



Report No: File reference No:	FCC 1705088-01 2017-05-23
Applicant:	Shenzhen Jingwah Information Technology Co., Ltd.
Product:	Tablet PC
Model No:	A102, W10, WT1050
Trademark:	Polaroid, Packard Bell
Test Standards:	FCC Part 15.247
Test result:	It is herewith confirmed and found to comply with the requirements set up by ANSI C63.10, FCC Part 15.247 for the evaluation of electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated:

May 23, 2017

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

# SHENZHEN TIMEWAY TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com



# **Special Statement:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

# CNAL-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of testing Laboratories.

# FCC-Registration No.: 899988

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

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#### 1.0 **General Details**

#### Test Lab Details 1.1

Name :	SHENZHEN TIMEWAY TESTING LABORATORIES.
Address:	Room 512-519,5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen,
	Guangdong China
Telephone:	(755) 83448688
Fax:	(755) 83442996
Site on File w	vith the Federal Communications Commission – United Sates
Registration N	Number: 899988
For 3m & 10	m OATS
Site Listed wi	ith Industry Canada of Ottawa, Canada
Registration N	Number: IC: 5205A-02
For 3m & 10	m OATS

## 1.2 Applicant Details

Applicant:	Shenzhen Jingwah Information Technology Co., Ltd.
Address:	4F, Bldg 4, Jinghua Square, No.1 Huafa North Road, Futian District, Shenzhen, China
Telephone:	
Fax:	

## 1.3 Description of EUT

Product:	Tablet PC		
Manufacturer:	Shenzhen Jingwah Information Technology Co., Ltd.		
Address:	4F, Bldg 4, Jinghua Square, No.1 Huafa North Road, Futian District,		
	Shenzhen, China		
Brand Name:	Polaroid, Packard Bell		
Model Number:	A102		
Additional Model Nun	nber: W10, WT1050		
Type of Modulation	IEEE 802.11b : DSSS (CCK, QPSK, DBPSK)		
	IEEE 802.11g/n (HT20/HT40) : OFDM(64QAM, 16QAM, QPSK, BPSK)		
Frequency range	IEEE 802.11b/g/n (HT20) : 2412-2462MHz; IEEE 802.11n (HT40) : 2422-2452MHz;		
Channel Spacing	5MHz for IEEE 802.11b/g/n(HT20/HT40)		
Air Data Rate	IEEE 802.11b : 11, 5.5, 2, 1 Mbps		
	IEEE 802.11g : 54, 48,36, 24, 18, 12, 9, 6 Mbps		
	IEEE 802.11n HT20/HT40 : msc0-msc7		
Frequency Selection	By software		
Channel Number	IEEE 802.11b/g/n (HT20) : 11 Channels; IEEE 802.11n (HT40) : 7 Channels		
Antenna:	Integral Antenna and the maximum Gain of this antenna is 3.42dBi;		
Power Adapter	Model No.: JHD-AP012U-050200BA		
	Input: 100-240V, 50/60Hz, 0.35A; Output: 5V, 2000mA		

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- 1.4 Submitted Sample: 2 Samples
- 1.5 Test Duration 2017-05-16 to 2017-05-23
- 1.6 Test Uncertainty Conducted Emissions Uncertainty =3.6dB Radiated Emissions Uncertainty =4.7dB
- 1.7 Test Engineer

Terry lang

The sample tested by

Print Name: Terry Tang

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2016-08-22	2017-08-21
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2016-08-22	2017-08-21
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2016-08-22	2017-08-21
Ultra Broadband ANT	R&S	HL562	100157	2016-08-23	2017-08-22
ESDV Test Receiver	R&S	ESDV	100008	2016-08-22	2017-08-21
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2016-08-22	2017-08-21
System Controller	СТ	SC100	-		
Printer	EPSON	PHOTO EX3	CFNH234850		
Computer	IBM	8434	1S8434KCE99BLXLO*	-	-
Loop Antenna	EMCO	6502	00042960	2016-08-23	2017-08-22
ESPI Test Receiver	R&S	ESI26	838786/013	2016-08-22	2017-08-21
3m OATS			N/A	2016-08-24	2017-08-23
Horn Antenna	R&S	BBHA 9170	BBHA9170265	2016-08-24	2017-08-23
Horn Antenna	R&S	BBHA 9120D	9120D-631	2016-08-24	2017-08-23
Power meter	Anritsu	ML2487A	6K00003613	2016-08-22	2017-08-21
Power sensor	Anritsu	MA2491A	32263	2016-08-22	2017-08-21
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2016-08-23	2017-08-21
LISN	AFJ	LS16C	10010947251	2016-08-22	2017-08-21
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2016-08-23	2017-08-22
9*6*6 Anechoic			N/A	2016-08-24	2017-08-23
EMI Test Receiver	RS	ESCS30	100139	2016-08-22	2017-08-21
RF Cable	SCHWARZBEC K			2016-08-23	2017-08-22
Pre-Amplifier	HP	8447D	2727A05017	2016-08-05	2017-08-04
Pre-Amplifier	EM	EM30265		2016-08-05	2017-08-04

2.1

Auxiliary Equipment

Name	Model No.	Rating	Manufacturer	FCC ID/DOC
Passive				
Earphone				

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#### **3. DESCRIPTION OF TEST MODES**

#### IEEE 802.11b, 802.11g, 802.11n (HT20) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 1Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 6Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode: msc0 data rate (worst case) were chosen for full testing (duty cycle>98%)

#### IEEE 802.11n (HT40) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n (HT40) mode: msc0 data rate (worst case) were chosen for full testing (duty cycle>98%)

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#### 3.0 **Technical Details**

#### 3.1 Summary of test results

The EUT has been tested ac	cording to the following speci	fications:	
Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107 & 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	PASS	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	PASS	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	PASS	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	PASS	Complies

#### 3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

#### **EUT Modification** 4.0

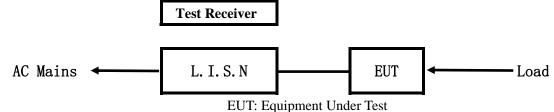
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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# 5.0Power Line Conducted Emission Test5.1Schematics of the test

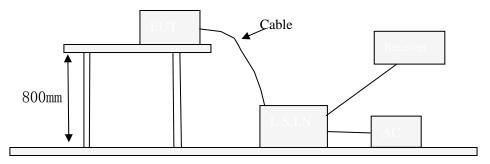


5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 500hm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V~, 60Hz

Block diagram of Test setup



## 5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the Appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID
Tablet PC	Shenzhen Jingwah Information Technology Co., Ltd.	A102, W10, WT1050	RBD-A102

#### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

#### C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Cable

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5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition
- 5.5 Power line conducted Emission Limit according to Paragraph 15.207 and 15.107

Frequency	Class A Limits (dB µ V)		Class B Limits (dB µ V)		
(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level	
$0.15~\sim~0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*	
$0.50~\sim~5.00$	73.0	60.0	56.0	46.0	
$5.00 \sim 30.00$	73.0	60.0	60.0	50.0	

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

## 5.6 Test Results

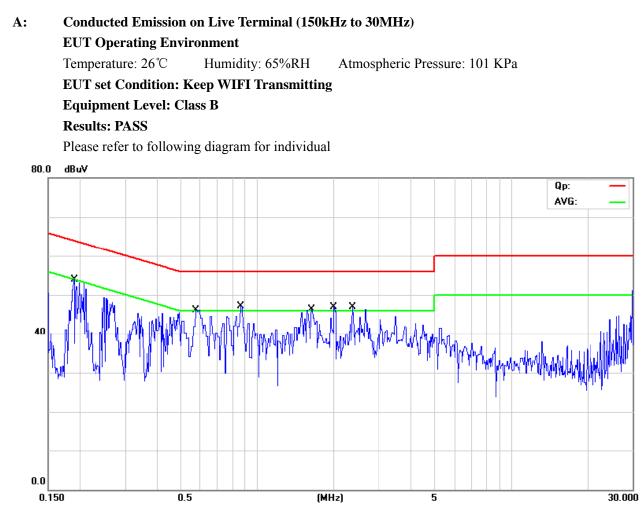
The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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1		MILL-		Factor	ment	Limit	Over		
1		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
		0.1891	33.40	9.89	43.29	64.08	-20.79	QP	
2		0.1891	7.70	9.89	17.59	54.08	-36.49	AVG	
3		0.5770	31.50	10.37	41.87	56.00	-14.13	QP	
4		0.5770	-4.50	10.37	5.87	46.00	-40.13	AVG	
5		0.8687	29.90	10.74	40.64	56.00	-15.36	QP	
6		0.8687	-4.90	10.74	5.84	46.00	-40.16	AVG	
7	*	1.6320	32.30	10.89	43.19	56.00	-12.81	QP	
8		1.6320	-2.40	10.89	8.49	46.00	-37.51	AVG	
9		1.9956	28.80	10.88	39.68	56.00	-16.32	QP	
10		1.9956	-1.90	10.88	8.98	46.00	-37.02	AVG	
11		2.3654	29.50	10.87	40.37	56.00	-15.63	QP	
12		2.3654	-0.40	10.87	10.47	46.00	-35.53	AVG	

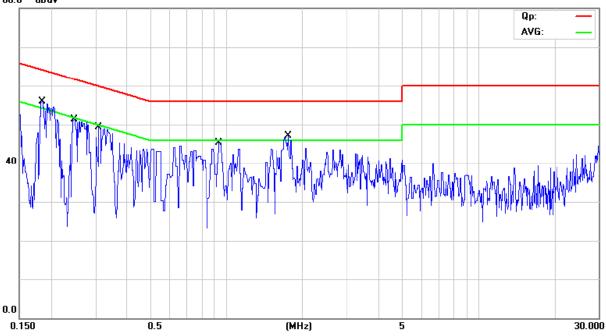
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# B: Conducted Emission on Neutral Terminal (150kHz to 30MHz) EUT Operating Environment Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa EUT set Condition: Keep WIFI Transmitting Equipment Level: Class B Results: Pass Please refer to following diagram for individual





		Level	Factor	ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
*	0.1865	37.90	9.89	47.79	64.19	-16.40	QP	
	0.1865	4.90	9.89	14.79	54.19	-39.40	AVG	
	0.2475	31.60	9.96	41.56	61.84	-20.28	QP	
	0.2475	-4.70	9.96	5.26	51.84	-46.58	AVG	
	0.3100	29.40	10.04	39.44	59.97	-20.53	QP	
	0.3100	-7.30	10.04	2.74	49.97	-47.23	AVG	
	0.9356	27.90	10.82	38.72	56.00	-17.28	QP	
	0.9356	-4.80	10.82	6.02	46.00	-39.98	AVG	
	1.7590	27.60	10.88	38.48	56.00	-17.52	QP	
	1.7590	-2.30	10.88	8.58	46.00	-37.42	AVG	
		0.2475 0.2475 0.3100 0.3100 0.9356 0.9356 1.7590	0.2475 31.60   0.2475 -4.70   0.3100 29.40   0.3100 -7.30   0.9356 27.90   0.9356 -4.80   1.7590 27.60	0.2475 31.60 9.96   0.2475 -4.70 9.96   0.3100 29.40 10.04   0.3100 -7.30 10.04   0.9356 27.90 10.82   0.9356 -4.80 10.82   1.7590 27.60 10.88	0.2475 31.60 9.96 41.56   0.2475 -4.70 9.96 5.26   0.3100 29.40 10.04 39.44   0.3100 -7.30 10.04 2.74   0.9356 27.90 10.82 38.72   0.9356 -4.80 10.82 6.02   1.7590 27.60 10.88 38.48	0.2475 31.60 9.96 41.56 61.84   0.2475 -4.70 9.96 5.26 51.84   0.3100 29.40 10.04 39.44 59.97   0.3100 -7.30 10.04 2.74 49.97   0.9356 27.90 10.82 38.72 56.00   0.9356 -4.80 10.82 6.02 46.00   1.7590 27.60 10.88 38.48 56.00	0.2475 31.60 9.96 41.56 61.84 -20.28   0.2475 -4.70 9.96 5.26 51.84 -46.58   0.3100 29.40 10.04 39.44 59.97 -20.53   0.3100 -7.30 10.04 2.74 49.97 -47.23   0.9356 27.90 10.82 38.72 56.00 -17.28   0.9356 -4.80 10.82 6.02 46.00 -39.98   1.7590 27.60 10.88 38.48 56.00 -17.52	0.2475 31.60 9.96 41.56 61.84 -20.28 QP   0.2475 -4.70 9.96 5.26 51.84 -46.58 AVG   0.3100 29.40 10.04 39.44 59.97 -20.53 QP   0.3100 -7.30 10.04 2.74 49.97 -47.23 AVG   0.9356 27.90 10.82 38.72 56.00 -17.28 QP   0.9356 -4.80 10.82 6.02 46.00 -39.98 AVG   1.7590 27.60 10.88 38.48 56.00 -17.52 QP

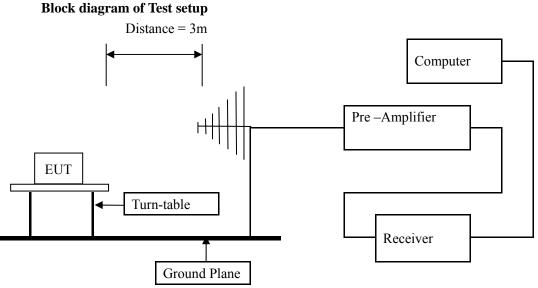
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#### 6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 8999988
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz.For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "**QP**" in the data table.
- (6) The antenna polarization : Vertical polarization and Horizontal polarization.



6.2 Configuration of The EUT

Same as section 5.3 of this report

6.3 EUT Operating Condition

Same as section 5.4 of this report.

