.625	86	5.344
37	5.480	87	5.692
38	5.258	88	5.686
39	5.270	89	5.715
40	5.423	90	5.321
41	5.724	91	5.601
42	5.418	92	5.596
43	5.621	93	5.568
44	5.694	94	5.306
45	5.426	95	5.512
46	5.720	96	5.606
47	5.497	97	5.394
48	5.525	98	5.639
49	5.298	99	5.353
50	5.309	100	5.453

List of frequencies of hopping radar type 6 for Trial 10

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.259	51	5.387
2	5.609	52	5.479
3	5.669	53	5.501
4	5.702	54	5.575
5	5.588	55	5.347
6	5.697	56	5.375
7	5.272	57	5.318
8	5.271	58	5.448
9	5.719	59	5.351
10	5.717	60	5.634
11	5.710	61	5.371
12	5.491	62	5.665
13	5.263	63	5.310
14	5.401	64	5.313
15	5.706	65	5.617
16	5.561	66	5.607
17	5.490	67	5.372
18	5.402	68	5.467
19	5.475	69	5.673
20	5.290	70	5.361
21	5.579	71	5.398
22	5.612	72	5.664
23	5.720	73	5.672
24	5.723	74	5.312
25	5.327	75	5.692
26	5.389	76	5.700
27	5.358	77	5.343
28	5.299	78	5.518
29	5.512	79	5.452
30	5.676	80	5.613
31	5.696	81	5.677
32	5.542	82	5.277
33	5.443	83	5.670
34	5.527	84	5.678
35	5.283	85	5.323
36	5.614	86	5.477
37	5.513	87	5.262
38	5.511	88	5.411
39	5.596	89	5.442
40	5.559	90	5.261
41	5.639	91	5.367
42	5.619	92	5.267
43	5.429	93	5.466
44	5.451	94	5.517
45	5.434	95	5.481
46	5.525	96	5.551
47	5.462	97	5.642
48	5.687	98	5.295
49	5.335	99	5.628
50	5.418	100	5.651

List of frequencies of hopping radar type 6 for Trial 11

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.699	51	5.548
2	5.426	52	5.512
3	5.277	53	5.672
4	5.357	54	5.450
5	5.595	55	5.539
6	5.654	56	5.484
7	5.472	57	5.337
8	5.585	58	5.624
9	5.613	59	5.521
10	5.401	60	5.274
11	5.314	61	5.692
12	5.260	62	5.428
13	5.421	63	5.430
14	5.280	64	5.645
15	5.302	65	5.478
16	5.639	66	5.295
17	5.709	67	5.451
18	5.339	68	5.263
19	5.561	69	5.380
20	5.330	70	5.576
21	5.258	71	5.516
22	5.608	72	5.552
23	5.403	73	5.631
24	5.427	74	5.335
25	5.517	75	5.594
26	5.505	76	5.310
27	5.562	77	5.261
28	5.691	78	5.682
29	5.409	79	5.668
30	5.384	80	5.405
31	5.564	81	5.661
32	5.527	82	5.643
33	5.388	83	5.485
34	5.579	84	5.496
35	5.587	85	5.605
36	5.558	86	5.635
37	5.308	87	5.507
38	5.542	88	5.566
39	5.253	89	5.550
40	5.332	90	5.468
41	5.270	91	5.633
42	5.463	92	5.448
43	5.368	93	5.563
44	5.312	94	5.590
45	5.328	95	5.352
46	5.315	96	5.364
47	5.710	97	5.567
48	5.494	98	5.565
49	5.381	99	5.647
50	5.275	100	5.568

