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FCC Test Report

Report No.: AGC01826140501FE04

FCC ID : 2ACHA-T71

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: rugged tablet

BRAND NAME : HUGEROCK

MODEL NAME : T50, T60, T70, T71, T72, S70, T80, T90

CLIENT : ShenZhen SOTEN Technology Co., LTD

DATE OF ISSUE : Jun.14,2014

STANDARD(S) : FCC Part 15 Rules

REPORT VERSION: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jun.14,2014	Valid	Original Report

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1. VERIFICATION OF CONFORMITY

Applicant	ShenZhen SOTEN Technology Co., LTD
Address	7c, BaiSha Technology Industrial Park, No.3011, ShaHe West Road, NanShan District, ShenZhen, GuangDong,China
Manufacturer	EARNING SPRING GROUP
Address	Chitat Industrial Park, LongPing West Road, Central City, LongGang District, ShenZhen, GuangDong, China
Product Designation	rugged tablet
Brand Name	HUGEROCK
Test Model	Т71
Series Model	T50, T60, T70,T72, S70, T80,T90
Difference description	a) All the same except for the model name; b) T70's appearance is different from other models.
Date of test	Jun.06, 2014 to Jun.13, 2014
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BGN/RF (2013-03-01)

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By

Matt Zhang Jun.14,2014

Checked By

Kidd Yang Jun.14,2014

Authorized By

Solger Zhang Jun.14,2014

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as "rugged tablet". It is designed by way of utilizing the DSSS and OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	2.412 GHz~2.462GHz
Output Power	IEEE 802.11b:9.25dBm; IEEE 802.11g:7.44dBm; IEEE 802.11n(20):7.12dBm; IEEE 802.11n(40):4.3dBm
Modulation	DSSS(DBPSK/DQPSK/CCK);OFDM(BPSK/QPSK/16-QAM/64-QAM)
Number of channels	11
Hardware Version	M3089
Software Version	N/A
Antenna Designation	Integrated Antenna
Antenna Gain	0.8dBi
Power Supply	DC3.7V by Built-in Li-ion Battery

2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
	1	2412 MHZ
	2	2417 MHZ
	3	2422 MHZ
	4	2427 MHZ
	5	2432 MHZ
2400~2483.5MHZ	6	2437 MHZ
	7	2442 MHZ
	8	2447 MHZ
	9	2452 MHZ
	10	2457 MHZ
	11	2462 MHZ

Note: For 20MHZ bandwidth system use Channel 1 to Channel 11 For 40MHZ bandwidth system use Channel 3 to Channel 9

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2.3. IEEE 802.11N MODULATION SCHEME

MCS Nss Modul		Modulation	Modulation R	NBPSC	NCBPS		NDBPS		Data rate(Mbps)	
Index	1433	Wiodulation	IX.	NDF3C					800nsGl	
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0
6	1	64-QAM	3/4	6	312	648	234	489	58.5	121.5
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0

Symbol	Explanation	
NSS	Number of spatial streams	
R	Code rate	
NBPSC Number of coded bits per single carrie		
NCBPS	Number of coded bits per symbol	
NDBPS	Number of data bits per symbol	
GI Guard interval		

2.4. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID**: **2ACHA-T71** filing to comply with the FCC Part 15 requirements.

2.5. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.247 rules.

2.6. SPECIAL ACCESSORIES

Refer to section 5.2.

2.7. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

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3. MEASUREMENT UNCERTAINTY

Conducted measurement: +/- 2.75dB Radiated measurement: +/- 3.2dB

4. DESCRIPTION OF TEST MODES

	TEST MODE DESCRIPTION			
NO.	TEST MODE DESCRIPTION	WORST		
1	Low channel TX			
2	Middle channel TX			
3	High channel TX			
4	Normal operating (WiFi)	V		

Note:

- 1. V means worst mode for Conducted Emission.
- 2. Transmit by 802.11b with Date rate (1/2/5.5/11)

Transmit by 802.11g with Date rate (6/9/12/18/24/36/48/54)

Transmit by 802.11n (20MHz) with Date rate (6.5/13/19.5/26/39/52/58.5/65)

Transmit by 802.11n (40MHz) with Date rate

(13.5/27/40.5/54/81/108/121.5/135)

Note:

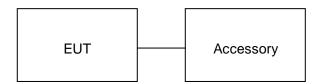
- 1. The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
- 2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
- 3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.

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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure:



5.2. EQUIPMENT USED IN EUT SYSTEM

	Equipment Used in EUT System				
Item	Equipment Model No. ID or Specification Not		Note		
1	rugged tablet	T71	FCC ID: 2ACHA-T71	EUT	
2	Adapter	8395-UW01-1070	DC5.0V, 2.0A	Accessory	
3	Battery	8567127	DC3.7V/10000 mAh	Accessory	
4	Earphone	T71	N/A	Accessory	
5	USB Cable	T71	N/A	Accessory	

Note: All the accessories have been used during the test in conduction emission test.

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.247	Peak Output Power	Compliant
§15.247	6 dB Bandwidth	Compliant
§15.247	Conducted Spurious Emission	Compliant
§15.247	Maximum Conducted Output Power SPECTRAL Density	Compliant
§15.209	Radiated Emission	Compliant
§15.247	Band Edges	Compliant
§15.207	Line Conduction Emission	Compliant

Note: The EUT received power from DC3.7V lithium battery.

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6. TEST FACILITY

Site	Attestation of Global Compliance (Shenzhen) Co., Ltd		
Location	2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China		
Description	The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2003.		

ALL TEST EQUIPMENT LIST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Power Probe	R&S	NRP-Z23	100323	07/17/2013	07/16/2014
RF attenuator	N/A	RFA20db	68	N/A	N/A
Spectrum Analyzer	Agilent	E4440A	US41421290	07/17/2013	07/16/2014
Amplifier	EM	EM30180	0607030	02/27/2014	02/26/2015
Horn Antenna	EM	EM-AH-10180	67	04/19/2014	04/18/2015
Horn Antenna	A.H. Systems Inc.	SAS-574		07/17/2013	07/16/2014
EMI Test Receiver	Rohde & Schwarz	ESCI	100694	07/17/2013	07/16/2014
Biological Antenna	A.H. Systems Inc.	SAS-521-4	26	06/06/2014	06/05/2015
Loop Antenna	A.H.	SAS-526B	264	07/14/2013	07/13/2014
LISN	R&S	ESH3-Z5	8389791009	07/17/2013	07/16/2014

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7. PEAK OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

For peak power test:

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3. Set the EUT Work on the top, middle and the bottom operation frequency individually.
- 4. Use the following spectrum analyzer settings:

Set the RBW = 1 MHz

Set the VBW ≥ 3 RBW

Set the span \geq 1.5 x DTS bandwidth

Detector = peak

Sweep time = auto couple

Trace mode = max hold

- 5. Allow the trace to stabilize. Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges.
- 6. Record the result form the Spectrum Analyzer.

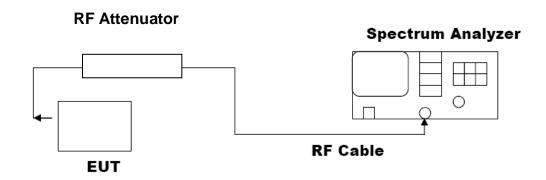
For average power test:

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to power probe through an RF attenuator.
- 3. Connect the power probe to the PC.
- 4. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 5. Record the maximum power from the software.
- 6. The maximum peak power shall be less 1 Watt (30dBm).

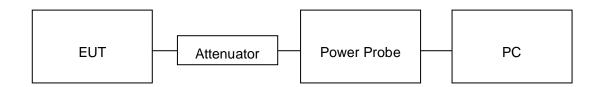
Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

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7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) PEAK POWER TEST SETUP



AVERAGE POWER SETUP



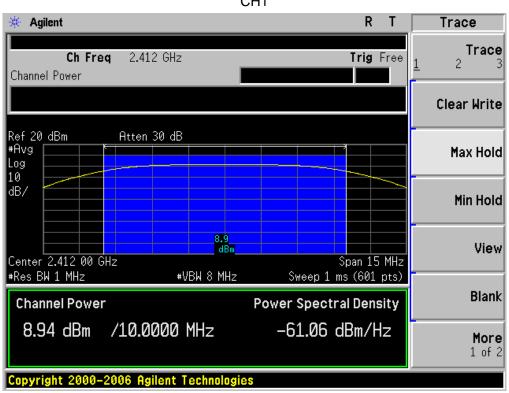
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7.3. LIMITS AND MEASUREMENT RESULT

TEST ITEM	PEAK POWER
TEST MODE	802.11b with data rate 1

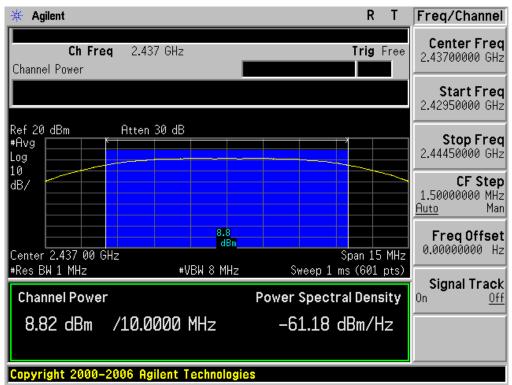
	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	6.96	8.94	30	Pass
2.437	6.84	8.82	30	Pass
2.462	7.27	9.25	30	Pass

