

FCC PART 15C TESTREPORT

No.I14Z48855-SRD01

for

TCL Communication Ltd

HSUPA/HSDPA/UMTS Dual band/GSM Quad band mobile phone

MODEL NAME:4013M

with

FCC ID:2ACCJH007

Hardware Version: PIO

Software Version: v5B4

Issued Date: 2014-12-23



Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT No.52, HuayuanNorth Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512,Fax:+86(0)10-62304633-2504

Email: cttl_terminals@catr.cn, website: www.chinattl.com



REPORT HISTORY

Report Number	Revision	Description	Issue Date	
I14Z48855-SRD01	Rev.0	1st edition	2014-12-23	



CONTENTS

1.	TEST LABORATORY	5
1.1.	TESTING LOCATION	5
1.2.	TESTING ENVIRONMENT	6
1.3.	PROJECT DATA	6
1.4.	SIGNATURE	6
2.	CLIENT INFORMATION	7
2.1.	APPLICANT INFORMATION	7
2.2.	MANUFACTURER INFORMATION	7
3.	EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	8
3.1.	ABOUT EUT	8
3.2.	INTERNAL IDENTIFICATION OF EUT	8
3.3.	INTERNAL IDENTIFICATION OF AE	8
3.4.	GENERAL DESCRIPTION	9
3.5.		
4.	REFERENCE DOCUMENTS	9
4.1.	DOCUMENTS SUPPLIED BY APPLICANT	9
4.2.	REFERENCE DOCUMENTS FOR TESTING	9
5.	TEST RESULTS	10
5.1.	SUMMARY OF TEST RESULTS	10
5.2.	STATEMENTS	10
5.3.	TEST CONDITIONS	10
6.	TEST FACILITIES UTILIZED	11
ANN	NEX A: DETAILED TEST RESULTS	12
A.1.	MEASUREMENT METHOD	12
A.2.	MAXIMUM OUTPUT POWER	13
	.2.1. PEAK OUTPUT POWER-CONDUCTED	
	.2.2. AVERAGE OUTPUT POWER-CONDUCTED	
	PEAK POWER SPECTRAL DENSITY	
	DTS 6-DB SIGNAL BANDWIDTH	
	BAND EDGES COMPLIANCE	
A.6.	TRANSMITTER SPURIOUS EMISSION	35

No.I14Z48855-SRD01 Page4of119



A.6.1 Transmitter Spurious Emission – Conducted	35
A.6.2 Transmitter Spurious Emission - Radiated	88
A.7. AC POWER-LINE CONDUCTED EMISSION	115
ANNEX B: ACCREDITATION CERTIFICATE	119



1. Test Laboratory

1.1. TestingLocation

Location 1:CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,

P. R. China100191

Location 2:CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road,

Haidian District, Beijing, P. R. China100191



1.2. TestingEnvironment

Normal Temperature: $15-35^{\circ}$ C Extreme Temperature: $-20/+55^{\circ}$ C Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2014-11-24
Testing End Date: 2014-12-18

1.4. Signature

XuZhongfei

(Prepared this test report)

Li Zhibin

(Reviewed this test report)

LvSongdong

(Approvedthis test report)



2. ClientInformation

2.1. Applicant Information

Company Name: TCL Communication Ltd

5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Address:

Pudong Area Shanghai, P.R. China. 201203

City: Shanghai Postal Code: 201203 Country: China

Telephone: 0086-21-61460890 Fax: 0086-21-61460602

2.2. Manufacturer Information

Company Name: TCL Communication Ltd

Address: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park,

Pudong Area Shanghai, P.R. China. 201203

City: Shanghai Postal Code: 201203 Country: China

Telephone: 0086-21-61460890 Fax: 0086-21-61460602



3. Equipment UnderTest (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description HSUPA/HSDPA/UMTS Dual band/GSM Quad band mobile

phone

Model name 4013M

FCC ID 2ACCJH007

IC ID

With WLAN Function Yes

Frequency Range ISM 2400MHz~2483.5MHz

Type of Modulation DSSS/CCK/OFDM

Number of Channels 11

Antenna Integral Antenna
MAX Conducted Power 24.15dBm(CCK)
Power Supply 3.8V DC by Battery

3.2. <u>Internal Identification of EUT</u>

EUT ID*	SN or IMEI	HW Version	SW Version
UT01a	014265000000334	PIO	v5B4
UT02a	014265000000532	PIO	v5B4

^{*}EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Battery	
AE2	Battery	

AE1

Commercial name Battery

Type CAB31P0000CB

Manufacturer
Length of cable

AE2

Commercial name Battery

Type CAB31P0000C1

Manufacturer /
Length of cable /

^{*}AE ID: is used to identify the test sample in the lab internally.



3.4. General Description

The Equipment under Test (EUT) is a model of HSUPA/HSDPA/UMTS Dual band/GSM Quad band mobile phone with integrated antennaand inbuilt battery.

It has Bluetooth (EDR)function.

It consists of normal options: travel charger, USB cable and Phone.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor k=2.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
	FCC CFR 47, Part 15, Subpart C:	
	15.205 Restricted bands of operation;	
FCC Part15	15.209 Radiated emission limits, general requirements;	2014
	15.247 Operation within the bands 902-928MHz,	
	2400-2483.5 MHz, and 5725-5850 MHz.	
ANSI C63.10	American National Standard of Procedures for Compliance	2013
ANSI 603.10	Testing ofUnlicensed Wireless Devices	2013



5. Test Results

5.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.247 (b)	1	Р
Peak Power Spectral Density	15.247 (e)	1	Р
Occupied 6dB Bandwidth	15.247 (a)	1	Р
Band Edges Compliance	15.247 (d)	1	Р
Transmitter Spurious Emission - Conducted	15.247(d)	1	Р
Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	1	Р
AC Powerline Conducted Emission	15.107, 15.207	1	Р

Please refer to ANNEX A for detail.

Terms used in Verdict column

Р	Pass, The EUT complies with the essential requirements in the standard.				
NP	Not Perform, The test was not performed by CTTL				
NA	Not Applicable, The test was not applicable				
F	Fail, The EUT does not comply with the essential requirements in the				
	standard				
F	Fail, The EUT does not comply with the essential requirements in the				
	standard				

5.2. Statements

The test cases as listed in section 5.1 of this report for the EUT specified in section 3 was performed by CTTL and according to the standards or reference documents listed in section 4.2 The EUT met all requirements of the standards or reference documents, and only the WLAN function was tested in this report.

