



FCC & ISED Dynamic Frequency Selection Test Report

for

Razer Inc.

Notebook PC

RZ09-0239

FCC ID: RWO-RZ090239

IC: 8092D-RZ090239

Prepared for : Razer Inc.

201 3rd Street, Suite 900, San Francisco, CA 94103

Prepared By : UL Verification Services (Guangzhou) Co., Ltd, Song Shan
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Report Number : 4788146393

Date of Test : Sep.19~20, 2017

Date of Report : Sep.22, 2017



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TEST REPORT VERIFICATION

Applicant : Razer Inc.
Manufacturer : Razer Inc.
FCC ID : RWO-RZ090239
IC : 8092D-RZ090239
Product : Notebook PC
(A) Model : RZ09-0239
(B) Serial No. : N/A
(C) Test Voltage : AC 120V/60Hz

Measurement Standards Used:

FCC RULES AND REGULATIONS PART 15 Subpart E, 2016
(FCC CFR 47 Part 15E, §15.407)

RSS-247, ISSUE 2, Feb 2017
RSS-Gen, ISSUE 4, November 2014

The device described above was tested by UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart E and RSS-247 limits.

The measurement results are contained in this test report and UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the requirements of FCC Part 15E and RSS-247, RSS-Gen standards.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

Date of Test : Sep.19~20, 2017 Report of date: Sep.22,2017

Prepared by : *Kebo Zhang* Reviewed by : *Shawn Wen*
Kebo Zhang / Engineer Shawn Wen / Laboratory Leader

Approved & Authorized Signer : *Stephen Guo*
Stephen Guo / Laboratory Manager

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1. SUMMARY OF MEASUREMENTS AND RESULTS

The EUT has been tested according to the applicable standards as referenced below.

Description of Test Item	Results
Channel Availability Check Time	N/A
Channel Move Time	PASS
Non-Occupancy Period	PASS
Channel Closing Transmission Time	PASS
U-NII Detection Bandwidth	N/A
N/A is an abbreviation for Not Applicable, sine the product is client without radar detection function	



2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product	: Notebook PC
Model No.	: RZ09-0239
FCC ID	: RWO-RZ090239
IC	: 8092D-RZ090239
Radio	: IEEE802.11 a/b/g/n/ac; Bluetooth V3.0+EDR; Bluetooth V4.1
Operation Frequency	: IEEE 802.11a: 5180MHz—5240MHz; 5260MHz—5320MHz 5500MHz—5700MHz; 5745MHz—5825MHz IEEE 802.11ac VHT20: 5180MHz—5240MHz; 5260MHz—5320MHz 5500MHz—5700MHz; 5745MHz—5825MHz IEEE 802.11ac VHT40: 5190MHz—5230MHz; 5270MHz—5310MHz 5510MHz—5670MHz; 5755MHz—5795MHz IEEE 802.11ac VHT80: 5210MHz, 5290MHz; 5530MHz—5610MHz; 5775MHz IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE802.11nHT20: 2412MHz—2462MHz; 5180MHz—5240MHz; 5260MHz—5320MHz 5500MHz—5700MHz; 5745MHz—5825MHz IEEE802.11nHT40: 2422MHz—2452MHz; 5190MHz—5230MHz; 5270MHz—5310MHz 5510MHz—5670MHz; 5755MHz—5795MHz Bluetooth : 2402-2480MHz
Modulation Technology	: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11a/g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac VHT20, VHT40, VHT80: OFDM(16QAM, 64QAM, 256QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM,QPSK,BPSK) Bluetooth V3.0+EDR: GFSK, $\pi/4$ DQPSK,8-DPSK Bluetooth V4.1:GFSK



Antenna Assembly : Antenna Type: PIFA
Gain Bluetooth: 1.89dBi
WIFI 2.4GHz:ANT 0: 1.89dBi; ANT 1: 3.08dBi
WIFI 5GHz:
Band 1: ANT 0: 2.91dBi; ANT 1: 2.96dBi
Band 2: ANT 0: 3.08dBi; ANT 1: 2.96dBi
Band 3: ANT 0: 1.61dBi; ANT 1: 2.99dBi
Band 4: ANT 0: 3.16dBi; ANT 1: 2.88dBi

Applicant : Razer Inc.
201 3rd Street, Suite 900, San Francisco, CA 94103

Manufacturer : Razer Inc.
201 3rd Street, Suite 900, San Francisco, CA 94103

Factory : BYD Precision Manufacture Co., Ltd
No.3001, Bao He Road, Baolong Industrial, Longgang Street,
Longgang
Zone, Shenzhen, 518116, P.R., China

Power Adaptor : Manufacturer: Razer Inc. M/N: RC30-0239
Input: 100-240Vac; 50/60Hz, 2.0A
Output: 20V; 3.25A
DC Cable: Shielded, Undetachable, 2.0m

Power Cable : Unshielded, Detachable, 1.0m

Date of Test : Aug.30~Sep.19, 2017

Date of Receipt : Aug.28, 2017

Sample Type Prototype production



2.2. Support Equipment

Item	Manufacturer	Model	Remark
AP Server	CISCO	AIR-AP1262N-A-K9	FCC ID: LDK102073 IC:2461B-102073
AP Server	D-Link	DIR-815A1	NCC ID: CCAI10LP092AT0 FCC ID: KA2IR815A1 IC: 4216A-IR815A1

2.3. Test Channel

Frequency Band	Channel No.	Frequency
5260-5320MHz (UNII Band II)	20MHz	
	64	5260MHz
	80MHz	
	58	5290MHz
5500-5700MHz (UNII Band III)	20MHz	
	100	5500MHz
	80MHz	
	106	5530MHz



2.4. Description of Test Facility

Test Location	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Address	Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China
Accreditation Certificate	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. The Certificate Registration Number is 4102.01. UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The Designation Number is CN1187. UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. EMC Laboratory has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320.

2.5. Measurement Uncertainty:

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	± 3.52 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.94 dB
Radiated Disturbance, 1 to 6 GHz	± 3.86 dB
Radiated Disturbance, 6 to 18 GHz	± 4.23 dB
Radiated Disturbance, 18 to 26 GHz	± 5.30 dB
Radiated Disturbance, 26 to 40 GHz	± 5.23 dB

Uncertainty figures are valid to a confidence level

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3. TEST EQUIPMENT

Conducted Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	EMI Test Receiver	R&S	ESR3	101961	Dec.20, 2016	Dec.19, 2017
<input checked="" type="checkbox"/>	Two-Line V-Network	R&S	ENV216	101983	Dec.20, 2016	Dec.19, 2017
<input checked="" type="checkbox"/>	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Feb.10, 2017	Feb.10, 2018
Radiated Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Feb. 24, 2017	Feb. 24, 2018
<input checked="" type="checkbox"/>	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Jan.09, 2016	Jan.09, 2019
<input checked="" type="checkbox"/>	Preamplifier	HP	8447D	2944A09099	Feb. 13, 2017	Feb. 13, 2018
<input checked="" type="checkbox"/>	EMI Measurement Receiver	R&S	ESR26	101377	Dec. 20, 2016	Dec. 20, 2017
<input checked="" type="checkbox"/>	Horn Antenna	TDK	HRN-0118	130939	Jan. 09, 2016	Jan. 09, 2019
<input checked="" type="checkbox"/>	High Gain Horn Antenna	Schwarzbeck	BBHA-9170	691	Jan.06, 2016	Jan.06, 2019
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Jan. 14, 2017	Jan. 14, 2018
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec. 20, 2016	Dec. 20, 2017
<input checked="" type="checkbox"/>	Loop antenna	Schwarzbeck	1519B	00008	Mar. 26, 2016	Mar. 26, 2019
Other instruments						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec. 20, 2016	Dec. 20, 2017
<input checked="" type="checkbox"/>	Power Meter	Keysight	N9031A	MY55416024	Feb. 13, 2017	Feb. 13, 2018
<input checked="" type="checkbox"/>	Power Sensor	Keysight	N9323A	MY55440013	Feb. 13, 2017	Feb. 13, 2018
<input checked="" type="checkbox"/>	Power sensor	R&S	OSP120	100921	Dec.20,2016	Dec.19,2017

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4. WORKING MODES AND REQUIREMENT TEST ITEM

4.1. Applicability of DFS Requirements Prior To Use A Channel

Requirement	Operational Mode		
	Master	Client without radar detection	Client with radar detection
Non-Occupancy Period	✓	✓	✓
DFS Detection Threshold	✓	Not required	✓
Channel Availability Check Time	✓	Not required	Not required
Uniform Spreading	✓	Not required	Not required
U-NII Detection Bandwidth	✓	Not required	✓

4.2. Applicability of DFS Requirements During Normal Operation

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



5. DFS DETECTION THRESHOLOS AND RADAR TEST

WAVEFORMS

5.1. Interference Threshold Value, Master or Client Incorporating In-Service Monitoring

Maximum Transmit Power	Value (See Notes 1 and 2)
E.I.R.P. \geq 200 milliwatt	-64dBm
E.I.R.P. $<$ 200 milliwatt Power spectral sensity $<$ 10dBm/MHz	-62dBm
E.I.R.P. $<$ 200 milliwatt that do not meet the power spectral sensity requirement	-64dBm

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.

