



**FCC 47 CFR PART 15 SUBPART E AND ANSI C63.4:2009  
TEST REPORT**

**For**

**DreamTab HD8**

**Model : DMTAB-IN08A**

**Trade Name : nabi**

**Issued for**

**Foxconn International Inc.**

**No.2,Ziyou St.,Tucheng Dist., New Taipei City 236,Taiwan**

**Issued by**

**Compliance Certification Services Inc.**

**Hsinchu Lab.**

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**Issued Date: April 03, 2014**



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## Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	03/31/2014	Initial Issue	All Page 63	Gloria Chang
01	04/03/2014	Revised & Added Duty Cycle	All Page 65, Page 10-11	Gloria Chang



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**1. TEST REPORT CERTIFICATION**

**Applicant** : Foxconn International Inc.  
**Address** : No.2,Ziyou St.,Tucheng Dist., New Taipei City 236,Taiwan  
**Equipment Under Test** : DreamTab HD8  
**Model** : DMTAB-IN08A  
**Trade Name** : nabi  
**Tested Date** : March 12 ~ 28, 2014

APPLICABLE STANDARD	
Standard	Test Result
FCC Part 15 Subpart E AND ANSI C63.4:2009	PASS

WE HEREBY CERTIFY THAT: The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

**Approved by:**

Rex Liao  
Deputy Manager

**Reviewed by:**

Jacky Chen  
Section Manager

**2. EUT DESCRIPTION**

<b>Product Name</b>	DreamTab HD8
<b>Model Number</b>	DMTAB-IN08A
<b>Identify Number</b>	T140312D11
<b>Received Date</b>	March 12, 2014
<b>Frequency Range</b>	IEEE 802.11a, 802.11an HT20 : 5180MHz ~ 5240MHz IEEE 802.11an HT40 : 5190MHz ~ 5230MHz
<b>Transmit Power</b>	IEEE 802.11a : 11.23dBm (0.0133W) IEEE 802.11an HT20 : 11.12dBm (0.0129W) IEEE 802.11an HT40 : 11.34dBm (0.0136W)
<b>Channel Spacing</b>	IEEE 802.11a, 802.11an HT20 : 20MHz IEEE 802.11an HT40 : 40MHz
<b>Channel Number</b>	IEEE 802.11a, 802.11an HT20 : 4 Channels IEEE 802.11an HT40 : 2 Channels
<b>Transmit Data Rate</b>	IEEE 802.11a : 54, 48, 36, 24, 18, 12, 9, 6 Mbps IEEE 802.11n/an HT20 : 72.2, 65, 58.5, 57.8, 52, 43.3, 39, 28.9, 26, 21.7, 19.5, 14.4, 13, 7.2, 6.5Mbps IEEE 802.11n/an HT40 : 150, 135, 121.5, 120, 108, 90, 81, 60, 54, 45, 40.5, 30, 27, 15, 13.5Mbps
<b>Type of Modulation</b>	IEEE 802.11a : OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11an HT20/40 : OFDM (64QAM, 16QAM, QPSK, BPSK)
<b>Antenna Type</b>	PIFA Antenna, Antenna Gain 3.3dBi
<b>Power Rating</b>	3.7Vdc, 4500mAh, 16.65Wh (For Battery) 5Vdc (For Charging)
<b>Test Voltage</b>	120Vac, 60Hz
<b>I/O Port</b>	USB Port x 1, Micro SD Port x 1, Audio Port x 1
<b>Signal Cable</b>	Shielded USB Cable 1m x 1

**Power Adapter :**

No.	Manufacturer	Model No.	Power Input	Power Output
1	Chicony	W12-010N3A	100-240Vac, 50/60Hz, 0.3A	5Vdc, 2A

**Remark :**

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
2. For more details, please refer to the User's manual of the EUT.
3. This submittal(s) (test report) is intended for FCC ID: SIB-DMTAB-IN08A filing to comply with Section 15.207, 15.209 and 15.407 of the FCC Part 15, Subpart E Rules.



### 3. DESCRIPTION OF TEST MODES

The EUT (DreamTab HD8) had been tested under operating condition.

#### Conducted Emission / Radiated Emission Test (Below 1 GHz)

1. The following test modes were scanned during the preliminary test:

No.	Pre-Test Mode
1	Charge Mode + Play Video
2	Charge Mode + REC (with Front Camera)
3	Charge Mode + REC (with Back Camera)
4	Normal Operating + Link Notebook PC Read
5	Normal Operating + Link Notebook PC Write

2. After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test Mode		
Emission	Radiated Emission	Normal Operating + Link Notebook PC Write
	Conducted Emission	Charge Mode + Play Video

*Remark : Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.*

#### Conducted / Radiated Emission Test (Above 1 GHz)

##### IEEE 802.11a, 802.11an HT20 mode

The EUT had been tested under operating condition.

There are three channels have been tested as following :

Channel	Frequency (MHz)
Low	5180
Middle	5220
High	5240

IEEE 802.11a mode : 6Mbps data rate (worst case) were chosen for full testing.

IEEE 802.11an HT20 mode : 6.5Mbps data rate (worst case) were chosen for full testing.

##### IEEE 802.11an HT40 mode

The EUT had been tested under operating condition.

There are two channels have been tested as following :

Channel	Frequency (MHz)
Low	5190
High	5230

IEEE 802.11an HT40 mode : 13.5Mbps data rate (worst case) were chosen for full testing.



## 4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4: 2009 and FCC CFR 47, 15.207, 15.209 and 15. 407.

## 5. FACILITIES AND ACCREDITATION

### 5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

NO. 989-1 Wen Shan Rd., Shang Shan Village,  
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C

The sites are constructed in conformance with the requirements of ANSI C63.4:2009 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4, CISPR 16-1-5.

### 5.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

<b>Taiwan</b>	TAF
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The measuring facility of laboratories has been authorized or registered by the following approval agencies.

<b>Canada</b>	INDUSTRY CANADA
<b>Japan</b>	VCCI
<b>Taiwan</b>	BSMI
<b>USA</b>	FCC MRA

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccsrf.com>



### 5.3 MEASUREMENT UNCERTAINTY

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4-2.

PARAMETER	UNCERTAINTY
Semi Anechoic Chamber (966 Chamber_A) / Radiated Emission, 30 to 1000 MHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_A) / Radiated Emission, 1 to 18GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_A) / Radiated Emission, 18 to 26 GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_A) / Radiated Emission, 26 to 40 GHz	+/- 3.82
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 30 to 1000 MHz	+/- 3.97
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 1 to 18GHz	+/- 3.58
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 18 to 26 GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 26 to 40 GHz	+/- 3.81
Conducted Emission (Mains Terminals), 9kHz to 30MHz	+/- 2.48

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Consistent with industry standard (e.g. CISPR 22, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than  $U_{CISPR}$  which is 3.6dB and 5.2dB respectively. CCS values (called  $U_{Lab}$  in CISPR 16-4-2) is less than  $U_{CISPR}$  as shown in the table above. Therefore, MU need not be considered for compliance.





## 6. SETUP OF EQUIPMENT UNDER TEST

### SUPPORT EQUIPMENT

No.	Product	Manufacturer	Model No.	Serial No.	FCC ID
1	Notebook PC	TOSHIBA	M840	9C104267C	DoC
2	LCD Monitor	DELL	2407WFPb	CN-0FC255-4663 3-6CP-06JS	DoC
3	Keyboard	HP	KU-0316	35563-AB1	DoC
4	Mouse	HP	M-UAE96	265986-011	DoC
5	Headset	Acon	CW-010.V	---	---

### SETUP DIAGRAM FOR TESTS

EUT & peripherals setup diagram is shown in appendix setup photos.

### EUT OPERATING CONDITION

1. EUT & peripherals setup diagram is shown in appendix setup photos.

2. TX Mode:

⇒ **Tx Data Rate:** 6Mbps Bandwidth 20 (IEEE 802.11a mode)

6.5Mbps Bandwidth 20 (IEEE 802.11an HT20 mode)

13.5Mbps Bandwidth 40 (IEEE 802.11an HT40 mode)

⇒ **Power control**

IEEE 802.11a Channel Low (5180MHz) Target Power 14

IEEE 802.11a Channel Mid (5220MHz) Target Power 14

IEEE 802.11a Channel High (5240MHz) Target Power 14

IEEE 802.11an HT20 Cannel Low (5180MHz) Target Power 14

IEEE 802.11an HT20 Channel Mid (5220MHz) Target Power 14

IEEE 802.11an HT20 Channel High (5240MHz) Target Power 14

IEEE 802.11an HT40 Channel Low (5190MHz) Target Power 14

IEEE 802.11an HT40 Channel High (5230MHz) Target Power 14

3. All of the functions are under run.

4. Start test.



## 7. FCC PART 15.407 REQUIREMENTS

### 7.1 DUTY CYCLE MEASUREMENT

#### IEEE 802.11a Mode

Duty Cycle = 2.08 / 2.085 = 0.998

Duty cycle of test signal is 99.8 % > 98 %, duty factor is not required.

#### IEEE 802.11an HT20 Mode

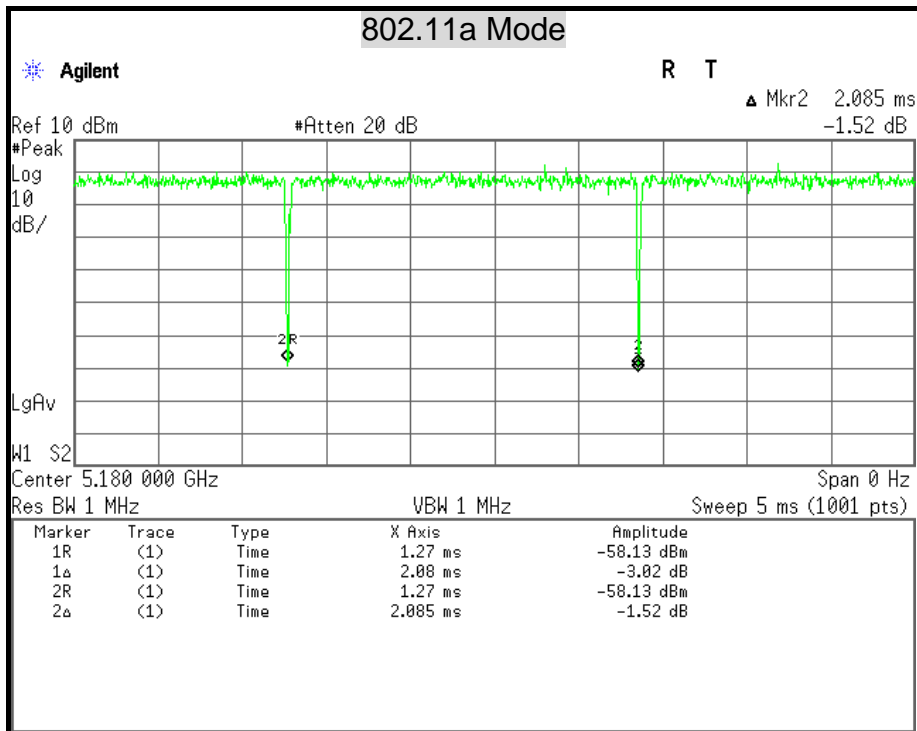
Duty Cycle = 2.097 / 2.089 = 0.995

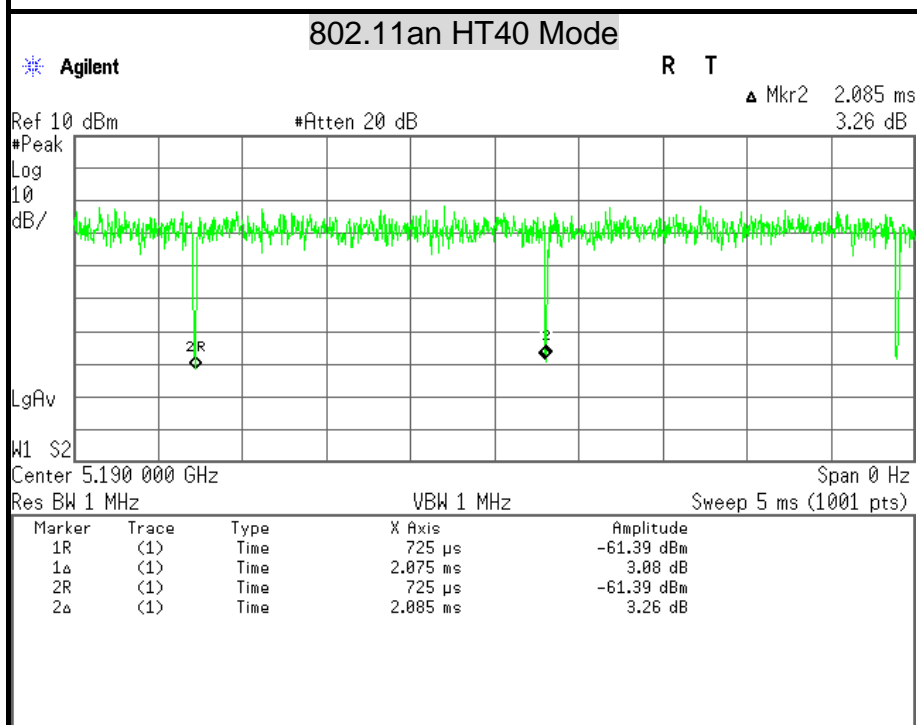
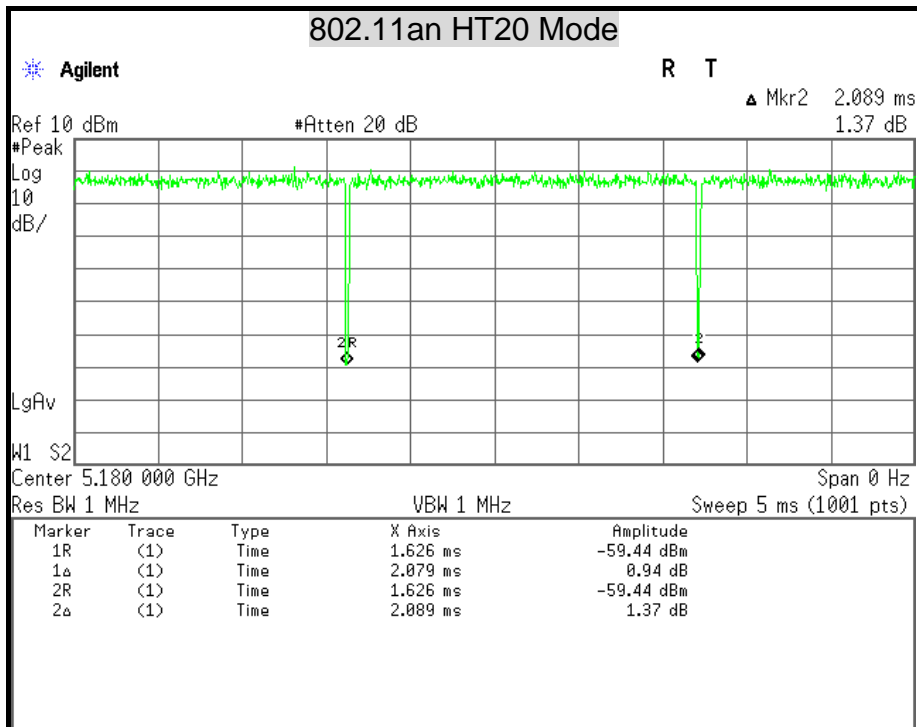
Duty cycle of test signal is 99.5 % > 98 %, duty factor is not required.

#### IEEE 802.11an HT40 Mode

Duty Cycle = 2.075 / 2.085 = 0.995

Duty cycle of test signal is 99.5 % > 98 %, duty factor is not required.







## 7.2 26dB BANDWIDTH

### LIMITS

§ 15.303 (c), For purposes of this subpart, the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolutions bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

### TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014

*Remark: Each piece of equipment is scheduled for calibration once a year.*

### TEST SETUP



### TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low-loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW > 1%EBW, VBW > RBW, Span = 50MHz and Sweep = auto.
4. Mark the -26dBc (upper and lower) frequency of the peak value.
5. Repeat until all the rest channels were investigated.



