7 June, 2012

Huawei Technologies Co.,Ltd
Bantian, Longgang District, Shenzhen, China

Dear Mr. Zhang Xinghai:

Enclosed you will find your file copy of a Part 15 report (FCC ID: QISU8186-1).

For your reference, TCB will normally take another one week for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

Shawn Xing
Manager

Enclosure

Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch
6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China
Tel: (86 755) 8601 6288 Fax: (86 755) 8601 6751 Website: www.china.intertek-etlsemko.com

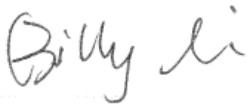
Huawei Technologies Co.,Ltd

Application
For
Certification

HUAWEI Ascend Y 101; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth
(WiFi Transceiver)

(FCC ID: QISU8186-1)

Model: HUAWEI U8186-1/U8186-1



SZ12050427-7
Billy Li
7 June, 2012

TRF no.: FCC 15C_Tx_b
FCC ID: QISU8186-1

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LIST OF EXHIBITS

MEASUREMENT/TECHNICAL REPORT

Huawei Technologies Co.,Ltd - MODEL: HUAWEI U8186-1/U8186-1

FCC ID: QISU8186-1

This report concerns (check one) Original Grant ___X___ Class II Change ____

Equipment Type: DTS - Part 15 Digital Transmission Systems (WiFi transmitter portion)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes _____ No ___X___

If yes, defer until : _____ date

Company Name agrees to notify the Commission by: _____ date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes _____ No ___X___

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-11 Edition] provision.

Report prepared by:

Shawn Xing
Intertek Testing Services Shenzhen Ltd.
Kejiyuan Branch
6F, Block D, Huahan Building, Langshan Road,
Nanshan District, Shenzhen, P. R. China
Phone: (86 755) 8601 6288
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Table of Contents

List of attached file

Exhibit Type	File Description	Filename
Cover Letter	Letter of Agency	agency.pdf
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
Operation Description	Technical Description	descri.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
RF Exposure info	SAR Report	sar report. pdf

EXHIBIT 1

SUMMARY OF TEST RESULTS

1.0 Summary of Test

Huawei Technologies Co.,Ltd - MODEL: HUAWEI U8186-1/U8186-1

FCC ID: QISU8186-1

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass (See Notes)

Note: The EUT uses an Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

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EXHIBIT 2

GENERAL DESCRIPTION

2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a middle and high end dual mode Mobile Phone with internal WiFi function operating at 2412-2462MHz for 802.11b/g/n-20MHz, 11 channels with 5MHz channel spacing. It is powered by internal 3.7V rechargeable battery and charged by AC adapter with Input: 100-240VAC, 50~60Hz, 0.2A, Output: 5.0 VDC, 400mA. For more detailed features description, please refer to the user's manual.

EUT Accessory List:

Accessory	Model	Manufacturer
Battery	HB4J1	BYD
		GuangYu
Headset	125G#+3261# 3.5MM-2	QuanCheng
	MEMD1532A761A00	LianChuang
USB Cable	LSA00350	LianSheng
	H09-000167	PengYi
AC Adapter	HS-050040U6	BYD
		HangJia

Type of Modulation: CCK, DQPSK, DBPSK for 802.11b, OFDM for 802.11g/n.
Antenna Type: Integral Antenna.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

2.2 Related Submittal(s) Grants

This is an application for certification of:
DTS- Part 15 Digital Transmission Systems (WiFi transmitter portion)

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2009) and KDB 558074. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data are **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 242492).

EXHIBIT 3

SYSTEM TEST CONFIGURATION

3.0 System Test Configuration

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. It was powered by the fully charged batteries and charged by AC adapter described in page 2 during the test. Only the worst case data was reported.

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

3.2 EUT Exercising Software

The EUT exercise program (provided by client) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The worst case configuration is used in all specified testing.

The parameters of test software setting:
During the test, Channel and power controlling software provided by the applicant was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the application and is going to be fixed on the firmware of the end product.

Power Parameters of IEEE 802.11b/g/n

Test software setting of IEEE 802.11b/g/n			
Channel No.	Output Power	Data rate	Modulation type
1,6,11	15.0	802.11b: 1-11Mbps	802.11b: CCK, DQPSK, DBPSK
	15.0	802.11g: 6-54Mbps	802.11g: OFDM
	6.0	802.11n: 7.2-72Mbps	802.11n-20M: OFDM

We test all data rate and only the worst – case data is shown in the report.

3.3 Special Accessories

N/A

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance – Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by Huawei Technologies Co.,Ltd will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch.

3.6 Support Equipment List and Description

This product was tested in the following configuration:

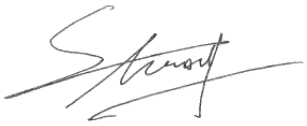
Refer List:

Description	Manufacturer	Model No.
Headset	QuanCheng	125G#+3261# 3.5MM-2
Headset	LianChuang	MEMD1532A761A00
1.2m shielded USB Cable	LianSheng	LSA00350
1.2m shielded USB Cable	PengYi	H09-000167
Mini SD Card	SanDisk	2G
AC Adapter	BYD	HS-050040U6 Input: 100-240VAC, 50~60Hz, 0.2A Output: 5.0 VDC, 400mA
AC Adapter	HangJia	HS-050040U6 Input: 100-240VAC, 50~60Hz, 0.2A Output: 5.0 VDC, 400mA

All the items listed under section 3.0 of this report are

Confirmed by:

Shawn Xing
Manager
Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch
Agent for HUAWEI TECHNOLOGIES CO.,LTD



Signature

7 June, 2012 *Date*

EXHIBIT 4

MEASUREMENT RESULTS

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.0 **Measurement Results**

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

[ ] The antenna power of the EUT was connected to the input of a spectrum analyzer. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

[×] The antenna port of the EUT was connected to the input of a spectrum analyzer. The analyzer was set according to the FCC KDB 558074 spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges and power was read directly in dBm. External attenuation and cable loss were compensated from the measured value.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

IEEE 802.11b (6dBi >Antenna Gain≥-1dBi) (CCK, 1Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	18.36	68.55
Middle Channel: 2437	18.53	71.29
High Channel: 2462	18.86	76.91

IEEE 802.11g (6dBi >Antenna Gain≥-1dBi) (OFDM, 6Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	20.09	102.09
Middle Channel: 2437	20.20	104.71
High Channel: 2462	20.42	110.15

IEEE 802.11n 20M (6dBi >Antenna Gain≥-1dBi) (OFDM, 7.2Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	11.93	15.60
Middle Channel: 2437	12.30	16.98
High Channel: 2462	12.67	18.49

