

FCC RADIO TEST REPORT

FCC ID: 2AIKX-A17

Product : All in one PC

Trade Name : Fusion5

Model Name : A17

Serial Model : A15, A19, A21, A23

Report No. : BZT- 2017050293R

Prepared for

F5CS LTD

19C Trolley Sq Wilmington Delaware 19806 USA

Prepared by

BZT Testing Technology Co., Ltd.

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Bao'an District, Shenzhen P.R. China

TEST RESULT CERTIFICATION

Applicant's name : F5CS LTD
Address : 19C Trolley Sq Wilmington Delaware 19806 USA
Manufacturer's Name..... : Dir Jiangxi Wei Heng Digital Company Limitedector
Address : XinYu National High-tech Industrial Development Zone

Product description

Product name : All in one PC
Model and/or type reference : A17, A15, A19, A21,A23

Standards : FCC Part15.247

Test procedure ANSI C63.10: 2013

This device described above has been tested by BZT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test :
Date (s) of performance of tests : 27 May. 2017 ~30 May. 2017
Date of Issue..... : 30 May. 2017
Test Result..... : **Pass**

Testing Engineer : 

(Ken Li)

Technical Manager : 

(Jimmy Yao)

Authorized Signatory : 

(Terry Yang)

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.205	Band Edge Emission	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

1.1 TEST FACILITY

BZT Testing Technology Co., Ltd
Add.: Buliding 17,Xinghua Road Xingwei industrial Park Fuyong,Baoan
District, Shenzhen,Guangdong,China

FCC-Registration No.: 701733

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	All in one PC	
Trade Name	Fusion5	
Model Name	A17	
Serial Model	A15, A19, A21,A23	
Model Difference	All the same,only model name is different	
Product Description	The EUT is a All in one PC	
	Operation Frequency:	802.11b/g/n(20MHz):2412~2462 MHz 802.11n(40MHz):2422~2452
	Modulation Type:	CCK/OFDM/DBPSK/DAPSK
	Bit Rate of Transmitter	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n(20MHz):150/144.44/130/117/115.56/104/86.67/78/52/6.5Mbps 802.11n(40MHz):300/270/240/180/150/120/108/90/54 Mbps
	Number Of Channel	802.11b/g/n20MHz:11CH 802.11n40MHz:7CH
	Antenna Designation:	Please see Note 3.
	Output Power(Conducted):	19.95 dBm (Max.)
	Channel List	Please refer to the Note 2.
Adapter	Model:IL301 Input: AC 100-240V, 50/60Hz, 0.75A Output:DC 12V, 2A	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

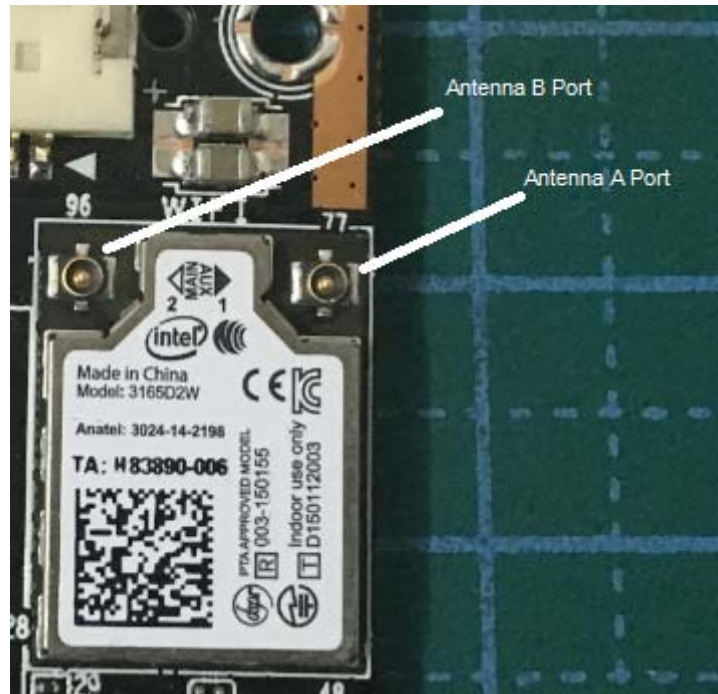
Channel List for 802.11b/g/n(20)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

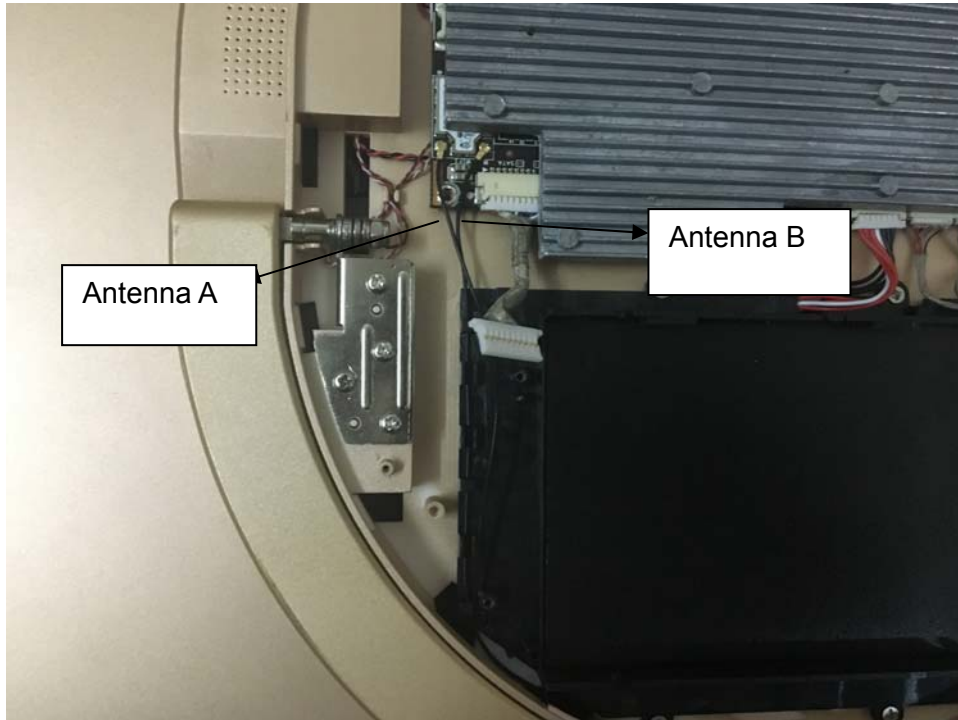
Channel List for 802.11n(40MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	06	2437	09	2452		
04	2427	07	2442				
05	2432	08	2447				

3.

Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
A	N/A	N/A	Internal Antenna	N/A	0.8	Wifi Antenna
B	N/A	N/A	Internal Antenna	N/A </td <td>0.8</td> <td>Wifi Antenna</td>	0.8	Wifi Antenna





The Control software(tool_WIFI.exe) can control antenna A B ,
 For 2.4GHz mode, antenna A B are transmitting, Two antennas simultaneously transmit in MIMO mode.And the data is recorded for radiated emission and band edge.
 For MIMO mode , Directional gain= $G_{ANT} + 10\log(N)$ dbi =3.8dbi in 2.4GHz

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n20 CH1/ CH6/ CH11
Mode 4	802.11n40 CH3/ CH6/ CH9
Mode 5	Link Mode

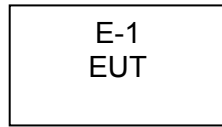
For Conducted Emission	
Final Test Mode	Description
Mode 5	Link Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n20 CH1/ CH6/ CH11
Mode 4	802.11n40 CH3/ CH6/ CH9
Mode 5	Link Mode

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	All in one PC	Fusion5	A17	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2016.07.06	2017.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2017.06.07	2018.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2016.07.06	2017.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2017.06.07	2018.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2017.06.07	2018.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2016.07.06	2017.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2016.07.06	2017.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2016.12.22	2017.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2017.06.08	2018.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2016.07.06	2017.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2016.07.06	2017.07.05	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2017.06.06	2018.06.05	1 year
2	LISN	R&S	ENV216	101313	2016.08.24	2017.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2016.08.24	2017.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2017.06.07	2018.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2017.06.07	2018.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2017.06.08	2018.06.07	1 year

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class B (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	CISPR
5.0 -30.0	60.00	50.00	CISPR

0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

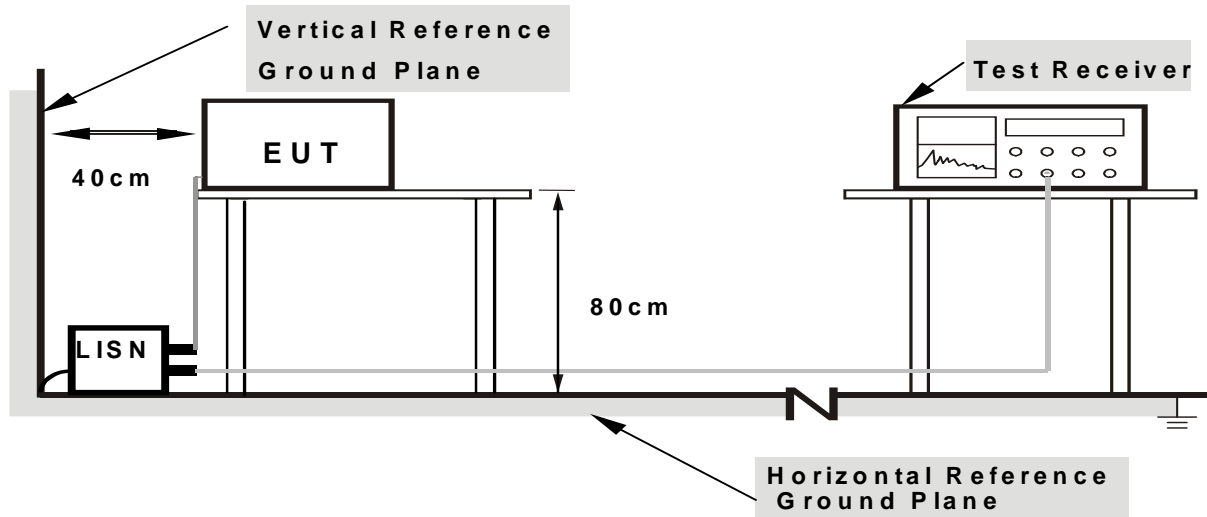
3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

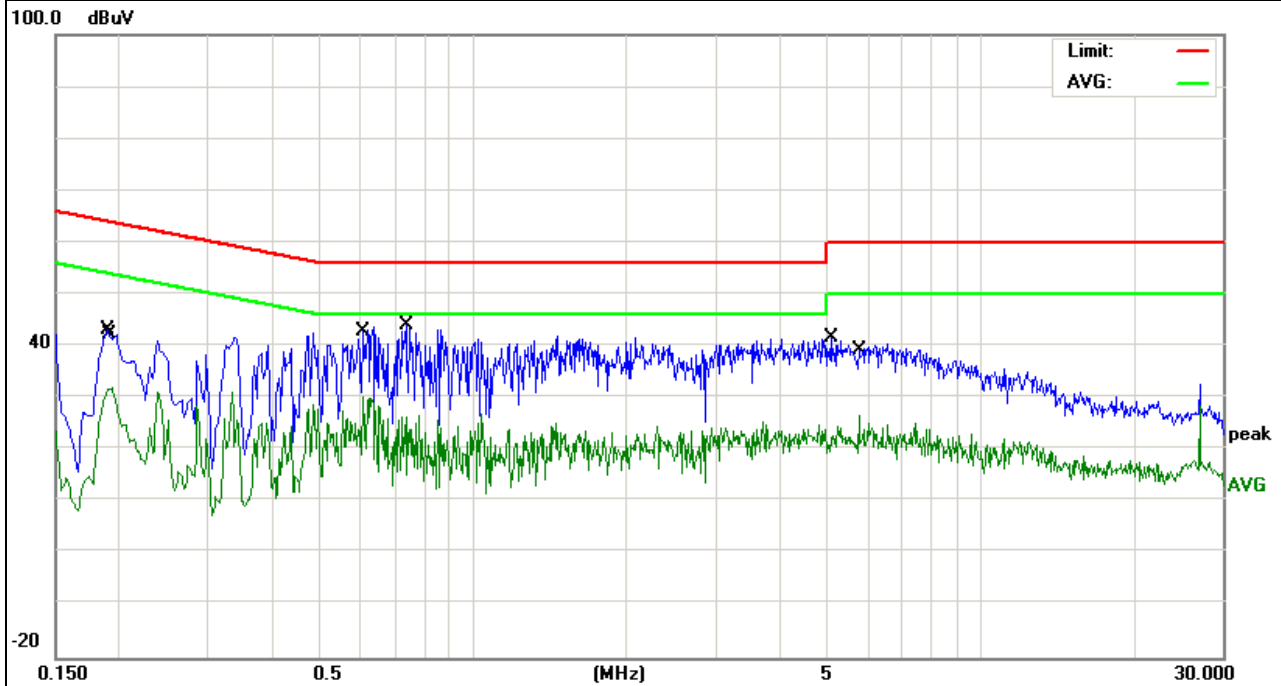
3.1.6 TEST RESULTS

EUT :	All in one PC	Model Name. :	A17
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 5

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Detector Type
0.19	32.86	10.4	43.26	64.03	-20.77	QP
0.194	21.54	10.41	31.95	53.86	-21.91	AVG
0.6058	19.92	10.4	30.32	46	-15.68	AVG
0.7378	33.61	10.41	44.02	56	-11.98	QP
5.0579	30.91	10.67	41.58	60	-18.42	QP
5.7458	15.89	10.67	26.56	50	-23.44	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

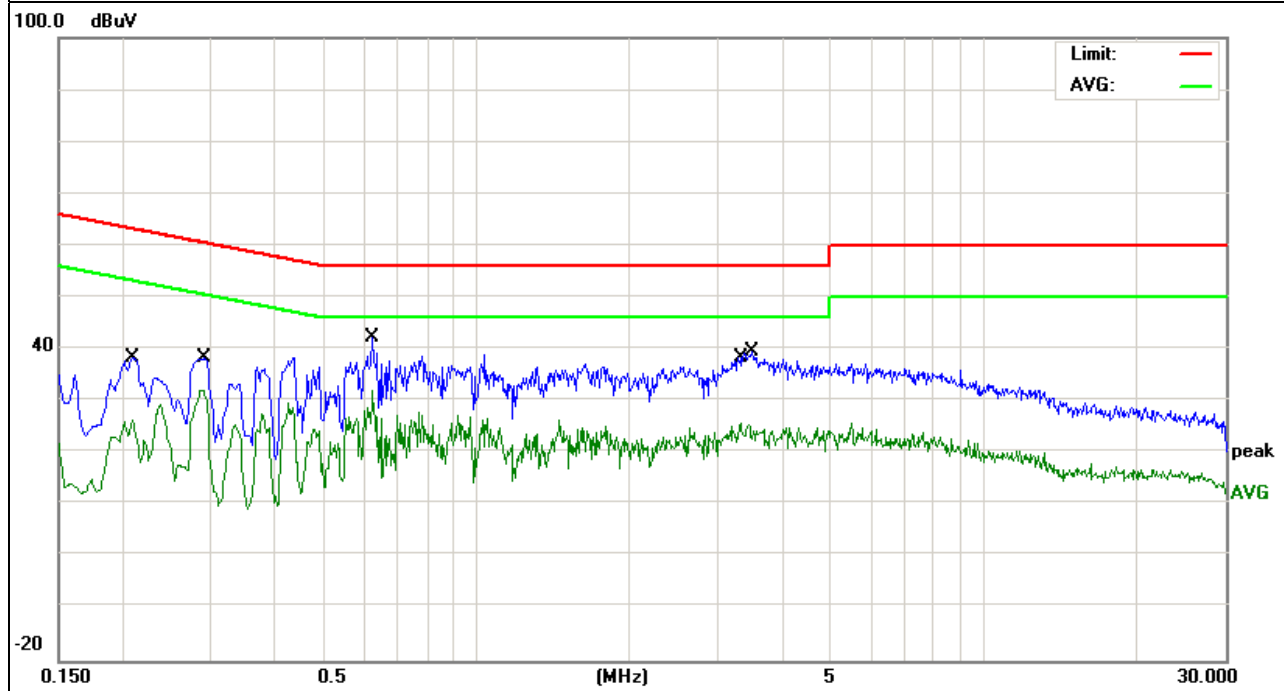


EUT :	All in one PC	Model Name. :	A17
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 5

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Detector Type
0.2099	28.01	10.44	38.45	63.21	-24.76	QP
0.2859	21.65	10.43	32.08	50.64	-18.56	AVG
0.626	31.99	10.41	42.4	56	-13.6	QP
0.626	21.76	10.41	32.17	46	-13.83	AVG
3.322	15.15	10.53	25.68	46	-20.32	AVG
3.5019	28.89	10.6	39.49	56	-16.51	QP

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. '*' means the worst case



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (microrvolts/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

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

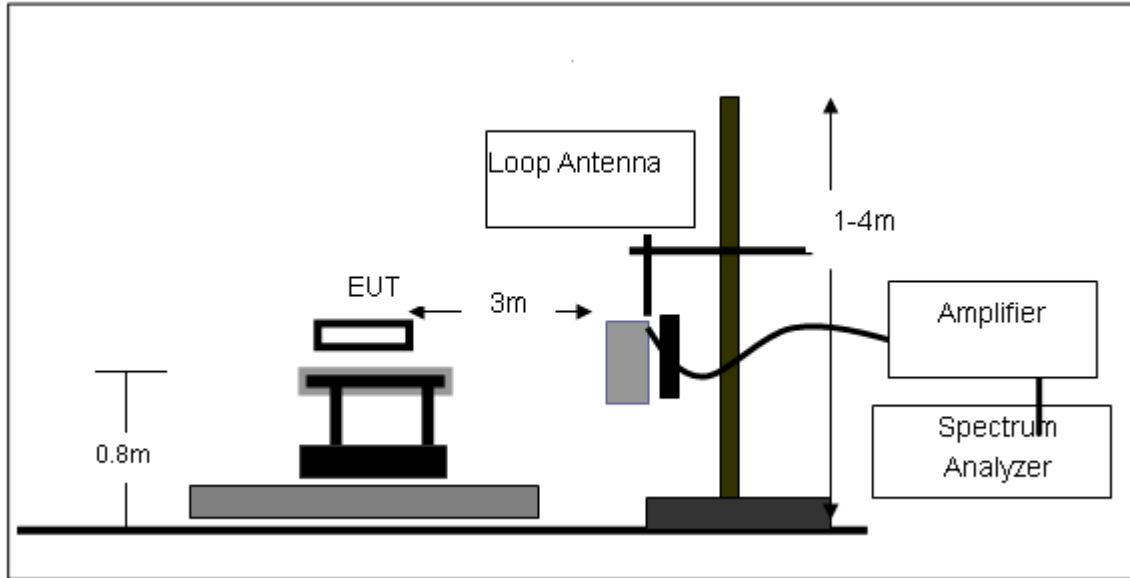
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

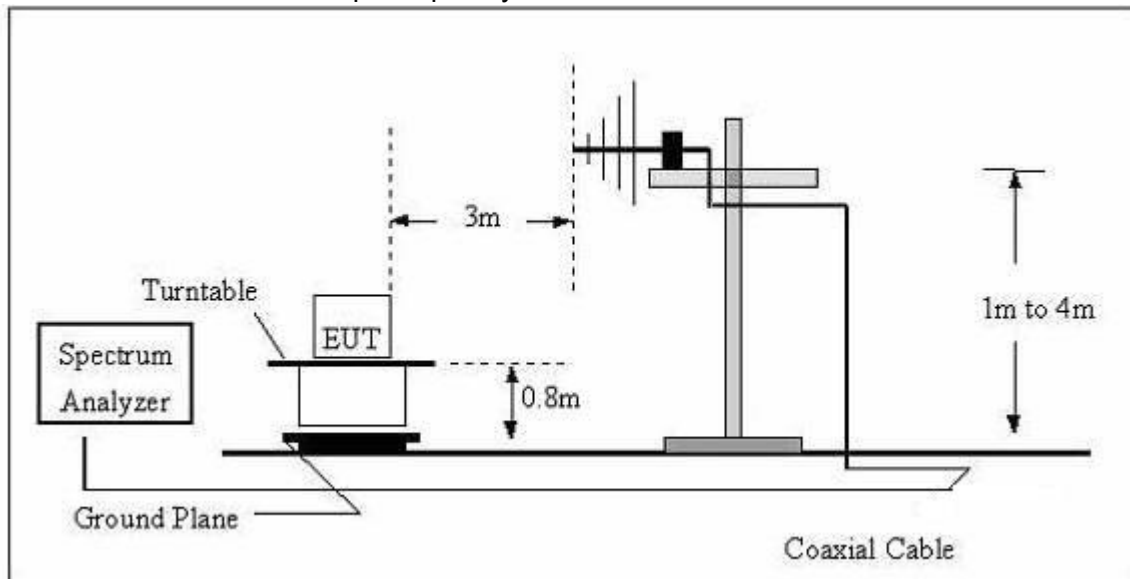
No deviation

3.2.4 TEST SETUP

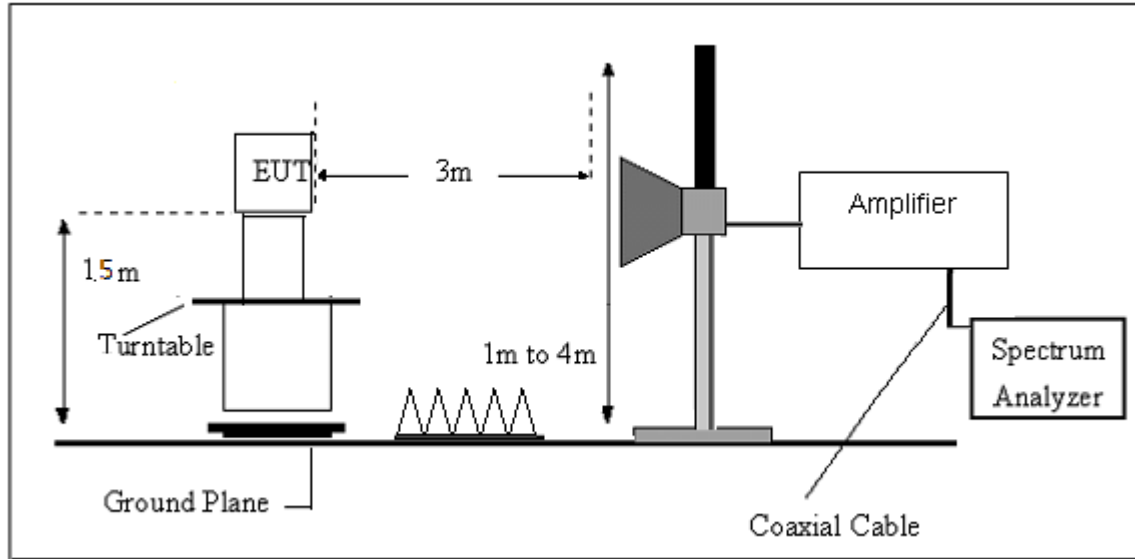
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING 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.