**TEST RESULTS**

**IEEE 802.11a Mode**

<b>Channel</b>	<b>Channel Frequency (MHz)</b>	<b>26dB Bandwidth (MHz)</b>
Low	5180	20.04
Middle	5220	19.72
High	5240	19.88

**IEEE 802.11an HT20 Mode**

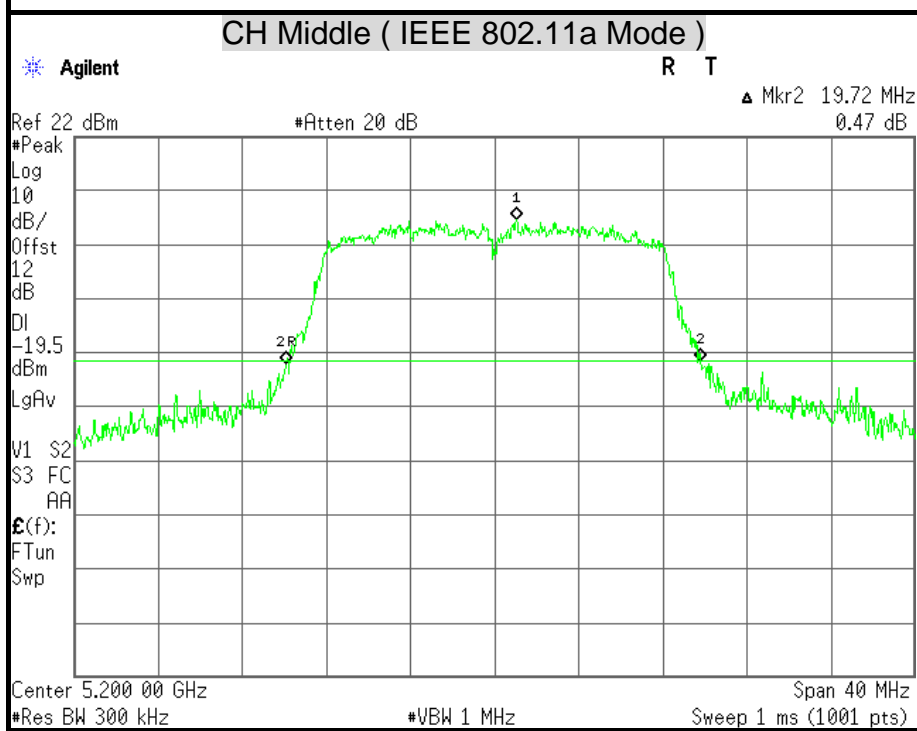
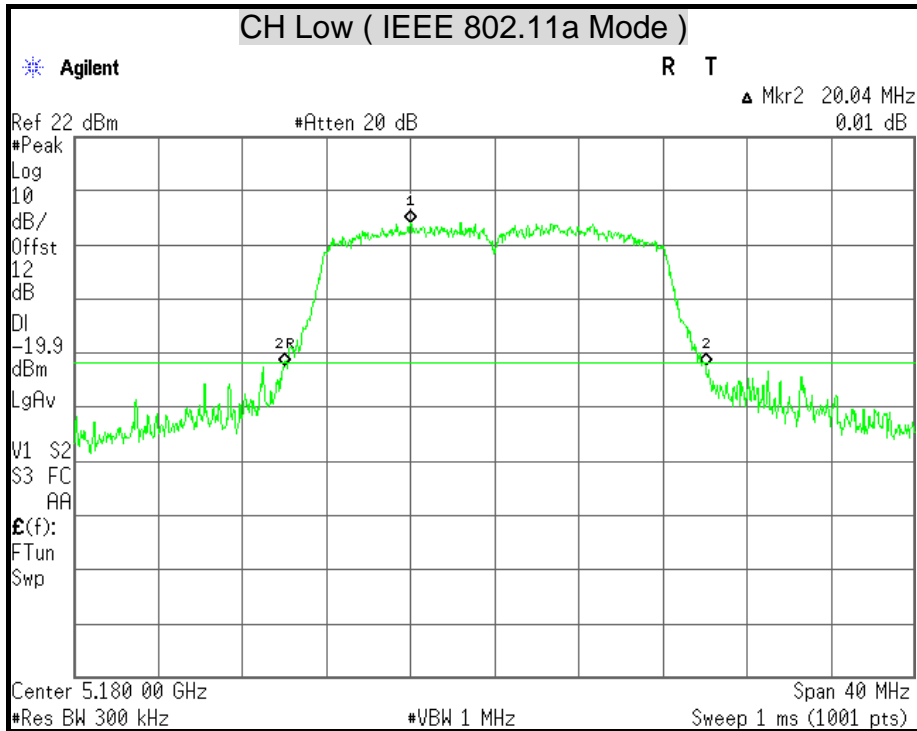
<b>Channel</b>	<b>Channel Frequency (MHz)</b>	<b>26dB Bandwidth (MHz)</b>
Low	5180	20.24
Middle	5220	20.52
High	5240	20.48

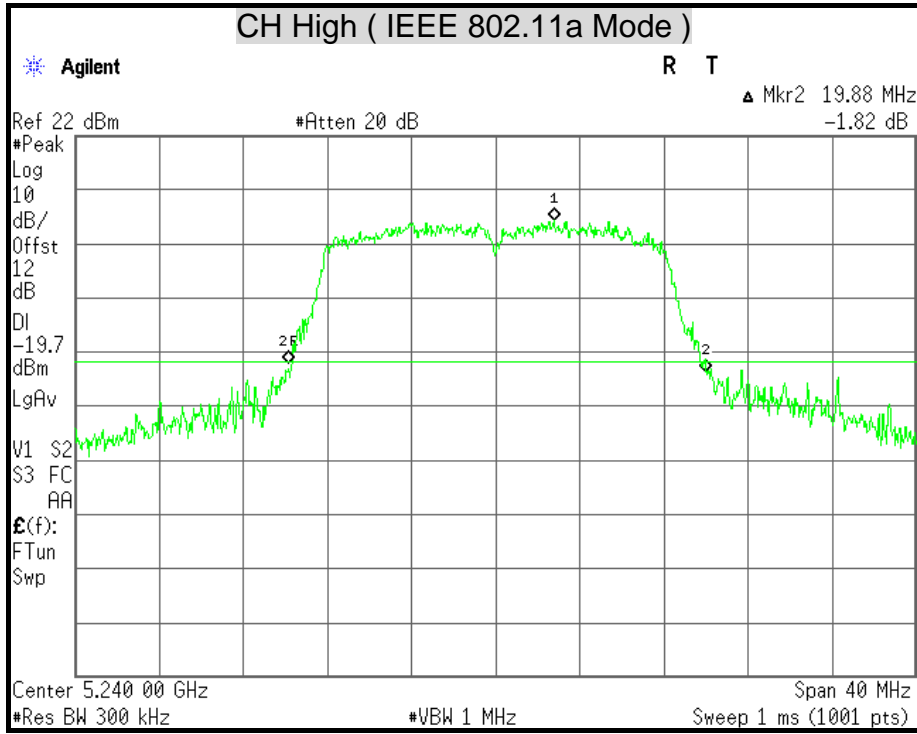
**IEEE 802.11an HT40 Mode**

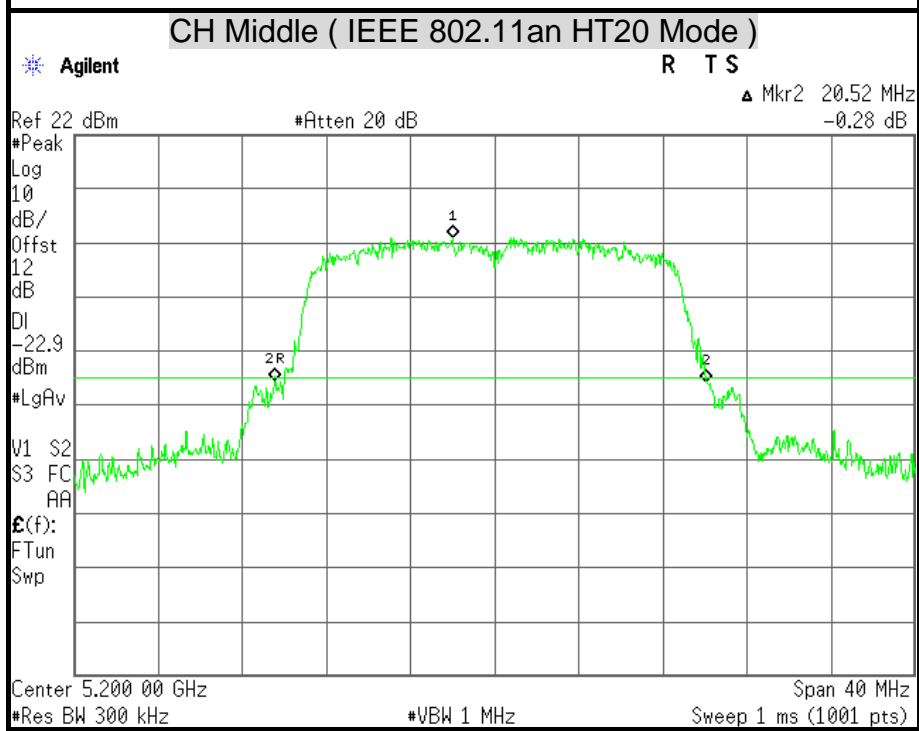
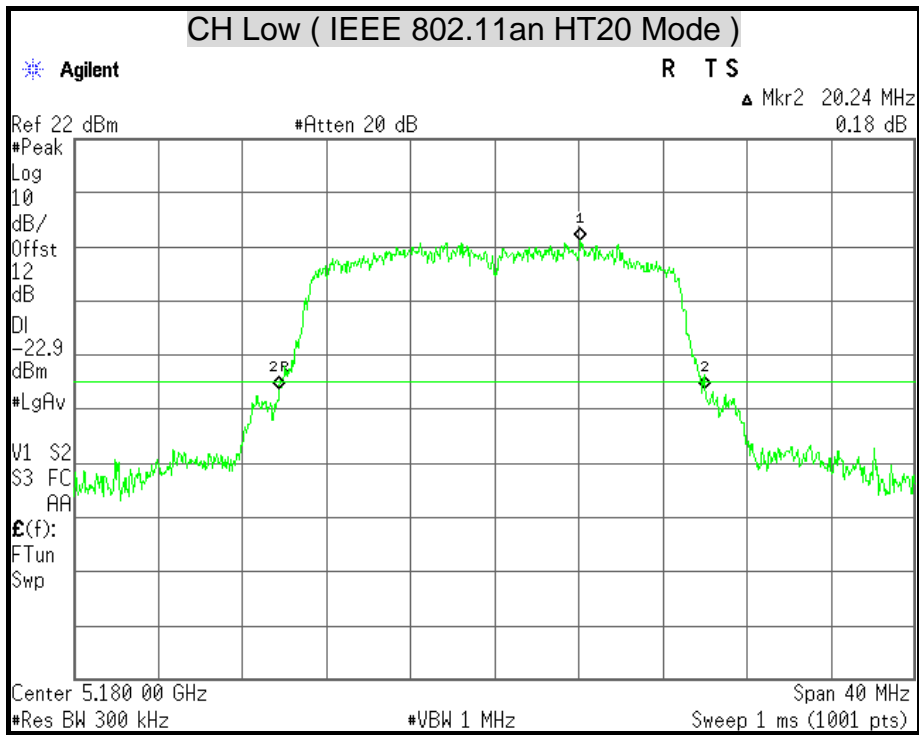
<b>Channel</b>	<b>Channel Frequency (MHz)</b>	<b>26dB Bandwidth (MHz)</b>
Low	5190	45.92
High	5230	45.76



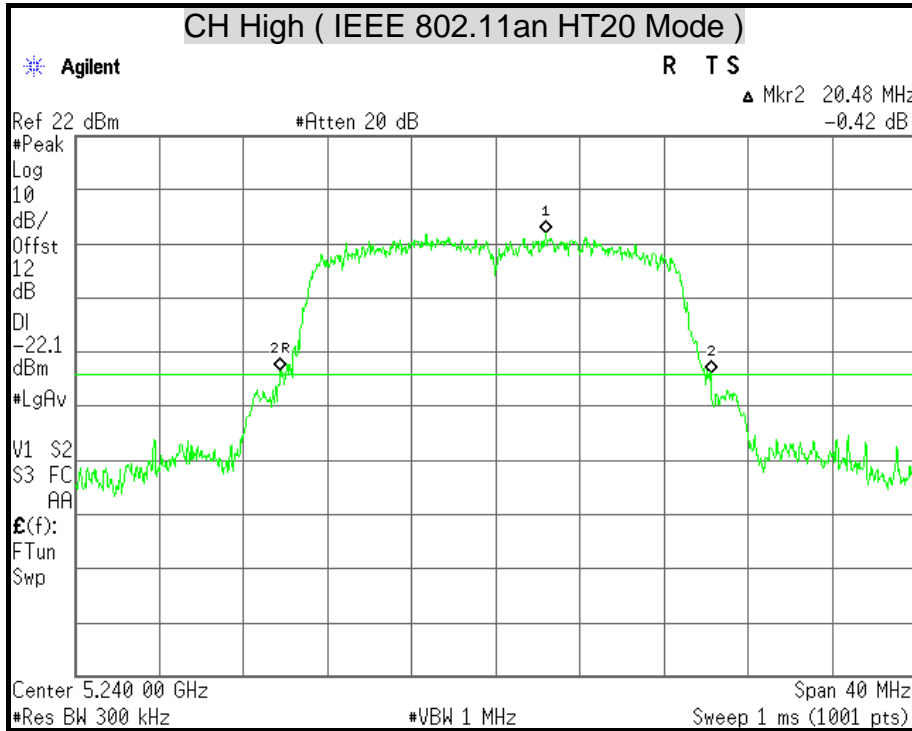
**26dB BANDWIDTH**

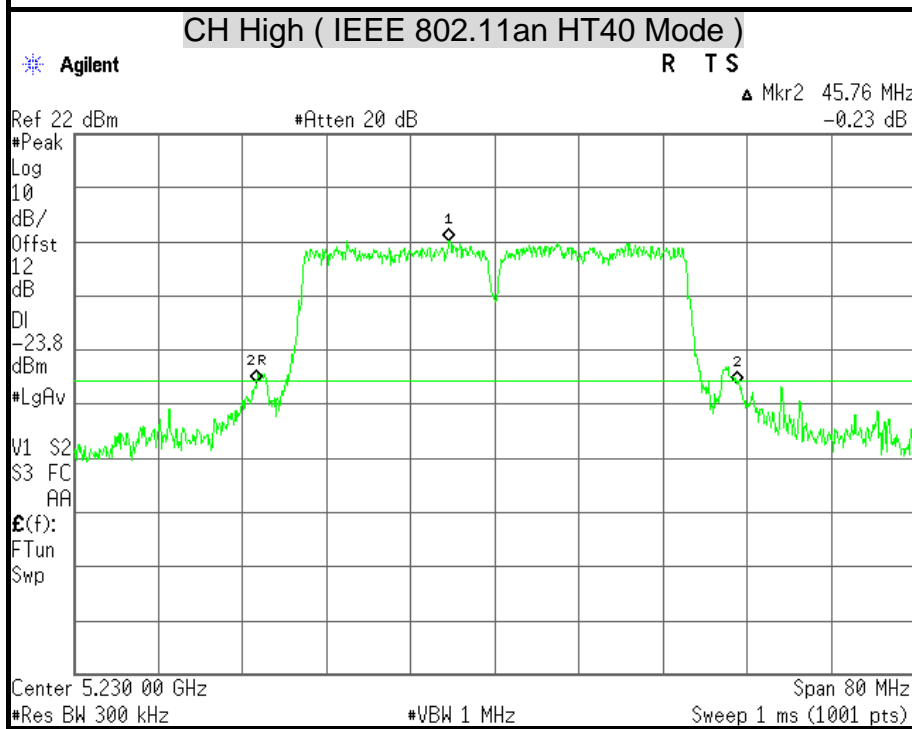
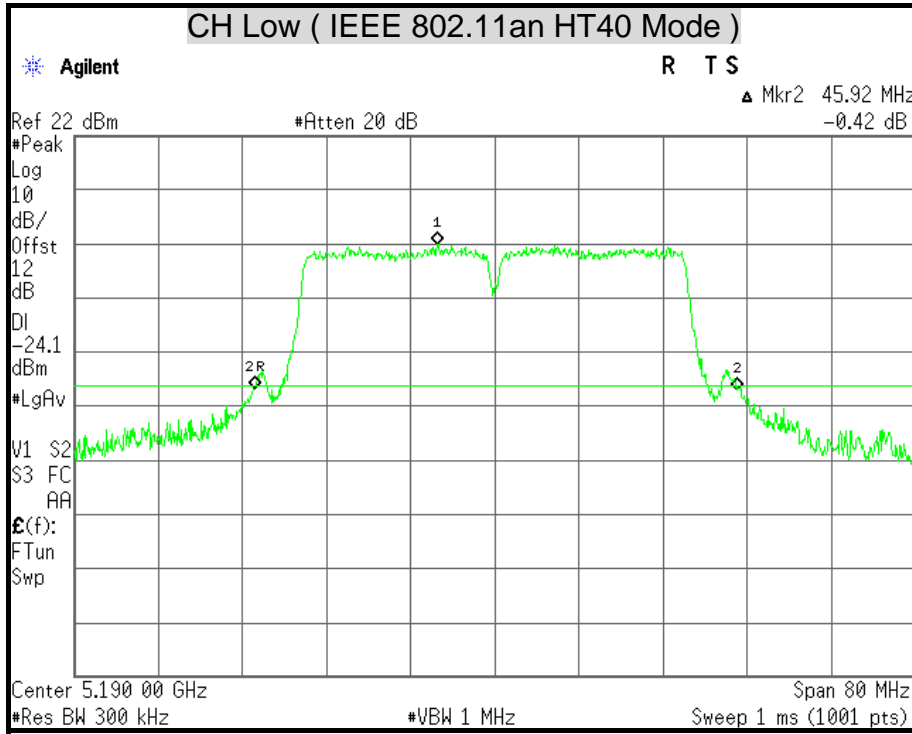














### 7.3 MAXIMUM CONDUCTED OUTPUT POWER

#### LIMITS

§ 15.407(a)

- (1) For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50mW (17dBm) or 4dBm + 10log B, where B is the 26dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
- (2) 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 + 10log B, where B is the 26 dB emission bandwidth in MHz.