Cable loss: 0.3 dB External Attenuation: 0 dB

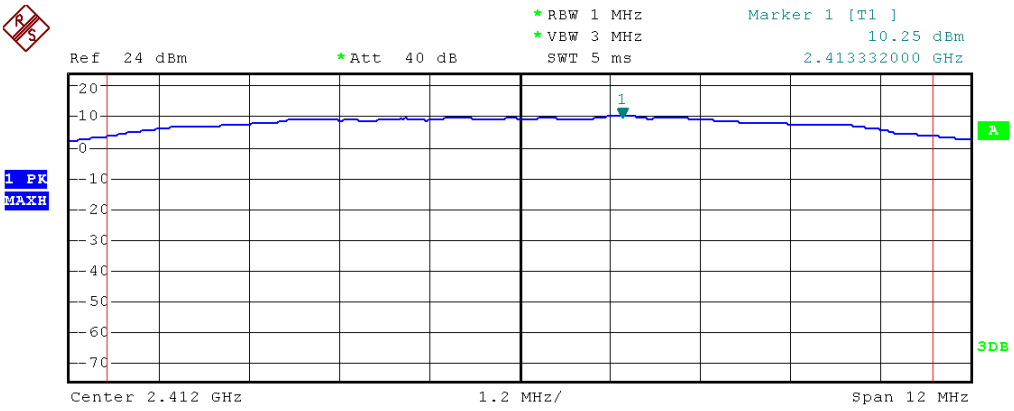
Cable loss and External Attenuation have been included in the value of Conducted Output Power above.

EUT dBm max. output level = 20.42dBm

For RF Exposure, the information is saved with filename: sar report.pdf.

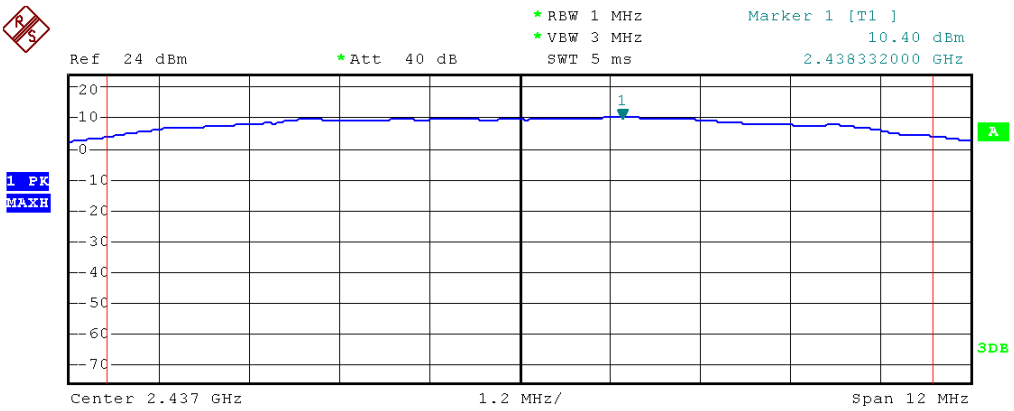
The test plots are attached as below.

