FCC RADIO TEST REPORT

Prepared For	SHENZHEN ORIENTAL WISDOM TECHNOLOGY CO.,LTD
Product Name:	TABLET PC
Trade Name:	···B <i>#</i> 5
Model Name :	729
FCC ID:	2ABQ8729
Prepared By	DongGuan Precise Testing Service Co.,Ltd.
	Room 203-204, 2F, Xinye Building, No.67 Shijing, Guanzhang Road, Dongguan, China
Report No.	PTS2014010354F
Test Date:	Jan.01, 2014 ~ Jan.16, 2014
Date of Report:	Jan.16, 2014



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VERIFICATION OF COMPLIANCE

Applicant:	Shenzhen Vsdream Technology Co., Ltd.
Address	4F Building 1, Zhonghaixin Science & Technology Park,Bulan Road, Buji Ave, Longgang Dist., Shenzhen
Manufacturer Name:	Shenzhen Vsdream Technology Co., Ltd.
Address:	4F Building 1, Zhonghaixin Science & Technology Park,Bulan Road, Buji Ave, Longgang Dist., Shenzhen
Product Description:	TABLET PC
Brand Name: AWWWWW	₩Þ-FDE
Model Name:	729
Model difference:	N/A
Test procedure	DA000705
Standards	FCC Part15.247

Prepared by:

Assistant

Reviewer:

Supervisor

Approved & Authorized Signer : _______ Jacky Ou / Manager



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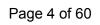




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1. SUMMARY OF TEST RESULTS

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

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1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

Add.:1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.

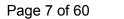
FCC Registration No.:238937; IC Registration No.:9270A-1

CNAS Registration No.:L5516

1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%





2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	TABLET PC				
Trade Name AWWWWWW	₩₩P EDE				
Model Name	729				
Serial Model	N/A				
Model Difference	N/A				
	The EUT is a TABLE	TPC			
	Operation	802.11b/g/n20MHz:2412~2462 MHz			
	Frequency:				
	Modulation Type:	CCK/OFDM/DBPSK/DAPSK			
	Bit Rate of	802.11b:11/5.5/2/1 Mbps			
	Transmitter	802.11g:54/48/36/24/18/12/9/6Mbps			
		802.11n(20MHz): 78/52/6.5Mbps			
	Number Of Channel	802.11b/g/n20MHz:11CH			
	Antenna	Please see Note 3.			
Product Description	Designation:				
	Output	802.11b: 13.61 dBm (Max.)			
	Power(Conducted):	802.11g: 12.79 dBm (Max.)			
		802.11n(20M): 11.78dBm (Max.)			
	Antenna Gain (dBi)	2.0dbi			
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.				
Channel List	Please refer to the Note 2.				
Bettery	Rated Voltage:3.7V				
Dettery	Charge Limit:4.2V				
	Model: SW106-W0502000A				
Adapter	INPUT:AC100-240V,50/60Hz				
	OUTPUT: 5V,2A				
Connecting I/O Port(s)	Please refer to the User's Manual				
Note:					

Note:

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

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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		

3.

Table for Filed Antenna

IGDI	Table for Filed Africania					
Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
Α	N/A	N/A	FPCB Antenna	N/A	2.0	Wifi Antenna





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.

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Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n(20) CH1/ CH6/ CH11
Mode 4	Link Mode

For Conducted Emission		
Final Test Mode	Description	
Mode 4	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	802.11n(20) CH1/ CH6/ CH11	
Mode 4	Link Mode	

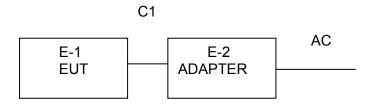
Note:

- (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

Conducted Emission Test



Radiated Spurious Emission Test

E-1 EUT



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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	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	TABLET PC	N/A	729	N/A	EUT
E-2	Adapter	N/A	SW106-W0502000A	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.0M	

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 <code>『Length』</code> column.



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2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
Spectrum Analyzer	Agilent	E4407B	MY4510804 0	2013.07.06	2014.07.05	1 year
Test Receiver	R&S	ESPI	101318	2013.06.07	2014.06.06	1 year
Bilog Antenna	TESEQ	CBL6111D	31216	2013.07.06	2014.07.05	1 year
50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2013.06.07	2014.06.06	1 year
Spectrum Analyzer	ADVANTEST	R3132	150900201	2013.06.07	2014.06.06	1 year
Horn Antenna	EM	EM-AH-101 80	2011071402	2013.07.06	2014.07.05	1 year
Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2013.07.06	2014.07.05	1 year
Amplifier	EM	EM-30180	060538	2012.12.22	2013.12.21	1 year
Loop Antenna	ARA	PLA-1030/B	1029	2013.06.08	2014.06.07	1 year
Power Meter	R&S	NRVS	100696	2013.07.06	2014.07.05	1 year
Power Sensor	R&S	URV5-Z4	0395.1619.0 5	2013.07.06	2014.07.05	1 year
	Equipment Spectrum Analyzer Test Receiver Bilog Antenna 50Ω Coaxial Switch Spectrum Analyzer Horn Antenna Horn Ant Amplifier Loop Antenna Power Meter	EquipmentManufacturerSpectrum AnalyzerAgilentTest ReceiverR&SBilog AntennaTESEQ50Ω Coaxial SwitchAnritsuSpectrum AnalyzerADVANTESTHorn AntennaEMHorn AntSchwarzbeckAmplifierEMLoop AntennaARAPower MeterR&S	EquipmentManufacturerType No.Spectrum AnalyzerAgilentE4407BTest ReceiverR&SESPIBilog AntennaTESEQCBL6111D50Ω Coaxial SwitchAnritsuMP59BSpectrum AnalyzerADVANTESTR3132Horn AntennaEMEM-AH-101 80Horn AntSchwarzbeckBBHA 9170AmplifierEMEM-30180Loop AntennaARAPLA-1030/BPower MeterR&SNRVS	Equipment Manufacturer Type No. Serial No. Spectrum Analyzer Agilent E4407B MY4510804 0 Test Receiver R&S ESPI 101318 Bilog Antenna TESEQ CBL6111D 31216 50Ω Coaxial Switch Anritsu MP59B 6200264416 Spectrum Analyzer ADVANTEST R3132 150900201 Horn Antenna EM EM-AH-101 80 2011071402 Horn Ant Schwarzbeck BBHA 9170 9170-181 Amplifier EM EM-30180 060538 Loop Antenna ARA PLA-1030/B 1029 Power Meter R&S NRVS 100696 Power Sensor R&S URV5-74 0395.1619.0	Equipment Manufacturer Type No. Serial No. calibration Spectrum Analyzer Agilent E4407B MY4510804 0 2013.07.06 Test Receiver R&S ESPI 101318 2013.06.07 Bilog Antenna TESEQ CBL6111D 31216 2013.07.06 50Ω Coaxial Switch Anritsu MP59B 6200264416 2013.06.07 Spectrum Analyzer ADVANTEST R3132 150900201 2013.06.07 Horn Antenna EM EM-AH-101 80 2011071402 2013.07.06 Horn Ant Schwarzbeck BBHA 9170 9170-181 2013.07.06 Amplifier EM EM-30180 060538 2012.12.22 Loop Antenna ARA PLA-1030/B 1029 2013.06.08 Power Meter R&S NRVS 100696 2013.07.06 Power Sensor R&S LIRV5-74 0395.1619.0 2013.07.06	Equipment Manufacturer Type No. Serial No. calibration until Spectrum Analyzer Agilent E4407B MY4510804 0 2013.07.06 2014.07.05 Test Receiver R&S ESPI 101318 2013.06.07 2014.06.06 Bilog Antenna TESEQ CBL6111D 31216 2013.07.06 2014.07.05 50Ω Coaxial Switch Anritsu MP59B 6200264416 2013.06.07 2014.06.06 Spectrum Analyzer ADVANTEST R3132 150900201 2013.06.07 2014.06.06 Horn Antenna EM EM-AH-101 80 2011071402 2013.07.06 2014.07.05 Amplifier EM EM-30180 060538 2012.12.22 2013.12.21 Loop Antenna ARA PLA-1030/B 1029 2013.06.08 2014.06.07 Power Meter R&S NRVS 100696 2013.07.06 2014.07.05