List of frequencies of hopping radar type 6 for Trial 12

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.600	51	5.315
2	5.517	52	5.327
3	5.344	53	5.479
4	5.413	54	5.539
5	5.687	55	5.410
6	5.406	56	5.396
7	5.515	57	5.257
8	5.519	58	5.448
9	5.631	59	5.652
10	5.444	60	5.707
11	5.267	61	5.512
12	5.689	62	5.656
13	5.659	63	5.340
14	5.541	64	5.724
15	5.467	65	5.263
16	5.677	66	5.641
17	5.506	67	5.587
18	5.551	68	5.690
19	5.288	69	5.389
20	5.433	70	5.527
21	5.476	71	5.679
22	5.491	72	5.343
23	5.507	73	5.391
24	5.584	74	5.411
25	5.610	75	5.511
26	5.366	76	5.487
27	5.478	77	5.715
28	5.392	78	5.708
29	5.675	79	5.565
30	5.256	80	5.706
31	5.408	81	5.609
32	5.722	82	5.640
33	5.531	83	5.674
34	5.570	84	5.328
35	5.591	85	5.465
36	5.466	86	5.375
37	5.503	87	5.575
38	5.368	88	5.394
39	5.350	89	5.523
40	5.717	90	5.543
41	5.504	91	5.384
42	5.567	92	5.670
43	5.270	93	5.446
44	5.488	94	5.287
45	5.374	95	5.434
46	5.577	96	5.557
47	5.312	97	5.667
48	5.415	98	5.579
49	5.697	99	5.655
50	5.540	100	5.692

List of frequencies of hopping radar type 6 for Trial 13

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.354	51	5.657
2	5.283	52	5.314
3	5.524	53	5.661
4	5.540	54	5.716
5	5.632	55	5.714
6	5.561	56	5.440
7	5.351	57	5.528
8	5.527	58	5.296
9	5.452	59	5.392
10	5.444	60	5.640
11	5.605	61	5.416
12	5.373	62	5.423
13	5.541	63	5.566
14	5.265	64	5.443
15	5.324	65	5.518
16	5.293	66	5.724
17	5.554	67	5.630
18	5.607	68	5.268
19	5.494	69	5.270
20	5.435	70	5.322
21	5.406	71	5.675
22	5.618	72	5.396
23	5.404	73	5.347
24	5.469	74	5.348
25	5.521	75	5.262
26	5.708	76	5.652
27	5.693	77	5.551
28	5.653	78	5.353
29	5.694	79	5.574
30	5.350	80	5.723
31	5.261	81	5.254
32	5.614	82	5.336
33	5.569	83	5.497
34	5.510	84	5.560
35	5.405	85	5.721
36	5.320	86	5.273
37	5.578	87	5.603
38	5.410	88	5.467
39	5.658	89	5.559
40	5.648	90	5.344
41	5.666	91	5.495
42	5.425	92	5.387
43	5.719	93	5.689
44	5.328	94	5.468
45	5.552	95	5.432
46	5.655	96	5.611
47	5.343	97	5.589
48	5.695	98	5.388
49	5.326	99	5.593
50	5.380	100	5.586

List of frequencies of hopping radar type 6 for Trial 14

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.697	51	5.674
2	5.531	52	5.544
3	5.385	53	5.296
4	5.563	54	5.472
5	5.704	55	5.361
6	5.683	56	5.593
7	5.701	57	5.680
8	5.500	58	5.410
9	5.507	59	5.568
10	5.415	60	5.567
11	5.271	61	5.307
12	5.365	62	5.605
13	5.428	63	5.551
14	5.532	64	5.696
15	5.580	65	5.715
16	5.559	66	5.395
17	5.679	67	5.721
18	5.303	68	5.329
19	5.543	69	5.615
20	5.438	70	5.528
21	5.305	71	5.354
22	5.519	72	5.350
23	5.700	73	5.664
24	5.312	74	5.262
25	5.297	75	5.463
26	5.456	76	5.617
27	5.663	77	5.516
28	5.467	78	5.443
29	5.339	79	5.606
30	5.541	80	5.638
31	5.421	81	5.522
32	5.387	82	5.677
33	5.616	83	5.283
34	5.331	84	5.292
35	5.352	85	5.446
36	5.712	86	5.407
37	5.381	87	5.555
38	5.335	88	5.686
39	5.266	89	5.282
40	5.598	90	5.665
41	5.514	91	5.269
42	5.495	92	5.702
43	5.347	93	5.484
44	5.301	94	5.690
45	5.607	95	5.342
46	5.270	96	5.596
47	5.327	97	5.698
48	5.610	98	5.671
49	5.323	99	5.319
50	5.287	100	5.586