The radar Detection Threshold, lowest antenna gain is the parameter of interference radar DFS detection threshold.

5.2. Radar Test Waveform Minimum Step

Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.



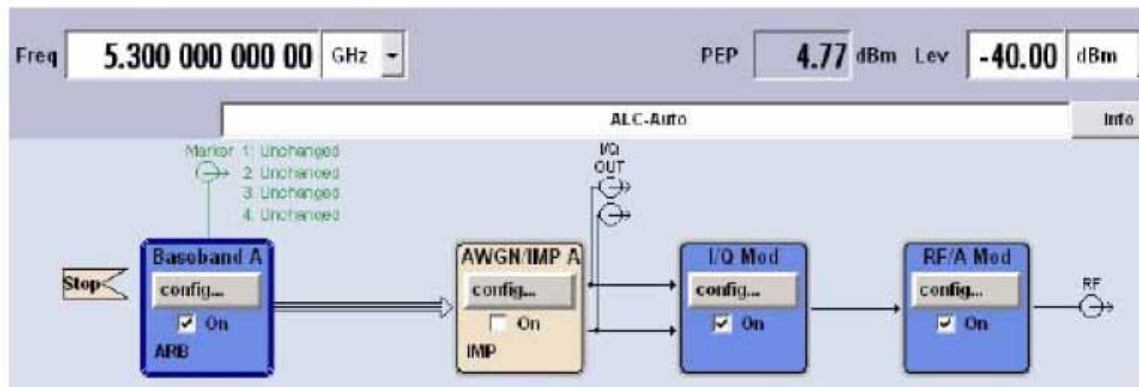
5.3. Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulse	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 23 PRI values in Table 5a	$\text{Roundup} \left\{ \begin{array}{l} \left(\frac{1}{360} \right) \\ \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \end{array} \right\}$	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 type 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 types 1, then each additional waveform generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.



FCC Radar Types (1~4) System Diagram



Used R&S SMU200A (Vector SG with two ARB)

B11: Base-band Generator with ARB (16M samples) and Digital Modulation

B13: Base-band Main Module

B106: frequency range (100 kHz to 6 GHz)

For selecting the waveform parameters from within the bounds of the signal type, system was random selection using uniform distribution.

5.4. Long Pulse Radar Test Waveforms

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

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms. Each waveform is defined as following:

- (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 some pulse width. Pulses in different Bursts may have different pulse widths.
- (5) Each pulse has a linear FM chirp between 5 and 20MHz, with the chirp width being randomly chosen. Each pulse within a Burst will have the same chirp width. Pulses in different Burst may have different chirp widths. The chirp is centered on the pulse. For example, with a radar frequency of 5300MHz and a 20MHz chirped signal, the chirp starts at 5290MHz and ends at 5310MHz.

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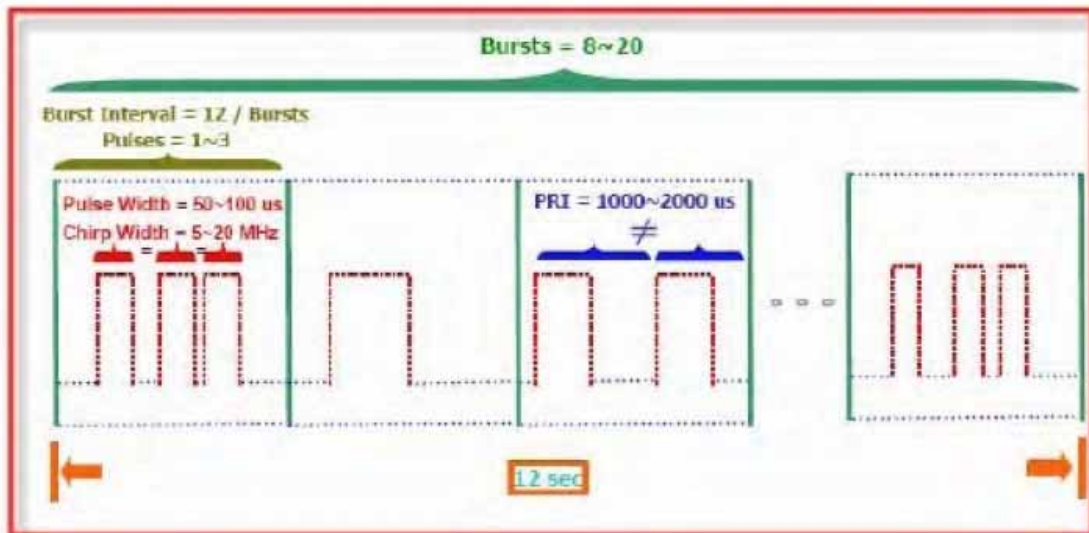
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- (6) If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.
- (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 $(12000000/\text{Burst_Count})$ microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and $[(12000000/\text{Burst_Count}) - (\text{Total Burst length}) + (\text{One Random PRI interval})]$ microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

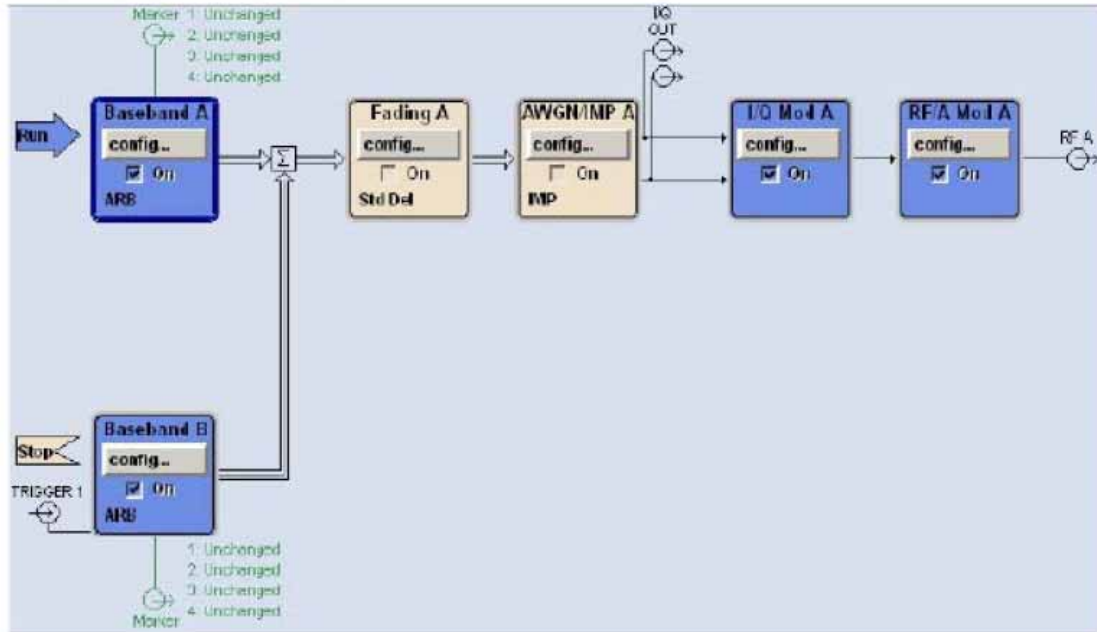
A representative example of a Long Pulse radar test waveform:

- (1) The total test signal length is 12 seconds.
- (2) 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 1500000 microseconds. The starting location for Pulse 1. Burst 1 is randomly generated (1 to 1500000 minus the total Burst 1 length + 1 random PRI interval) at the 325001 microsecond step. Bursts 2 through 8 randomly fall in successive 1500000 microsecond intervals (i.e. Burst 2 falls in the 1500001-3000000 microsecond range).