If transmitting antennas of directional gain greater than 6dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

The power shall not exceeded the limit as follows:

#### IEEE 802.11a Mode

Channel	Channel Frequency (MHz)	26dB Bandwidth (B) (MHz)	10 Log B (dB)	4dBm + 10 Log B (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5180	20.04	13.01898	17.01898	17
Middle	5220	19.72	12.94907	16.94907	17
High	5240	19.88	12.98416	16.98416	17

#### IEEE 802.11an HT20 Mode

Channel	Channel Frequency (MHz)	26dB Bandwidth (B) (MHz)	10 Log B (dB)	4dBm + 10 Log B (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5180	20.24	13.06211	17.06211	17
Middle	5220	20.52	13.12177	17.12177	17
High	5240	20.48	13.11330	17.11330	17

**IEEE 802.11an HT40 Mode**

<b>Channel</b>	<b>Channel Frequency (MHz)</b>	<b>26dB Bandwidth (B) (MHz)</b>	<b>10 Log B (dB)</b>	<b>4dBm + 10 Log B (dBm)</b>	<b>Maximum Conducted Output Power Limit (dBm)</b>
Low	5190	45.92	16.62002	20.62002	17
High	5230	45.76	16.60486	20.60486	17



**TEST EQUIPMENT**

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Power Meter	ANRITSU	ML2495A	1149001	12/06/2014
Power Sensor	ANRITSU	MA2411B	1126148	12/06/2014

*Remark: Each piece of equipment is scheduled for calibration once a year.*

**TEST SETUP**



**TEST PROCEDURE**

The transmitter output is connected to the Power Meter. The Power Meter is set to the power detection.



**TEST RESULTS**

**IEEE 802.11a Mode**

Channel	Channel Frequency (MHz)	Average Power		Average Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	5180	11.12	0.0129	17	0.0501	PASS
Middle	5220	11.23	0.0133	16.94907	0.0495	PASS
High	5240	11.13	0.0130	16.98416	0.0499	PASS

**Remark:**

1. At final test to get the worst-case emission at 6Mbps.
2. The cable assembly insertion loss of 12 dB (including 10 dB pad and 2 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

**IEEE 802.11an HT20 Mode**

Channel	Channel Frequency (MHz)	Average Power (dBm)		Average Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	5180	11.06	0.0128	16.99289	0.0500	PASS
Middle	5220	11.12	0.0129	17	0.0501	PASS
High	5240	11.07	0.0128	17	0.0501	PASS

**Remark:**

1. At final test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 12 dB (including 10 dB pad and 2 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

**IEEE 802.11an HT40 Mode**

Channel	Channel Frequency (MHz)	Average Power (dBm)		Average Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	5190	11.32	0.0136	16.99289	0.0500	PASS
High	5230	11.34	0.0136	17	0.0501	PASS

**Remark:**

1. At final test to get the worst-case emission at 13.5Mbps.
2. The cable assembly insertion loss of 12 dB (including 10 dB pad and 2 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.



### 7.4 PEAK POWER SPECTRAL DENSITY

#### LIMITS

§ 15.407 (a)

- (1) For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4dBm in any 1MHz band.
- (2) For the band 5.25-5.35 GHz and 5.47-5.725 GHz, the peak power spectral density shall not exceed 11dBm in any 1MHz band.

If transmitting antennas of directional gain greater than 6dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014

*Remark: Each piece of equipment is scheduled for calibration once a year.*

#### TEST SETUP



#### TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.  
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 1MHz, VBW = 3MHz, Span = Sweep= AUTO
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.



**TEST RESULTS**

**IEEE 802.11a Mode**

Channel	Channel Frequency (MHz)	PPSD (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	5180	3.54	4	PASS
Middle	5220	3.37	4	PASS
High	5240	3.66	4	PASS

**Remark:**

1. At final test to get the worst-case emission at 6Mbps.
2. The cable assembly insertion loss of 12 dB (including 10 dB pad and 2dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11an HT20 Mode**

Channel	Channel Frequency (MHz)	PPSD (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	5180	0.26	4	PASS
Middle	5220	0.60	4	PASS
High	5240	0.81	4	PASS

**Remark:**

1. At final test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 12 dB (including 10 dB pad and 2dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

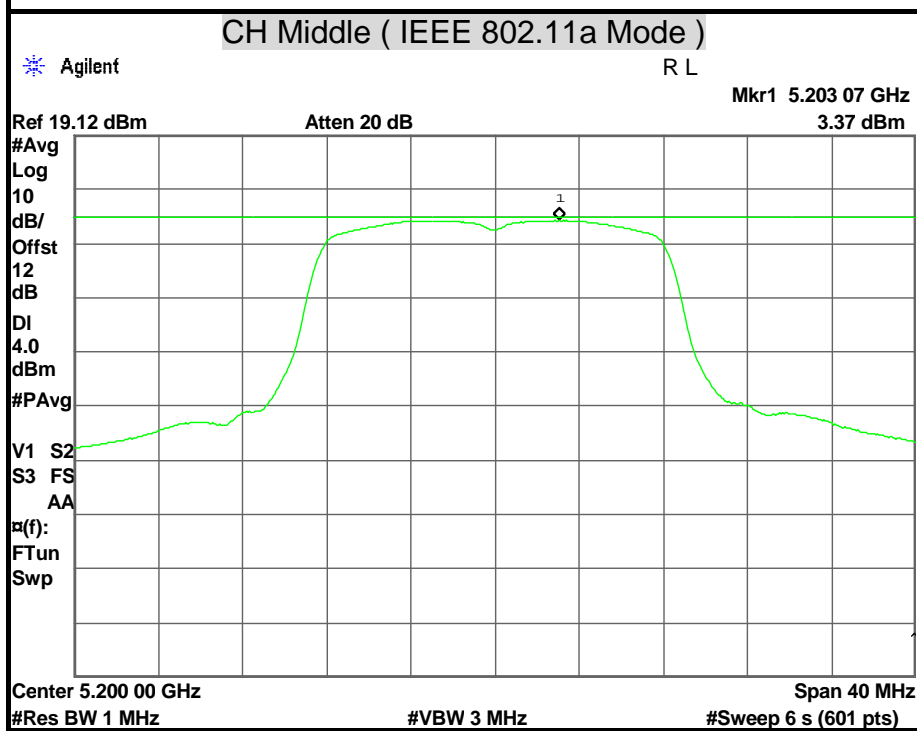
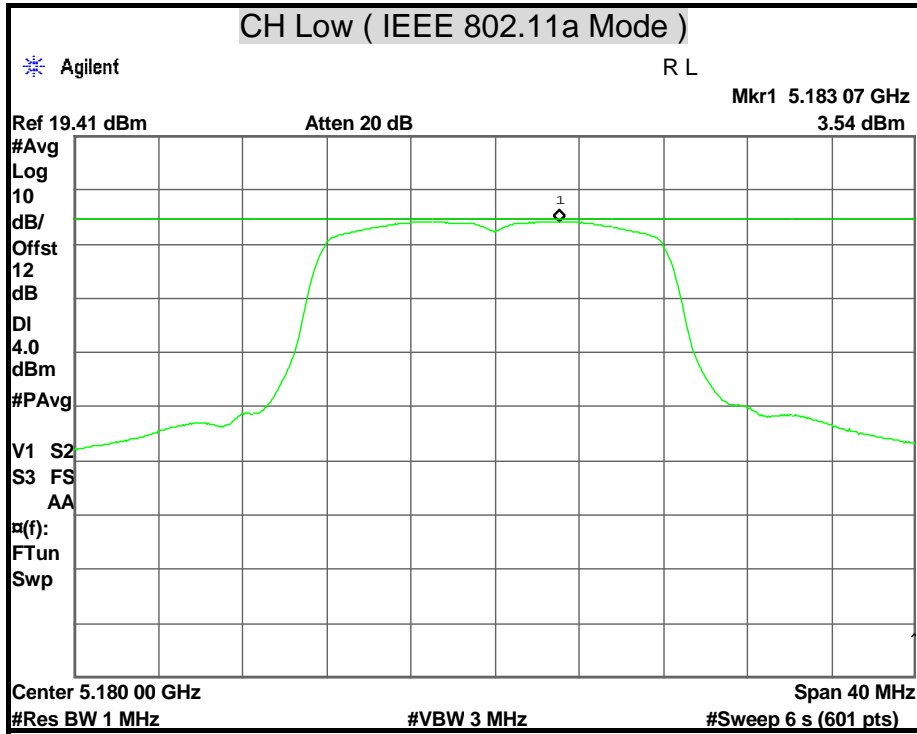
**IEEE 802.11n HT40 Mode**

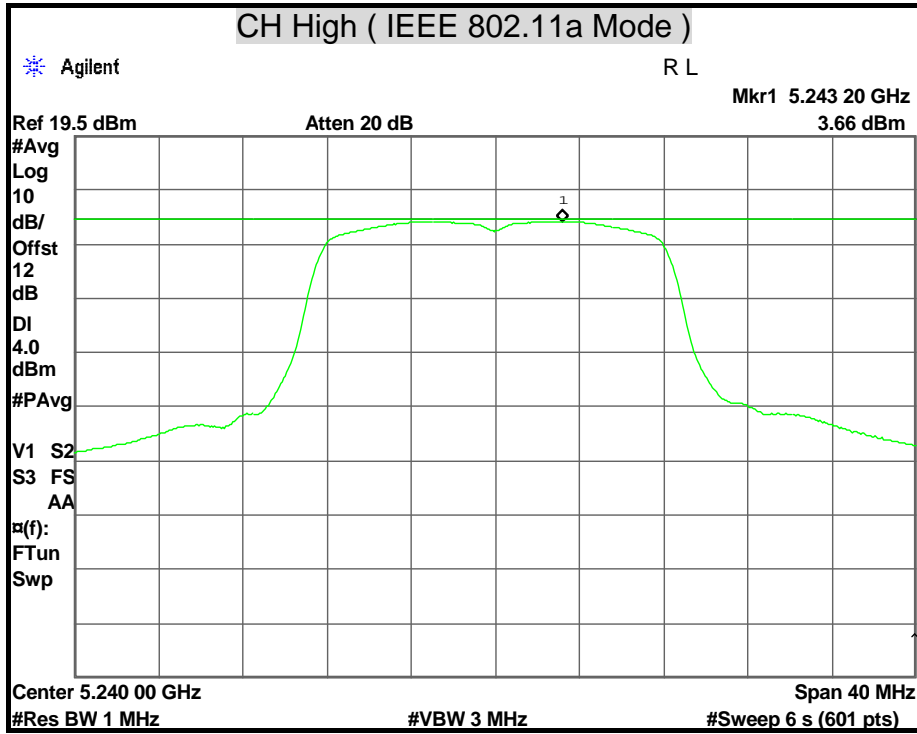
Channel	Channel Frequency (MHz)	PPSD (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	5190	-2.36	4	PASS
High	5230	-0.95	4	PASS

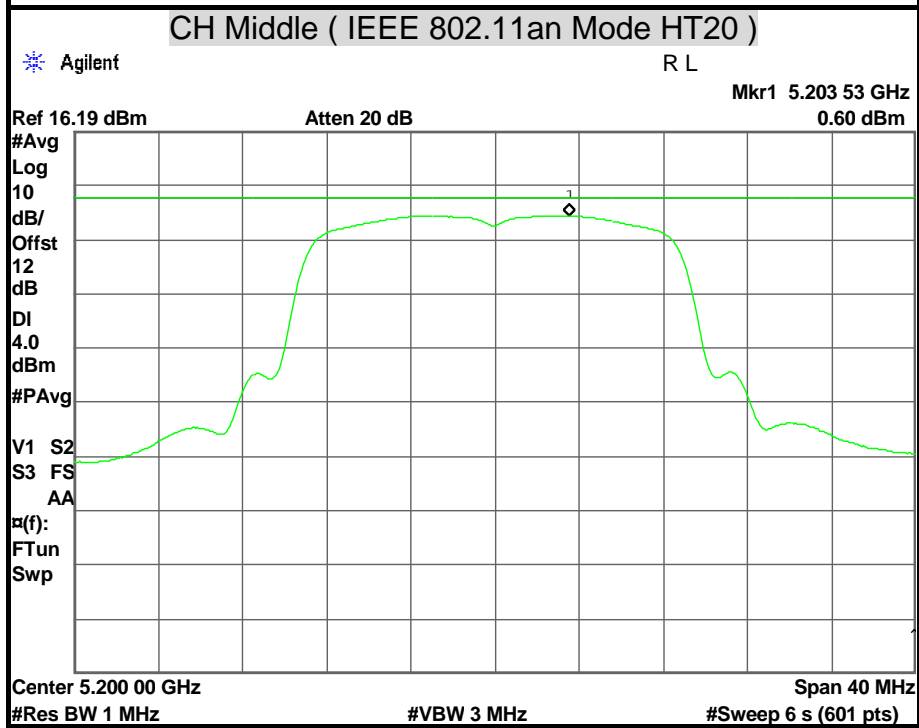
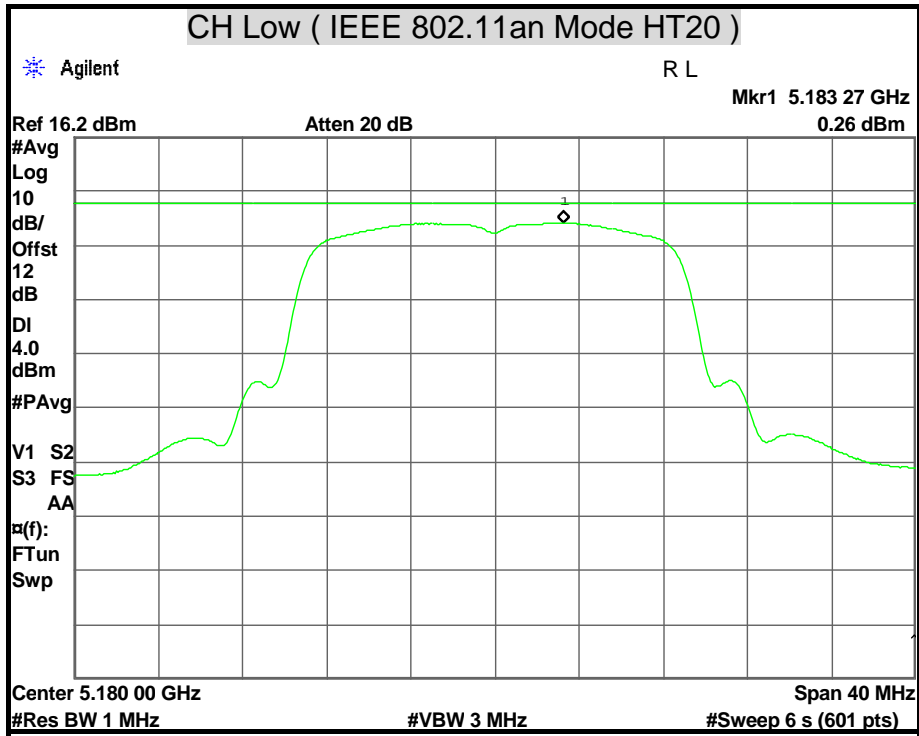
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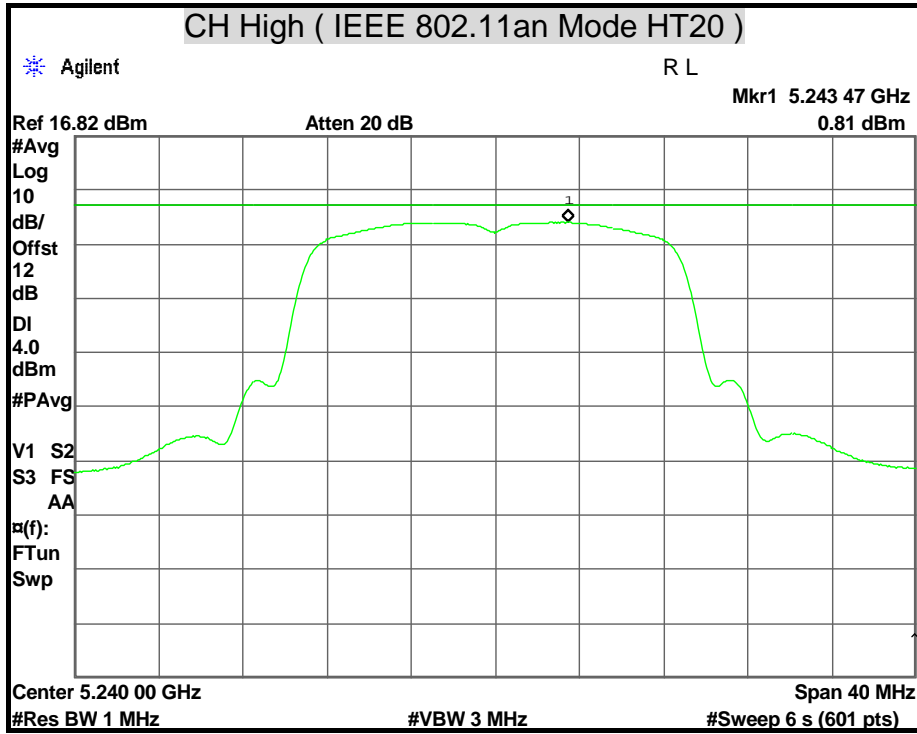
1. At final test to get the worst-case emission at 13.5Mbps.
2. The cable assembly insertion loss of 12 dB (including 10 dB pad and 2dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

