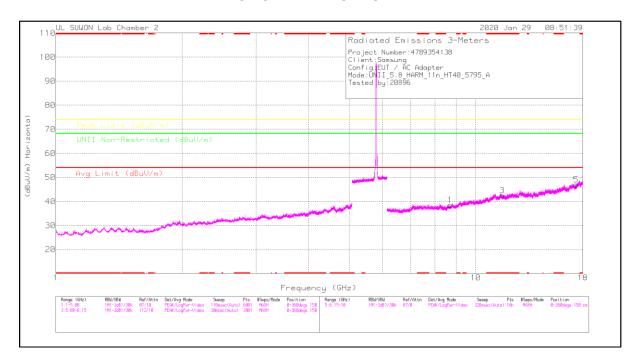
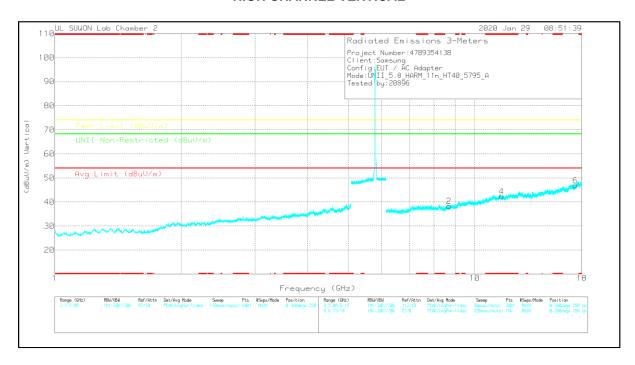
# DATE: MAR 09, 2020

#### HIGH CHANNEL HORIZONTAL



#### HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

# **Radiated Emissions**

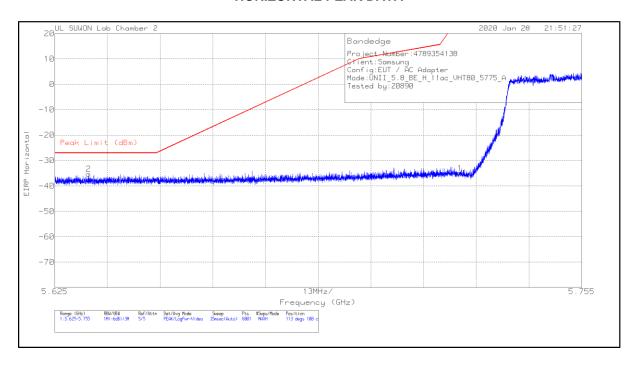
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8.69571	35.08	PK-U	36.2	-23.1	0	48.18		-		-	68.2	-20.02	0	100	Н
8.69604	35.13	PK-U	36.2	-23.1	0	48.23				-	68.2	-19.97	0	100	V
* 11.58023	33.69	PK-U	38.4	-19.8	0	52.29		-	74	-21.71			0	100	Н
* 11.58094	33.94	PK-U	38.4	-19.8	0	52.54			74	-21.46			0	100	V
17.36909	34.45	PK-U	41.4	-18.6	0	57.25				-	68.2	-10.95	0	100	Н
17.36799	34.5	PK-U	41.4	-18.6	0	57.3		-		-	68.2	-10.9	0	100	V

<sup>\* -</sup> indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK-U - U-NII: Maximum Peak

# 11.4.4. TX ABOVE 1GHz 802.11ac VHT80 2Tx MODE IN THE 5.8GHz BAND

# **BANDEDGE (Lower side)**

#### **HORIZONTAL PEAK DATA**

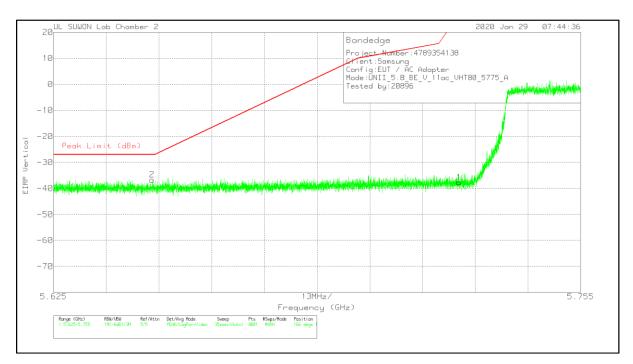


#### **Trace Markers**

Ma	arker	Frequency (GHz)	Meter Reading (dBm)	Det	170531_3117[00168724]	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
	1	5.72499	-63.9	Pk	34.5	-17.5	11.8	0	-35.1	26.97	-62.07	113	100	Н
	2	5.63334	-63.87	Pk	34.4	-17.7	11.8	0	-35.37	-27	-8.37	113	100	Н