The report refers only to the sample tested and does not apply to the bulk.

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## 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequencies in restricted band are	complied to limit on Para	graph 15.209 and 15.109 and RSS-210
requencies in restricted band ary	complica to milli on I ara	gruph 10.209 und 10.109 und 1000 210

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note: 1. RF Voltage  $(dBuV) = 20 \log RF$  Voltage (uV)

2. In the Above Table, the higher limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

4. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

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# **Test result** General Radiated Emission Data and Harmonics Radiated Emission Data

### Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

EUT set Condition: **Keep Transmitting** 

**Results:** 

Pass

Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
263.600	32.94	Н	46.00
600.000	40.93	Н	46.00
985.960	40.49	Н	54.00
979.800	39.08	V	54.00
600.000	40.90	V	46.50
34.480	35.55	V	40.00

The report refers only to the sample tested and does not apply to the bulk.

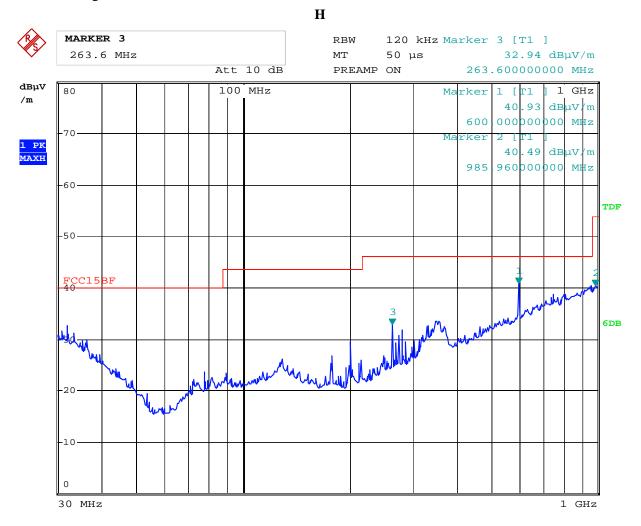
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Test Figure:



Date: 16.MAY.2017 14:53:40

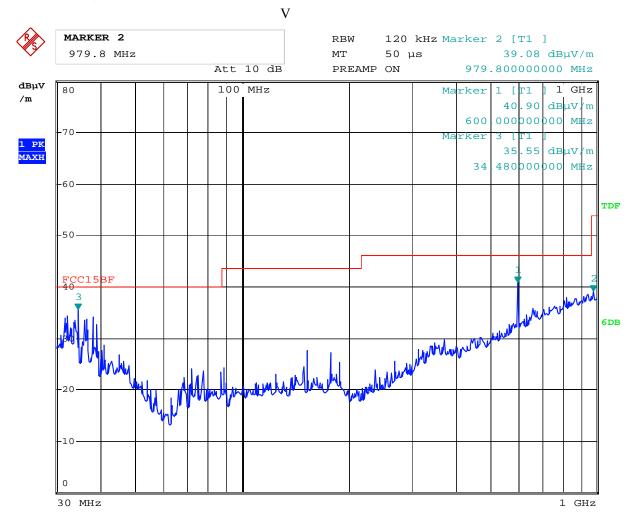
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Page 17 of 104





Date: 16.MAY.2017 14:48:17

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1	9	•	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	50.82 (PK)	Н	74(Peak)/ 54(AV)
4824.00	50.59 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

#### Operation Mode: Transmitting under CH01 for 11b at 1Mbps

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11b mode 1Mbps

#### Operation Mode: Transmitting under CH06 for 11b at 1Mbps

	0		
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	50.51 (PK)	Н	74(Peak)/ 54(AV)
4874.00	50.58 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11b mode 1Mbps

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operation into del transmitting and el citti for the at intops						
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)			
4924	52.29 (PK)	Н	74(Peak)/ 54(AV)			
4924	52.13 (PK)	V	74(Peak)/ 54(AV)			
7368		H/V	74(Peak)/ 54(AV)			
9848		H/V	74(Peak)/ 54(AV)			
12310		H/V	74(Peak)/ 54(AV)			
14772		H/V	74(Peak)/ 54(AV)			
17234		H/V	74(Peak)/ 54(AV)			
19696		H/V	74(Peak)/ 54(AV)			
22158		H/V	74(Peak)/ 54(AV)			
24620		H/V	74(Peak)/ 54(AV)			

#### **Operation Mode: Transmitting under CH11 for 11b at 1Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11b mode at 1Mbps

The report refers only to the sample tested and does not apply to the bulk.

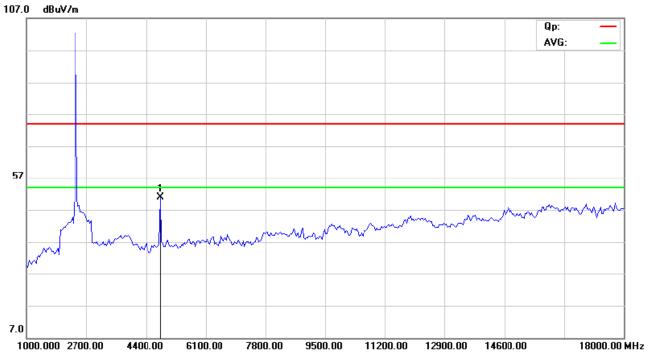
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adopt any other remedies which may be appropriate.



Please refer to the following test plots for details:

# CH01 for 11b at 1Mbps: Horizontal



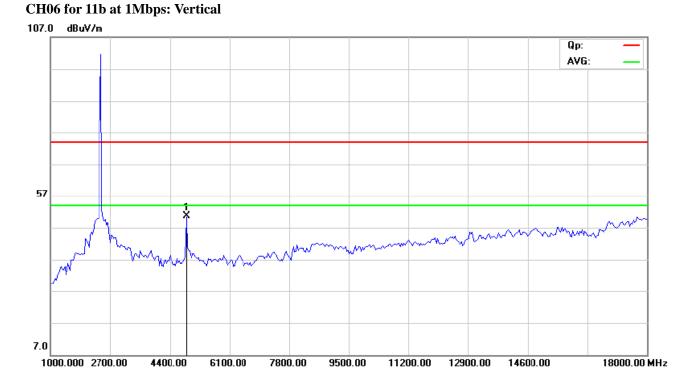
CH01 for 11b at 1Mbps: Vertical

107.0 dBu¥/m Qp: AVG: 57 7.0 1000.000 2700.00 4400.00 6100.00 7800.00 9500.00 11200.00 12900.00 14600.00 18000.00 MHz

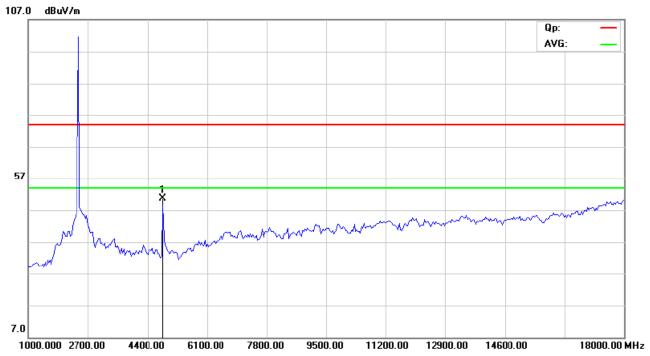
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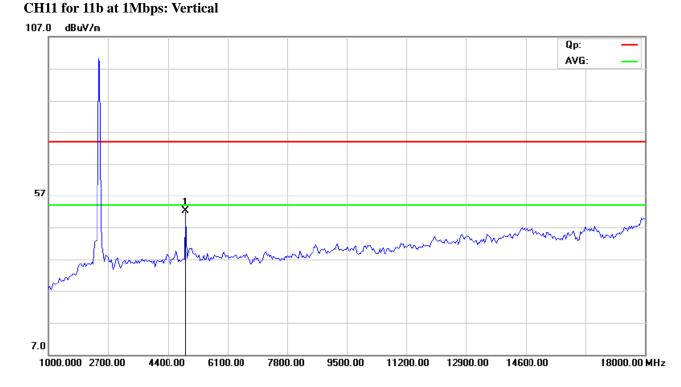
#### CH06 for 11b at 1Mbps: Horizontal



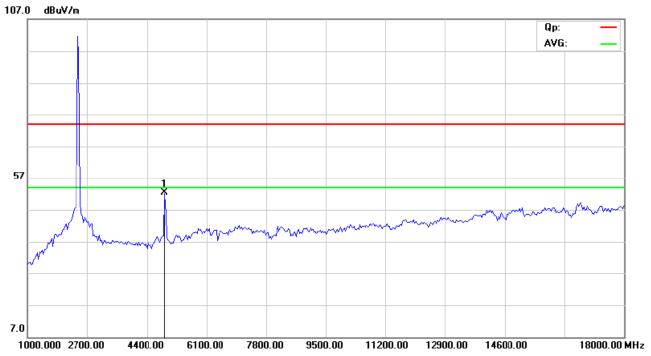
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Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

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operation from the final single of the first of the ps						
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)			
4824.00	50.78 (PK)	Н	74(Peak)/ 54(AV)			
4824.00	51.82 (PK)	V	74(Peak)/ 54(AV)			
7236.00		H/V	74(Peak)/ 54(AV)			
9648.00		H/V	74(Peak)/ 54(AV)			
12060		H/V	74(Peak)/ 54(AV)			
14472		H/V	74(Peak)/ 54(AV)			
16884		H/V	74(Peak)/ 54(AV)			
19296		H/V	74(Peak)/ 54(AV)			
21708		H/V	74(Peak)/ 54(AV)			
24120		H/V	74(Peak)/ 54(AV)			

#### **Operation Mode: Transmitting under CH01 for 11g at 6Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode 6Mbps

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	8	0 1	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	52.20 (PK)	V	74(Peak)/ 54(AV)
4874.00	52.65 (PK)	Н	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

#### Operation Mode: Transmitting under CH06 for 11g at 6Mbps

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode 6Mbps

#### **Operation Mode: Transmitting under CH11 for 11g at 6Mbps**

<b>I</b>		8 I	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	50.08 (PK)	Н	74(Peak)/ 54(AV)
4924	51.64 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode at 6Mbps

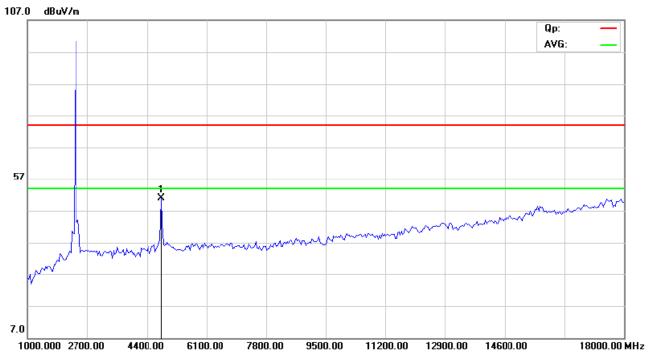
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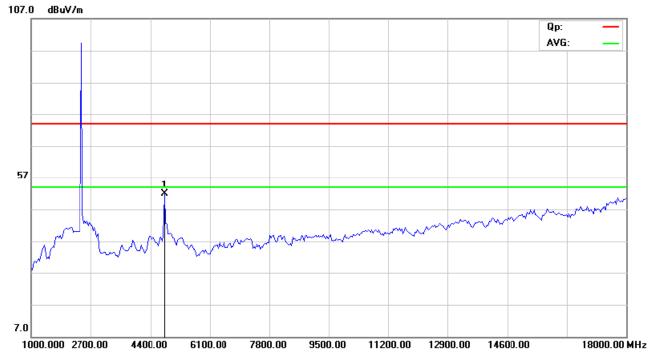


Please refer to the following test plots for details:

# CH01 for 11g at 6Mbps: Horizontal



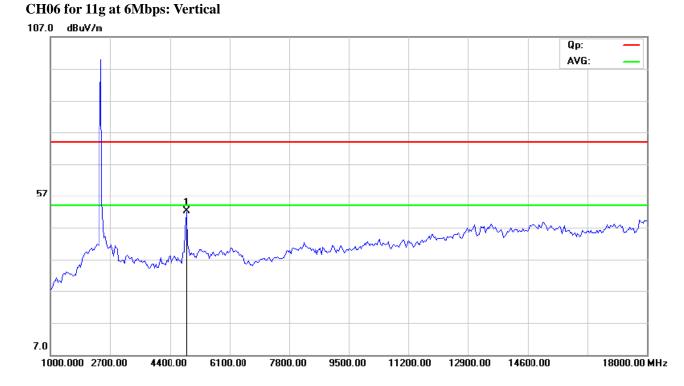
# CH01 for 11g at 6Mbps: Vertical



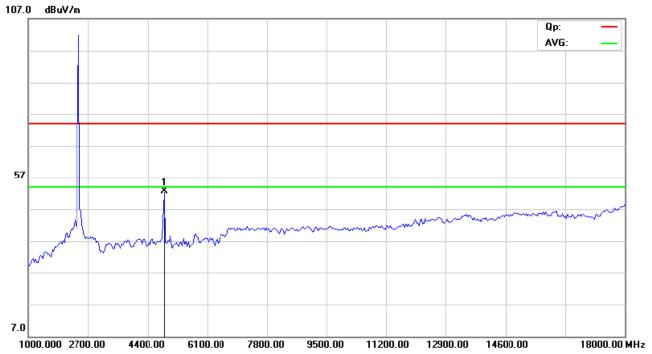
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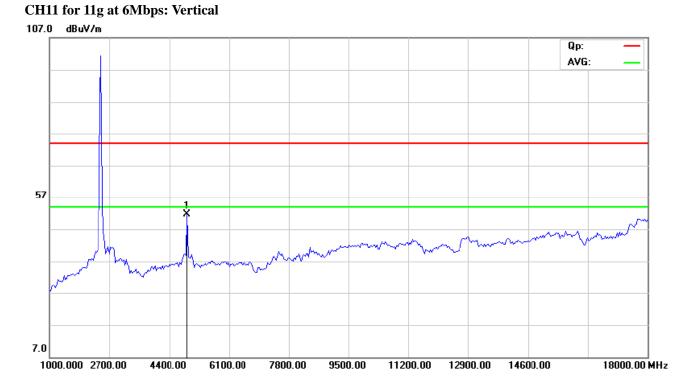