3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

EUT:	All in one PC	Model Name. :	A17
Temperature:	20 °C	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	AC 120V
Test Mode :	TX	Polarization :	--

Freq. (MHz)	Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	State P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

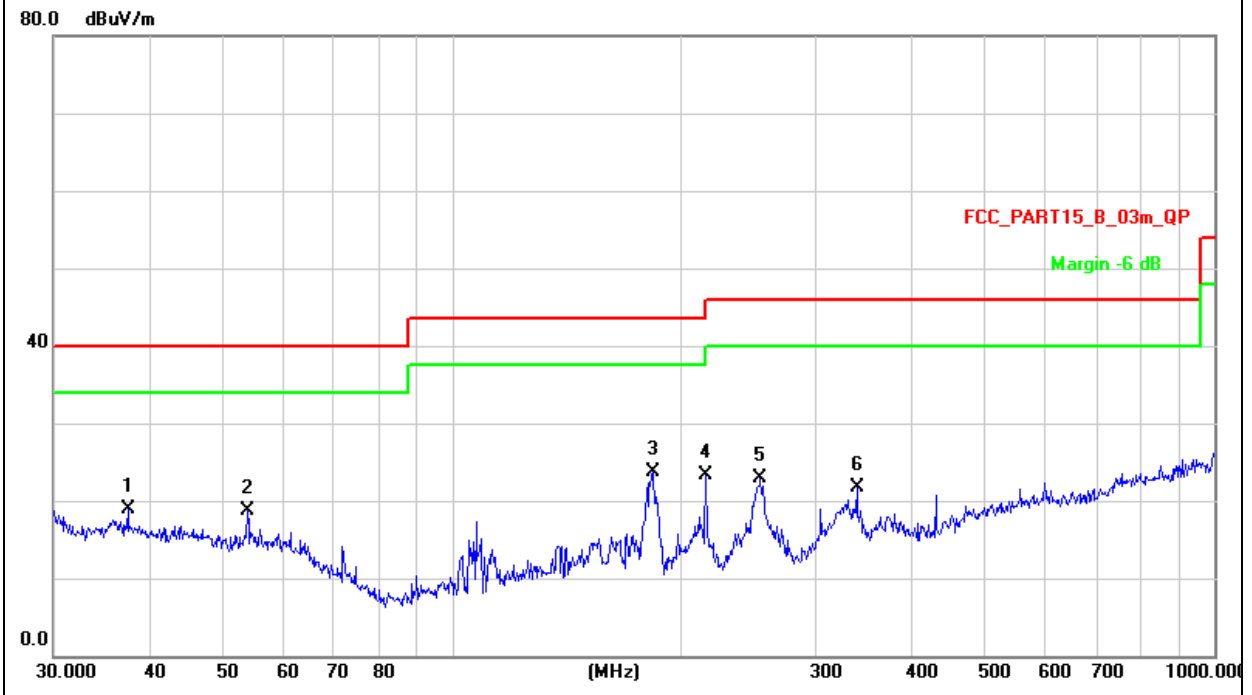
EUT :	All in one PC	Model Name :	A17
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Polarization :	Horizontal
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
37.5479	27.55	-8.73	18.82	40.00	-21.18	QP
53.8818	29.57	-10.93	18.64	40.00	-21.36	QP
183.2005	38.44	-14.73	23.71	43.50	-19.79	QP
215.2678	39.09	-15.77	23.32	43.50	-20.18	QP
253.8367	37.06	-14.09	22.97	46.00	-23.03	QP
339.5888	33.35	-11.57	21.78	46.00	-24.22	QP

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

All interfaces was connected, and WIFI TX mode was link.



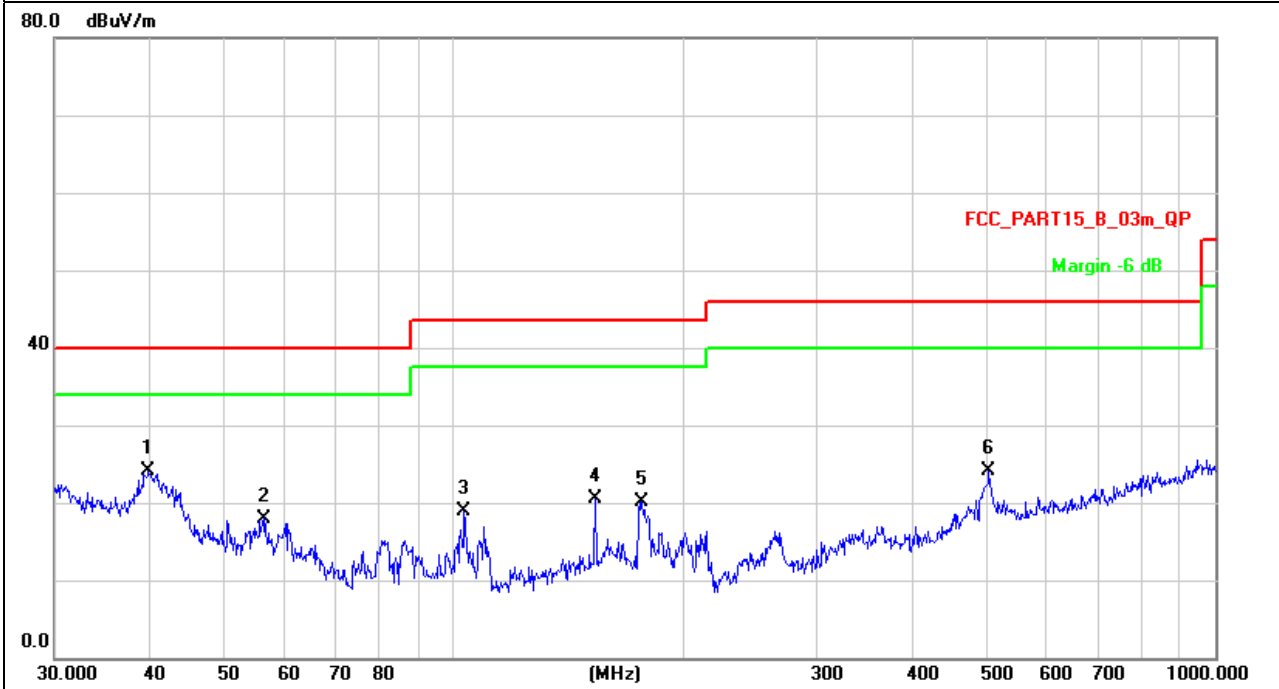
EUT :	All in one PC	Model Name :	A17
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Polarization :	Vertical
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
39.8542	32.98	-8.84	24.14	40.00	-15.86	QP
56.5929	29.25	-11.25	18.00	40.00	-22.00	QP
103.4421	35.13	-16.19	18.94	43.50	-24.56	QP
153.7385	33.34	-12.86	20.48	43.50	-23.02	QP
176.8878	34.26	-14.07	20.19	43.50	-23.31	QP
504.7062	32.25	-8.12	24.13	46.00	-21.87	QP

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

All interfaces was connected, and WIFI TX mode was link.



3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

802.11b/2412MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2412							
V	4824.642	67.44	-3.60	63.84	74.00	-10.16	Pk
V	4824.642	46.28	-3.60	42.68	54.00	-11.32	AV
H	4825.246	66.95	-3.58	63.37	74.00	-10.63	Pk
H	4825.246	43.26	-3.58	39.68	54.00	-14.32	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11b/2437MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2437							
V	4874.549	65.19	-3.64	61.55	74.00	-12.45	Pk
V	4874.549	42.57	-3.64	38.93	54.00	-15.07	AV
H	4875.184	64.28	-3.64	60.64	74.00	-13.36	Pk
H	4875.184	41.17	-3.64	37.53	54.00	-16.47	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11b/2462MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2462							
V	4925.016	56.39	-3.64	52.75	74.00	-21.25	pk
H	4923.864	55.48	-3.66	51.82	74.00	-22.18	pk

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11g/2412MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2412							
V	4823.618	62.57	-3.6	58.97	74.00	-15.03	Pk
V	4823.618	40.61	-3.6	37.01	54.00	-16.99	AV
H	4824.197	63.22	-3.6	59.62	74.00	-14.38	Pk
H	4824.197	42.08	-3.6	38.48	54.00	-15.52	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11g/2437MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2437							
V	4873.291	63.17	-3.63	59.54	74.00	-14.46	Pk
V	4873.291	41.24	-3.63	37.61	54.00	-16.39	AV
H	4874.609	60.48	-3.64	56.84	74.00	-17.16	Pk
H	4874.609	40.83	-3.64	37.19	54.00	-16.81	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11g/2462MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2462							
V	4924.527	55.21	-3.60	51.61	74.00	-22.39	pk
H	4923.256	56.09	-3.66	52.43	74.00	-21.57	pk

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11n(20MHz)/2412MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2412							
V	4825.307	62.18	-3.58	58.6	74.00	-15.40	Pk
V	4825.307	41.97	-3.58	38.39	54.00	-15.61	AV
H	4824.592	61.27	-3.60	57.67	74.00	-16.33	Pk
H	4824.592	39.58	-3.60	35.98	54.00	-18.02	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11n(20MHz)/2437MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2437							
V	4875.627	63.17	-3.63	59.54	74.00	-14.46	Pk
V	4875.627	41.24	-3.63	37.61	54.00	-16.39	AV
H	4873.834	60.48	-3.64	56.84	74.00	-17.16	Pk
H	4873.834	40.83	-3.64	37.19	54.00	-16.81	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11n(20MHz)/2462MHz

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2462							
V	4922.907	59.67	-3.64	56.03	74.00	-17.97	pk
V	4922.907	37.19	-3.64	33.55	54.00	-20.45	AV
H	4925.648	55.94	-3.66	52.28	74.00	-21.72	pk

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11n(40MHz)

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2422							
V	4845.429	65.27	-3.53	61.74	74.00	-12.26	Pk
V	4845.429	44.28	-3.53	40.75	54.00	-13.25	AV
H	4843.291	66.97	-3.54	63.43	74.00	-10.57	Pk
H	4843.291	40.58	-3.54	37.04	54.00	-16.96	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11n(40MHz)

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2437							
V	4873.608	63.82	-3.64	60.18	74.00	-13.82	Pk
V	4873.608	40.17	-3.64	36.53	54.00	-17.47	AV
H	4876.059	62.84	-3.64	59.2	74.00	-14.8	Pk
H	4876.059	39.56	-3.64	35.92	54.00	-18.08	AV

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

802.11n(40MHz)

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2452							
V	4902.872	59.84	-3.75	56.09	74.00	-17.91	pk
V	4902.872	41.27	-3.75	37.52	54.00	-16.48	AV
H	4905.247	61.85	-3.74	58.11	74.00	-15.89	pk
H	4905.247	40.17	-3.74	36.43	54.00	-17.57	pk

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Limit- Absolute Level

Radiated band edge:

Frequency (MHz)	Meter Reading (dB μ V)	Factor (dB)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Detector Type	Comment
802.11b							
2390	61.97	-12.99	48.98	74	-25.02	peak	Vertical
2390	58.88	-12.99	45.89	74	-28.11	peak	Horizontal
2483.5	50.78	-12.78	38.00	74	-36.00	peak	Vertical
2483.5	50.63	-12.78	37.85	74	-35.69	peak	Horizontal
802.11g							
2390	56.44	-12.99	43.45	74	-30.55	peak	Vertical
2390	59.38	-12.99	46.39	74	-27.61	peak	Horizontal
2483.5	52.42	-12.78	39.64	74	-34.46	peak	Vertical
2483.5	51.11	-12.78	38.43	74	-35.57	peak	Horizontal
802.11n(20)							
2390	57.26	-12.99	44.27	74	-29.73	peak	Vertical
2390	56.15	-12.99	43.16	74	-30.84	peak	Horizontal
2483.5	51.52	-12.78	38.74	74	-34.86	peak	Vertical
2483.5	52.51	-12.78	39.73	74	-34.27	peak	Horizontal
802.11n(40)							
2390	56.44	-12.99	43.45	74	-30.55	peak	Vertical
2390	59.38	-12.99	46.39	74	-27.61	peak	Horizontal
2483.5	50.78	-12.78	38.00	74	-36.00	peak	Vertical
2483.5	50.63	-12.78	37.85	74	-35.69	peak	Horizontal

Note: Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 Factor added by measurement software automatically.
 Emission Level is less(PK) than AV Limits, No need AV lever

4. POWER SPECTRAL DENSITY TEST

4.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

4.1.1 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW \geq 3 kHz.
4. Set the VBW \geq 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

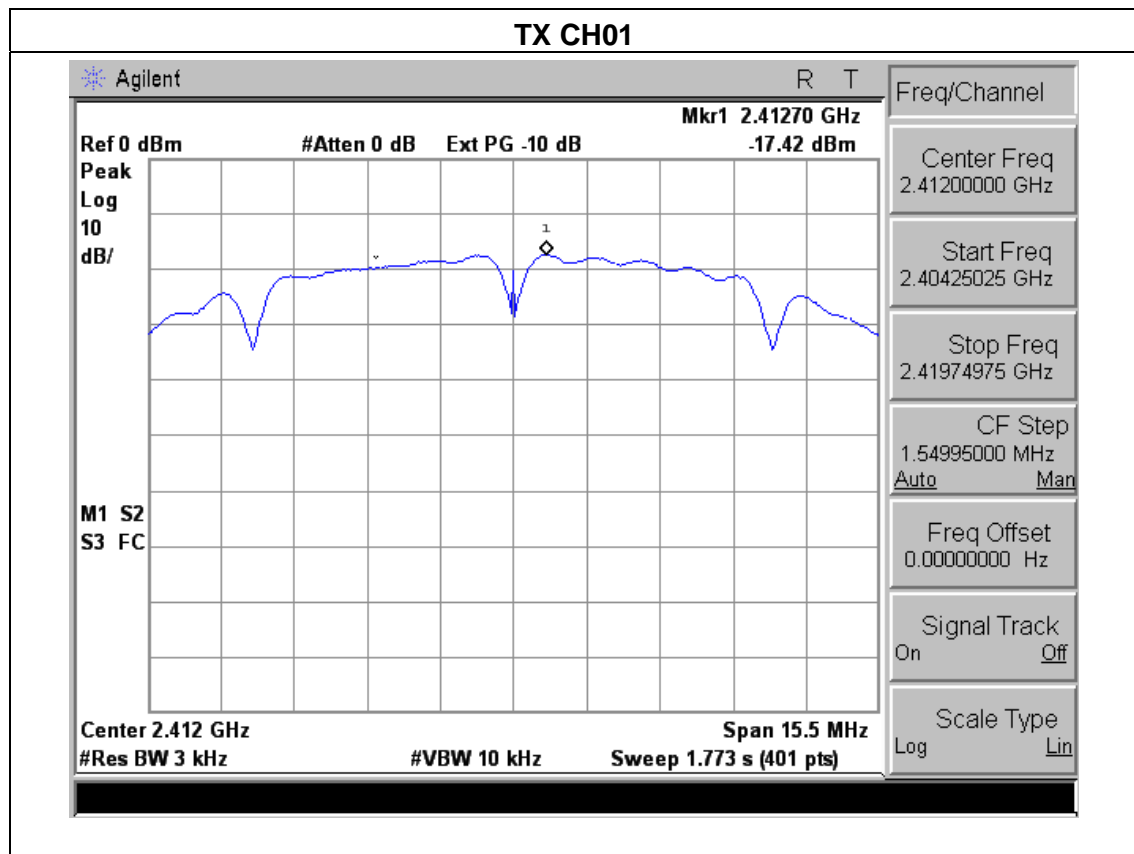
The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

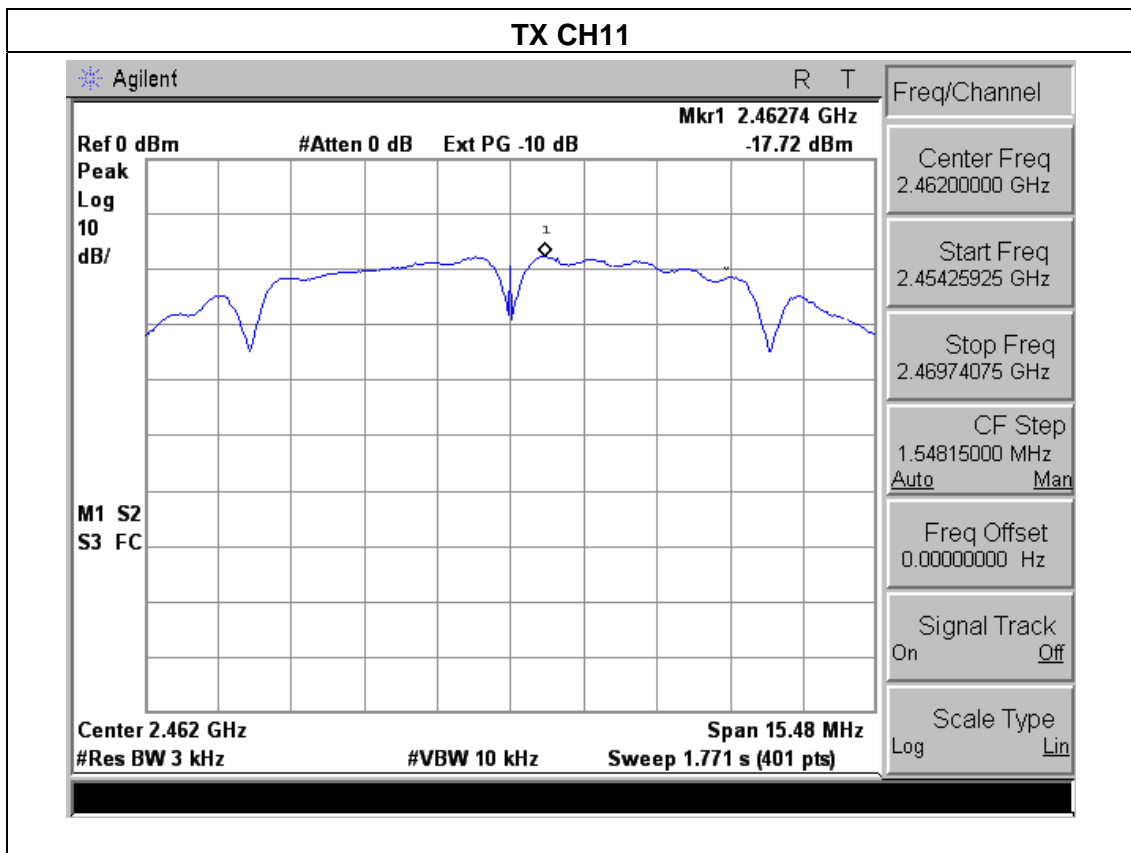
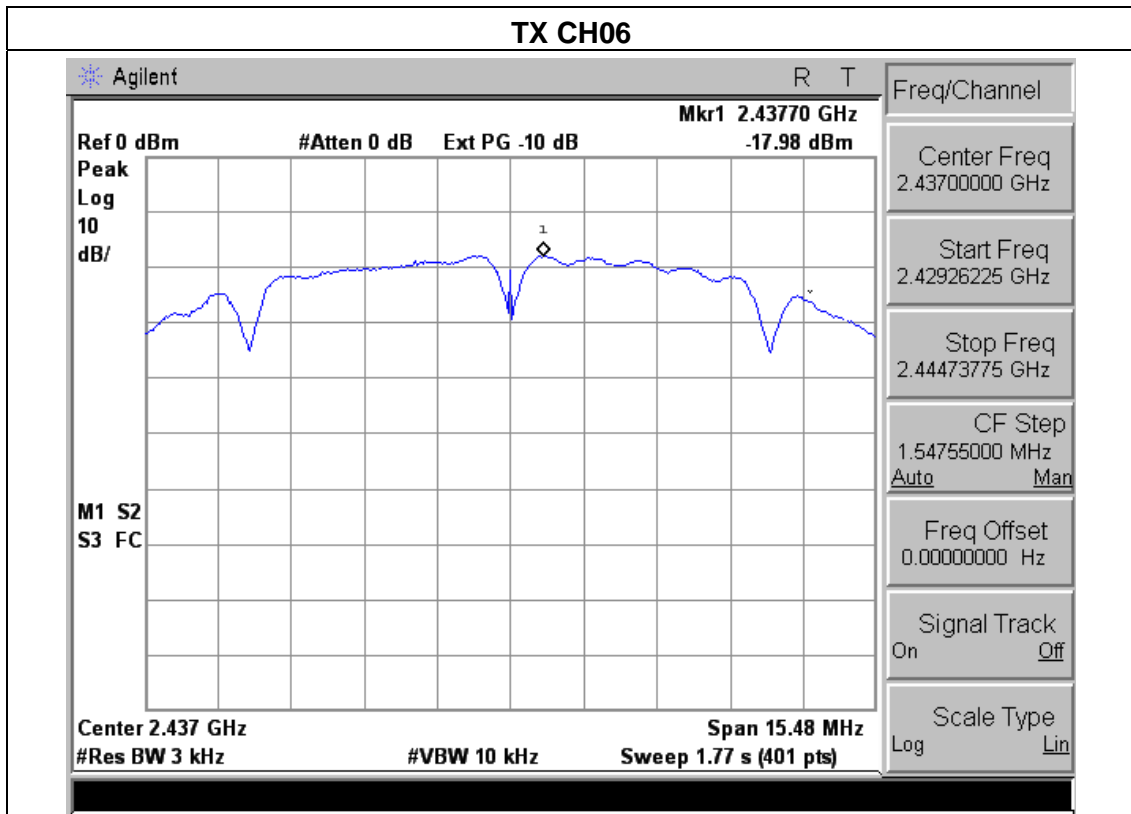
4.1.5 TEST RESULTS

EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1015 hPa	Test Voltage :	AC 120V
Test Mode :	TX b Mode /CH01, CH06, CH11		

Frequency	Power Density A (dBm/3KHz)	Power Density B (dBm/3KHz)	Limit (dBm/3KHz)	Result
2412 MHz	-17.42	-18.12	8	PASS
2437 MHz	-17.98	-18.23	8	PASS
2462 MHz	-17.72	-18.24	8	PASS

NOTE: A B Represent the value of antennaA and B,The worst data is A Antenna a ,only shown Antenna A Plot.