Pk - Peak detector

# **VERTICAL PEAK DATA**



# **Trace Markers**

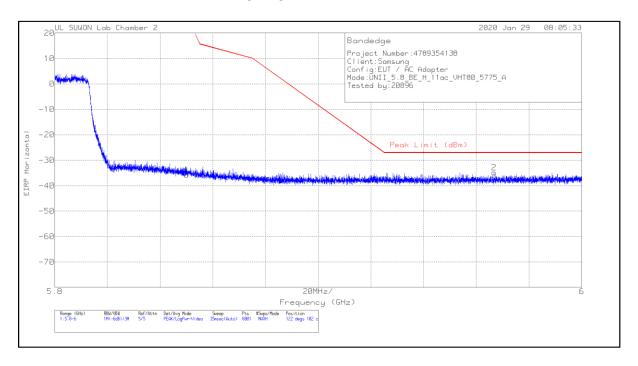
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	170531_3117[00168724]	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.72499	-66.53	Pk	34.5	-17.5	11.8	0	-37.73	26.97	-64.7	166	109	V
2	5.64931	-65.17	Pk	34.4	-17.7	11.8	0	-36.67	-27	-9.67	166	109	V

Pk - Peak detector

DATE: MAR 09, 2020

# **BANDEDGE (Upper side)**

#### **HORIZONTAL PEAK DATA**

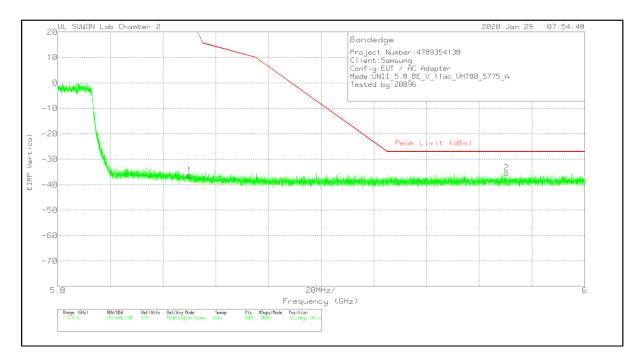


### **Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	170531_3117[00168724]	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85003	-64.66	Pk	34.5	-17.3	11.8	0	-35.66	26.94	-62.6	122	102	Н
2	5.96673	-64.07	Pk	34.7	-17.3	11.8	0	-34.87	-27	-7.87	122	102	Н

Pk - Peak detector

# **VERTICAL PEAK DATA**



### **Trace Markers**

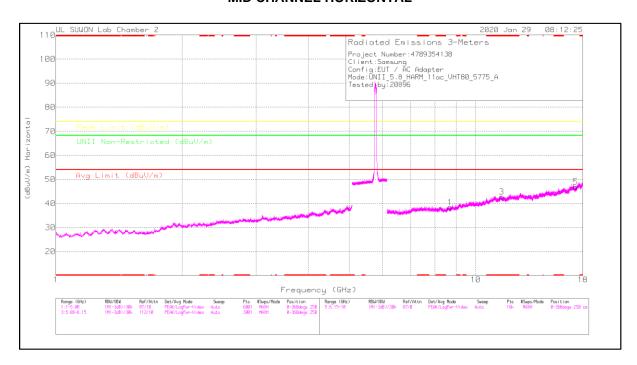
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	170531_3117[00168724]	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85003	-65.35	Pk	34.5	-17.3	11.8	0	-36.35	26.94	-63.29	167	101	V
2	5.97025	-64.5	Pk	34.7	-17.3	11.8	0	-35.3	-27	-8.3	167	101	V