CH1

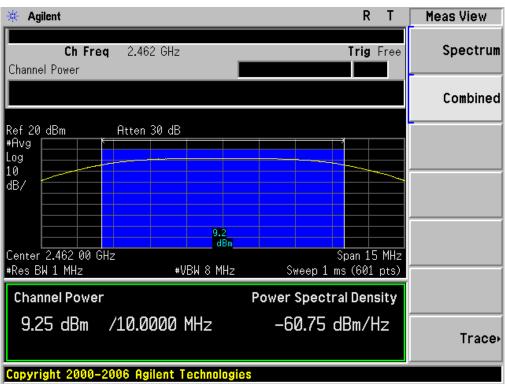


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CH₆



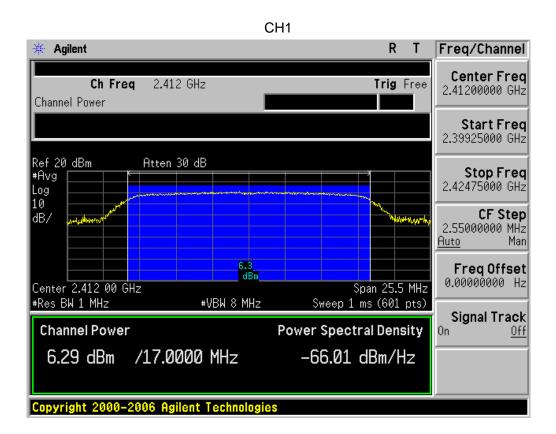
CH11



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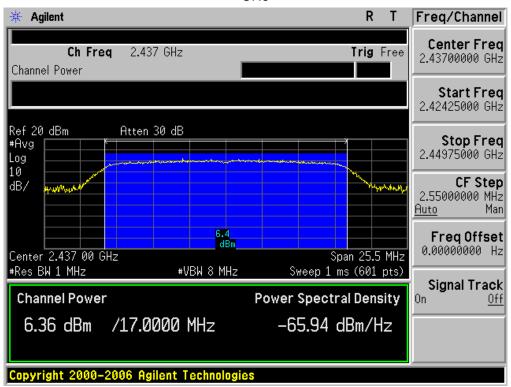
TEST ITEM	PEAK POWER
TEST MODE	802.11g with data rate 6

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	4.31	6.29	30	Pass
2.437	4.38	6.36	30	Pass
2.462	5.46	7.44	30	Pass

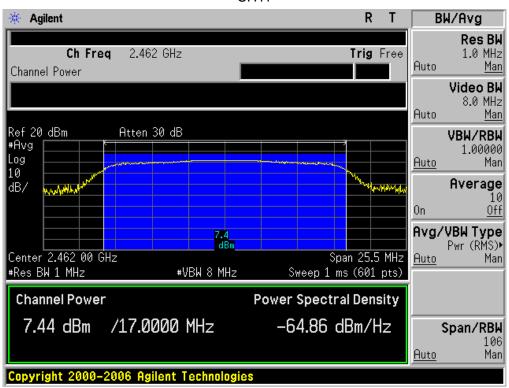


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CH₆



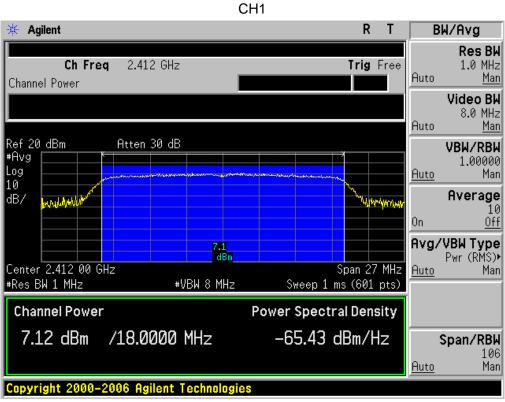
CH11



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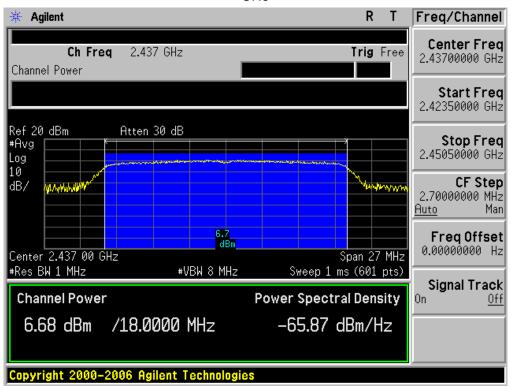
TEST ITEM	PEAK POWER
TEST MODE	802.11n 20 with data rate 6.5

LIMITS AND MEASUREMENT RESULT				
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	5.14	7.12	30	Pass
2.437	4.7	6.68	30	Pass
2.462	4.66	6.64	30	Pass

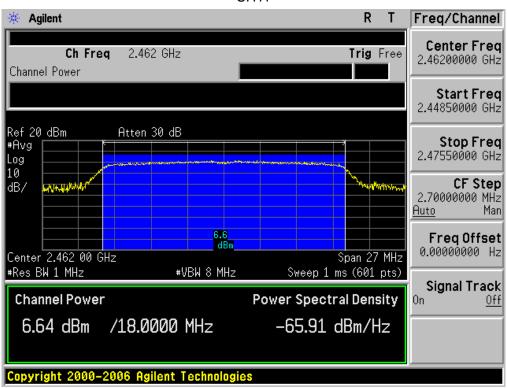


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CH₆



CH11

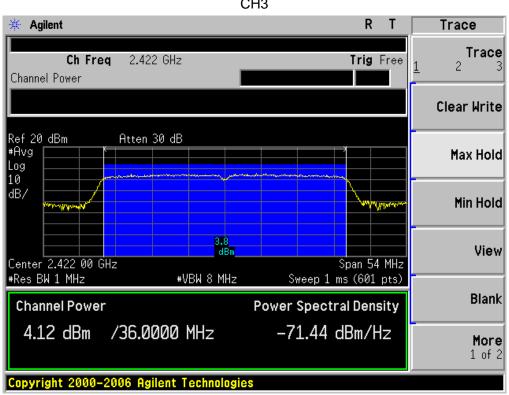


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TEST ITEM	PEAK POWER
TEST MODE	802.11n 40 with data rate 13.5

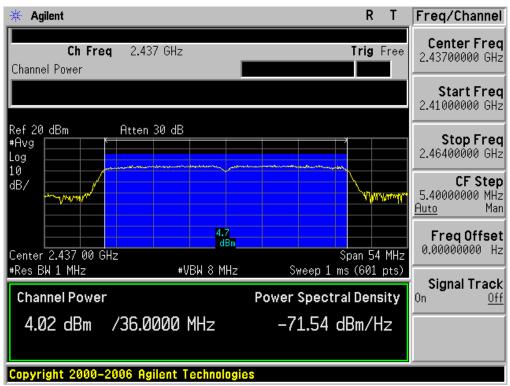
	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.422	2.14	4.12	30	Pass
2.437	2.04	4.02	30	Pass
2.452	2.32	4.3	30	Pass

CH3

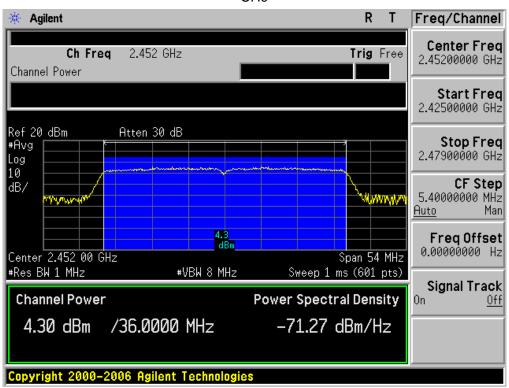


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CH9



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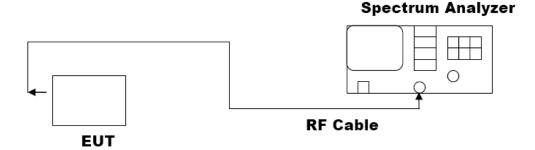
8. 6DB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Set SPA Centre Frequency = Operation Frequency, RBW = 100 KHz, VBW ≥ RBW.
- 5. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



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8.3. LIMITS AND MEASUREMENT RESULTS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11b with data rate 11

LIMITS AND MEASUREMENT RESULT				
Appliachle Limite	Applicable Limits			
Applicable Limits	Test Data (MHz) Criteria		Criteria	
	Low Channel	9.584	PASS	
>500KHZ	Middle Channel	9.098	PASS	
	High Channel	9.119	PASS	

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11g with data rate 54

LIMITS AND MEASUREMENT RESULT			
A P 1 1 . 1 2 26 .	Applicable Limits		
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	16.298	PASS
	Middle Channel	16.353	PASS
	High Channel	16.317	PASS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 20 with data rate 65

LIMITS AND MEASUREMENT RESULT			
A P 1 1 . 1 ! K .	Applicable Limits		
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	16.134	PASS
	Middle Channel	17.321	PASS
	High Channel	17.385	PASS

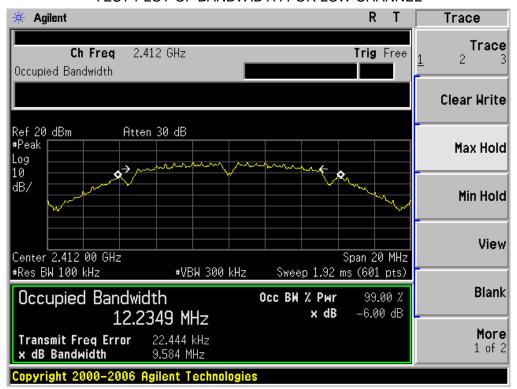
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TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 40 with data rate 135

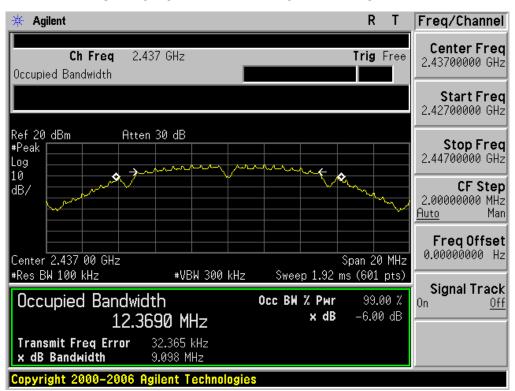
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	35.240	PASS
	Middle Channel	35.246	PASS
	High Channel	35.220	PASS