List of frequencies of hopping radar type 6 for Trial 15

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.633	51	5.398
2	5.390	52	5.472
3	5.459	53	5.550
4	5.440	54	5.447
5	5.611	55	5.643
6	5.421	56	5.436
7	5.721	57	5.268
8	5.273	58	5.604
9	5.367	59	5.298
10	5.507	60	5.547
11	5.387	61	5.453
12	5.305	62	5.300
13	5.549	63	5.608
14	5.558	64	5.545
15	5.548	65	5.314
16	5.511	66	5.600
17	5.712	67	5.331
18	5.329	68	5.414
19	5.589	69	5.651
20	5.594	70	5.448
21	5.715	71	5.626
22	5.599	72	5.366
23	5.360	73	5.567
24	5.477	74	5.269
25	5.285	75	5.369
26	5.582	76	5.570
27	5.574	77	5.516
28	5.672	78	5.415
29	5.557	79	5.605
30	5.711	80	5.692
31	5.551	81	5.597
32	5.375	82	5.253
33	5.409	83	5.352
34	5.601	84	5.634
35	5.628	85	5.541
36	5.614	86	5.316
37	5.364	87	5.397
38	5.357	88	5.618
39	5.515	89	5.506
40	5.449	90	5.312
41	5.653	91	5.581
42	5.629	92	5.427
43	5.441	93	5.382
44	5.284	94	5.271
45	5.303	95	5.644
46	5.388	96	5.722
47	5.493	97	5.677
48	5.635	98	5.461
49	5.454	99	5.381
50	5.534	100	5.250

List of frequencies of hopping radar type 6 for Trial 16

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.416	51	5.293
2	5.498	52	5.605
3	5.495	53	5.531
4	5.492	54	5.298
5	5.403	55	5.369
6	5.486	56	5.508
7	5.529	57	5.391
8	5.299	58	5.402
9	5.439	59	5.303
10	5.470	60	5.651
11	5.305	61	5.423
12	5.506	62	5.537
13	5.371	63	5.717
14	5.437	64	5.424
15	5.436	65	5.612
16	5.370	66	5.463
17	5.300	67	5.610
18	5.433	68	5.302
19	5.345	69	5.666
20	5.548	70	5.438
21	5.618	71	5.507
22	5.715	72	5.570
23	5.608	73	5.357
24	5.317	74	5.476
25	5.267	75	5.385
26	5.320	76	5.514
27	5.460	77	5.313
28	5.480	78	5.329
29	5.698	79	5.520
30	5.341	80	5.555
31	5.292	81	5.280
32	5.515	82	5.603
33	5.475	83	5.264
34	5.724	84	5.556
35	5.281	85	5.333
36	5.582	86	5.268
37	5.522	87	5.614
38	5.569	88	5.696
39	5.450	89	5.599
40	5.330	90	5.343
41	5.680	91	5.630
42	5.606	92	5.627
43	5.601	93	5.551
44	5.401	94	5.381
45	5.617	95	5.572
46	5.593	96	5.552
47	5.649	97	5.497
48	5.527	98	5.683
49	5.466	99	5.323
50	5.589	100	5.676

List of frequencies of hopping radar type 6 for Trial 17

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.616	51	5.497
2	5.675	52	5.556
3	5.262	53	5.564
4	5.602	54	5.269
5	5.559	55	5.563
6	5.539	56	5.592
7	5.659	57	5.688
8	5.545	58	5.297
9	5.600	59	5.712
10	5.424	60	5.458
11	5.324	61	5.413
12	5.353	62	5.579
13	5.400	63	5.516
14	5.279	64	5.582
15	5.525	65	5.591
16	5.610	66	5.664
17	5.673	67	5.553
18	5.628	68	5.439
19	5.691	69	5.441
20	5.433	70	5.371
21	5.364	71	5.395
22	5.280	72	5.674
23	5.462	73	5.355
24	5.666	74	5.706
25	5.632	75	5.655
26	5.599	76	5.481
27	5.284	77	5.421
28	5.526	78	5.540
29	5.487	79	5.348
30	5.369	80	5.430
31	5.484	81	5.486
32	5.535	82	5.598
33	5.300	83	5.464
34	5.428	84	5.379
35	5.702	85	5.504
36	5.277	86	5.643
37	5.401	87	5.472
38	5.606	88	5.512
39	5.654	89	5.501
40	5.583	90	5.468
41	5.714	91	5.302
42	5.609	92	5.541
43	5.336	93	5.708
44	5.672	94	5.448
45	5.345	95	5.676
46	5.316	96	5.383
47	5.465	97	5.402
48	5.330	98	5.607
49	5.328	99	5.571
50	5.389	100	5.618