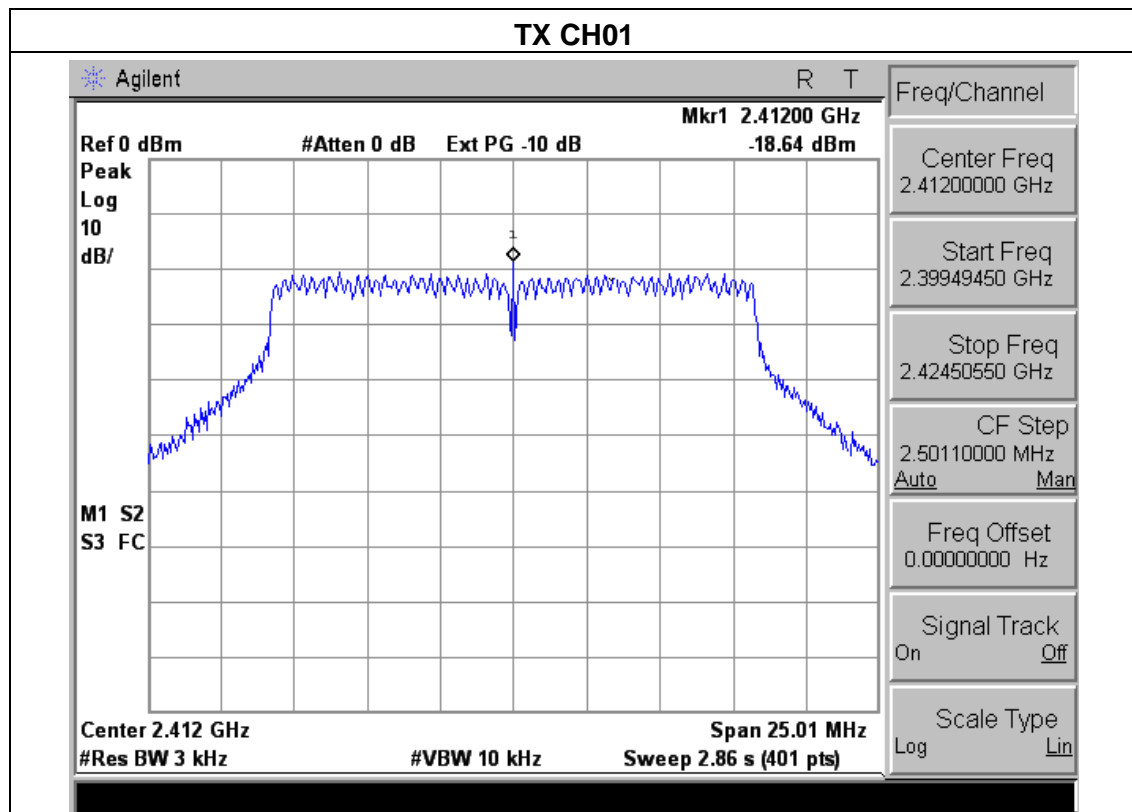


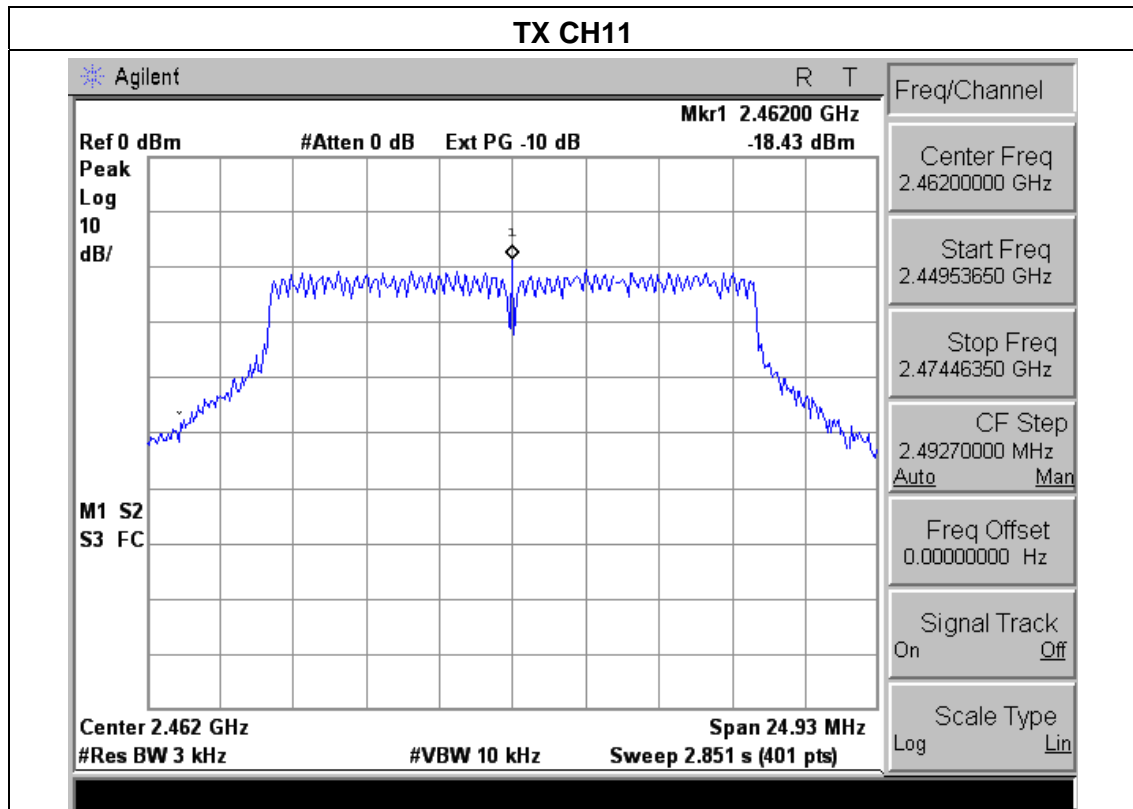
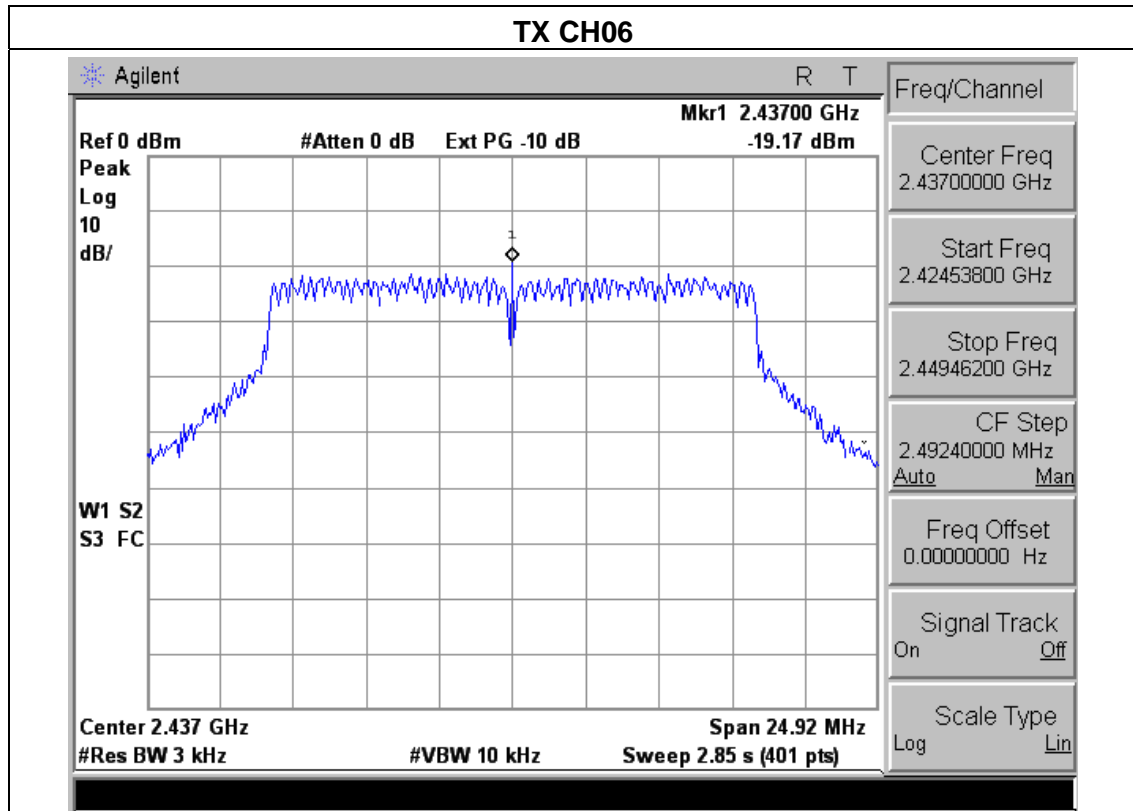


EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1015 hPa	Test Voltage :	AC 120V
Test Mode :	TX g Mode /CH01, CH06, CH11		

Frequency	Power Density A (dBm/3KHz)	Power Density B (dBm/3KHz)	Limit (dBm/3KHz)	Result
2412 MHz	-18.64	-19.12	8	PASS
2437 MHz	-19.17	-19.23	8	PASS
2462 MHz	-18.43	-19.02	8	PASS

NOTE: A B Represent the value of antennaA and B,The worst data is Antenna A ,only show Antenna A Plot.

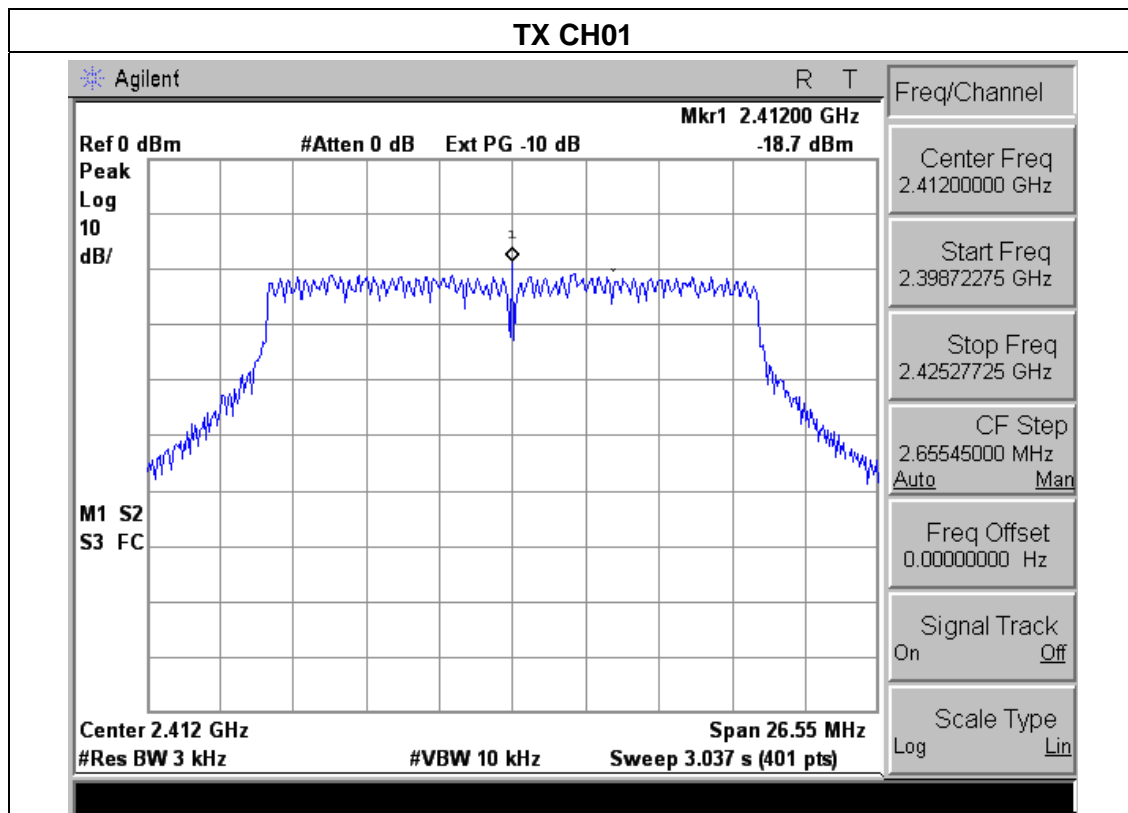


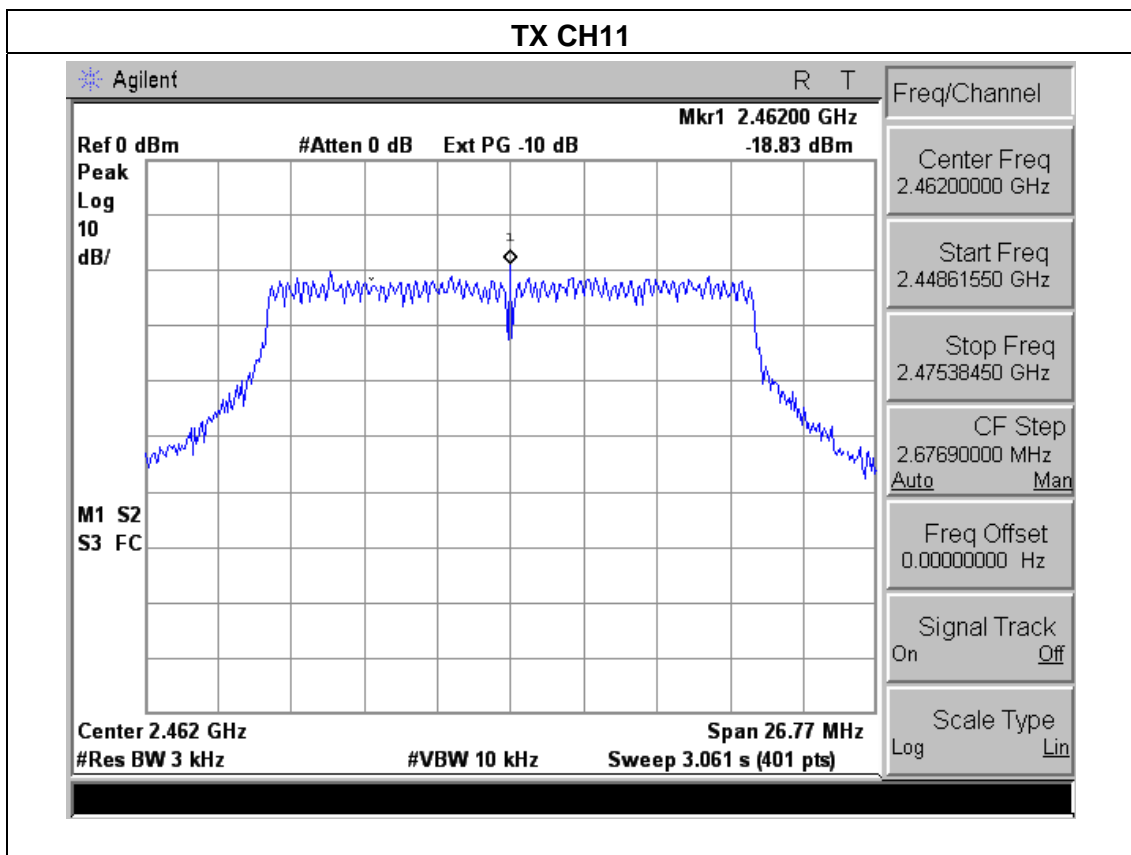
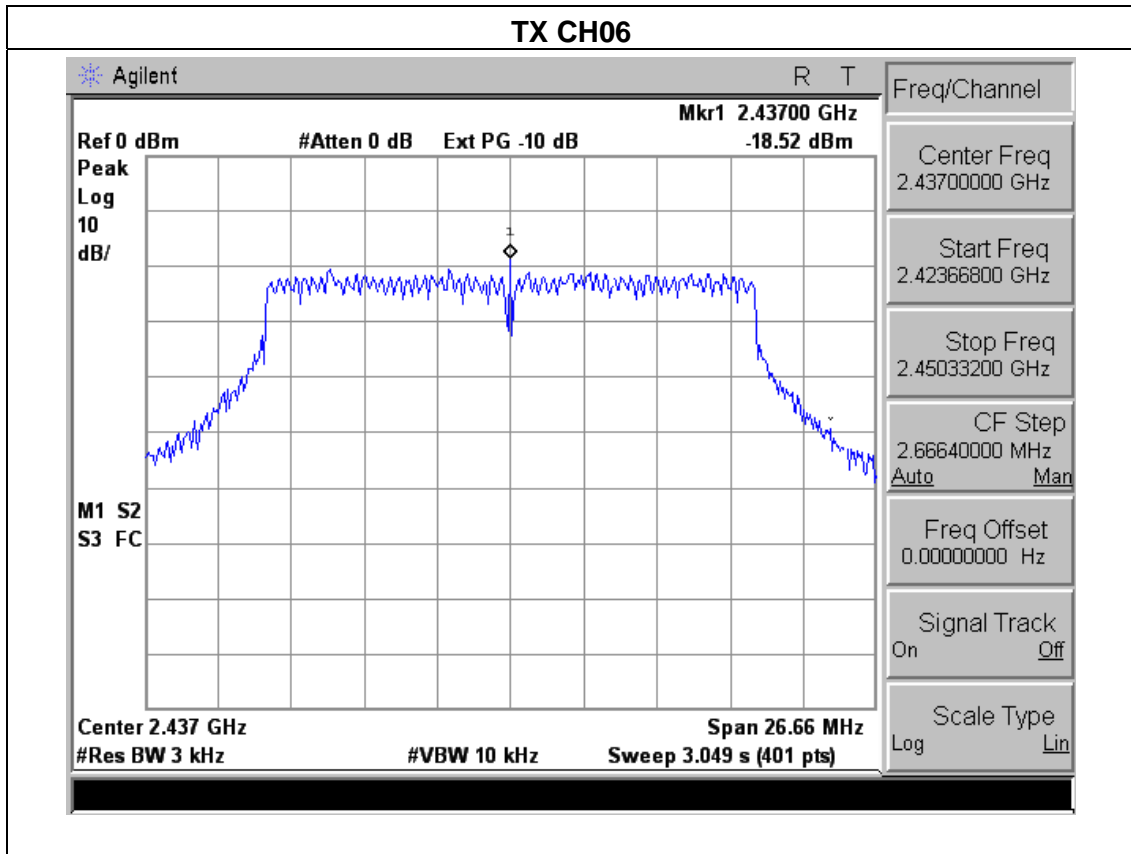


EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1015 hPa	Test Voltage :	AC 120V
Test Mode :	TX n Mode(20M) /CH01, CH06, CH11		

Frequency	Power Density A (dBm/3KHz)	Power Density B (dBm/3KHz)	Total Power Density (dBm/3KHz)	Limit (dBm/3KHz)	Result
2412 MHz	-18.64	-19.12	-15.86	8	PASS
2437 MHz	-19.17	-19.23	-16.19	8	PASS
2462 MHz	-18.43	-19.02	-15.70	8	PASS

NOTE: A B Represent the value of antennaA and B,The worst data is Antenna A ,only shown Antenna A Plot.