FCC Radar Types (5) System Diagram



Used R&S SMU200A (Vector SG with two ARB)

Path A/Path B Two B11: Base-band Generator with ARB (16M samples) and Digital Modulation

B13: Base-band Main Module

B106: frequency range (100 kHz to 6 GHz)

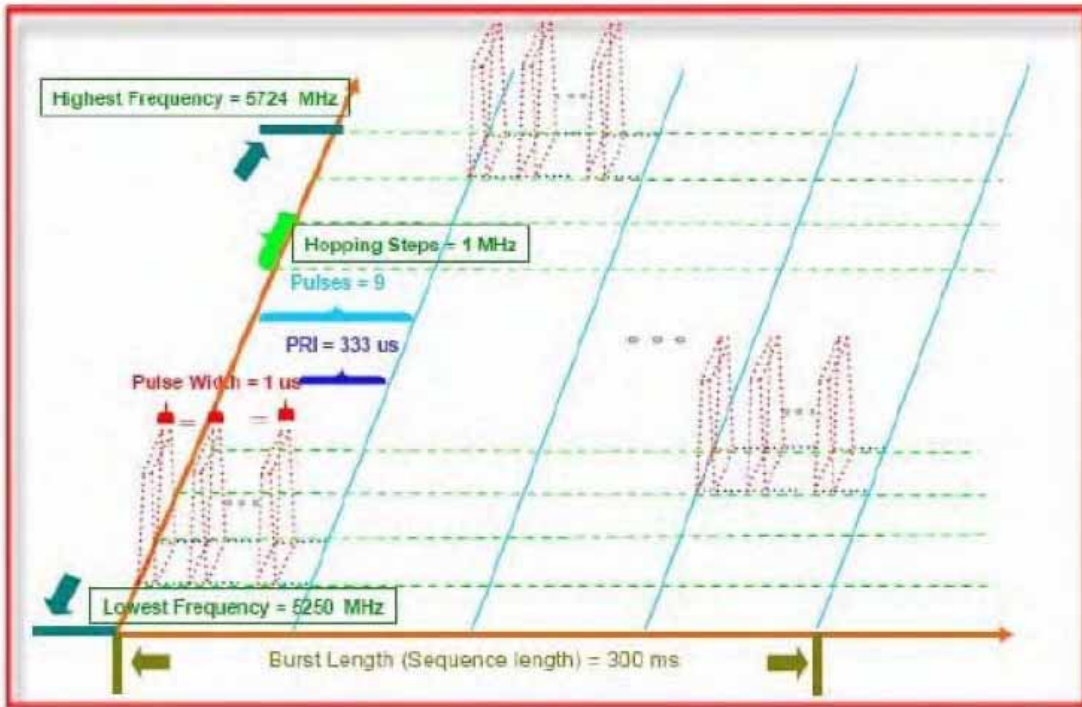
For selecting the waveform parameters from within the bounds of the signal type, system was random selection using uniform distribution.

5.5. Frequency Hopping Pulse Radar Test Waveforms

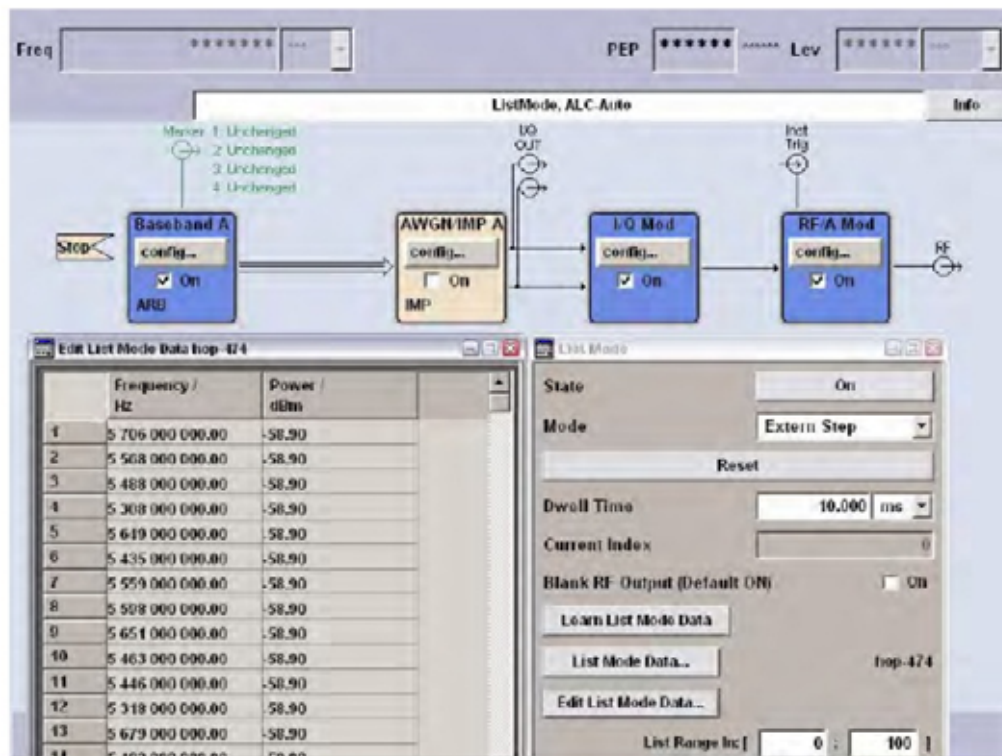
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses Per Hop	Hopping Rate (kHz)	Hopping Sequence Length (ms)	Minimum Percentage of Successful Detection	Minimum of Trials
6	1	333	9	0.333	300	70%	30

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

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250-5274MHz. 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 random frequency, the frequencies remaining within the group are always treated as equally likely.



FCC Radar Types (6) System Diagram



Used R&S SMU200A (Vector SG with two ARB)

B11: Base-band Generator with ARB (16M samples) and Digital Modulation

B13: Base-band Main Module

B106: frequency range (100 kHz to 6 GHz)

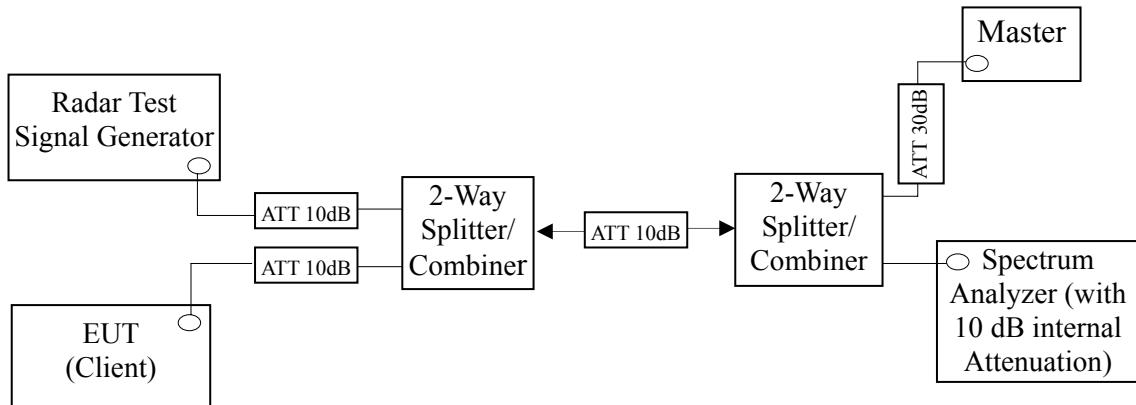
For selecting the waveform parameters from within the bounds of the signal type, system was random selection using uniform distribution.

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5.6. Conducted Calibration Setup



5.7. Radar Waveform Calibration Procedure

The measured frequency is 5320MHz & 5290MHz for Band II, 5500MHz & 5530MHz for Band III. The radar signal was the same as transmitted channels, and injected into the antenna port of AP (master) or Client Device with Radar Detection, measured the channel closing transmission time and channel move time. The calibrated conducted detection threshold level is set to -62dBm. The tested level is lower than required level hence it provides margin to the limit.