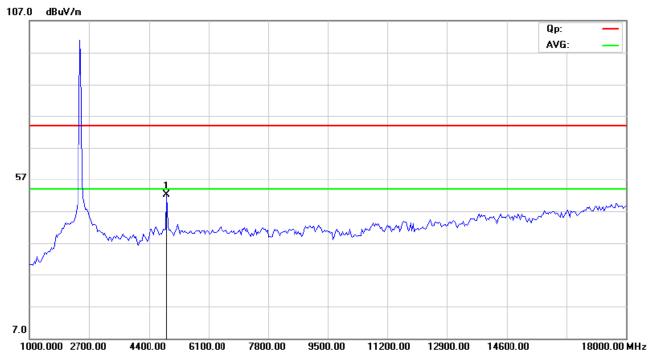
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Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

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Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	51.35 (PK)	Н	74(Peak)/ 54(AV)
4824.00	51.59 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

#### Operation Mode: Transmitting under CH01 for 11n HT20 at msc0

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT20) mode msc0

#### Operation Mode: Transmitting under CH06 for 11n HT20 at msc0

-	1	8		
	Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
	4874.00	50.54 (PK)	Н	74(Peak)/ 54(AV)
	4874.00	50.69 (PK)	V	74(Peak)/ 54(AV)
ſ	7311.00		H/V	74(Peak)/ 54(AV)
	9748.00		H/V	74(Peak)/ 54(AV)
	12185		H/V	74(Peak)/ 54(AV)
	14622		H/V	74(Peak)/ 54(AV)
ſ	17059		H/V	74(Peak)/ 54(AV)
	19496		H/V	74(Peak)/ 54(AV)
	21933		H/V	74(Peak)/ 54(AV)
	24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "----" means that the emissions level is too low to be measured

3. For 802.11n (HT20) mode msc0

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operation mode. Transmitting ander ernit for the first of these			
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	52.69 (PK)	Н	74(Peak)/ 54(AV)
4924	52.64 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

#### Operation Mode: Transmitting under CH11 for 11n HT20 at msc0

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT20) mode msc0

The report refers only to the sample tested and does not apply to the bulk.

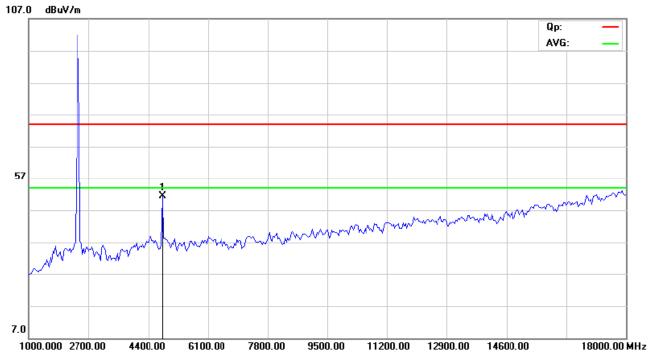
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adopt any other remedies which may be appropriate.

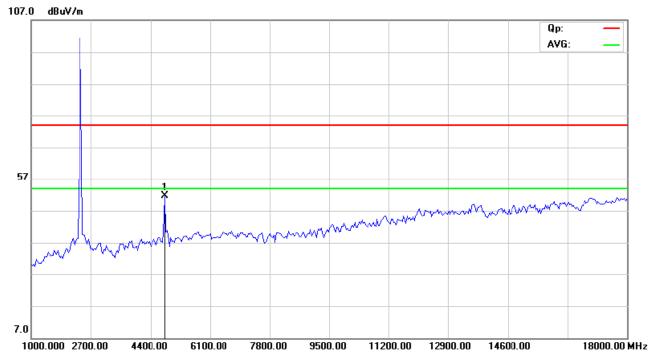


Please refer to the following test plots for details:

# CH01 for 11n HT20 at msc0: Horizontal



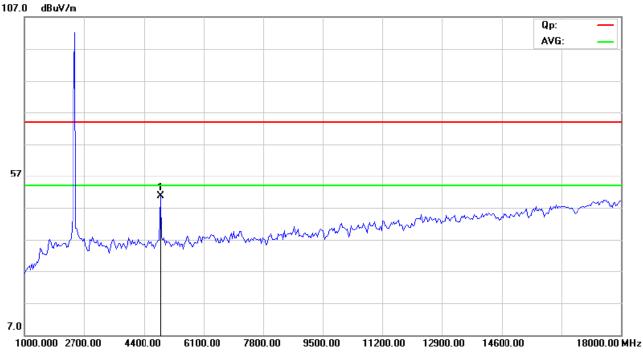
#### CH01 for 11n HT20 at msc0: Vertical



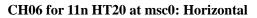
The report refers only to the sample tested and does not apply to the bulk.

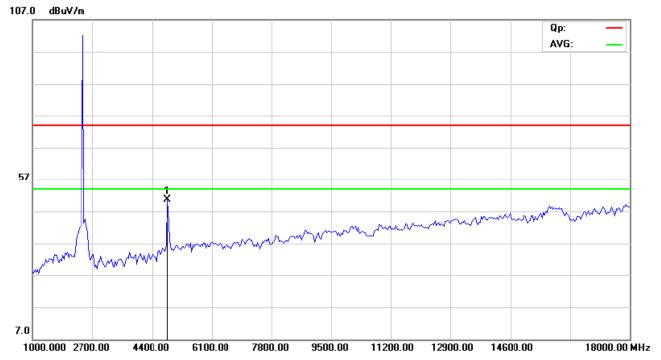
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#### CH06 for 11n HT20 at msc0: Vertical 107.0



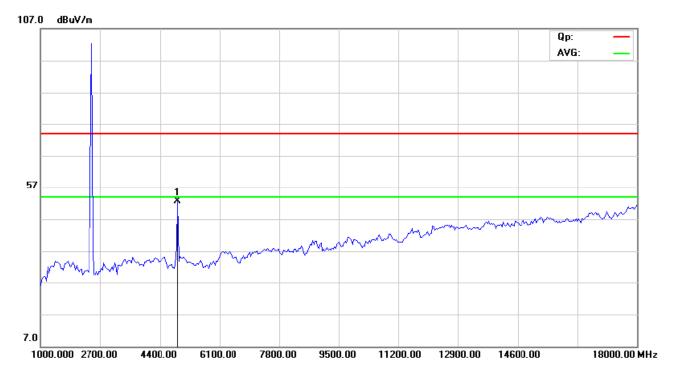


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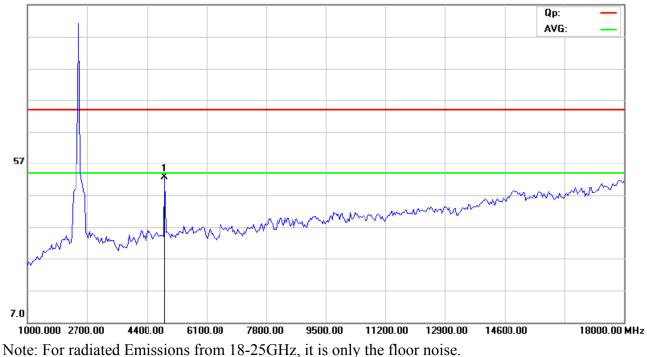


## CH11 for 11n HT20 at msc0: Vertical



CH11 for 11n HT20 at msc0: Horizontal

107.0 dBuV/m



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Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4844.00	50.51 (PK)	Н	74(Peak)/ 54(AV)
4844.00	51.27 (PK)	V	74(Peak)/ 54(AV)
7266.00		H/V	74(Peak)/ 54(AV)
9688.00		H/V	74(Peak)/ 54(AV)
12110		H/V	74(Peak)/ 54(AV)
14532		H/V	74(Peak)/ 54(AV)
16954		H/V	74(Peak)/ 54(AV)
19376		H/V	74(Peak)/ 54(AV)
21798		H/V	74(Peak)/ 54(AV)
24220		H/V	74(Peak)/ 54(AV)

#### Operation Mode: Transmitting under CH01 for 11n HT40 at msc0

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode msc0

#### Operation Mode: Transmitting under CH04 for 11n HT40 at msc0

1			
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	51.16 (PK)	Н	74(Peak)/ 54(AV)
4874.00	51.03 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "----" means that the emissions level is too low to be measured

3. For 802.11n (HT40) mode msc0

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operation whole. Transmitting under erfor for fin fifty at misco			
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4904	52.32 (PK)	Н	74(Peak)/ 54(AV)
4904	52.08 (PK)	V	74(Peak)/ 54(AV)
7356		H/V	74(Peak)/ 54(AV)
9808		H/V	74(Peak)/ 54(AV)
12260		H/V	74(Peak)/ 54(AV)
14712		H/V	74(Peak)/ 54(AV)
17164		H/V	74(Peak)/ 54(AV)
19616		H/V	74(Peak)/ 54(AV)
22068		H/V	74(Peak)/ 54(AV)
24520		H/V	74(Peak)/ 54(AV)

#### **Operation Mode: Transmitting under CH07 for 11n HT40 at msc0**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT40) mode msc0

The report refers only to the sample tested and does not apply to the bulk.

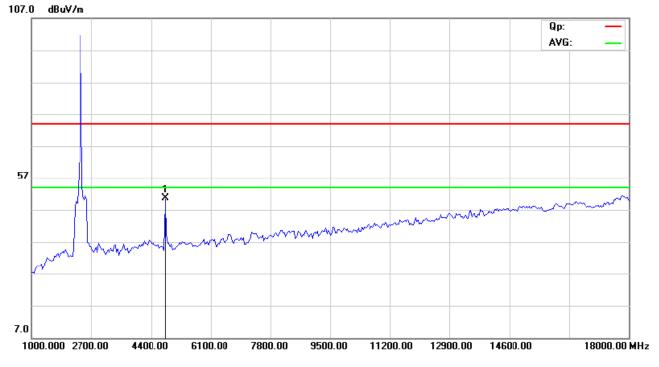
This report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accented and one with parts and the sentence of the sentence. discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to

adopt any other remedies which may be appropriate.

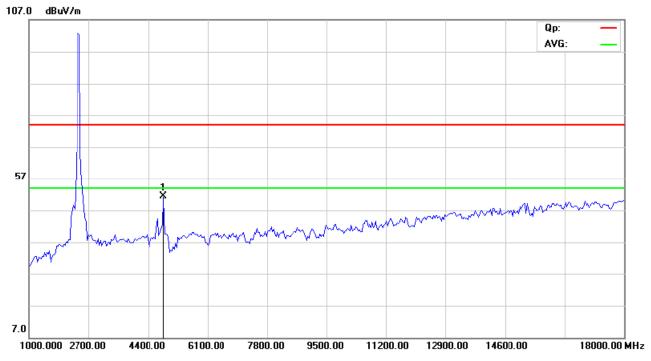


Please refer to the following test plots for details:

# CH01 for 11n HT40 at msc0: Horizontal



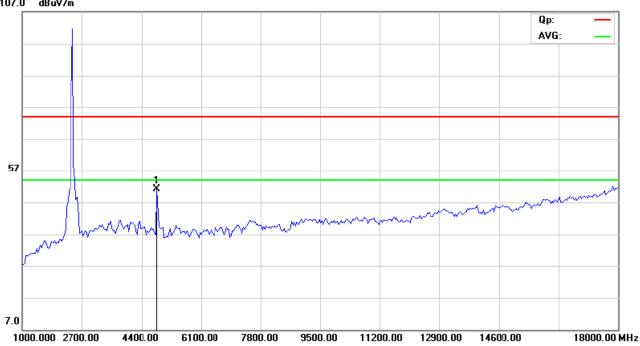
#### CH01 for 11n HT40 at msc0: Vertical



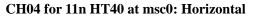
The report refers only to the sample tested and does not apply to the bulk.

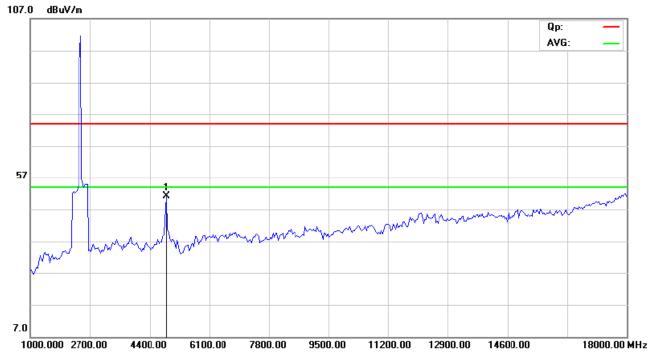
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to





#### CH04 for 11n HT40 at msc0: Vertical 107.0 dBuV/m

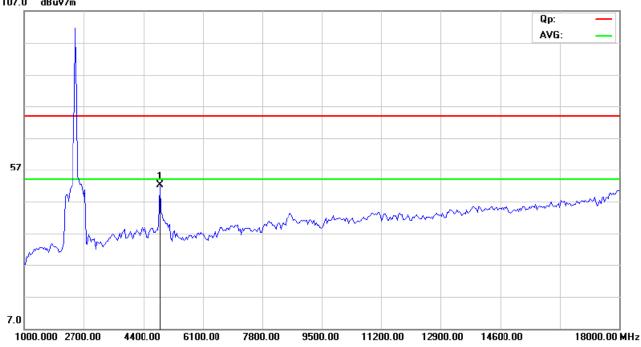




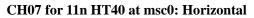
The report refers only to the sample tested and does not apply to the bulk.