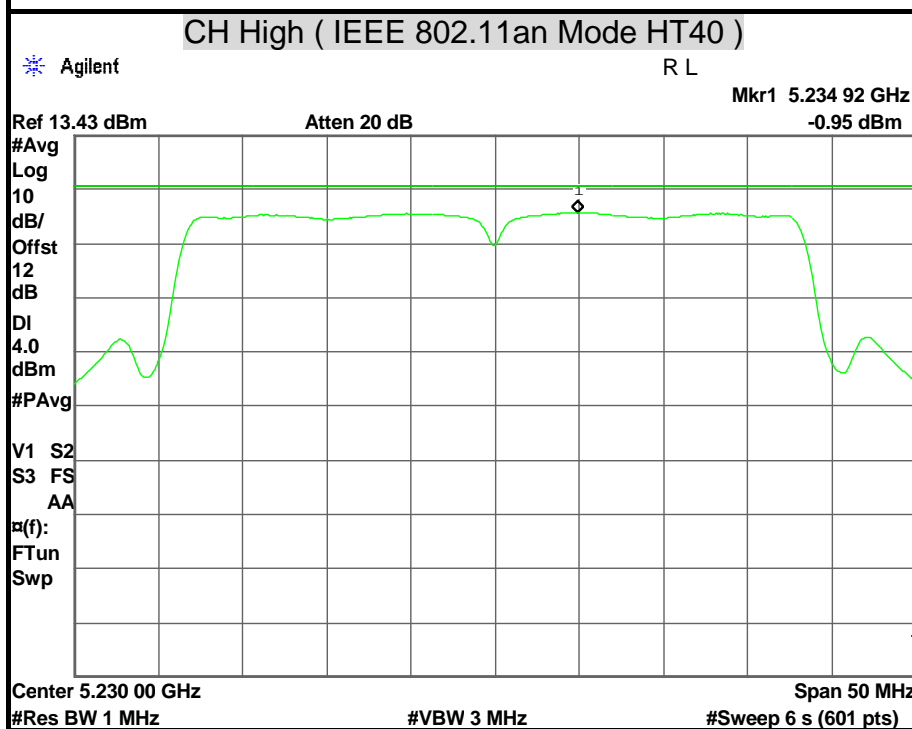
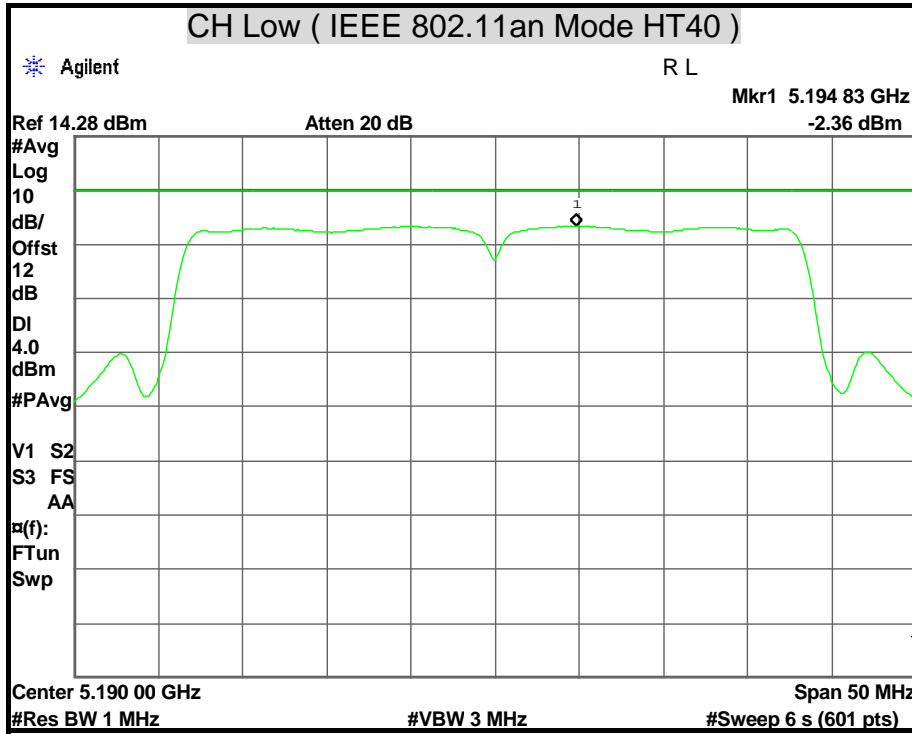














## 7.5 PEAK EXCURSION

### LIMITS

§ 15.407 (a) (6), the ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

### TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014

*Remark: Each piece of equipment is scheduled for calibration once a year.*

### TEST SETUP



### TEST PROCEDURE

The test is performed in accordance with <FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices> – Part 15, Subpart E, August 2002.

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to spectrum.
3. Trace A, Set RBW =1MHz, VBW = 3MHz, Span > 26dB Bandwidth, Max. hold.  
Trace B, Set RBW =1MHz, VBW = 3MHz, Span > 26dB Bandwidth, Setup sample detector and power average mode, to scan 100 times with average.
4. Delta Mark trace A Maximum frequency and trace B same frequency.
5. Repeat the above procedure until measurements for all frequencies were complete.



**TEST RESULTS**

**IEEE 802.11a Mode**

Channel	Channel Frequency (MHz)	Peak Excursion (dB)	Limit (dBm)	Margin (dB)	Pass / Fail
Low	5180	9.98	13	-3.02	PASS
Middle	5220	9.97	13	-3.03	PASS
High	5240	9.43	13	3.57	PASS

*Remark: At final test to get the worst-case emission at 6Mbps.*

**IEEE 802.11an HT20 Mode**

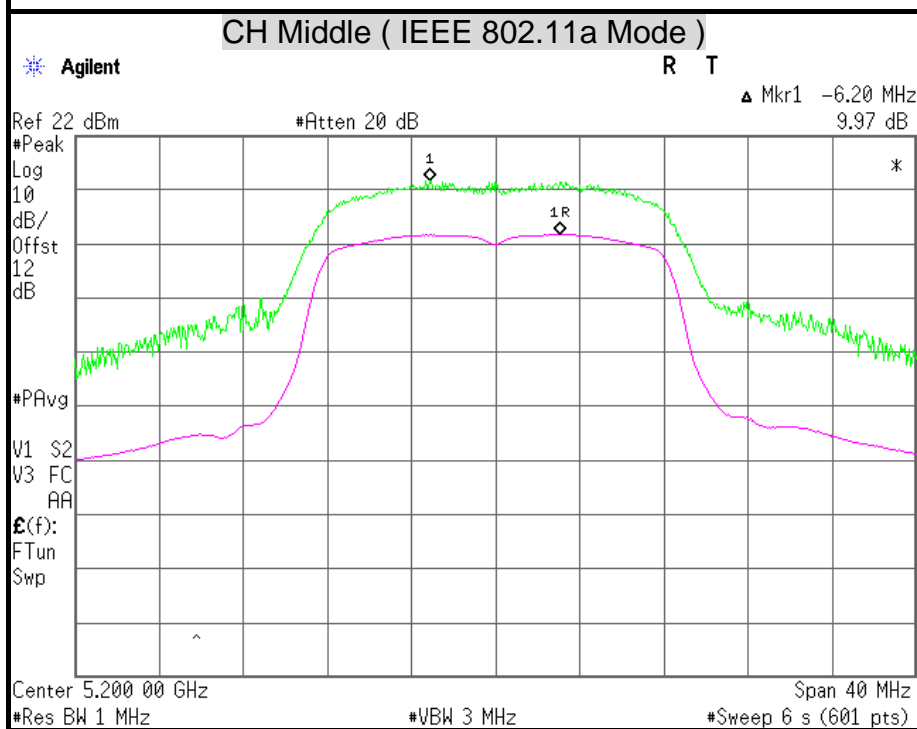
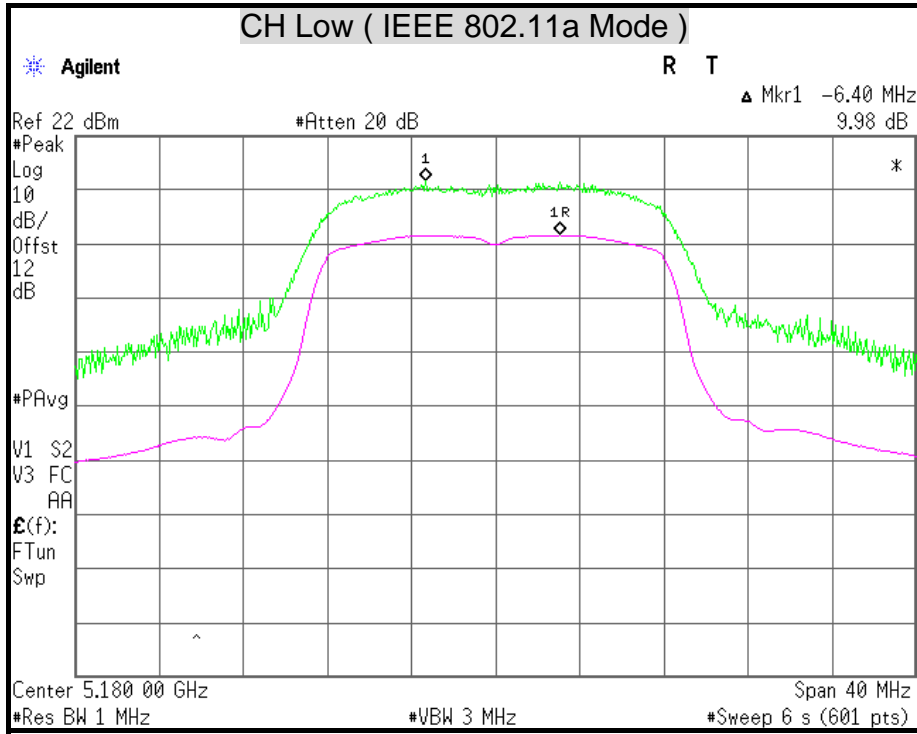
Channel	Channel Frequency (MHz)	Peak Excursion (dB)	Limit (dBm)	Margin (dB)	Pass / Fail
Low	5180	10.01	13	-2.99	PASS
Middle	5220	10.31	13	-2.69	PASS
High	5240	10.05	13	-2.95	PASS

*Remark: At final test to get the worst-case emission at 6.5Mbps.*

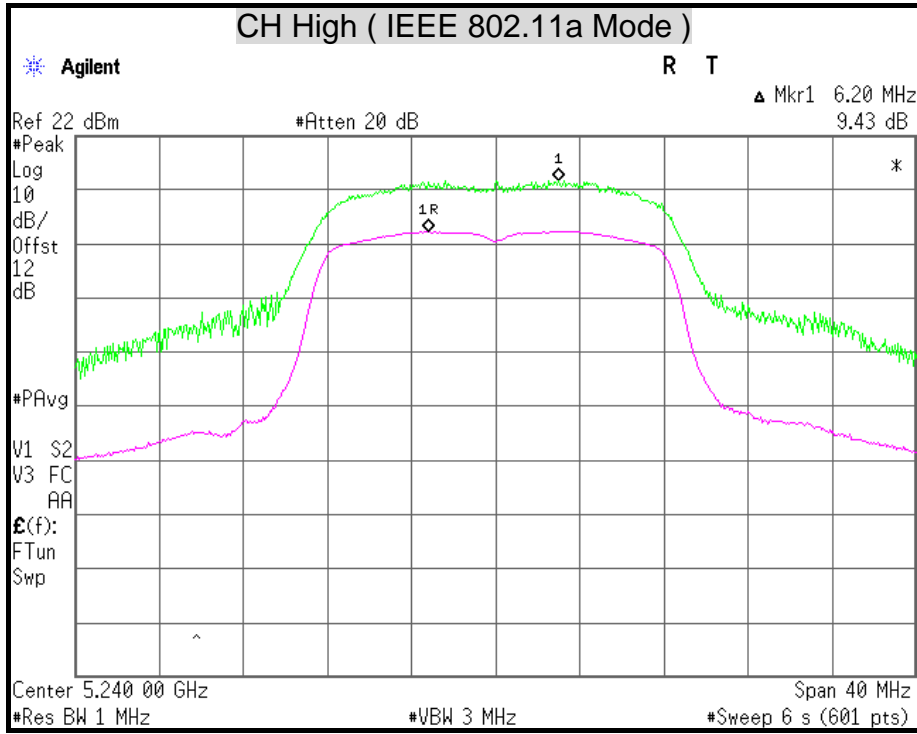
**IEEE 802.11an HT40 Mode**

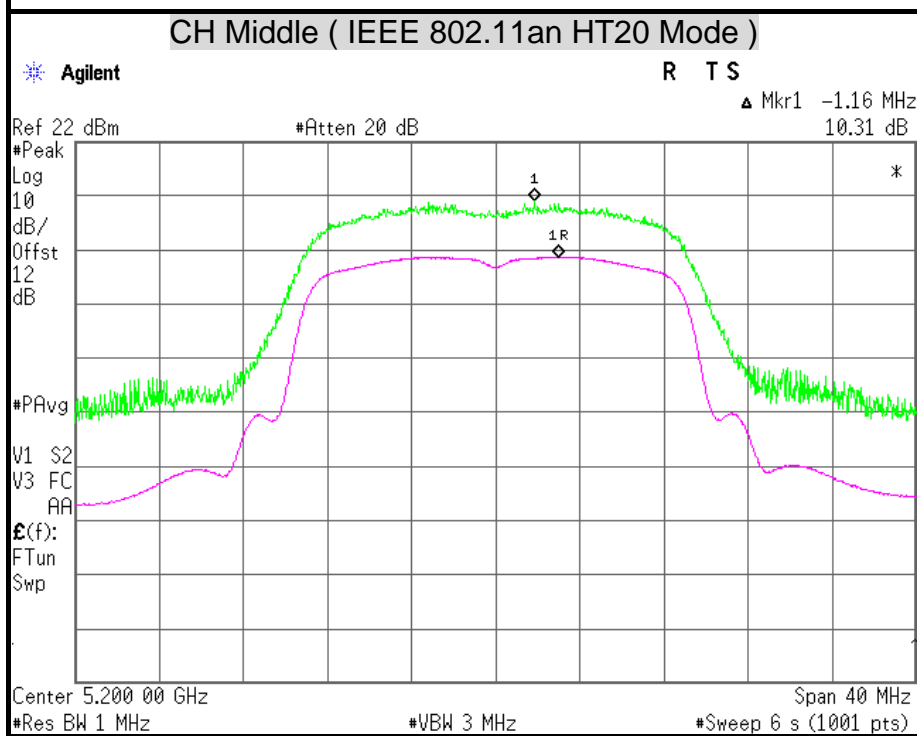
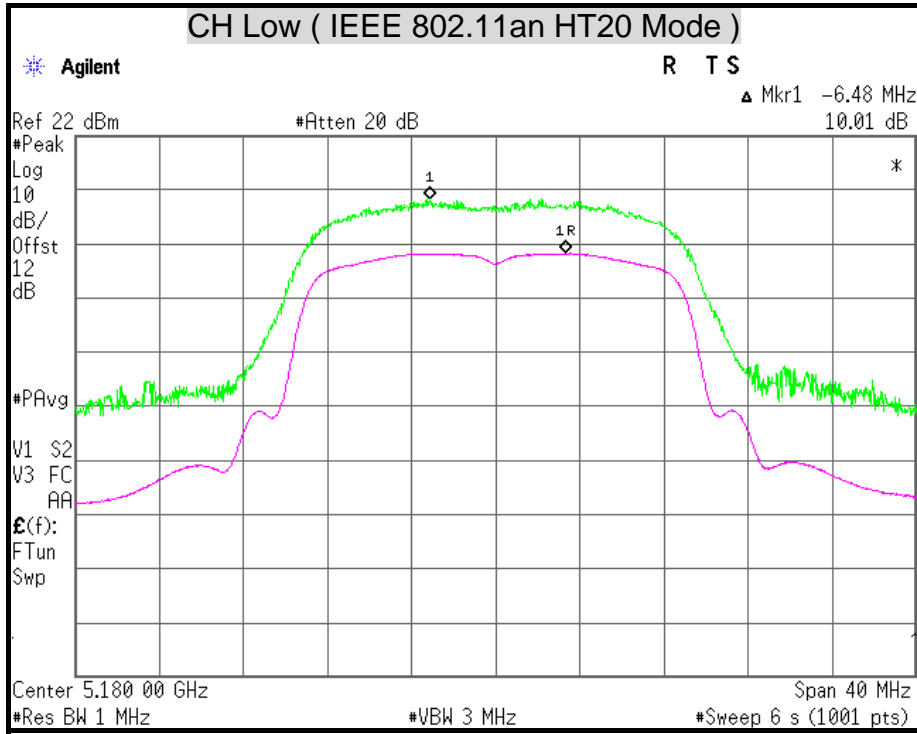
Channel	Channel Frequency (MHz)	Peak Excursion (dB)	Limit (dBm)	Margin (dB)	Pass / Fail
Low	5190	10.99	13	-2.01	PASS
High	5230	10.75	13	-2.25	PASS