Pk - Peak detector

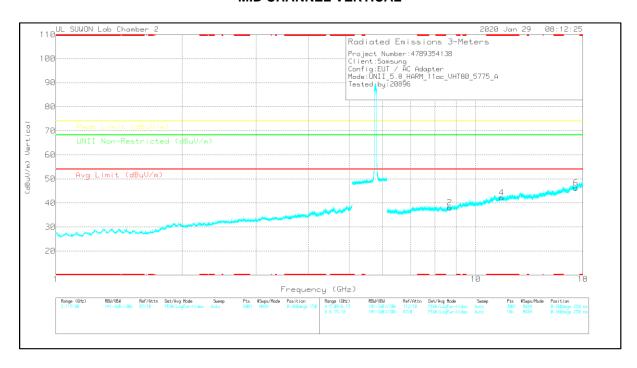
DATE: MAR 09, 2020

### HARMONICS AND SPURIOUS EMISSIONS

#### MID CHANNEL HORIZONTAL



### MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# **MID CHANNEL DATA**

# Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8.68393	35.77	PK-U	36.2	-22.9	0	49.07					68.2	-19.13	0	100	Н
8.68444	34.85	PK-U	36.2	-22.9	0	48.15				-	68.2	-20.05	0	100	V
* 11.5433	33.8	PK-U	38.3	-19.6	0	52.5			74	-21.5			0	100	Н
* 11.54429	35.24	PK-U	38.3	-19.6	0	53.94			74	-20.06			0	100	V
17.31219	34.34	PK-U	41.3	-18.7	0	56.94				-	68.2	-11.26	0	100	Н
17.31542	33.96	PK-U	41.3	-18.8	0	56.46					68.2	-11.74	0	100	V

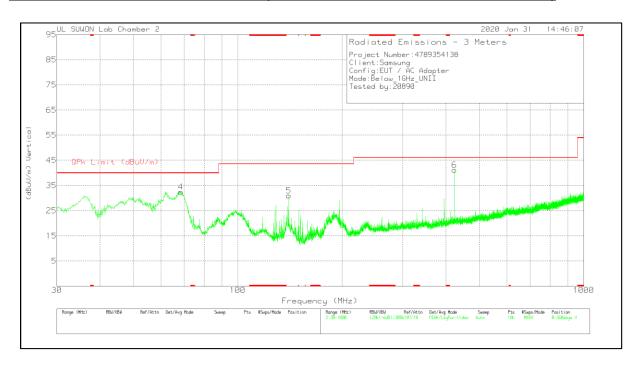
<sup>\* -</sup> indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK-U - U-NII: Maximum Peak

# 12. WORST-CASE BELOW 1 GHz

### SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



# SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)



# **Below 1G Data**

# **Trace Markers**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below_1G[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	68.509	48.12	Pk	16.1	-31.6	0	32.62	40	-7.38	0-360	200	Н
2	85.969	49.07	Pk	13.9	-31.4	0	31.57	40	-8.43	0-360	300	Н
3	185.006	45.1	Pk	16.4	-30.8	0	30.7	43.52	-12.82	0-360	300	Н
4	68.412	47.91	Pk	16.1	-31.5	0	32.51	40	-7.49	0-360	100	V
5	140.386	48.09	Pk	14	-31.1	0	30.99	43.52	-12.53	0-360	100	V
6	422.85	48.98	Pk	22.1	-29.9	0	41.18	46.02	-4.84	0-360	100	V

<sup>\* -</sup> indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

# **Radiated Emissions**

Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below_1G[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
422.85	22.98	Qp	22.1	-29.9	0	15.18	46.02	-30.84	160	102	V

Qp - Quasi-Peak detector

Pk - Peak detector

# 13. AC POWER LINE CONDUCTED EMISSIONS

# **LIMITS**

FCC §15.207 (a) IC RSS-GEN Clause 8.8

Frequency of Emission (MHz)	Conducted I	imit (dBuV)
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

Decreases with the logarithm of the frequency.