802.11b



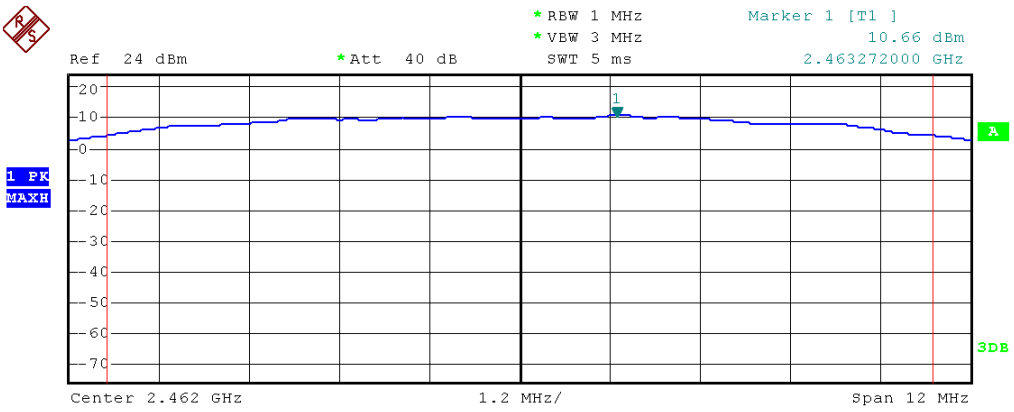
Tx Channel

Bandwidth	11 MHz	Power	18.06 dBm



Tx Channel

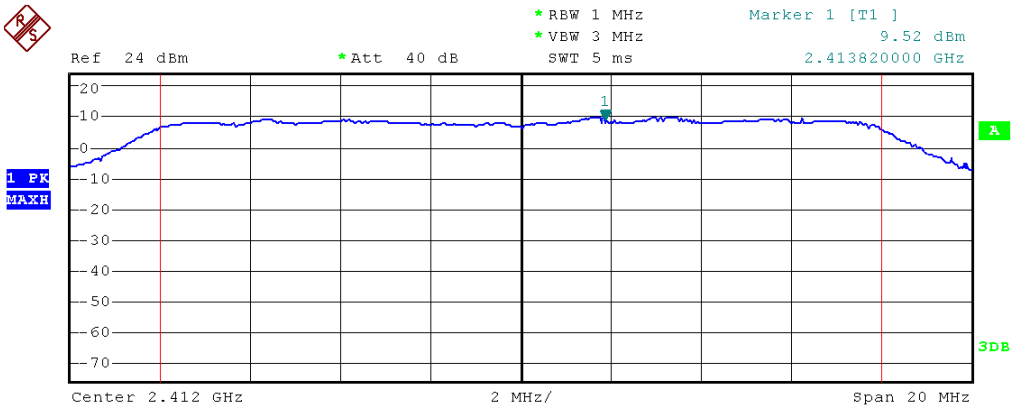
Bandwidth	11 MHz	Power	18.23 dBm



Tx Channel

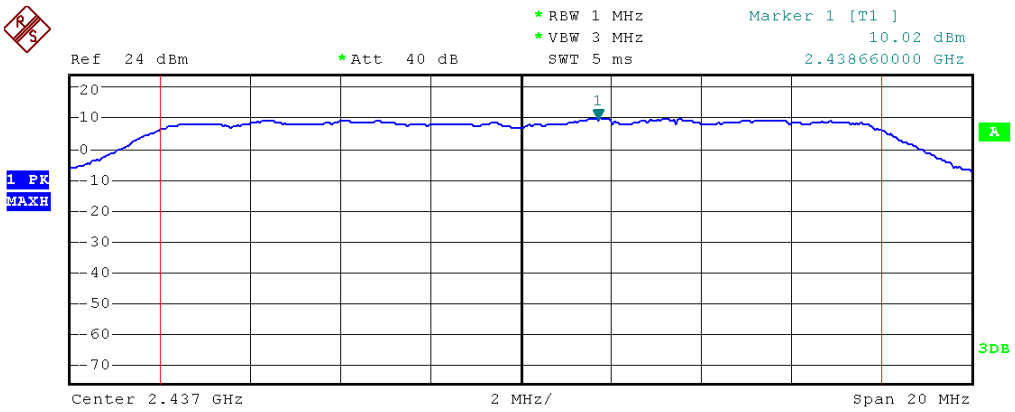
Bandwidth	11 MHz	Power	18.56 dBm

802.11g



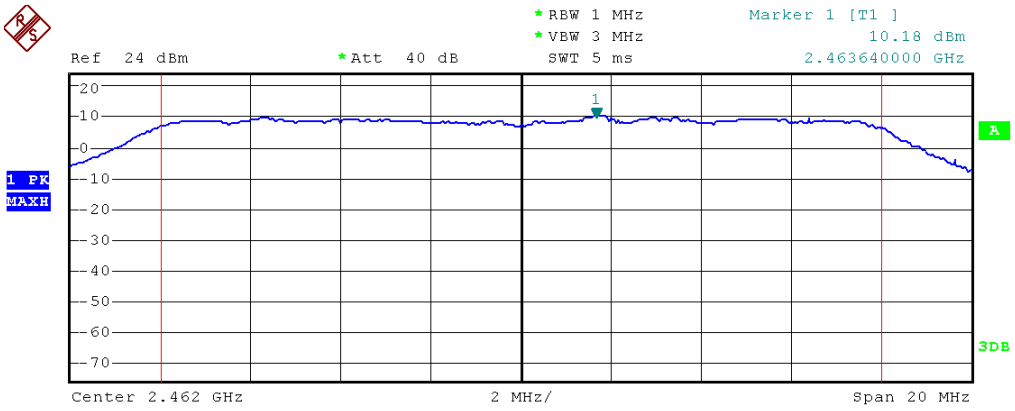
Tx Channel

Bandwidth	17 MHz	Power	19.79 dBm



Tx Channel

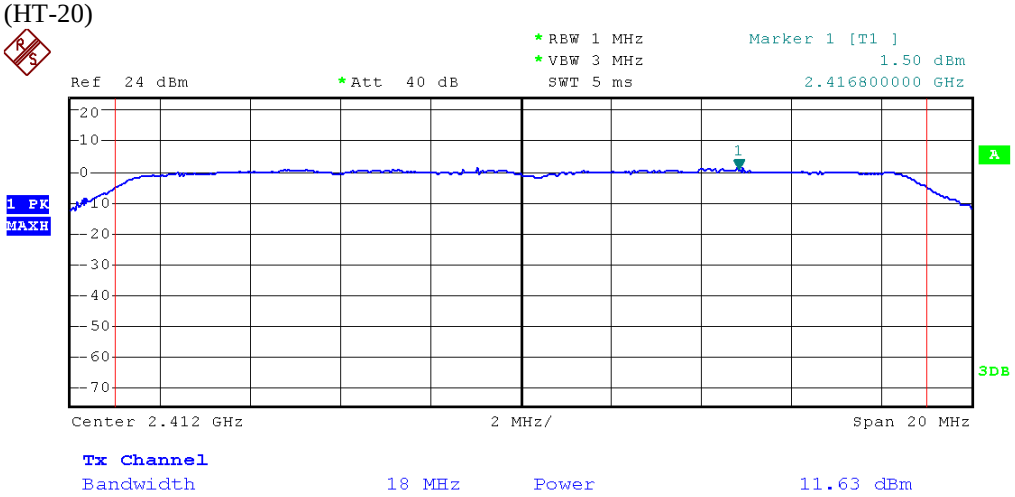
Bandwidth	17 MHz	Power	19.90 dBm

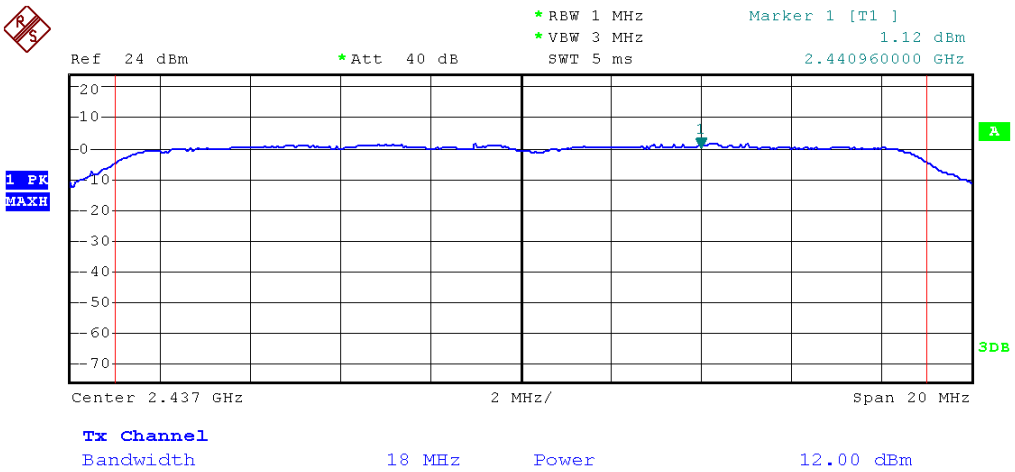


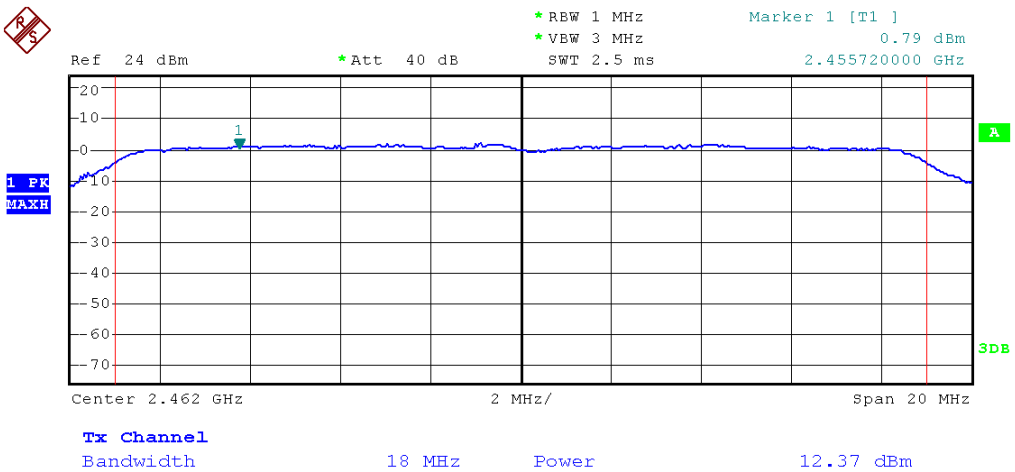
Tx Channel

Bandwidth	17 MHz	Power	20.12 dBm

802.11n (HT-20)


