3. POWER SPECTRAL DENSITY TEST

3.1 APPLIED PROCEDURES / LIMIT

According to FCC §15.407(a)

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

(3)For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

,

3.2 TEST PROCEDURE

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW ≥ 1/T, where T is defined in section II.B.I.a).

b) Set VBW ≥ 3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

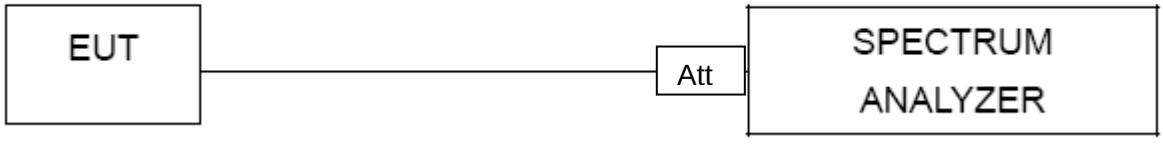
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHZ is available on nearly all spectrum analyzers.

3.3 DEVIATION FROM STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

3.6 TEST RESULTS

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1015 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency Band 1 (5150-5250MHz), Band 2A (5250-5350MHz), Band 2C (5470-5725MHz), Band 3 (5745-5825MHz)		

Test data reference attachment.

4. 26DB & 99% EMISSION BANDWIDTH

4.1 APPLIED PROCEDURES / LIMIT

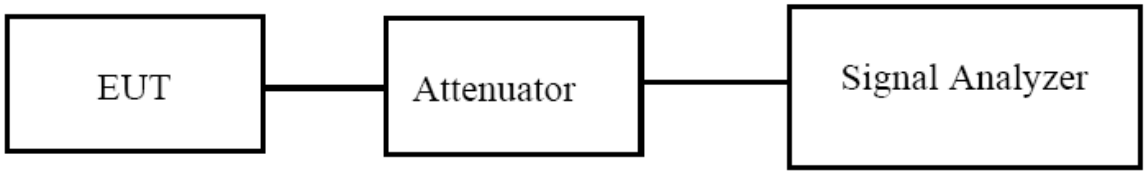
The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

4.2 TEST PROCEDURE

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.



4.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.4 TEST RESULTS

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency Band 1 (5150-5250MHz), Band 2A (5250-5350MHz), Band 2C(5470-5725MHz), Band 3(5725-5850MHz)		

Test data reference attachment.

5. MINIMUM 6 DB BANDWIDTH

5.1 APPLIED PROCEDURES / LIMIT

According to FCC §15.407(e)
(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2 TEST PROCEDURE

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

a) Set RBW = 100 kHz.

b) Set the video bandwidth (VBW) ≥ 3 × RBW.

c) Detector = Peak.

d) Trace mode = max hold.

e) Sweep = auto couple.

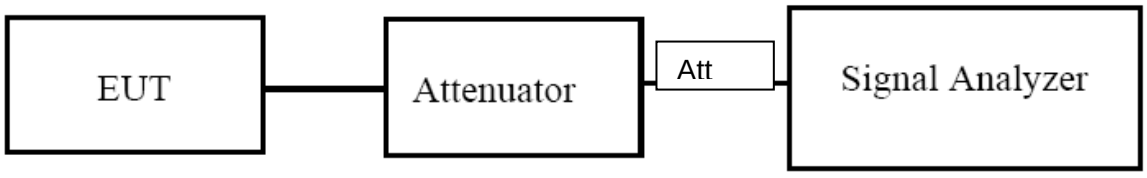
f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.6 TEST RESULTS

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX (5G) Mode Frequency Band 3 (5725-5850MHz)		

Test data reference attachment.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 PPLIED PROCEDURES / LIMIT

According to FCC §15.407

The maximum conduced output power should not exceed:

The maximum conduced output power should not exceed:

Frequency Band(MHz)	Limit
5150~5250	250mW
5725~5850	1W

The maximum e.i.r.p should not exceed:

Frequency Band(MHz)	Limit
5150~5250	200mW or 10dBm +10logB whichever is less
5725~5850	N/A

Note: Where “B” is the 99% emission bandwidth in MHz

6.2 TEST PROCEDURE

· Method PM is Measurement using an RF average power meter. The procedure for this method is as follows:

a) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:

1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.

2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.

3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

b) If the transmitter does not transmit continuously, measure the duty cycle D of the transmitter output signal as described in 12.2.

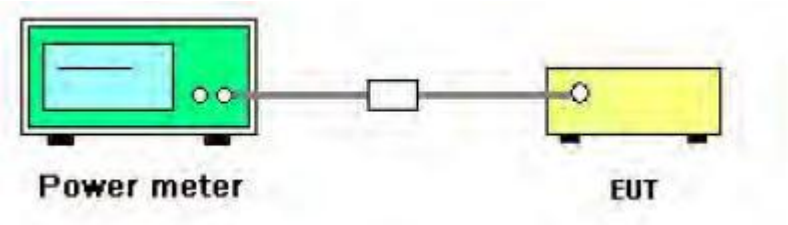
c) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.

d) Adjust the measurement in dBm by adding [10 log (1 / D)], where D is the duty cycle {e.g., [10 log (1 / 0.25)], if the duty cycle is 25%}.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.2 TEST RESULTS

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX (5G) Mode Frequency Band 1 (5150-5250MHz), Band 2A (5250-5350MHz) Band 2C, (5470-5725MHz), Band 3 (5725-5850MHz)		

Test data reference attachment.

7. OUT OF BAND EMISSIONS

7.1 APPLICABLE STANDARD

According to FCC §15.407(b)

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

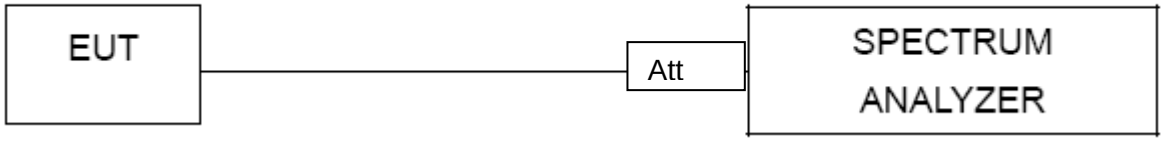
7.2 TEST PROCEDURE

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TEST RESULTS

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V

Test data reference attachment.

9.SPURIOUS RF CONDUCTED EMISSIONS

9.1CONFORMANCE LIMIT

According to FCC §15.407(b)(1) (2) (3)

9.**2** Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

9.3 Test Setup

Please refer to Section 6.1 of this test report.

9.4 Test Procedure

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and measure frequency range from 1GHz to 26.5GHz.

9.5 Test Results

Remark: The measurement frequency range is from 1GHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

10. Frequency Stability Measurement

10.1 LIMIT

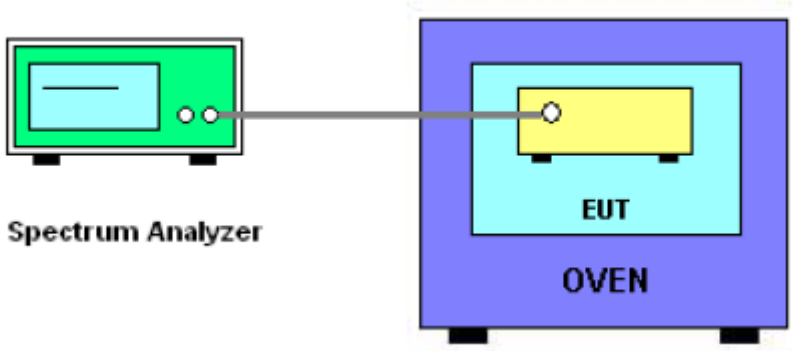
Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

10.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 10_6 ppm and the limit is less than ±20ppm (IEEE 802.11nspecification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is -20°C~70°C.

10.3 TEST SETUP LAYOUT



10.4 EUT OPERATION DURING TEST

1. The EUT was programmed to be in continuously un-modulation transmitting mode.
2. The module has two antennas, and the worst data is Antenna 1, only shown Antenna 1 Plot.

10.5 TEST RESULTS

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency Band I (5150-5250MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5180.0231	5180	0.0231	4.4595
		V max (V)	4.25	5180.0149	5180	0.0149	2.8764
		V min (V)	3.15	5180.0120	5180	0.0120	2.3166
Limits				Within 5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5180.0119	5180	0.0119	2.2973
		T (°C)	-10	5180.0123	5180	0.0123	2.3745
		T (°C)	0	5180.0261	5180	0.0261	5.0386
		T (°C)	10	5180.0144	5180	0.0144	2.7799
		T (°C)	20	5180.0128	5180	0.0128	2.4710
		T (°C)	30	5180.0142	5180	0.0142	2.7413
		T (°C)	40	5180.0125	5180	0.0125	2.4131
		T (°C)	50	5180.0151	5180	0.0151	2.9151
		T (°C)	60	5180.0169	5180	0.0169	3.2625
		T (°C)	70	5180.0146	5180	0.0146	2.8185
Limits				Within 5150-5250MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5200.0165	5200	0.0165	3.1731
		V max (V)	4.25	5200.0123	5200	0.0123	2.3654
		V min (V)	3.15	5200.0141	5200	0.0141	2.7115
Limits				Within 5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5200.0320	5200	0.0320	6.1538
		T (°C)	-10	5200.0132	5200	0.0132	2.5385
		T (°C)	0	5200.0320	5200	0.0320	6.1538
		T (°C)	10	5200.0215	5200	0.0215	4.1346
		T (°C)	20	5200.0143	5200	0.0143	2.7500
		T (°C)	30	5200.0130	5200	0.0130	2.5000
		T (°C)	40	5200.0189	5200	0.0189	3.6346
		T (°C)	50	5200.0181	5200	0.0181	3.4808
		T (°C)	60	5200.0138	5200	0.0138	2.6538
		T (°C)	70	5200.0131	5200	0.0131	2.5192
Limits				Within 5150-5250MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5240.0125	5240	0.0125	2.3855
		V max (V)	4.25	5240.0182	5240	0.0182	3.4733
		V min (V)	3.15	5240.0165	5240	0.0165	3.1489
Limits				Within 5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5240.0194	5240	0.0194	3.7023
		T (°C)	-10	5240.0122	5240	0.0122	2.3282
		T (°C)	0	5240.0164	5240	0.0164	3.1298
		T (°C)	10	5240.0162	5240	0.0162	3.0916
		T (°C)	20	5240.0237	5240	0.0237	4.5229
		T (°C)	30	5240.0133	5240	0.0133	2.5382
		T (°C)	40	5240.0155	5240	0.0155	2.9580
		T (°C)	50	5240.0185	5240	0.0185	3.5305
		T (°C)	60	5240.0173	5240	0.0173	3.3015
		T (°C)	70	5240.0135	5240	0.0135	2.5763
Limits				Within 5150-5250MHz			
Result				Complies			