List of frequencies of hopping radar type 6 for Trial 18

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.678	51	5.583
2	5.255	52	5.452
3	5.593	53	5.404
4	5.679	54	5.373
5	5.619	55	5.617
6	5.534	56	5.424
7	5.691	57	5.564
8	5.585	58	5.487
9	5.616	59	5.543
10	5.371	60	5.632
11	5.363	61	5.696
12	5.604	62	5.562
13	5.338	63	5.539
14	5.305	64	5.410
15	5.357	65	5.681
16	5.294	66	5.268
17	5.688	67	5.325
18	5.533	68	5.551
19	5.644	69	5.432
20	5.690	70	5.513
21	5.538	71	5.555
22	5.558	72	5.395
23	5.471	73	5.526
24	5.405	74	5.660
25	5.421	75	5.528
26	5.682	76	5.586
27	5.665	77	5.641
28	5.425	78	5.626
29	5.559	79	5.477
30	5.308	80	5.344
31	5.287	81	5.420
32	5.290	82	5.314
33	5.609	83	5.658
34	5.389	84	5.505
35	5.385	85	5.636
36	5.476	86	5.715
37	5.261	87	5.592
38	5.437	88	5.699
39	5.369	89	5.647
40	5.311	90	5.265
41	5.667	91	5.358
42	5.460	92	5.433
43	5.259	93	5.639
44	5.451	94	5.320
45	5.368	95	5.444
46	5.315	96	5.685
47	5.721	97	5.703
48	5.386	98	5.467
49	5.270	99	5.260
50	5.622	100	5.279

List of frequencies of hopping radar type 6 for Trial 19

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.654	51	5.496
2	5.335	52	5.673
3	5.538	53	5.254
4	5.331	54	5.354
5	5.620	55	5.255
6	5.506	56	5.545
7	5.512	57	5.534
8	5.436	58	5.698
9	5.584	59	5.454
10	5.271	60	5.609
11	5.439	61	5.639
12	5.337	62	5.560
13	5.282	63	5.566
14	5.334	64	5.692
15	5.672	65	5.458
16	5.553	66	5.562
17	5.519	67	5.605
18	5.346	68	5.632
19	5.402	69	5.651
20	5.581	70	5.537
21	5.540	71	5.382
22	5.469	72	5.603
23	5.435	73	5.304
24	5.420	74	5.583
25	5.606	75	5.373
26	5.362	76	5.301
27	5.690	77	5.393
28	5.675	78	5.418
29	5.450	79	5.687
30	5.341	80	5.266
31	5.394	81	5.447
32	5.429	82	5.509
33	5.491	83	5.272
34	5.277	84	5.367
35	5.707	85	5.647
36	5.694	86	5.490
37	5.653	87	5.466
38	5.310	88	5.682
39	5.718	89	5.365
40	5.434	90	5.412
41	5.461	91	5.559
42	5.547	92	5.397
43	5.502	93	5.520
44	5.569	94	5.472
45	5.428	95	5.658
46	5.680	96	5.552
47	5.625	97	5.268
48	5.670	98	5.479
49	5.648	99	5.563
50	5.409	100	5.431

List of frequencies of hopping radar type 6 for Trial 20

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.487	51	5.300
2	5.563	52	5.694
3	5.599	53	5.352
4	5.526	54	5.289
5	5.663	55	5.669
6	5.371	56	5.648
7	5.574	57	5.455
8	5.586	58	5.426
9	5.418	59	5.401
10	5.724	60	5.558
11	5.672	61	5.645
12	5.308	62	5.379
13	5.288	63	5.415
14	5.528	64	5.638
15	5.721	65	5.347
16	5.572	66	5.367
17	5.491	67	5.632
18	5.467	68	5.275
19	5.389	69	5.435
20	5.616	70	5.635
21	5.327	71	5.597
22	5.606	72	5.313
23	5.431	73	5.439
24	5.519	74	5.473
25	5.675	75	5.481
26	5.509	76	5.365
27	5.576	77	5.594
28	5.488	78	5.453
29	5.262	79	5.643
30	5.593	80	5.326
31	5.686	81	5.460
32	5.566	82	5.414
33	5.424	83	5.549
34	5.319	84	5.580
35	5.708	85	5.626
36	5.258	86	5.468
37	5.286	87	5.716
38	5.684	88	5.671
39	5.584	89	5.547
40	5.701	90	5.582
41	5.704	91	5.475
42	5.682	92	5.264
43	5.609	93	5.382
44	5.660	94	5.272
45	5.432	95	5.450
46	5.266	96	5.373
47	5.532	97	5.610
48	5.442	98	5.388
49	5.590	99	5.374
50	5.653	100	5.538