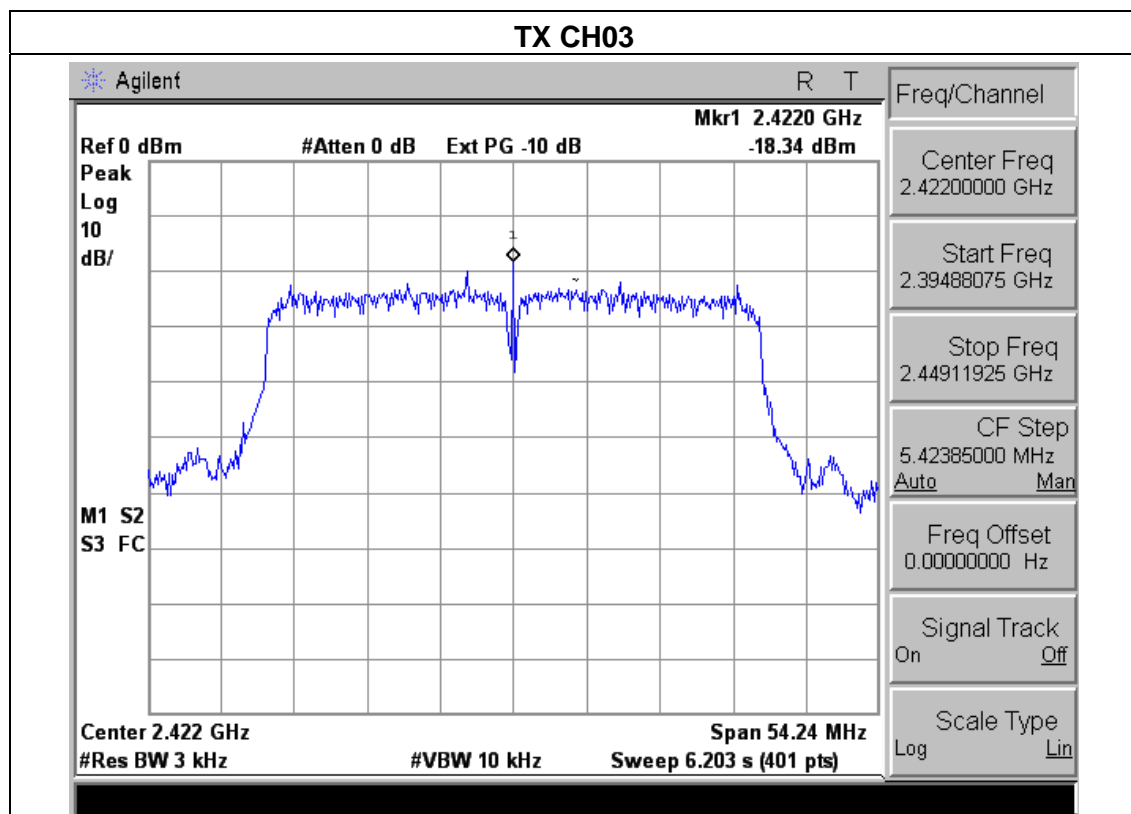


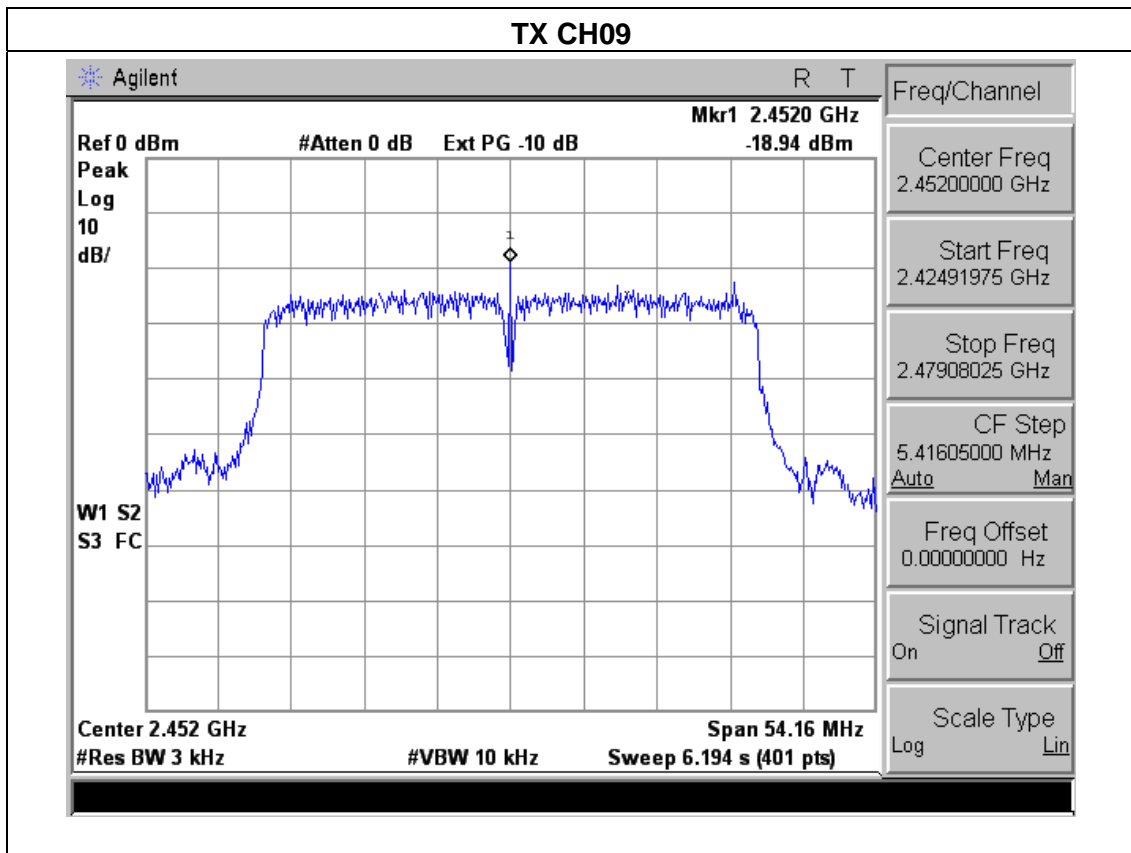
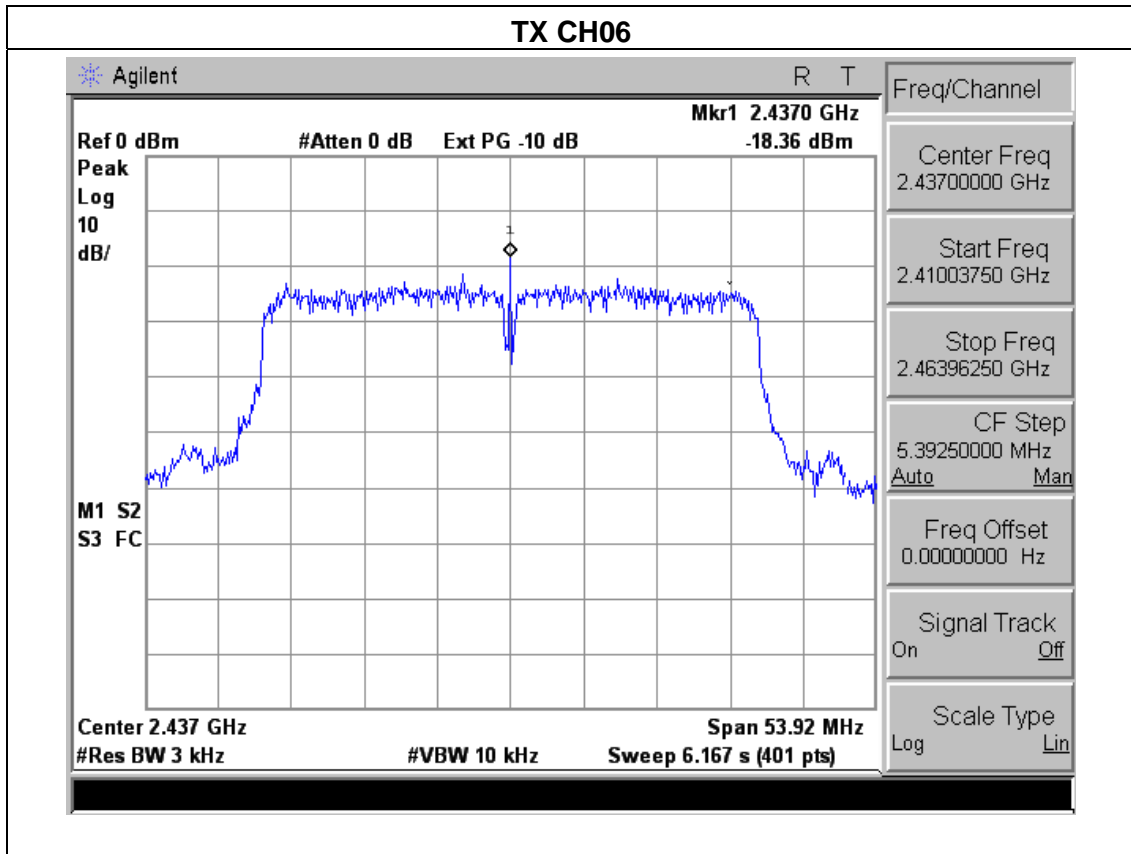


EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1015 hPa	Test Voltage :	AC 120V
Test Mode :	TX n Mode(40M) /CH03, CH06, CH09		

Frequency	Power Density A (dBm/3KHz)	Power Density B (dBm/3KHz)	Total Power Density (dBm/3KHz)	Limit (dBm/3KHz)	Result
2422 MHz	-18.34	-19.07	-15.68	8	PASS
2437 MHz	-18.36	-19.11	-15.71	8	PASS
2452 MHz	-18.94	-19.02	-15.97	8	PASS

NOTE: A B Represent the value of antenna A and B,The worst data is A Antenna a ,only shown Antenna A Plot.





5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

5.1.1 TEST PROCEDURE

1. Set resolution bandwidth (RBW) = 1-5% or DTS BW, not to exceed 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



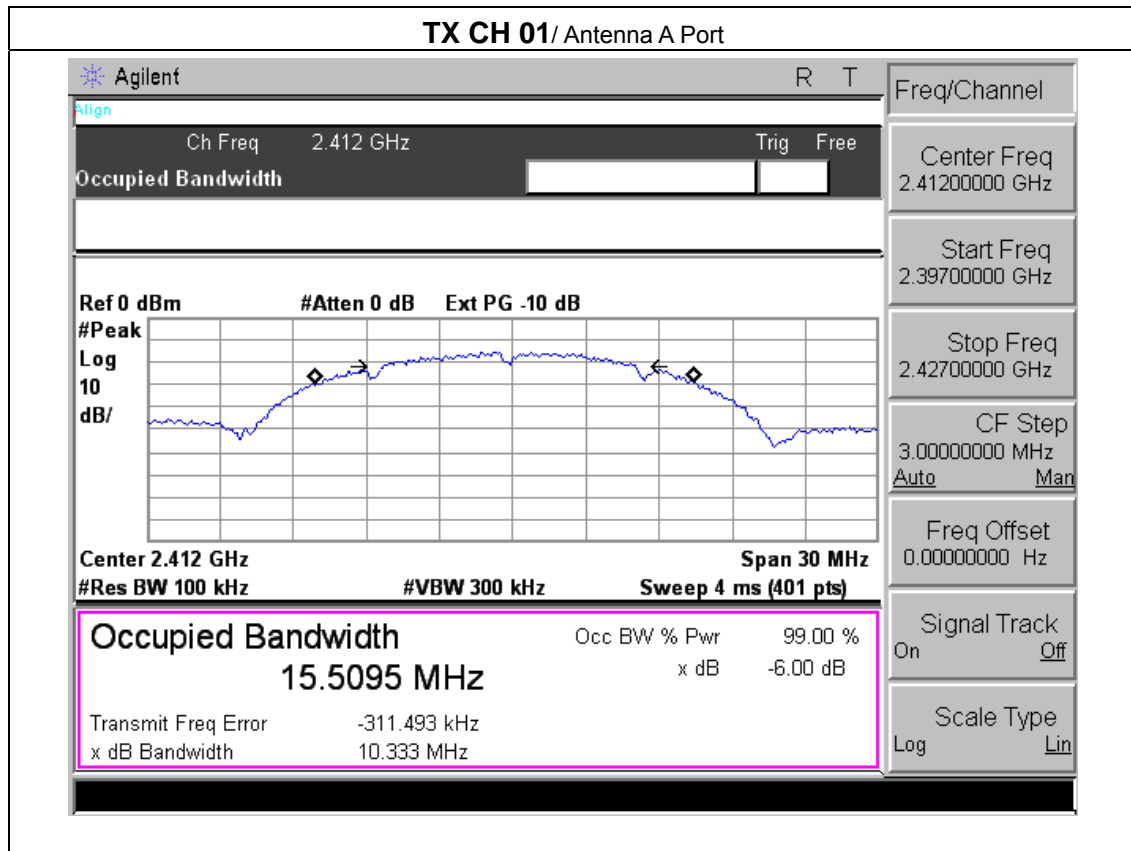
5.1.4 EUT OPERATION CONDITIONS

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.

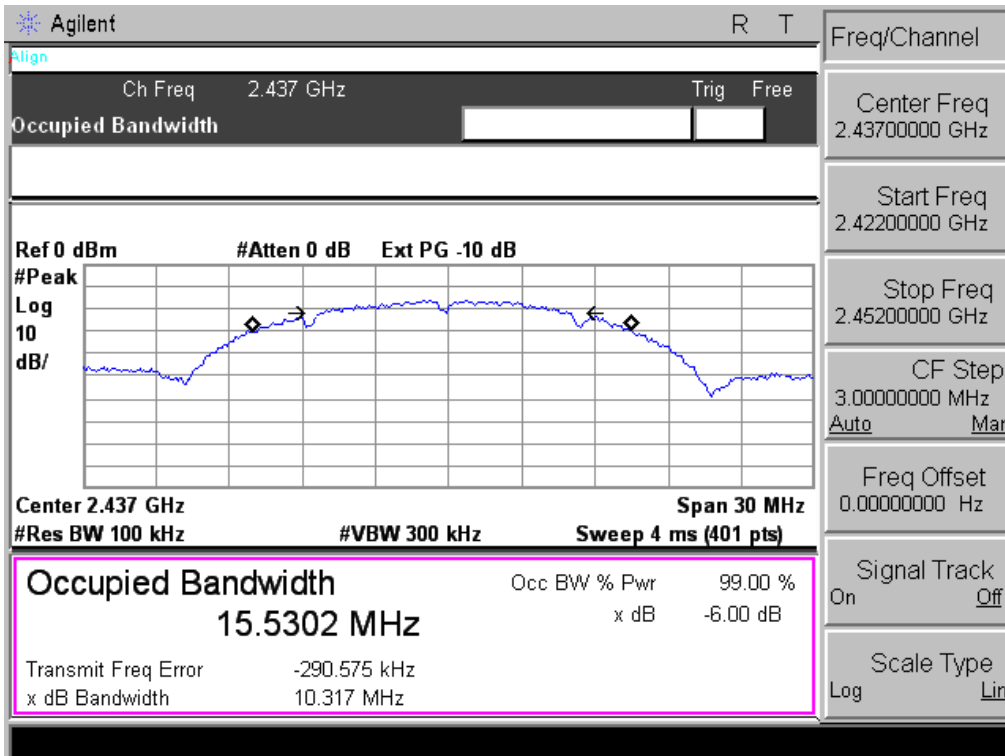
5.1.5 TEST RESULTS

EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC 120V
Test Mode :	TX b Mode /CH01, CH06, CH11/ Antenna A Port		

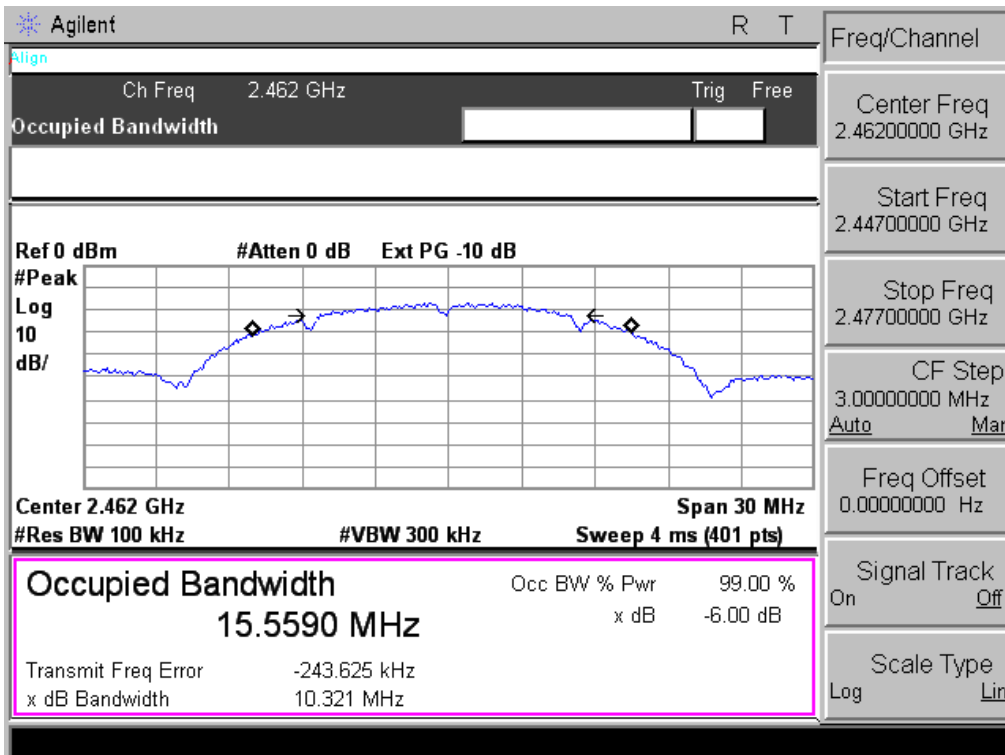
Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	10.33	500	Pass
Middle	2437	10.32	500	Pass
High	2462	10.32	500	Pass



TX CH 06/ Antenna A Port

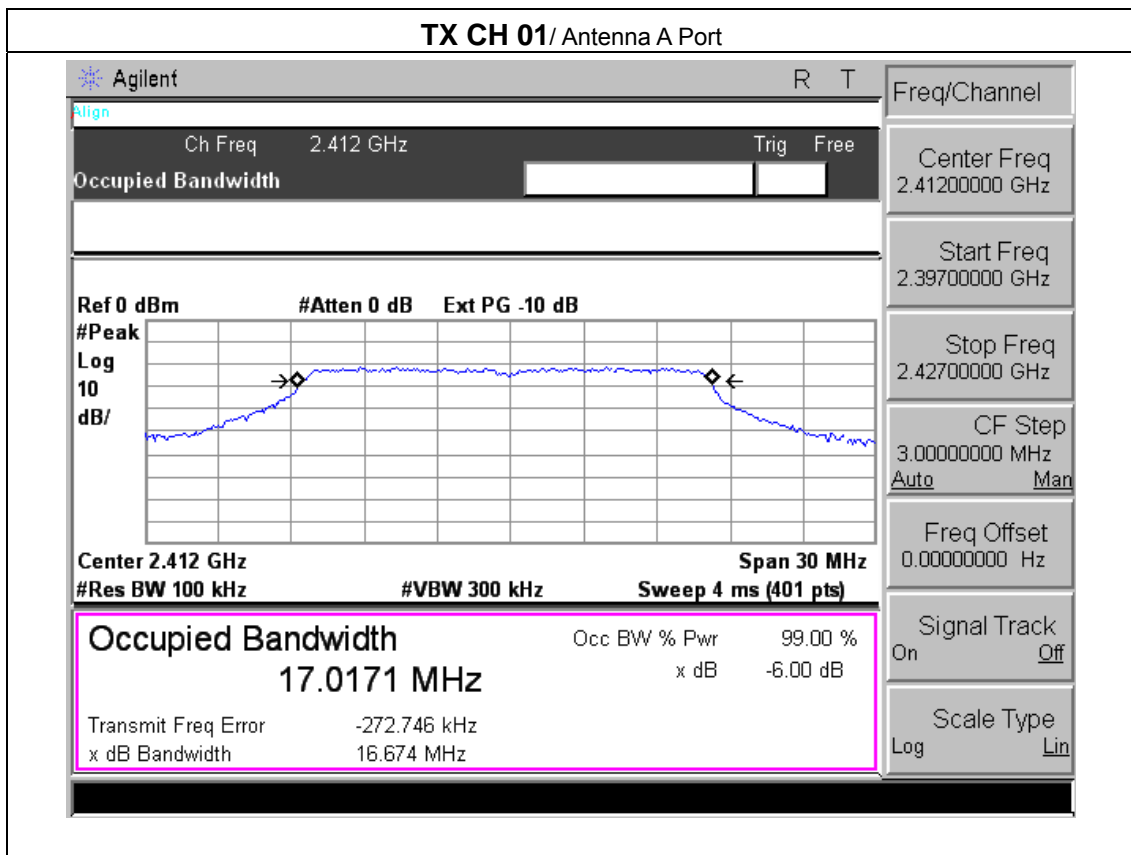


TX CH 11/ Antenna A Port

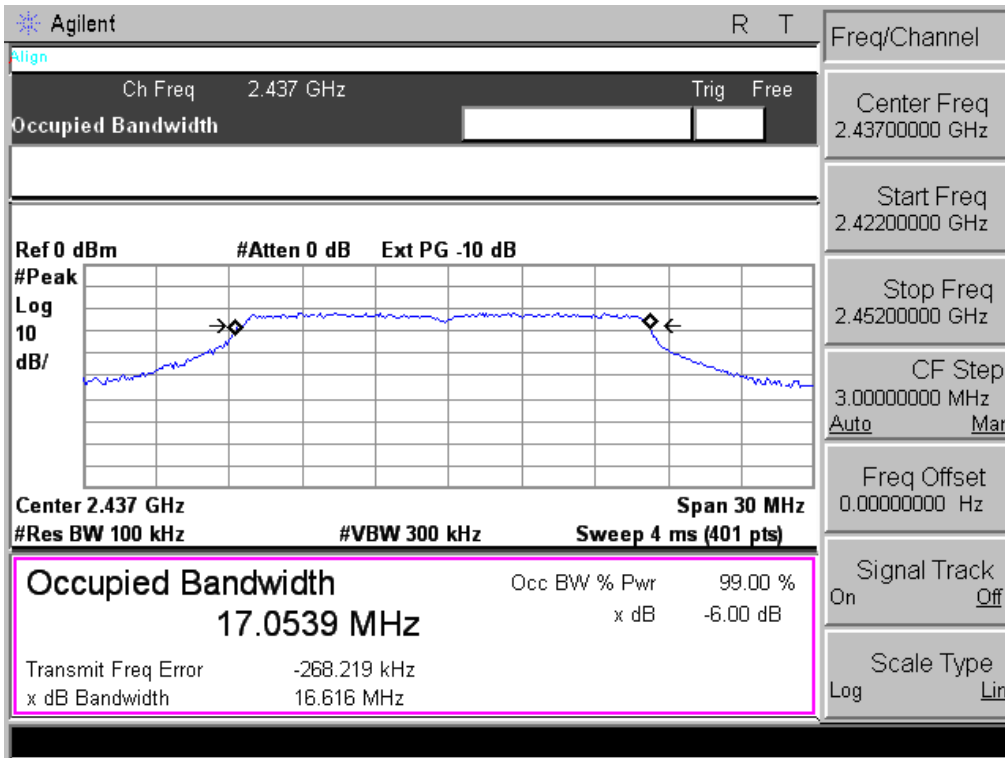


EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC 120V
Test Mode :	TX g Mode /CH01, CH06, CH11/ Antenna A Port		