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency Band 2A (5250-5350MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5260.0160	5260	0.0160	3.0437
		V max (V)	4.25	5260.0142	5260	0.0142	2.7015
		V min (V)	3.15	5260.0196	5260	0.0196	3.7281
Limits				Within 5250-5350MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5260.0053	5260	0.0053	1.0095
		T (°C)	-10	5260.0229	5260	0.0229	4.3555
		T (°C)	0	5260.0066	5260	0.0066	1.2567
		T (°C)	10	5260.0147	5260	0.0147	2.7966
		T (°C)	20	5260.0060	5260	0.0060	1.1426
		T (°C)	30	5260.0080	5260	0.0080	1.5228
		T (°C)	40	5260.0145	5260	0.0145	2.7586
		T (°C)	50	5260.0063	5260	0.0063	1.1996
		T (°C)	60	5260.0226	5260	0.0226	4.2985
		T (°C)	70	5260.0210	5260	0.0210	3.9943
Limits				Within 5250-5350MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5280.0122	5280	0.0122	2.3125
		V max (V)	4.25	5280.0120	5280	0.0120	2.2746
		V min (V)	3.15	5280.0132	5280	0.0132	2.5019
Limits				Within 5250-5350MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5280.0166	5280	0.0166	3.1458
		T (°C)	-10	5280.0153	5280	0.0153	2.8996
		T (°C)	0	5280.0091	5280	0.0091	1.7254
		T (°C)	10	5280.0100	5280	0.0100	1.8958
		T (°C)	20	5280.0101	5280	0.0101	1.9148
		T (°C)	30	5280.0081	5280	0.0081	1.5360
		T (°C)	40	5280.0166	5280	0.0166	3.1458
		T (°C)	50	5280.0107	5280	0.0107	2.0284
		T (°C)	60	5280.0125	5280	0.0125	2.3693
		T (°C)	70	5280.0071	5280	0.0071	1.3466
Limits				Within 5250-5350MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5320.0236	5320	0.0236	4.4380
		V max (V)	4.25	5320.0188	5320	0.0188	3.5357
		V min (V)	3.15	5320.0165	5320	0.0165	3.1034
Limits				Within 5250-5350MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5320.0118	5320	0.0118	2.2199
		T (°C)	-10	5320.0104	5320	0.0104	1.9568
		T (°C)	0	5320.0128	5320	0.0128	2.4079
		T (°C)	10	5320.0060	5320	0.0060	1.1297
		T (°C)	20	5320.0056	5320	0.0056	1.0545
		T (°C)	30	5320.0115	5320	0.0115	2.1635
		T (°C)	40	5320.0235	5320	0.0235	4.4192
		T (°C)	50	5320.0149	5320	0.0149	2.8026
		T (°C)	60	5320.0079	5320	0.0079	1.4868
		T (°C)	70	5320.0216	5320	0.0216	4.0620
Limits				Within 5250-5350MHz			
Result				Complies			

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency Band 2C (5470-5725MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5500.0439	5500	0.0439	7.9818
		V max (V)	4.25	5500.0276	5500	0.0276	5.0182
		V min (V)	3.15	5500.0450	5500	0.0450	8.1818
Limits				Within 5470-5725MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5500.0468	5500	0.0468	8.5091
		T (°C)	-10	5500.0116	5500	0.0116	2.1073
		T (°C)	0	5500.0519	5500	0.0519	9.4364
		T (°C)	10	5500.0532	5500	0.0532	9.6727
		T (°C)	20	5500.0757	5500	0.0757	13.7636
		T (°C)	30	5500.0459	5500	0.0459	8.3455
		T (°C)	40	5500.0396	5500	0.0396	7.2000
		T (°C)	50	5500.0187	5500	0.0187	3.4000
		T (°C)	60	5500.0456	5500	0.0456	8.2909
		T (°C)	70	5500.0727	5500	0.0727	13.2182
Limits				Within 5470-5725MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5600MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5600.0586	5600	0.0586	10.4643
		V max (V)	4.25	5600.0765	5600	0.0765	13.6607
		V min (V)	3.15	5600.0702	5600	0.0702	12.5357
Limits				Within 5470-5725MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5600MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5600.0867	5600	0.0867	-15.4821
		T (°C)	-10	5600.0244	5600	0.0244	-4.3571
		T (°C)	0	5600.0225	5600	0.0225	-4.0179
		T (°C)	10	5600.0694	5600	0.0694	-12.3929
		T (°C)	20	5600.0946	5600	0.0946	-16.8929
		T (°C)	30	5600.0313	5600	0.0313	-5.5893
		T (°C)	40	5600.0626	5600	0.0626	-11.1786
		T (°C)	50	5600.0643	5600	0.0643	-11.4821
		T (°C)	60	5600.0101	5600	0.0101	-1.7982
		T (°C)	70	5600.0442	5600	0.0442	-7.8929
Limits				Within 5470-5725MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5700.0059	5700	0.0059	1.0333
		V max (V)	4.25	5700.0076	5700	0.0076	1.3263
		V min (V)	3.15	5700.0094	5700	0.0094	1.6456
Limits				Within 5470-5725MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5700.0108	5700	0.0108	1.8912
		T (°C)	-10	5700.0057	5700	0.0057	1.0070
		T (°C)	0	5700.0046	5700	0.0046	0.8053
		T (°C)	10	5700.0034	5700	0.0034	0.6018
		T (°C)	20	5700.0094	5700	0.0094	1.6491
		T (°C)	30	5700.0110	5700	0.0110	1.9351
		T (°C)	40	5700.0073	5700	0.0073	1.2754
		T (°C)	50	5700.0031	5700	0.0031	0.5421
		T (°C)	60	5700.0053	5700	0.0053	0.9368
		T (°C)	70	5700.0053	5700	0.0053	0.9281
Limits				Within 5470-5725MHz			
Result				Complies			

EUT：	AILA Sit & Play™	Model Name ：	X4C-US19
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency(5745-5825MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5745.0183	5745	0.0183	3.1776
		V max (V)	4.25	5745.0126	5745	0.0126	2.2010
		V min (V)	3.15	5745.0196	5745	0.0196	3.4164
Limits				Within 5725-5850MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5745.0184	5745	0.0184	3.2109
		T (°C)	-10	5745.0168	5745	0.0168	2.9251
		T (°C)	0	5745.0103	5745	0.0103	1.8011
		T (°C)	10	5745.0120	5745	0.0120	2.0920
		T (°C)	20	5745.0096	5745	0.0096	1.6687
		T (°C)	30	5745.0108	5745	0.0108	1.8866
		T (°C)	40	5745.0151	5745	0.0151	2.6300
		T (°C)	50	5745.0147	5745	0.0147	2.5671
		T (°C)	60	5745.0133	5745	0.0133	2.3223
		T (°C)	70	5745.0112	5745	0.0112	1.9493
Limits				Within 5725-5850MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5785.0111	5785	0.0111	1.9160
		V max (V)	4.25	5785.0157	5785	0.0157	2.7180
		V min (V)	3.15	5785.0136	5785	0.0136	2.3583
Limits				Within 5725-5850MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5785.0117	5785	0.0117	2.0249
		T (°C)	-10	5785.0139	5785	0.0139	2.3998
		T (°C)	0	5785.0170	5785	0.0170	2.9332
		T (°C)	10	5785.0101	5785	0.0101	1.7391
		T (°C)	20	5785.0148	5785	0.0148	2.5574
		T (°C)	30	5785.0115	5785	0.0115	1.9800
		T (°C)	40	5785.0090	5785	0.0090	1.5587
		T (°C)	50	5785.0132	5785	0.0132	2.2852
		T (°C)	60	5785.0165	5785	0.0165	2.8588
		T (°C)	70	5785.0163	5785	0.0163	2.8217
Limits				Within 5725-5850MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5825.0096	5825	0.0096	1.6454
		V max (V)	4.25	5825.0127	5825	0.0127	2.1783
		V min (V)	3.15	5825.0183	5825	0.0183	3.1333
Limits				Within 5725-5850MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5825.0101	5825	0.0101	1.7416
		T (°C)	-10	5825.0157	5825	0.0157	2.6904
		T (°C)	0	5825.0120	5825	0.0120	2.0575
		T (°C)	10	5825.0091	5825	0.0091	1.5652
		T (°C)	20	5825.0100	5825	0.0100	1.7192
		T (°C)	30	5825.0178	5825	0.0178	3.0559
		T (°C)	40	5825.0160	5825	0.0160	2.7489
		T (°C)	50	5825.0101	5825	0.0101	1.7308
		T (°C)	60	5825.0174	5825	0.0174	2.9922
		T (°C)	70	5825.0145	5825	0.0145	2.4921
Limits				Within 5725-5850MHz			
Result				Complies			

11. DYNAMIC FREQUENCY SELECTION(DFS)

11.1 APPLICABILITY OF DFS REQUIREMENTS

EUT is client and operates as client without radar detection function.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
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
Client Beacon Test	N/A	Yes	Yes

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

Note
Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

11.2 INTERFERENCE THRESHOLD VALUES, MASTER OR CLIENT INCORPORATING IN-SERVICE MONITORING

Maximum Transmit Power	Value (see notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note 3: EIRP is based on the highest antenna gain.

11.3 DFS RESPONSE REQUIREMENT VALUES

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

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 transmission.
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 Channel changes (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 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

11.4 SHORT PULSE RADAR TEST WAVEFORMS

As the EUT is a Client Device with no Radar Detection, only one type radar pulse is required for the testing. Radar Pulse type 0 was used in the evaluation of the Client device for the purpose of measuring the Channel Move Time and the Channel Closing Transmission Time.

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	60%	30
1	1	Test A Test B	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
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

Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a
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

A minimum of 30 unique waveforms are required for each of the short pulse radar types 2 through 4. For short pulse radar type 1, the same waveform is used a minimum of 30 times. 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. The aggregate is the average of the percentage of successful detections of short pulse radar types 1-4.