5.3. Test Conditions

T nom	Normal Temperature	
T min	Low Temperature	
T max	High Temperature	
V nom	Normal Voltage	

For this report, if the test cases listed above are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	T nom	26℃
Voltage	V nom	3.8V(By battery)
Humidity	H nom	44%



6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	2014-07-08	2015-07-07
2	Test Receiver	ESS	847151/015	Rohde & Schwarz	2014-11-29	2015-11-28
3	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	2014-4-15	2015-4-14
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

Itau	Radiated effission test system							
No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Calibratio n Due date		
1	Test Receiver	ESU26	100376	Rohde & Schwarz	2014-11-6	2015-11-5		
2	BiLog Antenna	VULB9163	9163-514	Schwarzbeck	2012-11-11	2015-11-10		
3	Dual-Ridge Waveguide Horn Antenna	3117	00119024	ETS-Lindgren	2014-4-20	2017-4-19		
4	Dual-Ridge Waveguide Horn Antenna	3116	2661	EMCO	2014-7-1	2017-06-30		
5	Loop antenna	HFH2-Z2	829324/007	Rohde & Schwarz	2012-12-21	2015-12-20		
6	Semi-anechoic chamber	/	CT000332-1 074	Frankonia German	/	/		



ANNEX A: Detailed Test Results

A.1. Measurement Method

A.1.1. Conducted Measurements

Connect the EUT to the test system as Fig.A.1.1.1 shows.

Set the EUT to the required work mode.

Set the EUT to the required channel.

Set the Vector Signal Analyzerand start measurement.

Record the values. Vector Signal Analyzer

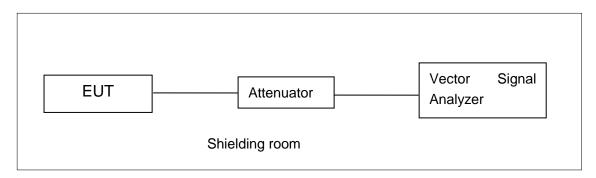


Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements

A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows, Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz; Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;

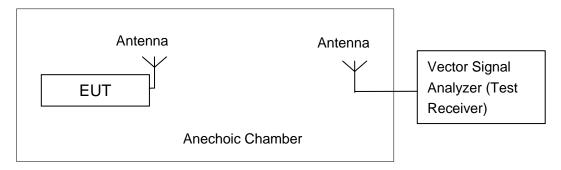


Fig.A.1.2.1: Test Setup Diagram for Radiated Measurements



A.2. Maximum Output Power

Method of Measurement: See ANSI C63.10-2013-clause 11.9.1.2

- a) Set the RBW = 1 MHz.
- b) Set the VBW = 3 MHz.
- c) Set the span \geq [1.5 \times DTS bandwidth].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g)Allow trace to fully stabilize.

h)Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector).

Measurement Limit:

Standard	Limit (dBm)
FCC CRF Part 15.247(b)	< 30

EUT ID: EUT2

A.2.1. Peak Output Power-conducted

Measurement Results:

802.11b/a mode

	Data Rate	Test Result (dBm)			
Mode		2412MHz	2437MHz	2462 MHz	
	(Mbps)	(Ch1)	(Ch6)	(Ch11)	
	1	18.60	/	/	
802.11b	2	18.94	/	1	
002.110	5.5	20.60	/	1	
	11	21.77	22.02	22.29	
	6	23.65	/	1	
	9	23.73	/	/	
	12	23.56	/	1	
902.11a	18	23.48	/	/	
802.11g	24	23.84	/	/	
	36	23.75	/	/	
	48	23.84	/	/	
	54	23.88	24.01	24.06	

The data rate 11Mbps and 54Mbps are selected as worse condition, and the following cases are performed with this condition.



802.11n-HT20 mode

	Data Rate	Test Result (dBm)			
Mode	(Index)	2412MHz	2437MHz	2462 MHz	
		(Ch1)	(Ch6)	(Ch11)	
	MCS0	21.54	/	/	
	MCS1	21.28	/	/	
	MCS2	21.30	1	/	
802.11n	MCS3	21.77	21.90	21.95	
(20MHz)	MCS4	21.45	/	/	
	MCS5	21.55	1	/	
	MCS6	21.63	1	/	
	MCS7	21.58	1	/	

The data rate MCS3is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

	Data Rate	Test Result (dBm)			
Mode	(Index)	2422MHz	2437MHz	2452 MHz	
		(Ch3)	(Ch6)	(Ch9)	
	MCS0	19.29	/	/	
	MCS1	19.05	/	/	
	MCS2	19.07	/	/	
802.11n	MCS3	19.44	/	/	
(40MHz)	MCS4	19.46	19.54	19.87	
	MCS5	19.44	/	/	
	MCS6	19.10	/	/	
	MCS7	19.14	/	/	

The data rate MCS4is selected as worse condition, and the following cases are performed with this condition.

Conclusion:Pass

A.2.2. Average Output Power-conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.9.2.2.2

The procedure for this method is as follows:

- a) Set span = 80MHz.
- b) Set RBW = 1MHz.
- c) Set VBW = 3MHz
- d) Number of points in sweep = 625
- e) Sweep time = auto.
- f) Detector = RMS.
- g) The trigger shall be set to "free run."
- h) Trace average 100 traces in power averaging (rms) mode.
- i) Compute power by integrating the spectrum across the OBW of the signal using theinstrument's ©Copyright. All rights reserved by CTTL.



band power measurement function, with band limits set equal to the OBW band edges.