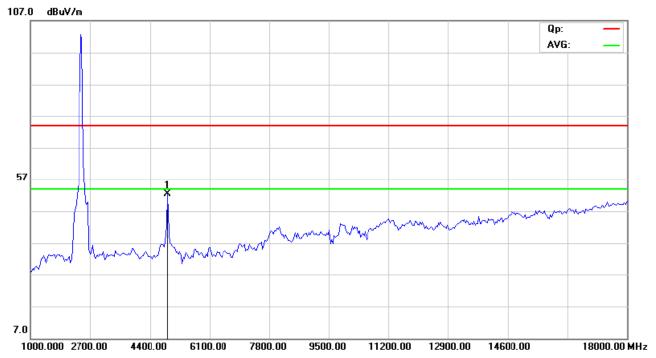
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any





#### CH07 for 11n HT40 at msc0: Vertical 107.0 dBuV/m





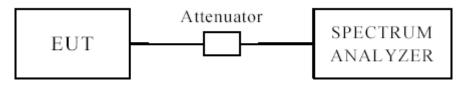
Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

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7.0 6dB Bandwidth Measurement7.1 Test Setup



# 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

# 7.3 Test Procedure

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

# 7.4 Test Result

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#### 6dB Occupied Bandwidth

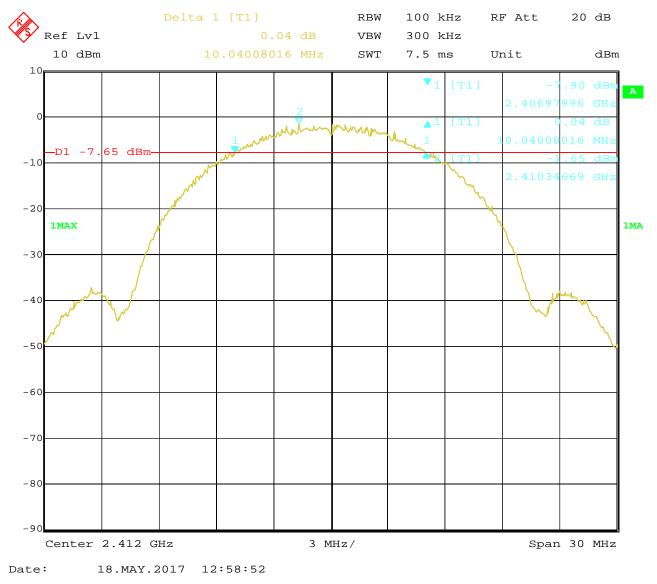
EUT		Ta	ablet PC		Model		A	102
Mode		8	302.11b		Input Vol	tage	DC3.7V	
Temperat	ure	24	4 deg. C,		Humidity	r	56%	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		Bandwidth M MHz)		num Limit MHz)	Pass/ Fail
1		2412	11	10	.04	0.5		Pass
6		2437	11	10	.04	04 (		Pass
11		2462	11	10	.04		0.5	Pass
1		2412	1	10	10.04		0.5	Pass
6		2437	1	10.04			0.5	Pass
11		2462	1	10.04			0.5	Pass

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# 1. 802.11b at 11Mbps of CH01



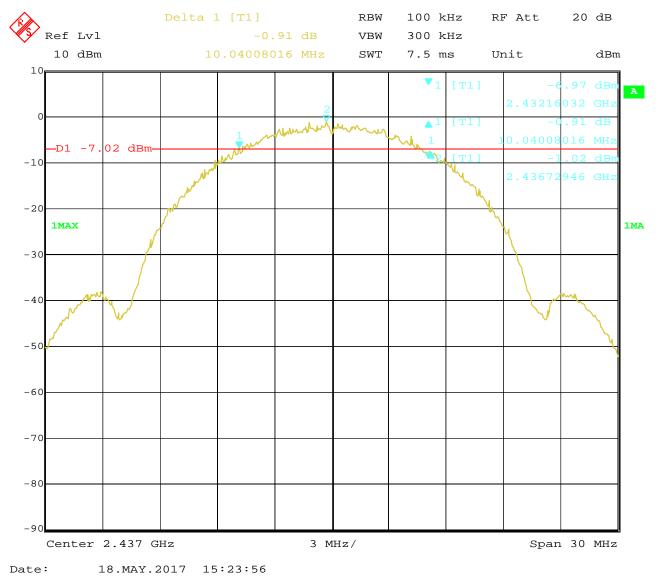
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# 2. 802.11b at 11Mbps of CH06



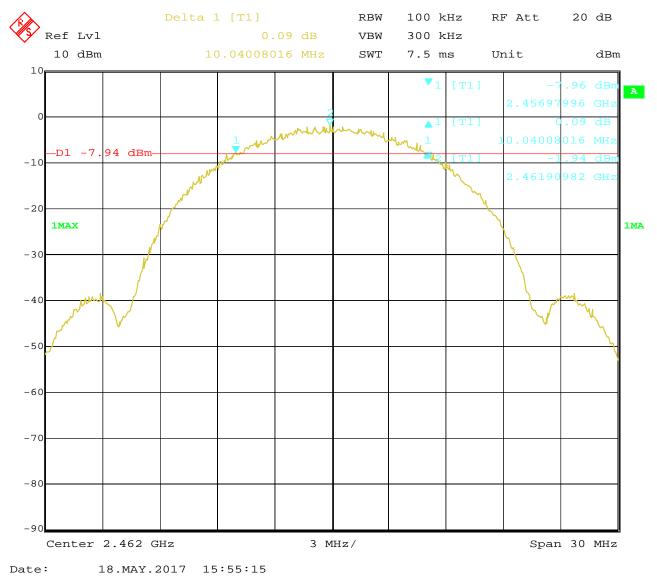
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# 3. 802.11b at 11Mbps of CH11



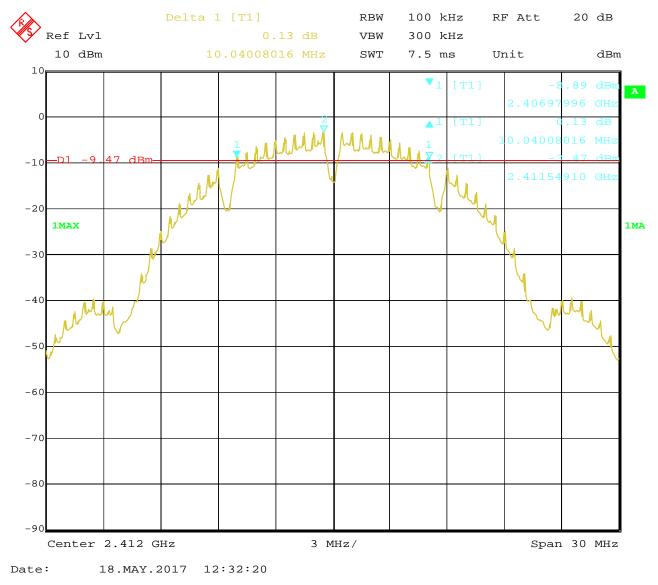
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#### 4. 802.11b at 1Mbps of CH01



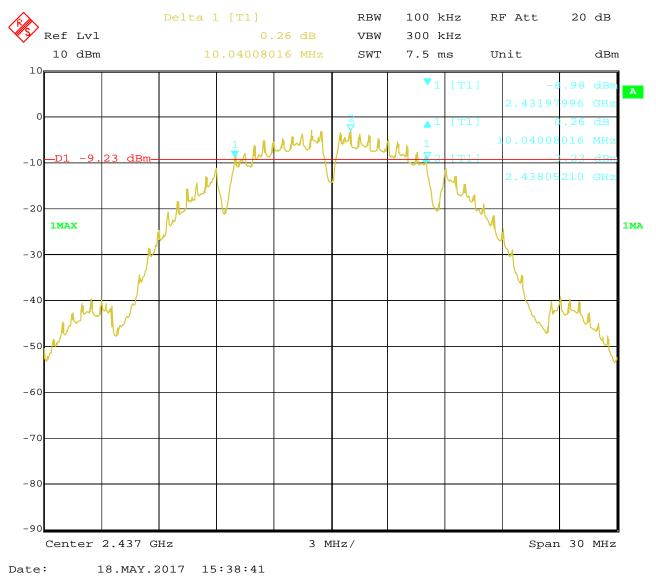
The report refers only to the sample tested and does not apply to the bulk.

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#### 5. 802.11b at 1Mbps of CH06



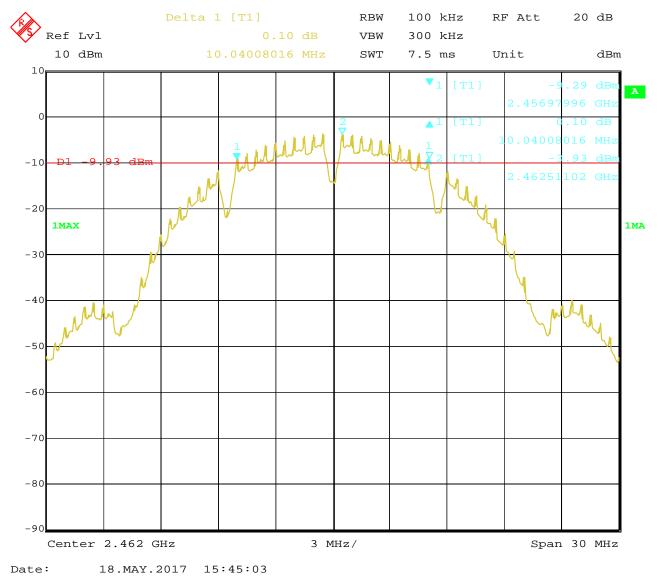
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#### 6. 802.11b at 1Mbps of CH11



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# 6dB Occupied Bandwidth

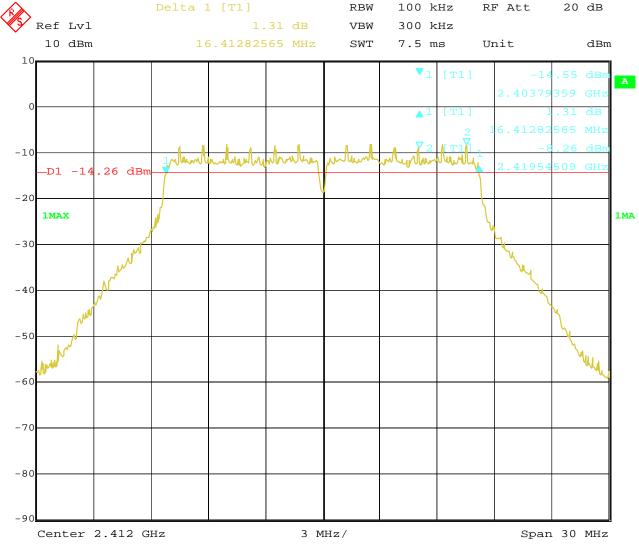
EUT		Ta	ablet PC		Model			A102
Mode		8	302.11g		Input Volt	tage	Ι	DC3.7V
Temperat	ure	24	4 deg. C,		Humidity	,	5	6% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		andwidth Hz)		num Limit MHz)	Pass/ Fail
1		2412	6	16	.41		0.5	Pass
6		2437	6	16	.41		0.5	Pass
11		2462	6	16	.41		0.5	Pass

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# Test Plots: 1. 802.11g at 6Mbps of CH01



Date:

18.MAY.2017 12:39:56

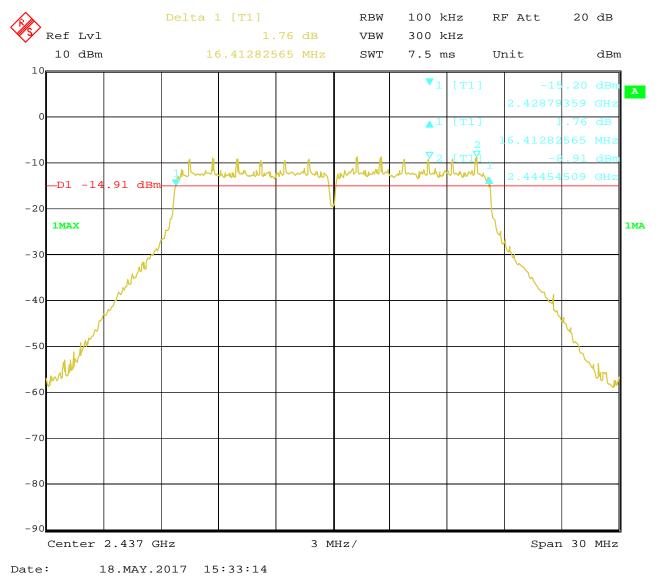
The report refers only to the sample tested and does not apply to the bulk.

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#### 2. 802.11g at 6Mbps of CH06



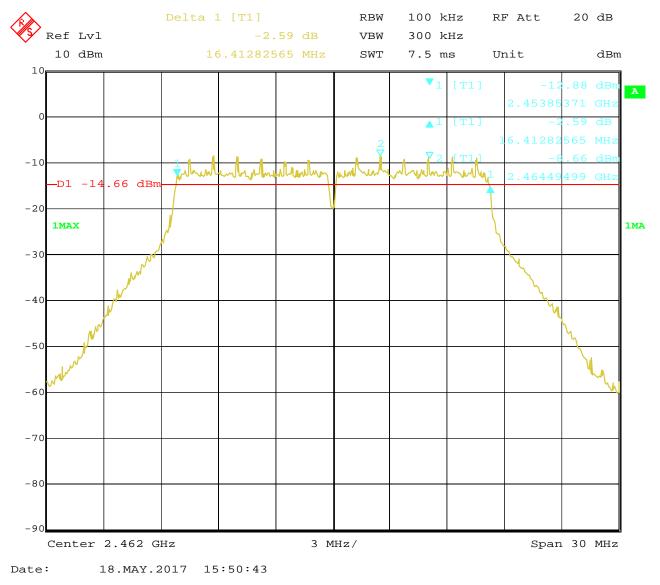
The report refers only to the sample tested and does not apply to the bulk.