Conduction Test equipment

Item	Kind of Equipment	Manufactu rer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2013.06.06	2014.06.05	1 year
2	LISN	R&S	ENV216	101313	2013.08.24	2014.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2013.08.24	2014.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2013.06.07	2014.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2013.06.07	2014.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2013.06.08	2014.06.07	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 A (dBuV)		Class B (dBuV)		Standard
PREQUENCT (MHZ)	Quasi-peak	Average	Quasi-peak	Average	Statiuatu
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	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



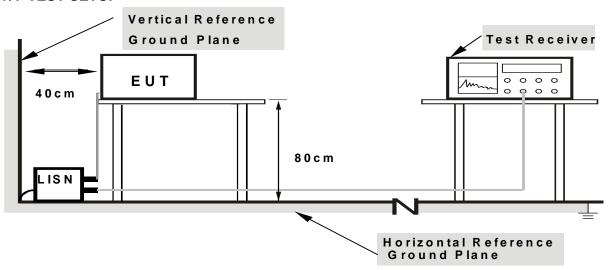
3.1.2 TEST PROCEDURE

- 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.

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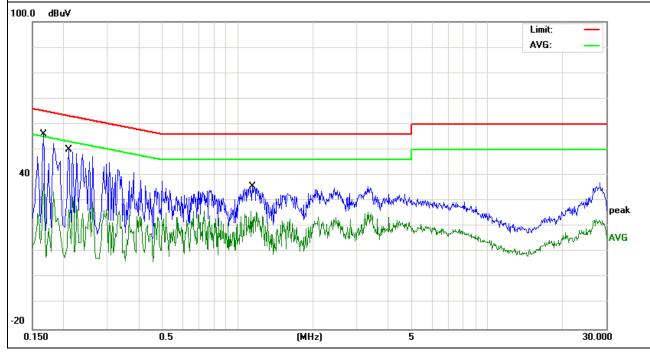
3.1.6 TEST RESULTS

EUT:	TABLET PC	Model Name. :	729
Temperature:	26 ℃	Relative Humidity:	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	DC 3.7V AC120V/60Hz	Test Mode:	Mode 4

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data atau Tura
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Detector Type
0.1660	46.37	9.81	56.18	65.15	-8.97	QP
0.2100	40.14	9.78	49.92	63.20	-13.28	QP
1.1340	25.44	10.16	35.60	56.00	-20.40	QP
0.1660	27.16	9.81	36.97	55.15	-18.18	AVG
0.2100	19.95	9.78	29.73	53.20	-23.47	AVG
1.1340	15.76	10.16	25.92	46.00	-20.08	AVG

Remark:

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



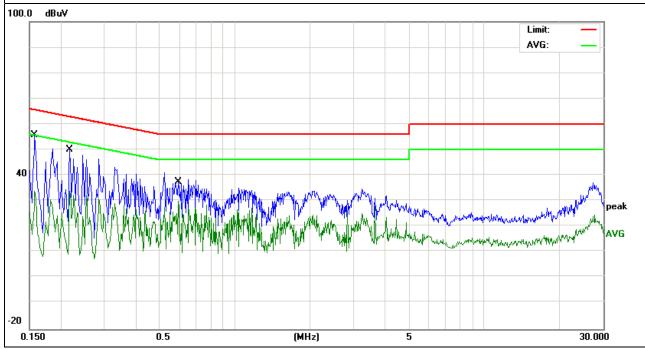
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		_	
EUT:	TABLET PC	Model Name. :	729
Temperature :	26 ℃	Relative Humidity:	54%
Pressure :	1010hPa	Phase :	N
Test Voltage :	DC 3.7V AC120V/60Hz	Test Mode:	Mode 4

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotostor Typo
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Detector Type
0.2180	39.92	10.20	50.12	62.89	-12.77	QP
0.1580	45.93	9.88	55.81	65.56	-9.75	QP
0.5940	30.74	10.22	40.96	56.00	-15.04	QP
0.1580	24.07	9.88	33.95	55.56	-21.61	AVG
0.2180	22.37	10.20	32.57	52.89	-20.32	AVG
0.5940	19.84	10.22	30.06	46.00	-15.94	AVG

Remark:

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





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	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

	Class A (dBu	V/m) (at 3M)	Class B (dBuV/m) (at 3M)		
FREQUENCY (MHz)	PEAK	AVERAGE	PEAK	AVERAGE	
Above 1000	80	60	74	54	