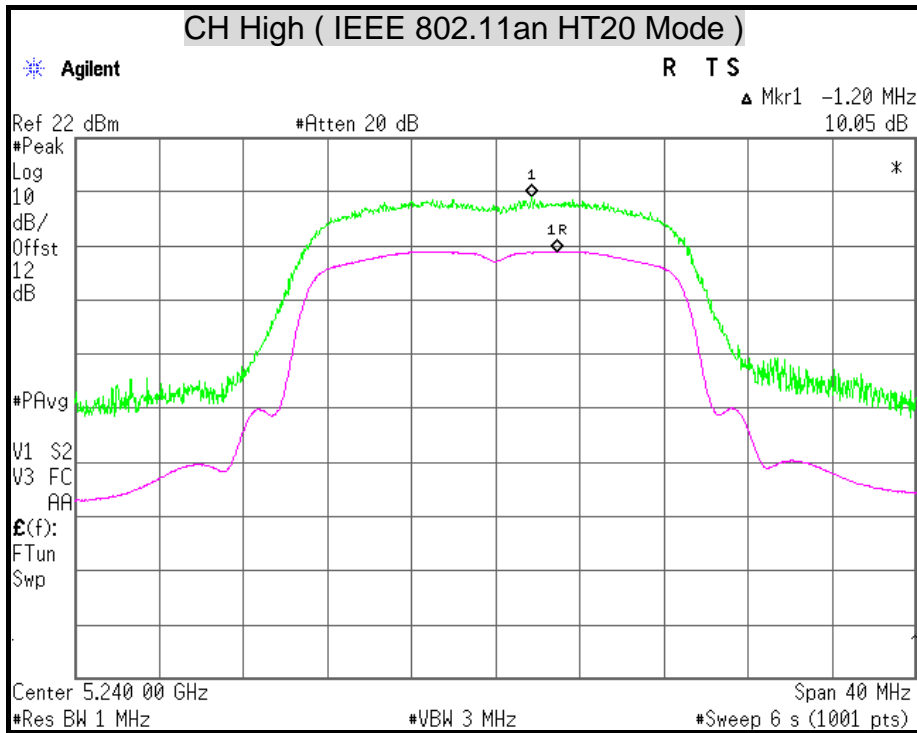
*Remark: At final test to get the worst-case emission at 13.5Mbps.*

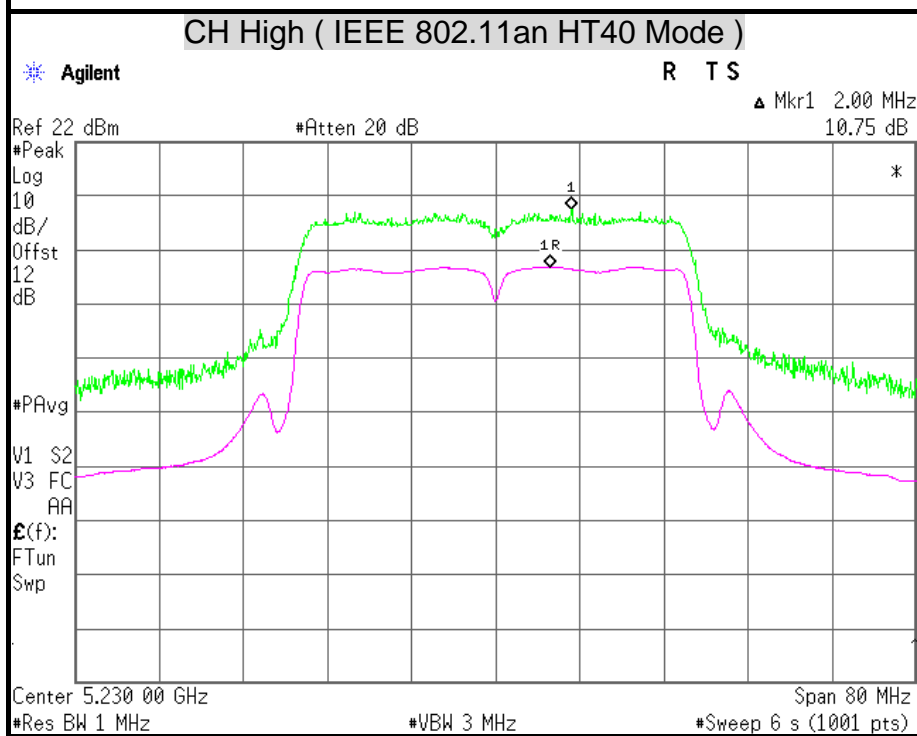
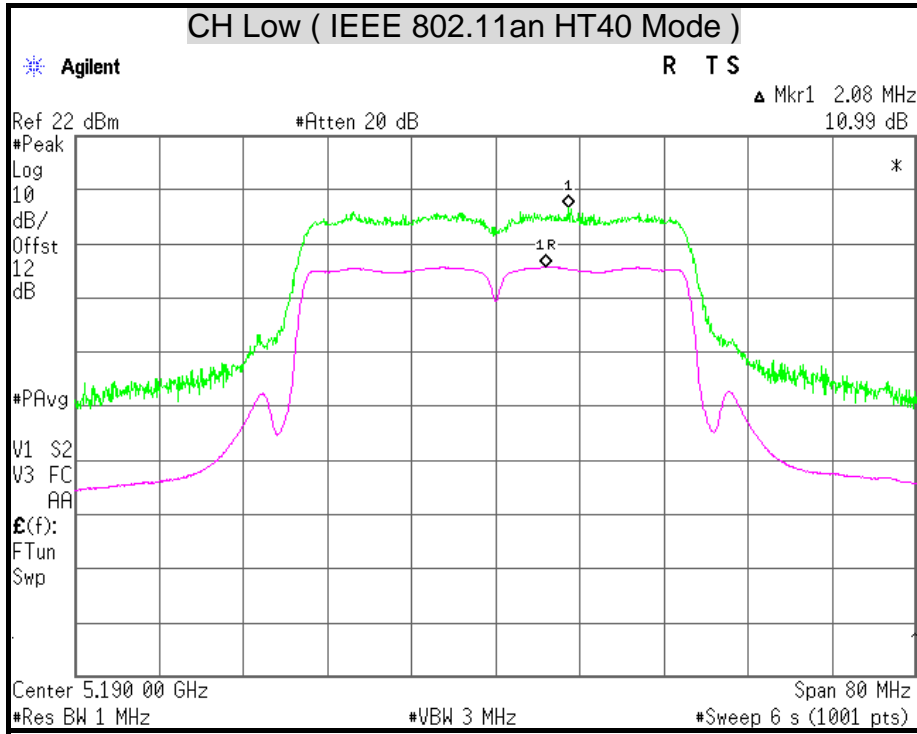














7.6 RADIATED EMISSION

LIMITS

(1) According to § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 -1710	10.6 -12.7
6.26775 - 6.26825	108 -121.94	1718.8 - 1722.2	13.25 -13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 – 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 -16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 -335.4	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41			

Remark:

- 1. <sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
- 2. <sup>2</sup> Above 38.6

(2) According to § 15.205 (b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.



(3) According to § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(KHz)	300
0.490 – 1.705	24000/F(KHz)	30
1.705 – 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

**Remark:** \*\*Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

(4) According to § 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

**TEST EQUIPMENT**

**Radiated Emission / 966Chamber\_A**

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014
EMI Receiver	ROHDE & SCHWARZ	ESCI	100221	04/29/2014
Bi-log Antenna	SCHWARZBECK	VULB 9168	9168-249	09/12/2014
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-778	09/12/2014
Pre-Amplifier	Agilent	8449B	3008A01471	07/16/2014
Pre-Amplifier	HP	8447F	2944A03748	07/16/2014
Band Reject Notch Filter	Micro-Tronics	BRM05702-01	009	N.C.R

**Remark:** 1. Each piece of equipment is scheduled for calibration once a year.  
2. N.C.R = No Calibration Request.



Radiated Emission / 966Chamber\_B

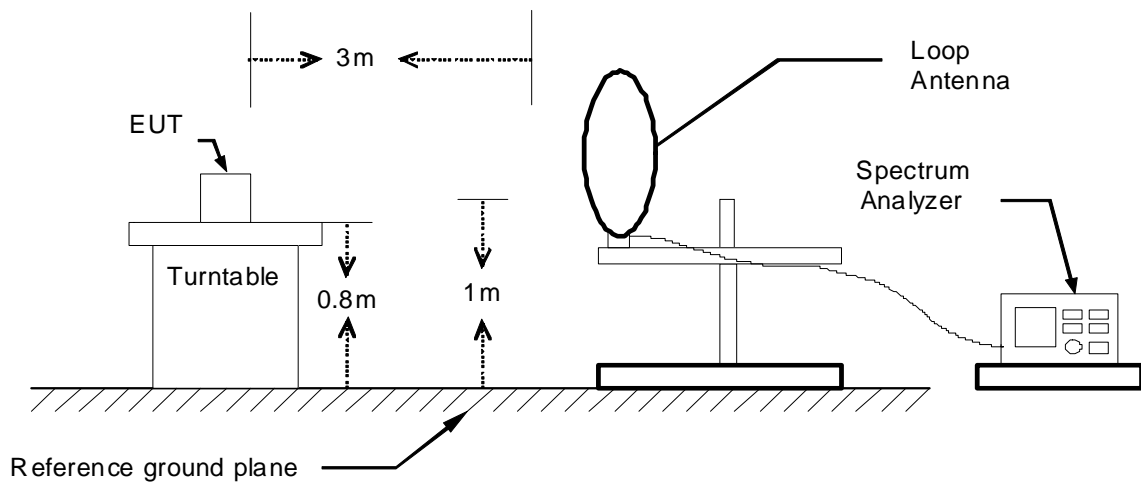
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/15/2014
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101387	10/09/2014
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-778	09/12/2014
Bi-log Antenna	SCHWARZBECK	VULB 9168	9168-250	09/12/2014
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	12/05/2014
Horn Antenna	COM-POWER	AH-840	03077	12/18/2014
Pre-Amplifier	Agilent	8447D	2944A10052	07/16/2014
Pre-Amplifier	Agilent	8449B	3008A01916	07/16/2014
LOOP Antenna	EMCO	6502	8905-2356	08/20/2014
Band Reject Filter	Micro-Tronics	BRC50703-01	004	N.C.R.

**Remark:** 1. Each piece of equipment is scheduled for calibration once a year.  
 2. N.C.R = No Calibration Request.

**TEST SETUP**

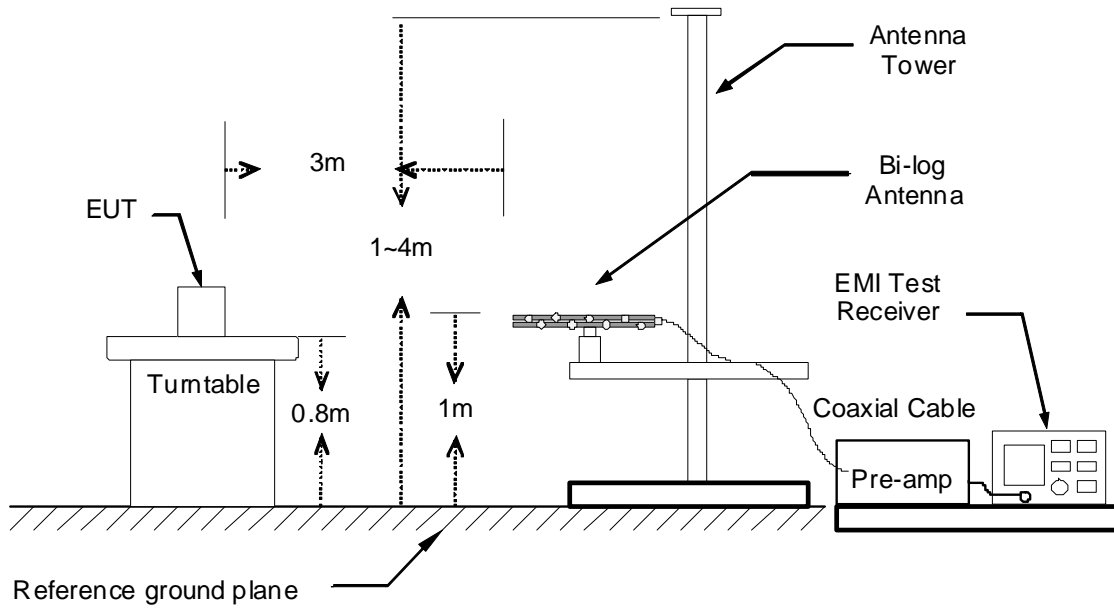
The diagram below shows the test setup that is utilized to make the measurements for emission below 1GHz.

**9kHz ~ 30MHz**

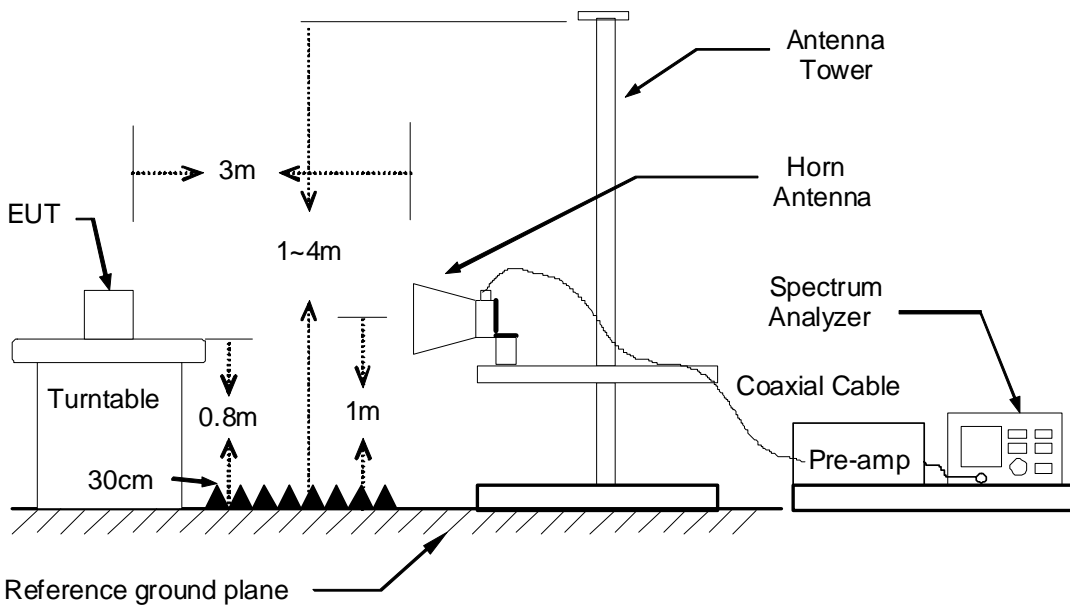




30MHz ~ 1GHz



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.







## **TEST PROCEDURE**

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna.
3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

### **Remark :**

1. *The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.*
2. *The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.*
3. *The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.*



**TEST RESULTS**

**Below 1 GHz (9kHz ~ 30MHz)**

No emission found between lowest internal used/generated frequency to 30MHz.

**Below 1 GHz (30MHz ~ 1GHz)**

<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Alan Wu
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	Normal Operating + Link Notebook PC Write	<b>Temp. &amp; Humidity</b>	24°C, 50%

966 Chamber_A at 3Meter / Horizontal						
Frequency (MHz)	Reading (dBµV)	Correction Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Remark
66.86	36.24	-11.66	24.58	40.00	-15.42	Peak
159.98	38.26	-9.89	28.37	43.50	-15.13	Peak
239.52	48.02	-11.16	36.86	46.00	-9.14	Peak
421.88	42.00	-5.67	36.34	46.00	-9.66	Peak
600.36	41.30	-1.83	39.47	46.00	-6.53	Peak
961.20	31.93	4.34	36.27	54.00	-17.73	Peak
1000.00	32.56	4.76	37.32	74.00	-36.68	Peak

966 Chamber_A at 3Meter / Vertical						
Frequency (MHz)	Reading (dBµV)	Correction Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Remark
158.04	39.43	-9.92	29.51	43.50	-13.99	Peak
239.52	48.98	-11.16	37.81	46.00	-8.19	Peak
419.94	43.10	-5.73	37.37	46.00	-8.63	Peak
482.02	43.51	-4.26	39.25	46.00	-6.75	Peak
600.36	45.40	-1.83	43.57	46.00	-2.43	Peak
840.92	33.99	2.08	36.07	46.00	-9.93	Peak
901.06	32.00	3.43	35.43	46.00	-10.57	Peak
961.20	29.84	4.34	34.18	54.00	-19.82	Peak

**Remark:**

1. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
2. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
3. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)
4. Result (dBµV/m) = Reading (dBµV) + Correction Factor (dB/m)
5. Margin (dB) = Remark result (dBµV/m) - Quasi-peak limit (dBµV/m).