802.11b/g mode

Mode	Test Result (dBm)			
Wode	2412MHz(Ch1)	2437MHz(Ch6)	2462 MHz(Ch11)	
802.11b	15.31	15.53	15.71	
802.11g	14.71	14.96	15.18	

802.11n-HT20 mode

Mode	Test Result (dBm)				
Wiode	2412MHz(Ch1) 2437MHz(Ch6) 2462 MHz(Ch11)				
802.11n(20MHz)	12.52	12.66	12.88		

802.11n-HT40 mode

Mode	Test Result (dBm)				
Mode	2422MHz(Ch3) 2437MHz(Ch6) 2452 MHz(Ch9)				
802.11n(40MHz)	9.80	10.20	10.38		

Conclusion: Pass



A.3. Peak Power Spectral Density

Method of Measurement: See ANSI C63.10-2013-clause 11.10.2

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to RBW = 3 kHz.
- d) Set the VBW = 10 kHz.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247(e)	< 8 dBm/3 kHz

Measurement Results:

802.11b/g mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
	1	Fig.A.3.1	-7.09	Р
802.11b	6	Fig.A.3.2	1.72	Р
	11	Fig.A.3.3	-6.70	Р
	1	Fig.A.3.4	-10.70	Р
802.11g	6	Fig.A.3.5	-10.44	Р
	11	Fig.A.3.6	-11.13	Р

802.11n-HT20 mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
902 11 n	1	Fig.A.3.7	-12.61	Р
802.11n	6	Fig.A.3.8	-11.64	Р
(HT20)	11	Fig.A.3.9	-11.63	Р

802.11n-HT40 mode

Mode	Channel		ctral Density /3 kHz)	Conclusion
000 11 5	3	Fig.A.3.10	-19.24	Р
802.11n (HT40)	6	Fig.A.3.11	-19.87	Р
	9	Fig.A.3.12	-17.82	Р

Conclusion:Pass

Test graphs as below:



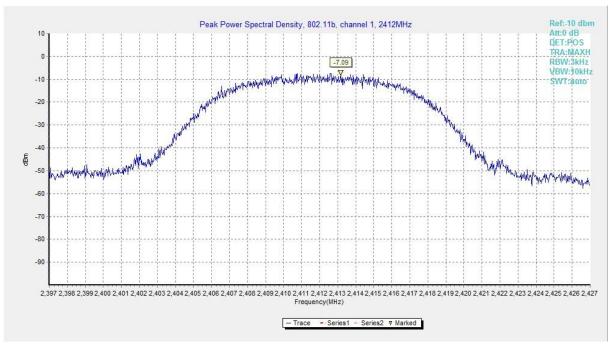


Fig.A.3.1 Power Spectral Density(802.11b,Ch1)

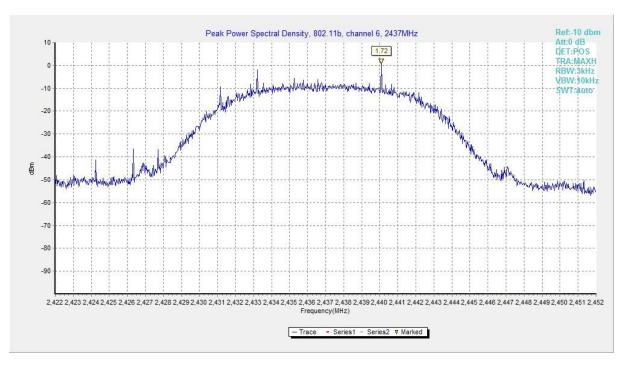


Fig.A.3.2 Power Spectral Density (802.11b, Ch 6)



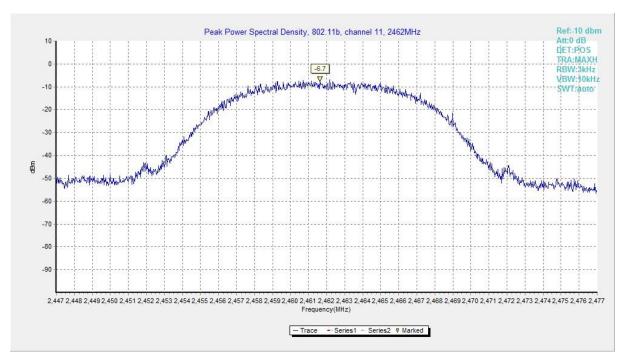


Fig.A.3.3 Power Spectral Density (802.11b, Ch 11)

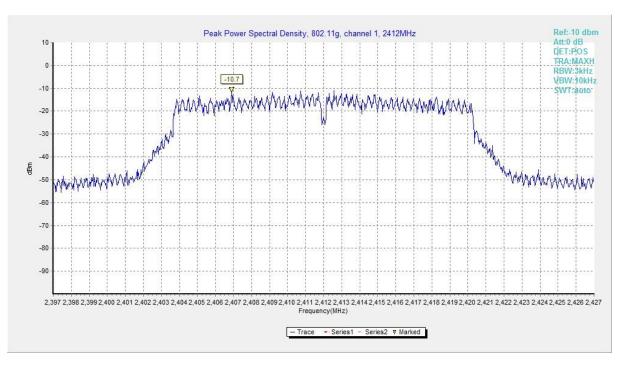


Fig.A.3.4 Power Spectral Density (802.11g, Ch 1)



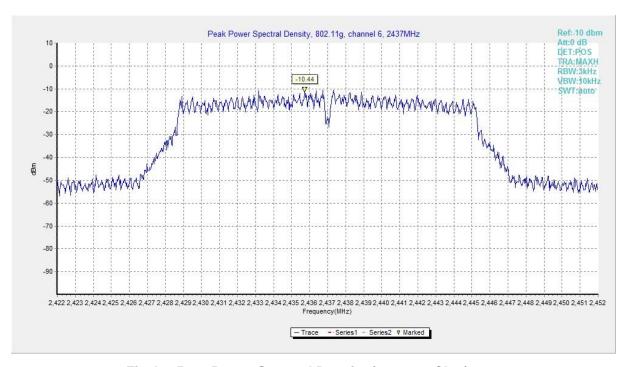


Fig.A.3.5 Power Spectral Density (802.11g, Ch 6)