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

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

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

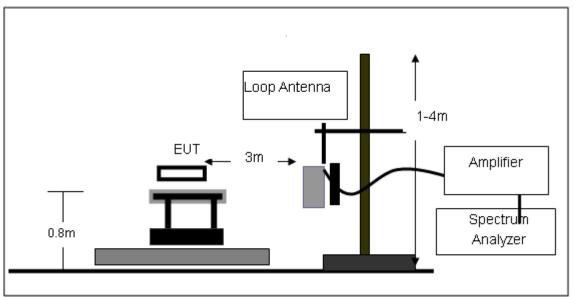
3.2.3 DEVIATION FROM TEST STANDARD

No deviation

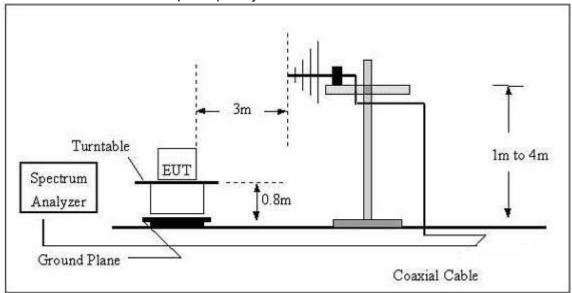


3.2.4 TEST SETUP

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

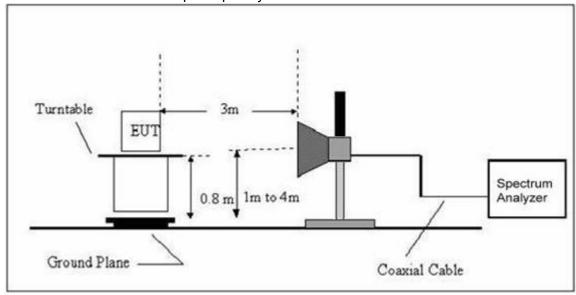


(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





(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.

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3.2.6 TEST RESULTS (BETWEEN 9KHZ - 30 MHZ)

EUT:	TABLET PC	Model Name. :	729
Temperature:	20 ℃	Relative Humidtity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V AC120V/60Hz
Test Mode:	TX	Polarization :	

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m) (dB)		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 (specific distance/test distance)(dB); Limit line = specific limits(dBuv) + distance extrapolation factor.

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3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

EUT:	TABLET PC	Model Name :	729
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage:	DC 3.7V
Test Mode:	TX		

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре
V	72.0841	26.73	6.28	33.01	40.00	-6.99	QP
V	105.2716	21.77	10.96	32.73	43.50	-10.77	QP
V	245.9507	26.51	12.44	38.95	46.00	-7.05	QP
Н	112.5241	20.55	11.55	32.1	43.50	-11.40	QP
Н	222.9499	25.49	10.11	35.6	46.00	-10.40	QP
Н	760.7036	13.79	24.36	38.15	46.00	-7.85	QP

Remark:



3.2.8 TEST RESULTS (1GHZ-26GHZ)

802.11b/2412MHz

Normal Voltage

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector		
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре		
	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		
Н	4825.246	66.95	-3.58	63.37	74.00	-10.63	Pk		
Н	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	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector		
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре		
	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		
Н	4875.184	64.28	-3.64	60.64	74.00	-13.36	Pk		
Н	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	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector			
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре			
	operation frequency:2462									
V	4925.016	56.39	-3.64	52.75	74.00	-21.25	pk			
Н	4923.864	55.48	-3.66	51.82	74.00	-22.18	pk			

Remark:



802.11g/2412MHz

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Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
		ор	eration fre	quency: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
Н	4824.197	63.22	-3.6	59.62	74.00	-14.38	Pk
Н	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	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре
		ор	eration fre	equency: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
Н	4874.609	60.48	-3.64	56.84	74.00	-17.16	Pk
Н	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	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре	
	operation frequency:2462							
V	4924.527	55.21	-3.60	51.61	74.00	-22.39	pk	
Н	4923.256	56.09	-3.66	52.43	74.00	-21.57	pk	

Remark:



802.11n(20MHz)/2412MHz

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Normal Voltage

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре	
	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	
Н	4824.592	61.27	-3.60	57.67	74.00	-16.33	Pk	
Н	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	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре	
	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	
Н	4873.834	60.48	-3.64	56.84	74.00	-17.16	Pk	
Н	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	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector		
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Туре		
	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		
Н	4925.648	55.94	-3.66	52.28	74.00	-21.72	pk		

Remark:

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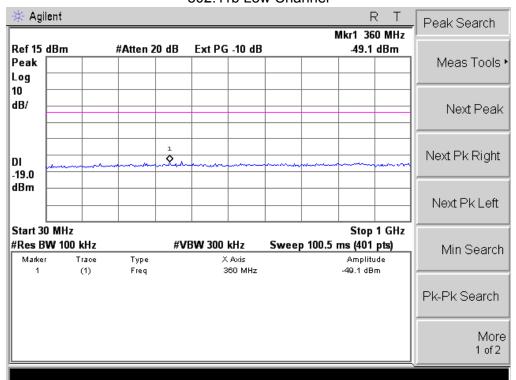
Radiated band edge:

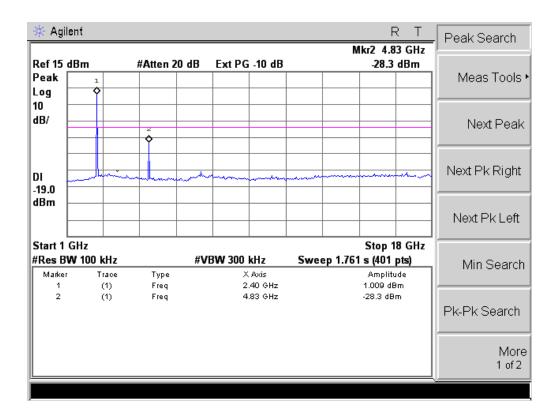
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	Comment		
(MHz)	(MHz) (dBµV)		(dBµV/m)	(dBµV/m) (dB)		Type	Comment		
	802.11b								
2390	61.97	-12.99	48.98	74	-25.02	peak	Vertical		
2390	58.88	-12.99	45.89	74	-28.11	peak	Horizontal		
2483.5	50.78	-12.78	38.00	74	-36.00	peak	Vertical		
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: The result(PK) less than AV limite,No need shown AV result.