# **TEST PROCEDURE**

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

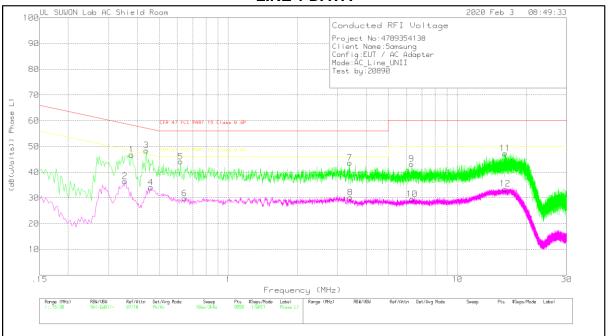
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

# **RESULTS**

### **WORST EMISSIONS**

# **LINE 1 DATA**



# **Trace Markers**

Range	e 1: Phase L	1 .15 - 30	MHz							
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ENV216_101836_With ex-cord_L1	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.378	36.66	Pk	9.9	.2	46.76	QP 58.32	-11.56	_	_
2	.354	26.34	Av	9.9	.2	36.44	-	-	48.87	-12.43
3	.438	38.35	Pk	9.9	.2	48.45	57.1	-8.65	-	-
4	.459	23.98	Av	9.9	.2	34.08	-	-	46.71	-12.63
5	.618	34.01	Pk	9.9	.2	44.11	56	-11.89	-	-
6	.645	19.69	Av	9.9	.2	29.79	-	-	46	-16.21
7	3.39	33.56	Pk	9.8	.3	43.66	56	-12.34	1	-
8	3.408	20.06	Av	9.8	.3	30.16	-	-	46	-15.84
9	6.312	33.07	Pk	9.8	.3	43.17	60	-16.83	-	-
10	6.339	19.4	Av	9.8	.3	29.5	-	-	50	-20.5
11	16.143	36.84	Pk	10.1	.4	47.34	60	-12.66	1	-
12	16.164	23.03	Av	10.1	.4	33.53	-	-	50	-16.47

Pk - Peak detector

Av - Average detection

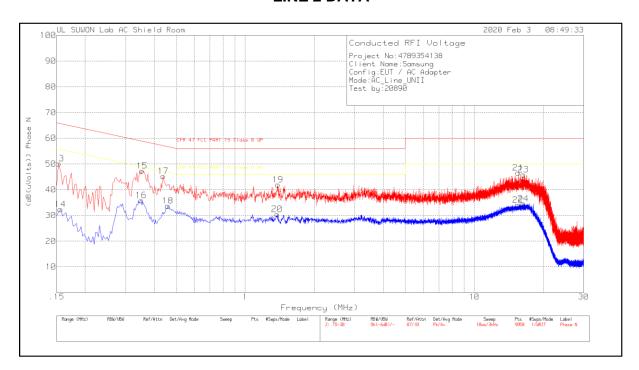
### **Quasi-Peak Emissions**

Range 1:	Range 1: Phase L1 .15 - 30MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With Ex_L1[dB]	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)				
.438	33.64	Qp	9.9	.2	43.74	57.1	-13.36	-	-				

Qp - Quasi-Peak detector

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# **LINE 2 DATA**



### **Trace Markers**

Rang	Range 2: Phase N .15 - 30MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ENV216_101836_With ex-cord_N	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)				
13	.153	40.25	Pk	9.8	.1	50.15	65.84	-15.69	-	-				
14	.156	22.37	Av	9.9	.1	32.37	-	-	55.67	-23.3				
15	.354	37.17	Pk	9.9	.2	47.27	58.87	-11.6	-	-				
16	.351	25.74	Av	9.9	.2	35.84	-	-	48.94	-13.1				
17	.438	35.14	Pk	9.9	.2	45.24	57.1	-11.86	-	-				
18	.459	23.57	Av	9.9	.2	33.67	-	-	46.71	-13.04				
19	1.386	31.81	Pk	9.8	.3	41.91	56	-14.09	-					
20	1.377	20.36	Av	9.8	.3	30.46	-	-	46	-15.54				
21	15.534	35.96	Pk	10.2	.4	46.56	60	-13.44	-	-				
22	15.516	23.44	Av	10.2	.4	34.04	-	-	50	-15.96				
23	16.371	35.25	Pk	10.2	.4	45.85	60	-14.15	-					
24	16.371	23.97	Av	10.2	.4	34.57	-	-	50	-15.43				