## Above 1 GHz

<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11a TX / CH Low	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1125.00	53.98	---	-4.18	49.79	---	74.00	54.00	-4.21	Peak
1425.00	54.06	---	-3.48	50.59	---	74.00	54.00	-3.41	Peak
1550.00	52.62	---	-2.75	49.88	---	74.00	54.00	-4.12	Peak
1755.00	52.16	---	-0.48	51.67	---	74.00	54.00	-2.33	Peak
5150.00	60.06	43.45	9.44	69.50	52.89	74.00	54.00	-1.11	AVG
6264.00	37.16	---	11.82	48.98	---	74.00	54.00	-5.02	Peak
6744.00	39.05	---	12.40	51.45	---	74.00	54.00	-2.55	Peak
7728.00	37.78	---	13.74	51.52	---	74.00	54.00	-2.48	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1090.00	57.42	---	-4.27	53.15	---	74.00	54.00	-0.85	Peak
1255.00	53.45	---	-3.88	49.57	---	74.00	54.00	-4.43	Peak
1380.00	53.16	---	-3.58	49.58	---	74.00	54.00	-4.42	Peak
1720.00	51.78	---	-0.87	50.91	---	74.00	54.00	-3.09	Peak
5150.00	57.71	43.33	9.44	67.15	52.77	74.00	54.00	-1.23	AVG
6192.00	36.82	---	11.63	48.45	---	74.00	54.00	-5.55	Peak
6660.00	37.68	---	12.43	50.11	---	74.00	54.00	-3.89	Peak
7560.00	38.26	---	13.84	52.10	---	74.00	54.00	-1.90	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11a TX / CH Middle	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1005.00	54.38	---	-4.47	49.91	---	74.00	54.00	-4.09	Peak
1310.00	53.34	---	-3.75	49.59	---	74.00	54.00	-4.41	Peak
1505.00	53.64	---	-3.24	50.40	---	74.00	54.00	-3.60	Peak
1705.00	51.66	---	-1.04	50.63	---	74.00	54.00	-3.37	Peak
6108.00	37.91	---	11.40	49.31	---	74.00	54.00	-4.69	Peak
6540.00	37.80	---	12.46	50.26	---	74.00	54.00	-3.74	Peak
7584.00	38.35	---	13.83	52.18	---	74.00	54.00	-1.82	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1065.00	55.10	---	-4.33	50.77	---	74.00	54.00	-3.23	Peak
1205.00	53.39	---	-4.00	49.40	---	74.00	54.00	-4.60	Peak
1330.00	52.93	---	-3.70	49.23	---	74.00	54.00	-4.77	Peak
1725.00	52.44	---	-0.82	51.63	---	74.00	54.00	-2.37	Peak
6228.00	37.33	---	11.72	49.05	---	74.00	54.00	-4.95	Peak
6804.00	38.74	---	12.38	51.13	---	74.00	54.00	-2.87	Peak
7620.00	38.11	---	13.81	51.92	---	74.00	54.00	-2.08	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
 Margin = Result - Limit  
 Remark Peak = Result(PK) - Limit(AV)  
 Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11a TX / CH High	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1035.00	54.19	---	-4.40	49.79	---	74.00	54.00	-4.21	Peak
1185.00	54.33	---	-4.04	50.29	---	74.00	54.00	-3.71	Peak
1400.00	53.30	---	-3.54	49.76	---	74.00	54.00	-4.24	Peak
1615.00	51.88	---	-2.03	49.85	---	74.00	54.00	-4.15	Peak
6156.00	36.99	---	11.53	48.52	---	74.00	54.00	-5.48	Peak
6732.00	38.22	---	12.41	50.62	---	74.00	54.00	-3.38	Peak
7620.00	38.24	---	13.81	52.05	---	74.00	54.00	-1.95	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1045.00	53.72	---	-4.37	49.34	---	74.00	54.00	-4.66	Peak
1420.00	52.81	---	-3.49	49.32	---	74.00	54.00	-4.68	Peak
1595.00	53.41	---	-2.25	51.16	---	74.00	54.00	-2.84	Peak
1825.00	51.43	---	0.29	51.71	---	74.00	54.00	-2.29	Peak
6144.00	38.84	---	11.49	50.34	---	74.00	54.00	-3.66	Peak
6744.00	38.00	---	12.40	50.40	---	74.00	54.00	-3.60	Peak
7620.00	38.62	---	13.81	52.43	---	74.00	54.00	-1.57	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11an HT20 TX / CH Low	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1080.00	54.93	---	-4.29	50.64	---	74.00	54.00	-3.36	Peak
1240.00	53.77	---	-3.91	49.86	---	74.00	54.00	-4.14	Peak
1345.00	53.96	---	-3.67	50.29	---	74.00	54.00	-3.71	Peak
1615.00	53.50	---	-2.03	51.47	---	74.00	54.00	-2.53	Peak
5150.00	60.03	43.24	9.44	69.47	52.68	74.00	54.00	-1.32	AVG
6192.00	37.70	---	11.63	49.33	---	74.00	54.00	-4.67	Peak
6696.00	37.65	---	12.42	50.06	---	74.00	54.00	-3.94	Peak
7416.00	37.65	---	13.62	51.27	---	74.00	54.00	-2.73	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1095.00	62.32	44.20	-4.26	58.06	39.94	74.00	54.00	-14.06	AVG
1170.00	54.73	---	-4.08	50.66	---	74.00	54.00	-3.34	Peak
1310.00	54.62	---	-3.75	50.87	---	74.00	54.00	-3.13	Peak
1610.00	53.23	---	-2.09	51.14	---	74.00	54.00	-2.86	Peak
5150.00	58.15	43.16	9.44	67.59	52.60	74.00	54.00	-1.40	AVG
6120.00	36.74	---	11.43	48.17	---	74.00	54.00	-5.83	Peak
6732.00	37.94	---	12.41	50.34	---	74.00	54.00	-3.66	Peak
7488.00	38.90	---	13.84	52.74	---	74.00	54.00	-1.26	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11an HT20 TX / CH Middle	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1015.00	54.65	---	-4.44	50.20	---	74.00	54.00	-3.80	Peak
1220.00	54.28	---	-3.96	50.32	---	74.00	54.00	-3.68	Peak
1440.00	53.66	---	-3.44	50.22	---	74.00	54.00	-3.78	Peak
3065.00	54.42	40.60	4.83	59.25	45.43	74.00	54.00	-8.57	AVG
6372.00	38.17	---	12.12	50.29	---	74.00	54.00	-3.71	Peak
6840.00	37.99	---	12.37	50.36	---	74.00	54.00	-3.64	Peak
7668.00	38.27	---	13.78	52.04	---	74.00	54.00	-1.96	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1015.00	55.58	---	-4.44	51.14	---	74.00	54.00	-2.86	Peak
1190.00	54.42	---	-4.03	50.39	---	74.00	54.00	-3.61	Peak
1400.00	53.35	---	-3.54	49.82	---	74.00	54.00	-4.18	Peak
1565.00	53.48	---	-2.58	50.90	---	74.00	54.00	-3.10	Peak
6168.00	37.21	---	11.56	48.77	---	74.00	54.00	-5.23	Peak
6876.00	37.46	---	12.36	49.83	---	74.00	54.00	-4.17	Peak
7524.00	37.88	---	13.87	51.74	---	74.00	54.00	-2.26	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11an HT20 TX / CH High	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1015.00	53.92	---	-4.44	49.47	---	74.00	54.00	-4.53	Peak
1200.00	54.21	---	-4.01	50.21	---	74.00	54.00	-3.79	Peak
1470.00	53.38	---	-3.37	50.01	---	74.00	54.00	-3.99	Peak
3105.00	53.50	40.68	4.87	58.37	45.55	74.00	54.00	-8.45	AVG
6396.00	37.81	---	12.19	49.99	---	74.00	54.00	-4.01	Peak
6852.00	38.23	---	12.37	50.60	---	74.00	54.00	-3.40	Peak
7740.00	37.71	---	13.73	51.44	---	74.00	54.00	-2.56	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1090.00	66.33	46.31	-4.27	62.06	42.04	74.00	54.00	-11.96	AVG
1185.00	54.75	---	-4.04	50.71	---	74.00	54.00	-3.29	Peak
1500.00	53.77	---	-3.30	50.47	---	74.00	54.00	-3.53	Peak
1670.00	53.06	---	-1.42	51.63	---	74.00	54.00	-2.37	Peak
6192.00	37.67	---	11.63	49.30	---	74.00	54.00	-4.70	Peak
6672.00	38.01	---	12.42	50.44	---	74.00	54.00	-3.56	Peak
7764.00	38.50	---	13.72	52.21	---	74.00	54.00	-1.79	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)





<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11an HT40 TX / CH Low	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1070.00	55.42	---	-4.31	51.10	---	74.00	54.00	-2.90	Peak
1375.00	54.36	---	-3.60	50.76	---	74.00	54.00	-3.24	Peak
1615.00	53.71	---	-2.03	51.68	---	74.00	54.00	-2.32	Peak
5150.00	63.50	44.30	9.44	72.94	53.74	74.00	54.00	-0.26	AVG
6060.00	37.44	---	11.26	48.70	---	74.00	54.00	-5.30	Peak
6600.00	37.66	---	12.44	50.10	---	74.00	54.00	-3.90	Peak
7644.00	37.68	---	13.79	51.47	---	74.00	54.00	-2.53	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1135.00	54.88	---	-4.16	50.72	---	74.00	54.00	-3.28	Peak
1595.00	54.29	---	-2.25	52.04	---	74.00	54.00	-1.96	Peak
1835.00	52.30	---	0.40	52.70	---	74.00	54.00	-1.30	Peak
5150.00	63.77	44.20	9.44	73.21	53.64	74.00	54.00	-0.36	AVG
6060.00	37.16	---	11.26	48.42	---	74.00	54.00	-5.58	Peak
6684.00	38.03	---	12.42	50.45	---	74.00	54.00	-3.55	Peak
7644.00	37.96	---	13.79	51.75	---	74.00	54.00	-2.25	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Rueyyan Lin
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/25
<b>Test Mode</b>	IEEE 802.11an HT40 TX / CH High	<b>Temp. &amp; Humidity</b>	25°C, 49%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1015.00	55.39	---	-4.44	50.95	---	74.00	54.00	-3.05	Peak
1345.00	54.64	---	-3.67	50.97	---	74.00	54.00	-3.03	Peak
1770.00	52.35	---	-0.32	52.04	---	74.00	54.00	-1.96	Peak
5150.00	54.96	39.61	9.45	64.41	49.06	74.00	54.00	-4.94	AVG
6156.00	38.28	---	11.53	49.81	---	74.00	54.00	-4.19	Peak
6696.00	38.53	---	12.42	50.95	---	74.00	54.00	-3.05	Peak
7548.00	37.23	---	13.85	51.08	---	74.00	54.00	-2.92	Peak

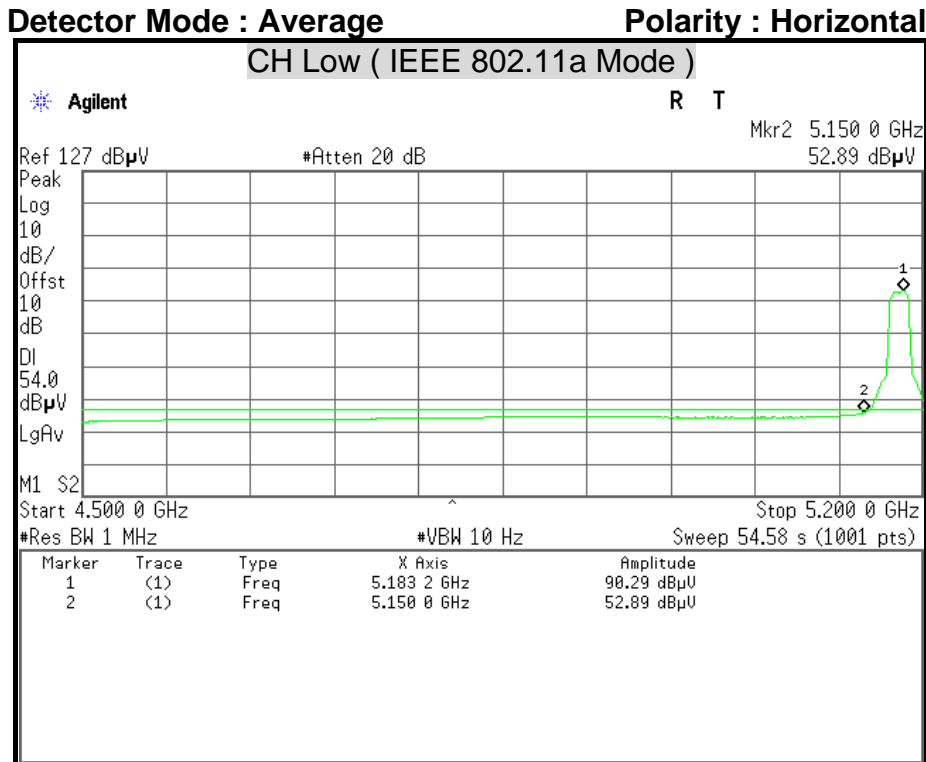
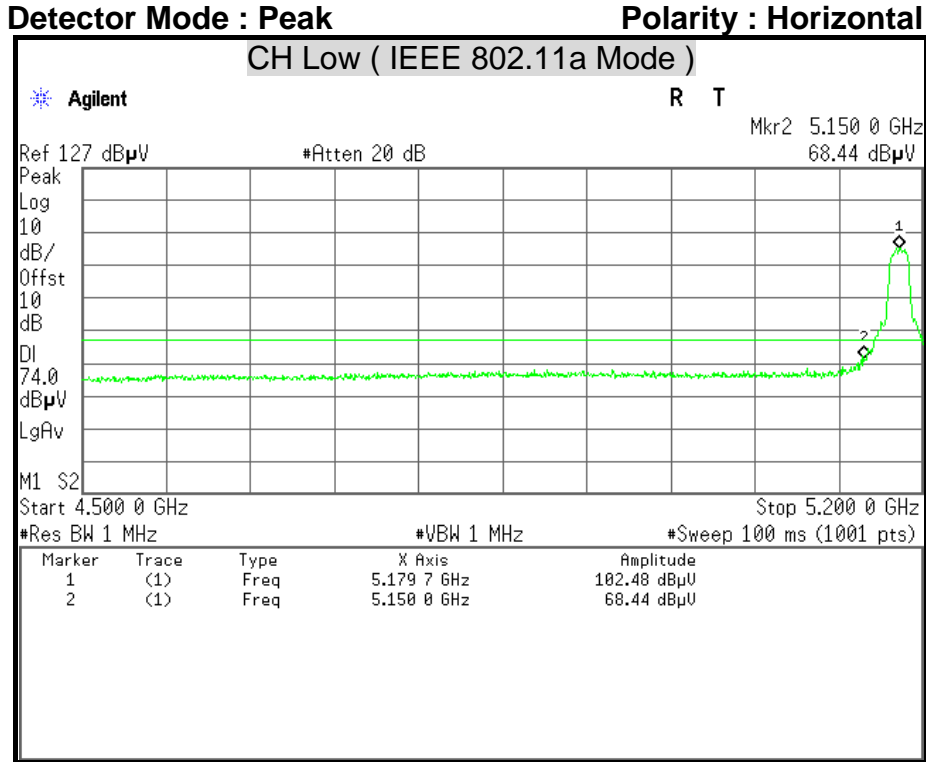
966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1080.00	55.09	---	-4.29	50.80	---	74.00	54.00	-3.20	Peak
1405.00	54.51	---	-3.52	50.98	---	74.00	54.00	-3.02	Peak
1835.00	52.27	---	0.40	52.67	---	74.00	54.00	-1.33	Peak
5150.00	54.36	39.24	9.44	63.80	48.68	74.00	54.00	-5.32	AVG
6060.00	36.84	---	11.26	48.11	---	74.00	54.00	-5.89	Peak
6576.00	38.06	---	12.45	50.51	---	74.00	54.00	-3.49	Peak
7548.00	38.22	---	13.85	52.07	---	74.00	54.00	-1.93	Peak