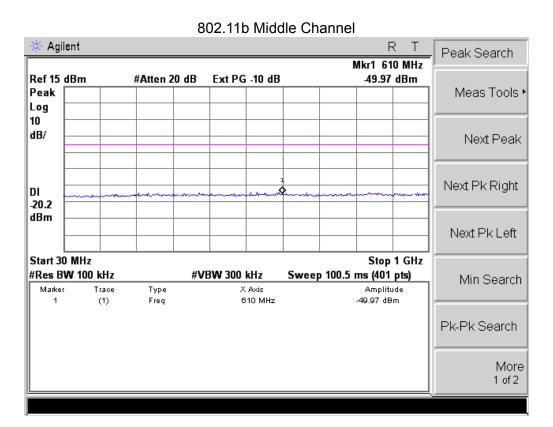


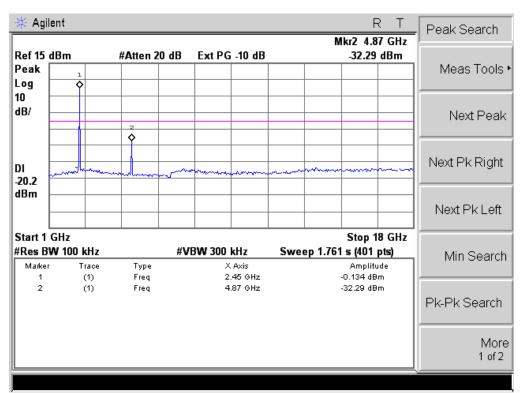




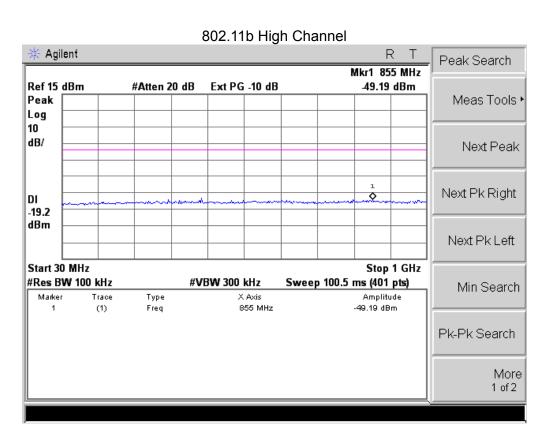


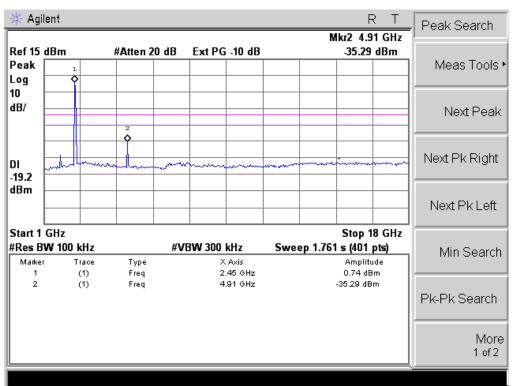




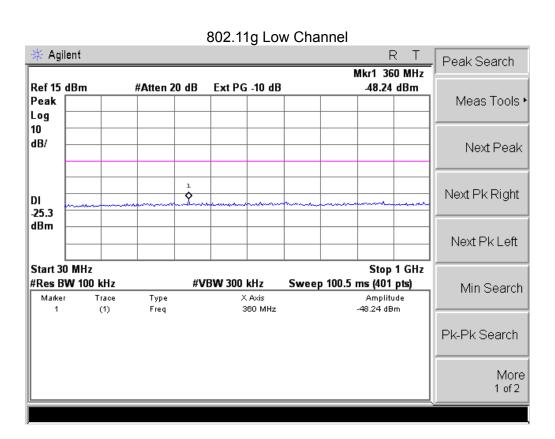


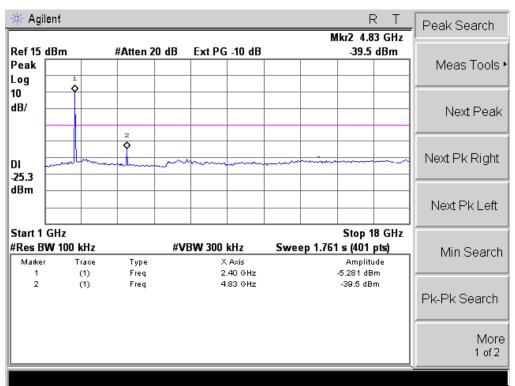




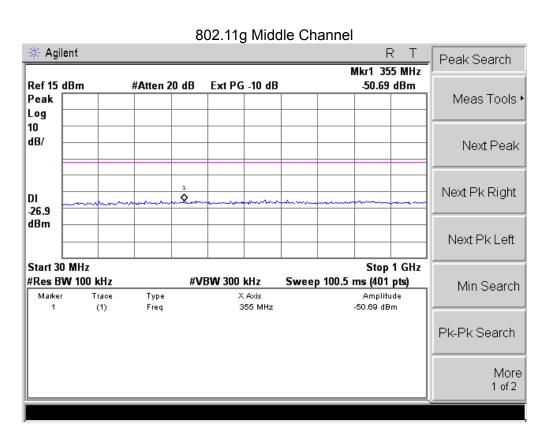


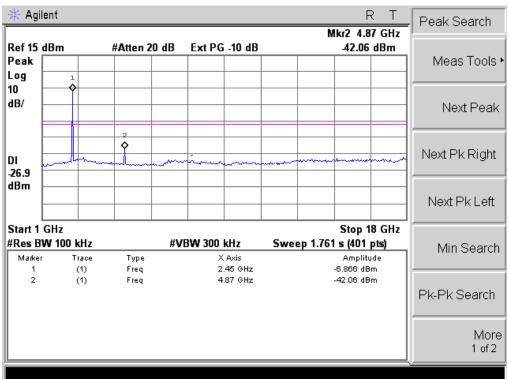




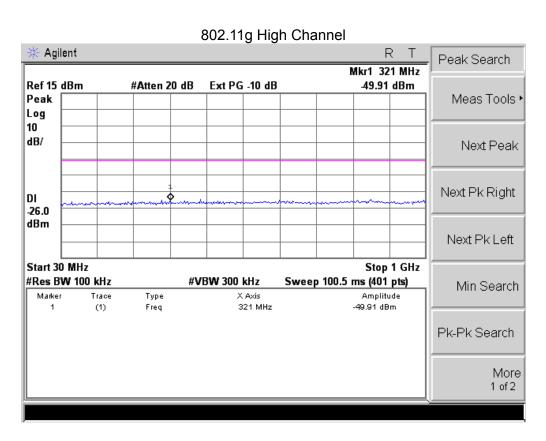


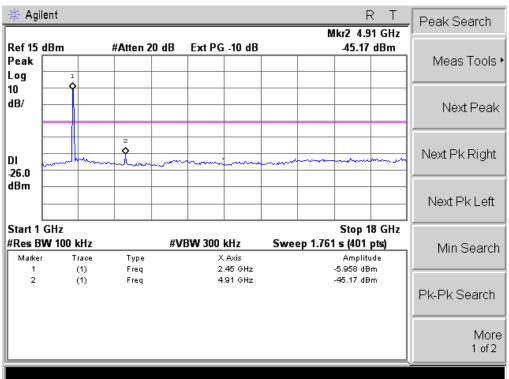




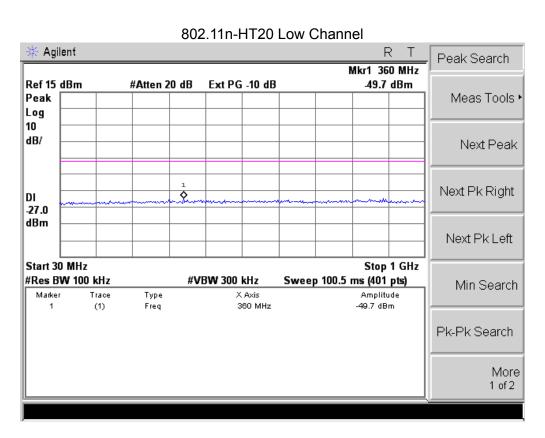


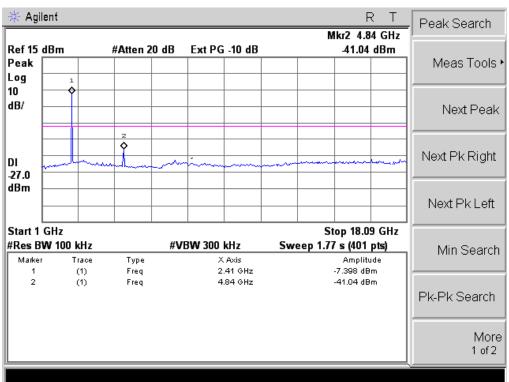






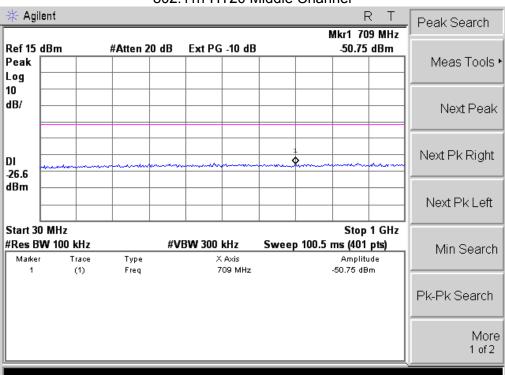


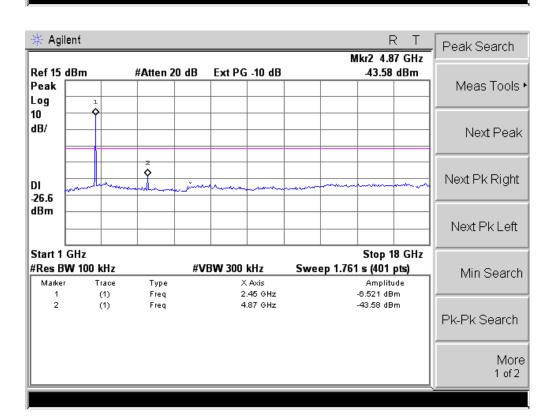






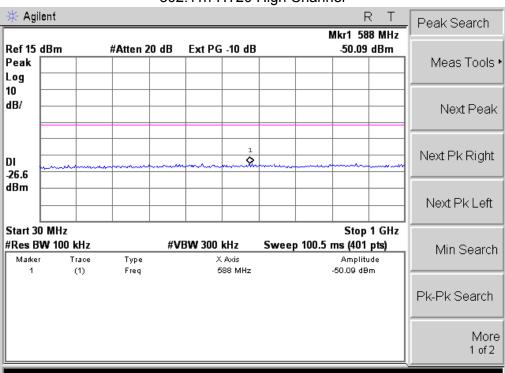