11.5 CALIBRATION SETUP AND DFS TEST RESULTS

Radar Waveform Calibration Procedure

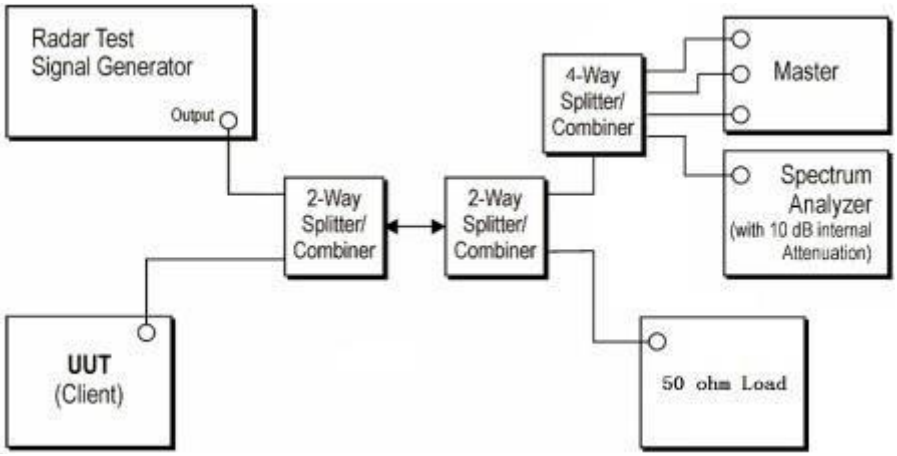
1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

2) The interference Radar Detection Threshold Level is -62dBm + 0dBi +1dB = -61dBm that had been taken into account the output power range and antenna gain.

3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB.

4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was - -62dBm + 0dBi +1dB = -61dBm. Capture the spectrum analyzer plots on short pulse radar waveform.

11.6 CONDUCTED CALIBRATION SETUP



Wireless AP	Manufacturer	LINKSYS LLC
	Model NO.	WRT32X
	FCC ID	Q87-WRT3200ACM

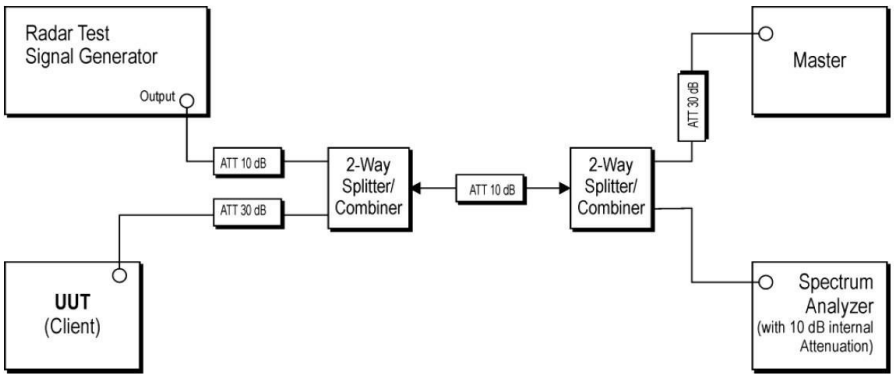
11.7 RADAR WAVEFORM CALIBRATION RESULT

Test data reference attachment.

11.8 IN-SERVICE MONITORING: CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME AND NON-OCCUPANCY PERIOD

TEST CONFIGURATION:

Setup for Client with injection at the Master



TEST PROCEDURE:

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

TEST MODE:

Please refer to the clause 2.2

11.9 RESULT OF CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME AND NON-OCCUPANCY PERIOD FOR CLIENT BEACON TEST

BW/ Channel	Maximum EIRP Power(dBm)	Test Item	Test Result	Limit	Result
80MHz/ 5290MHz	12.4	Channel Move Time	2208.05ms	＜10s	PASS
		Channel Closing Transmission Time	52.00ms	＜260ms	PASS
80MHz/ 5530MHz	12.5	Channel Move Time	1321.45ms	＜10s	PASS
		Channel Closing Transmission Time	56.55ms	＜260ms	PASS

Test data reference attachment.

12. ANTENNA REQUIREMENT

12.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

12.2 EUT ANTENNA

The EUT antenna is permanent attached Internal antenna(antenna gain: 2 dBi). It comply with the standard requirement.

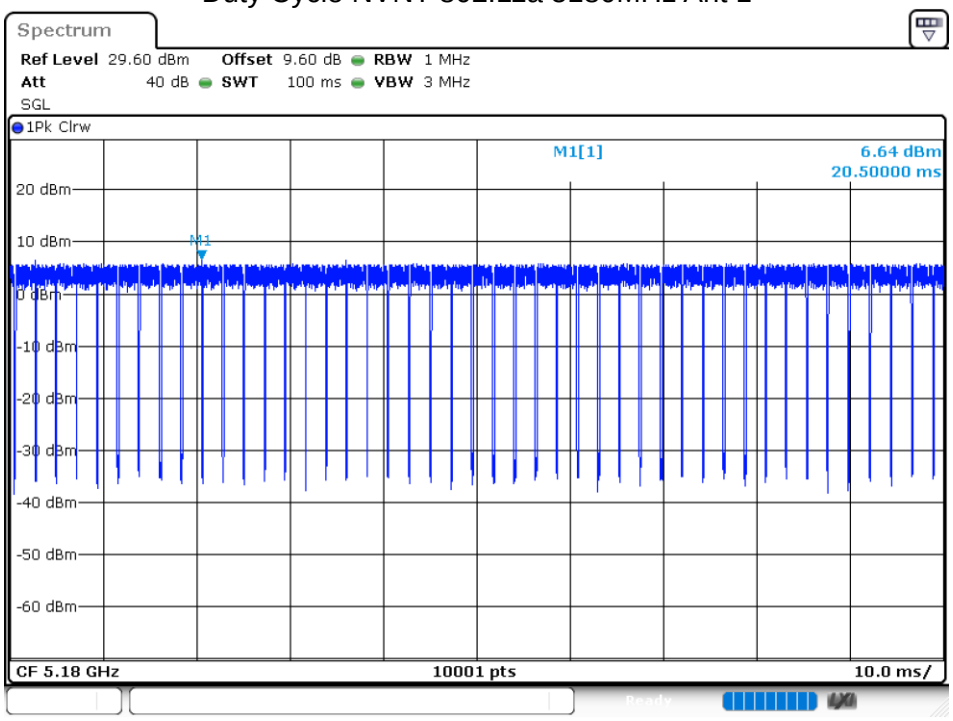
13. TEST RESULTS

13.1 DUTY CYCLE

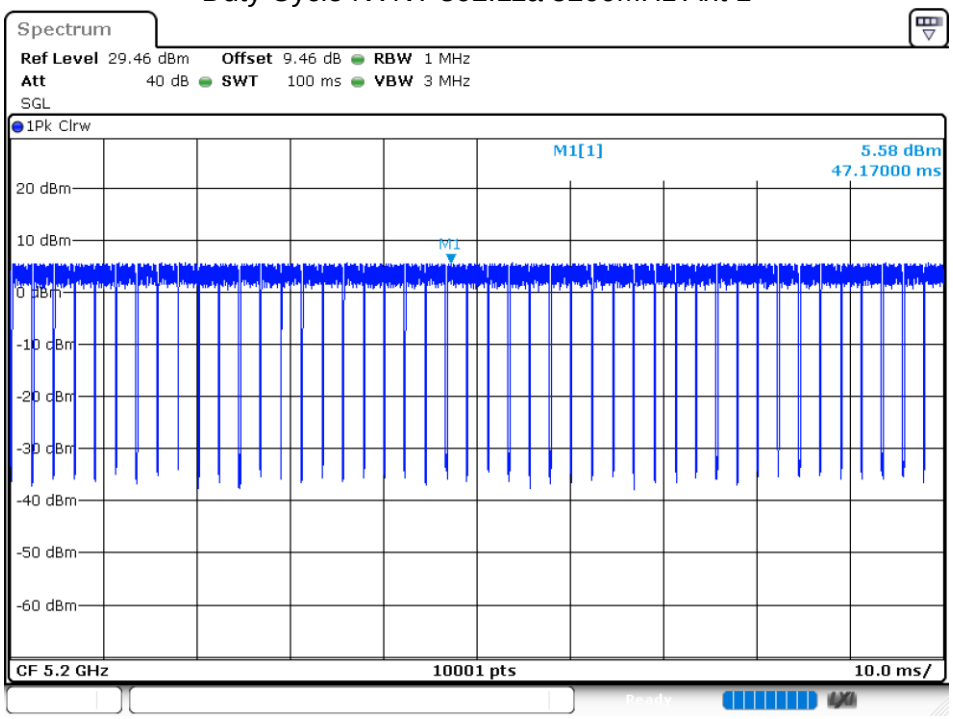
5.2G:

Antenna	Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)
Ant 1	NVNT	802.11a	5180	100	0
Ant 1	NVNT	802.11a	5200	100	0
Ant 1	NVNT	802.11a	5240	100	0
Ant 2	NVNT	802.11a	5180	100	0
Ant 2	NVNT	802.11a	5200	100	0
Ant 2	NVNT	802.11a	5240	100	0
Ant 1	NVNT	802.11ac20	5180	100	0
Ant 1	NVNT	802.11ac20	5200	100	0
Ant 1	NVNT	802.11ac20	5240	100	0
Ant 2	NVNT	802.11ac20	5180	100	0
Ant 2	NVNT	802.11ac20	5200	100	0
Ant 2	NVNT	802.11ac20	5240	100	0
Ant 1	NVNT	802.11ac40	5190	100	0
Ant 1	NVNT	802.11ac40	5230	99.91	0
Ant 2	NVNT	802.11ac40	5190	100	0
Ant 2	NVNT	802.11ac40	5230	99.81	0.01
Ant 1	NVNT	802.11ac80	5210	100	0
Ant 2	NVNT	802.11ac80	5210	100	0
Ant 1	NVNT	802.11n(HT20)	5180	100	0
Ant 1	NVNT	802.11n(HT20)	5200	100	0
Ant 1	NVNT	802.11n(HT20)	5240	100	0
Ant 2	NVNT	802.11n(HT20)	5180	100	0
Ant 2	NVNT	802.11n(HT20)	5200	100	0
Ant 2	NVNT	802.11n(HT20)	5240	100	0
Ant 1	NVNT	802.11n(HT40)	5190	100	0
Ant 1	NVNT	802.11n(HT40)	5230	100	0
Ant 2	NVNT	802.11n(HT40)	5190	100	0
Ant 2	NVNT	802.11n(HT40)	5230	100	0