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#### 3. 802.11g at 6Mbps of CH11



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# 6dB Occupied Bandwidth

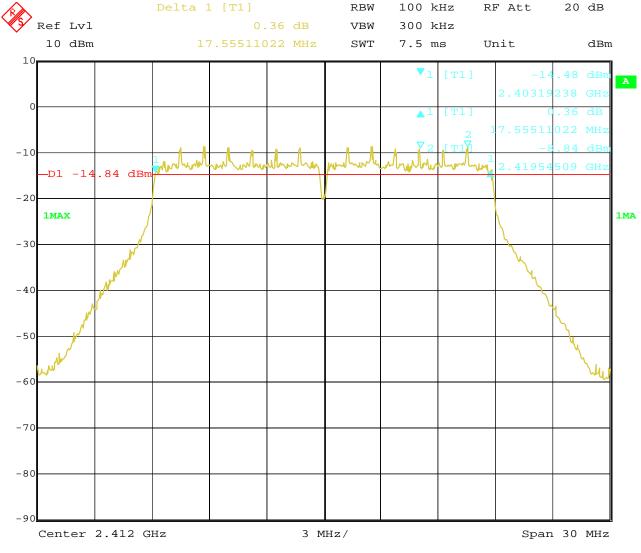
EUT		Т	ablet PC		Model		А	102
Mode		802	.11n HT20		Input Volt	tage	DC	3.7V
Temperat	ure	24	4 deg. C,		Humidity		56%	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		ndwidth Hz)		num Limit MHz)	Pass/ Fail
1		2412	mcs0	17	.56		0.5	Pass
6		2437	mcs0	17	.56		0.5	Pass
11		2462	mcs0	17	.56		0.5	Pass

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# Test Plots: 1. 802.11n at HT20 of CH01



Date: 18

18.MAY.2017 16:04:00

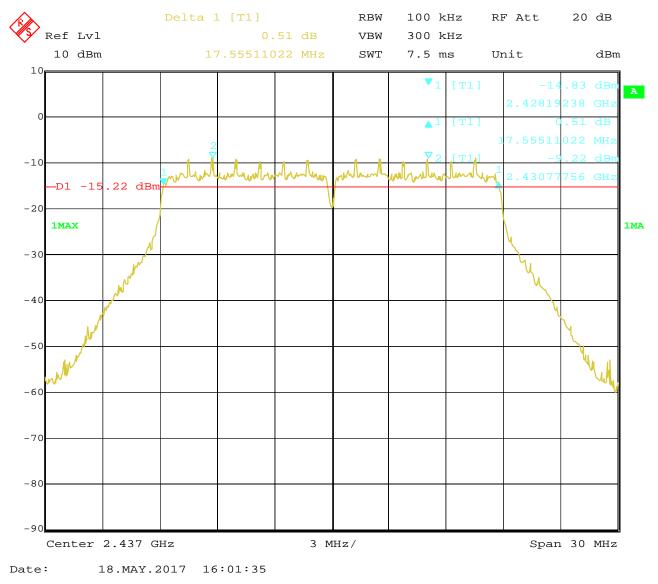
The report refers only to the sample tested and does not apply to the bulk.

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#### 2. 802.11n at HT20 of CH06



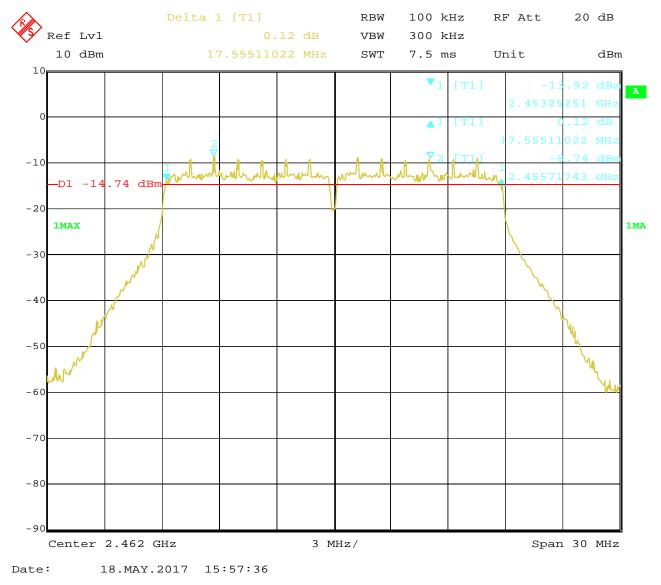
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#### 3. 802.11n at HT20 of CH11



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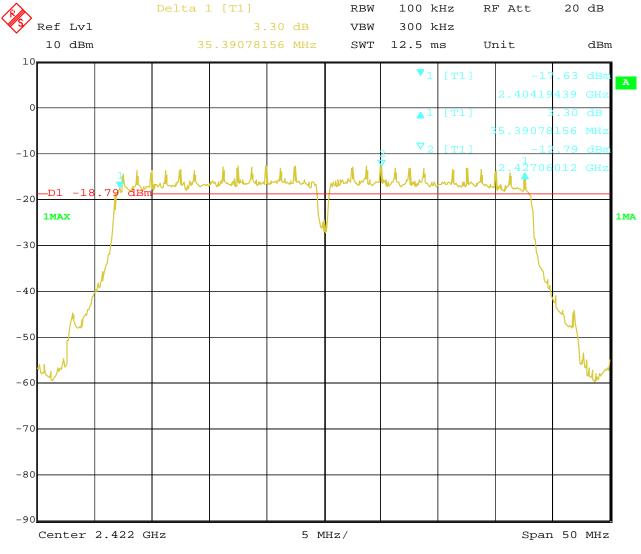
# 6dB Occupied Bandwidth

EUT		Ta	ablet PC		Model		А	102
Mode		802	.11n HT40		Input Volt	tage	DC	3.7V
Temperat	ure	24	4 deg. C,		Humidity		56%	6 RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		ndwidth Hz)		num Limit MHz)	Pass/ Fail
1		2422	mcs0	35	.39		0.5	Pass
4		2437	mcs0	35	.39		0.5	Pass
7		2452	mcs0	35	.39		0.5	Pass

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# Test Plots: 1. 802.11n at HT40 of CH01



Date:

18.MAY.2017 16:06:59

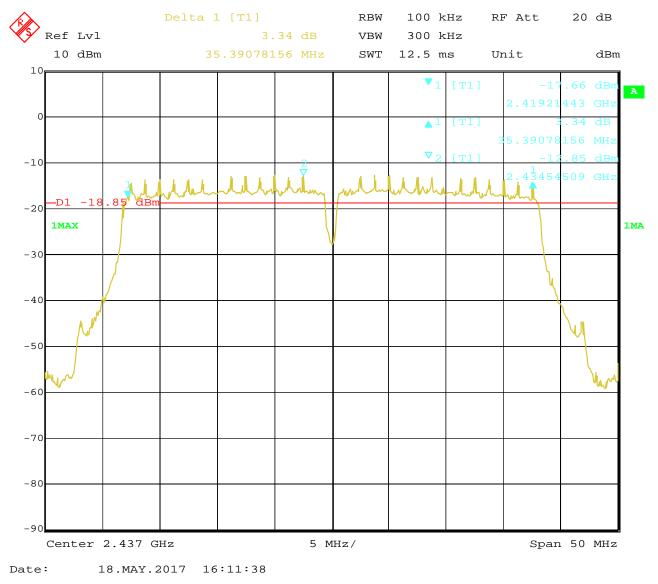
The report refers only to the sample tested and does not apply to the bulk.

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#### 2. 802.11n at HT40 of CH04



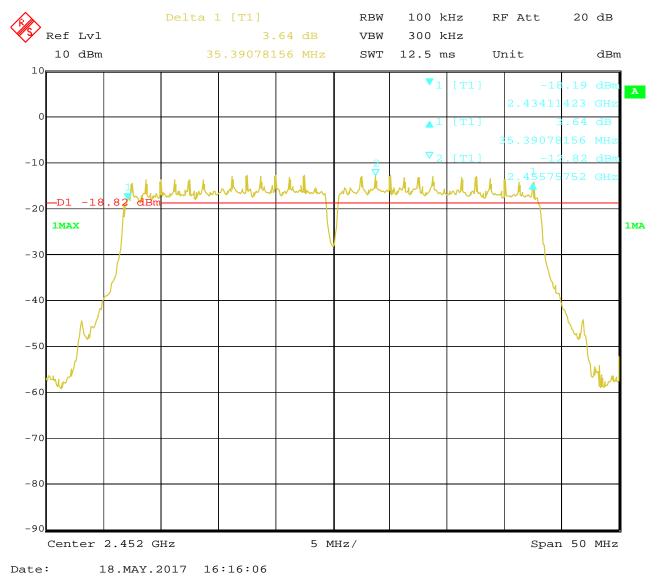
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#### 3. 802.11n at HT40 of CH07

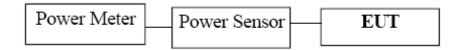


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8. Maximum Output Power 8.1 Test Setup



# 8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

# 8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

# Note: Peak power was measured

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# **8.4Test Results**

EUT		Tablet	: PC	М	odel		A102	
Mode	Mode 802.1		l1b Inpu		Voltage		DC3.7V	
Temperat	Temperature 24 de		g. C, Humidity			56% RH		
Channel	Ch	annel Frequency (MHz)	Max. Power Output (dBm)		Power (dB		Pass/ Fail	
		(11112)	Average		(uD	)		
1		2412	8.67		30		Pass	
6		2437	8.88		30		Pass	
11	1 2462		8.52		30	)	Pass	

Note: 1. At finial test to get the worst-case emission at 1Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		Tablet	PC	М	odel		A102
Mode	Mode 802.1		Input V		Voltage		DC3.7V
Temperat	Temperature 24 deg		g. C, Humid		nidity		56% RH
Channel	Cha	annel Frequency (MHz)	Max. Power Output (dBm) Average		Power (dB		Pass/ Fail
1		2412	7.26		30		Pass
6		2437	7.36		30		Pass
11	2462		7.59		30	)	Pass

Note: 1. At finial test to get the worst-case emission at 6Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

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EUT		Tablet	PC	М	odel		A102
Mode	Mode 802.11n (		(HT20)	Input Voltage			DC3.7V
Temperat	Temperature 2		g. C,	Humidity			56% RH
Channel	Channel Frequency		Max. Power Output (dBm)		Power (dB		Pass/ Fail
		(MHz)	Average		(uD	III <i>)</i>	
1		2412	6.93		30		Pass
6	2437		7.18		30		Pass
11	2462		7.31		30	)	Pass

Note: 1. At finial test to get the worst-case emission at msc0 of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		Tablet	PC	М	odel		A102
Mode	Mode 802.11n		(HT40)	Input Voltage		DC3.7V	
Temperat	Temperature 24 de		g. C, Hun		midity		56% RH
Channel	Channel Frequency (MHz)		Max. Power Output (dBm)		Power (dB		Pass/ Fail
		(14112)	Average		(uD		
1		2422	6.75		30		Pass
4	2437		6.87		30		Pass
7	2452		6.91		30	)	Pass

Note: 1. At finial test to get the worst-case emission at msc0 of 11n HT40 for CH01, CH04 and CH07

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

The report refers only to the sample tested and does not apply to the bulk.

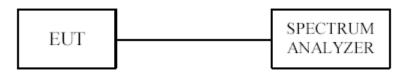
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# 9. Power Spectral Density Measurement

9.1 Test Setup



# 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm.

# 9.3 Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.

- 2. Set the RBW = 10 kHz.
- 3. Set the VBW  $\geq$  30 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 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.
- 11. The resulting peak PSD level must be  $\leq 8$  dBm.