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



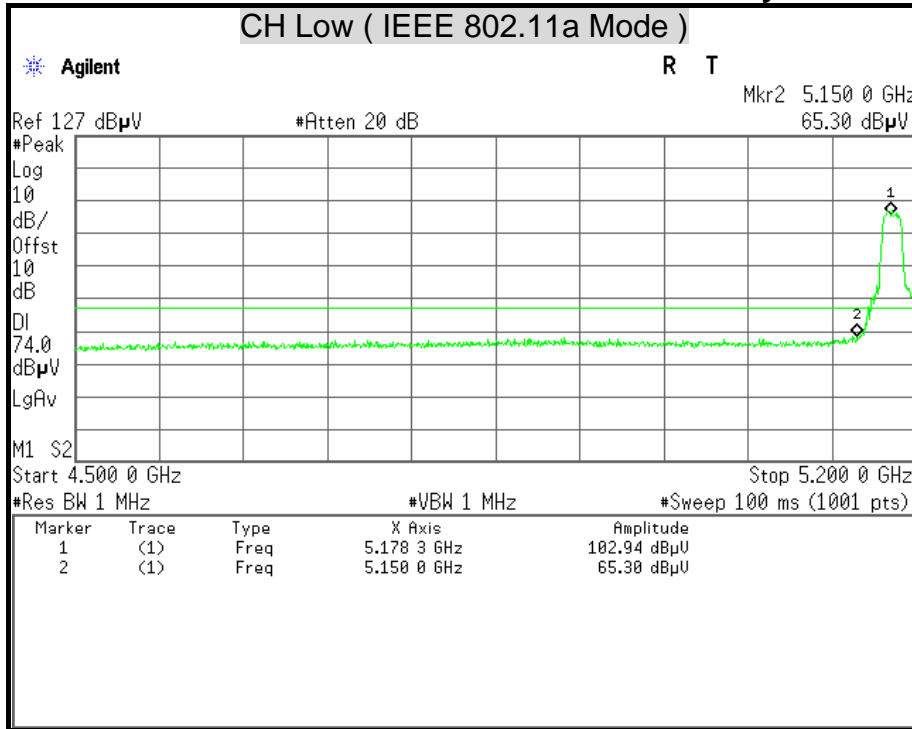
Restricted Band Edges





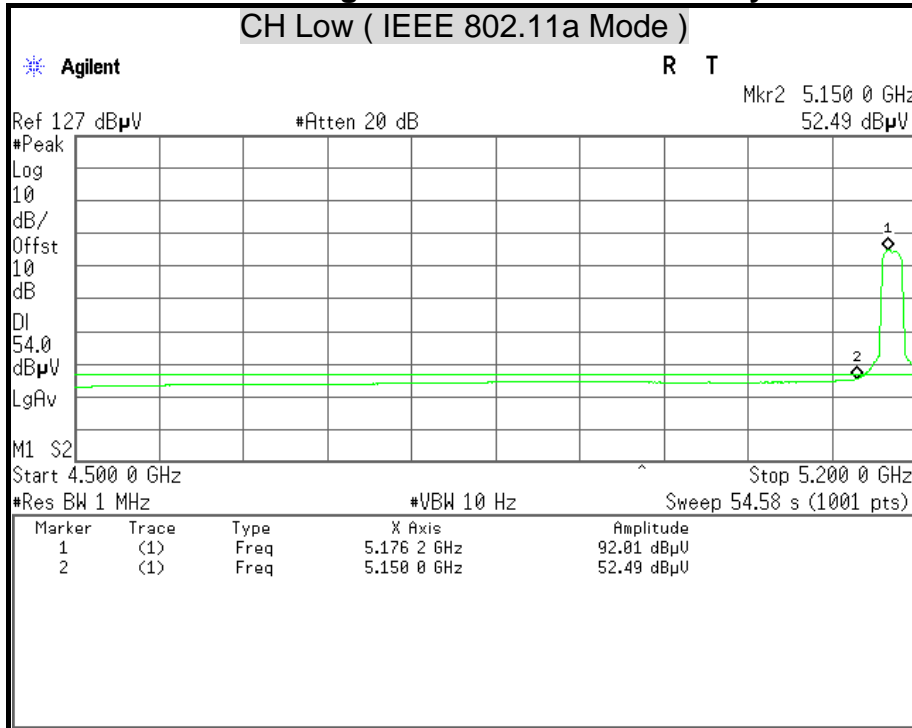
Detector Mode : Peak

Polarity : Vertical



Detector Mode : Average

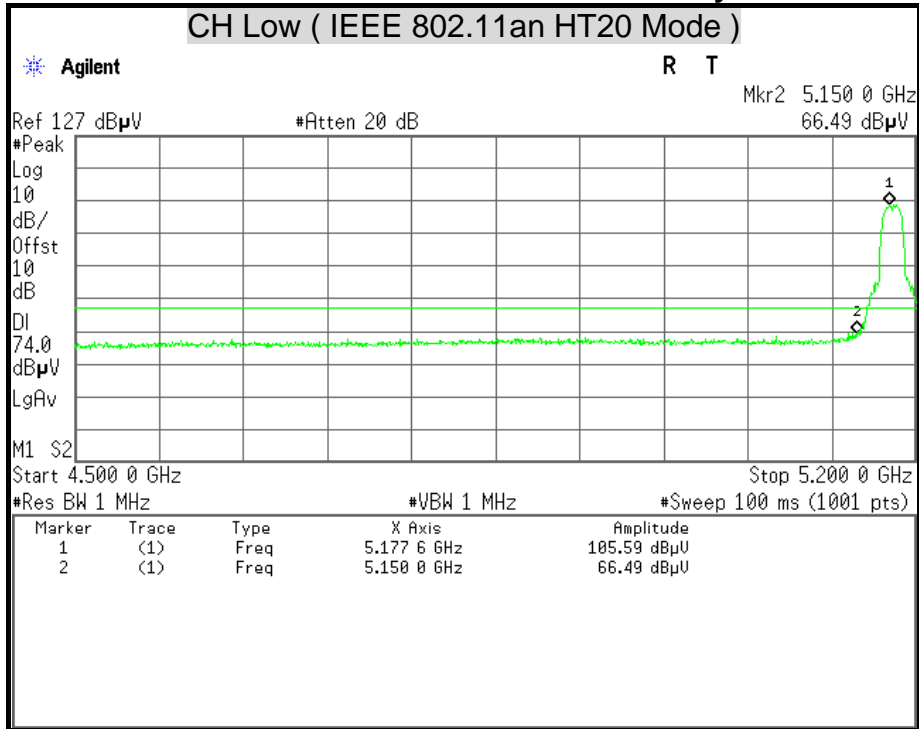
Polarity : Vertical





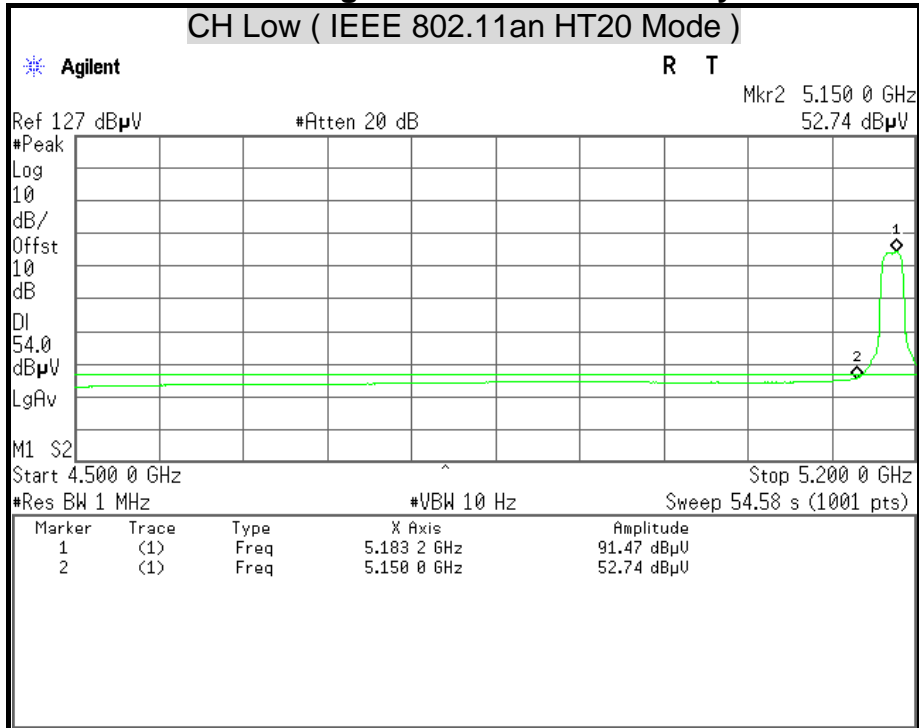
Detector Mode : Peak

Polarity : Horizontal



Detector Mode : Average

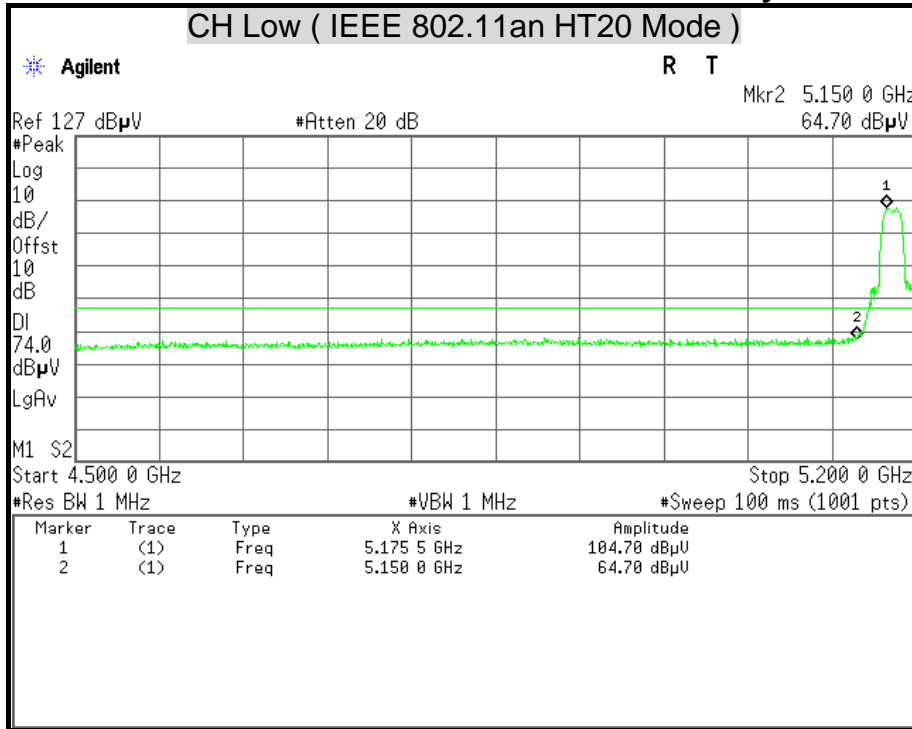
Polarity : Horizontal





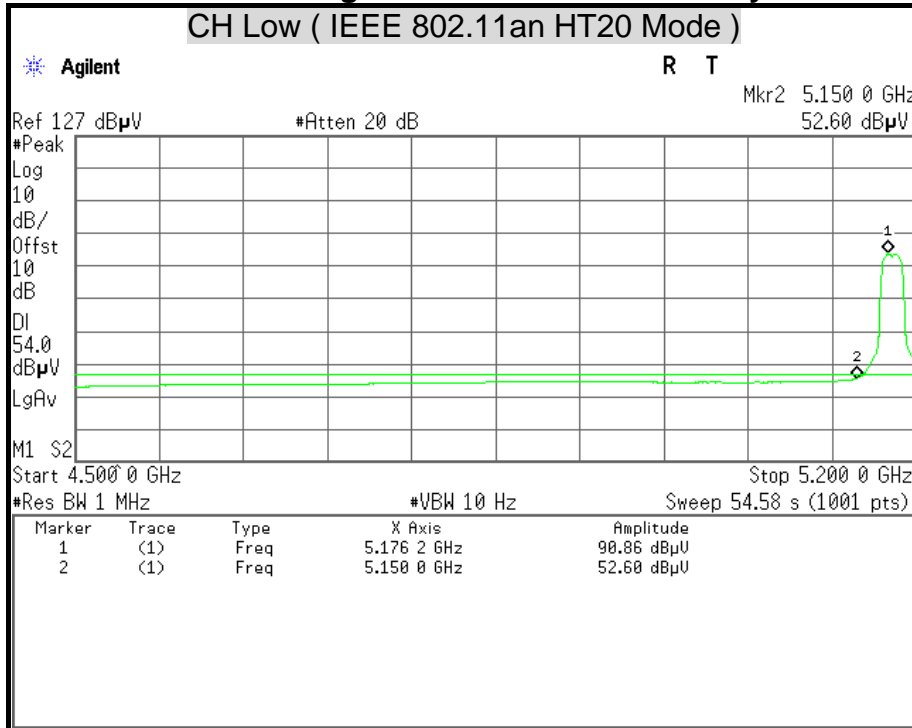
Detector Mode : Peak

Polarity : Vertical



Detector Mode : Average

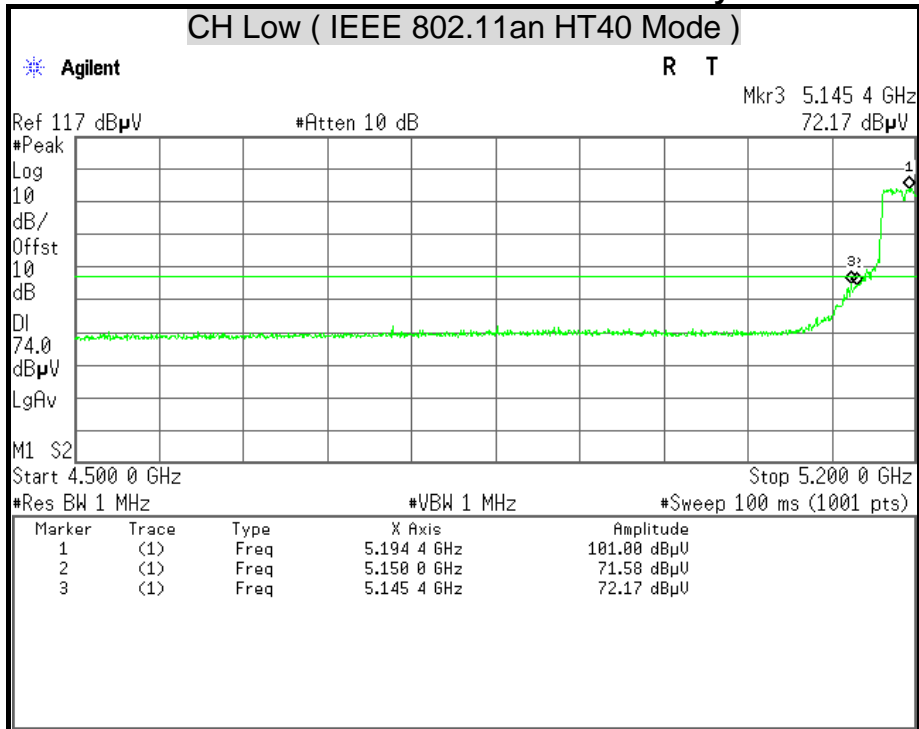
Polarity : Vertical





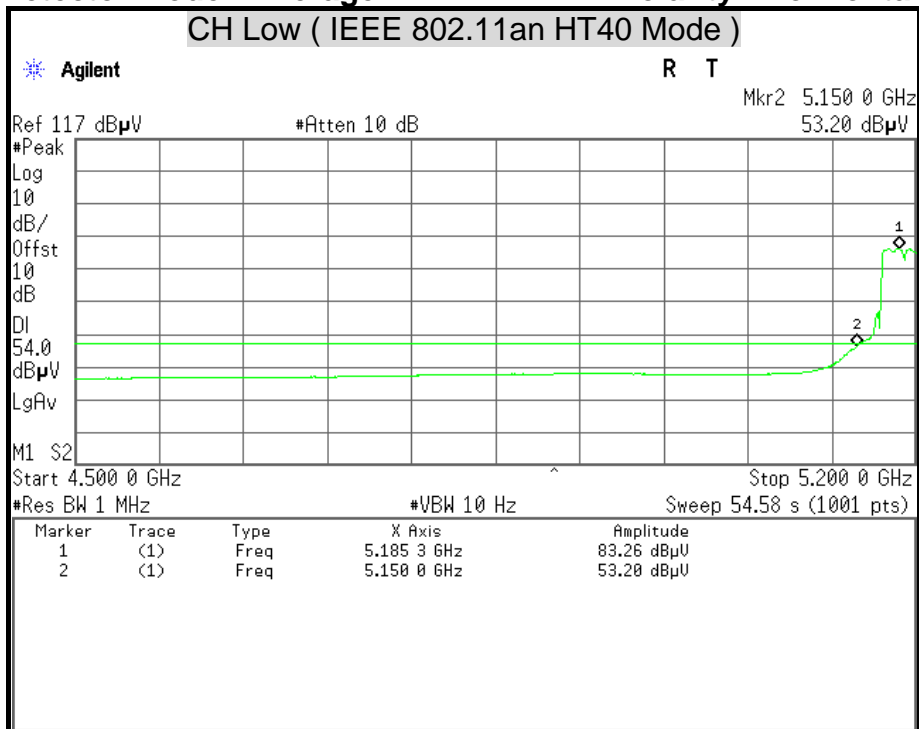
**Detector Mode : Peak**

**Polarity : Horizontal**



**Detector Mode : Average**

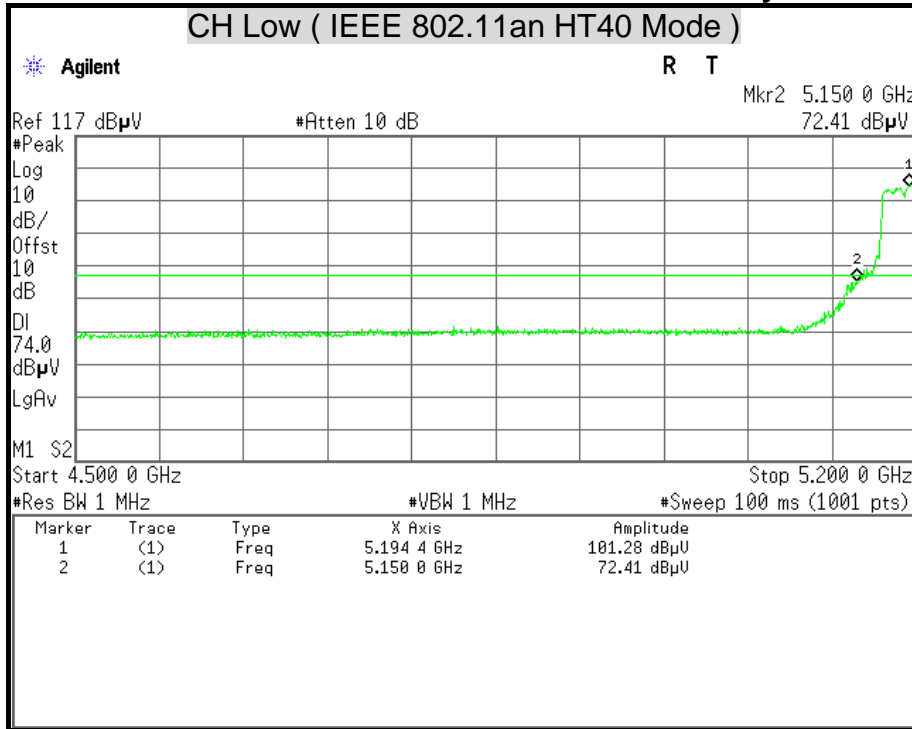
**Polarity : Horizontal**





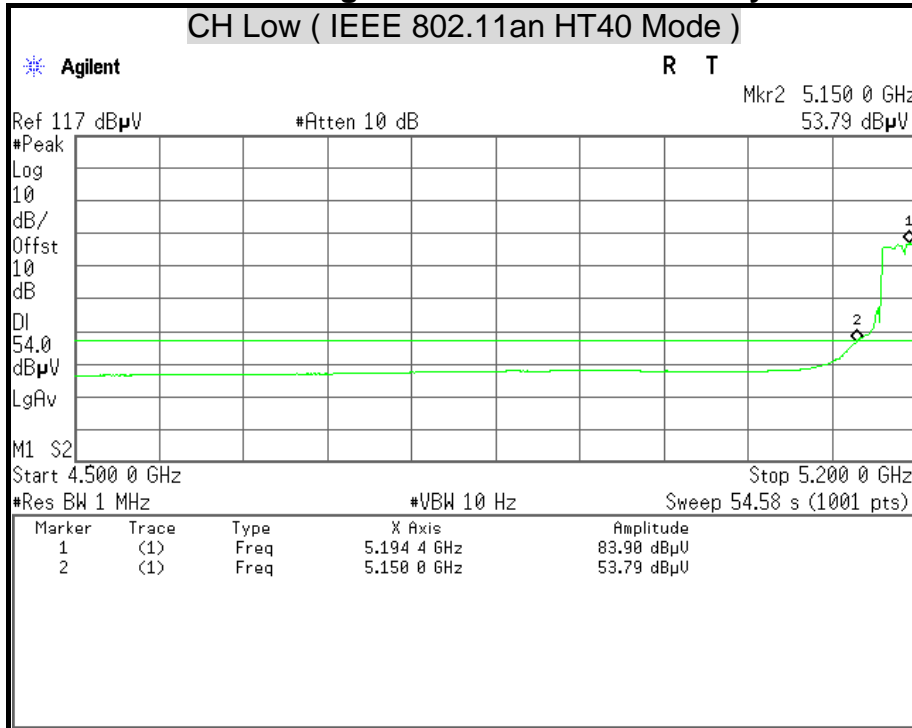
Detector Mode : Peak

Polarity : Vertical



Detector Mode : Average

Polarity : Vertical







## 7.7 CONDUCTED EMISSION

### LIMITS

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Conducted Limit (dB $\mu$ v)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5.00	56	46
5.00 - 30.0	60	50

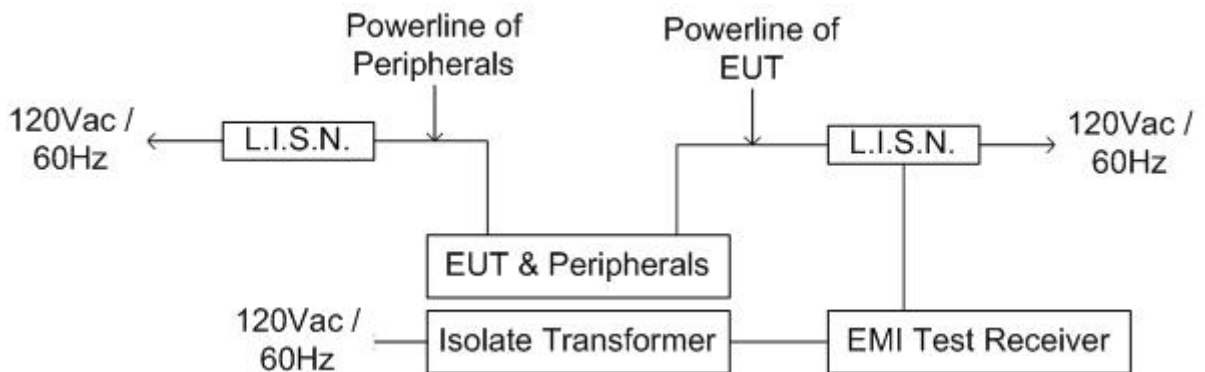
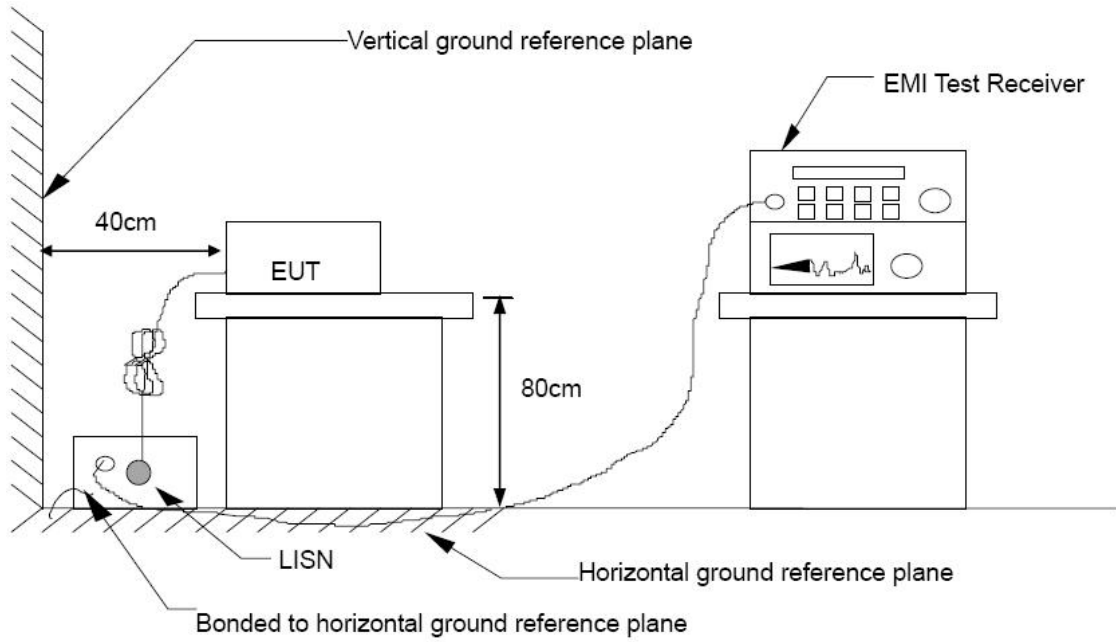
### TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-465	08/11/2014
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-473	03/10/2015