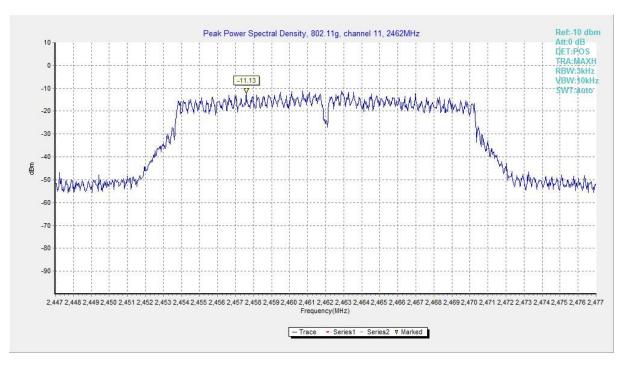


Fig.A.3.6 Power Spectral Density (802.11g, Ch 11)



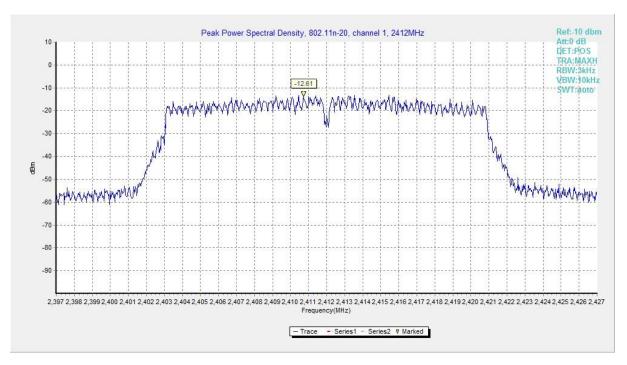


Fig.A.3.7 Power Spectral Density (802.11n-HT20, Ch 1)

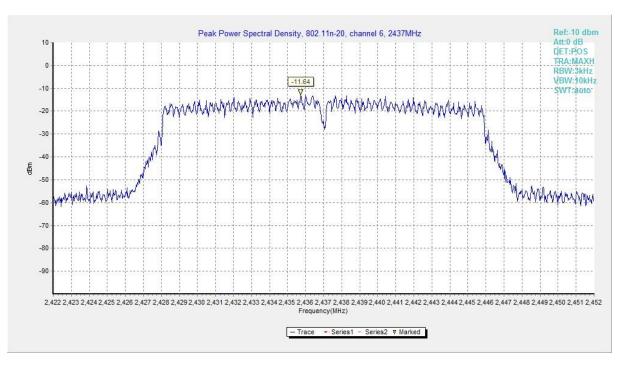


Fig.A.3.8 Power Spectral Density (802.11n-HT20, Ch 6)



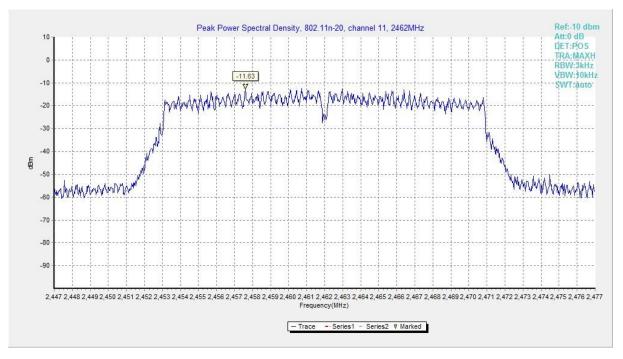


Fig.A.3.9 Power Spectral Density (802.11n-HT20, Ch 11)

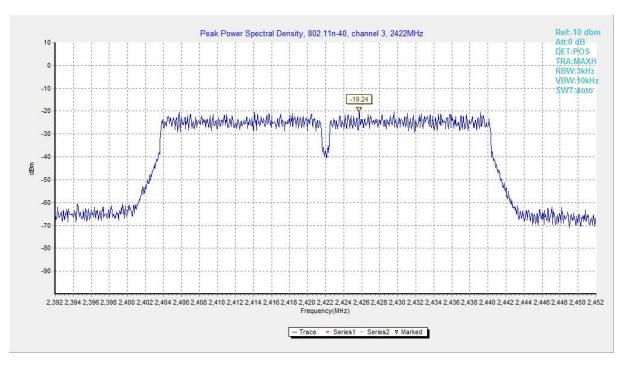


Fig.A.3.10 Power Spectral Density (802.11n-HT40, Ch 3)



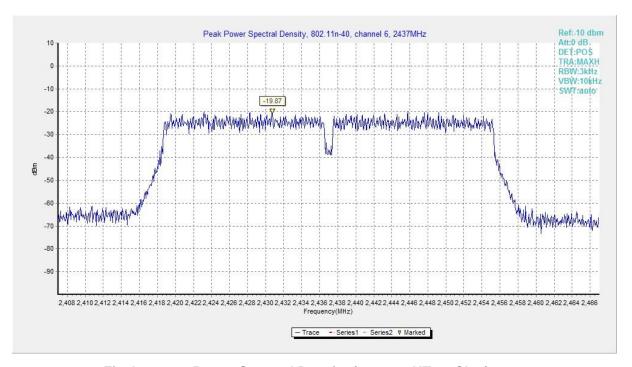


Fig.A.3.11 Power Spectral Density (802.11n-HT40, Ch 6)

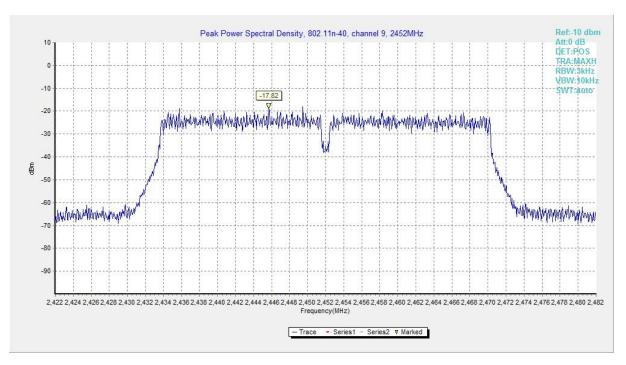


Fig.A.3.12 Power Spectral Density (802.11n-HT40, Ch 9)



A.4. DTS 6-dB Signal Bandwidth

Method of Measurement: SeeANSI C63.10-2013 section 11.8.1.