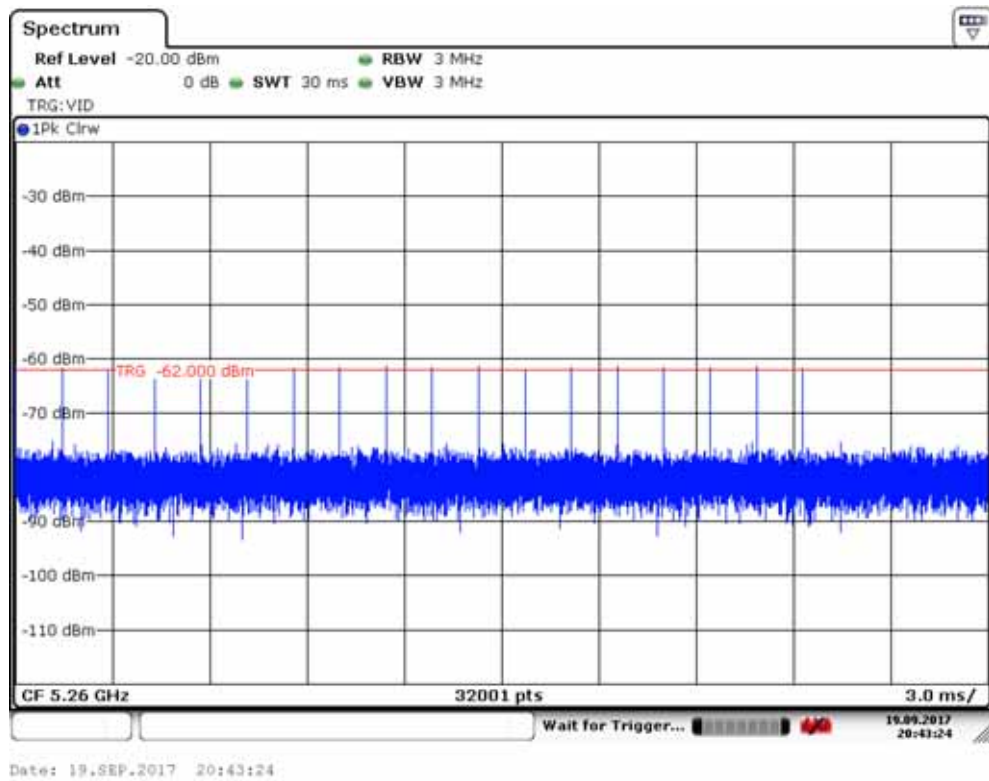
5.8. Calibration Deviation

There is no deviation with the original standard.



5.9. Radar Waveform Calibration Result

DFS detection threshold level and the burst of pulses on the Channel frequency
Band II
20MHz

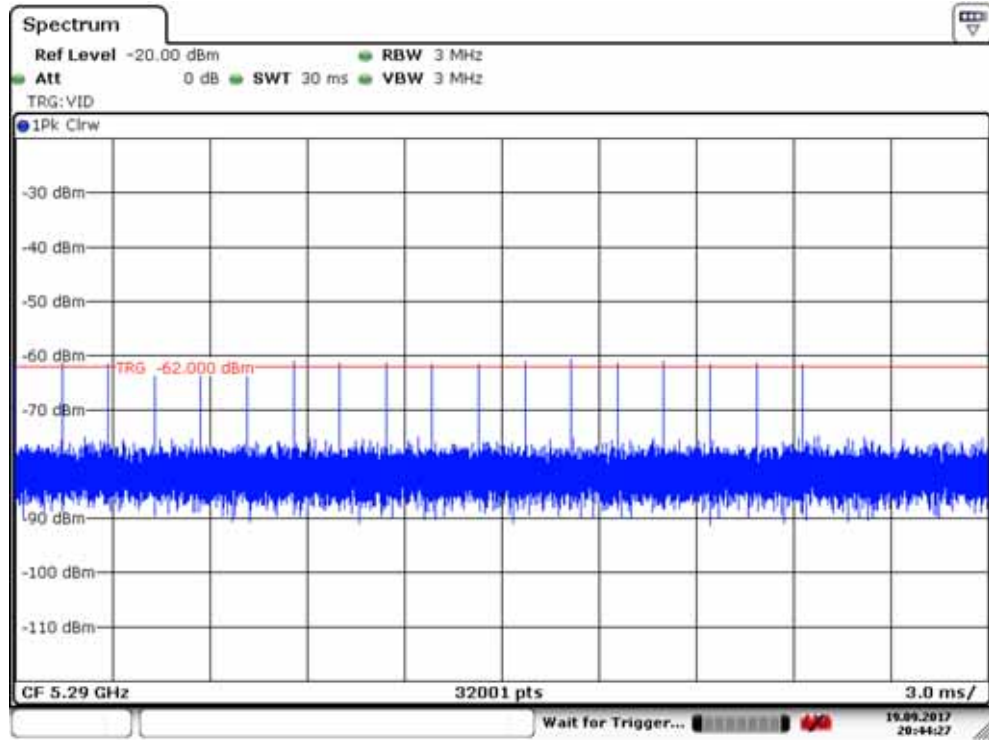


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80MHz



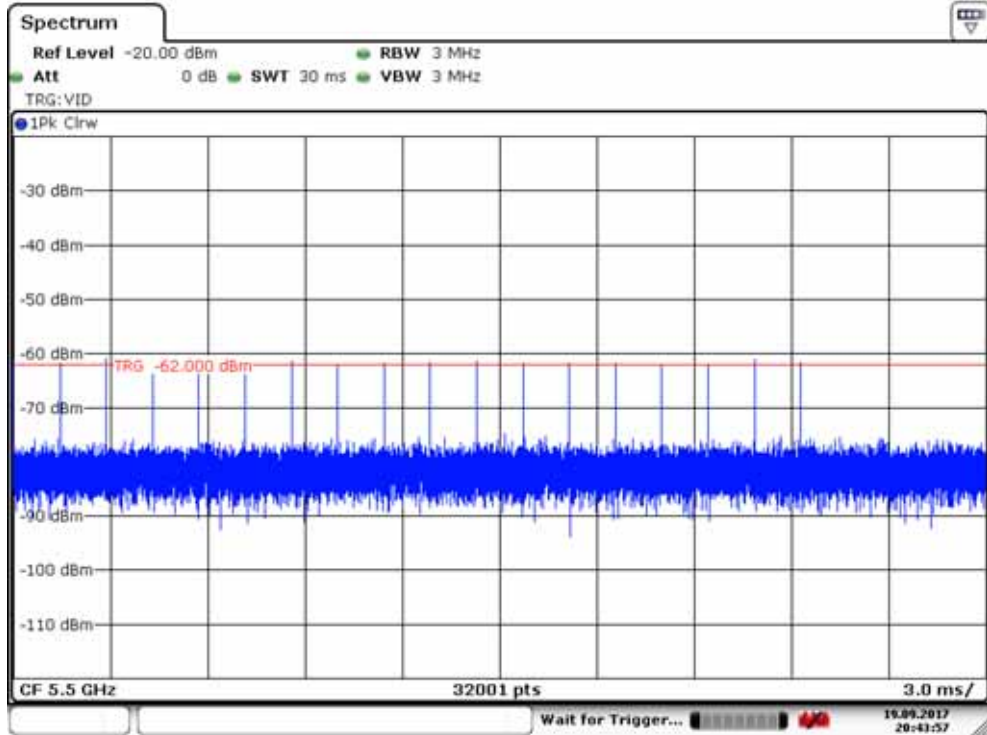
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Band III 20MHz



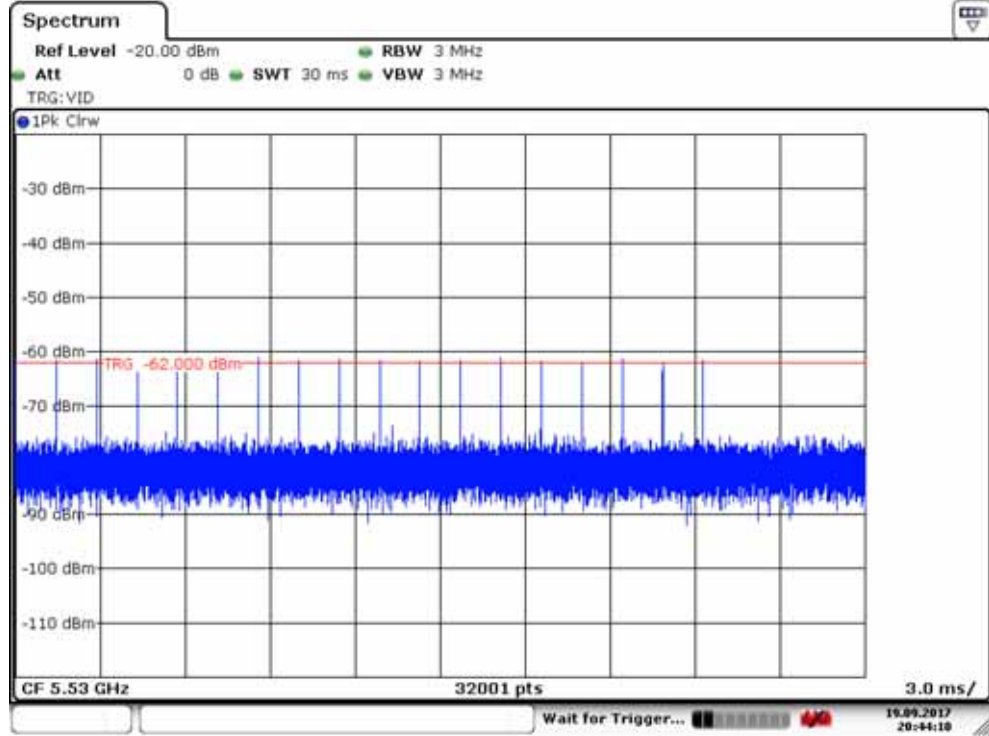
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80MHz