EMI Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/16/2014
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	100117	07/01/2014

*Remark: Each piece of equipment is scheduled for calibration once a year.*



**TEST SETUP**





## **TEST PROCEDURE**

The basic test procedure was in accordance with ANSI C63.4:2009.

The test procedure is performed in a 4m x 3m x 2.4m (LxWxH) shielded room.

The EUT along with its peripherals were placed on a 1.0m (W) x 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.

The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.

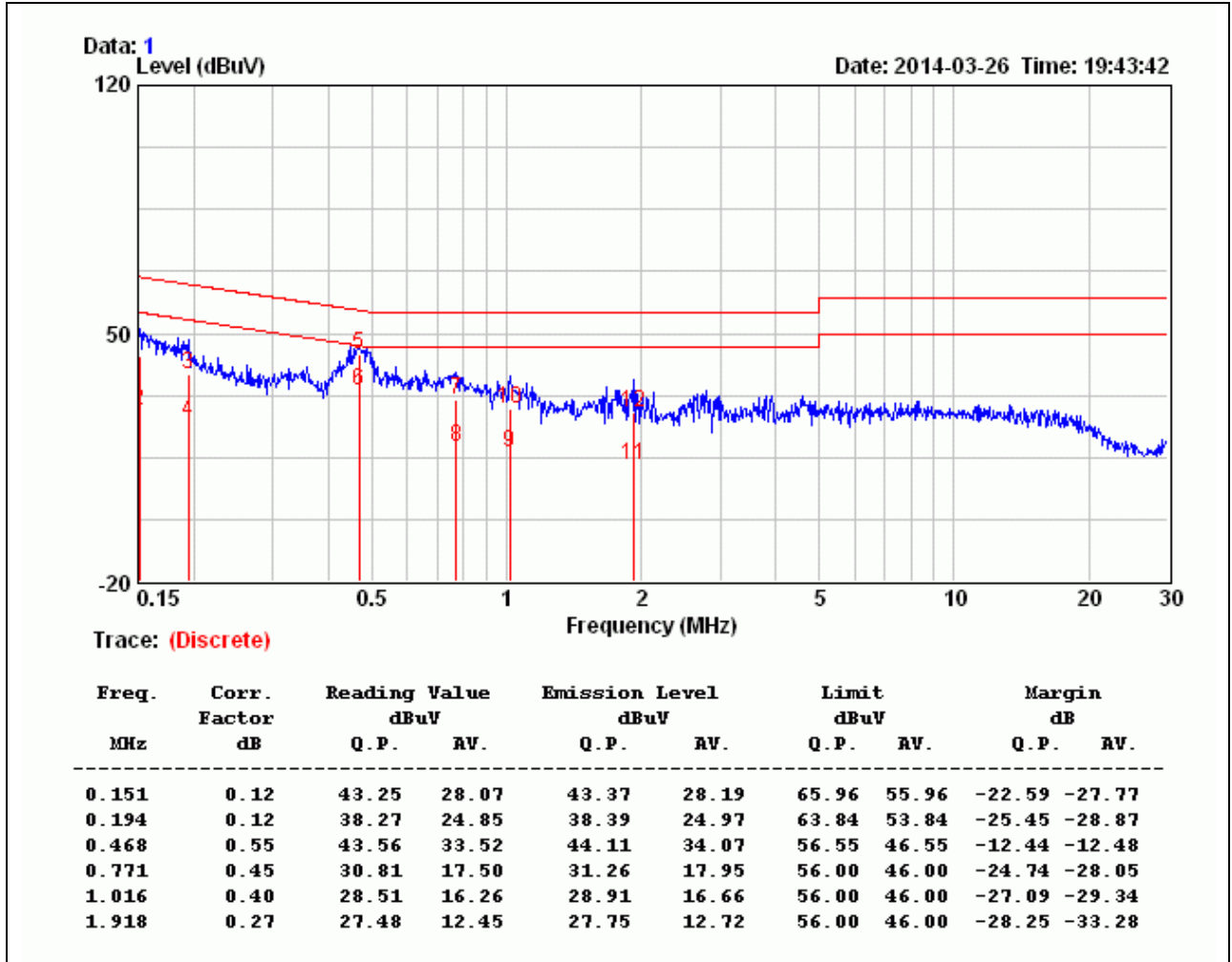
The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.



TEST RESULTS

Product Name	DreamTab HD8	Test By	Alan Wu
Test Model	DMTAB-IN08A	Test Date	2014/03/26
Test Mode	Charge Mode + Play Video	Temp. & Humidity	21 °C, 50%

LINE



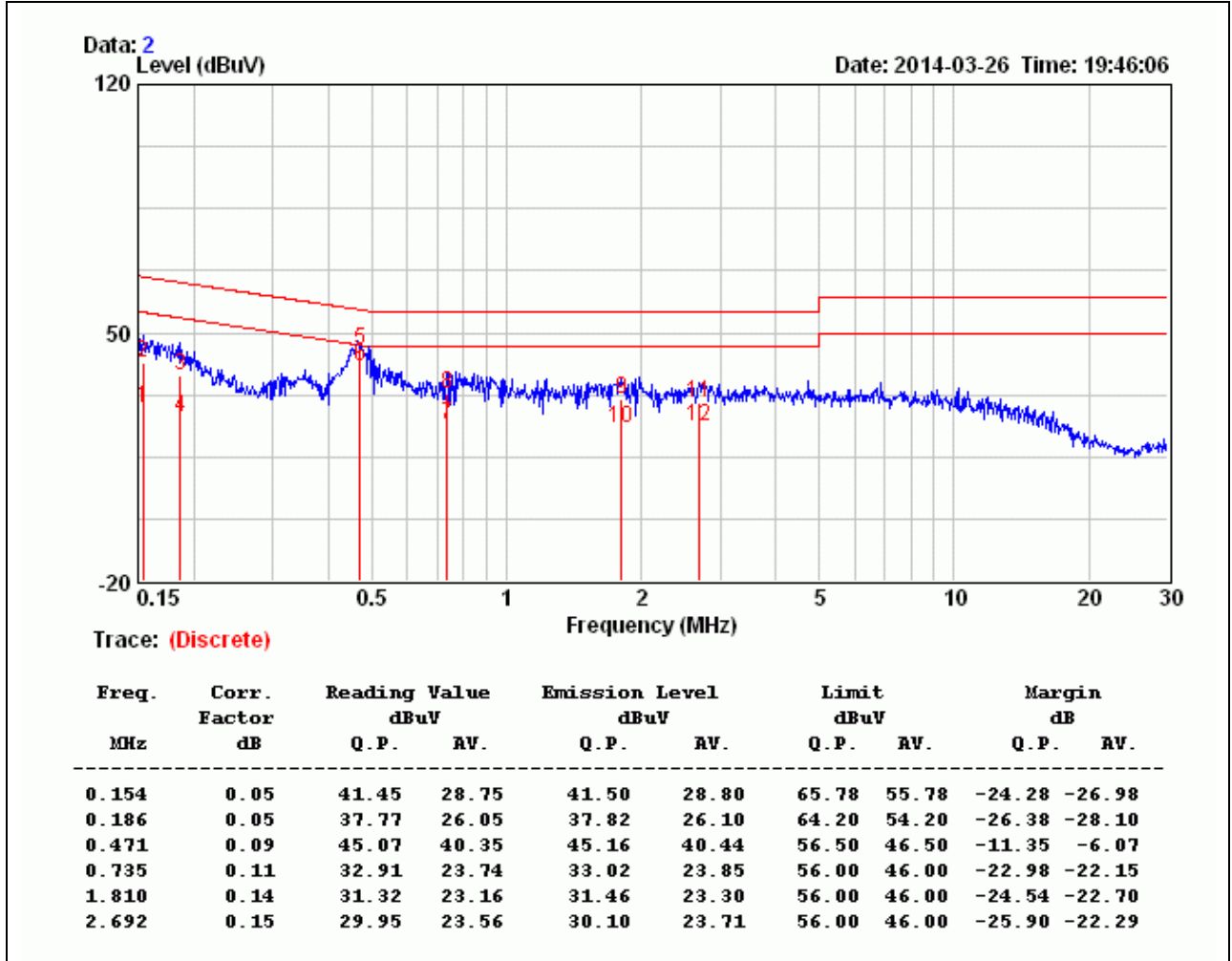
Remark:

1. Correction Factor = Insertion loss + Cable loss
2. Emission level = Reading Value + Correction factor
3. Margin value = Emission level – Limit value



<b>Product Name</b>	DreamTab HD8	<b>Test By</b>	Alan Wu
<b>Test Model</b>	DMTAB-IN08A	<b>Test Date</b>	2014/03/26
<b>Test Mode</b>	Charge Mode + Play Video	<b>Temp. &amp; Humidity</b>	21°C, 50%

NEUTRAL



Remark:

1. Correction Factor = Insertion loss + Cable loss
2. Emission level = Reading Value + Correction factor
3. Margin value = Emission level - Limit value