Pk - Peak detector Av - Average detection

### **Quasi-Peak Emissions**

Range 2: Phase N .15 - 30MHz									
Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_N[dB]	CABLELOSS(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.354	27.37	Qp	9.9	.2	37.47	58.87	-21.4	-	-

Qp - Quasi-Peak detector

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DATE: MAR 09, 2020

# 14. DYNAMIC FREQUENCY SELECTION

### 14.1. OVERVIEW

14.1.1. LIMITS

### **FCC**

§15.407 (h), FCC KDB 905462 D02 "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION" and KDB 905462 D03 "U-NII CLIENT DEVICES WITHOUT RADAR DETECTION CAPABILITY".

Table 1: Applicability of DFS requirements prior to use of a channel

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

Table 2: Applicability of DFS requirements during normal operation

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

Additional requirements for	Master Device or Client with	Client
devices with multiple bandwidth	Radar DFS	(without DFS)
modes		
U-NII Detection Bandwidth and	All BW modes must be tested	Not required
Statistical Performance Check		
Channel Move Time and Channel	Test using widest BW mode	Test using the
Closing Transmission Time	available	widest BW mode
		available for the link
All other tests	Any single BW mode	Not required

**Note**: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequency between the bonded 20 MHz channel blocks.

Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value
	(see notes)
E.I.R.P. ≥ 200 mill watt	-64 dBm
E.I.R.P. < 200 mill watt and	-62 dBm
power spectral density < 10 dBm/MHz	
E.I.R.P. < 200 mill watt that do not meet power spectral	-64 dBm
density requirement	

**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:** E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.

**Table 4: DFS Response requirement values** 

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds (See Note 1)
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U- NII 99% transmission power bandwidth. (See Note 3)

**Note 1:** Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

**Note 2:** The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

**Note 3:** During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 5 - Short Pulse Radar Test Waveforms

Radar	Pulse	PRI	Pulses	Minimum	Minimum		
	Width		r uises		Trials		
Type		(usec)		Percentage	ITIAIS		
	(usec)			of Successful			
	4	4.400	10	Detection	0 11 1		
0	1	1428	18	See Note 1	See Note		
					1		
1	1	Test A: 15 unique		60%	30		
		PRI values randomly					
		selected from the list	Roundup:				
		of 23 PRI values in	{(1/360) x (19 x 10 <sup>6</sup> PRI <sub>usec</sub> )}				
		table 5a					
		Test B: 15 unique					
		PRI values randomly					
		selected within the					
		range of 518-3066					
		usec. With a					
		minimum increment					
		of 1 usec, 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 T	ypes 1- <del>4</del> )	80%	120		
Note 1	Note 1. Short Dulas Dadar Time 0 should be used for the Detection Dendwidth test. Channel						

**Note 1:** Short Pulse Radar Type 0 should be used for the *Detection Bandwidth* test, *Channel Move Time*, and *Channel Closing Time* tests.

Table 6 - Long Pulse Radar Test Signal

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

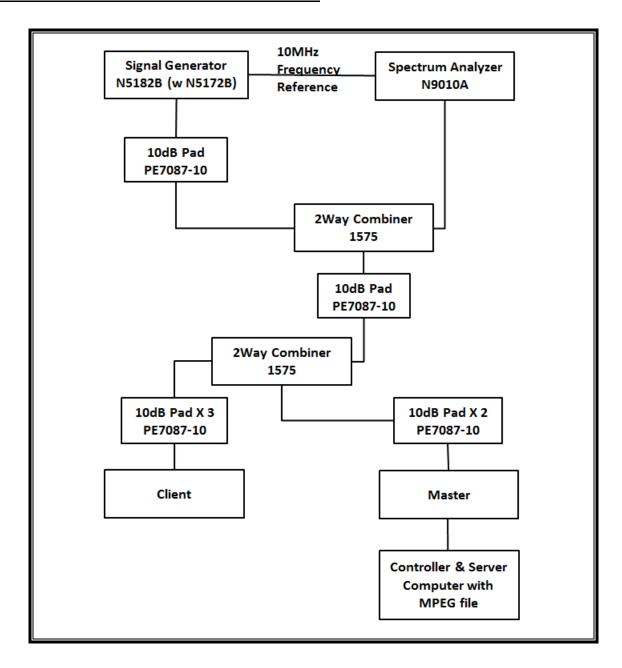
Table 7 - Frequency Hopping Radar Test Signal