RBW 1 MHz
VBW 3 MHz
SWT 5 ms
Marker 1 [T1]
1.50 dBm
2.416800000 GHz
Ref 24 dBm
Att 40 dB
1 PK
MAXH
A
3DB
Center 2.412 GHz
2 MHz/
Span 20 MHz
Tx Channel
Bandwidth 18 MHz
Power 11.63 dBm


RBW 1 MHz
VBW 3 MHz
SWT 5 ms
Marker 1 [T1]
1.12 dBm
2.440960000 GHz
Ref 24 dBm
Att 40 dB
1 PK
MAXH
A
3DB
Center 2.437 GHz
2 MHz/
Span 20 MHz
Tx Channel
Bandwidth 18 MHz
Power 12.00 dBm


RBW 1 MHz
VBW 3 MHz
SWT 2.5 ms
Marker 1 [T1]
0.79 dBm
2.455720000 GHz
Ref 24 dBm
Att 40 dB
1 PK
MAXH
A
3DB
Center 2.462 GHz
2 MHz/
Span 20 MHz
Tx Channel
Bandwidth 18 MHz
Power 12.37 dBm

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 1-5 % of the emission bandwidth according to FCC KDB 558074. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

Limit: The 6 dB Bandwidth is at least 500 kHz.

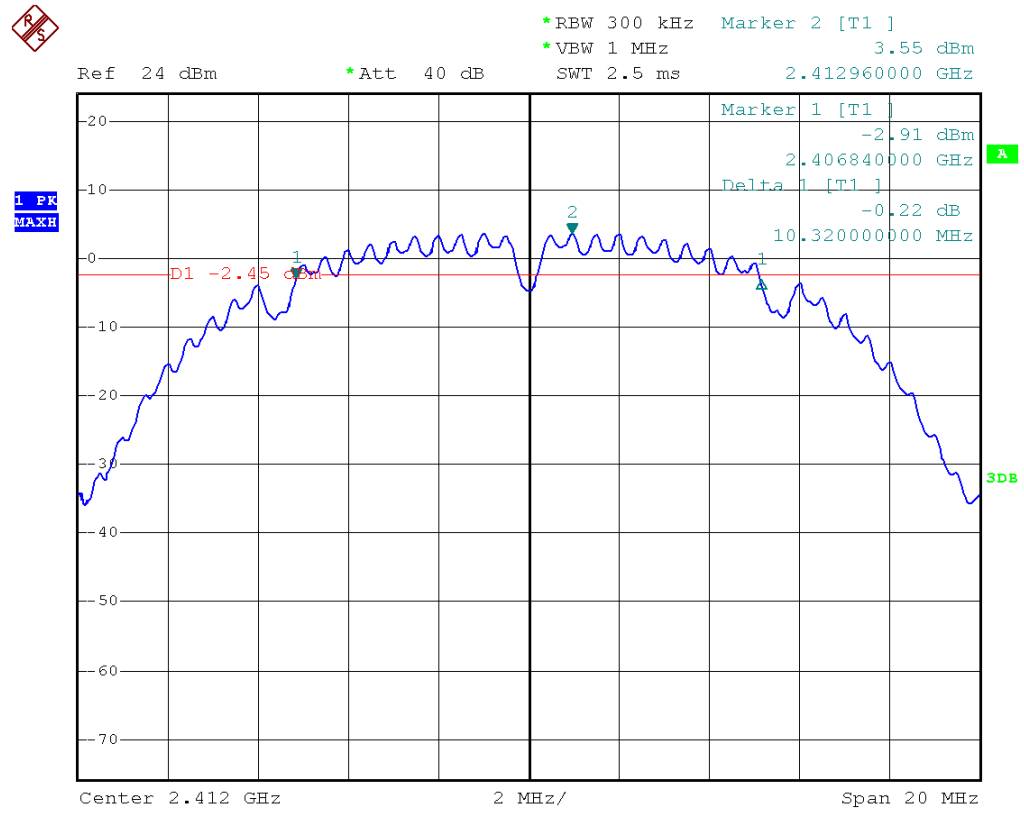
IEEE 802.11b (CCK, 1Mbps)	
Frequency (MHz)	6dB Bandwidth (MHz)
2412	10.32
2437	10.32
2462	10.32

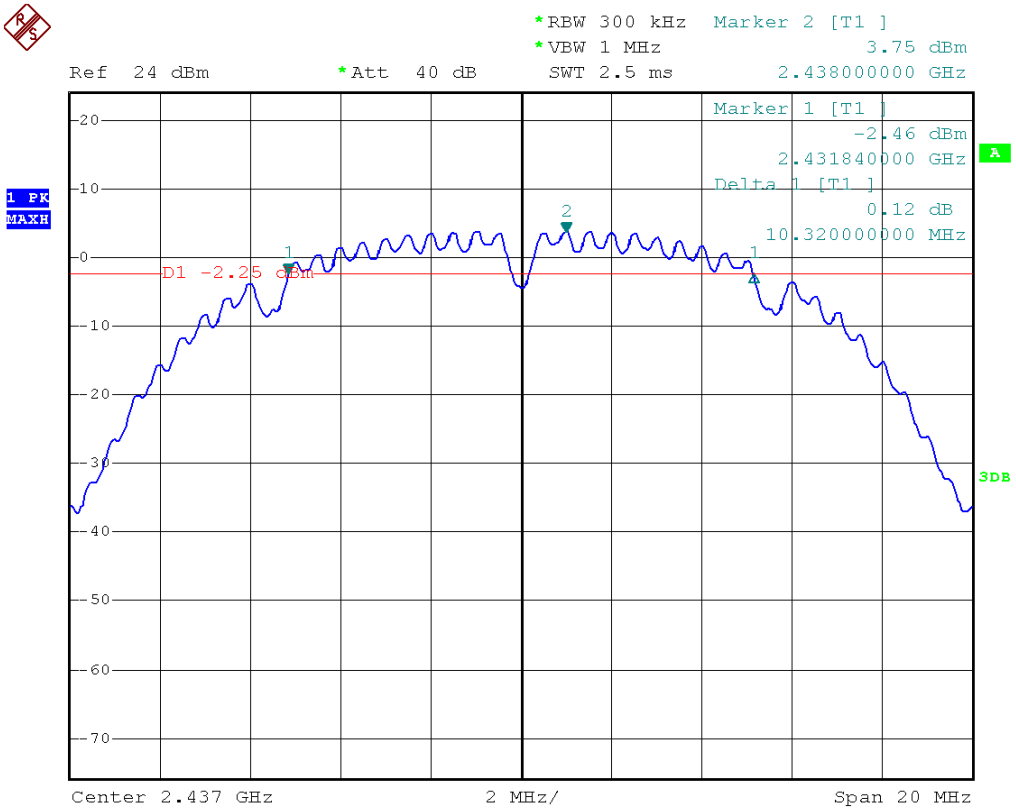
IEEE 802.11g (OFDM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	16.68
2437	16.64
2462	16.68