802.11n-HT20 Middle Channel

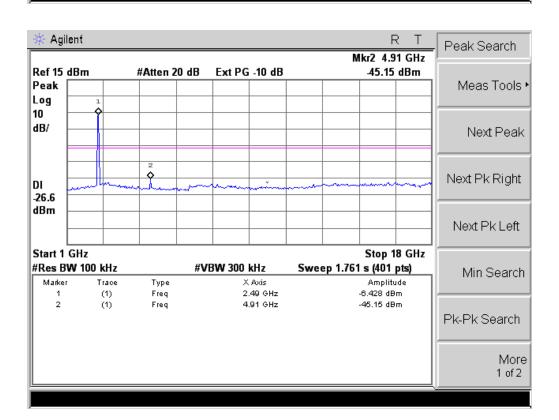






802.11n-HT20 High Channel







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 ≥ 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

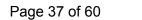
No deviation.

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.

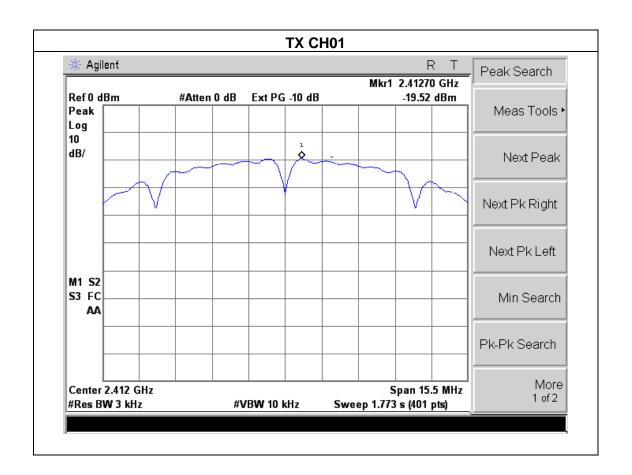




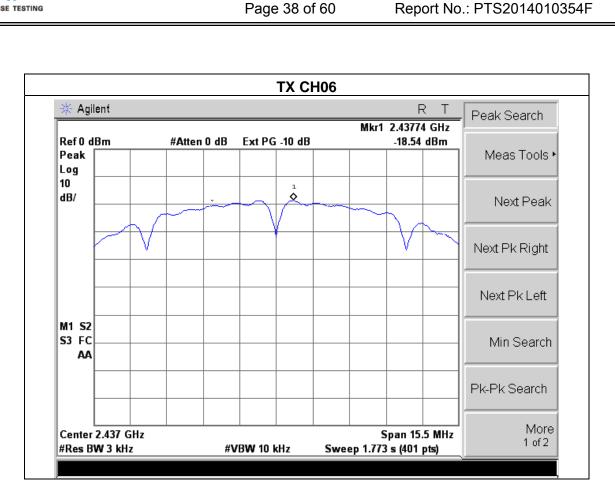
4.1.5 TEST RESULTS

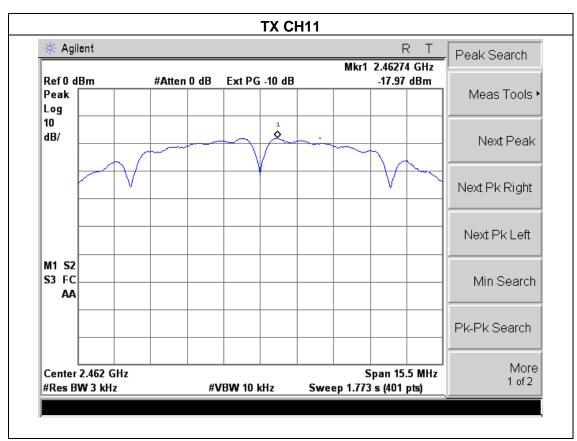
EUT:	TABLET PC	Model Name :	729
Temperature :	25 ℃	Relative Humidity:	60%
Pressure:	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TY h Mode /CH01 CH06 CH1	1	