List of frequencies of hopping radar type 6 for Trial 21

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.575	51	5.273
2	5.312	52	5.543
3	5.609	53	5.295
4	5.343	54	5.397
5	5.420	55	5.524
6	5.272	56	5.716
7	5.268	57	5.410
8	5.421	58	5.698
9	5.443	59	5.677
10	5.699	60	5.388
11	5.353	61	5.396
12	5.505	62	5.545
13	5.381	63	5.354
14	5.377	64	5.475
15	5.584	65	5.431
16	5.305	66	5.424
17	5.342	67	5.596
18	5.555	68	5.703
19	5.472	69	5.655
20	5.385	70	5.370
21	5.554	71	5.488
22	5.692	72	5.694
23	5.508	73	5.636
24	5.459	74	5.660
25	5.567	75	5.629
26	5.661	76	5.614
27	5.311	77	5.531
28	5.667	78	5.485
29	5.519	79	5.337
30	5.654	80	5.662
31	5.399	81	5.486
32	5.643	82	5.602
33	5.713	83	5.573
34	5.476	84	5.527
35	5.448	85	5.626
36	5.630	86	5.252
37	5.564	87	5.266
38	5.528	88	5.653
39	5.562	89	5.691
40	5.285	90	5.407
41	5.549	91	5.702
42	5.394	92	5.706
43	5.306	93	5.518
44	5.569	94	5.714
45	5.708	95	5.666
46	5.291	96	5.503
47	5.683	97	5.366
48	5.446	98	5.668
49	5.259	99	5.673
50	5.333	100	5.523

List of frequencies of hopping radar type 6 for Trial 22

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.596	51	5.684
2	5.421	52	5.603
3	5.516	53	5.387
4	5.567	54	5.263
5	5.329	55	5.425
6	5.435	56	5.457
7	5.569	57	5.584
8	5.339	58	5.416
9	5.576	59	5.510
10	5.668	60	5.526
11	5.305	61	5.434
12	5.607	62	5.466
13	5.462	63	5.610
14	5.527	64	5.705
15	5.303	65	5.552
16	5.594	66	5.591
17	5.554	67	5.604
18	5.302	68	5.459
19	5.673	69	5.664
20	5.557	70	5.452
21	5.314	71	5.713
22	5.480	72	5.683
23	5.442	73	5.643
24	5.585	74	5.470
25	5.379	75	5.311
26	5.276	76	5.672
27	5.724	77	5.537
28	5.445	78	5.602
29	5.524	79	5.355
30	5.447	80	5.310
31	5.547	81	5.283
32	5.354	82	5.529
33	5.340	83	5.555
34	5.700	84	5.565
35	5.644	85	5.273
36	5.662	86	5.722
37	5.456	87	5.405
38	5.492	88	5.250
39	5.681	89	5.316
40	5.272	90	5.333
41	5.533	91	5.337
42	5.522	92	5.538
43	5.428	93	5.450
44	5.629	94	5.563
45	5.364	95	5.523
46	5.592	96	5.639
47	5.433	97	5.484
48	5.687	98	5.517
49	5.458	99	5.499
50	5.600	100	5.317