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802.11b TEST RESULTTEST PLOT OF BANDWIDTH FOR LOW CHANNEL

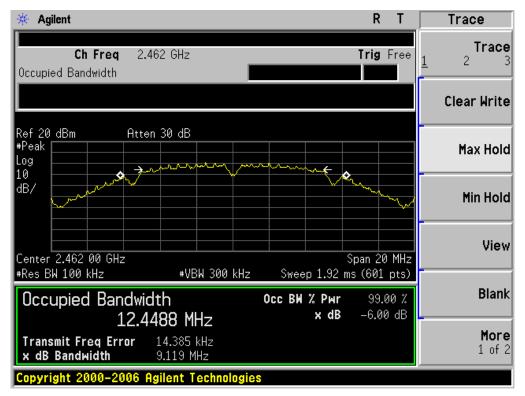


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

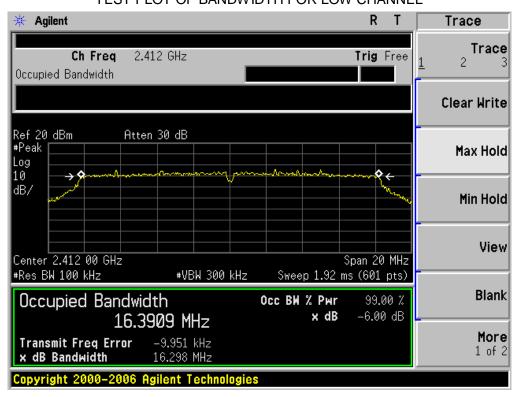


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TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

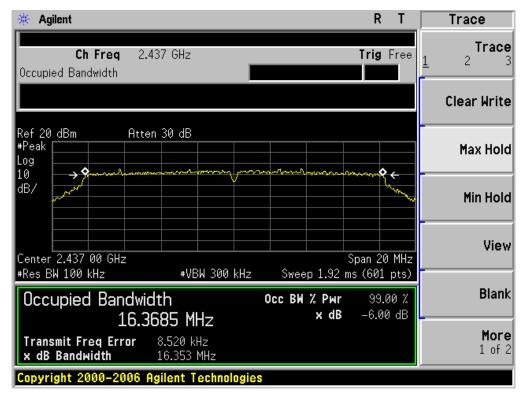


802.11g TEST RESULT
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

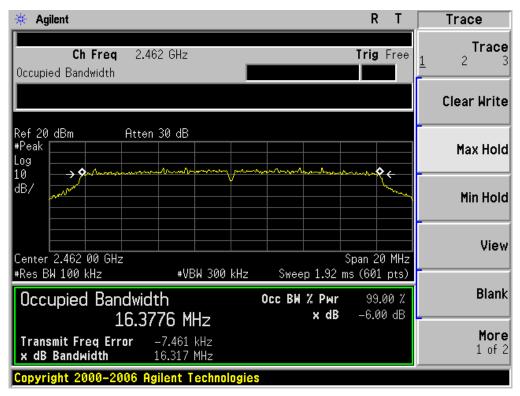


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

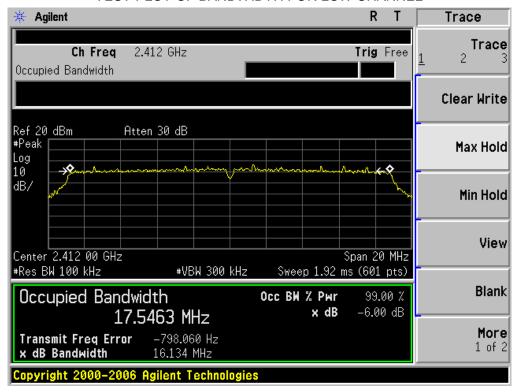


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

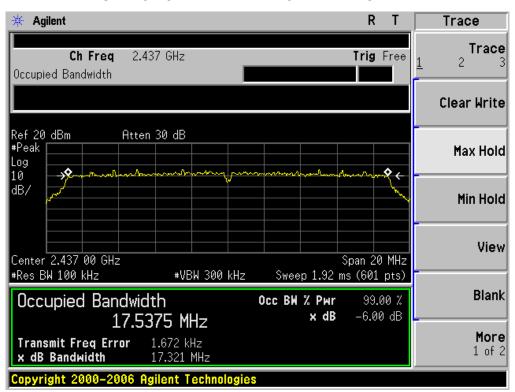


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802.11n (20) TEST RESULT
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

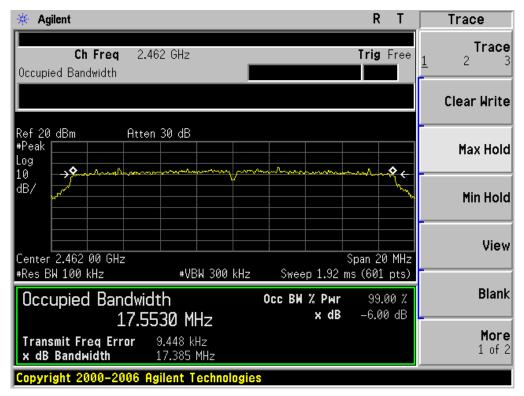


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

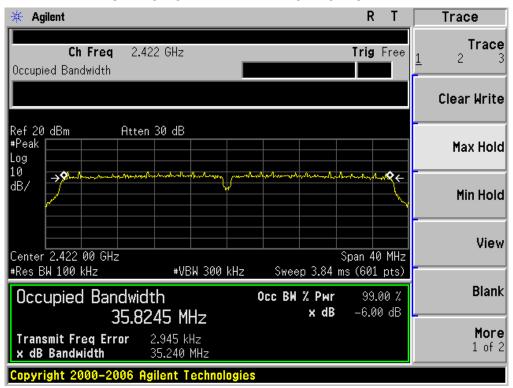


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TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

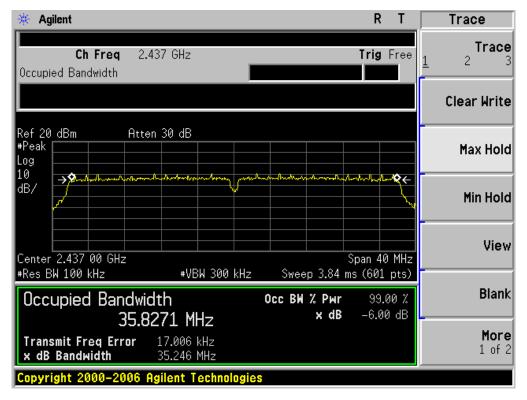


802.11n(40) TEST RESULT
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

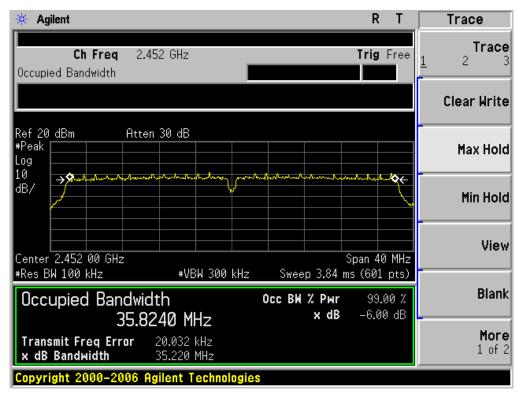


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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9. CONDUCTED SPURIOUS EMISSION

9.1. MEASUREMENT PROCEDURE

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements. Owing to satisfy the requirements of the number of measurement points, we set the RBW=1MHz, VBW > RBW, scan up through 10th harmonic, and consider the tested results as the worst case, if the tested results conform to the requirement, we can deem that the real tested results(set the RBW=100KHz, VBW > RBW) are conform to the requirement.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 8.2.

9.3. MEASUREMENT EQUIPMENT USED

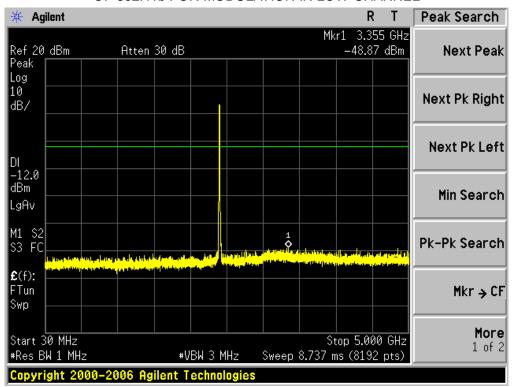
The same as described in section 6.