Date: 19.SEP.2017 20:44:10

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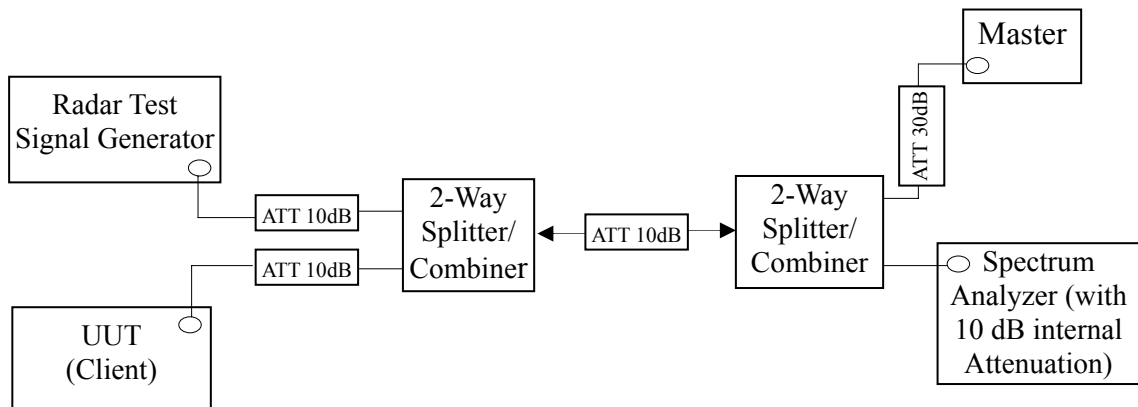


6. TEST SETUP AND TEST RESULT

6.1. Test Setup

6.1.1. Test Setup Diagram

Following is the test setup for generated the radar waveforms and used to monitor UNII device.



6.1.2. Test Setup Operation

System testing was performed with the designated test file that streams full motion video from the Access Point to Client in full motion video mode using the media player with the V2.61 Codec package. This file is used by IP and Frame based systems for loading the test channel during the in-service compliance testing of the U-NII device.

The waveform parameters from within the bounds of the signal type are selected randomly using uniform distribution.

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



6.1.3. Test Setup for Data Traffic Plot

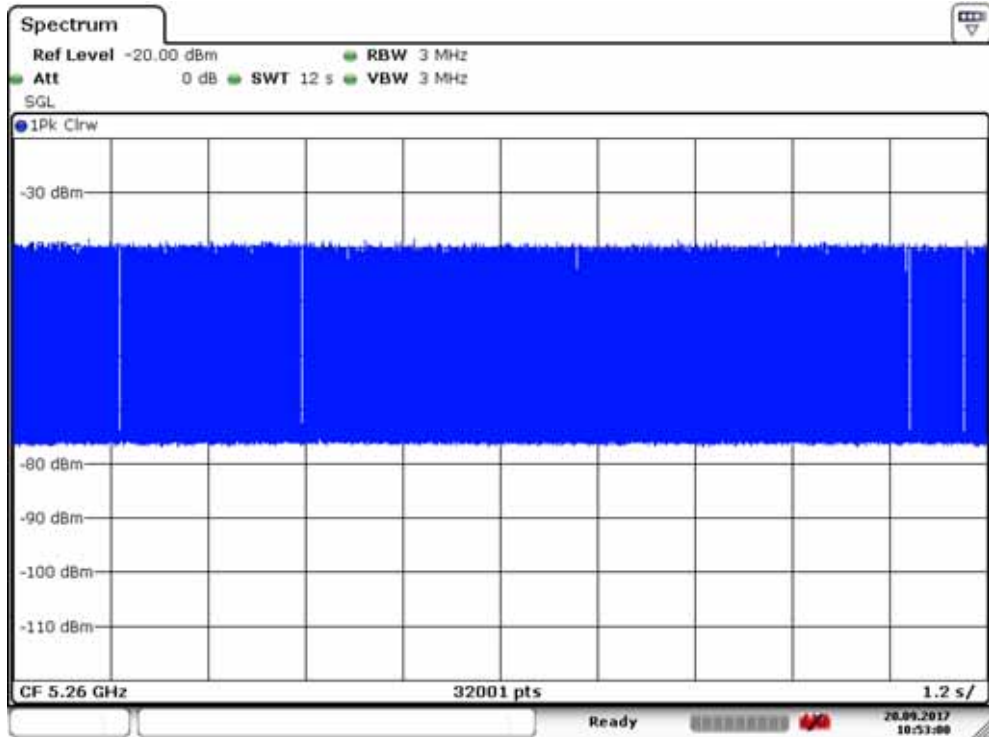
Test Date: Sep.20, 2017

Temperature: 21°C

Humidity:56%

Band II

20MHz



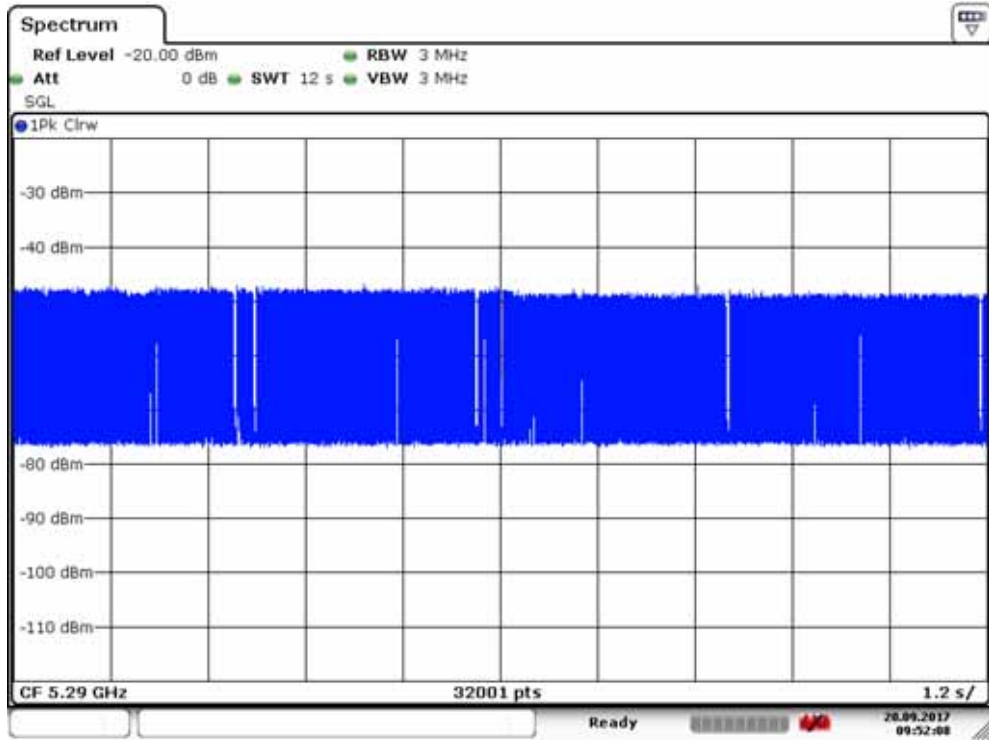
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80MHz