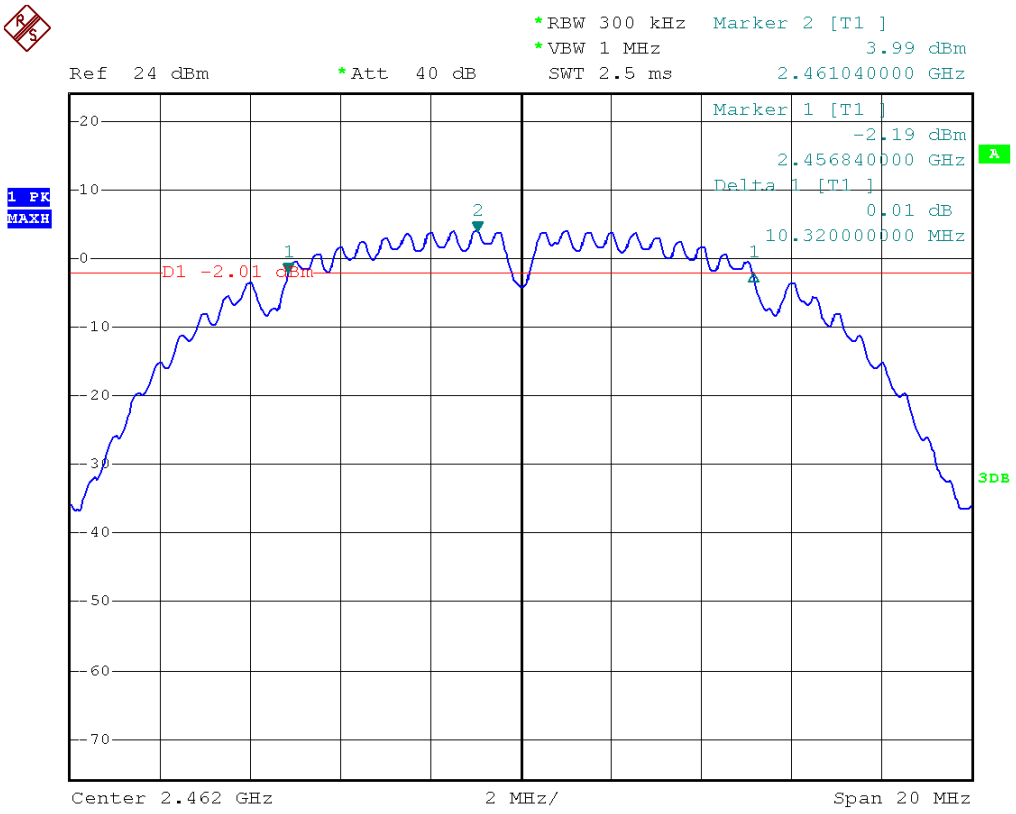
IEEE 802.11n 20M (OFDM, 7.2Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	17.88
2437	17.84
2462	17.80

The test plots are attached as below.

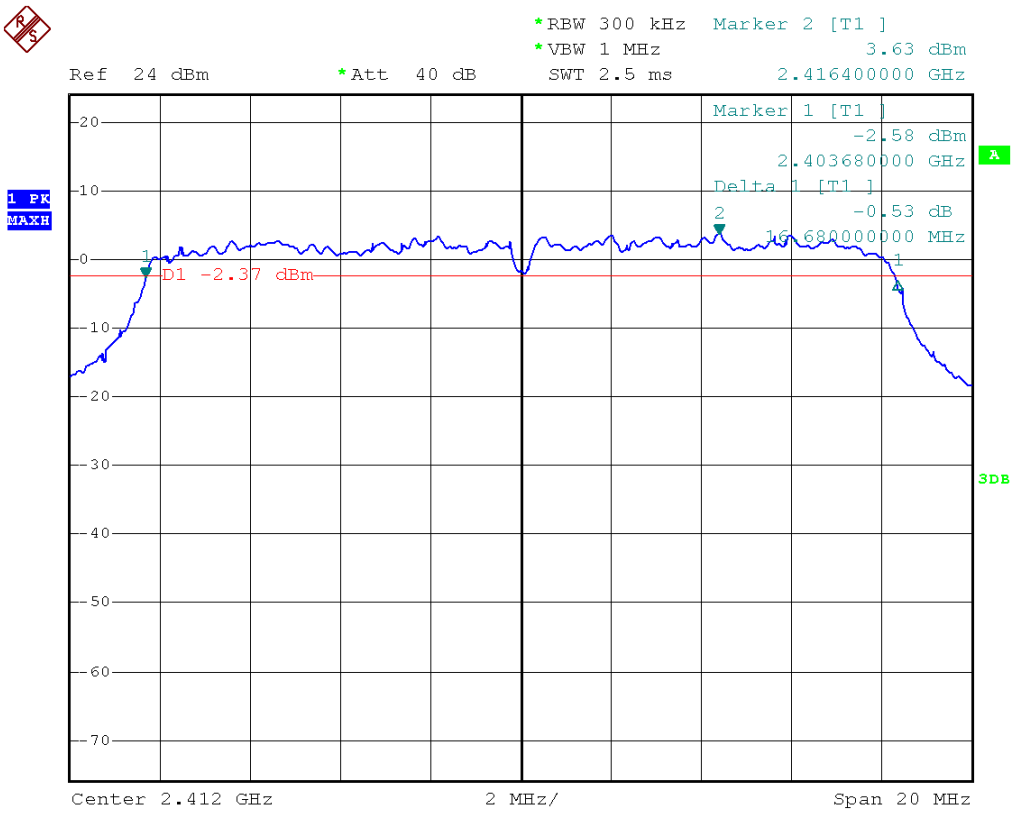
802.11b


*RBW 300 kHz
*VBW 1 MHz
Ref 24 dBm
*Att 40 dB
SWT 2.5 ms
Marker 2 [T1]
3.55 dBm
2.412960000 GHz
Marker 1 [T1]
-2.91 dBm
2.406840000 GHz
Delta 1 [T1]
-0.22 dB
10.320000000 MHz
1 PK
MAXH
A
3DB
D1 -2.45 dBm
Center 2.412 GHz
2 MHz/
Span 20 MHz