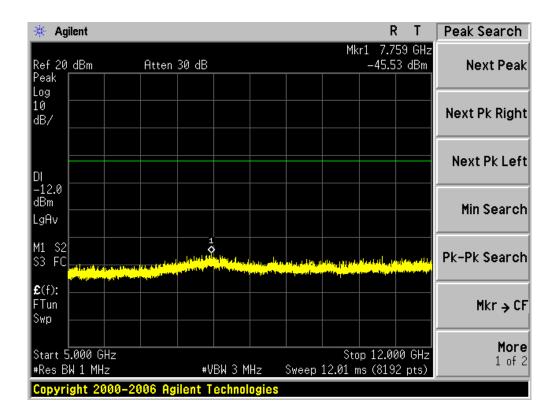
9.4. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT			
Annii abla Limita	Measurement Result		
Applicable Limits	Test Data	Criteria	
In any 100 KHz Bandwidth Outside the	At least -20dBc than the limit		
frequency band in which the spread spectrum	Specified on the BOTTOM	PASS	
intentional radiator is operating, the radio frequency	Channel		
power that is produce by the intentional radiator			
shall be at least 20 dB below that in 100KHz			
bandwidth within the band that contains the highest			
level of the desired power.	At least -20dBc than the limit	DACC	
In addition, radiation emissions which fall in the	Specified on the TOP Channel	PASS	
restricted bands, as defined in §15.205(a), must also			
comply with the radiated emission limits specified			
in§15.209(a))			

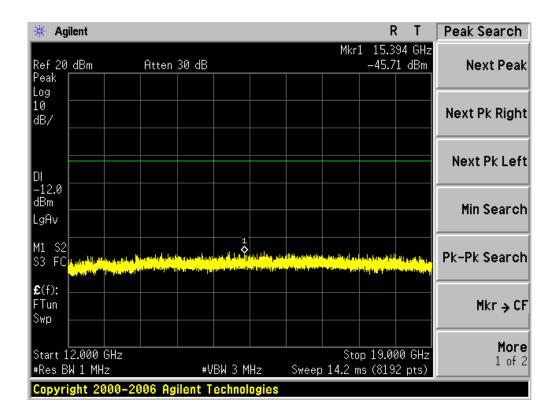
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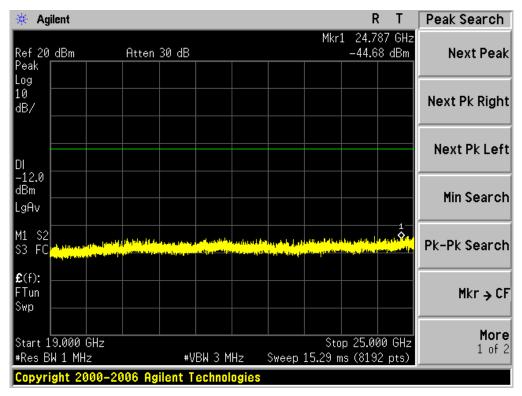
TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11b FOR MODULATION IN LOW CHANNEL





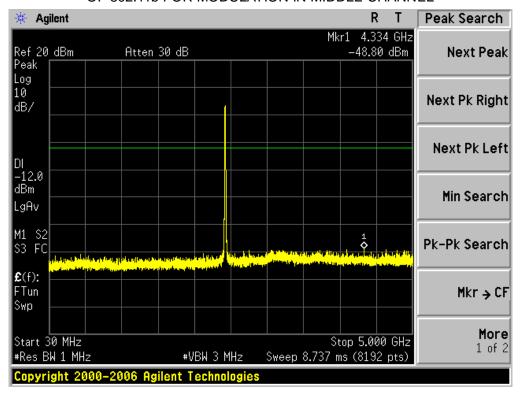
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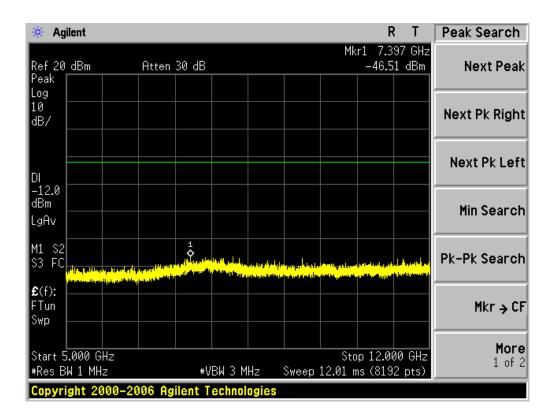




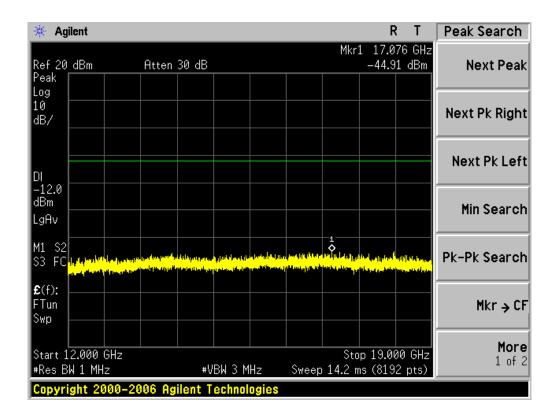
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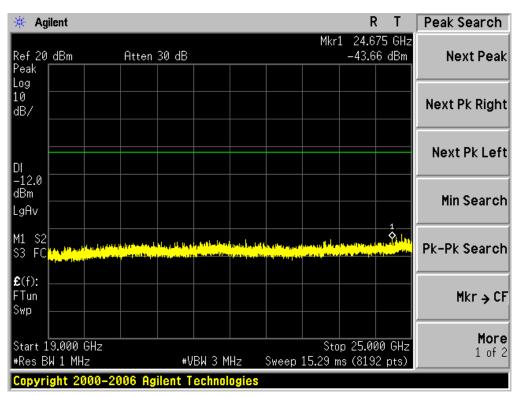
TEST PLOT OF OUT OF BAND EMISSIONS OF 802.11b FOR MODULATION IN MIDDLE CHANNEL





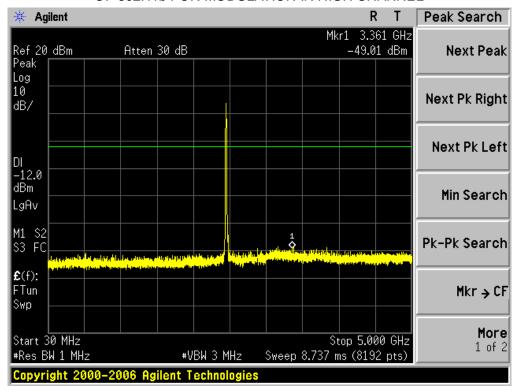
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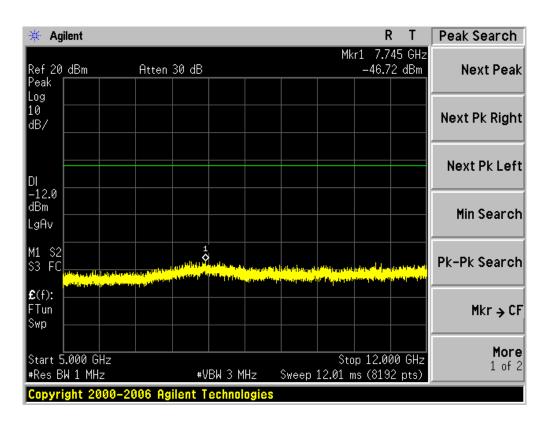




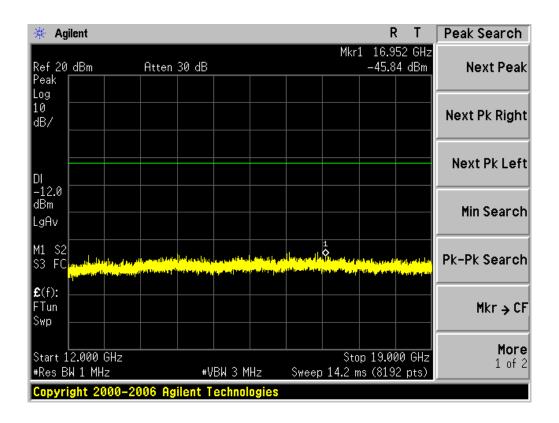
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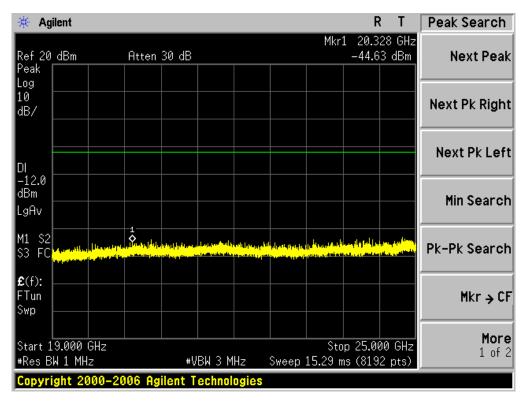
TEST PLOT OF OUT OF BAND EMISSIONS OF 802.11b FOR MODULATION IN HIGH CHANNEL





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10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

10.1 MEASUREMENT PROCEDURE

- (1). The EUT was placed on a turn table which is 0.8m above ground plane.
- (2). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- (3). Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- (4). Set SPA Trace 1 Max hold, then View.

Note: The method of PKPSD in the KDB 558074 item 10.2 was used in this testing.

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2.

10.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

10.4 LIMITS AND MEASUREMENT RESULT

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11b with data rate 1

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-15.08	8	Pass
Middle Channel	-14.6	8	Pass
High Channel	-14.85	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11g with data rate 6

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-19.42	8	Pass
Middle Channel	-19.42	8	Pass
High Channel	-17.65	8	Pass

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TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 20 with data rate 6.5

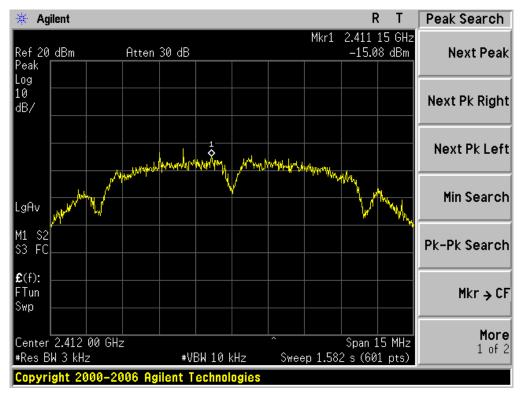
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-18.07	8	Pass
Middle Channel	-19.33	8	Pass
High Channel	-18.07	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 40 with data rate 13.5

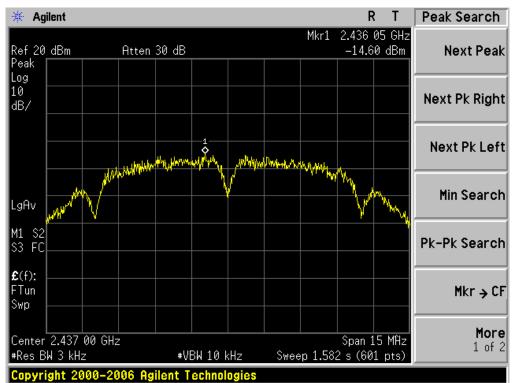
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-24.58	8	Pass
Middle Channel	-25.31	8	Pass
High Channel	-23.86	8	Pass