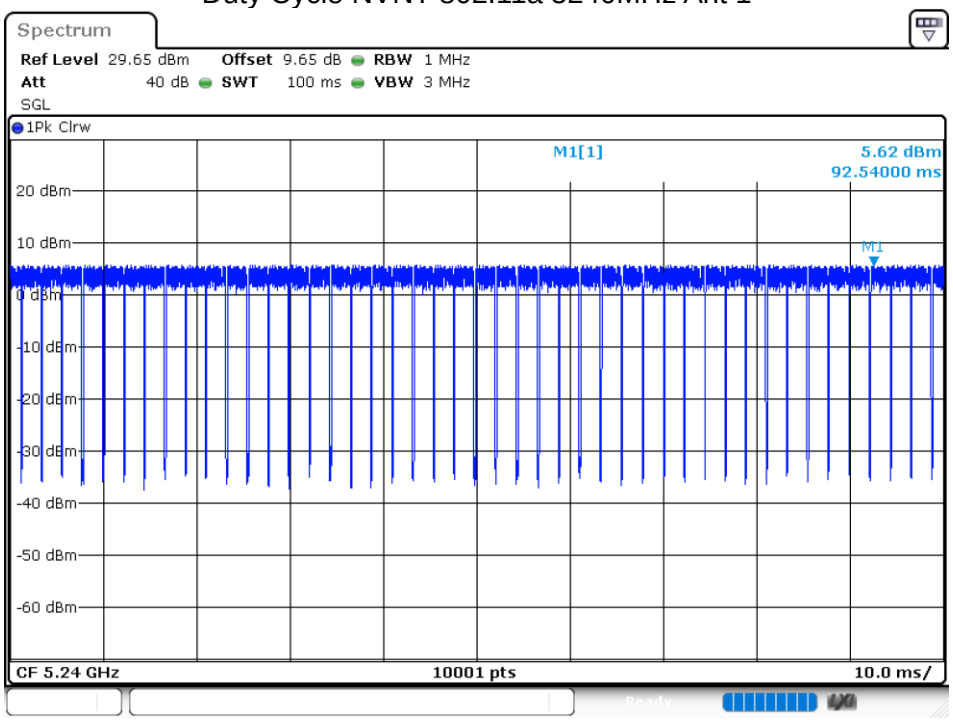
Duty Cycle NVNT 802.11a 5180MHz Ant 1



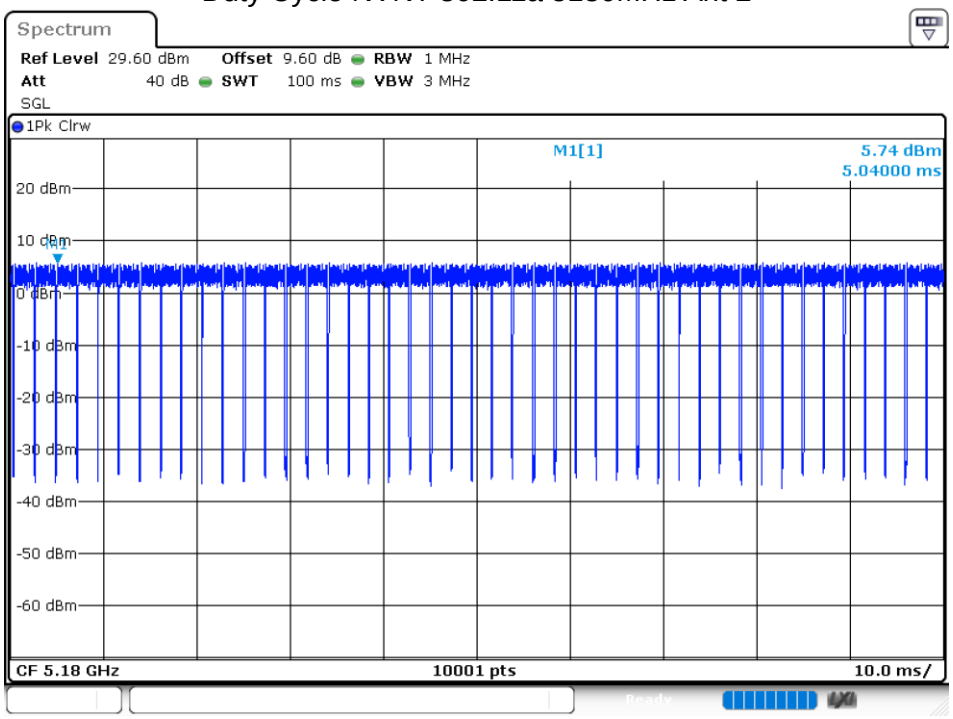
Duty Cycle NVNT 802.11a 5200MHz Ant 1



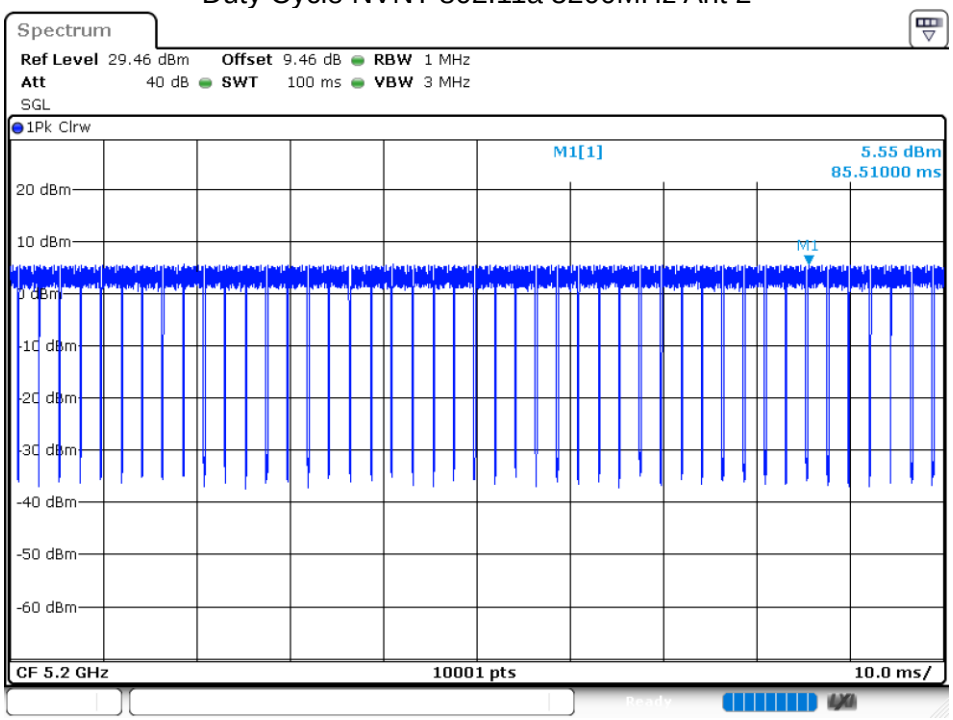
Duty Cycle NVNT 802.11a 5240MHz Ant 1



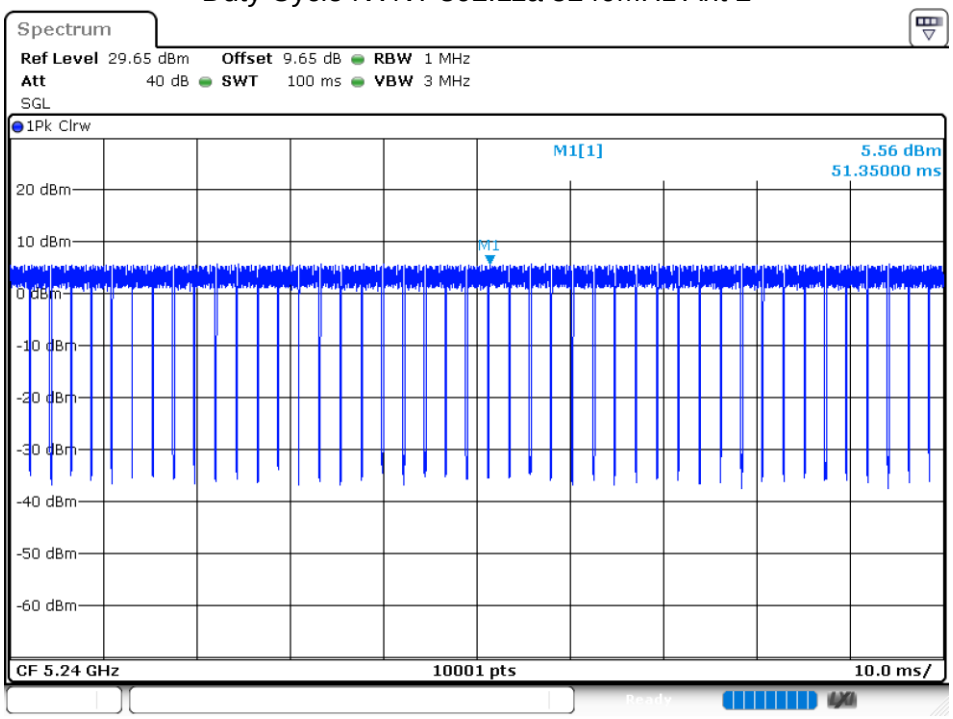
Duty Cycle NVNT 802.11a 5180MHz Ant 2



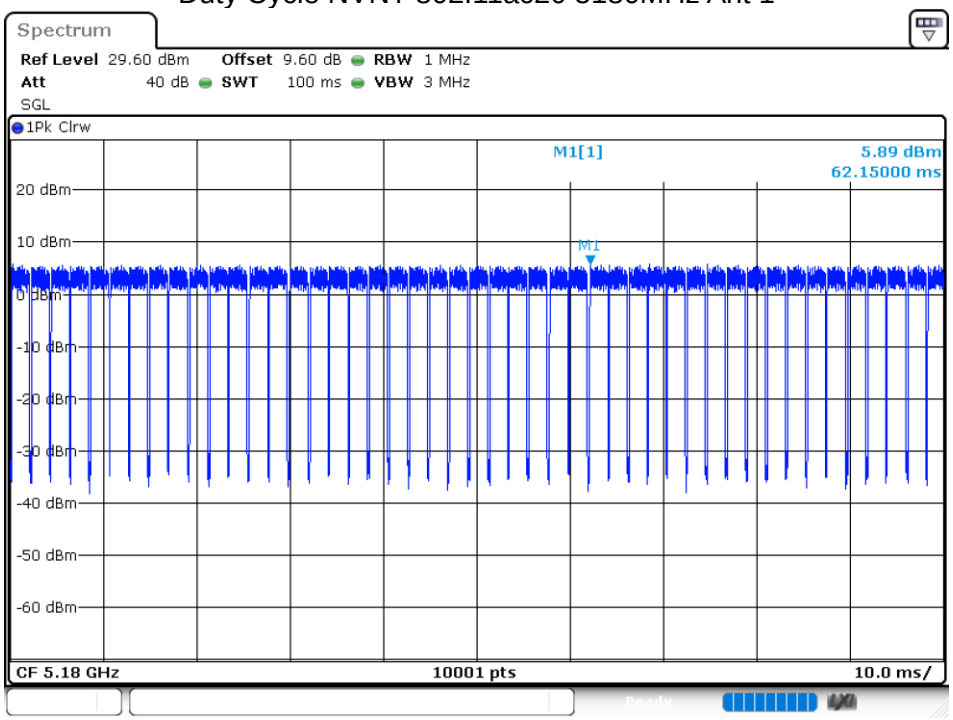
Duty Cycle NVNT 802.11a 5200MHz Ant 2