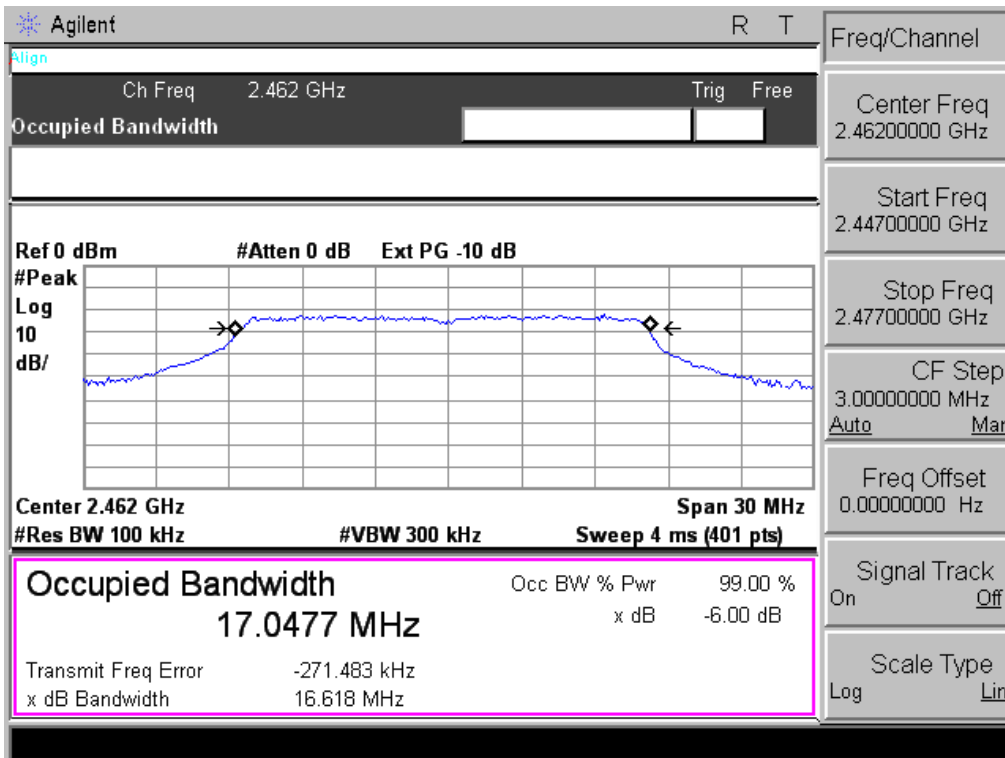
Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.67	500	Pass
Middle	2437	16.62	500	Pass
High	2462	16.62	500	Pass



TX CH 06/ Antenna A Port

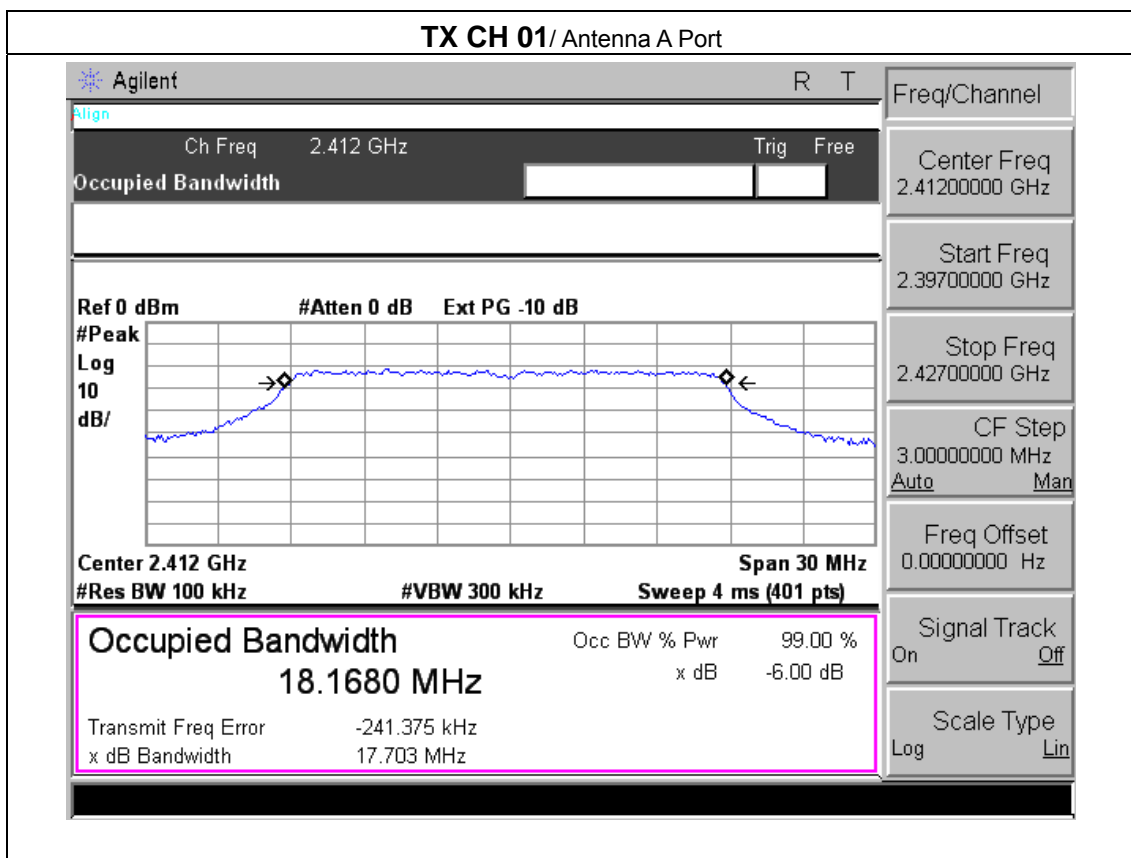


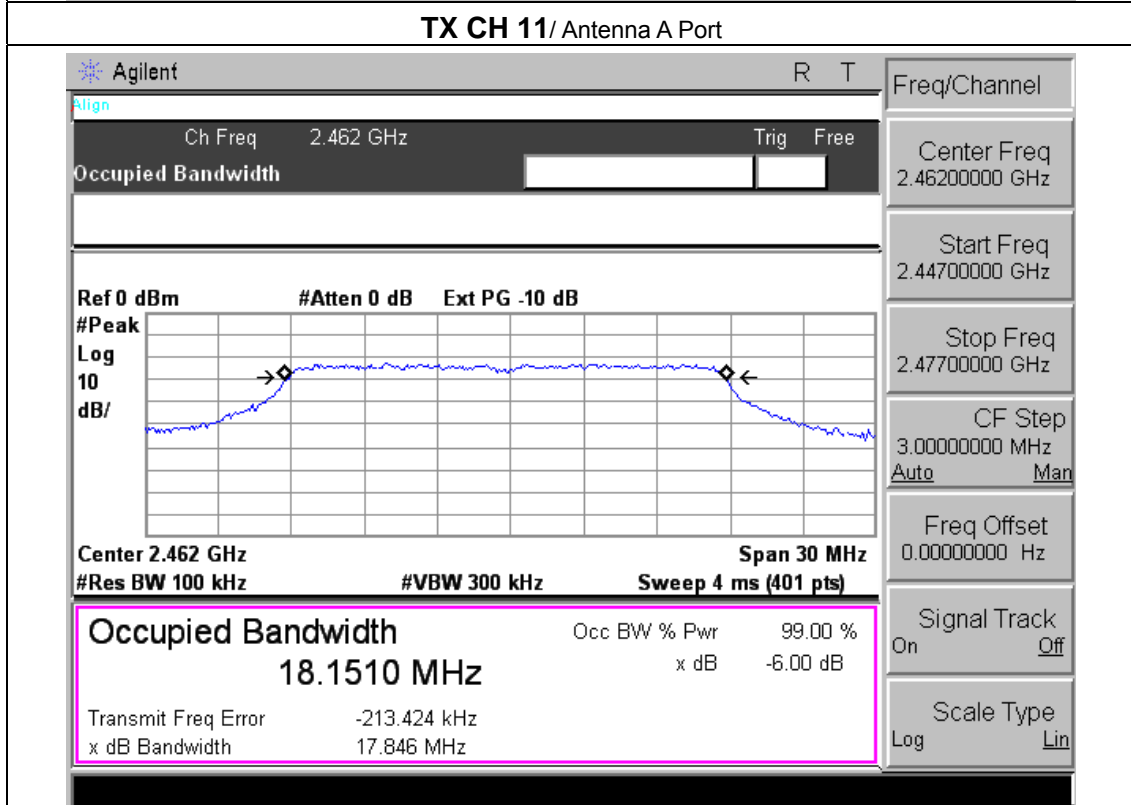
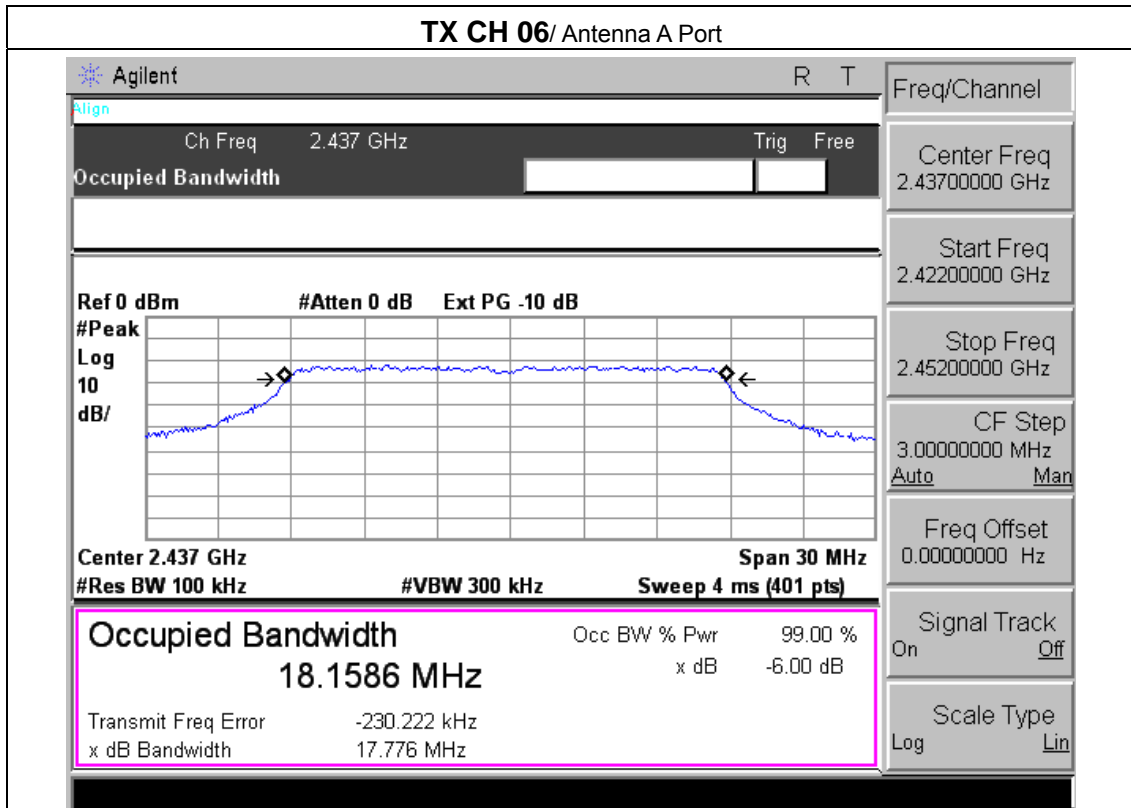
TX CH 11/ Antenna A Port



EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC 120V
Test Mode :	TX n Mode(20M) /CH01, CH06, CH11/ Antenna A Port		

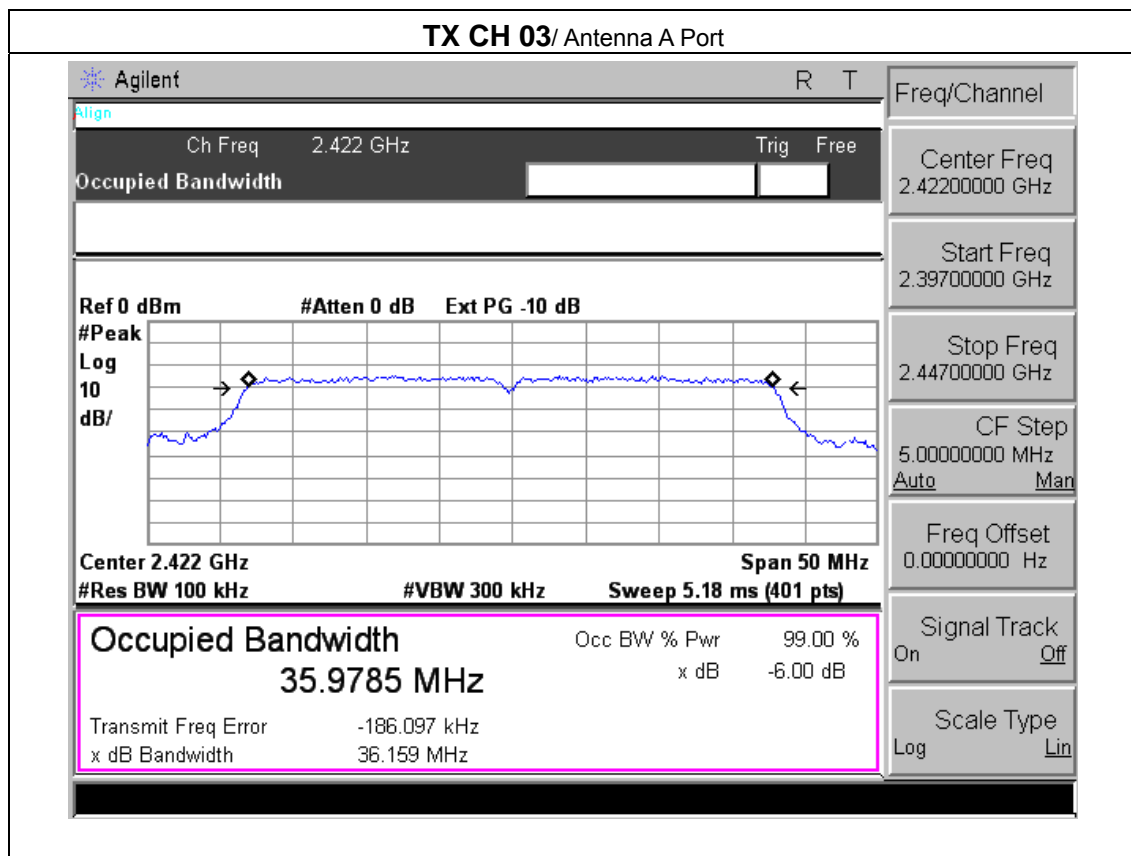
Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	17.70	500	Pass
Middle	2437	17.78	500	Pass
High	2462	17.85	500	Pass





EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC 120V
Test Mode :	TX n Mode(40M) /CH03, CH06, CH09/ Antenna A Port		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2422	36.16	500	Pass
Middle	2437	35.95	500	Pass
High	2452	36.11	500	Pass



TX CH 06/ Antenna A Port

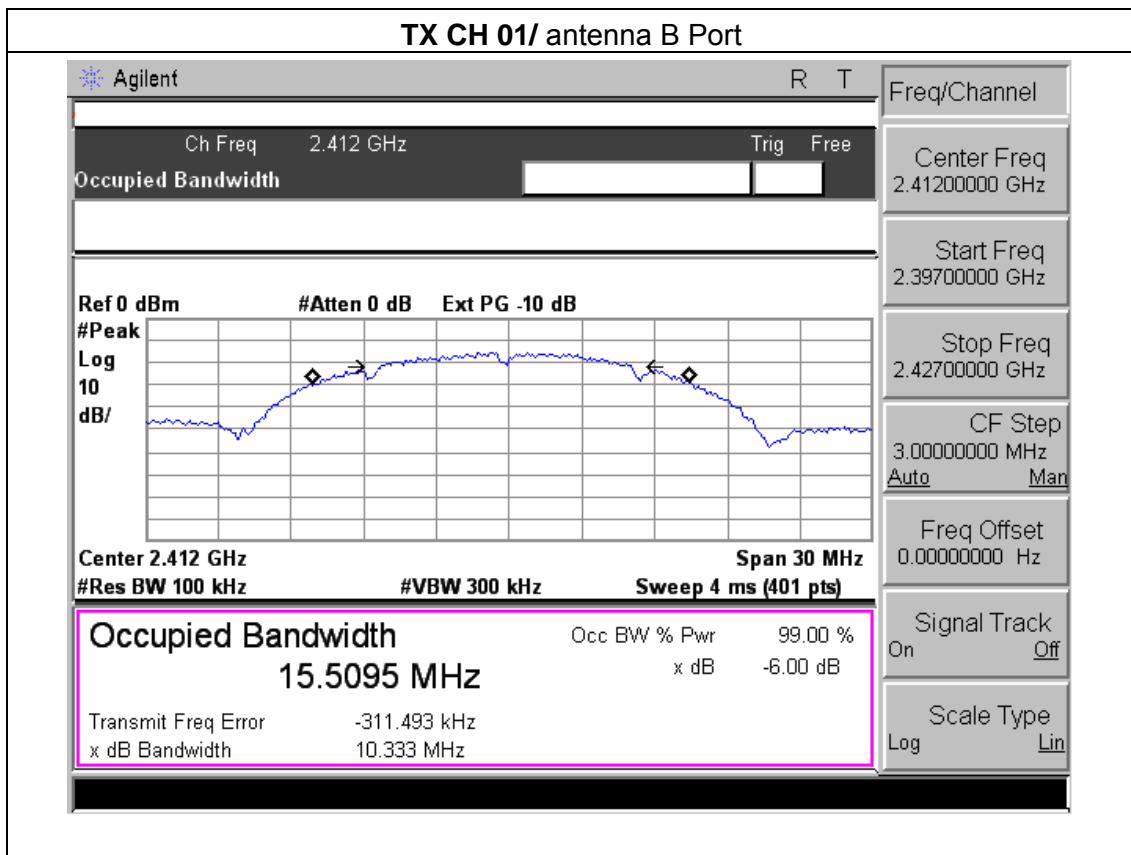
Agilent		R	T	Freq/Channel	
Align		Ch Freq 2.437 GHz		Center Freq 2.43700000 GHz	
Occupied Bandwidth		Trig Free		Start Freq 2.41200000 GHz	
Ref 0 dBm #Atten 0 dB Ext PG -10 dB		Stop Freq 2.46200000 GHz		CF Step 5.00000000 MHz	
		Auto Man Freq Offset 0.00000000 Hz		Signal Track On Off	
Center 2.437 GHz Span 50 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)		Occ BW % Pwr 99.00 % x dB -6.00 dB		Scale Type Log Lin	
Occupied Bandwidth 35.9555 MHz		Transmit Freq Error -180.659 kHz x dB Bandwidth 35.950 MHz			

TX CH 09/ Antenna A Port

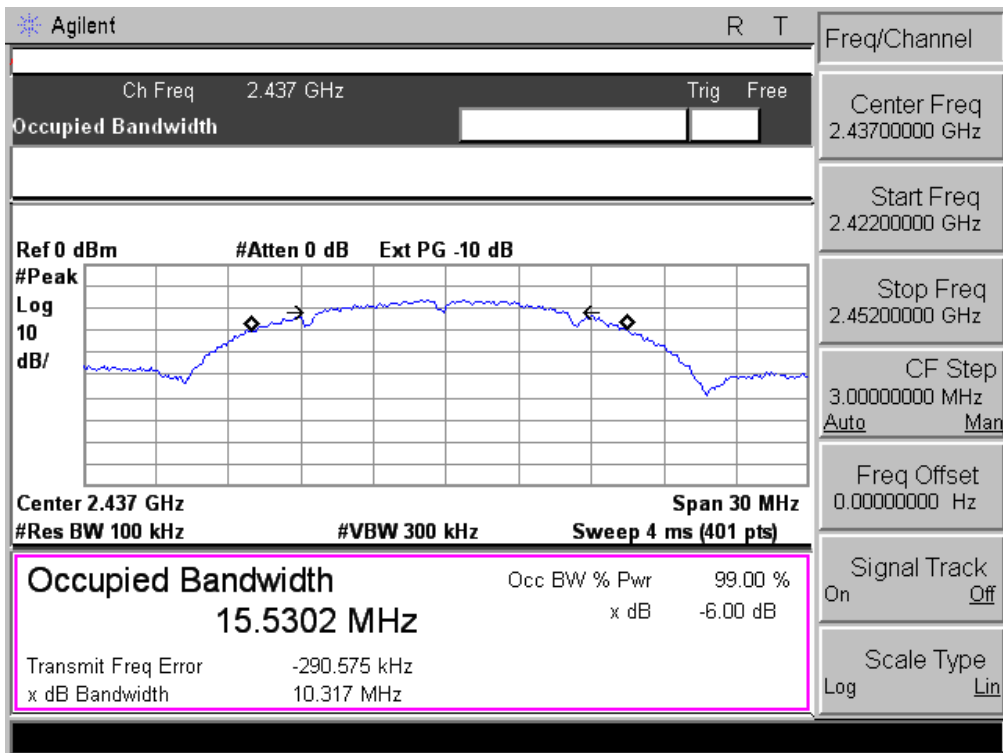
Agilent		R	T	Freq/Channel	
Align		Ch Freq 2.452 GHz		Center Freq 2.45200000 GHz	
Occupied Bandwidth		Trig Free		Start Freq 2.42700000 GHz	
Ref 0 dBm #Atten 0 dB Ext PG -10 dB		Stop Freq 2.47700000 GHz		CF Step 5.00000000 MHz	
		Auto Man Freq Offset 0.00000000 Hz		Signal Track On Off	
Center 2.452 GHz Span 50 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)		Occ BW % Pwr 99.00 % x dB -6.00 dB		Scale Type Log Lin	
Occupied Bandwidth 35.9938 MHz		Transmit Freq Error -170.823 kHz x dB Bandwidth 36.107 MHz			

EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC120V
Test Mode :	TX b Mode /CH01, CH06, CH11/ antenna B Port		