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802.11b TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

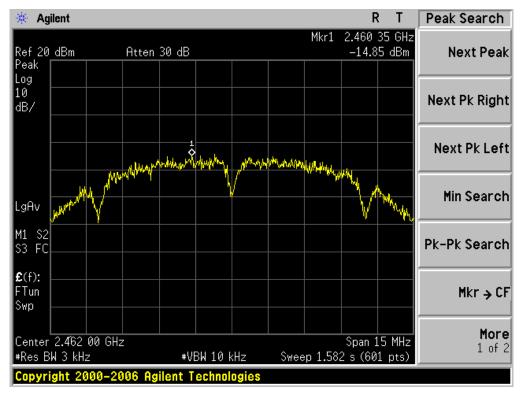


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

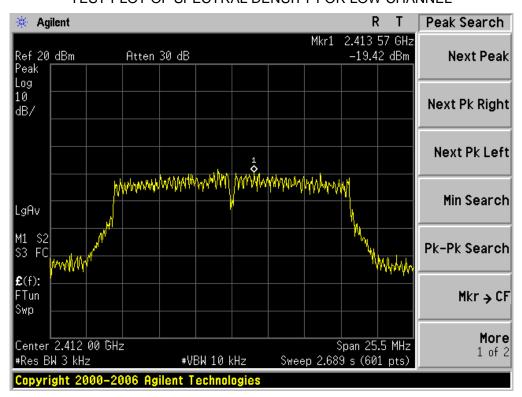


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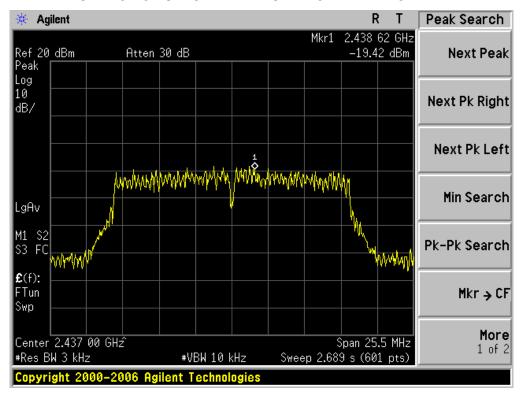


802.11g TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

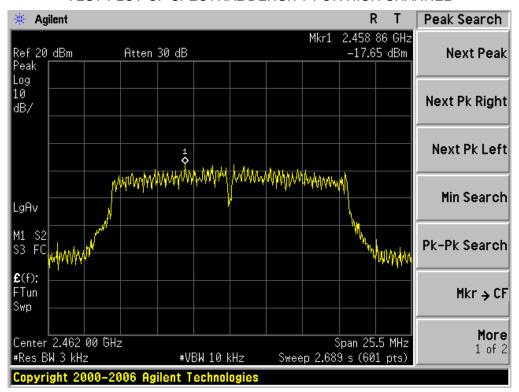


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TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

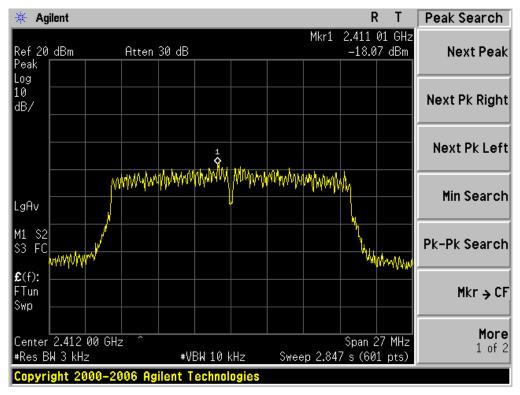


TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

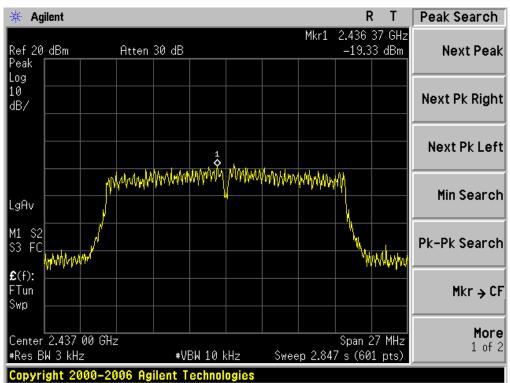


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802.11n 20 TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

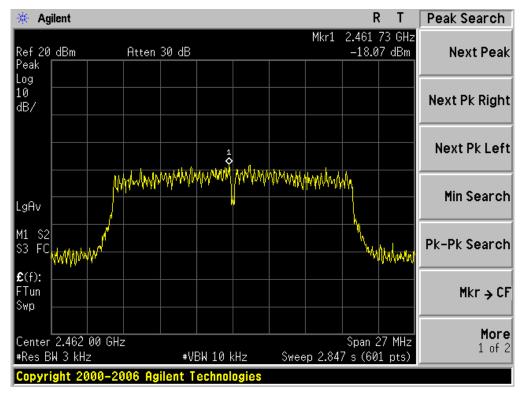


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

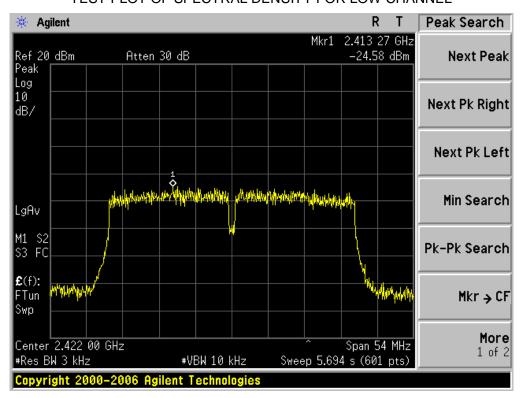


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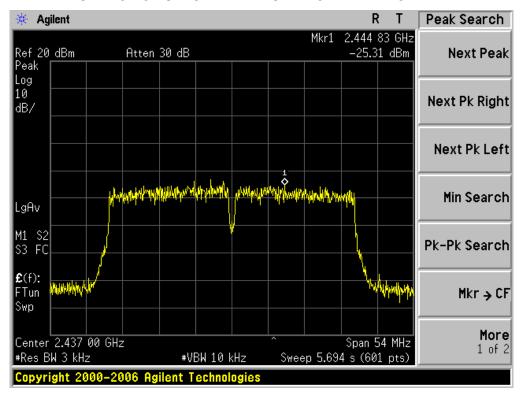


802.11n 40 TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

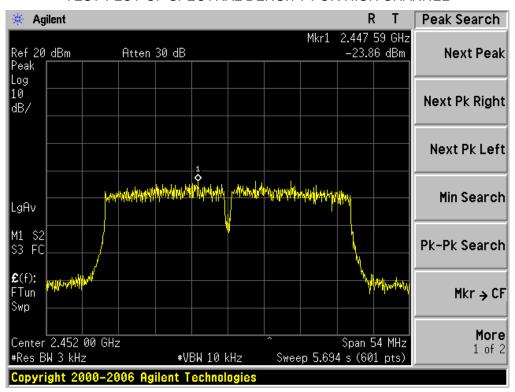


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TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



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11. RADIATED EMISSION

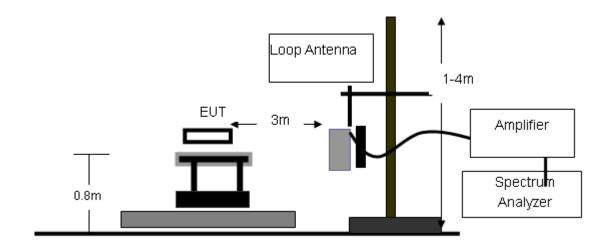
11.1. MEASUREMENT PROCEDURE

- 1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

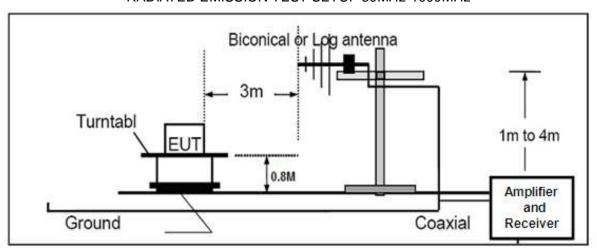
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11.2. TEST SETUP

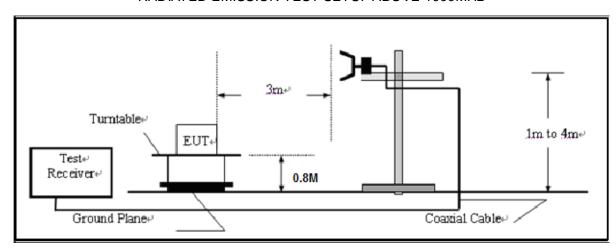
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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11.3. LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested For restricted band radiated emission,

the test records reported below are the worst result compared to other modes.