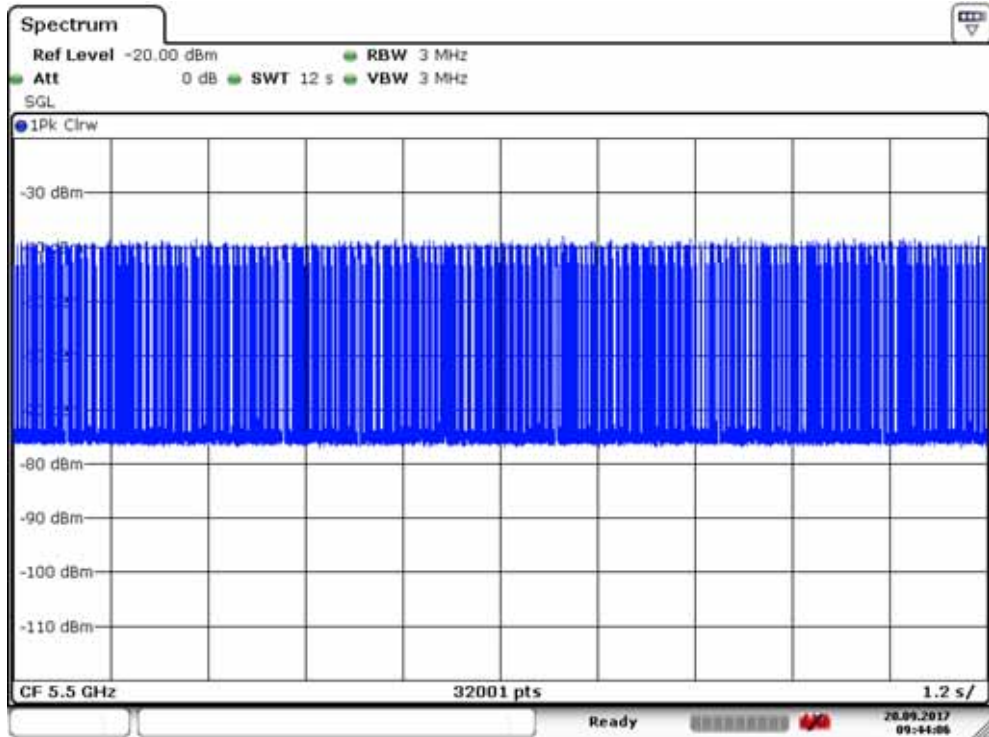
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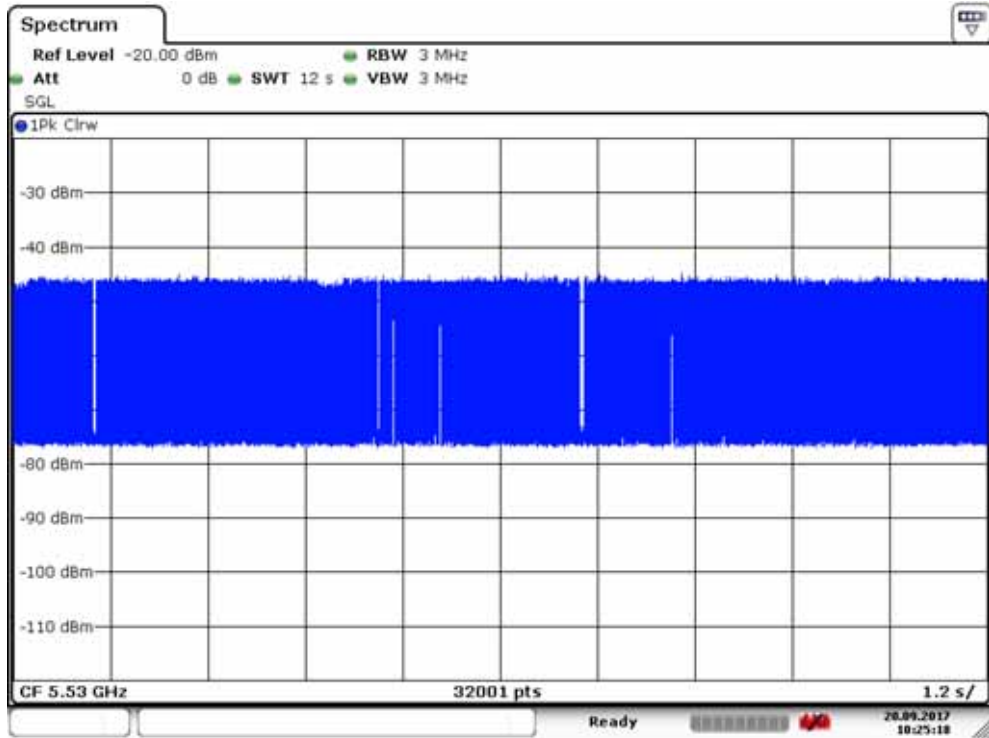


Band III 20MHz



Date: 20.SEP.2017 09:44:06

80MHz



Date: 20.SEP.2017 10:25:18

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6.2. Channel Move Time, Channel Closing Transmission Time Measurement

6.2.1. Limit

Parameter	Value
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: The instant that the Channel Move Time and the Channel Closing Transmission Time begins is as follows:

- For the Short Pulse Radar Test Signals this instant is the end of the Burst.
- For the Frequency Hopping radar Test Signal, this instant is the end of the last radar Burst generated.
- For the Long Pulse Radar Test Signal this instant is the end of the 12 second period defining the Radar Waveform.

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.



6.2.2. Test Procedures

- 6.2.2.1. 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. A U-NII device operating as a Client Device will associate with the Master of channel. Stream the MPEG test file from the Master Device to the Client Device on the selected channel for entire period of the test. At time to the radar waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
- 6.2.2.2. Observe the transmissions of the EUT at the end of the radar Burst on the Operating channel. Measure and record the transmissions from the EUT during the observation time [Channel Move Time]. One 10 Second plot be reported for the short Pulse Radar type 1-4 and one for the Long Pulse Radar Type test in a 22 second plot. The plot for the Short Pulse Radar types start at the end of the radar burst. The Channel Move Time will be calculated based on the plot of the short Pulse Radar Type. The Long Pulse Radar Type plot show the device ceased transmissions within the 10 second window after detection has occurred. The plot for the Long Pulse Radar type should start at the beginning of the 12 second waveform.



6.2.3. Test Result

Applicability of DFS Requirement During Normal Operation

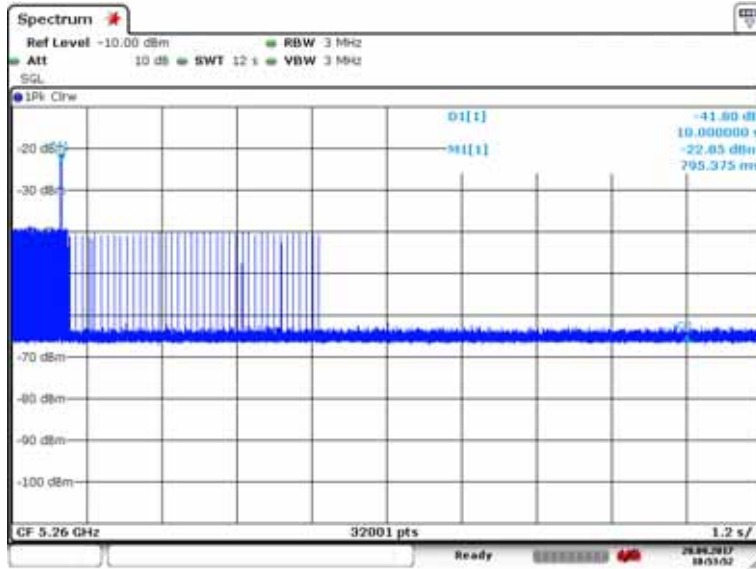
6.2.3.1. Channel Closing Transmission Time & Channel Move Time (PASS)

Test Mode: UNII Band II, 20MHz

Test Date: Sep.20, 2017

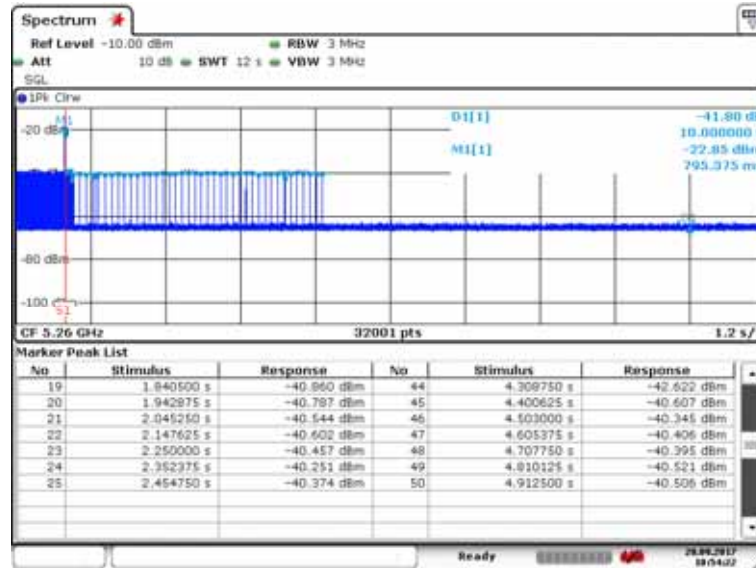
Temperature: 21°C

Humidity:56%



Date: 20.SEP.2017 10:52:52

Channel move time < 10s



Date: 20.SEP.2017 10:54:22

Channel Closing Transmission Time Calculated	
Sweep Time(S) sec	12
Sweep points (P)	32001
Number of Sweep points in 10 sec (N)	50
Channel Closing Time (C)	18.75ms