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-19.52	8	PASS
2437 MHz	-18.54	8	PASS
2462 MHz	-17.97	8	PASS







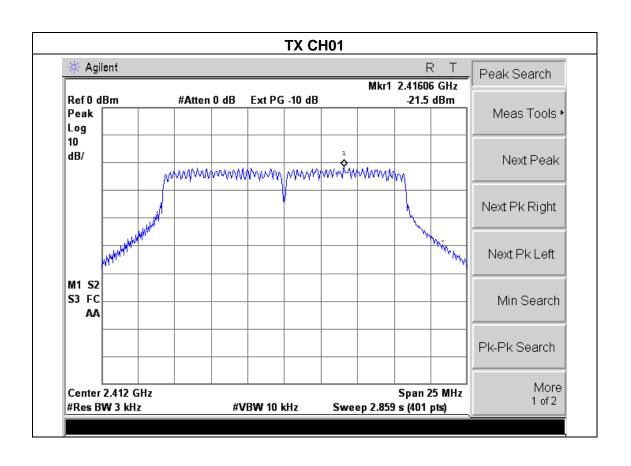




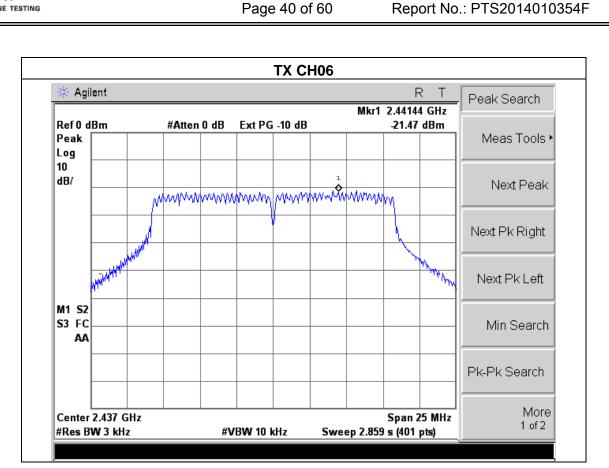
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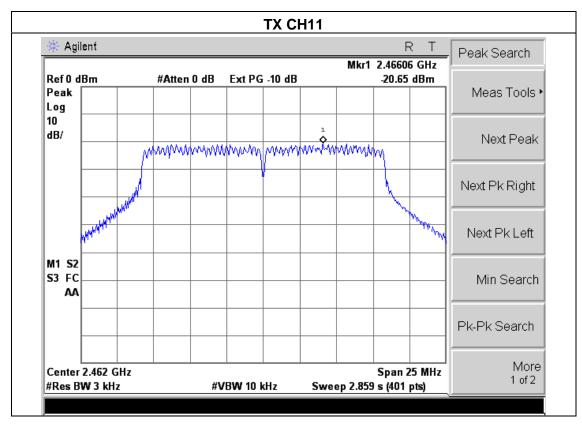
EUT:	TABLET PC	Model Name :	729
Temperature:	25 ℃	Relative Humidity:	60%
Pressure:	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX g Mode /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-21.50	8	PASS
2437 MHz	-21.47	8	PASS
2462 MHz	-20.65	8	PASS







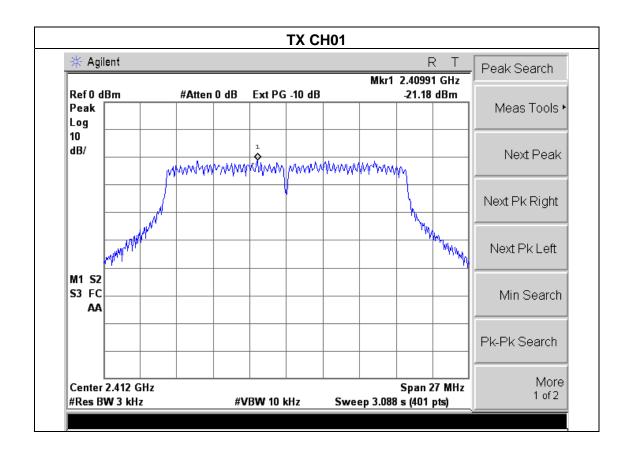




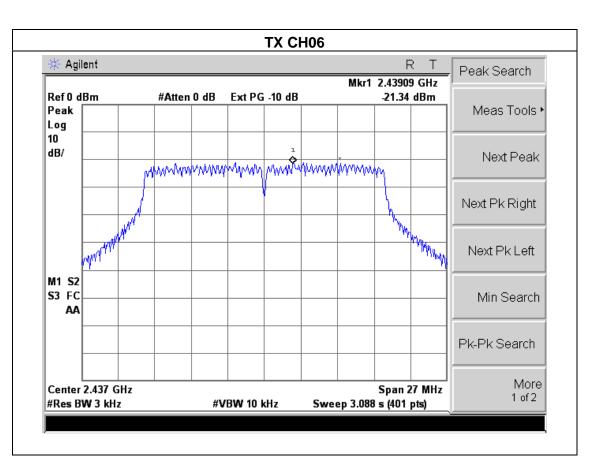
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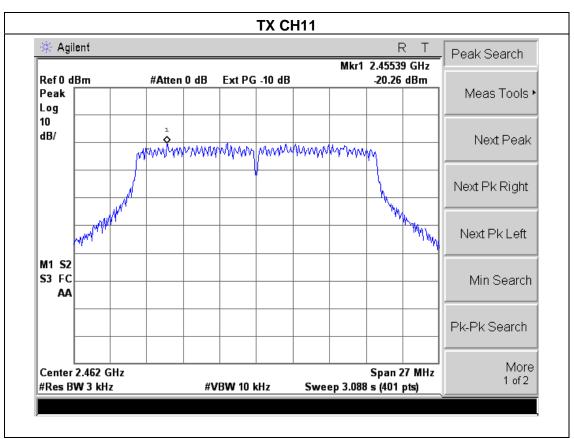
	_	_	
EUT:	TABLET PC	Model Name :	729
Temperature:	25 ℃	Relative Humidity:	60%
Pressure:	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX n Mode(20M) /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-21.18	8	PASS
2437 MHz	-21.34	8	PASS
2462 MHz	-20.26	8	PASS











5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

1					
	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 RBW= 100 kHz.
- 2. Set the video bandwidth (VBW) \geq 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.