11.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

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

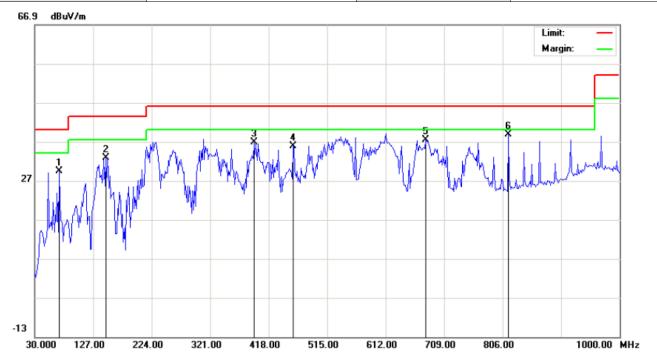
Temperature: 26

Humidity: 60 %

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RADIATED EMISSION BELOW 1GHZ

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: rugged tablet

M/N: T71

Mode: Low Channel TX

678.2833

815.7000

12.77

11.46

24.61

27.32

37.38

38.78

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
110.		MHz	dBuV	dB/m	dBuV/m	dBuV/m		Dottotto	cm	degree	, commone
1		70.4167	19.16	10.24	29.40	40.00	-10.60	peak			
2		148.0166	17.47	15.25	32.72	43.50	-10.78	peak			
3		393.7500	17.84	19.03	36.87	46.00	-9.13	peak			
4		458.4166	15.10	20.68	35.78	46.00	-10.22	peak			

46.00

46.00

-8.62

-7.22

peak

peak

Power:

Distance:

Polarization: Horizontal

AC 120V/60Hz

RESULT: PASS

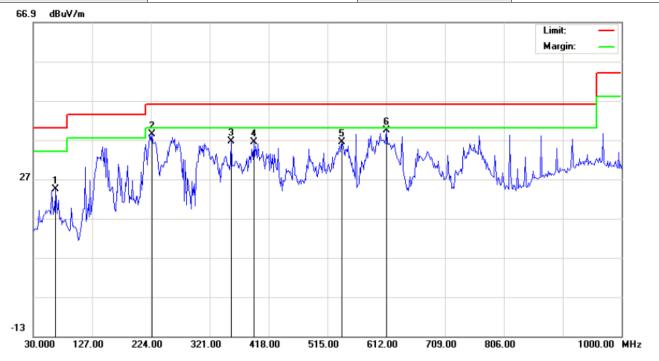
5

6

Temperature: 26

Humidity: 60 %

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: rugged tablet

M/N: T71

Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		67.1833	18.98	5.36	24.34	40.00	-15.66	peak			
2		225.6167	26.99	11.51	38.50	46.00	-7.50	peak			
3		356.5667	17.76	18.78	36.54	46.00	-9.46	peak			
4		393.7500	17.31	19.03	36.34	46.00	-9.66	peak			
5		539.2500	14.20	22.19	36.39	46.00	-9.61	peak			
6	*	612 0000	16 48	23 00	39 48	46.00	-6 52	peak			

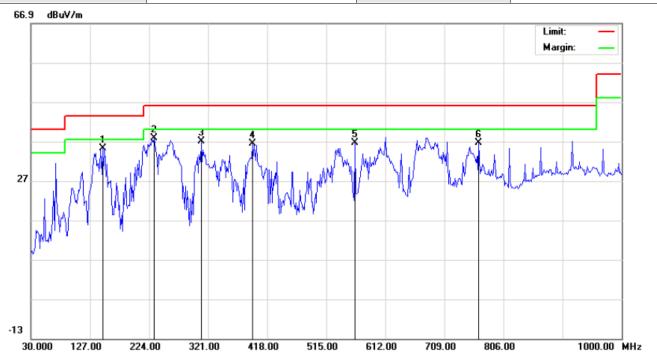
Power:

Distance:

Polarization: Vertical

AC 120V/60Hz

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Horizontal



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: rugged tablet

M/N: T71

Mode: Middle Channel TX

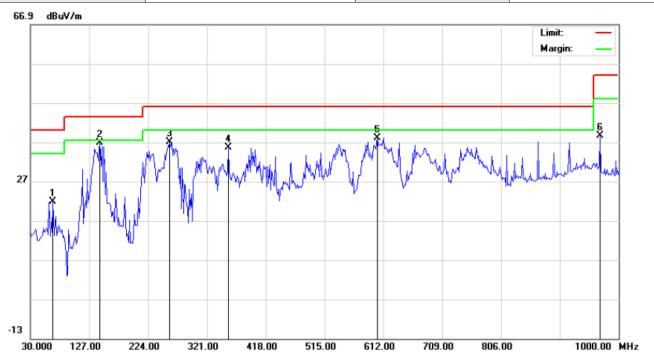
Note:

Polarization: *Horizontal* Temperature: 26 Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		148.0166	19.97	15.25	35.22	43.50	-8.28	peak			
2	*	232.0833	24.67	13.22	37.89	46.00	-8.11	peak			
3		309.6832	20.98	16.05	37.03	46.00	-8.97	peak			
4		393.7500	17.34	19.03	36.37	46.00	-9.63	peak			
5		561.8832	13.73	22.78	36.51	46.00	-9.49	peak			
6		765.5833	9.75	26.84	36.59	46.00	-9.41	peak			

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Vertical



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: rugged tablet

M/N: T71

Mode: Middle Channel TX

Note:

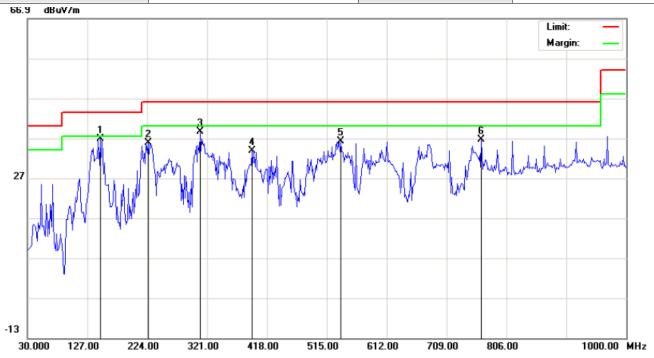
Polarizatio	on: Vertical	Temperature: 26
Power:	AC 120V/60Hz	Humidity: 60 %
Distance:		

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		67.1833	16.48	5.36	21.84	40.00	-18.16	peak			
2	*	144.7831	21.53	15.23	36.76	43.50	-6.74	peak			
3		259.5667	22.89	14.19	37.08	46.00	-8.92	peak			
4		356.5667	16.76	18.78	35.54	46.00	-10.46	peak			
5		602.2999	15.32	22.78	38.10	46.00	-7.90	peak			
6		969.2833	8.87	29.81	38.68	54.00	-15.32	peak			

Temperature: 26

Humidity: 60 %

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Horizontal



Polarization: Horizontal

AC 120V/60Hz

Site: site #1 Limit: FCC Class B 3M Radiation

EUT: rugged tablet

M/N: T71

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	148.0166	21.47	15.25	36.72	43.50	-6.78	peak			
2		225.6167	22.85	12.97	35.82	46.00	-10.18	peak			
3		309.6831	22.48	16.05	38.53	46.00	-7.47	peak			
4		393.7500	14.84	19.03	33.87	46.00	-12.13	peak			
5		537.6331	14.14	22.15	36.29	46.00	-9.71	peak			
6		765.5833	9.75	26.84	36.59	46.00	-9.41	peak			

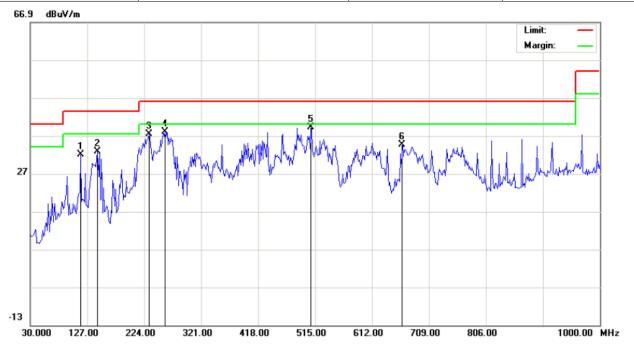
Power:

Distance:

Temperature: 26 Humidity: 60 %

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EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical



Polarization: Vertical

AC 120V/60Hz

Site: site #1

Limit: FCC Class B 3M Radiation

EUT: rugged tablet

M/N: T71

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		115.6833	27.30	4.71	32.01	43.50	-11.49	peak			
2		144.7830	17.53	15.23	32.76	43.50	-10.74	peak			
3		232.0833	25.28	12.14	37.42	46.00	-8.58	peak			
4		259.5667	23.89	14.19	38.08	46.00	-7.92	peak			
5	*	508.5332	17.76	21.36	39.12	46.00	-6.88	peak			
6		663.7332	10.38	24.22	34.60	46.00	-11.40	peak			

Power:

Distance:

RESULT: PASS

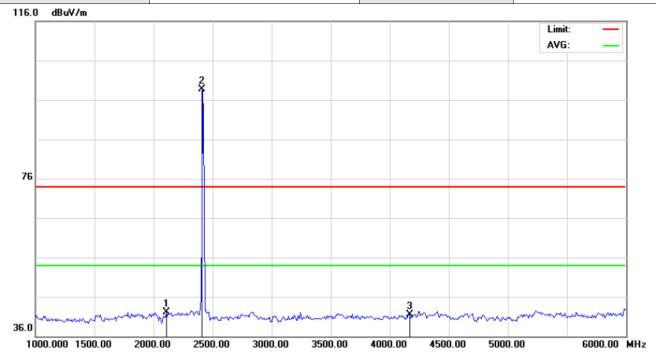
Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

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RADIATED EMISSION ABOVE 1GHZ

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

M/N: T71

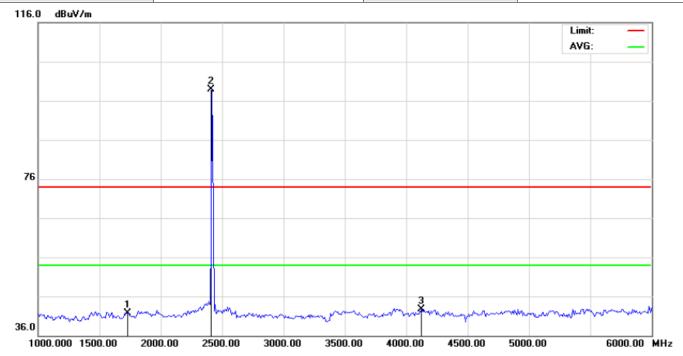
Mode: 802.11b Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2108.333	52.18	-10.00	42.18	74.00	-31.82	peak			
2	*	2412.000	108.28	-9.67	98.61	74.00	24.61	peak			
3		4166.667	45.80	-4.24	41.56	74.00	-32.44	peak			

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EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

M/N: T71

Mode: 802.11b Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		1733.333	54.62	-12.93	41.69	74.00	-32.31	peak			
2	*	2412.000	108.57	-9.67	98.90	74.00	24.90	peak			
3		4125.000	47.17	-4.38	42.79	74.00	-31.21	peak			

RESULT: PASS

Note: The other modes radiation emissions have more than 20dB margin.