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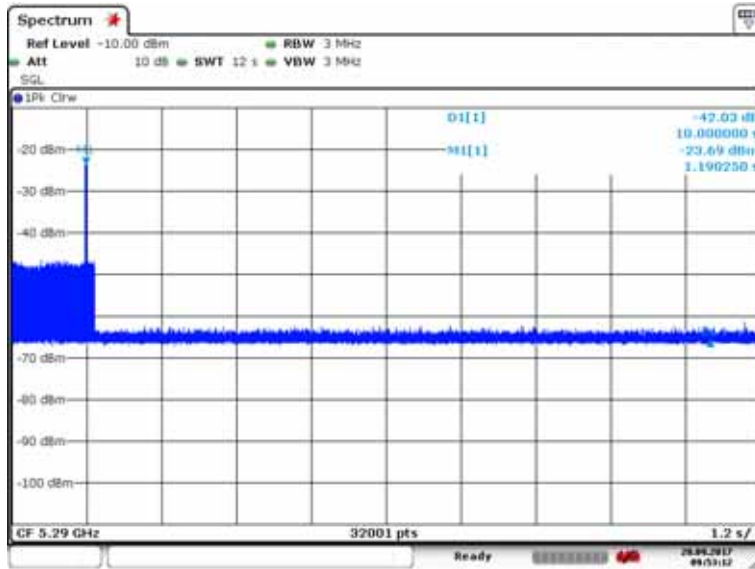
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Channel closing time is calculated from $C=N* \text{ dwell}$; where dwell is the occupancy time per sweep point calculated by the formula: $\text{dwell}=S/P$. N is the number of sweep points indicating transmission after S1; where S1 is the radar signal detected.

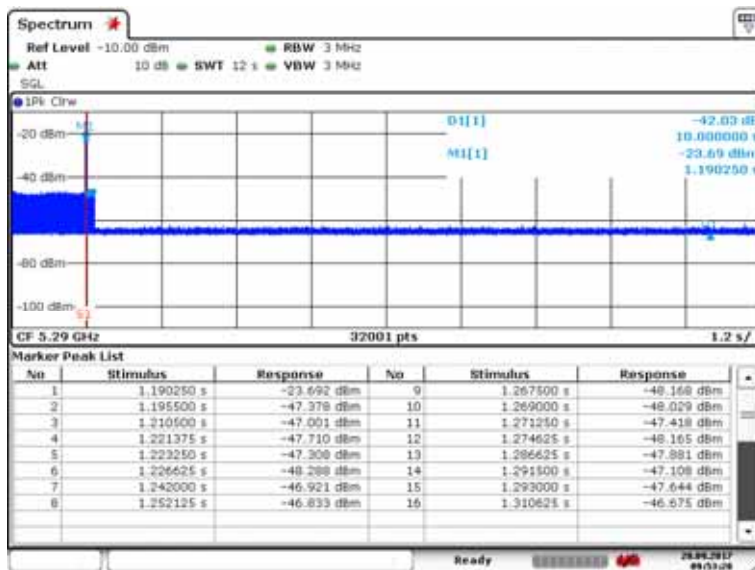


80MHz



Date: 20.08F.2017 09:52:12

Channel move time < 10s



Date: 20.08F.2017 09:52:28

Channel Closing Transmission Time Calculated	
Sweep Time(S) sec	12
Sweep points (P)	32001
Number of Sweep points in 10 sec (N)	16
Channel Closing Time (C)	6.00ms

Channel closing time is calculated from $C=N \cdot dwell$; where dwell is the occupancy time per sweep point calculated by the formula: $dwell=S/P$. N is the number of sweep points indicating transmission after S1; where S1 is the radar signal detected.

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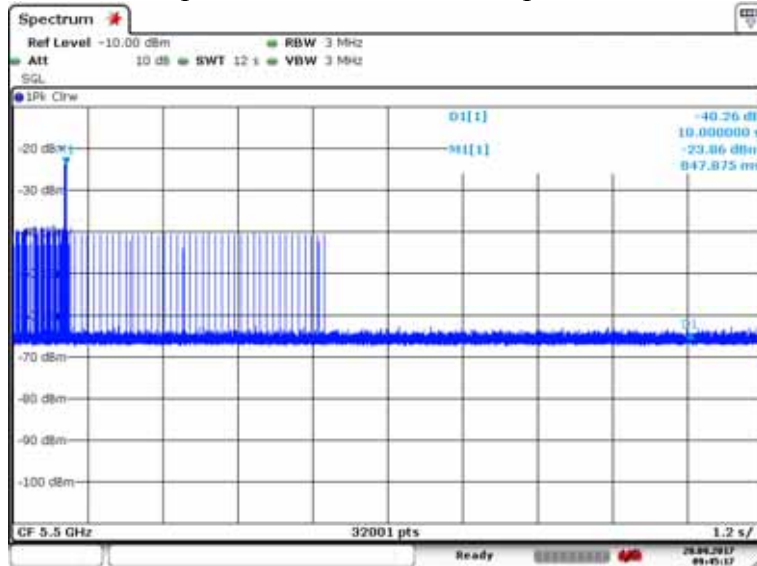


Test Mode: UNII Band III, 20MHz

Test Date: Sep.20, 2017

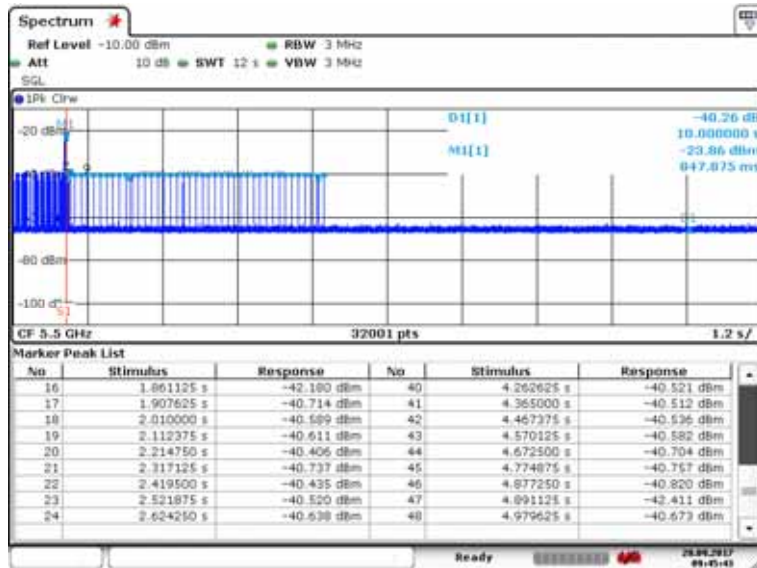
Temperature: 21°C

Humidity: 56%



Detwt: 20-SEP-2017 09:45:11T

Channel move time < 10s



Detwt: 20-SEP-2017 09:45:14T

Channel Closing Transmission Time Calculated	
Sweep Time(S) sec	12
Sweep points (P)	32001
Number of Sweep points in 10 sec (N)	48
Channel Closing Time (C)	18.00ms

Channel closing time is calculated from $C=N* dwell$; where dwell is the occupancy time per sweep point calculated by the formula: $dwell=S/P$. N is the number of sweep points

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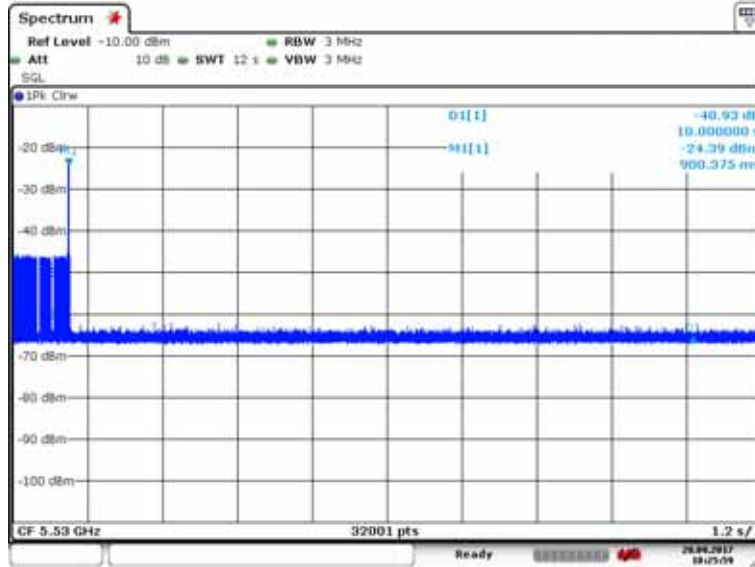
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indicating transmission after S1; where S1 is the radar signal detected.