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# 9.4Test Result

EUT		Tablet	PC	М	odel		A102
Mode		802.1	1b	Input Voltage			DC3.7V
Temperati	ure	24 deg	g. C,	Hur	Humidity		56% RH
Channel	Ch	annel Frequency	Final RF Po		Maximu		Pass/ Fail
		(MHz)	Level in (dl	3m)	(dB	m)	
			11Mbp	S			
1		2412	-15.79		8		Pass
6		2437	-17.13		8		Pass
11		2462	-16.35		8		Pass
			1Mbps				
1		2412	-12.08		8		Pass
6	6 2437		-12.47		8		Pass
11		2462	-12.34		8		Pass

EUT	EUT Table		PC	Model			A102
Mode		802.11g 6Mbps		Input Voltage		DC3.7V	
Temperat	ure	24 deg	g. C,	Humidity		56% RH	
Channel	Ch	annel Frequency (MHz)	Final RF Power Level in (dBm)		Maximur (dB		Pass/ Fail
			6Mbps				
1		2412	-17.77		8		Pass
6	5 2437		-17.83		8		Pass
11		2462	-17.15		8		Pass

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EUT	EUT Tabl		PC	Μ	odel		A102
Mode		802.11n HT20 msc0		Input Voltage		DC3.7V	
Temperat	ure	24 deg	g. C,	Humidity		56% RH	
Channel	Ch	annel Frequency (MHz)	Final RF Power Level (dBm)		Maximur (dBi		Pass/ Fail
			HT20				
1	2412		-18.82		8		Pass
6	6 2437		-18.21		8		Pass
11	11 2462		-18.13		8		Pass

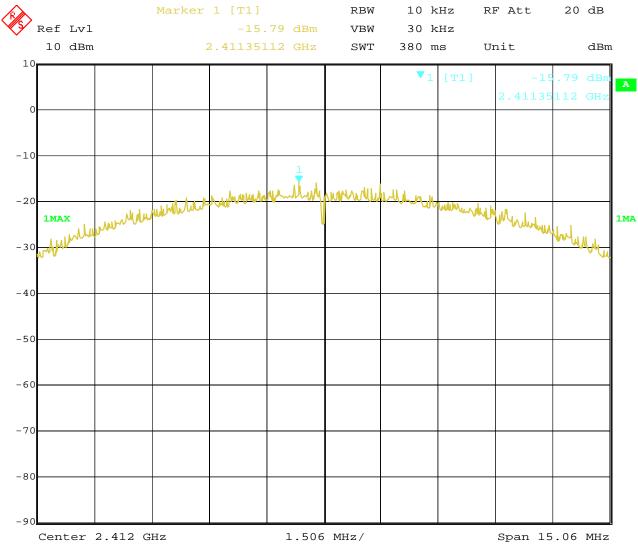
EUT	EUT Table		PC	М	odel		A102
Mode		802.11n HT40 msc0		Input Voltage		DC3.7V	
Temperat	ure	24 deg	g. C,	Humidity		56% RH	
Channel	Ch	annel Frequency (MHz)	Final RF Power Level (dBm)		Maximur (dB		Pass/ Fail
			HT40				
1	2422		-22.33		8		Pass
4	4 2437		-21.46		8		Pass
7		2452	-22.37		8		Pass

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#### 9.5 Photo of Power Spectral Density Measurement

1. 802.11b at 11Mbps of CH1



Date:

19.MAY.2017 17:51:56

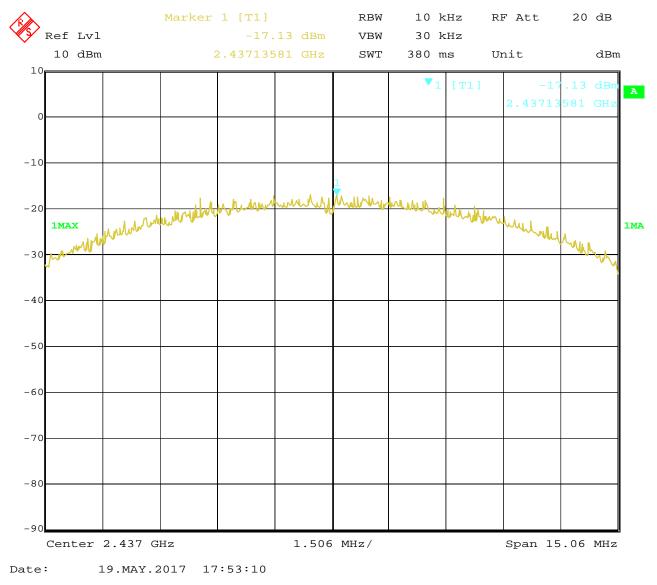
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#### 2. 802.11b at 11Mbps of CH6



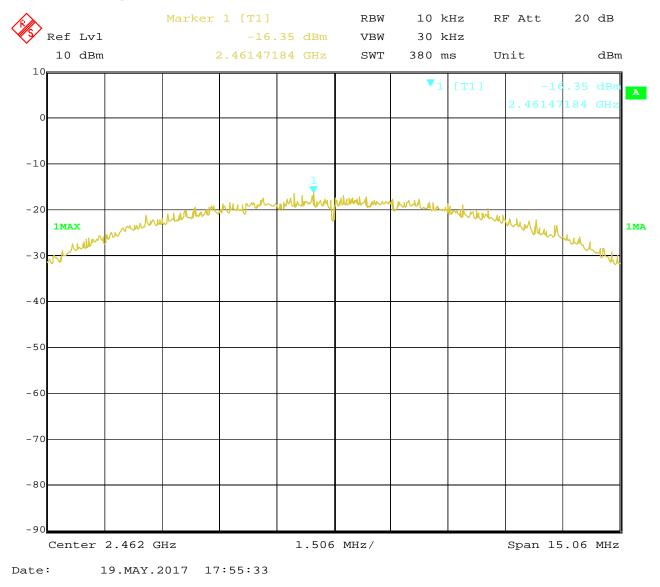
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#### 3. 802.11b at 11Mbps of CH11



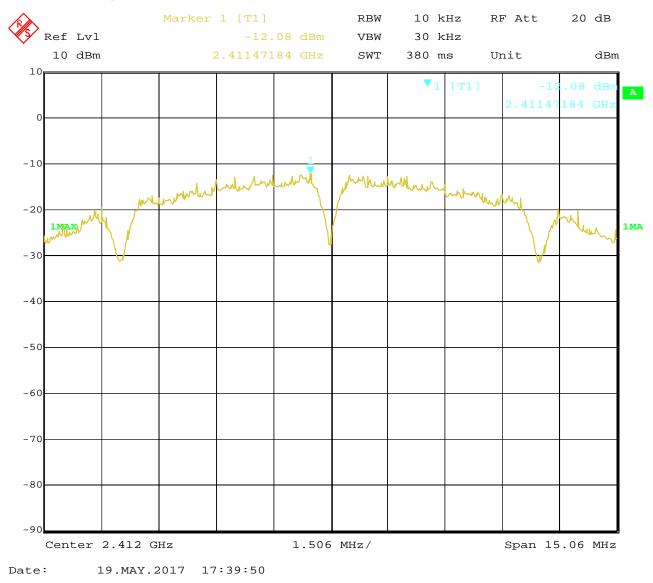
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4. 802.11b at 1Mbps of CH1



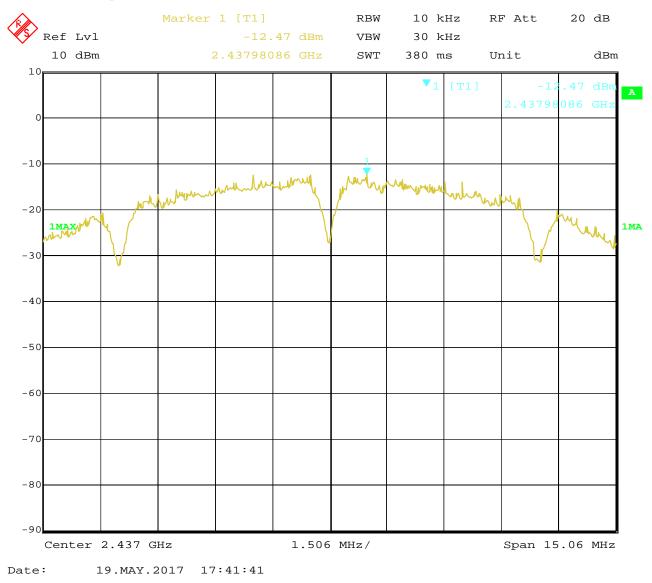
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5. 802.11b at 1Mbps of CH6



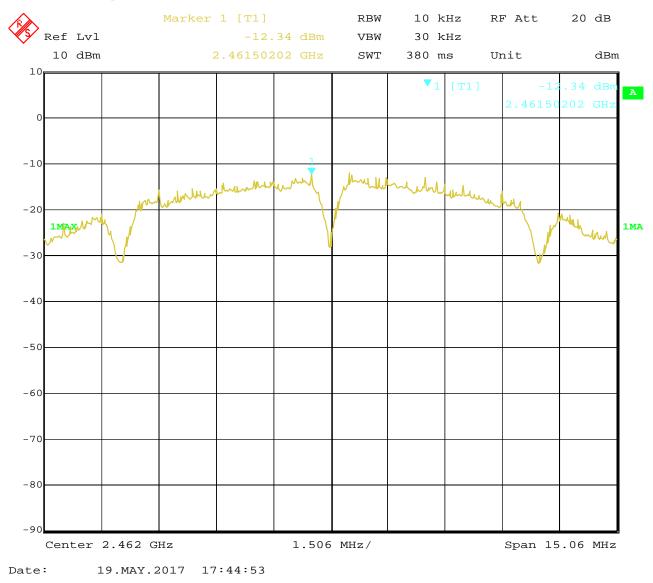
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6. 802.11b at 1Mbps of CH11



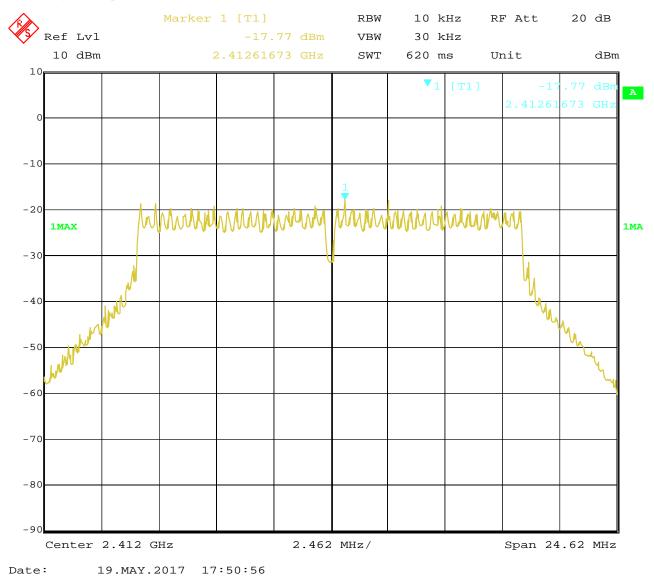
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7. 802.11g at 6Mbps of CH1



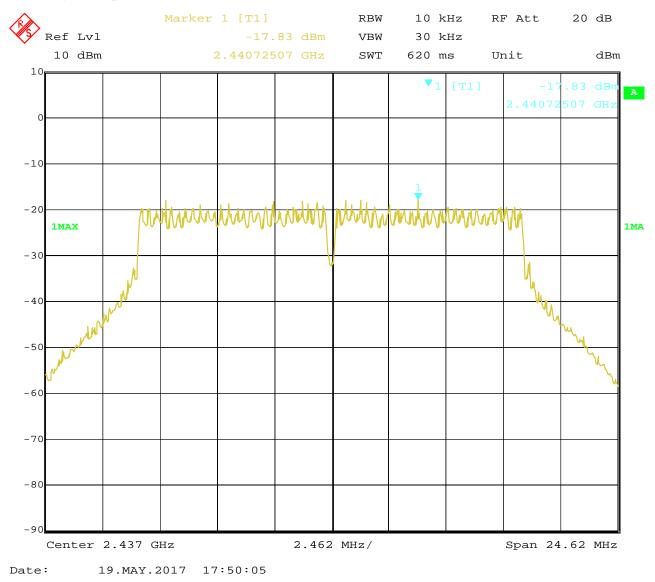
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8. 802.11g at 6Mbps of CH6



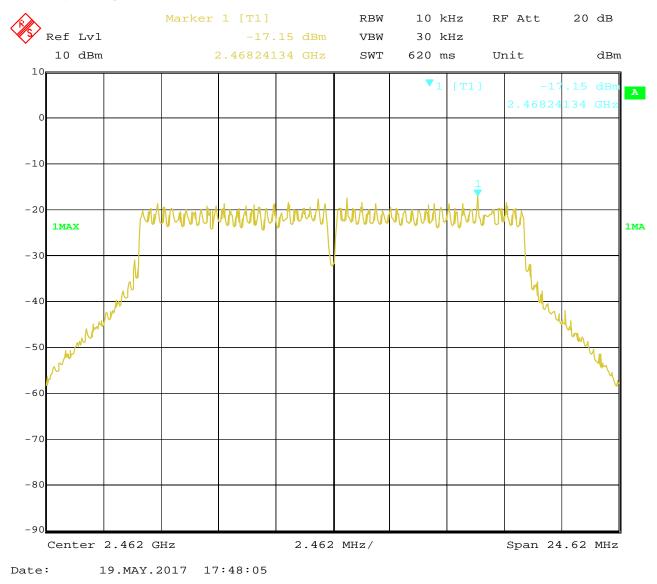
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9. 802.11g at 6Mbps of CH11



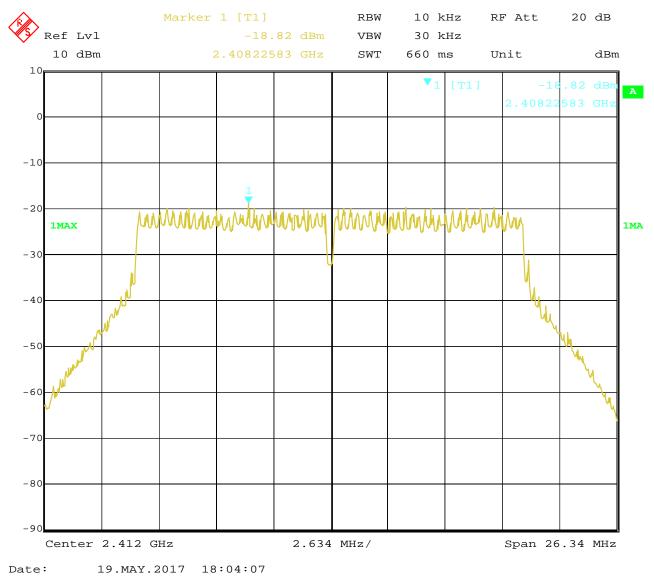
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10. 802.11n at HT20 of CH01



The report refers only to the sample tested and does not apply to the bulk.