*RBW 300 kHz
*VBW 1 MHz
Ref 24 dBm
*Att 40 dB
SWT 2.5 ms
Marker 2 [T1]
3.75 dBm
2.438000000 GHz
Marker 1 [T1]
-2.46 dBm
2.431840000 GHz
Delta 1 [T1]
0.12 dB
10.320000000 MHz
1 PK
MAXH
A
3DB
D1 -2.25 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 300 kHz
*VBW 1 MHz
Ref 24 dBm
*Att 40 dB
SWT 2.5 ms
Marker 2 [T1]
3.99 dBm
2.461040000 GHz
Marker 1 [T1]
-2.19 dBm
2.456840000 GHz
Delta 1 [T1]
0.01 dB
10.320000000 MHz
1 PK
MAXH
D1 -2.01 dBm
3DB
Center 2.462 GHz
2 MHz/
Span 20 MHz

802.11g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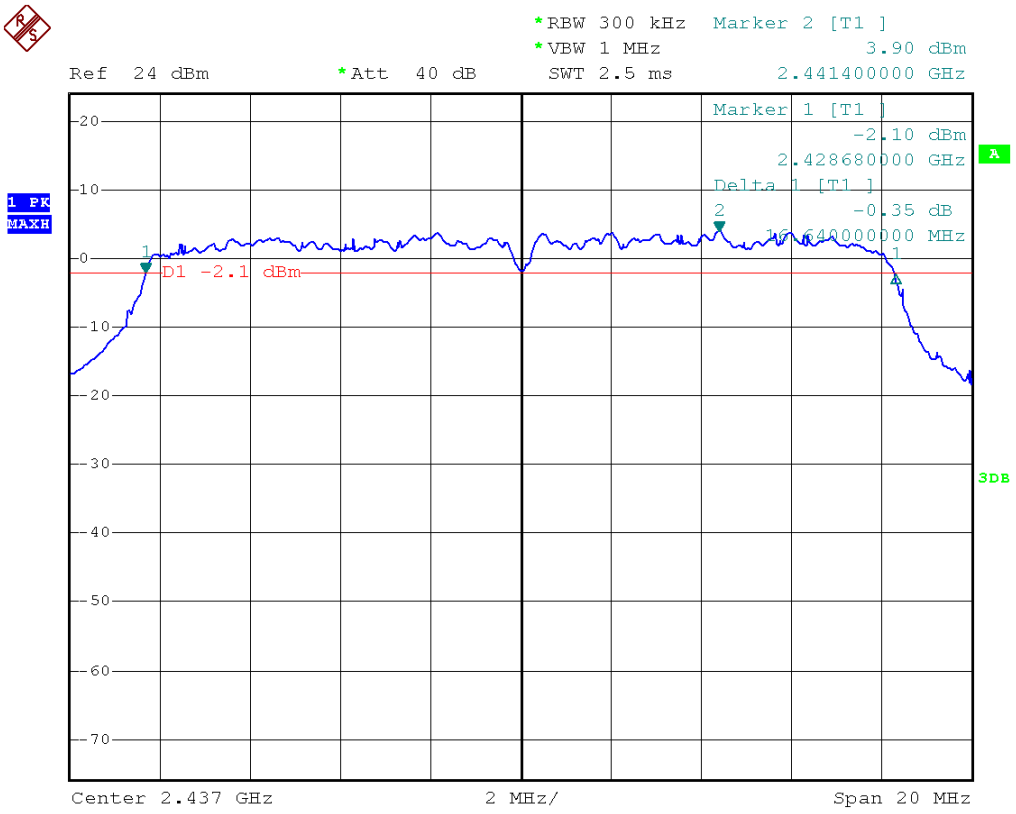
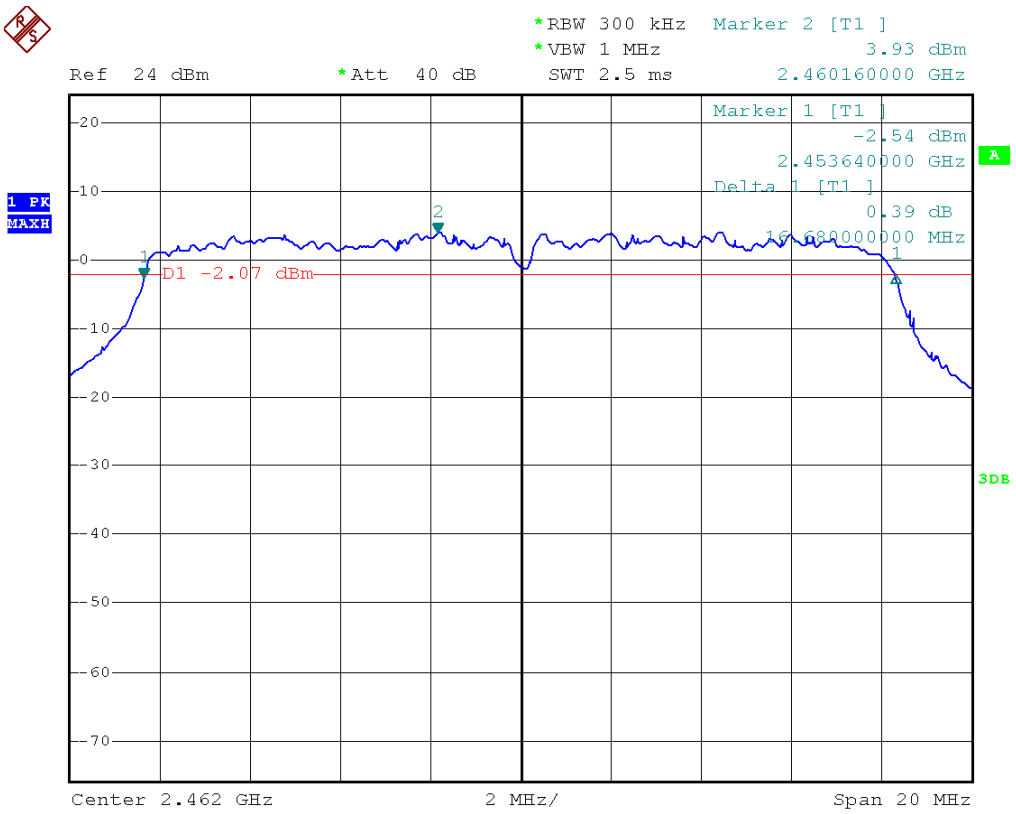
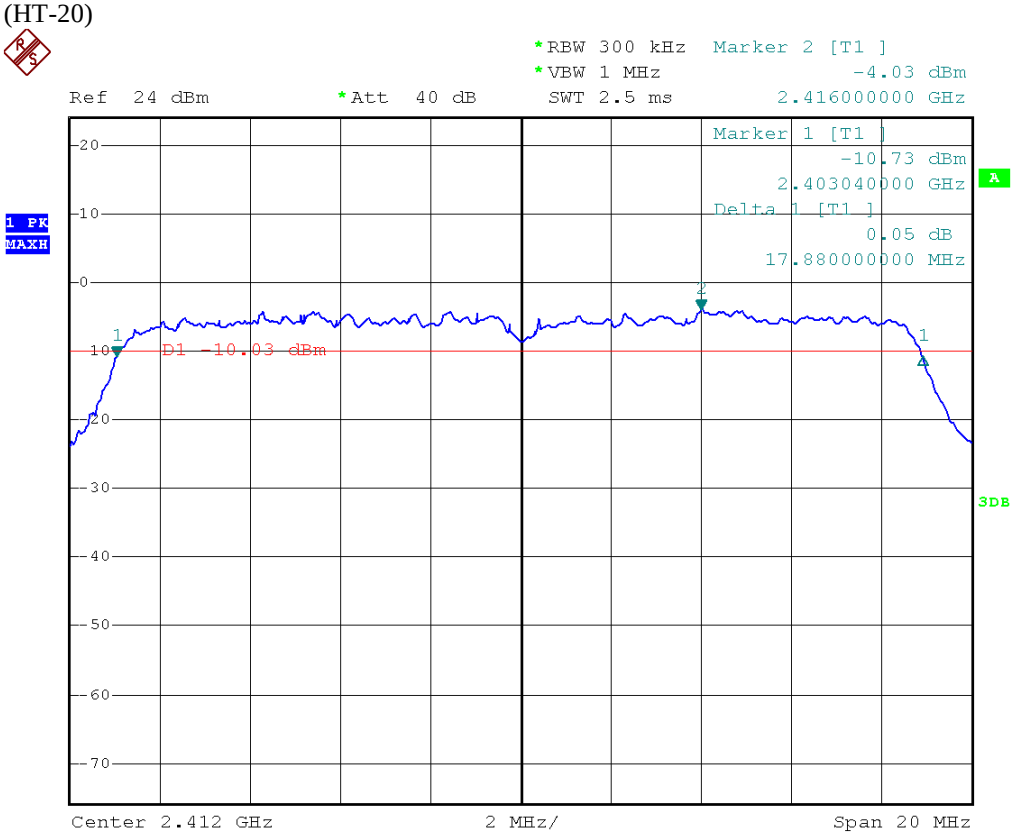
*VBW 1 MHz
Ref 24 dBm
*Att 40 dB
SWT 2.5 ms
Marker 2 [T1]
3.63 dBm
2.416400000 GHz
Marker 1 [T1]
-2.58 dBm
2.403680000 GHz
Delta 1 [T1]
-0.53 dB
16.680000000 MHz
1 PK
MAXH
D1 -2.37 dBm
3DB
Center 2.412 GHz
2 MHz/
Span 20 MHz