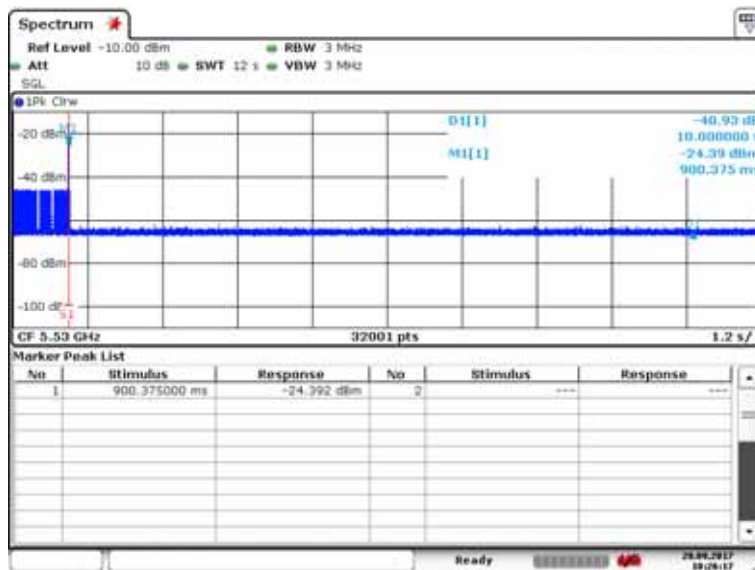


80MHz



Date: 20-SEP-2017 10:25:59

Channel move time < 10s



Date: 20-SEP-2017 10:26:17

Channel Closing Transmission Time Calculated	
Sweep Time(S) sec	12
Sweep points (P)	32001
Number of Sweep points in 10 sec (N)	1
Channel Closing Time (C)	0.37ms

Channel closing time is calculated from $C=N \cdot dwell$; where dwell is the occupancy time per sweep point calculated by the formula: $dwell=S/P$. N is the number of sweep points indicating transmission after S1; where S1 is the radar signal detected.

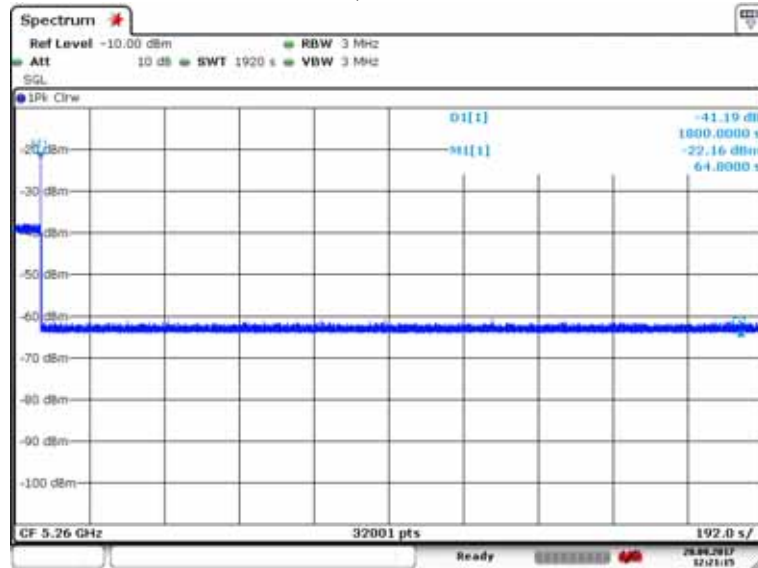
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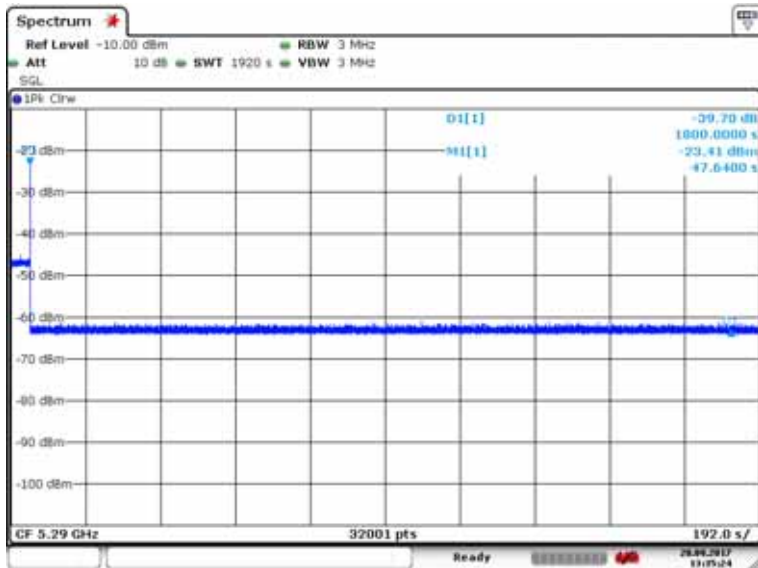
6.2.3.2. Non-Occupancy Period

Test Mode: UNII Band II, 20MHz



Date: 20.08.2017 12:03:15

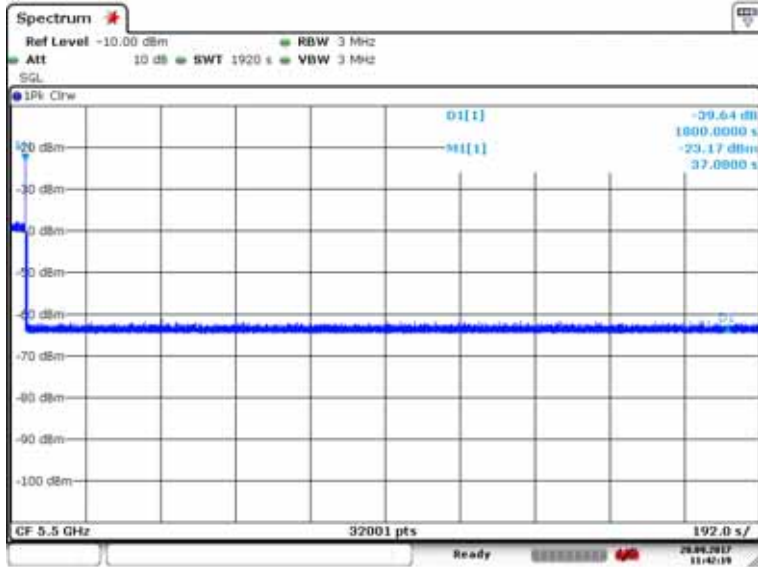
80MHz



Date: 20.08.2017 12:05:24

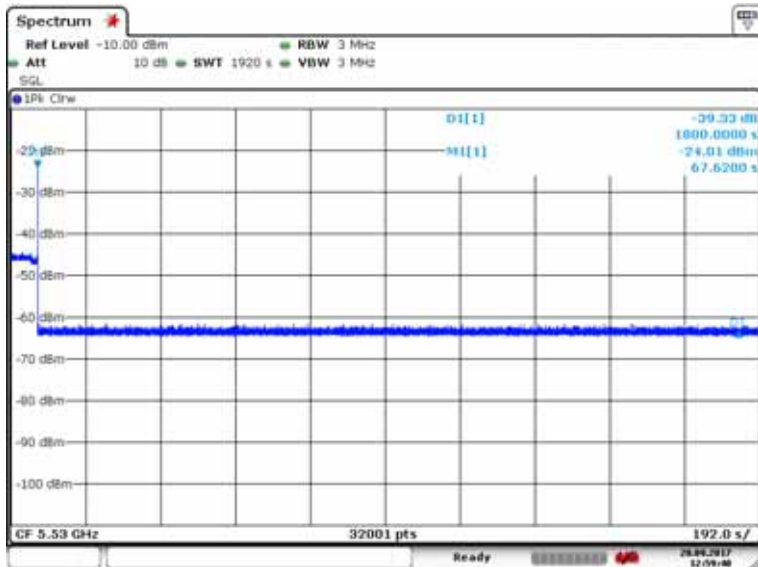


Test Mode: UNII Band III, 20MHz



Date: 20.09.2017 11:42:19

80MHz



Date: 20.09.2017 12:09:40

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