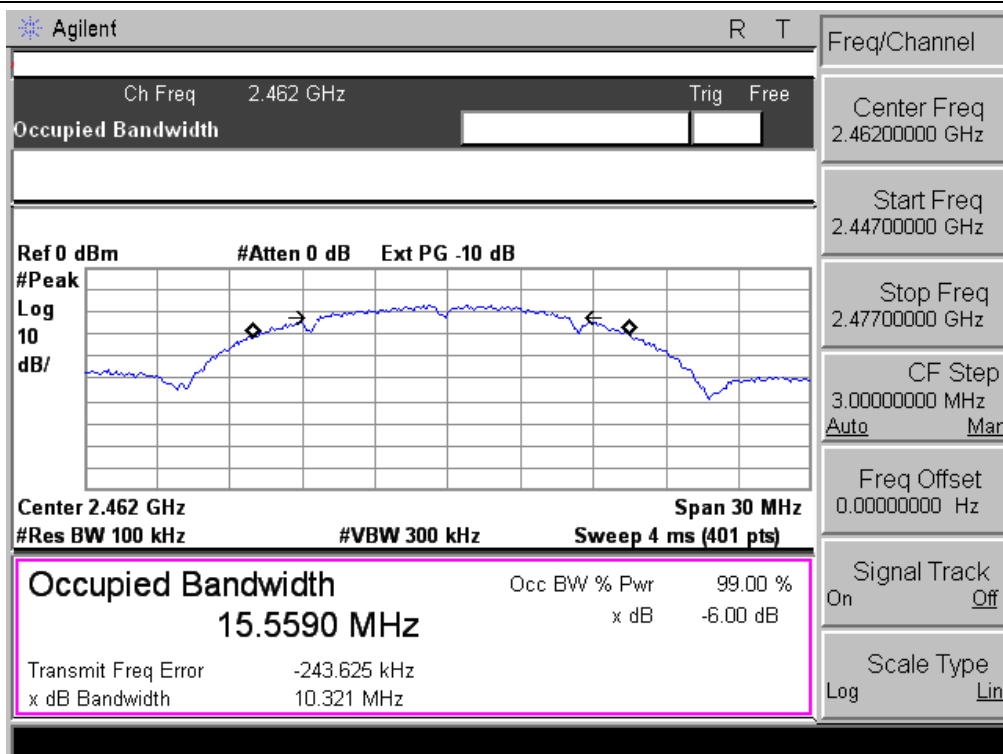
Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	10.33	500	Pass
Middle	2437	10.31	500	Pass
High	2462	10.32	500	Pass



TX CH 06/ antenna B Port

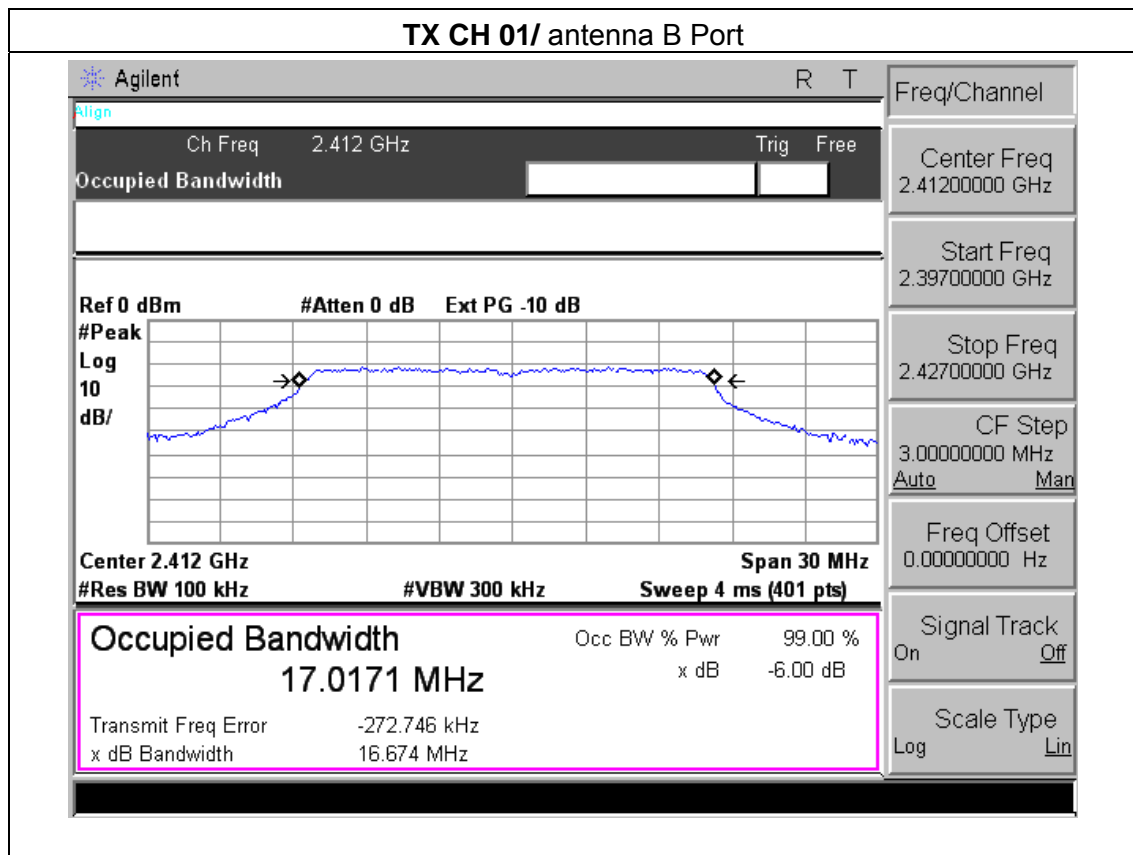


TX CH 11/ antenna B Port

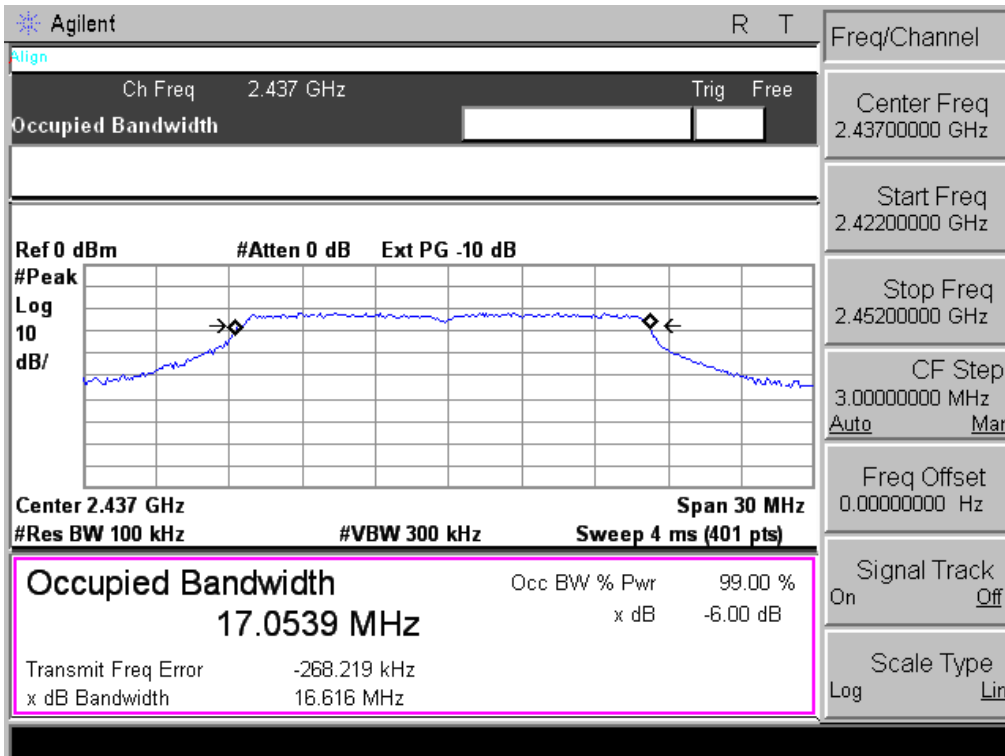


EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC120V
Test Mode :	TX g Mode /CH01, CH06, CH11 antenna B Port		

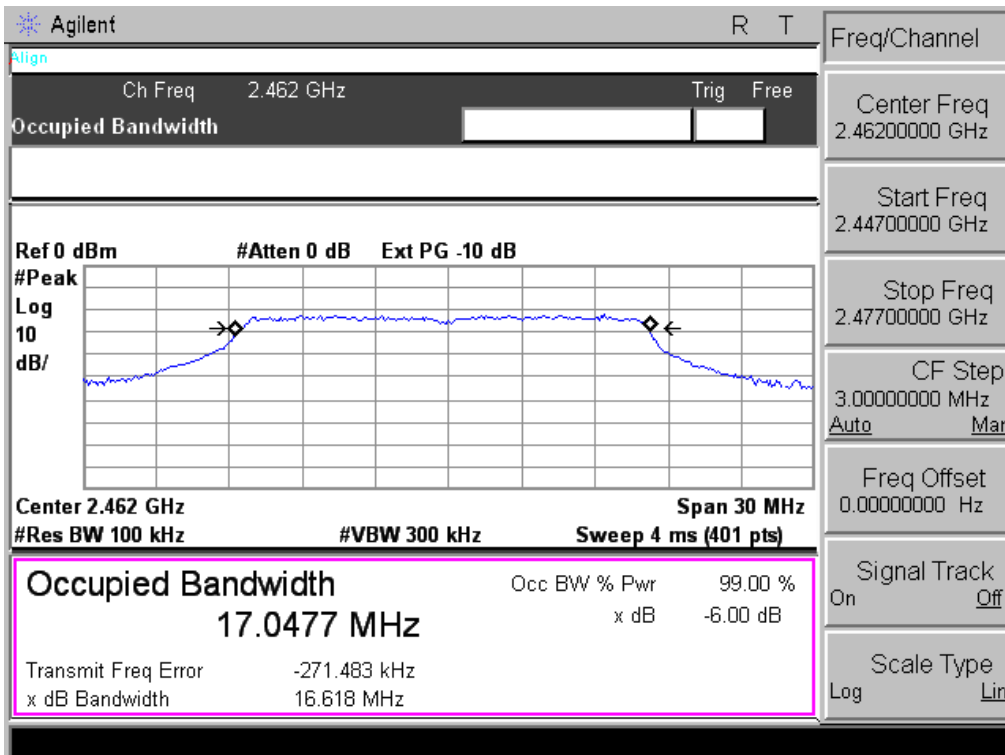
Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.67	500	Pass
Middle	2437	16.62	500	Pass
High	2462	16.62	500	Pass



TX CH 06/ antenna B Port

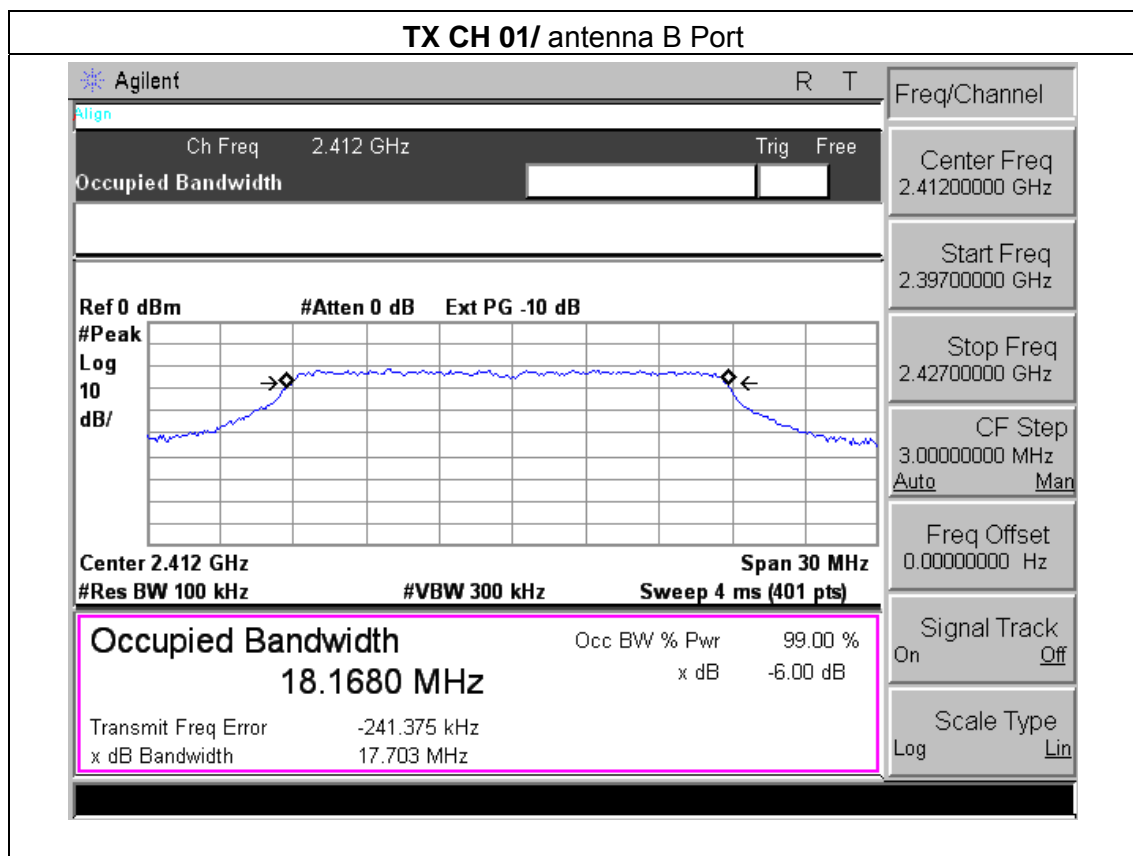


TX CH 11/ antenna B Port

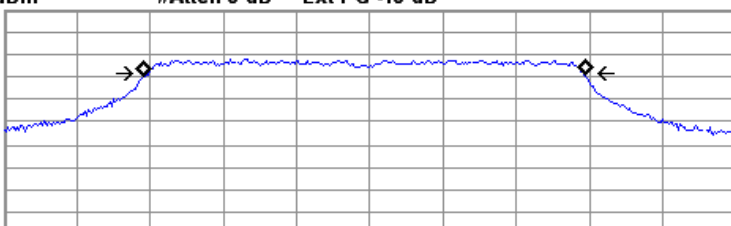


EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC120V
Test Mode :	TX n Mode(20M) /CH01, CH06, CH11 antenna B Port		

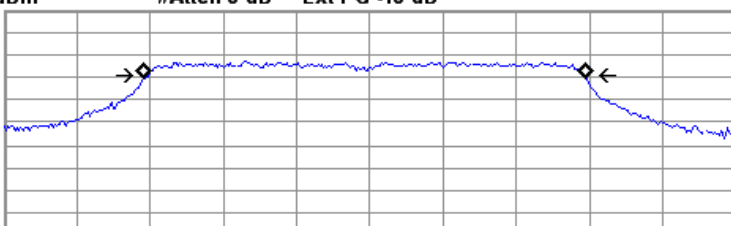
Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	17.70	500	Pass
Middle	2437	17.78	500	Pass
High	2462	17.85	500	Pass



TX CH 06/ antenna B Port

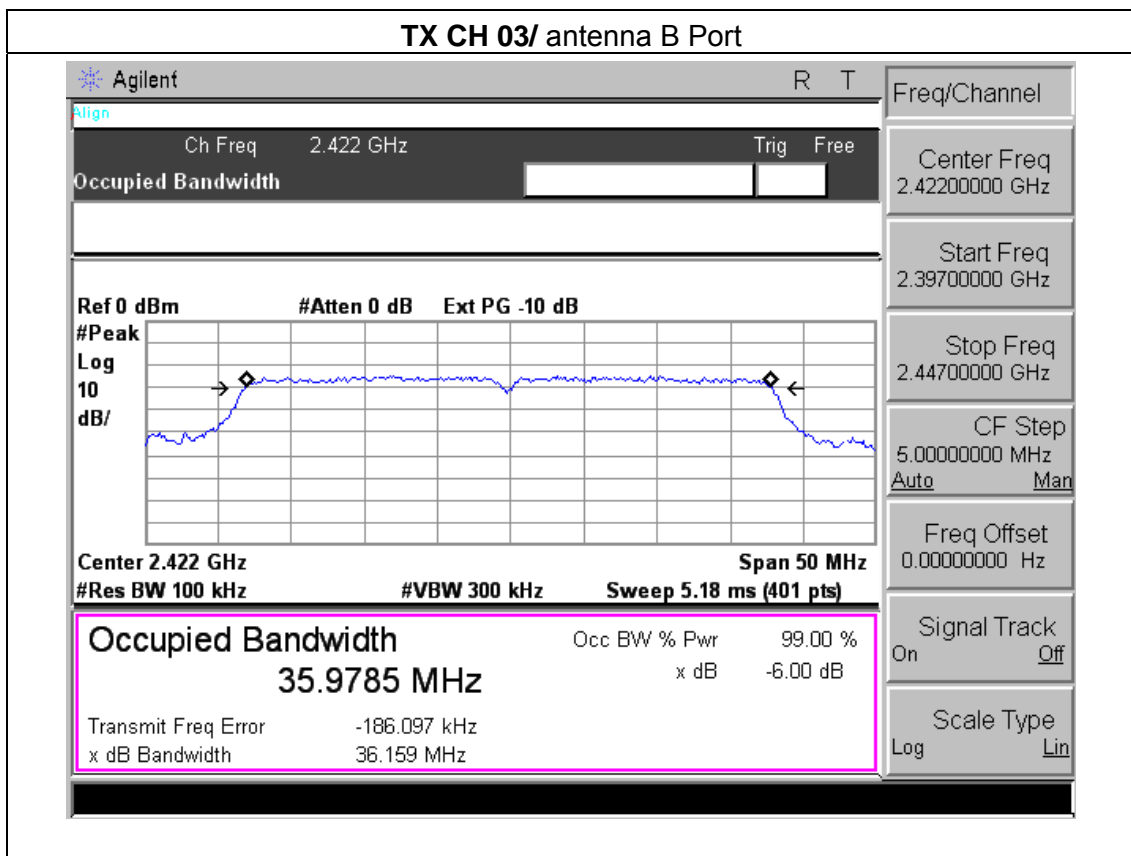
Agilent		R	T	Freq/Channel	
Align		Ch Freq 2.437 GHz		Center Freq 2.43700000 GHz	
Occupied Bandwidth		Trig Free		Start Freq 2.42200000 GHz	
Ref 0 dBm #Atten 0 dB Ext PG -10 dB		Span 30 MHz		Stop Freq 2.45200000 GHz	
		CF Step 3.00000000 MHz		Auto Man	
Center 2.437 GHz		#Res BW 100 kHz		Freq Offset 0.00000000 Hz	
#VBW 300 kHz		Sweep 4 ms (401 pts)		Signal Track On Off	
Occupied Bandwidth 18.1586 MHz		Occ BW % Pwr 99.00 %		Scale Type Log Lin	
x dB Bandwidth 17.776 MHz		x dB -6.00 dB			
Transmit Freq Error -230.222 kHz					

TX CH 11/ antenna B Port

Agilent		R	T	Freq/Channel	
Align		Ch Freq 2.462 GHz		Center Freq 2.46200000 GHz	
Occupied Bandwidth		Trig Free		Start Freq 2.44700000 GHz	
Ref 0 dBm #Atten 0 dB Ext PG -10 dB		Span 30 MHz		Stop Freq 2.47700000 GHz	
		CF Step 3.00000000 MHz		Auto Man	
Center 2.462 GHz		#Res BW 100 kHz		Freq Offset 0.00000000 Hz	
#VBW 300 kHz		Sweep 4 ms (401 pts)		Signal Track On Off	
Occupied Bandwidth 18.1510 MHz		Occ BW % Pwr 99.00 %		Scale Type Log Lin	
x dB Bandwidth 17.846 MHz		x dB -6.00 dB			
Transmit Freq Error -213.424 kHz					

EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC120V
Test Mode :	TX n Mode(40M) /CH03, CH06, CH09 antenna B Port		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2422	36.16	500	Pass
Middle	2437	35.95	500	Pass
High	2452	36.11	500	Pass



TX CH 06/ antenna B Port

Agilent R T

Align

Ch Freq 2.437 GHz Trig Free

Occupied Bandwidth

Ref 0 dBm #Atten 0 dB Ext PG -10 dB

#Peak Log 10 dB/

Center 2.437 GHz Span 50 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
35.9555 MHz	x dB	-6.00 dB
Transmit Freq Error	-180.659 kHz	
x dB Bandwidth	35.950 MHz	

Freq/Channel

Center Freq 2.43700000 GHz

Start Freq 2.41200000 GHz

Stop Freq 2.46200000 GHz

CF Step 5.00000000 MHz
Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off

Scale Type Log Lin

TX CH 09/ antenna B Port

Agilent R T

Align

Ch Freq 2.452 GHz Trig Free

Occupied Bandwidth

Ref 0 dBm #Atten 0 dB Ext PG -10 dB

#Peak Log 10 dB/

Center 2.452 GHz Span 50 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 5.18 ms (401 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
35.9938 MHz	x dB	-6.00 dB
Transmit Freq Error	-170.823 kHz	
x dB Bandwidth	36.107 MHz	

Freq/Channel

Center Freq 2.45200000 GHz

Start Freq 2.42700000 GHz

Stop Freq 2.47700000 GHz

CF Step 5.00000000 MHz
Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off

Scale Type Log Lin

6. PEAK OUTPUT POWER TEST**6.1 APPLIED PROCEDURES / LIMIT**

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

6.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the Power meter

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP**6.1.4 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.