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) =300 kHz.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

EUT ID: EUT2

Measurement Result:

802.11b/g mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
	1	Fig.A.4.1	9300	Р
802.11b	6	Fig.A.4.2	9300	Р
	11	Fig.A.4.3	9150	Р
802.11g	1	Fig.A.4.4	15800	Р
	6	Fig.A.4.5	15900	Р
	11	Fig.A.4.6	16300	Р

802.11n-HT20 mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
000 44 =	1	Fig.A.4.7	17.55	Р
802.11n	6	Fig.A.4.8	16.70	Р
(HT20)	11	Fig.A.4.9	16.45	Р

802.11n-HT40 mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
000 11 n	3	Fig.A.4.10	36.40	Р
802.11n (HT40)	6	Fig.A.4.11	36.40	Р
(1140)	9	Fig.A.4.12	36.40	P

Conclusion: Pass



Test graphs as below:

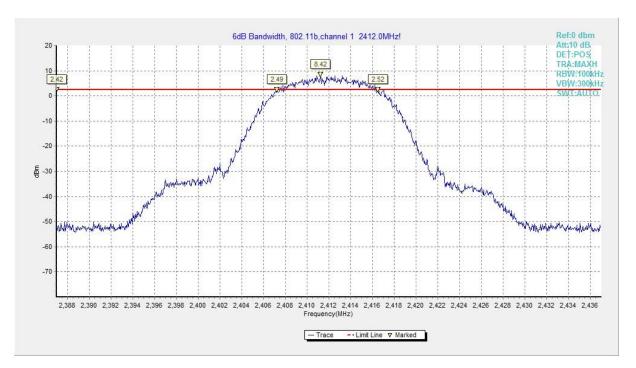


Fig.A.4.1 Occupied 6dB Bandwidth(802.11b,Ch 1)



Fig.A.4.2 Occupied 6dB Bandwidth (802.11b, Ch 6)



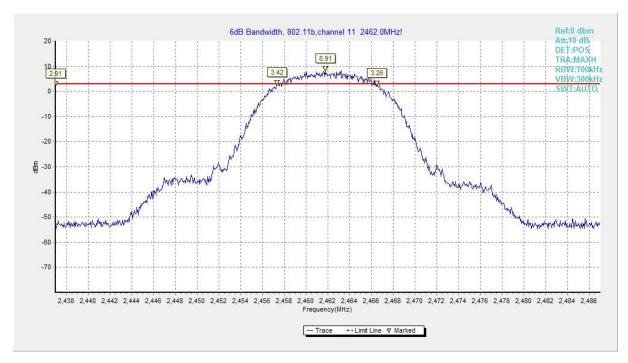


Fig.A.4.3 Occupied 6dB Bandwidth (802.11b, Ch 11)

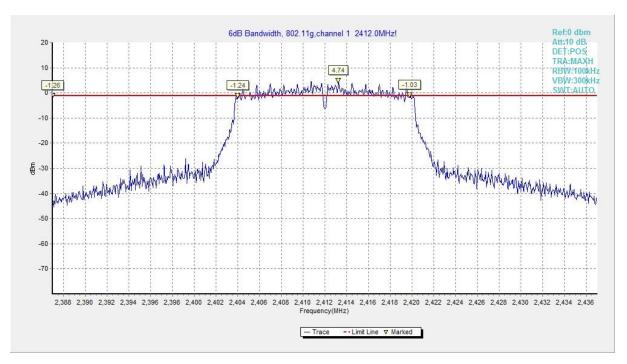


Fig.A.4.4 Occupied 6dB Bandwidth (802.11g, Ch 1)



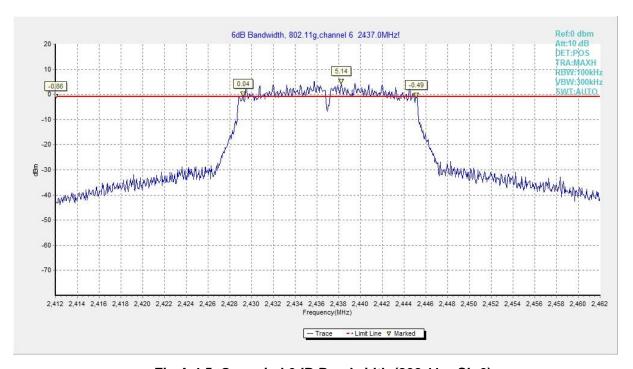


Fig.A.4.5 Occupied 6dB Bandwidth (802.11g, Ch 6)

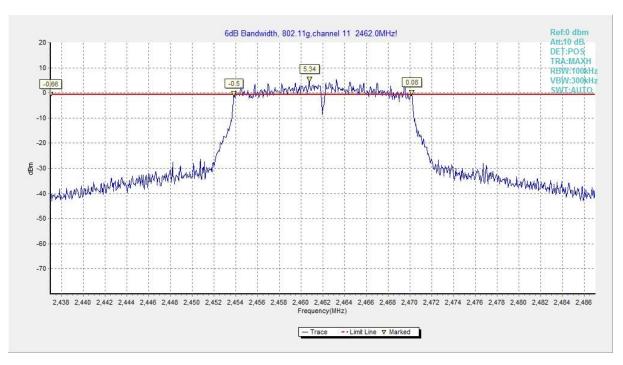


Fig.A.4.6 Occupied 6dB Bandwidth (802.11g, Ch 11)



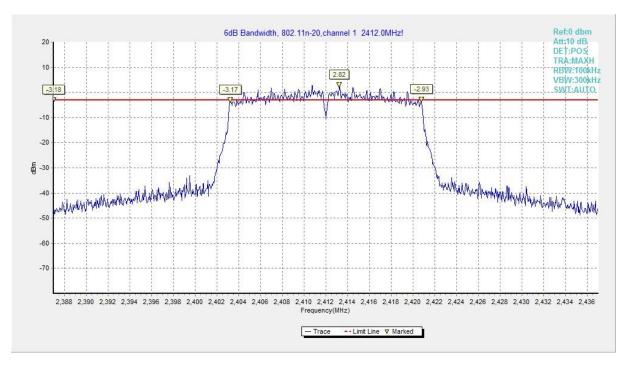


Fig.A.4.7 Occupied 6dB Bandwidth (802.11n-20MHz, Ch 1)