List of frequencies of hopping radar type 6 for Trial 23

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.534	51	5.462
2	5.585	52	5.347
3	5.448	53	5.556
4	5.614	54	5.605
5	5.569	55	5.434
6	5.335	56	5.695
7	5.286	57	5.322
8	5.603	58	5.436
9	5.515	59	5.346
10	5.662	60	5.648
11	5.476	61	5.663
12	5.563	62	5.352
13	5.397	63	5.366
14	5.404	64	5.518
15	5.559	65	5.321
16	5.447	66	5.649
17	5.325	67	5.320
18	5.591	68	5.419
19	5.503	69	5.471
20	5.423	70	5.382
21	5.365	71	5.633
22	5.372	72	5.598
23	5.541	73	5.634
24	5.616	74	5.528
25	5.619	75	5.544
26	5.574	76	5.683
27	5.708	77	5.458
28	5.671	78	5.329
29	5.317	79	5.480
30	5.520	80	5.565
31	5.669	81	5.485
32	5.344	82	5.685
33	5.523	83	5.367
34	5.394	84	5.341
35	5.530	85	5.693
36	5.489	86	5.625
37	5.273	87	5.654
38	5.363	88	5.548
39	5.426	89	5.472
40	5.276	90	5.337
41	5.722	91	5.498
42	5.315	92	5.670
43	5.484	93	5.360
44	5.494	94	5.678
45	5.456	95	5.285
46	5.608	96	5.445
47	5.405	97	5.564
48	5.270	98	5.631
49	5.675	99	5.701
50	5.453	100	5.665

List of frequencies of hopping radar type 6 for Trial 24

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.385	51	5.477
2	5.401	52	5.484
3	5.538	53	5.522
4	5.680	54	5.328
5	5.270	55	5.320
6	5.621	56	5.563
7	5.412	57	5.648
8	5.428	58	5.422
9	5.685	59	5.624
10	5.405	60	5.421
11	5.403	61	5.460
12	5.582	62	5.711
13	5.442	63	5.453
14	5.556	64	5.720
15	5.344	65	5.597
16	5.310	66	5.473
17	5.334	67	5.353
18	5.267	68	5.719
19	5.671	69	5.518
20	5.291	70	5.665
21	5.587	71	5.342
22	5.450	72	5.642
23	5.627	73	5.277
24	5.701	74	5.526
25	5.498	75	5.338
26	5.339	76	5.417
27	5.371	77	5.535
28	5.571	78	5.598
29	5.493	79	5.425
30	5.423	80	5.530
31	5.432	81	5.411
32	5.566	82	5.485
33	5.541	83	5.702
34	5.343	84	5.378
35	5.644	85	5.264
36	5.426	86	5.710
37	5.620	87	5.649
38	5.531	88	5.576
39	5.695	89	5.705
40	5.293	90	5.567
41	5.521	91	5.455
42	5.491	92	5.302
43	5.687	93	5.575
44	5.631	94	5.340
45	5.396	95	5.533
46	5.502	96	5.505
47	5.562	97	5.464
48	5.341	98	5.330
49	5.573	99	5.572
50	5.629	100	5.537

List of frequencies of hopping radar type 6 for Trial 25

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.446	51	5.505
2	5.719	52	5.534
3	5.492	53	5.589
4	5.428	54	5.391
5	5.460	55	5.575
6	5.642	56	5.597
7	5.619	57	5.309
8	5.713	58	5.537
9	5.580	59	5.478
10	5.274	60	5.543
11	5.608	61	5.263
12	5.517	62	5.351
13	5.335	63	5.352
14	5.601	64	5.594
15	5.610	65	5.625
16	5.405	66	5.371
17	5.282	67	5.512
18	5.708	68	5.325
19	5.412	69	5.367
20	5.676	70	5.651
21	5.501	71	5.577
22	5.509	72	5.467
23	5.677	73	5.392
24	5.369	74	5.447
25	5.548	75	5.340
26	5.424	76	5.513
27	5.316	77	5.314
28	5.437	78	5.699
29	5.393	79	5.438
30	5.468	80	5.365
31	5.606	81	5.552
32	5.440	82	5.350
33	5.411	83	5.401
34	5.563	84	5.590
35	5.310	85	5.487
36	5.557	86	5.386
37	5.495	87	5.459
38	5.611	88	5.328
39	5.689	89	5.663
40	5.654	90	5.544
41	5.302	91	5.682
42	5.560	92	5.515
43	5.449	93	5.450
44	5.399	94	5.379
45	5.273	95	5.598
46	5.291	96	5.472
47	5.700	97	5.421
48	5.477	98	5.253
49	5.268	99	5.494
50	5.574	100	5.362