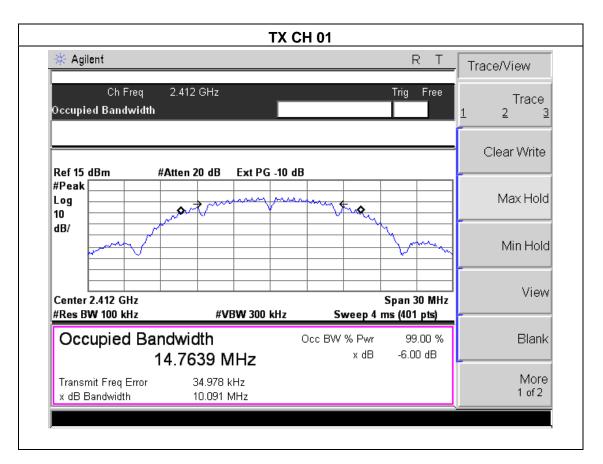




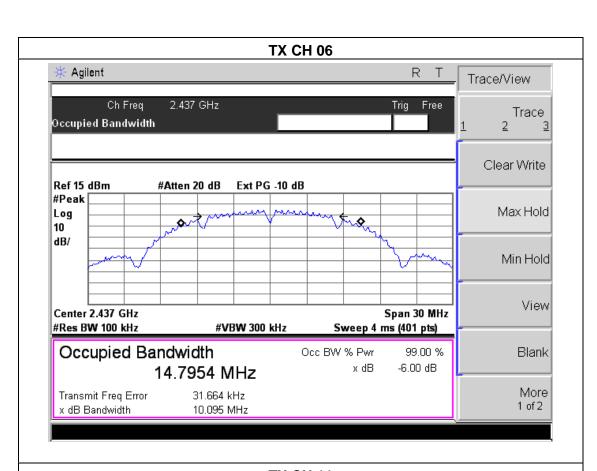
5.1.5 TEST RESULTS

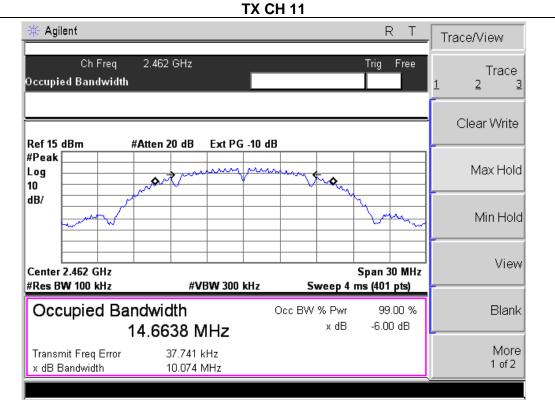
EUT:	TABLET PC	Model Name :	729
Temperature :	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX b Mode /CH01, CH06, CH11		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	10.10	500	Pass
Middle	2437	10.10	500	Pass
High	2462	10.07	500	Pass







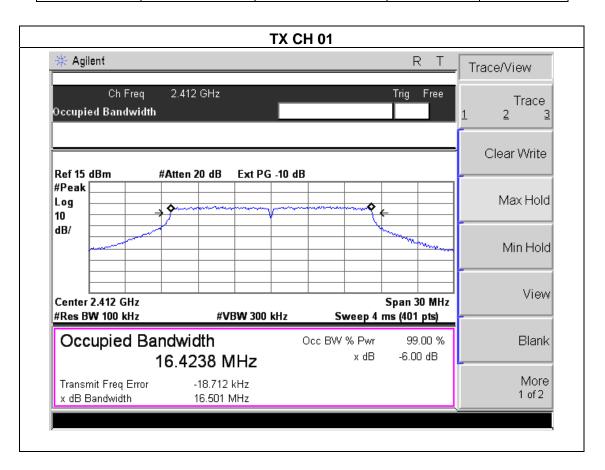




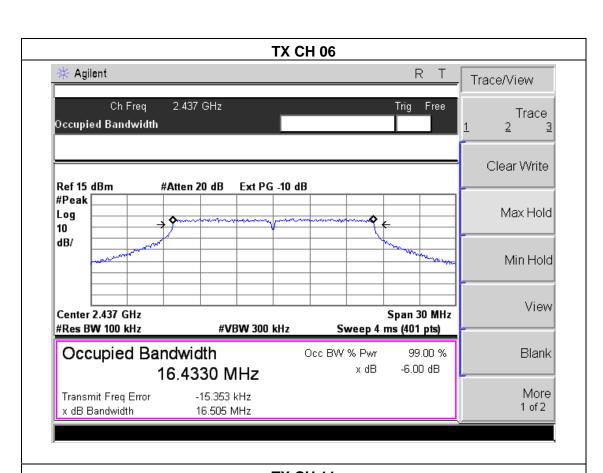
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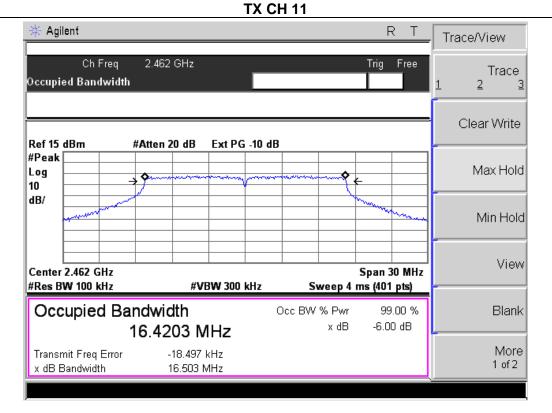
		_	
EUT:	TABLET PC	Model Name :	729
Temperature :	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX g Mode /CH01, CH06, CH11		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.50	500	Pass
Middle	2437	16.51	500	Pass
High	2462	16.50	500	Pass











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EUT:	TABLET PC	Model Name :	729
Temperature :	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX n Mode(20M) /CH01, CH06, CH11		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	17.78	500	Pass
Middle	2437	17.75	500	Pass
High	2462	17.80	500	Pass





TX CH 06 🔆 Agilent Trace/View 2.437 GHz Ch Freq Trig Free Trace Occupied Bandwidth Clear Write Ref 15 dBm #Atten 20 dB Ext PG -10 dB #Peak Max Hold Log 10 dB/ Min Hold View Center 2.437 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts) Occupied Bandwidth 99.00 % Occ BW % Pwr Blank x dB -6.00 dB 17.6157 MHz More Transmit Freq Error 1.958 kHz 1 of 2 x dB Bandwidth 17.751 MHz **TX CH 11** Agilent Trace/View 2.462 GHz Ch Freq Trig Free Trace Occupied Bandwidth Clear Write Ref 15 dBm #Atten 20 dB Ext PG -10 dB #Peak Max Hold Log 10 dB/ Min Hold View Span 30 MHz Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 4 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % Blank x dB -6.00 dB 17.6297 MHz More Transmit Freq Error 10.949 kHz 1 of 2 x dB Bandwidth 17.795 MHz



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

POWER WEIER	POWER METER
-------------	-------------

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.