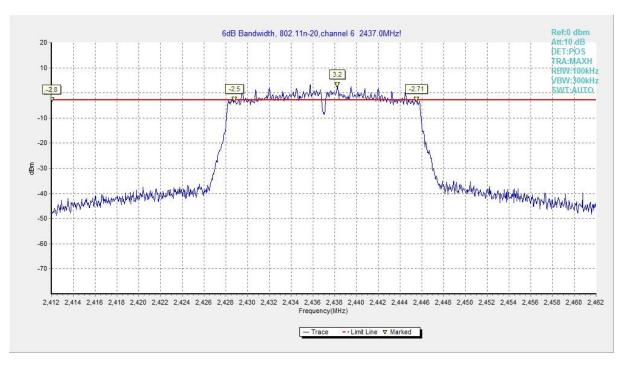


Fig.A.4.8 Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)



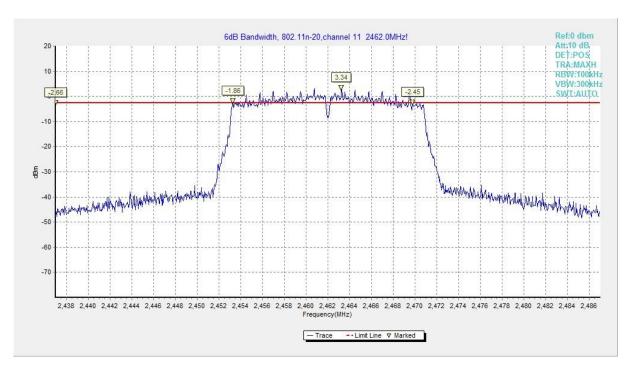


Fig.A.4.9 Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)

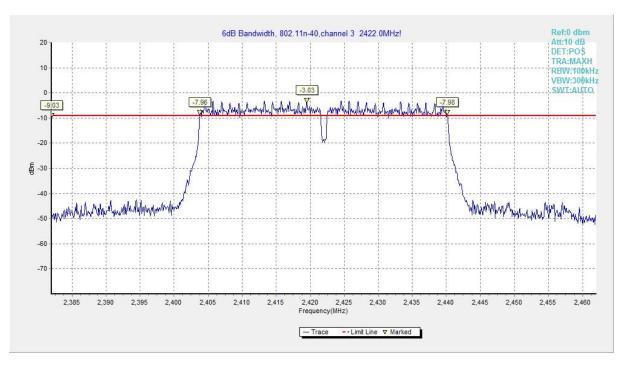


Fig.A.4.10 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 3)



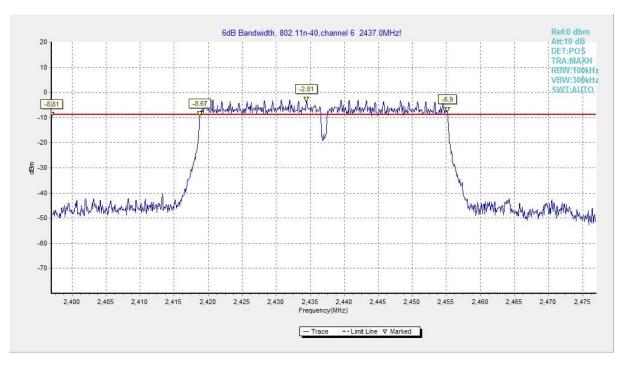


Fig.A.4.11 Occupied 6dB Bandwidth (802.11n-HT40, Ch 6)

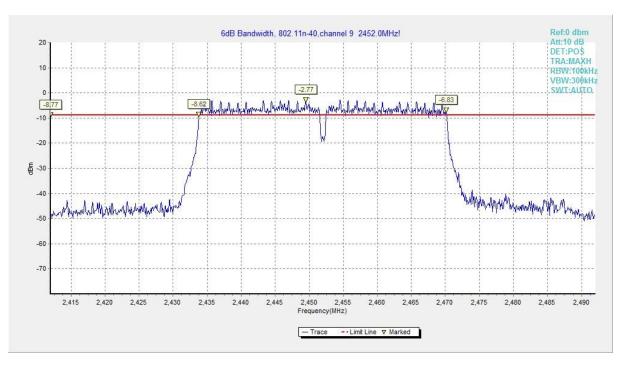


Fig.A.4.12 Occupied 6dB Bandwidth (802.11n-HT40, Ch 9)



A.5. Band Edges Compliance

Method of Measurement: See ANSI C63.10-2013-clause 6.10.4

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

a) Set Span = 100MHzb) Sweep Time: coupledc) Set the RBW=100 kHzc)Set the VBW=300 kHz

d)Detector: Peake) Trace: Max hold

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

EUT ID: EUT2

Measurement Result:

802.11b/g mode

Mode	Channel	Test Results	Conclusion
900 11h	1	Fig.A.5.1	Р
802.11b	11	Fig.A.5.2	Р
000.44~	1	Fig.A.5.3	Р
802.11g	11	Fig.A.5.4	Р

802.11n-HT20 mode

Mode	Channel	Test Results	Conclusion
802.11n	1	Fig.A.5.5	Р
(HT20)	11	Fig.A.5.6	Р

802.11n-HT40 mode

Mode	Channel	Test Results	Conclusion
802.11n	3	Fig.A.5.7	Р
(HT40)	9	Fig.A.5.8	Р

Conclusion: Pass Test graphs as below:



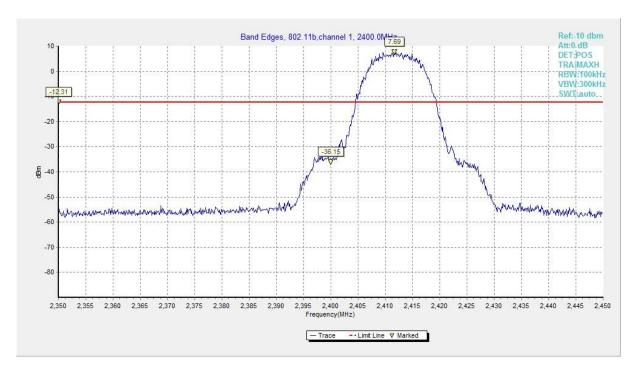


Fig.A.5.1 Band Edges (802.11b, Ch 1)