All modes radiation emission from 6GHz to 25GHz at least have 20dB margin.

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

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12. BAND EDGE EMISSION

12.1. MEASUREMENT PROCEDURE

- 1. Set the EUT Work on the top, the bottom operation frequency individually.
- 2. Set SPA Start or Stop Frequency = Operation Frequency, RBW>=1%span, VBW>=RBW
- 3. The band edges was measured and recorded.

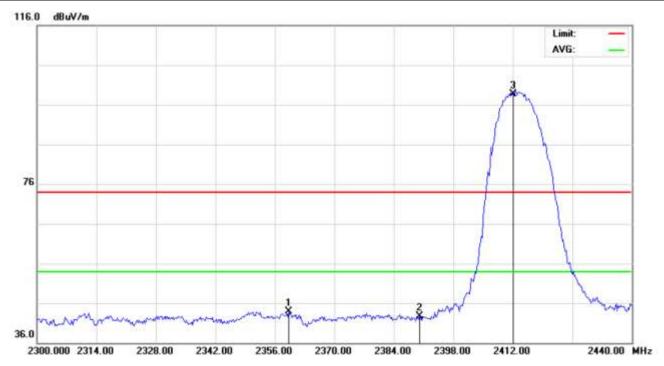
12.2. TEST SET-UP

Radiated same as 11.2

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12.3. TEST RESULT

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

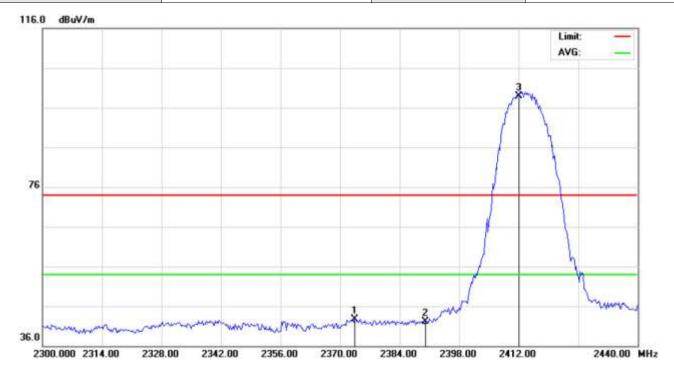
M/N: T71

Mode: 802.11b Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	*	MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2359.267	53.61	-9.72	43.89	74.00	-30.11	peak			
2		2390.000	52.40	-9.69	42.71	74.00	-31.29	peak			
3	*	2412.000	108.36	-9.67	98.69	74.00	24.69	peak			

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

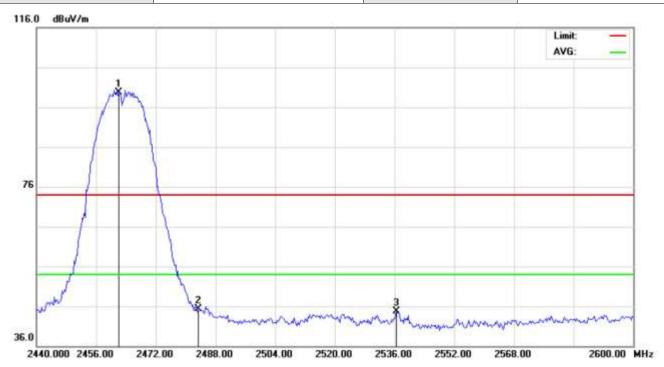
M/N: T71

Mode: 802.11b Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	100000000000000000000000000000000000000	cm	degree	
1		2373.500	52.40	-9.71	42.69	74.00	-31.31	peak			
2		2390.000	51.77	-9.69	42.08	74.00	-31.92	peak			
3	٠	2412.000	108.58	-9.67	98.91	74.00	24.91	peak			

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

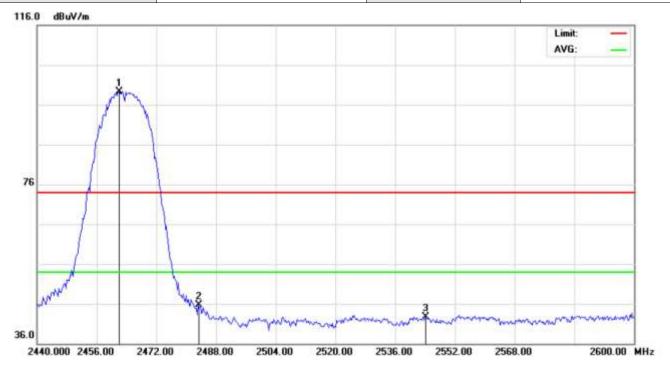
M/N: T71

Mode: 802.11b High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	*	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	#	2462.000	109.39	-9.61	99.78	74.00	25.78	peak			
2		2483.500	54.81	-9.59	45.22	74.00	-28.78	peak			
3		2536.533	54.13	-9.48	44.65	74.00	-29.35	peak			

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

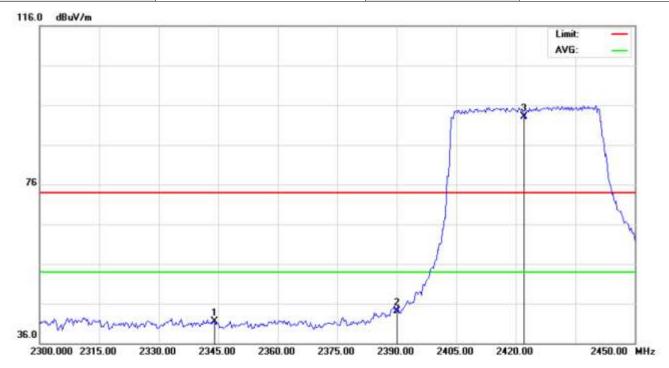
M/N: T71

Mode: 802.11b High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	3.03	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	•	2462.000	108.92	-9.61	99.31	74.00	25.31	peak			
2		2483.500	55.22	-9.59	45.63	74.00	-28.37	peak			
3		2544.267	52.24	-9.46	42.78	74.00	-31.22	peak			

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

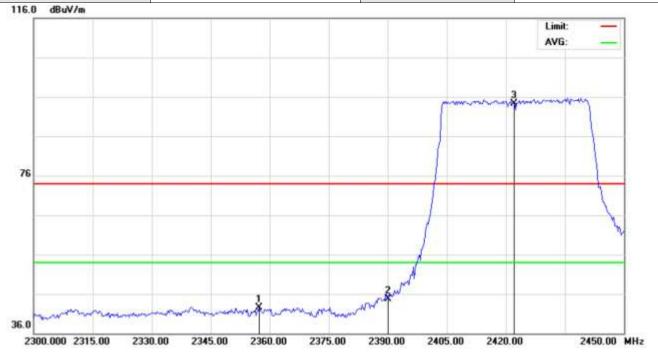
M/N: T71

Mode: 802.11n(40) Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	*	MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2344.000	51.24	-9.74	41.50	74.00	-32.50	peak			
2		2390.000	53.71	-9.69	44.02	74.00	-29.98	peak		T I	
3	*	2422.000	102.82	-9.66	93.16	74.00	19.16	peak			

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

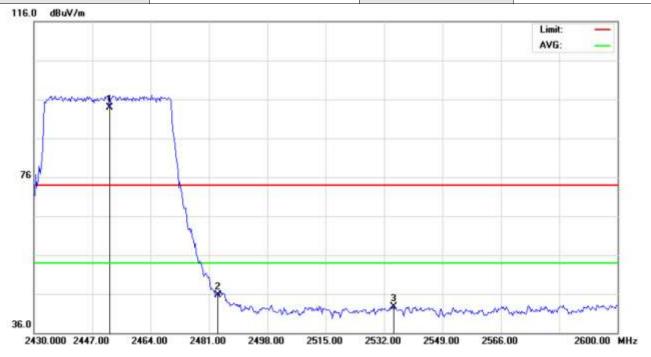
M/N: T71

Mode: 802.11n(40) Low Channel TX

Note:

No.	Mk	Mk	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	200000000000000000000000000000000000000	cm	degree			
1		2357.250	52.29	-9.73	42.56	74.00	-31.44	peak					
2		2390.000	54.40	-9.69	44.71	74.00	-29.29	peak					
3	*	2422.000	103.87	-9.66	94.21	74.00	20.21	peak					

EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2452MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

M/N: T71

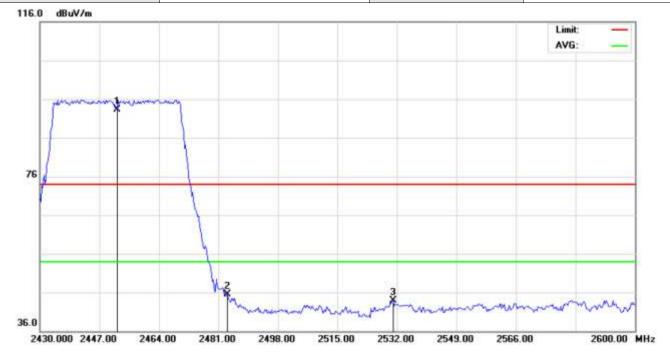
Mode: 802.11n(40) High Channel TX

Note:

NO.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	.73	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2452.000	103.47	-9.62	93.85	74.00	19.85	peak			
2		2483.500	55.29	-9.59	45.70	74.00	-28.30	peak			
3		2534.833	52.20	-9.49	42.71	74.00	-31.29	peak		i ji	

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EUT	rugged tablet	Model Name	T71
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2452MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: rugged tablet Distance: 3m

M/N: T71

Mode: 802.11n(40) High Channel TX

Note:

No. Mk	Mk	Mk	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB		cm	degree			
1	*	2452.000	102.90	-9.62	93.28	74.00	19.28	peak					
2		2483.500	55.03	-9.59	45.44	74.00	-28.56	peak					
3		2530.867	53.34	-9.50	43.84	74.00	-30.16	peak					

RESULT: PASS

Note: The other modes radiation emission have enough 20dB margin.