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6.1.5 TEST RESULTS

EUT:	TABLET PC	Model Name :	729
Temperature :	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX b/g/n(20M) Mode /CH01, CH06, CH11		

TX 802.11b Mode					
		Maximum	Maximum		
Test	Frequency	Conducted Output	Conducted Output	LIMIT	
Channe		Power(PK)	Power(AV)		
	(MHz)	(dBm)	(dBm)	dBm	
CH01	2412	13.61	9.43	30	
CH06	2437	13.59	9.27	30	
CH11	2462	13.42	9.21	30	
	TX 802.11g Mode				
CH01	2412	12.79	9.05	30	
CH06	2437	12.65	8.76	30	
CH11	2462	12.70	8.81	30	
TX 802.11n-HT20 Mode					
CH01	2412	11.78	8.12	30	
CH06	2437	11.72	8.01	30	
CH11	2462	11.64	7.94	30	



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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

EUT	SPECTRUM
	ANALYZER

7.3 EUT OPERATION CONDITIONS



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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.



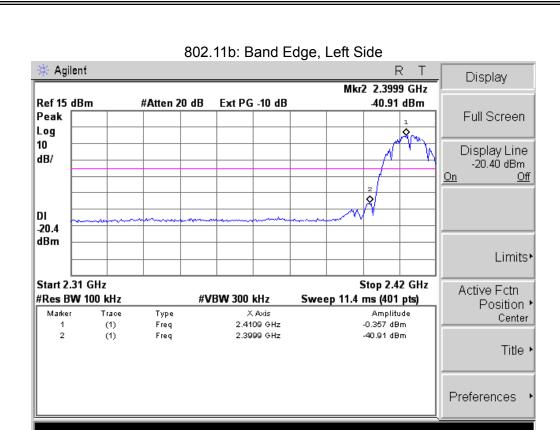
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7.4 TEST RESULTS

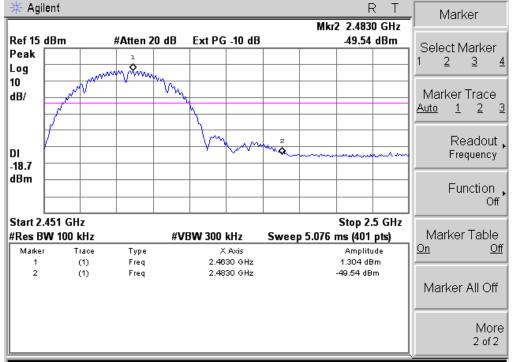
EUT:	TABLET PC	Model Name :	729
Temperature :	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V

Frequency Band	Delta Peak to band emission (dBc)	>Limit (dBc)	Result		
802.11b mode					
Left-band	40.55	20	Pass		
Right-band	50.84	20	Pass		
802.11g mode					
Left-band	29.65	20	Pass		
Right-band	46.40	20	Pass		
802.11n-HT20 mode					
Left-band	29.35	20	Pass		
Right-band	45.87	20	Pass		

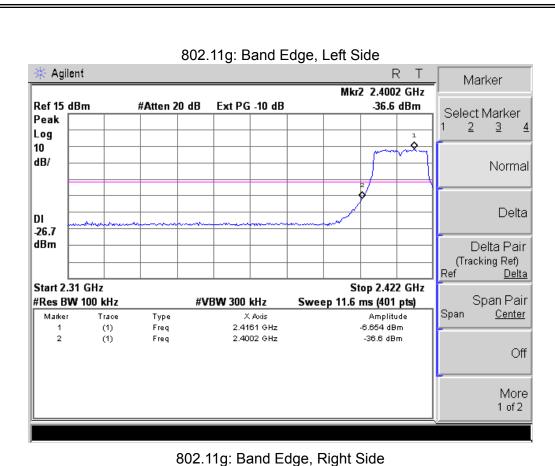




802.11b: Band Edge, Right Side

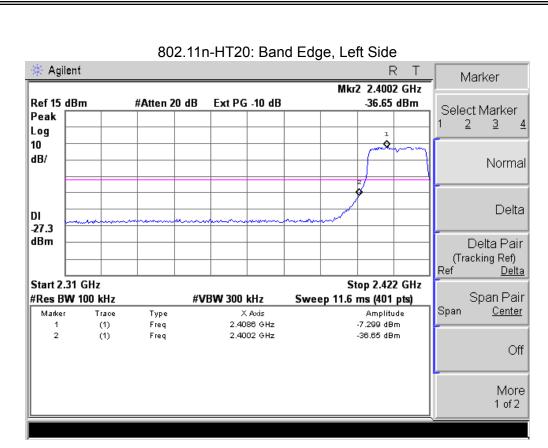




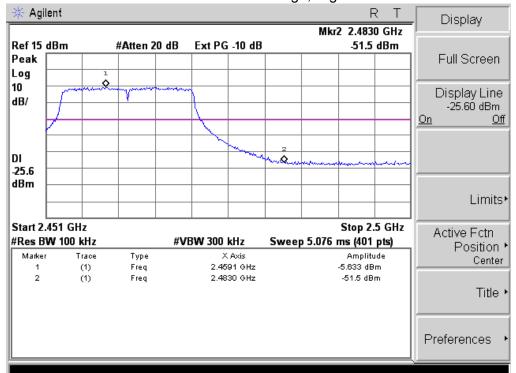


🔆 Agilent Marker Mkr2 2.4830 GHz Ref 15 dBm #Atten 20 dB Ext PG -10 dB -52.44 dBm Select Marker Peak 3 Log 10 dB/ Normal Delta DI · Q -26.0 dBm Delta Pair (Tracking Ref) <u>Delta</u> Start 2.451 GHz Stop 2.5 GHz Span Pair #Res BW 100 kHz #VBW 300 kHz Sweep 5.076 ms (401 pts) Amplitude -6.036 dBm Span Center Туре Marker Trace X Axis 2.4662 GHz (1) (1) Freq 2 Freq 2.4830 GHz -52.44 dBm Off More 1 of 2





802.11n-HT20: Band Edge, Right Side



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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 Integrated(FPCB) antenna. It comply with the standard requirement.



9. EUT TEST PHOTO

Radiated Measurement Photos



Radiated Measurement Photos