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

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### 14.1.2. TEST AND MEASUREMENT SYSTEM

# **CONDUCTED METHOD SYSTEM BLOCK DIAGRAM**



#### SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the Keysite Signal Studio for Pulse Building as N5172B. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 1, 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of KDB 905462 D02. The frequency of the signal generator is incremented in 1 MHz steps from  $F_L$  to  $F_H$  for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

#### **SYSTEM CALIBRATION**

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

### ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

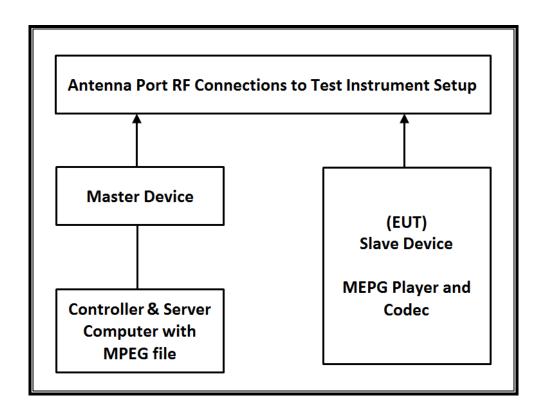
### TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the DFS tests documented in this report:

TEST EQUIPMENT LIST						
Description	Manufacturer	Model	S/N	Next Cal Due		
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	08-07-20		
Vector Signal Generator, 6GHz	Agilent / HP	N5182B	MY53051241	08-06-20		
Combiner	AEROFLEX/WEINSCHEL	1575	2150	08-08-20		
Combiner	AEROFLEX/WEINSCHEL	1575	2781	08-08-20		

# 14.1.3. **SETUP OF EUT**

# **CONDUCTED METHOD EUT TEST SETUP**



### **SUPPORT EQUIPMENT**

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST							
Description	Manufacturer	Model	Serial Number	FCC ID			
Wireless Access Point	Cisco	AIR-CAP3702E-A-K9	FTX182276QX	LDK102087			
Notebook PC (Controller/Server)	HP	HP EliteDesk 800 G1 TWR	CZC4125J25	DoC			

#### 14.1.4. DESCRIPTION OF EUT

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

The EUT is a Slave Device without Radar Detection.

The highest power level of the widest bandwidth (802.11ac VHT80) within these bands is 13.83 dBm in the 5250-5350 MHz band and 13.81 dBm in the 5470-5725 MHz band.

The antenna assembly utilized two antenna.

Gain of ANT1: -7.12 dBi for UNII 2A and -6.87 dBi for UNII 2C. Gain of ANT2: -5.94 dBi for UNII 2A and -5.07 dBi for UNII 2C.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required conducted threshold at the antenna port is -64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

The EUT uses one transmitter/receiver chain connected to an antenna to perform radiated tests.

WLAN traffic that meets or exceeds the minimum required loading was generated by transferring a data stream from the controller/server PC to the EUT using iPerf version 2.0.5 software package.

TPC is not required since the maximum EIRP is less than 500 mW (27 dBm).

The EUT utilizes the 802.11 architecture. Three nominal channel bandwidths are implemented: 20 MHz, 40 MHz and 80 MHz.

The software installed in the access point is 12.4(25d)JA1.

# **UNIFORM CHANNEL SPREADING**

This requirement is not applicable to Slave radio devices.