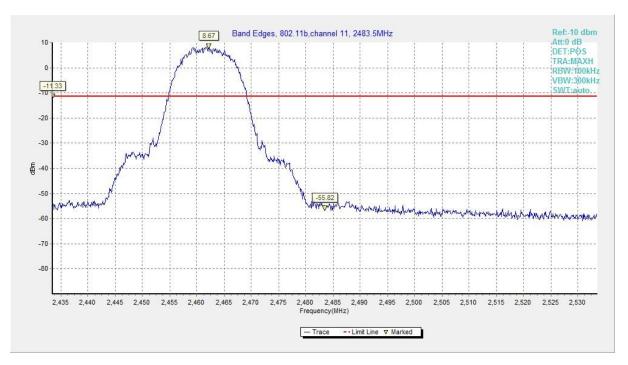


Fig.A.5.2 Band Edges (802.11b, Ch 11)



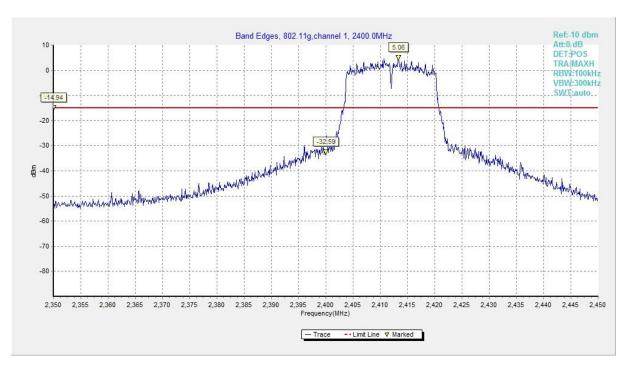


Fig.A.5.3 Band Edges (802.11g, Ch 1)

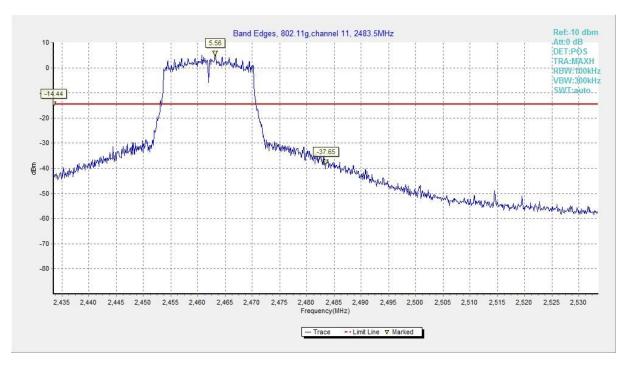


Fig.A.5.4 Band Edges (802.11g, Ch 11)



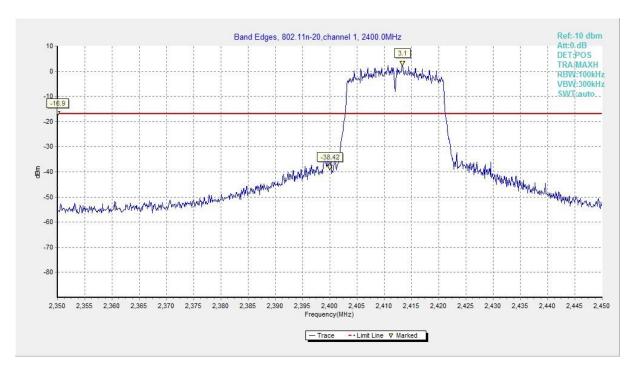


Fig.A.5.5 Band Edges (802.11n-HT20, Ch 1)

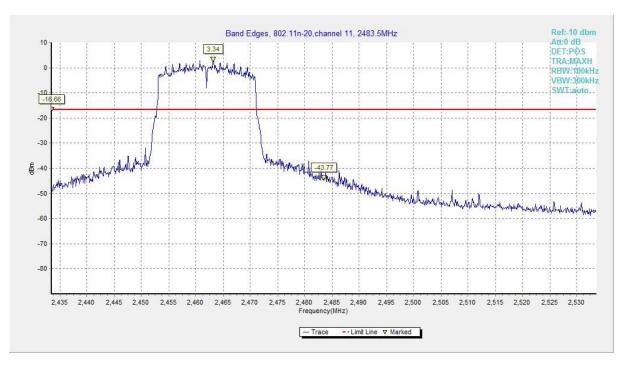


Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)



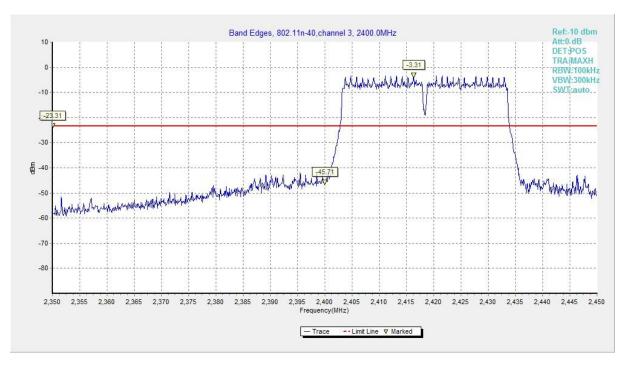


Fig.A.5.7 Band Edges (802.11n-HT40, Ch 3)

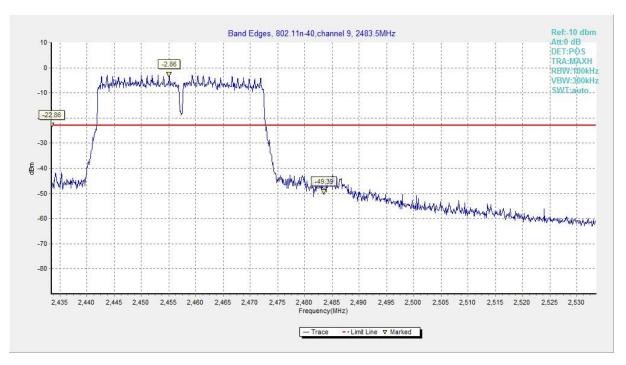


Fig.A.5.8 Band Edges (802.11n-HT40, Ch 9)