List of frequencies of hopping radar type 6 for Trial 26

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.599	51	5.332
2	5.375	52	5.673
3	5.365	53	5.428
4	5.298	54	5.425
5	5.472	55	5.722
6	5.720	56	5.600
7	5.503	57	5.261
8	5.715	58	5.367
9	5.444	59	5.641
10	5.666	60	5.545
11	5.710	61	5.716
12	5.455	62	5.252
13	5.587	63	5.256
14	5.667	64	5.492
15	5.686	65	5.517
16	5.488	66	5.479
17	5.582	67	5.270
18	5.272	68	5.411
19	5.543	69	5.303
20	5.384	70	5.356
21	5.689	71	5.692
22	5.670	72	5.591
23	5.389	73	5.645
24	5.466	74	5.502
25	5.343	75	5.627
26	5.419	76	5.403
27	5.660	77	5.319
28	5.618	78	5.313
29	5.370	79	5.397
30	5.590	80	5.639
31	5.311	81	5.351
32	5.571	82	5.348
33	5.451	83	5.684
34	5.563	84	5.393
35	5.420	85	5.490
36	5.491	86	5.350
37	5.390	87	5.271
38	5.415	88	5.569
39	5.412	89	5.516
40	5.358	90	5.522
41	5.307	91	5.647
42	5.669	92	5.568
43	5.371	93	5.540
44	5.505	94	5.292
45	5.690	95	5.388
46	5.456	96	5.481
47	5.520	97	5.631
48	5.649	98	5.497
49	5.269	99	5.676
50	5.328	100	5.449

List of frequencies of hopping radar type 6 for Trial 27

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.300	51	5.508
2	5.695	52	5.411
3	5.398	53	5.486
4	5.309	54	5.476
5	5.439	55	5.569
6	5.537	56	5.466
7	5.678	57	5.365
8	5.441	58	5.524
9	5.603	59	5.274
10	5.260	60	5.414
11	5.599	61	5.297
12	5.515	62	5.626
13	5.352	63	5.642
14	5.621	64	5.583
15	5.402	65	5.417
16	5.504	66	5.298
17	5.330	67	5.538
18	5.601	68	5.663
19	5.294	69	5.672
20	5.427	70	5.493
21	5.707	71	5.616
22	5.293	72	5.344
23	5.505	73	5.716
24	5.513	74	5.291
25	5.711	75	5.386
26	5.535	76	5.467
27	5.373	77	5.401
28	5.658	78	5.464
29	5.435	79	5.336
30	5.495	80	5.496
31	5.588	81	5.419
32	5.702	82	5.651
33	5.384	83	5.454
34	5.456	84	5.506
35	5.502	85	5.273
36	5.560	86	5.630
37	5.403	87	5.637
38	5.420	88	5.362
39	5.409	89	5.656
40	5.517	90	5.477
41	5.559	91	5.694
42	5.662	92	5.703
43	5.640	93	5.306
44	5.255	94	5.370
45	5.461	95	5.573
46	5.429	96	5.270
47	5.455	97	5.666
48	5.360	98	5.528
49	5.305	99	5.364
50	5.451	100	5.631

List of frequencies of hopping radar type 6 for Trial 28

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.284	51	5.532
2	5.335	52	5.508
3	5.373	53	5.537
4	5.291	54	5.637
5	5.350	55	5.353
6	5.611	56	5.711
7	5.581	57	5.389
8	5.484	58	5.348
9	5.620	59	5.724
10	5.662	60	5.259
11	5.562	61	5.323
12	5.541	62	5.534
13	5.469	63	5.277
14	5.283	64	5.333
15	5.584	65	5.579
16	5.416	66	5.494
17	5.267	67	5.540
18	5.354	68	5.429
19	5.355	69	5.606
20	5.337	70	5.636
21	5.434	71	5.691
22	5.320	72	5.390
23	5.310	73	5.393
24	5.679	74	5.371
25	5.427	75	5.294
26	5.645	76	5.598
27	5.664	77	5.339
28	5.358	78	5.315
29	5.442	79	5.327
30	5.448	80	5.462
31	5.671	81	5.721
32	5.554	82	5.331
33	5.640	83	5.521
34	5.572	84	5.576
35	5.360	85	5.577
36	5.417	86	5.441
37	5.703	87	5.444
38	5.610	88	5.380
39	5.275	89	5.558
40	5.398	90	5.352
41	5.512	91	5.503
42	5.713	92	5.457
43	5.531	93	5.723
44	5.509	94	5.570
45	5.391	95	5.387
46	5.602	96	5.317
47	5.687	97	5.552
48	5.364	98	5.328
49	5.378	99	5.535
50	5.436	100	5.582