### **OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS**

The Master Device is a Cisco Access Point, FCC ID: LDK102087. The minimum antenna gain for the Master Device is 6 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is -64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

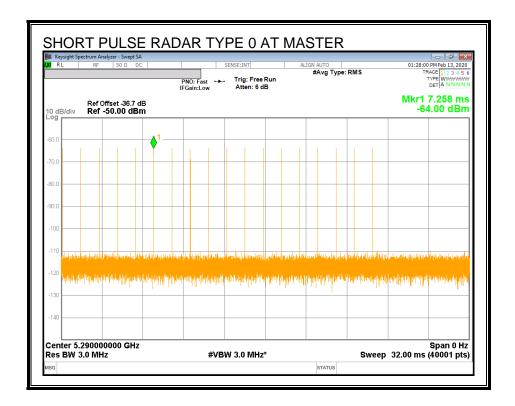
# 14.2. RESULTS FOR 80 MHz BANDWIDTH (UNII-2A BAND)

### 14.2.1. TEST CHANNEL

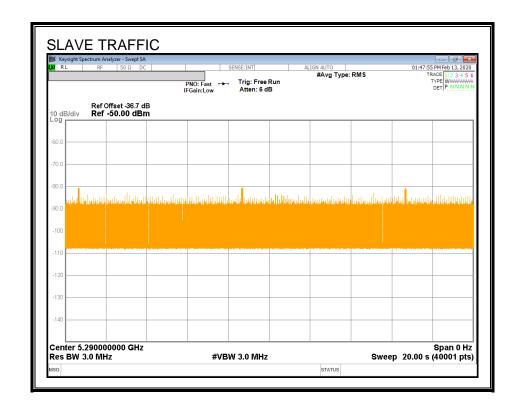
All tests were performed at a channel center frequency of 5290 MHz.

# 14.2.2. RADAR WAVEFORM AND TRAFFIC

### **RADAR WAVEFORM**



# TRAFFIC



#### 14.2.3. OVERLAPPING CHANNEL TESTS

#### **RESULTS**

These tests are not applicable.

# 14.2.4. MOVE AND CLOSING TIME

#### **REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

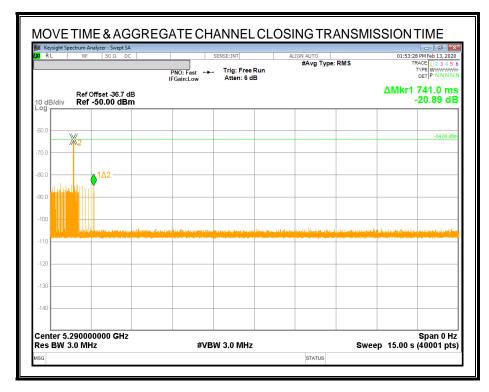
### **RESULTS**

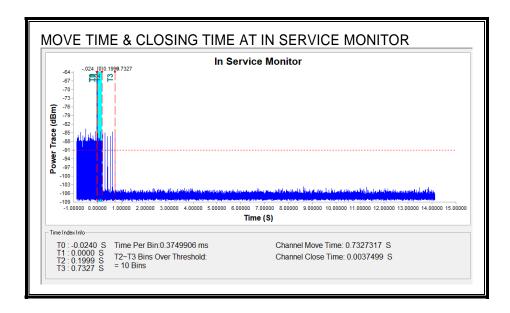
Channel Move Time	Limit
(sec)	(sec)
0.733	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
3.750	60

### AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

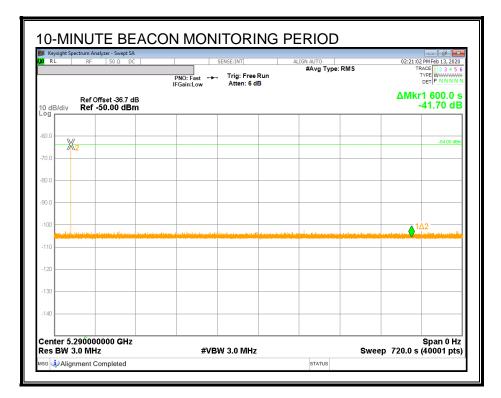




### **NON-OCCUPANCY PERIOD**

### **RESULTS**

No EUT transmissions were observed on the test channel during the 10-minute observation time.