*RBW 300 kHz
*VBW 1 MHz
SWT 2.5 ms
Marker 2 [T1]
3.90 dBm
2.441400000 GHz
Ref 24 dBm
*Att 40 dB
Marker 1 [T1]
-2.10 dBm
2.428680000 GHz
Delta 1 [T1]
-0.35 dB
16.640000000 MHz
D1 -2.1 dBm
1 PK
MAXH
A
3DB
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 300 kHz
*VBW 1 MHz
SWT 2.5 ms
Marker 2 [T1]
3.93 dBm
2.460160000 GHz
Ref 24 dBm
*Att 40 dB
Marker 1 [T1]
-2.54 dBm
2.453640000 GHz
Delta 1 [T1]
0.39 dB
16.680000000 MHz
D1 -2.07 dBm
1 PK
MAXH
A
3DB
Center 2.462 GHz
2 MHz/
Span 20 MHz

802.11n (HT-20)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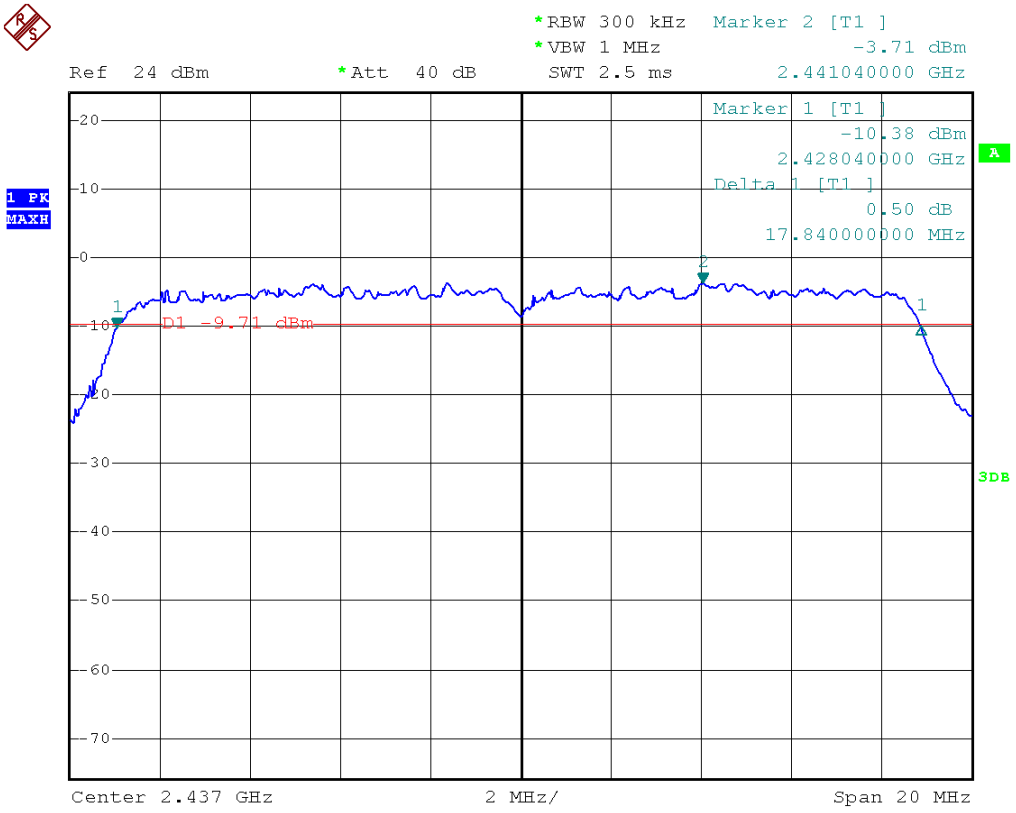
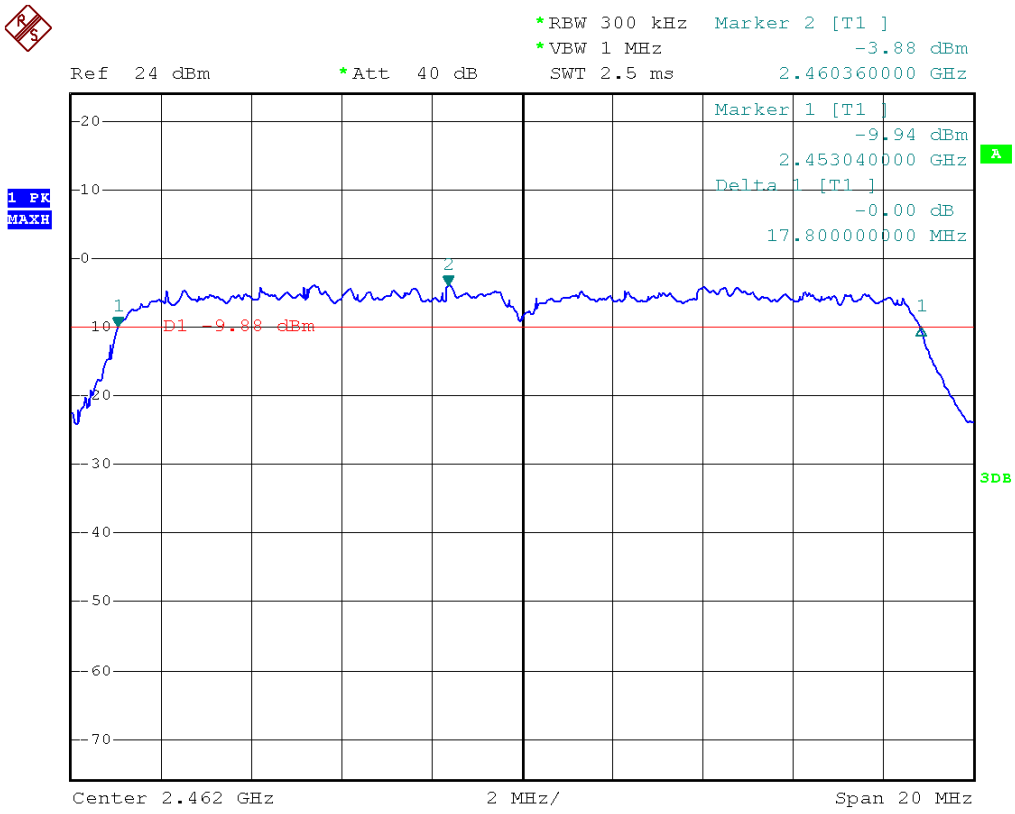
*VBW 1 MHz
Ref 24 dBm
*Att 40 dB
SWT 2.5 ms
Marker 2 [T1]
-4.03 dBm
2.416000000 GHz
Marker 1 [T1]
-10.73 dBm
2.403040000 GHz
Delta 1 [T1]
0.05 dB
17.880000000 MHz
1 PK
MAXH
A
3DB
D1 -10.03 dBm
Center 2.412 GHz
2 MHz/
Span 20 MHz