List of frequencies of hopping radar type 6 for Trial 29

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.379	51	5.415
2	5.401	52	5.470
3	5.598	53	5.553
4	5.485	54	5.497
5	5.629	55	5.646
6	5.496	56	5.323
7	5.649	57	5.269
8	5.620	58	5.374
9	5.515	59	5.467
10	5.380	60	5.547
11	5.294	61	5.504
12	5.668	62	5.314
13	5.416	63	5.422
14	5.623	64	5.254
15	5.687	65	5.601
16	5.628	66	5.644
17	5.720	67	5.394
18	5.700	68	5.487
19	5.512	69	5.327
20	5.472	70	5.555
21	5.595	71	5.399
22	5.718	72	5.578
23	5.519	73	5.403
24	5.608	74	5.683
25	5.441	75	5.486
26	5.605	76	5.466
27	5.537	77	5.659
28	5.695	78	5.505
29	5.500	79	5.398
30	5.414	80	5.390
31	5.517	81	5.544
32	5.566	82	5.509
33	5.648	83	5.332
34	5.592	84	5.534
35	5.330	85	5.672
36	5.614	86	5.361
37	5.561	87	5.675
38	5.411	88	5.576
39	5.525	89	5.457
40	5.674	90	5.362
41	5.388	91	5.331
42	5.514	92	5.372
43	5.279	93	5.291
44	5.303	94	5.476
45	5.344	95	5.632
46	5.353	96	5.482
47	5.540	97	5.657
48	5.713	98	5.350
49	5.511	99	5.385
50	5.400	100	5.627

List of frequencies of hopping radar type 6 for Trial 30

Hop number	Hop frequency (㎓)	Hop number	Hop frequency (㎓)
1	5.556	51	5.489
2	5.345	52	5.411
3	5.400	53	5.502
4	5.684	54	5.283
5	5.537	55	5.397
6	5.504	56	5.719
7	5.464	57	5.320
8	5.707	58	5.533
9	5.353	59	5.660
10	5.645	60	5.689
11	5.596	61	5.295
12	5.600	62	5.328
13	5.348	63	5.457
14	5.646	64	5.710
15	5.452	65	5.338
16	5.475	66	5.610
17	5.456	67	5.300
18	5.605	68	5.498
19	5.381	69	5.257
20	5.526	70	5.425
21	5.618	71	5.532
22	5.529	72	5.440
23	5.542	73	5.551
24	5.340	74	5.432
25	5.374	75	5.573
26	5.454	76	5.640
27	5.540	77	5.644
28	5.570	78	5.312
29	5.306	79	5.585
30	5.545	80	5.714
31	5.344	81	5.674
32	5.405	82	5.686
33	5.487	83	5.706
34	5.388	84	5.715
35	5.308	85	5.511
36	5.469	86	5.514
37	5.598	87	5.563
38	5.606	88	5.595
39	5.717	89	5.259
40	5.494	90	5.465
41	5.271	91	5.433
42	5.685	92	5.403
43	5.652	93	5.679
44	5.390	94	5.275
45	5.554	95	5.482
46	5.636	96	5.302
47	5.331	97	5.578
48	5.562	98	5.688
49	5.396	99	5.362
50	5.263	100	5.632

5. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV40	100988	22.07.19
SPLITTER	Mini-Circuits	ZX10-2-98-S+	1635-1	23.01.19
SPLITTER	Mini-Circuits	ZX10-2-98-S+	1635-2	23.01.19
Attenuator	API Inmet	40AH2W-10	10	22.07.29
Attenuator	API Inmet	40AH2W-20	20	22.07.29
Step Attenuator	AGILENT	8495D	MY42144300	23.01.21
Step Attenuator	HP	8494A	2631A09825	22.07.27
Vector Signal Generator	R&S	SMBV100A	257566	22.07.09

End of test report