A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission – Conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.11.2

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to ≥ 1.5 times the DTS bandwidth
- c) Set the RBW=100 kHz
- d) Set the VBW= 300 kHz
- e) Detector = Peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excludingrestricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz
	bandwidth

EUT ID: EUT2

Measurement Results:



802.11b mode

MODE	Channel	FrequencyRange	Test Results	Conclusion
		2.412 GHz	Fig.A.6.1.1	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.2	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.3	Р
	1	2.5 GHz ~ 7.5 GHz	Fig.A.6.1.4	Р
	'	7.5 GHz ~ 10 GHz	Fig.A.6.1.5	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.6	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.7	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.8	Р
		2.437 GHz	Fig.A.6.1.9	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.10	Р
	6	1 GHz ~ 2.5 GHz	Fig.A.6.1.11	Р
802.11b		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.12	Р
002.110		7.5 GHz ~ 10 GHz	Fig.A.6.1.13	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.14	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.15	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.16	Р
		2.462 GHz	Fig.A.6.1.17	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.18	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.19	Р
	11	2.5 GHz ~ 7.5 GHz	Fig.A.6.1.20	Р
	''	7.5 GHz ~ 10 GHz	Fig.A.6.1.21	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.22	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.23	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.24	Р



802.11g mode

MODE	Channel	FrequencyRange	Test Results	Conclusion
		2.412 GHz	Fig.A.6.1.25	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.26	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.27	Р
	1	2.5 GHz ~ 7.5 GHz	Fig.A.6.1.28	Р
	ı	7.5 GHz ~ 10 GHz	Fig.A.6.1.29	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.30	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.31	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.32	Р
		2.437 GHz	Fig.A.6.1.33	Р
	6	30 MHz ~ 1 GHz	Fig.A.6.1.34	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.35	Р
802.11g		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.36	Р
602.11g		7.5 GHz ~ 10 GHz	Fig.A.6.1.37	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.38	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.39	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.40	Р
		2.462 GHz	Fig.A.6.1.41	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.42	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.43	Р
	11	2.5 GHz ~ 7.5 GHz	Fig.A.6.1.44	Р
	''	7.5 GHz ~ 10 GHz	Fig.A.6.1.45	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.46	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.47	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.48	Р



802.11n-HT20 mode

MODE	Channel	FrequencyRange	Test Results	Conclusion
		2.412 GHz	Fig.A.6.1.49	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.50	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.51	Р
	1	2.5 GHz ~ 7.5 GHz	Fig.A.6.1.52	Р
	'	7.5 GHz ~ 10 GHz	Fig.A.6.1.53	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.54	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.55	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.56	Р
		2.437 GHz	Fig.A.6.1.57	Р
	6	30 MHz ~ 1 GHz	Fig.A.6.1.58	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.59	Р
802.11n		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.60	Р
(HT20)		7.5 GHz ~ 10 GHz	Fig.A.6.1.61	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.62	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.63	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.64	Р
		2.462 GHz	Fig.A.6.1.65	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.66	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.67	Р
	11	2.5 GHz ~ 7.5 GHz	Fig.A.6.1.68	Р
	"	7.5 GHz ~ 10 GHz	Fig.A.6.1.69	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.70	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.71	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.72	Р



802.11n-HT40 mode

MODE	Channel	FrequencyRange	Test Results	Conclusion
802.11n (HT40)	3	2.422 GHz	Fig.A.6.1.73	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.74	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.75	Р
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.76	Р
		7.5 GHz ~ 10 GHz	Fig.A.6.1.77	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.78	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.79	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.80	Р
	6	2.437 GHz	Fig.A.6.1.81	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.82	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.83	Р
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.84	Р
		7.5 GHz ~ 10 GHz	Fig.A.6.1.85	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.86	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.87	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.88	Р
	9	2.452 GHz	Fig.A.6.1.89	Р
		30 MHz ~ 1 GHz	Fig.A.6.1.90	Р
		1 GHz ~ 2.5 GHz	Fig.A.6.1.91	Р
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.92	Р
		7.5 GHz ~ 10 GHz	Fig.A.6.1.93	Р
		10 GHz ~ 15 GHz	Fig.A.6.1.94	Р
		15 GHz ~ 20 GHz	Fig.A.6.1.95	Р
		20 GHz ~ 26 GHz	Fig.A.6.1.96	Р

Conclusion: Pass
Test graphs as below:



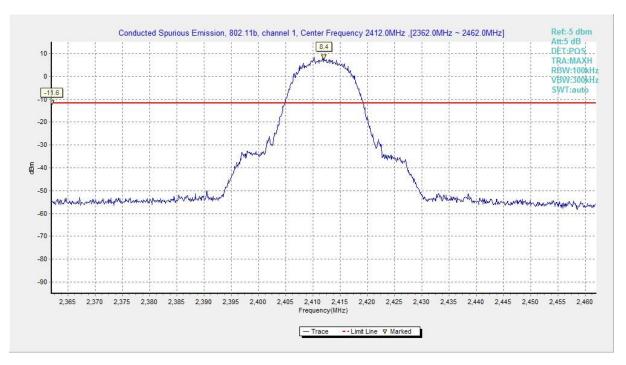


Fig.A.6.1.1 Transmitter Spurious Emission - Conducted (802.11b, Ch1, Center Frequency)

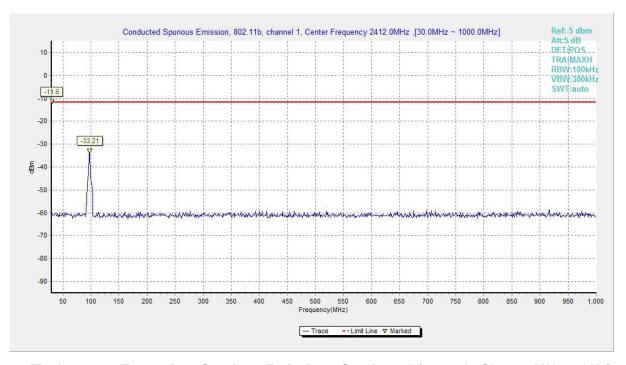


Fig.A.6.1.2 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 30 MHz-1 GHz)