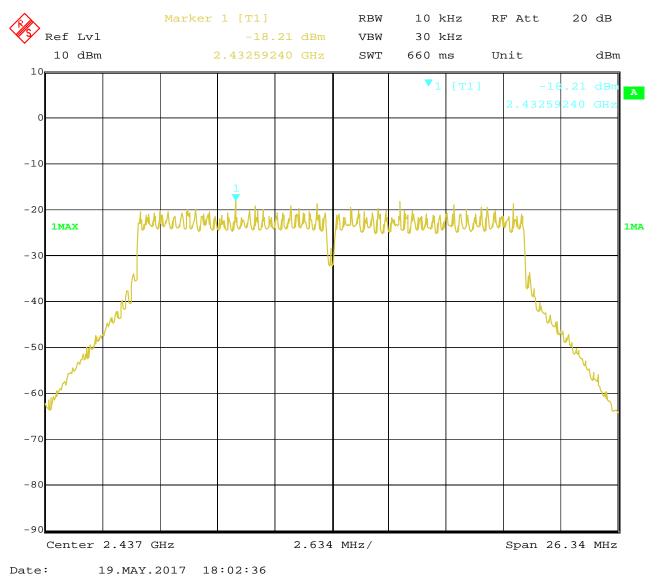
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### 11. 802.11n at HT20 of CH06



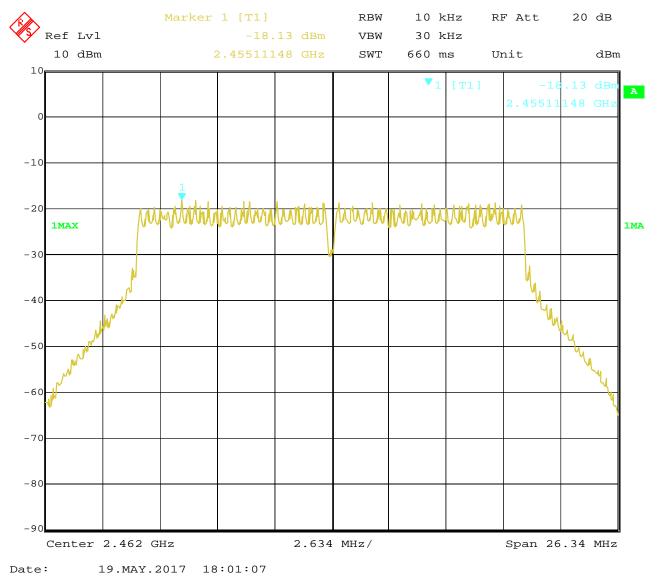
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### 12. 802.11n at HT20 of CH11



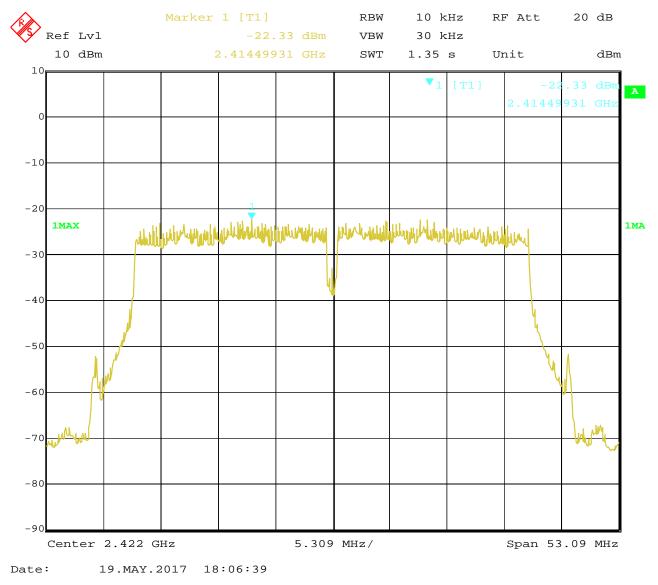
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### 13. 802.11n at HT40 of CH01



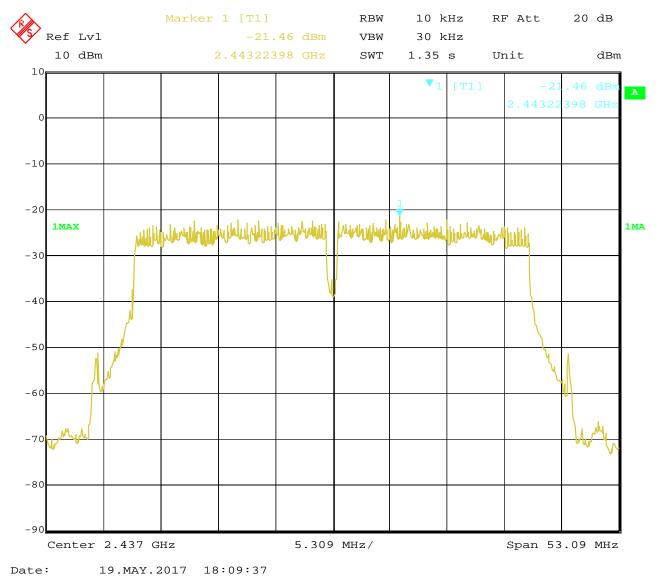
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### 14. 802.11n at HT40 of CH04



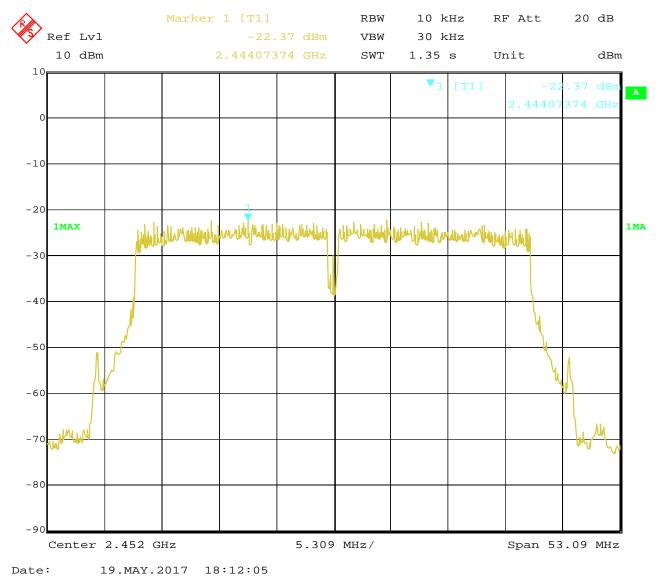
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### 15. 802.11n at HT40 of CH07

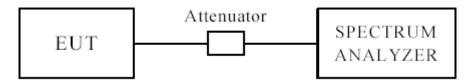


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**10 Out of Band Measurement 10.1 Test Setup for band edge** 



### The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

# 10.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

# **10.3 Test Procedure**

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test.( Peak values with RBW=VBW=3MHz and PK detector. AV value with RMS detector)

For bandage test, the spectrum set as follows: RBW=100 kHz, VBW=300 kHz. A conducted measurement used

### **10.4 Test Result**

Please see next pages

Note: 1. this is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), after pre-test. It was found that the worse radiated emission was get at the lying position. the worse case was recorded

2. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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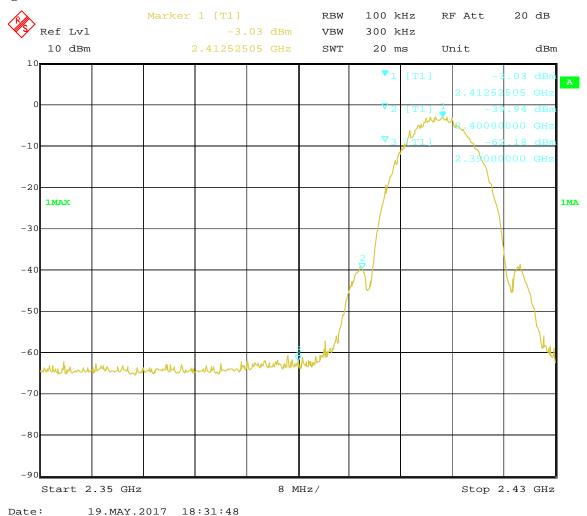
### For 802.11b mode

CH01 at 11Mbps

# 10.4 Band-edge and Restricted band Measurement

EUT	Tablet PC		Model	A102
Mode	Keeping Transmitting		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:		Pass		РК
2400	PK (dBµV/m)	55.7	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	35.1	Limit	54(dBµV/m)
2390	PK (dBµV/m)	41.6	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )		Liiiit	54(dBµV/m)

**Test Figure:** 



Note: The Max. FS in Restrict Band are measured in conventional method.

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### CH11 at 11Mbps

#### 10.4 Band-edge and Restricted band Measurement



Note: The Max. FS in Restrict Band are measured in conventional method.

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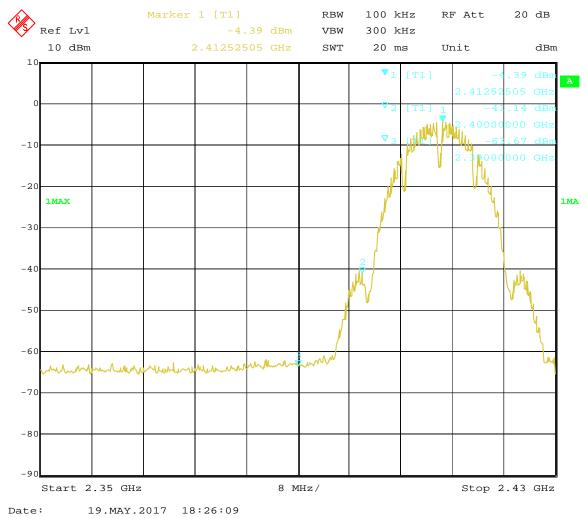
### For 802.11b mode

### CH01 at 1Mbps

# 10.4 Band-edge and Restricted band Measurement

EUT	Tablet PC		Model	A102
Mode	Keeping Transmitting		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	РК
2400	PK (dBµV/m)	55.1	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	34.1	Limit	54(dBµV/m)
2390	PK (dBµV/m)	42.3	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )			54(dBµV/m)

### **Test Figure:**



Note: The Max. FS in Restrict Band are measured in conventional method.

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### CH11 at 1Mbps

#### 10.4 Band-edge and Restricted band Measurement



Note: The Max. FS in Restrict Band are measured in conventional method.

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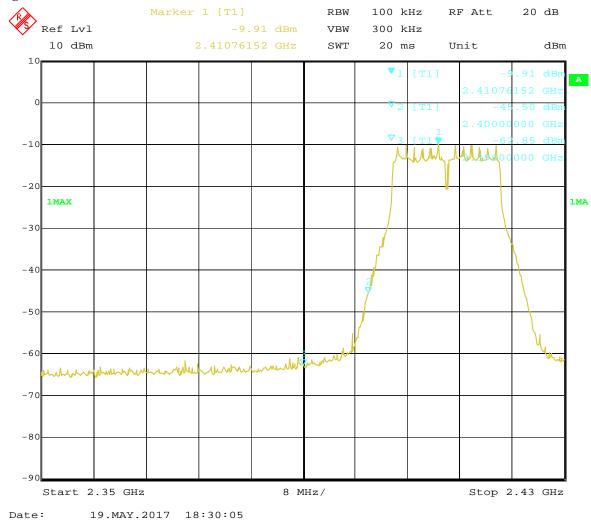
### For 802.11g mode

### CH01 at 6Mbps

# 10.4 Band-edge and Restricted band Measurement

EUT	Tablet PC		Model	A102
Mode	Keeping Transmitting		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	РК
2400	PK (dBµV/m)	59.3	Limit	74(dBµV/m)
	AV (dBµV/m)	38.9	Limit	54(dBµV/m)
2390	PK (dBµV/m)	45.5	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )		Lillit	54(dBµV/m)

### **Test Figure:**



Note: The Max. FS in Restrict Band are measured in conventional method.

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CH11 at 6Mbps

#### Band-edge and Restricted band Measurement 10.4

EUT	T	ablet PC	Mo	Model A102				
Mode	Keeping Transmitting		Input V	t Voltage DC3.		DC3.7V		
Temperature	24	l deg. C,	Humidity		56% RH			
Test Result:		Pass	Dete	ector				
2483.5	PK (dBµV/m)	45.6	I in it			74(dBµ	ιV/m)	V/m)
	AV ( $dB\mu V/m$ )		Limit			54(dBµ	ιV/m)	
Test Figure:	·							
Ref I	vl	ker 1 [T1] -10.42 dBm	RBW VBW	100 k 300 k	Hz	F Att	20 dB	
10 d		2.45571142 GHz	SWT	12.5 m			dBm	
0				▼1	[T1]	-10 2.45571	1.42 dBm 142 GHz	A
Ĵ	1			v 2	[T1]	-62 2.48350	.43 dBm	
-10	Muhality	Mulul						
-20								1MA
-30								
-40								
-50								
-60			L.	2				
-70				Manter	muli	builden	manne	
-80								
-90 Start	2.45 GHz	5 M	Hz/			Stop	2.5 GHz	ļ

Note: The Max. FS in Restrict Band are measured in conventional method.