6.1.5 TEST RESULTS

EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC 120V
Test Mode :	TX b/g/n(20M, 40M) Mode /CH01, CH06, CH11		

TX 802.11b Mode					
Test Channel	Frequency	Maximum Conducted Output Power A (PK)	Maximum Conducted Output Power B (PK)	Total Maximum Conducted Output Power(PK)	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)	dBm
CH01	2412	19.95	19.21	--	30
CH06	2437	19.78	19.08	--	30
CH11	2462	19.70	19.07	--	30
TX 802.11g Mode					
CH01	2412	18.87	18.21	--	30
CH06	2437	18.68	18.21	--	30
CH11	2462	18.59	18.33	--	30
TX 802.11n-HT20 Mode					
CH01	2412	16.77	16.33	19.57	30
CH06	2437	16.73	16.36	19.56	30
CH11	2462	16.59	16.41	19.51	30
TX 802.11n-HT40 Mode					
CH03	2422	16.48	16.11	19.31	30
CH06	2437	16.75	16.11	19.45	30
CH09	2452	16.35	16.21	19.29	30

7. 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE**APPLICABLE STANDARD**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

TEST PROCEDURE

- a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b) 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.
- c) Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
- d) 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.
- e) Repeat above procedures until all measured frequencies were complete.

7.1 DEVIATION FROM STANDARD

No deviation.

7.2 TEST SETUP**7.3 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.

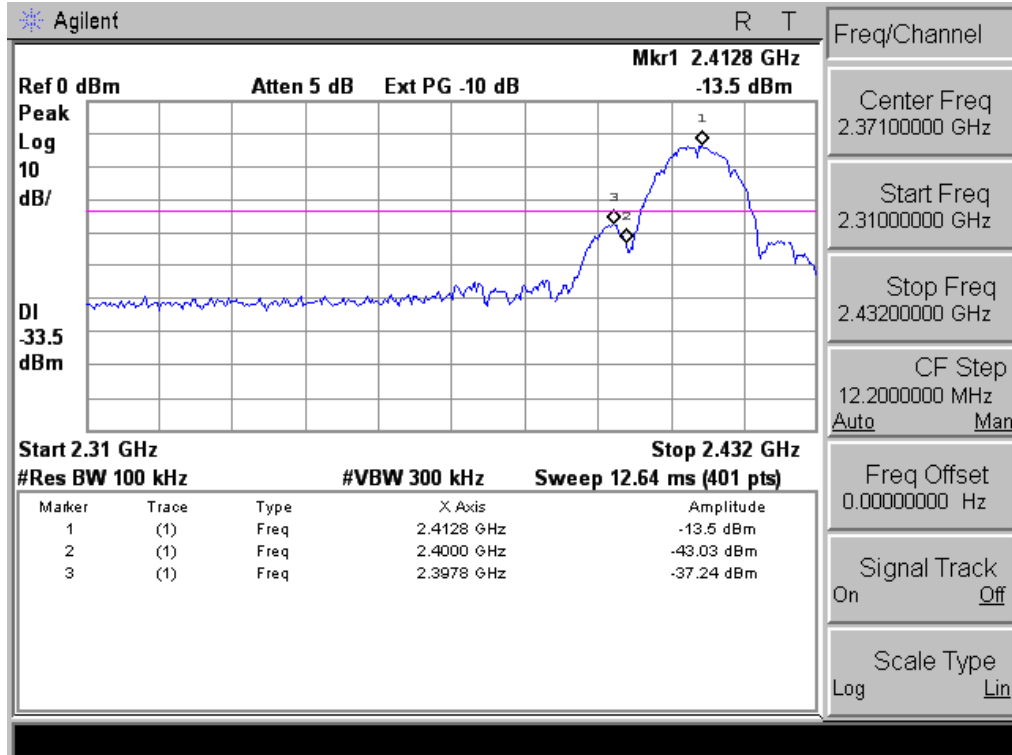
7.4 TEST RESULTS

EUT :	All in one PC	Model Name :	A17
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	AC 120V

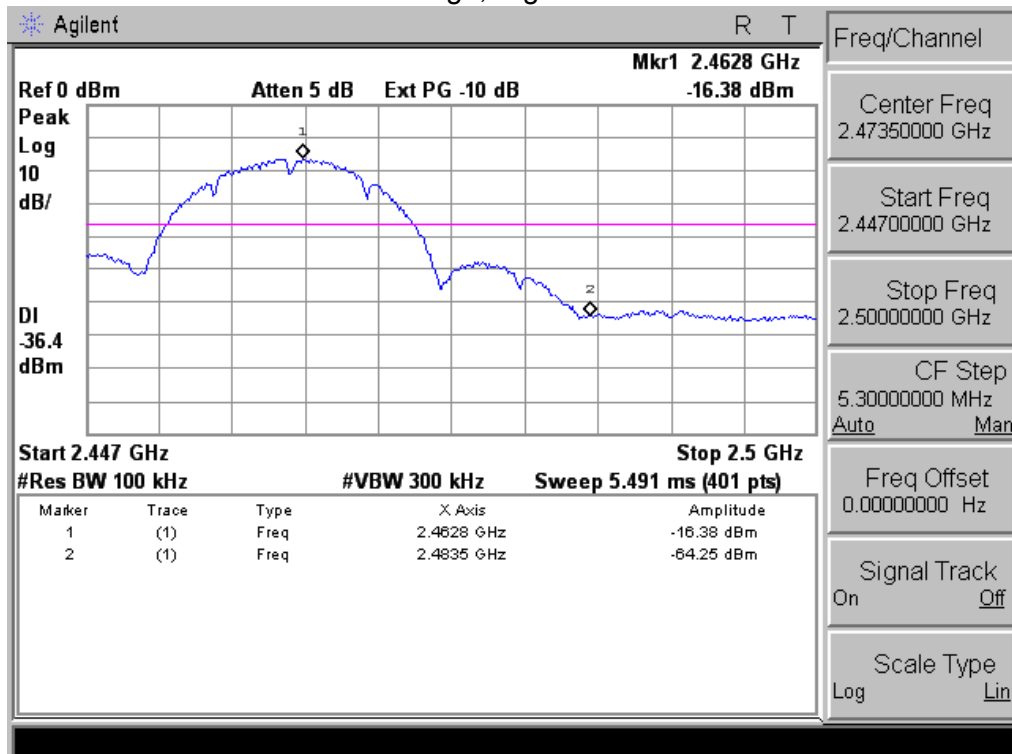
Antenna A Port:

Frequency Band	Delta Peak to band emission (dBc)	> Limit (dBc)	Result
802.11b mode / Antenna A Port			
Left-band	29.53	20	Pass
Right-band	47.87	20	Pass
802.11g mode / Antenna A Port			
Left-band	23.22	20	Pass
Right-band	37.20	20	Pass
802.11n-HT20 mode / Antenna A Port			
Left-band	24.89	20	Pass
Right-band	34.46	20	Pass
802.11n-HT40 mode / Antenna A Port			
Left-band	24.64	20	Pass
Right-band	32.11	20	Pass

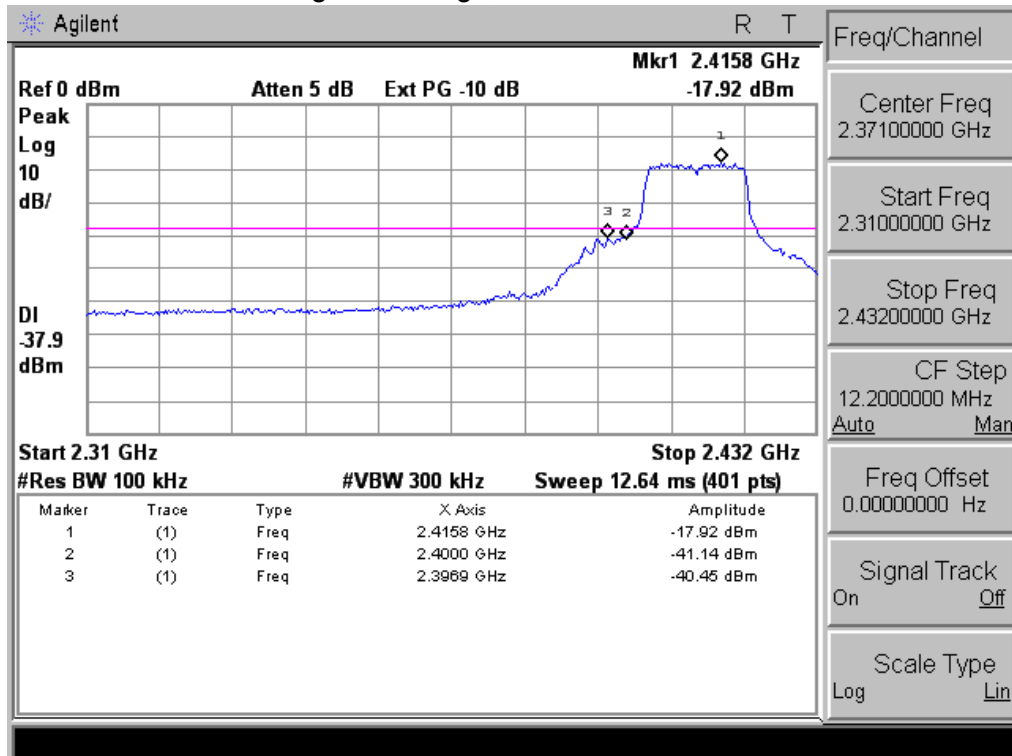
802.11b: Band Edge, Left Side / Antenna A Port



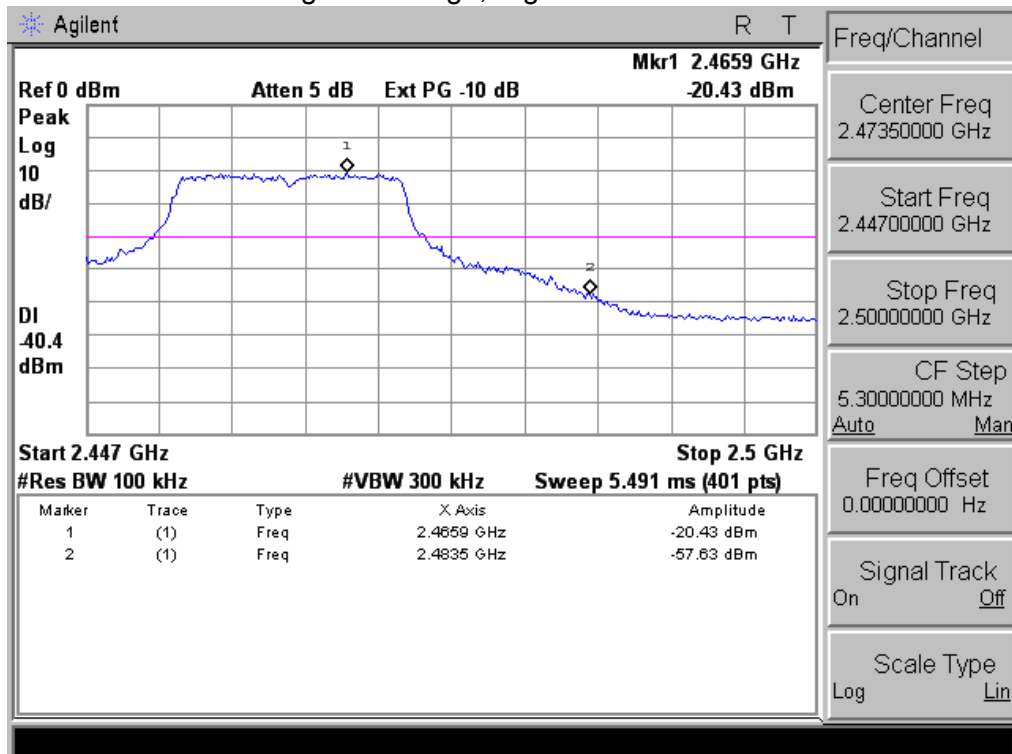
802.11b: Band Edge, Right Side / Antenna A Port



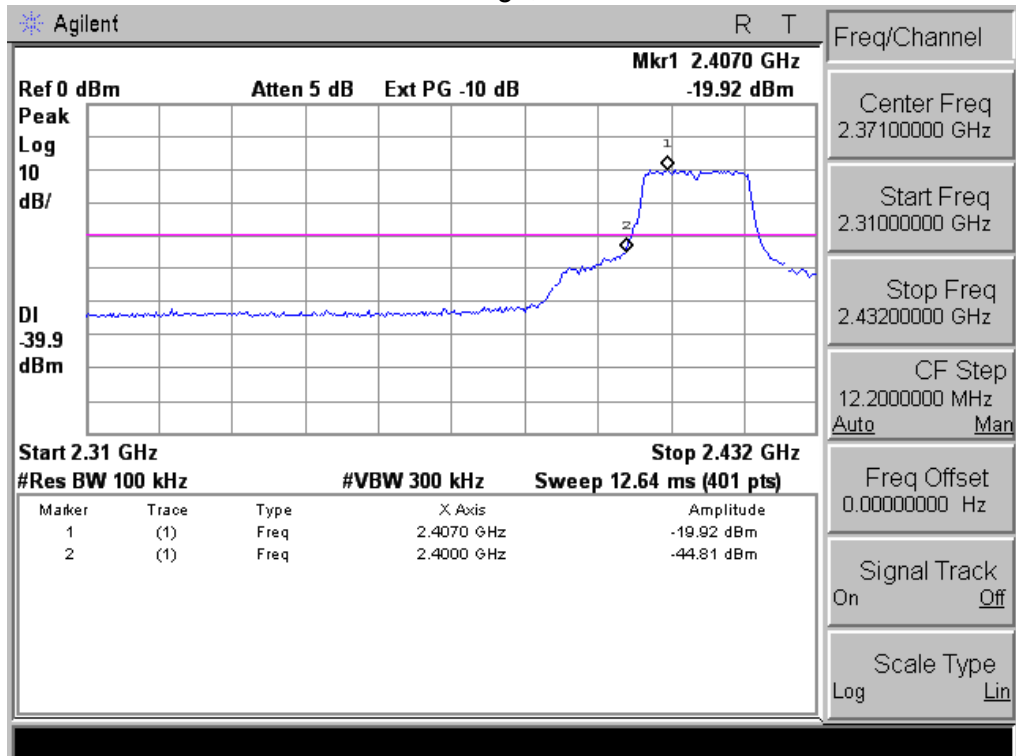
802.11g: Band Edge, Left Side / Antenna A Port



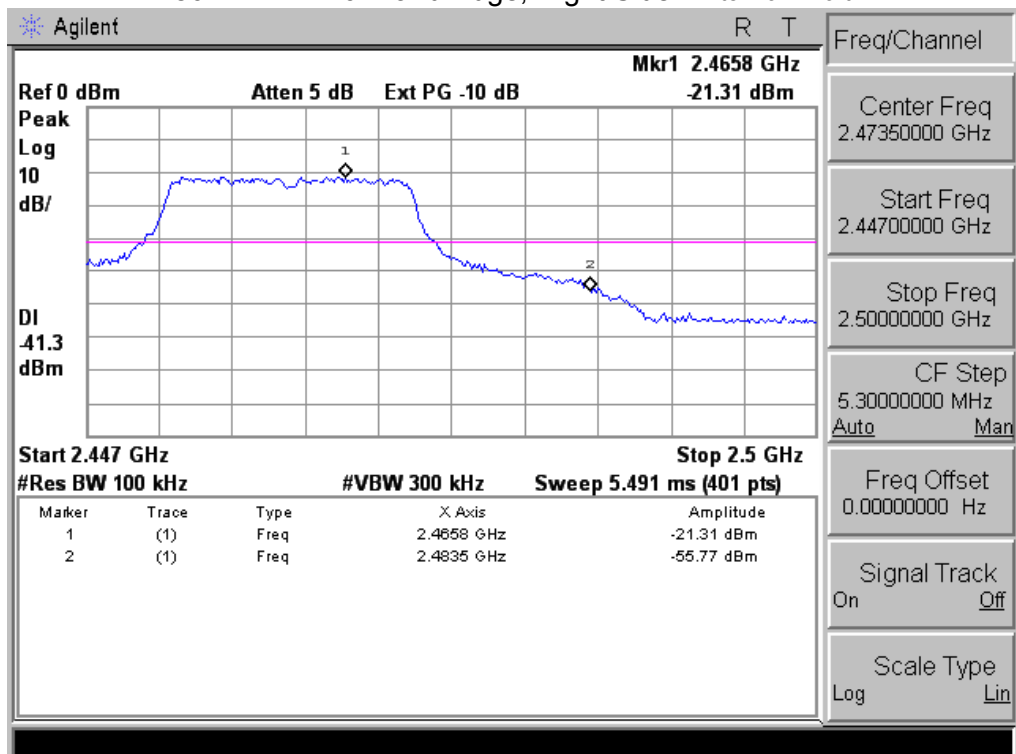
802.11g: Band Edge, Right Side / Antenna A Port



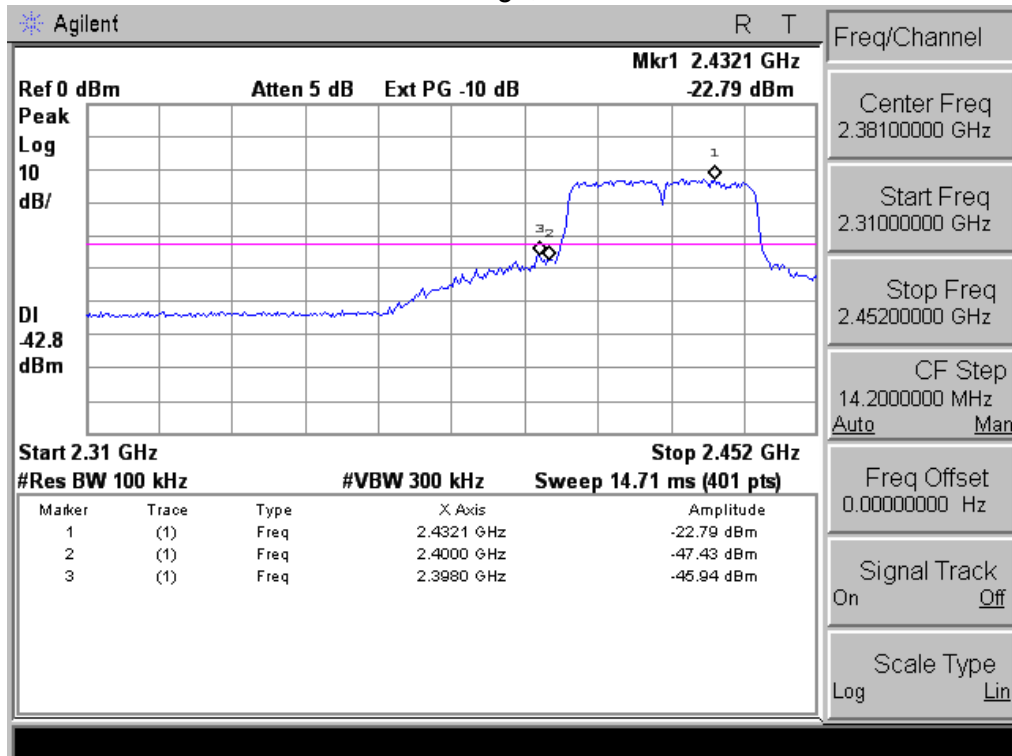
802.11n-HT20: Band Edge, Left Side / Antenna A Port



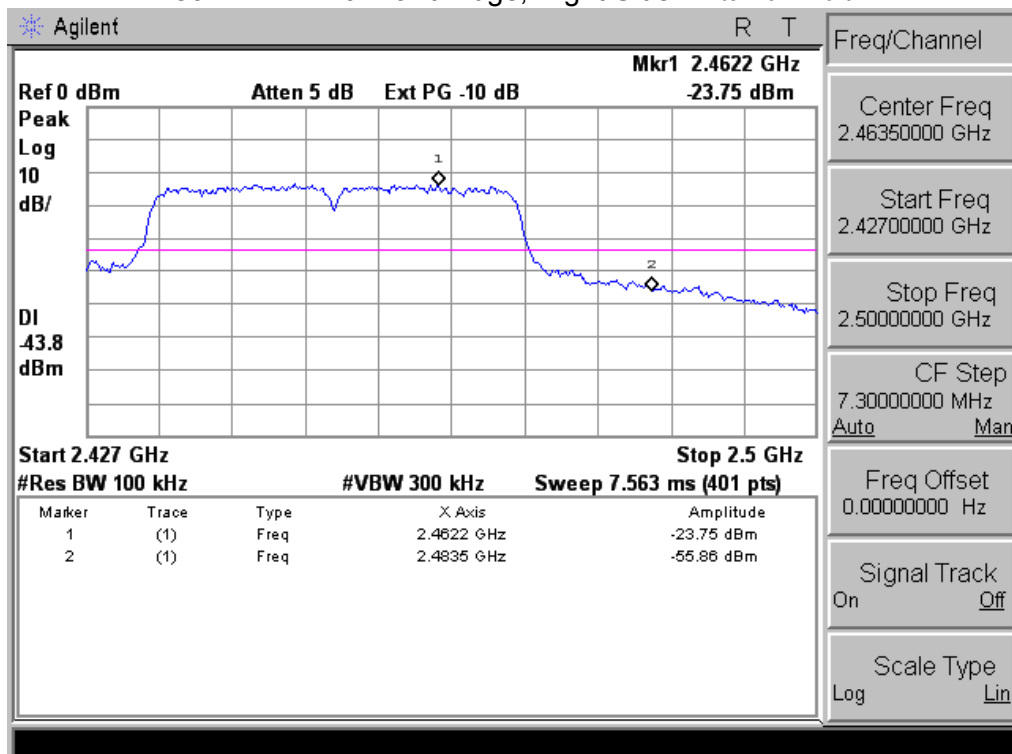
802.11n-HT20: Band Edge, Right Side / Antenna A Port