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

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13. FCC LINE CONDUCTED EMISSION TEST

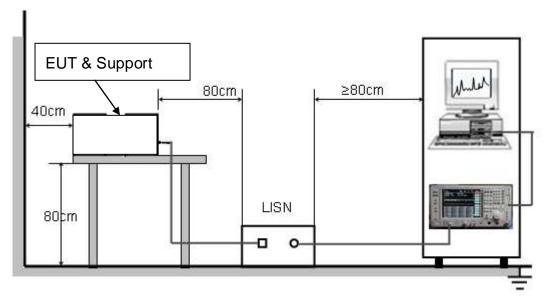
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Francis	Maximum RF	Line Voltage
Frequency	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

- 1. The lower limit shall apply at the transition frequency.
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

- 2. Support equipment, if needed, was placed as per ANSI C63.4.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4. All support equipments received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received charging voltage by adapter which received 120V/60Hzpower by a LISN..
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

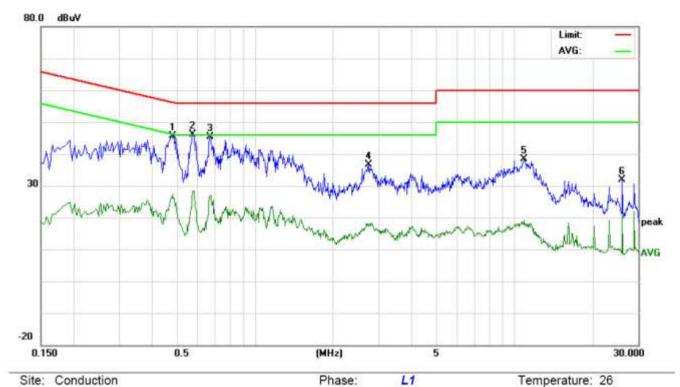
- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

Humidity: 60 %

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13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST LINE 1-L



Limit: FCC Class B Conduction(QP)

EUT: rugged tablet

M/N: T71

Mode: Normal Operating(WIFI)

Note:

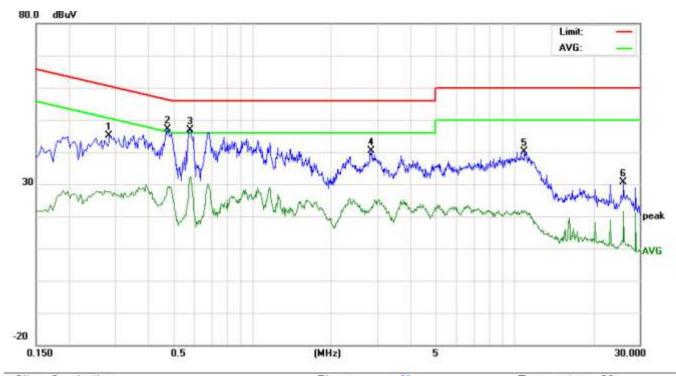
No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.4820	35.14		17.09	10.39	45.53		27.48	56.30	46.30	-10.77	-18.82	Р	
2	0.5780	35.76		18.02	10.33	46.09		28.35	56.00	46.00	-9.91	-17.65	Р	
3	0.6740	34.91		16.42	10.34	45.25		26.76	56.00	46.00	-10.75	-19.24	Р	
4	2.7540	26.07		6.90	10.49	36.56		17.39	56.00	46.00	-19.44	-28.61	Р	
5	10.8580	28.32		8.91	10.10	38.42		19.01	60.00	50.00	-21.58	-30.99	Р	
6	26.0820	21.68		11.23	10.11	31.79		21.34	60.00	50.00	-28.21	-28.66	Р	

Power:

AC 120V/60Hz

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Line Conducted Emission Test Line 2-N



Site: Conduction Phase: N Temperature: 26
Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 60 %

EUT: rugged tablet

M/N: T71

Mode: Normal Operating(WIFI)

Note:

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG	554046	
1	0.2860	34.89		17.44	10.28	45.17		27.72	60.64	50.64	-15.47	-22.92	Р	
2	0.4780	36.74		18.78	10.38	47.12		29.16	56.37	46.37	-9.25	-17.21	Р	
3	0.5820	36.65		21.95	10.33	46.98		32.28	56.00	46.00	-9.02	-13.72	Р	
4	2.8540	29.87		12.46	10.51	40.38		22.97	56.00	46.00	-15.62	-23.03	Р	
5	10.9220	29.92		11.88	10.10	40.02		21.98	60.00	50.00	-19.98	-28.02	Р	
6	26.0860	20.46		11.56	10.11	30.57		21.67	60.00	50.00	-29.43	-28.33	Р	

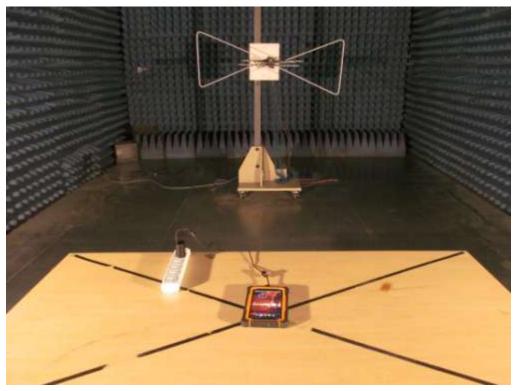
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APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



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APPENDIX B: PHOTOGRAPHS OF EUT

TOTAL VIEW OF EUT_ MODEL: T71



TOP VIEW OF EUT

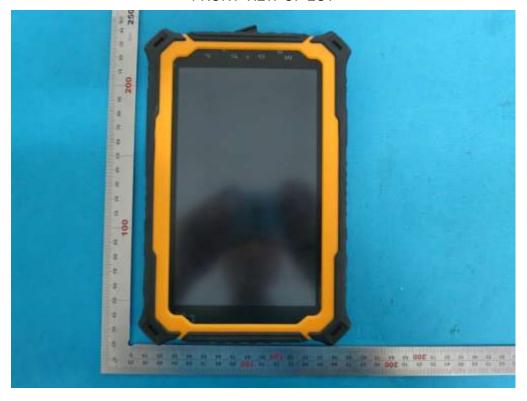


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BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



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BACK VIEW OF EUT



LEFT VIEW OF EUT

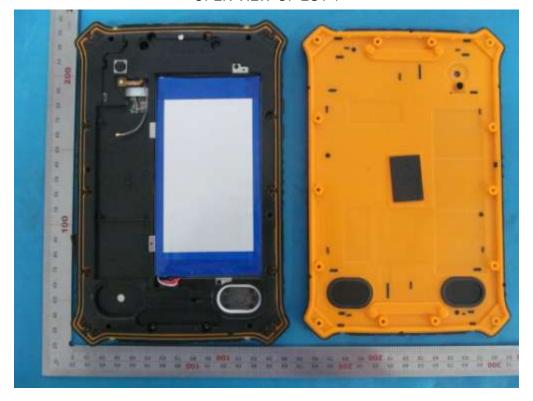


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RIGHT VIEW OF EUT



OPEN VIEW OF EUT-1



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OPEN VIEW OF EUT-3



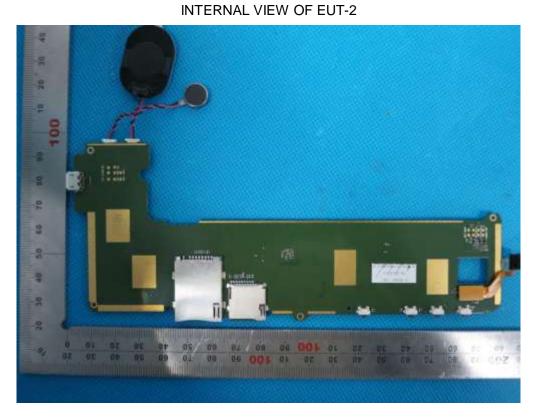
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OPEN VIEW OF EUT-4



INTERNAL VIEW OF EUT-1





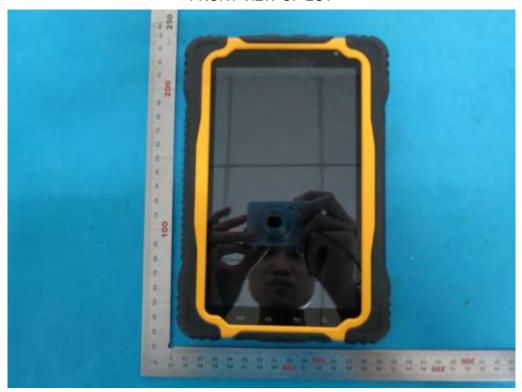
TOP VIEW OF EUT_ MODEL: T70



BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



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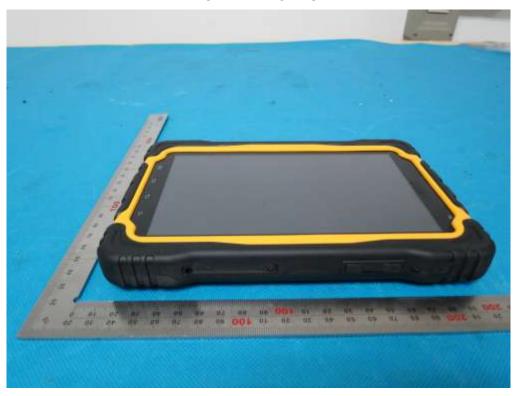
BACK VIEW OF EUT



LEFT VIEW OF EUT



RIGHT VIEW OF EUT



----END OF REPORT----