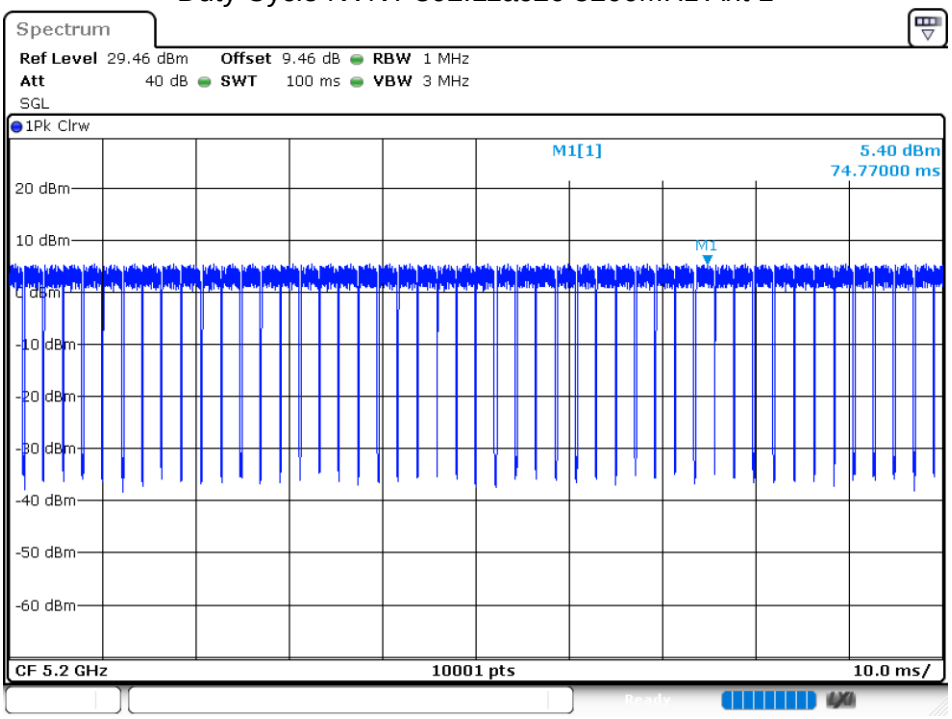
Duty Cycle NVNT 802.11a 5240MHz Ant 2



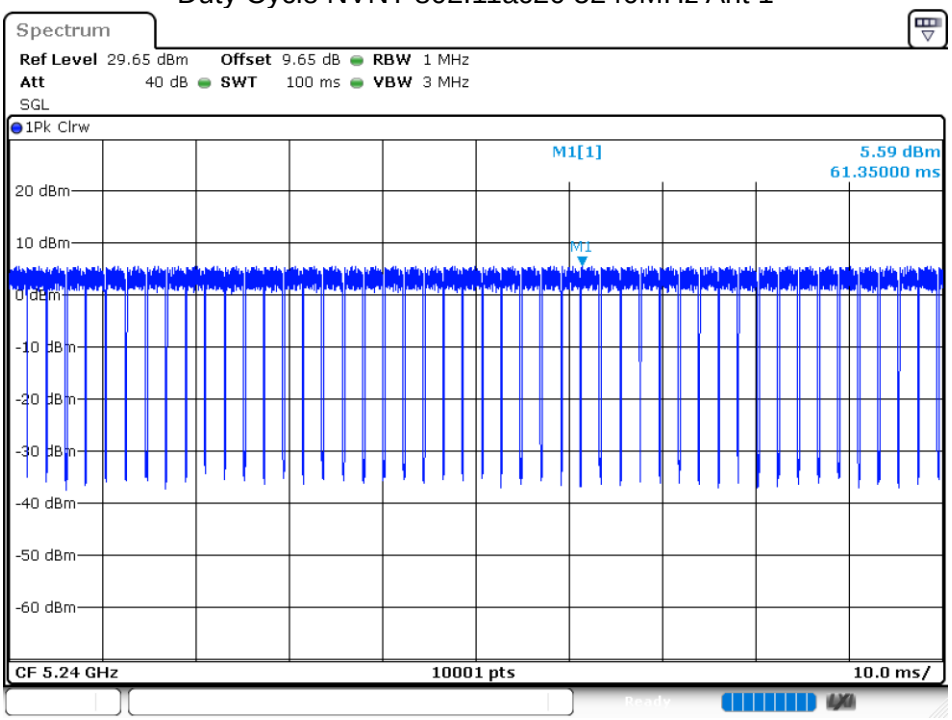
Duty Cycle NVNT 802.11ac20 5180MHz Ant 1



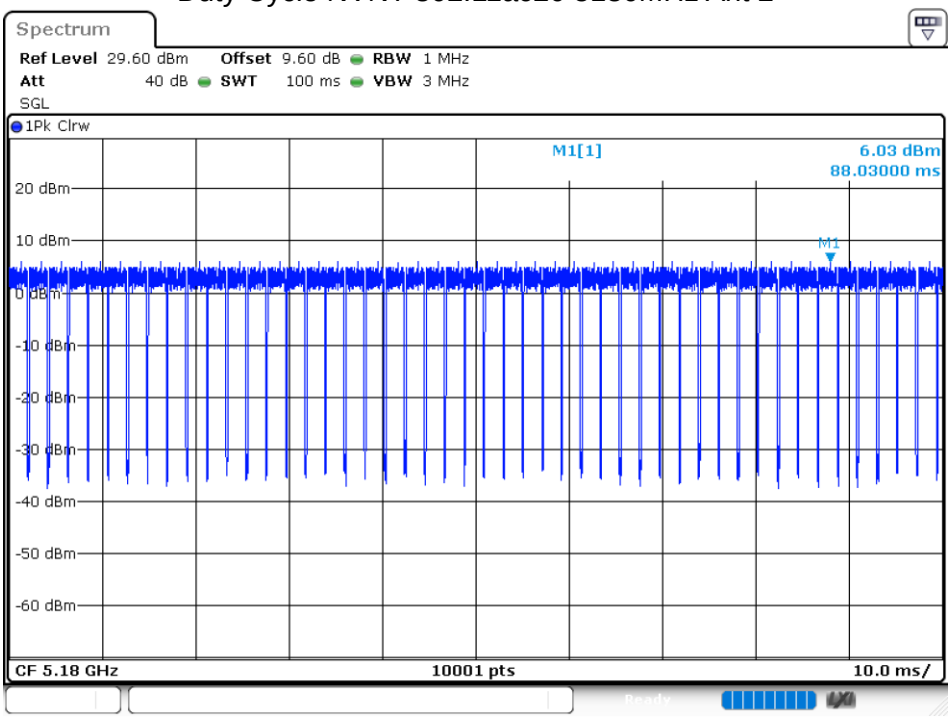
Duty Cycle NVNT 802.11ac20 5200MHz Ant 1



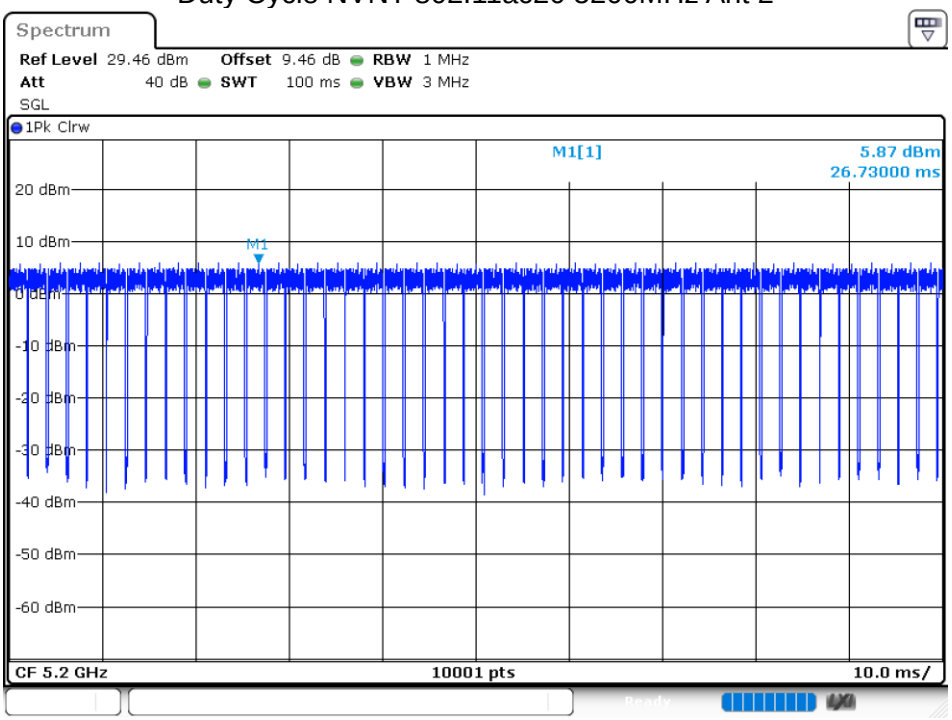
Duty Cycle NVNT 802.11ac20 5240MHz Ant 1



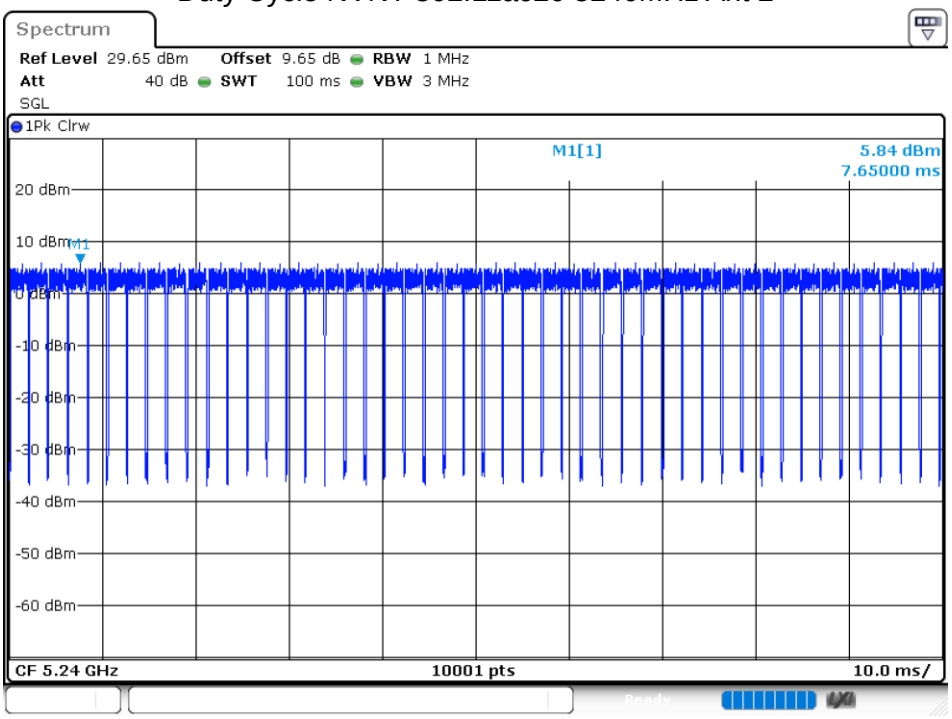
Duty Cycle NVNT 802.11ac20 5180MHz Ant 2