802.11n-HT40: Band Edge, Left Side / Antenna A Port



802.11n-HT40: Band Edge, Right Side / Antenna A Port

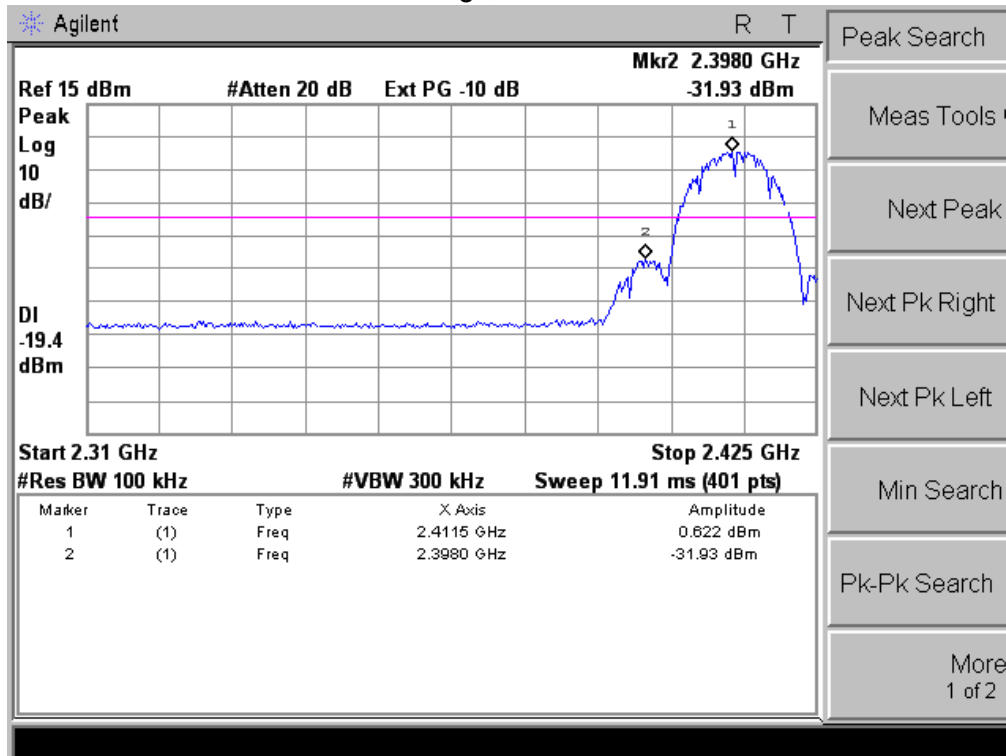


Antenna B Port:

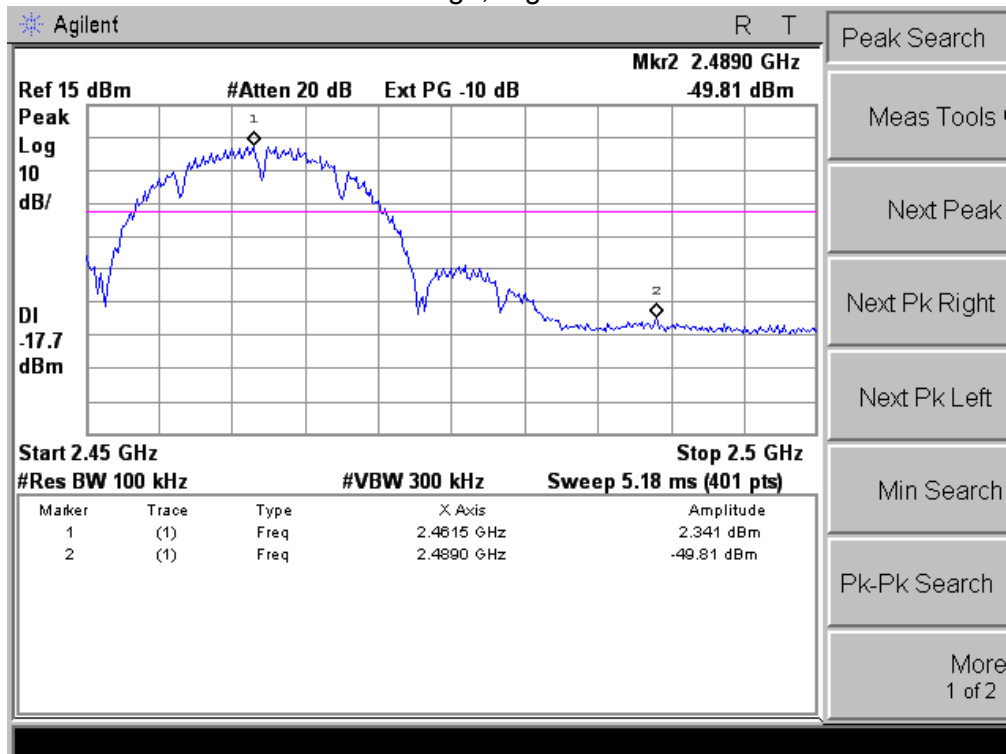
Frequency Band	Delta Peak to band emission (dBc)	> Limit (dBc)	Result
802.11b mode/ Antenna B Port			
Left-band	32.55	20	Pass
Right-band	52.15	20	Pass
802.11g mode/ Antenna B Port			
Left-band	29.45	20	Pass
Right-band	42.88	20	Pass
802.11n-HT20 mode/ Antenna B Port			
Left-band	30.89	20	Pass
Right-band	41.97	20	Pass
802.11n-HT40 mode/ Antenna B Port			
Left-band	28.30	20	Pass
Right-band	37.20	20	Pass

BAND EDGE EMISSION (CONDUCTED):

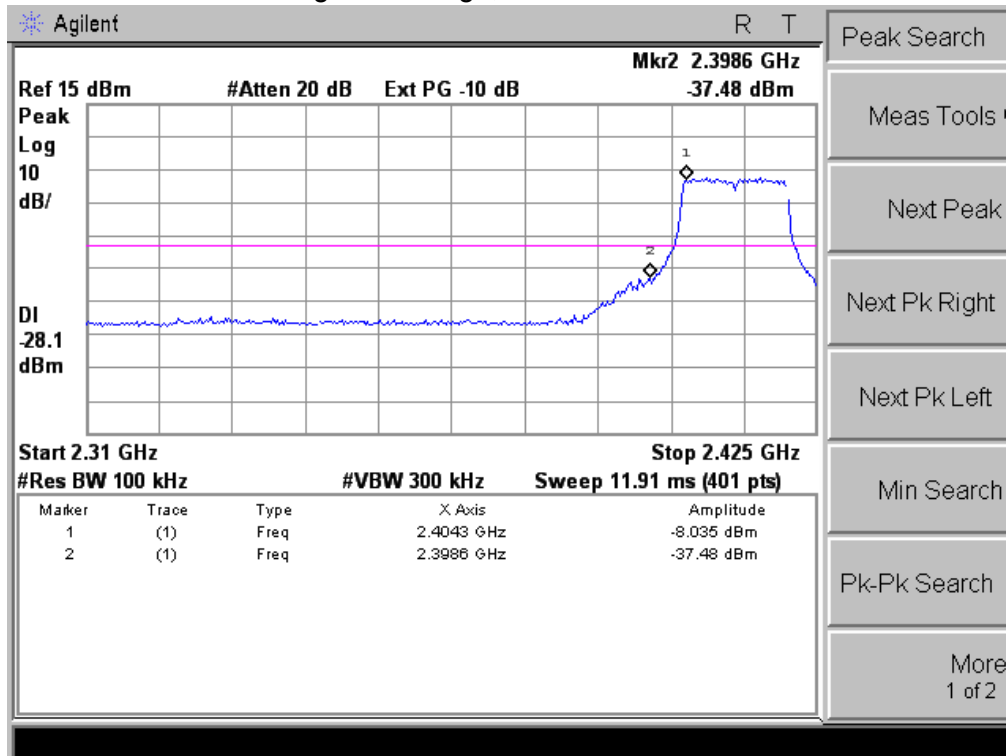
802.11b: Band Edge, Left Side/ Antenna B Port



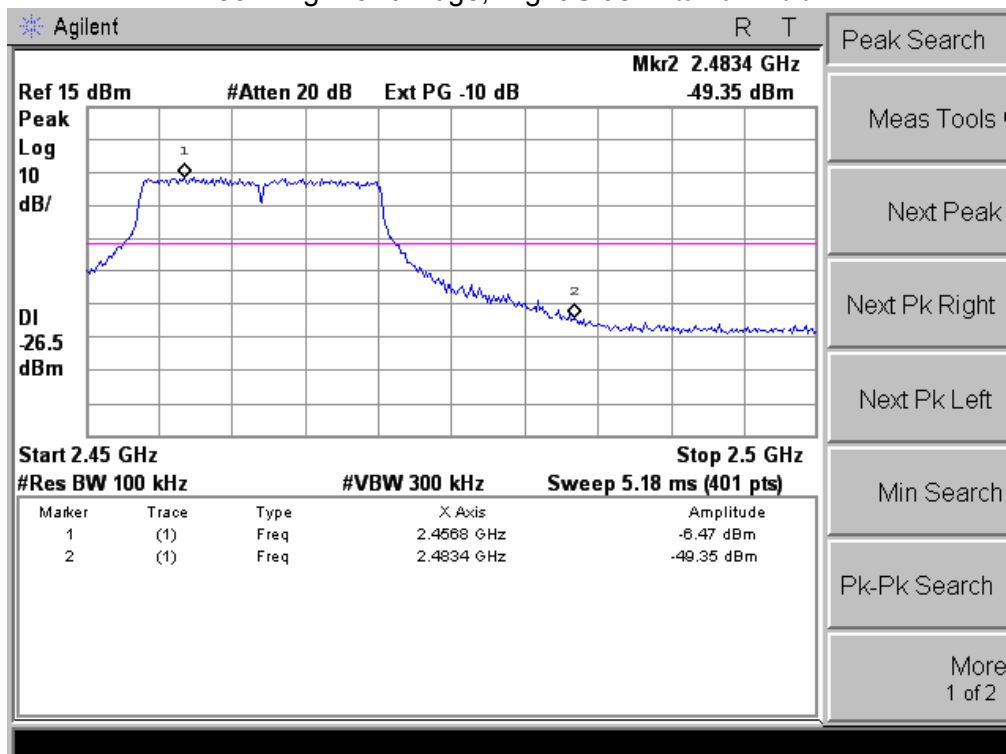
802.11b: Band Edge, Right Side/ Antenna B Port



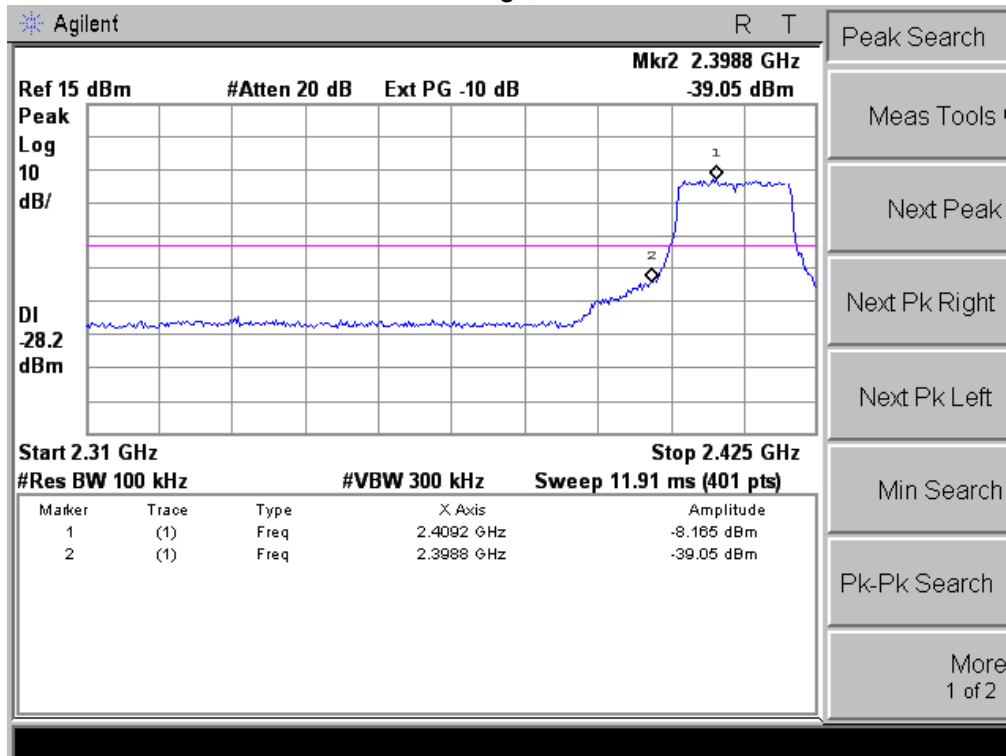
802.11g: Band Edge, Left Side/ Antenna B Port



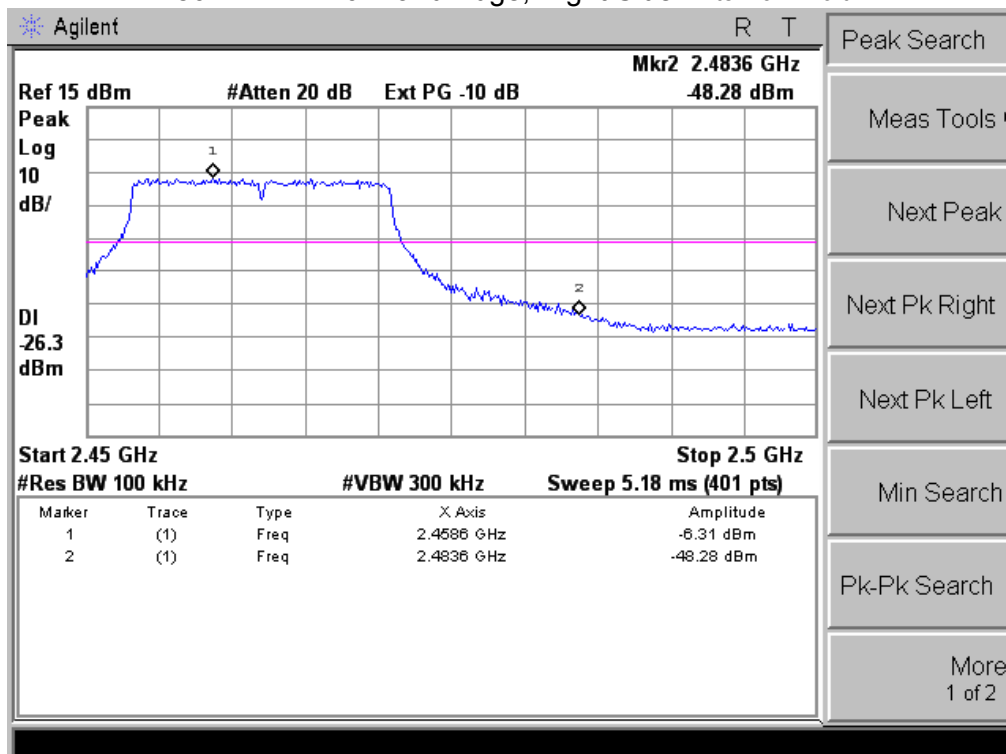
802.11g: Band Edge, Right Side/ Antenna B Port



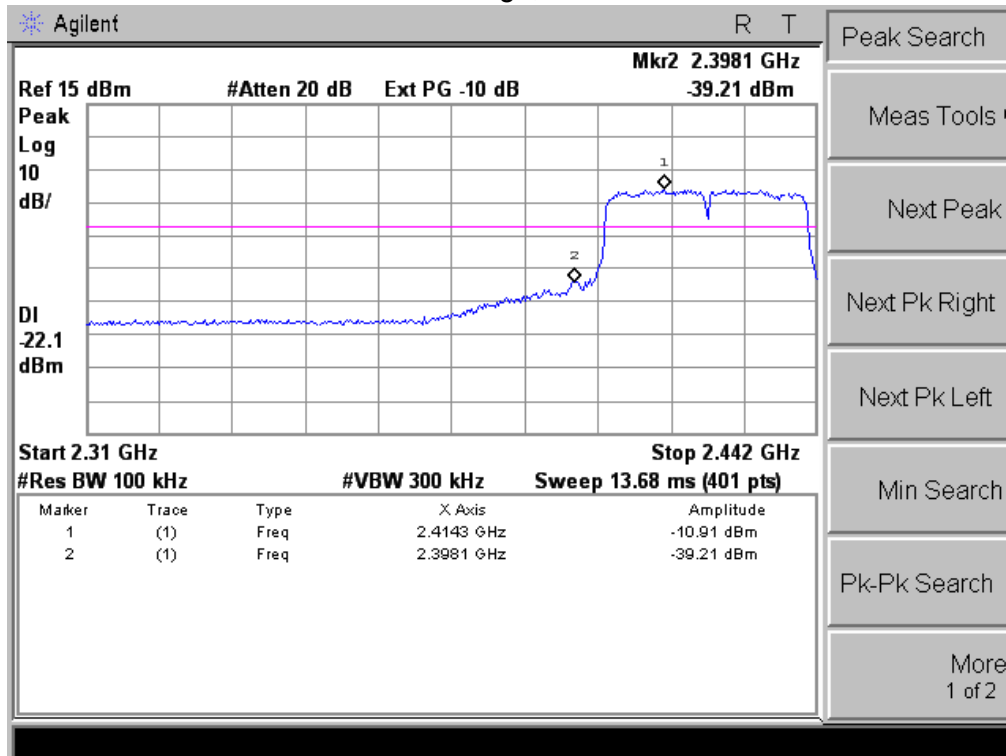
802.11n-HT20: Band Edge, Left Side/ Antenna B Port



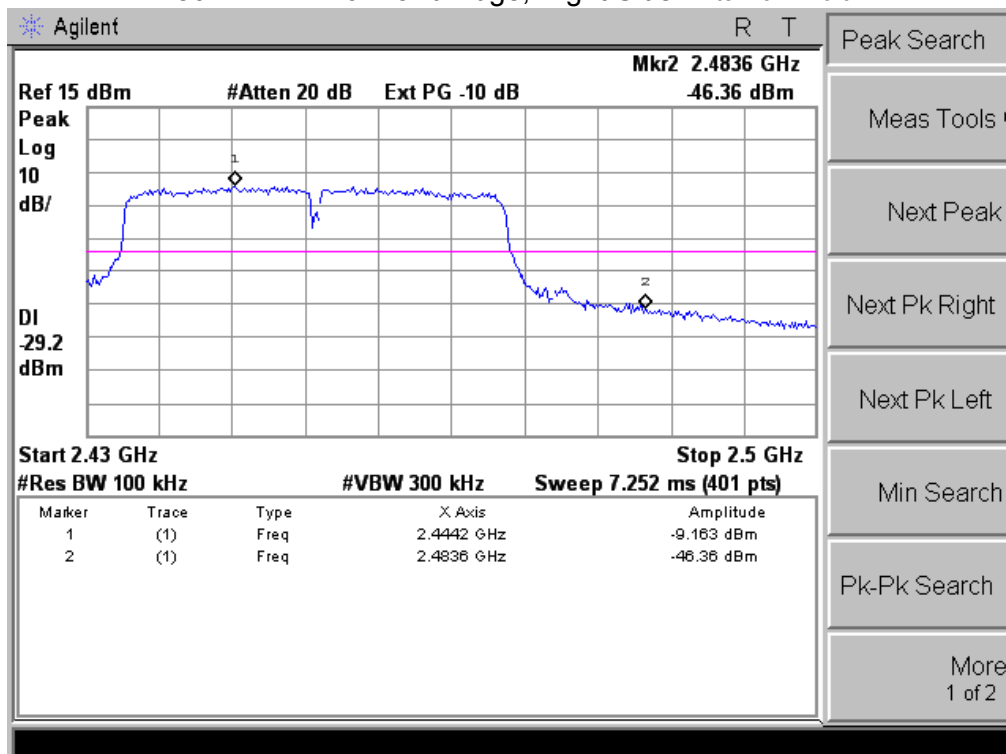
802.11n-HT20: Band Edge, Right Side/ Antenna B Port



802.11n-HT40: Band Edge, Left Side/ Antenna B Port



802.11n-HT40: Band Edge, Right Side/ Antenna B Port



8. ANTENNA REQUIREMENT

8.1 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.

8.2 EUT ANTENNA

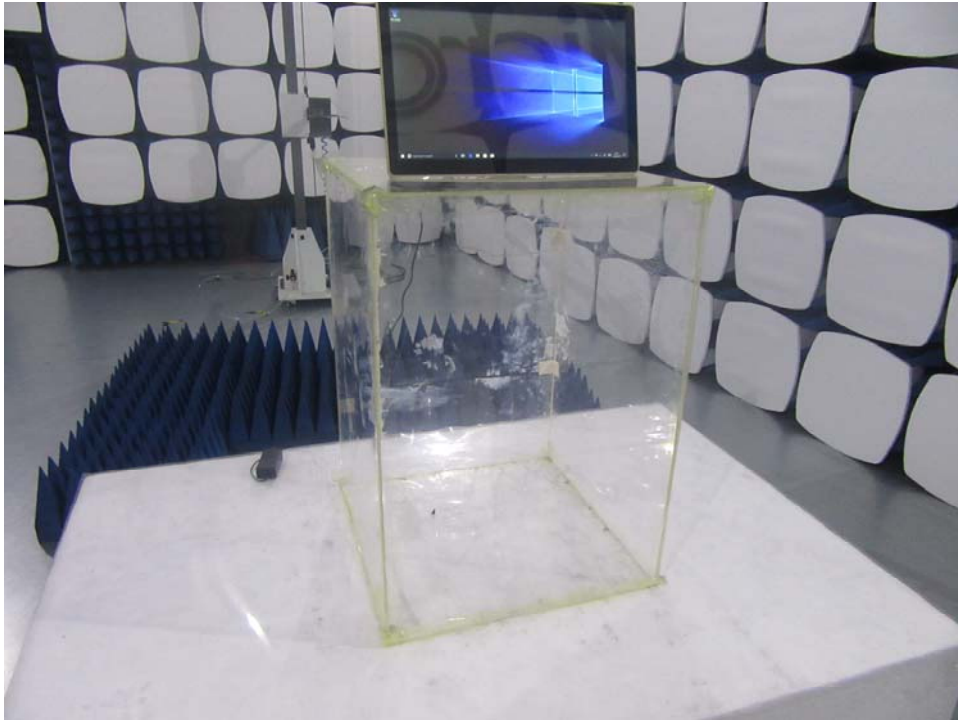
The EUT antenna is Internal Antenna. It comply with the standard requirement.

9. EUT TEST PHOTO

Radiated Measurement Photos



Radiated Measurement Photos



Conducted Emission