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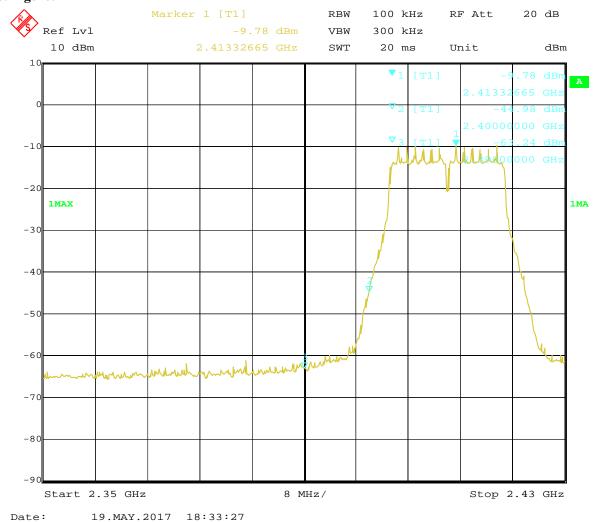
### For 802.11n (HT20) mode

### CH01 at msc0

# 10.4 Band-edge and Restricted band Measurement

EUT	Tablet PC		Model	A102
Mode	Keeping Transmitting		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	РК
2400	PK (dBµV/m)	58.8	T ::4	74(dBµV/m)
	AV ( $dB\mu V/m$ )	38.0	Limit	54(dBµV/m)
2390	PK (dBµV/m)	44.8	Limit	74(dBµV/m)
	AV (dBµV/m)		Limit	54(dBµV/m)

### **Test Figure:**



Note: The Max. FS in Restrict Band are measured in conventional method.

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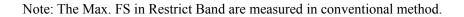
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### CH11 at msc0

#### 10.4 Band-edge and Restricted band Measurement

EUT	Tablet PC		Model	A102			
Mode	Keeping Transmitting Input Voltage		Input Voltage	DC3.7V			
Temperature	24	24 deg. C, Humidity		56% RH	56% RH		
Test Result:		Pass	Detector	РК	РК		
2483.5	PK (dBμV/m) 45.1		<b>T</b> • • •	74(dBµV/m	74(dBµV/m)		
	AV (dBµV/m)		Limit	54(dBµV/m	54(dBµV/m)		
est Figure:			1				
Ref Lv 10 de	rl	er 1 [T1] -9.55 dBm 2.46072144 GHz	RBW 100 k VBW 300 k SWT 12.5 m	Hz			
10			▼1	[T1] -9.55 dB 2.46072144 GH	A		
0	1		▼2	[T1] -63.83 dB 2.48350000 GH			
-10	Aph h. h. h. h. h. y.	he he had a he had			_		
-20 1MAX					1MA		
-30		<u> </u>					
-50							
-60							
-70			- marken and the server and the serv	Moundandensen	~		
- 8 0					_		
-90							
Start	2.45 GHz	5 M	Hz/	Stop 2.5 GH	z		



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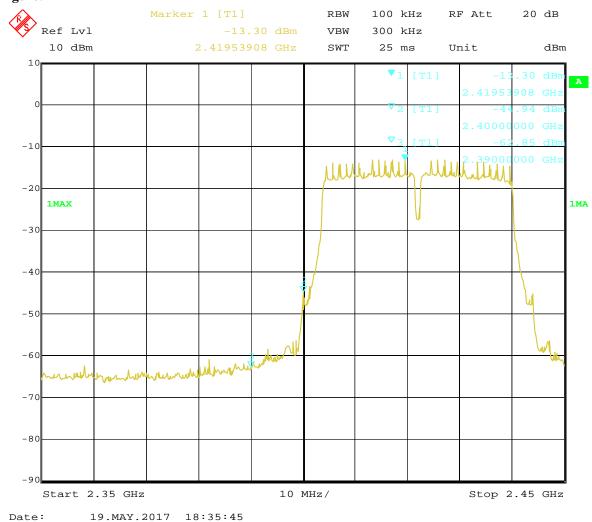
### For 802.11n (HT40) mode

### CH01 at msc0

# 10.4 Band-edge and Restricted band Measurement

EUT	Tablet PC		Model	A102
Mode	Keeping Transmitting		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	РК
2400	PK (dBµV/m)	60.2	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	40.6	Limit	54(dBµV/m)
2390	PK (dBµV/m)	46.9	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )		Liiiit	54(dBµV/m)

### **Test Figure:**



Note: The Max. FS in Restrict Band are measured in conventional method.

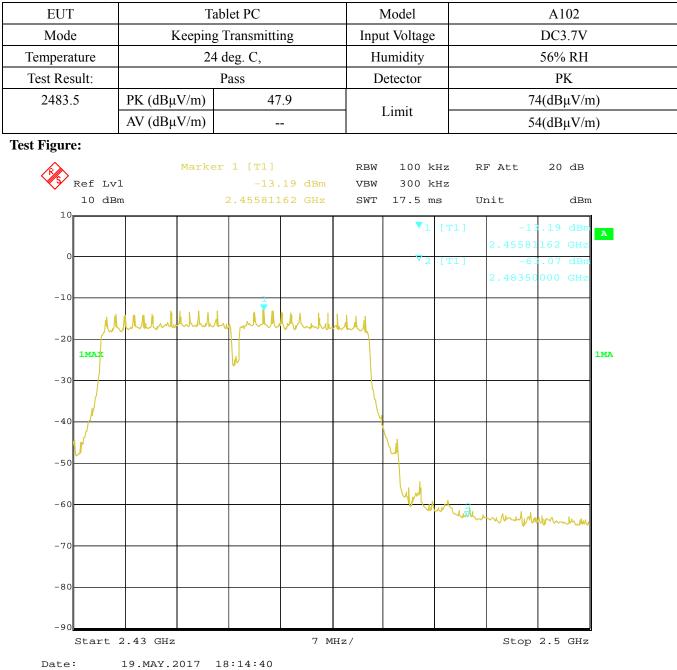
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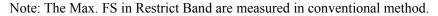
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CH7 at msc0

#### 10.4 Band-edge and Restricted band Measurement





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# 11.0 Antenna Requirement

# 11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

# 11.2 Antenna Connected construction

Integral antenna used. The maximum Gain of the antennas is 3.42dBi.

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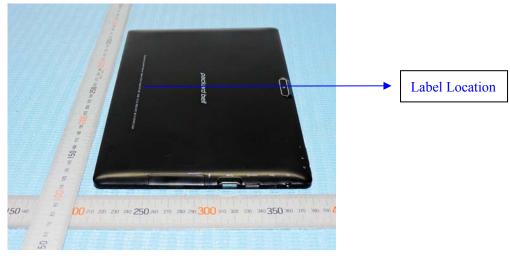
### 12.0 FCC ID Label

# FCC ID: RBD-A102

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

### Mark Location:



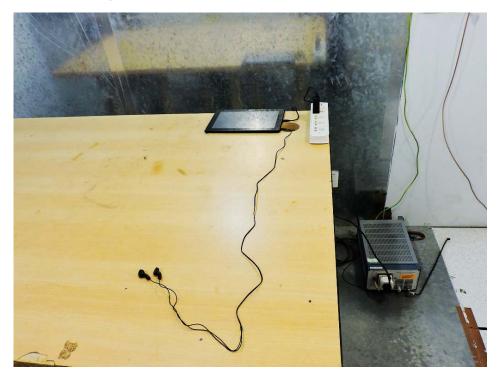
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#### 13.0 Photo of testing

Conducted Emission Test Setup:

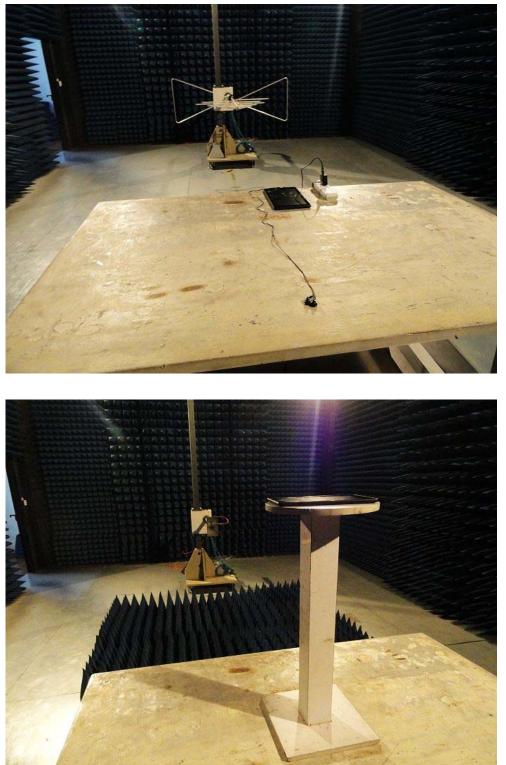


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discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Radiated Emission Test Setup:



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# **Photographs – EUT**

Outside view





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Outside view

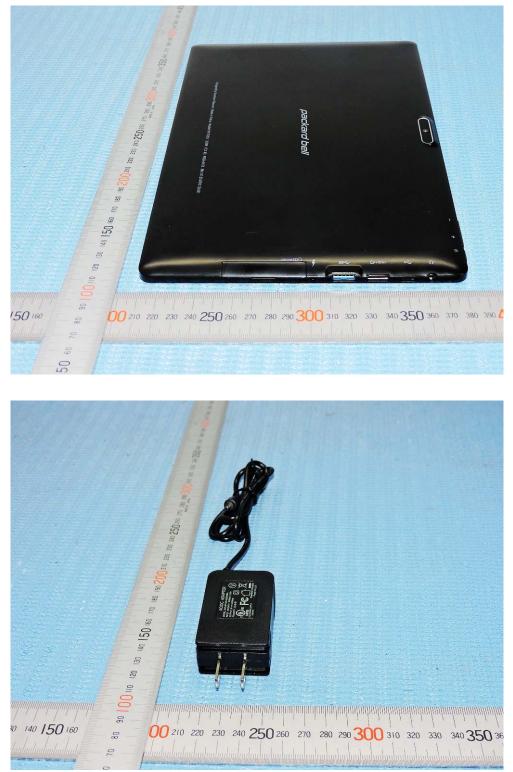


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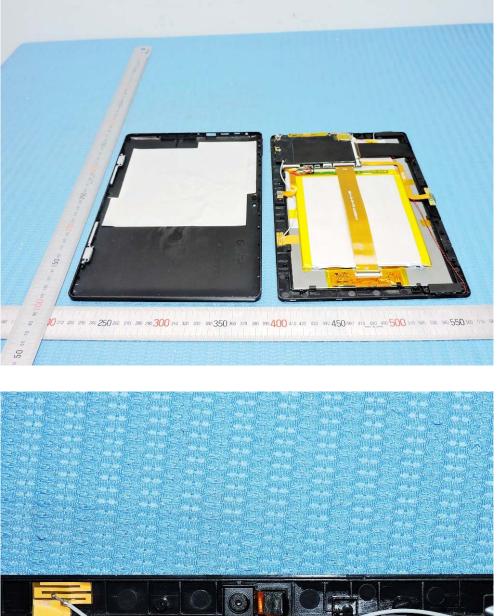
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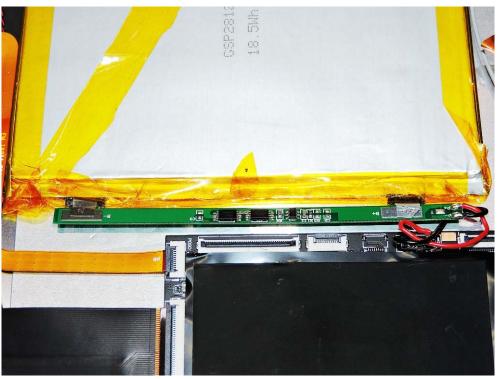


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Inside view

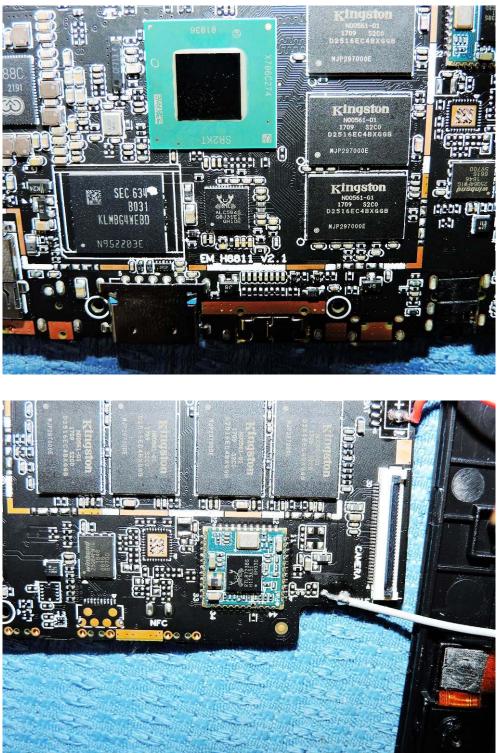




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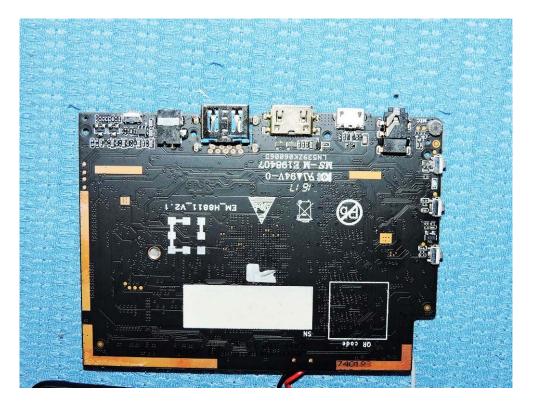


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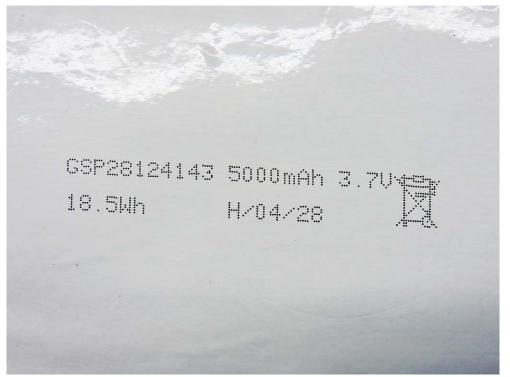




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Inside view



End of the report

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