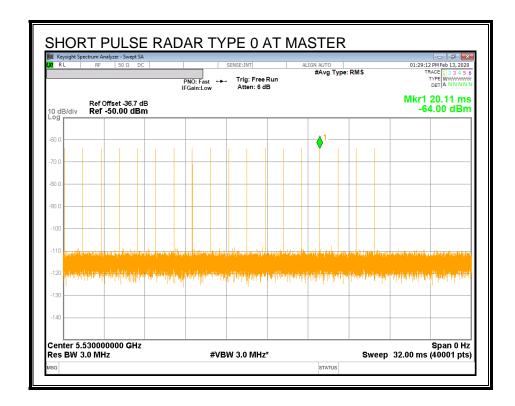
# 14.3. RESULTS FOR 80 MHz BANDWIDTH (UNII-2C BAND)

# 14.3.1. TEST CHANNEL

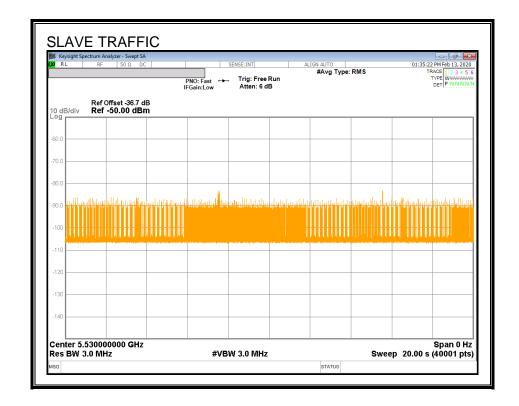
All tests were performed at a channel center frequency of 5530 MHz.

# 14.3.2. RADAR WAVEFORM AND TRAFFIC

### **RADAR WAVEFORM**



# TRAFFIC



#### 14.3.3. OVERLAPPING CHANNEL TESTS

#### **RESULTS**

These tests are not applicable.

# 14.3.4. MOVE AND CLOSING TIME

#### **REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

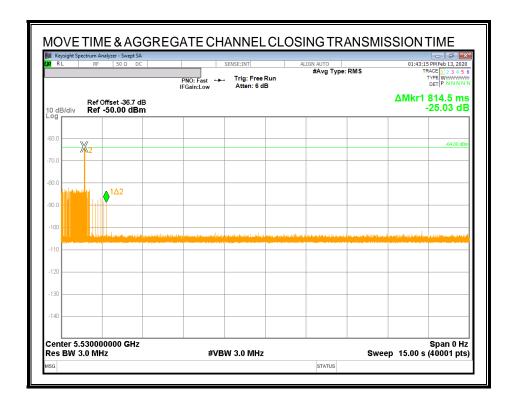
### **RESULTS**

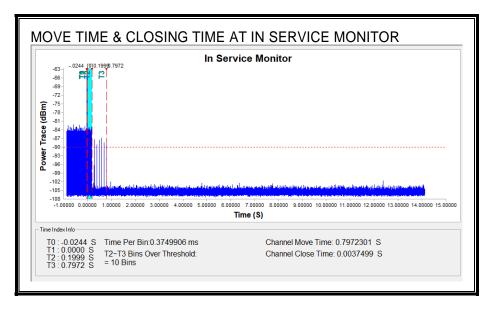
Channel Move Time	Limit
(sec)	(sec)
0.797	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
3.750	60

### **AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the aggregate monitoring period.

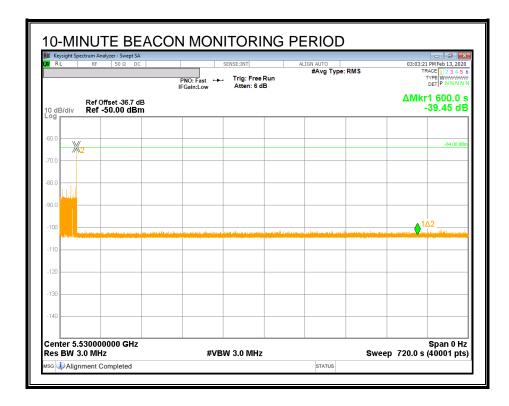




### **NON-OCCUPANCY PERIOD**

### **RESULTS**

No EUT transmissions were observed on the test channel during the 10-minute observation time.



# **END OF REPORT**