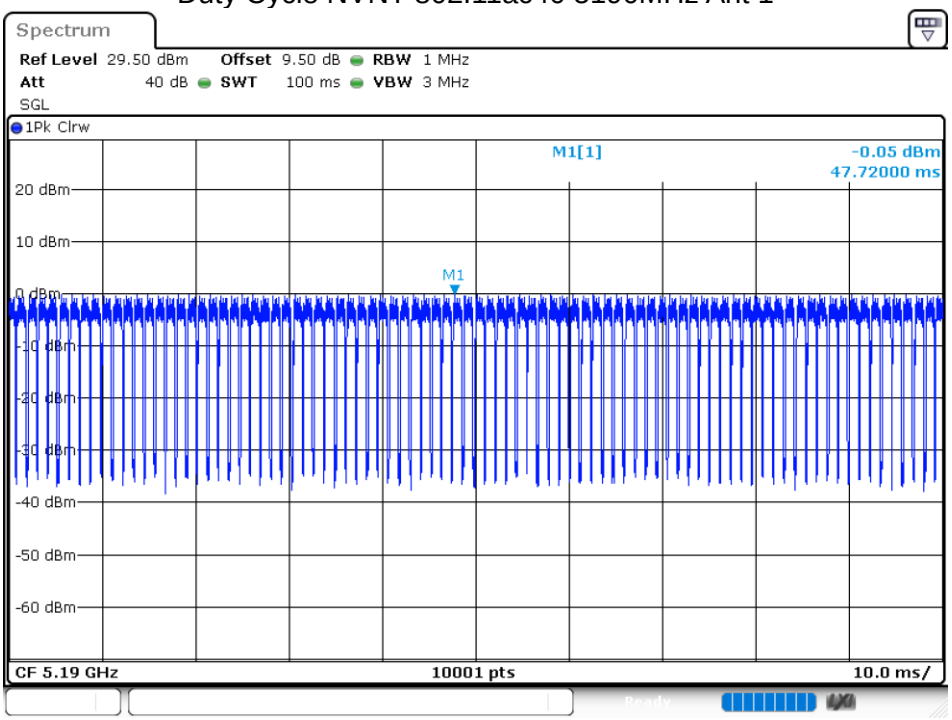
Duty Cycle NVNT 802.11ac20 5200MHz Ant 2



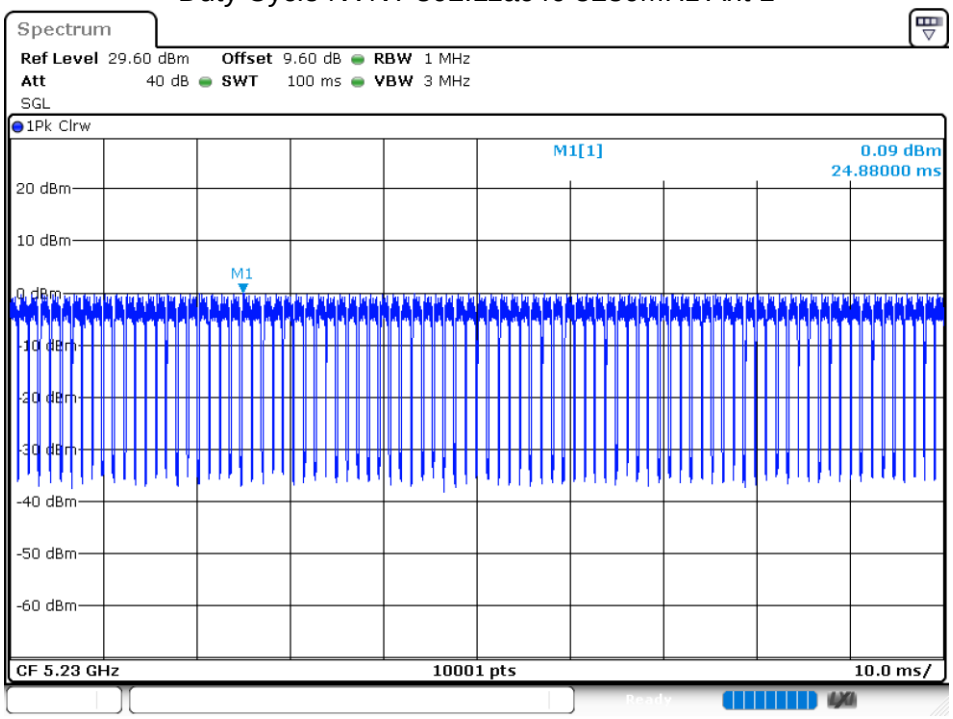
Duty Cycle NVNT 802.11ac20 5240MHz Ant 2



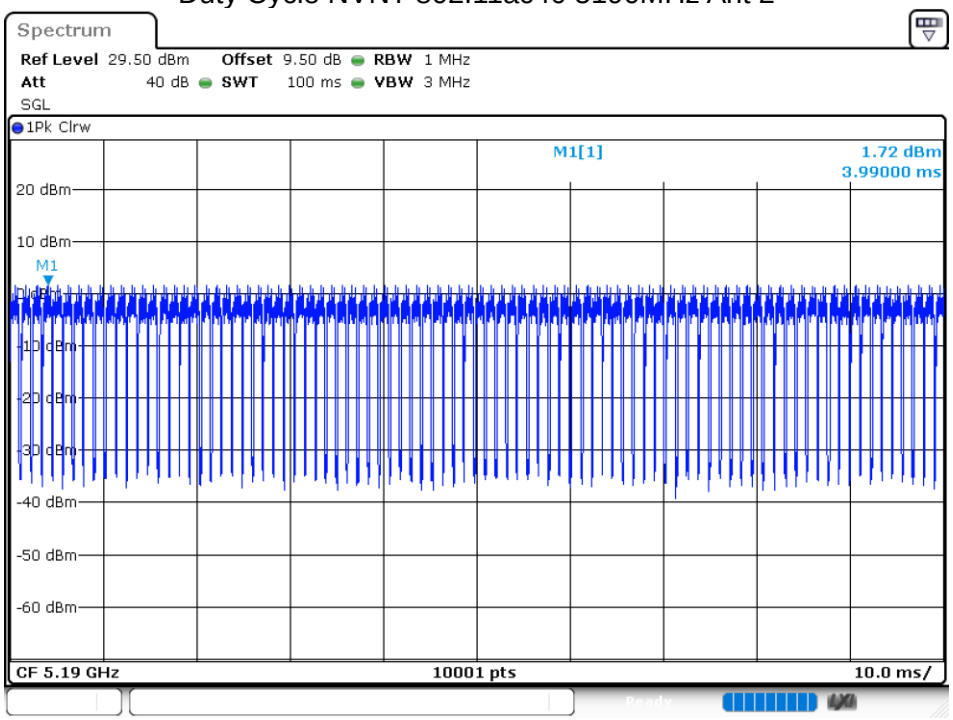
Duty Cycle NVNT 802.11ac40 5190MHz Ant 1



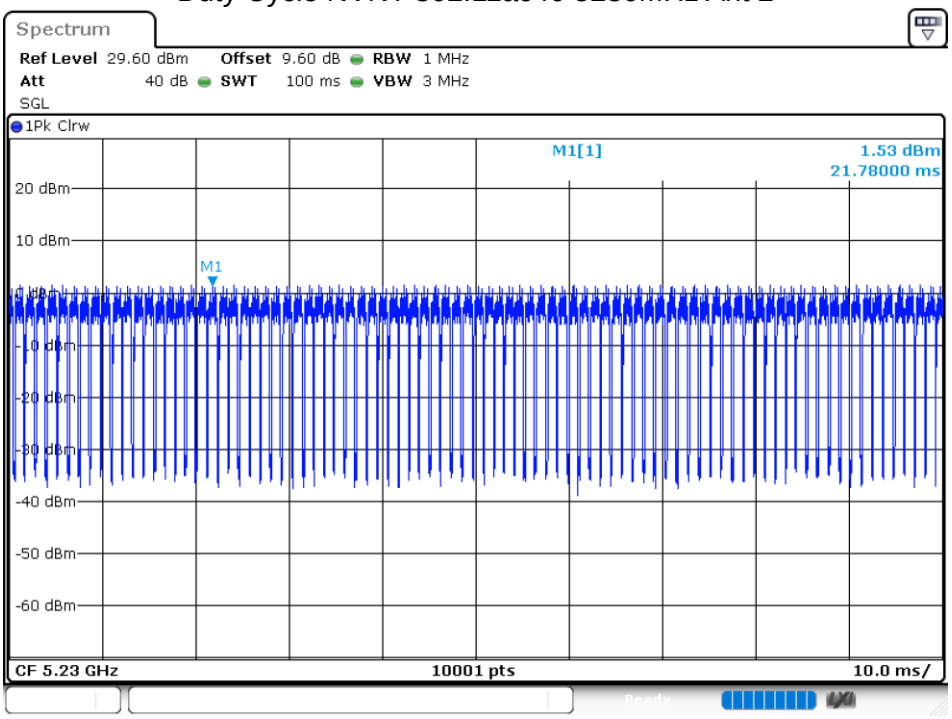
Duty Cycle NVNT 802.11ac40 5230MHz Ant 1



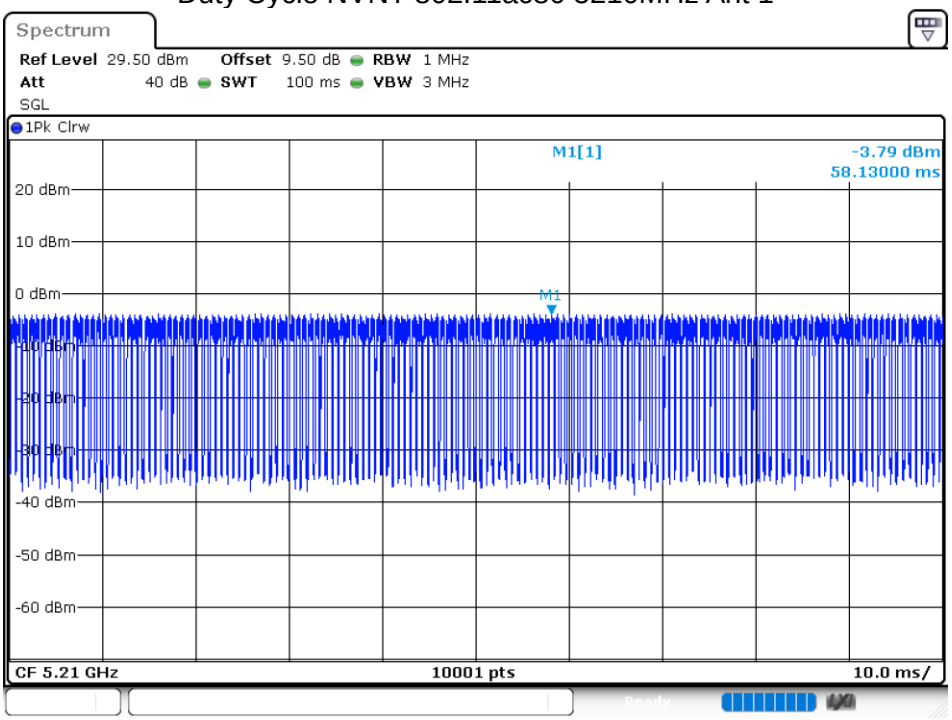
Duty Cycle NVNT 802.11ac40 5190MHz Ant 2



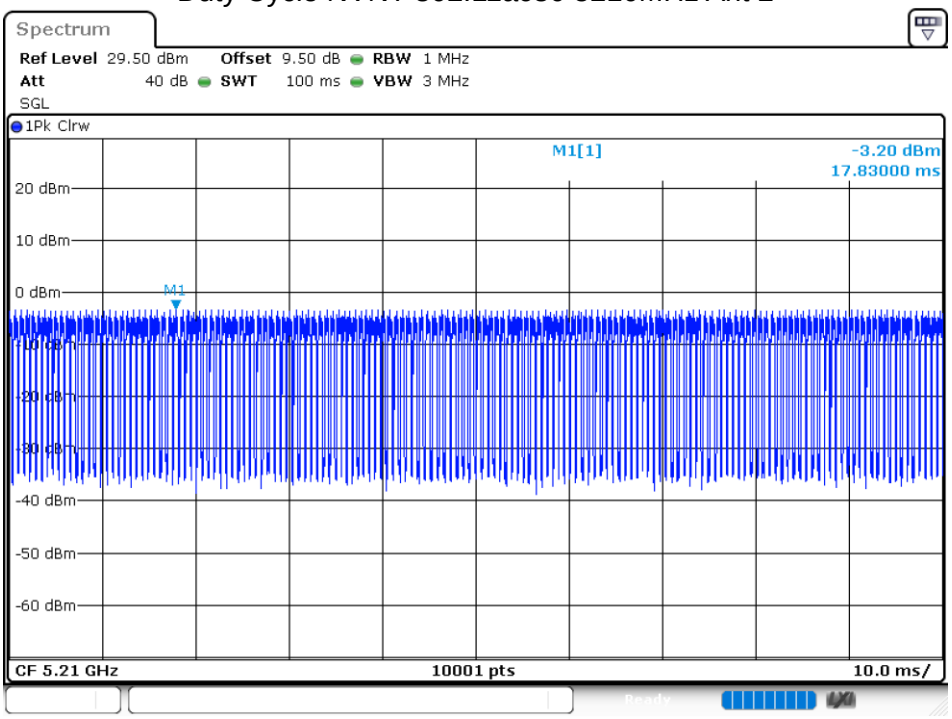
Duty Cycle NVNT 802.11ac40 5230MHz Ant 2



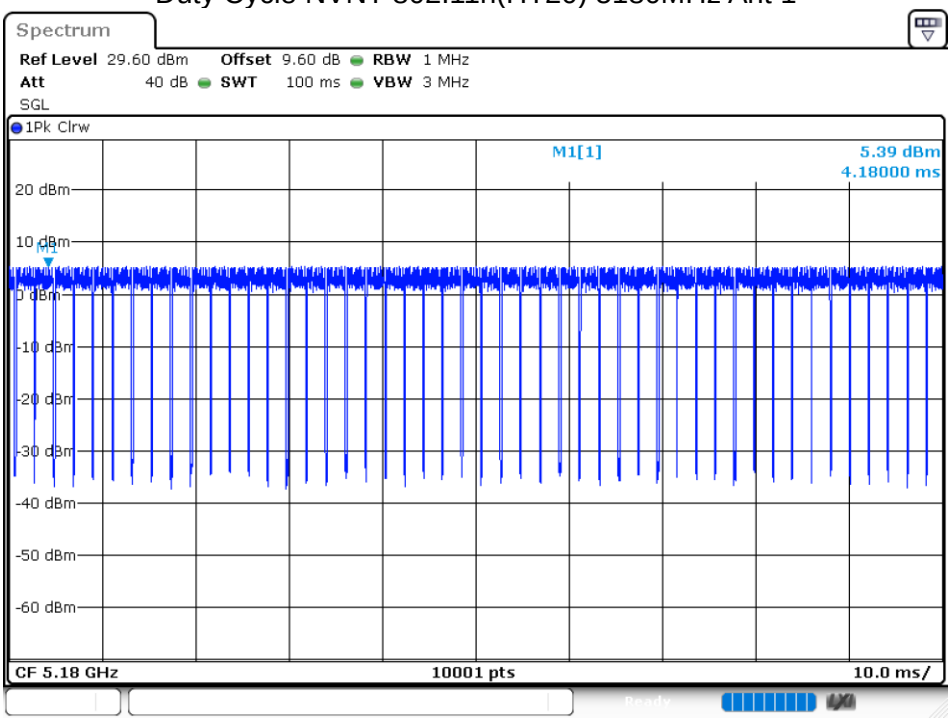
Duty Cycle NVNT 802.11ac80 5210MHz Ant 1



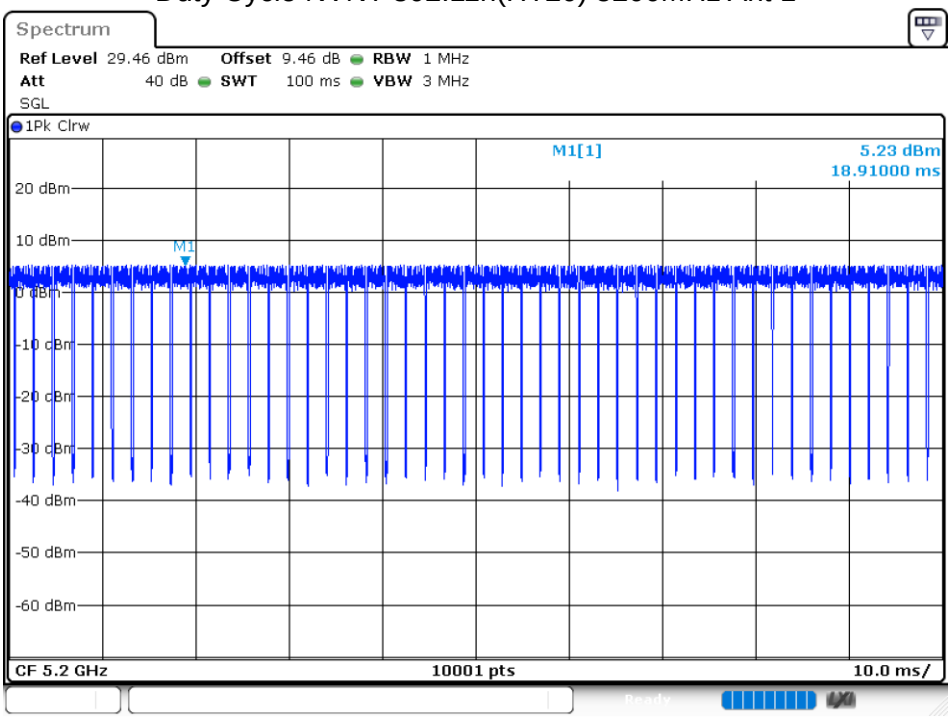
Duty Cycle NVNT 802.11ac80 5210MHz Ant 2



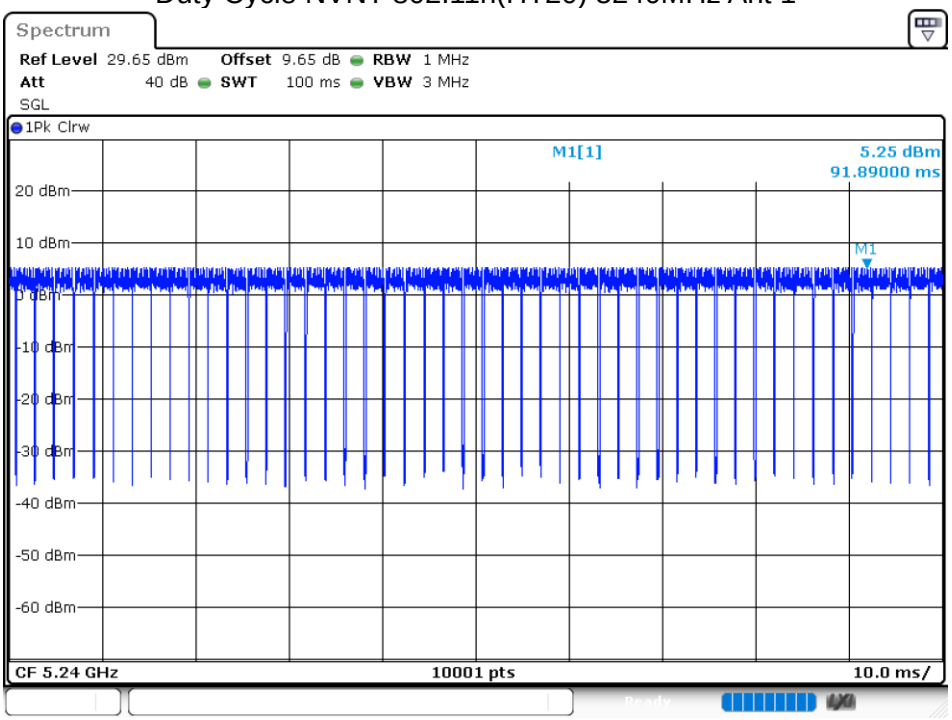
Duty Cycle NVNT 802.11n(HT20) 5180MHz Ant 1



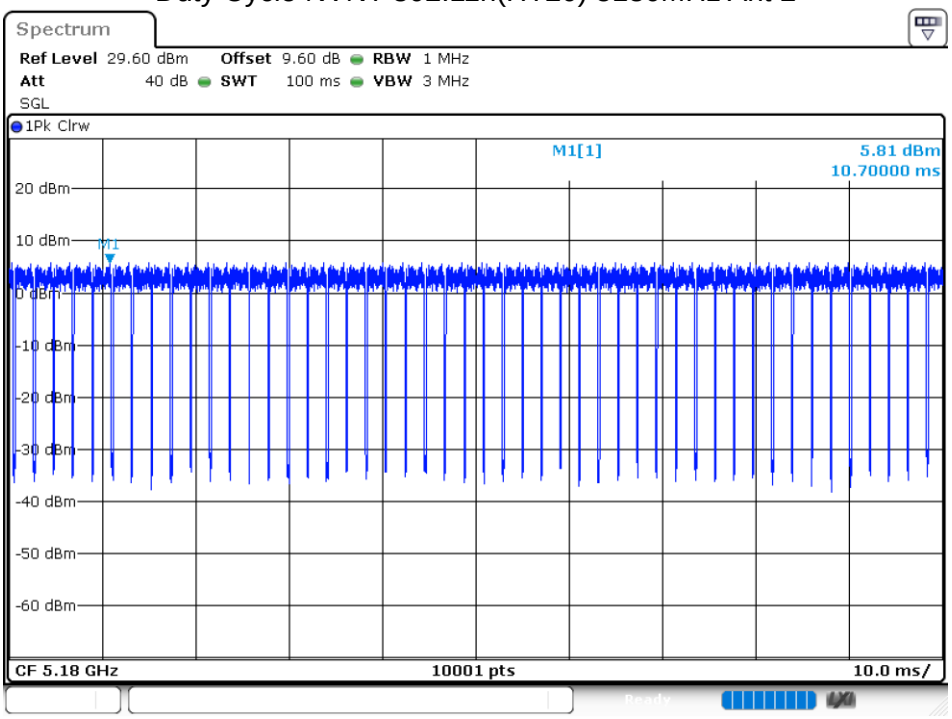
Duty Cycle NVNT 802.11n(HT20) 5200MHz Ant 1



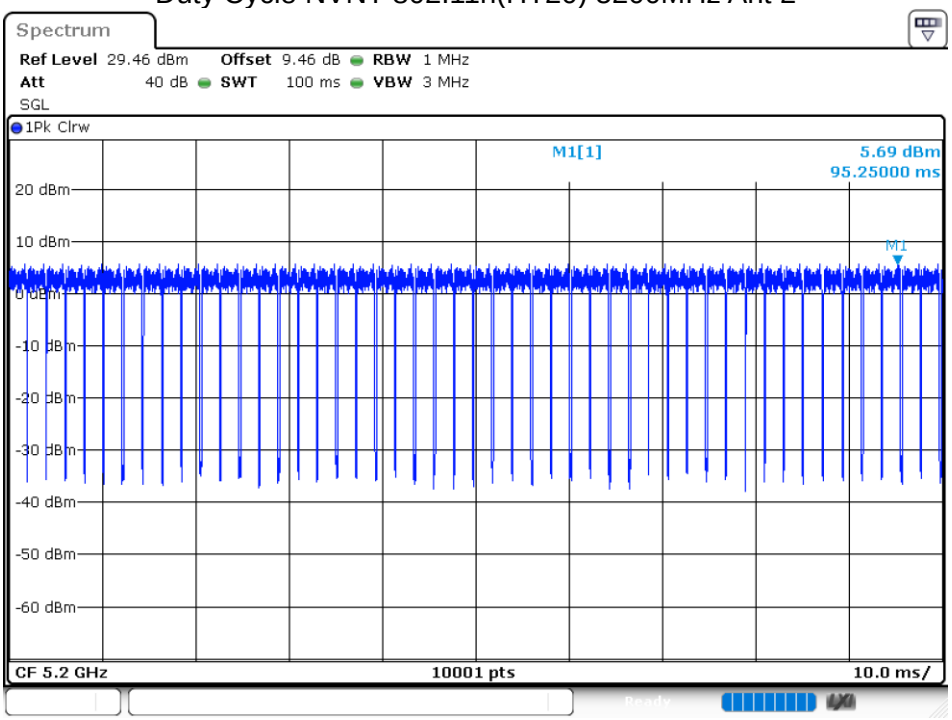
Duty Cycle NVNT 802.11n(HT20) 5240MHz Ant 1



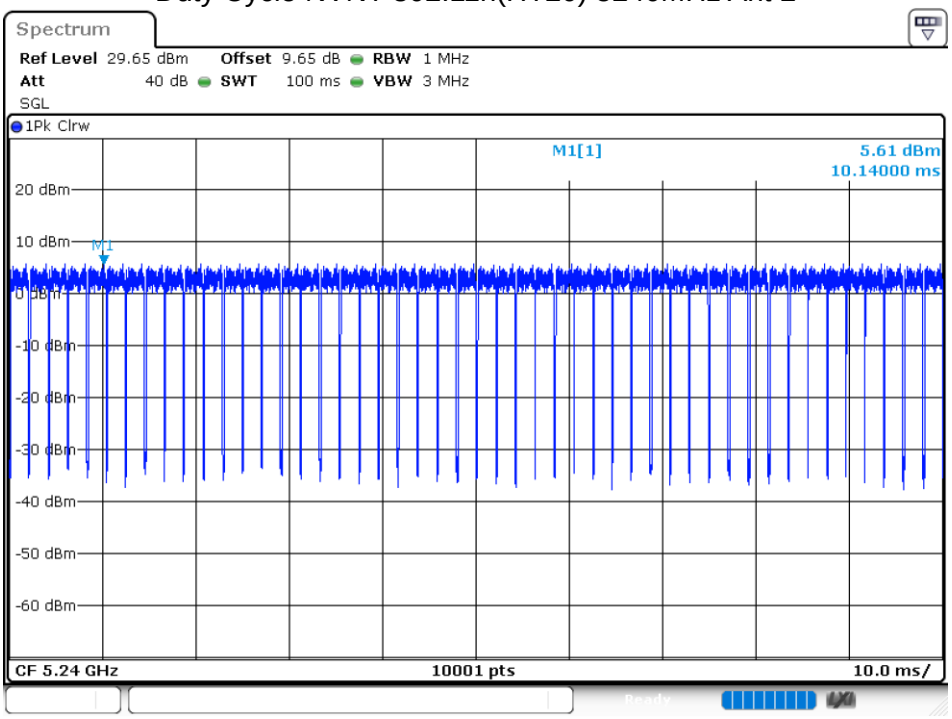
Duty Cycle NVNT 802.11n(HT20) 5180MHz Ant 2



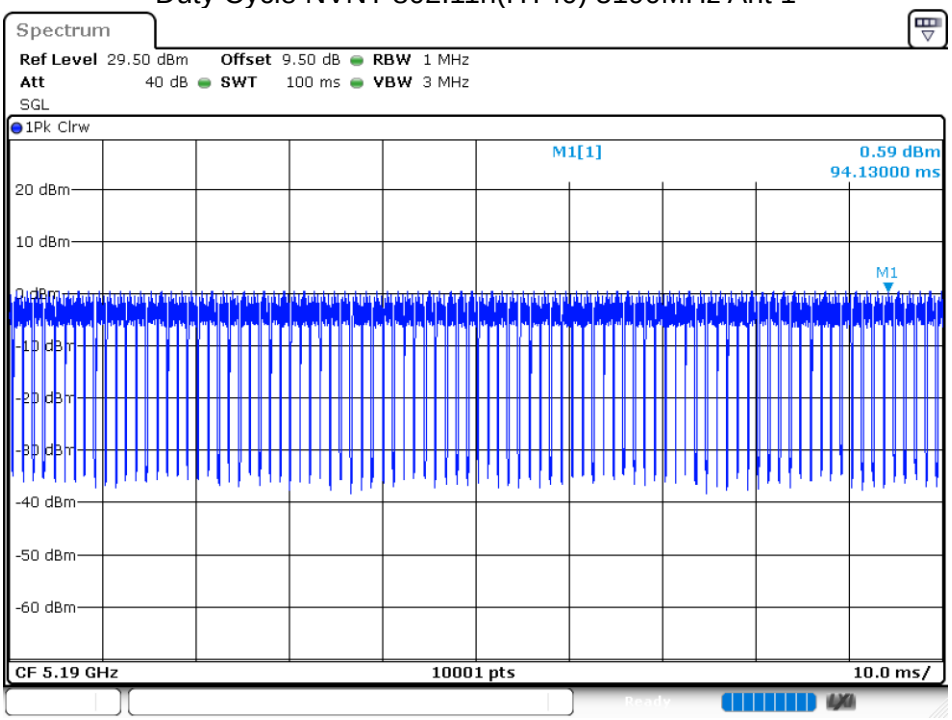
Duty Cycle NVNT 802.11n(HT20) 5200MHz Ant 2



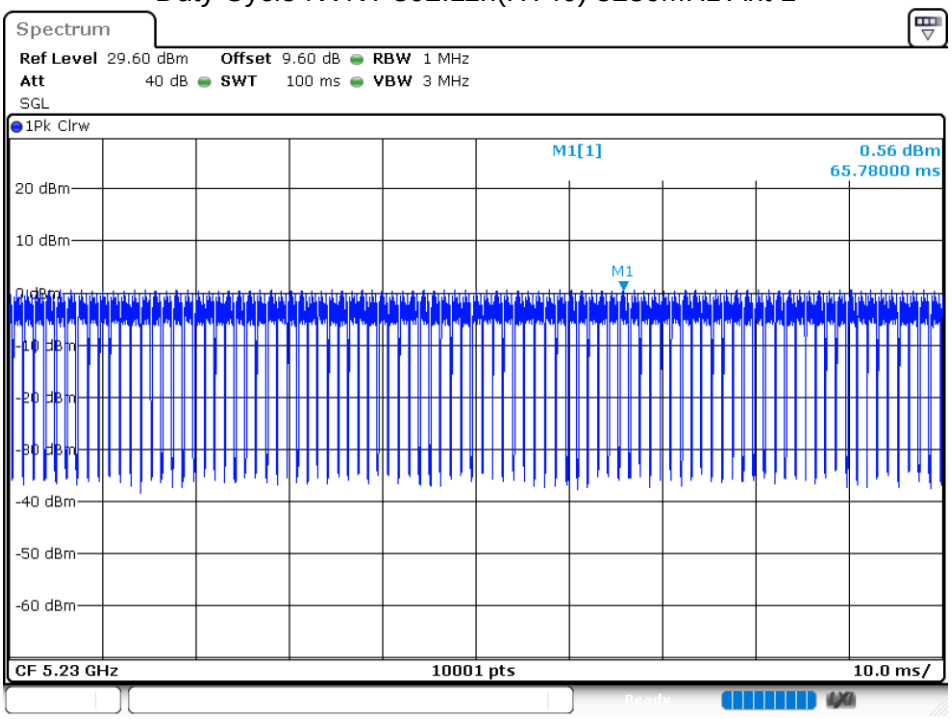
Duty Cycle NVNT 802.11n(HT20) 5240MHz Ant 2



Duty Cycle NVNT 802.11n(HT40) 5190MHz Ant 1



Duty Cycle NVNT 802.11n(HT40) 5230MHz Ant 1



Duty Cycle NVNT 802.11n(HT40) 5190MHz Ant 2