*RBW 300 kHz
*VBW 1 MHz
Ref 24 dBm
*Att 40 dB
SWT 2.5 ms
Marker 2 [T1]
-3.71 dBm
2.441040000 GHz
Marker 1 [T1]
-10.38 dBm
2.428040000 GHz
Delta 1 [T1]
0.50 dB
17.840000000 MHz
1 PK
MAXH
A
3DB
D1 -9.71 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 300 kHz
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SWT 2.5 ms
Marker 2 [T1]
-3.88 dBm
2.460360000 GHz
Ref 24 dBm
*Att 40 dB
Marker 1 [T1]
-9.94 dBm
2.453040000 GHz
Delta 1 [T1]
-0.00 dB
17.800000000 MHz
1 PK
MAXH
A
3DB
D1 -9.88 dBm
Center 2.462 GHz
2 MHz/
Span 20 MHz

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.3 Maximum Power Density Reading, FCC Rule 15.247(e) :

The Measurement Procedure PKPSD was set according to the FCC KDB 558074. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW and then scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(3 kHz/100 kHz= -15.2 dB).

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

Limit: The Power Density does not exceed 8dBm/ 3 kHz.

IEEE 802.11b (CCK, 1Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2411.736	-12.1
2436.758	-11.4
2461.736	-11.1

IEEE 802.11g (OFDM, 6Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2416.960	-14.7
2441.960	-14.5
2455.720	-14.4

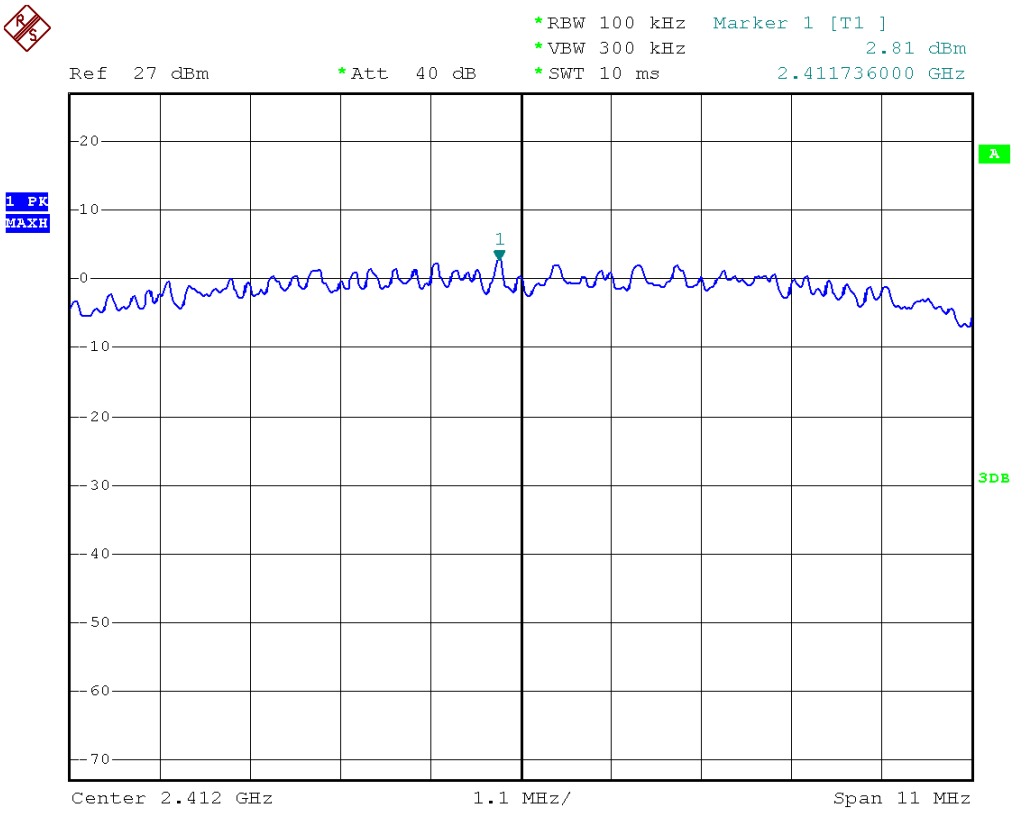
IEEE 802.11n 20M (OFDM, 7.2Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2417.000	-21.7
2442.000	-21.4
2456.960	-21.7

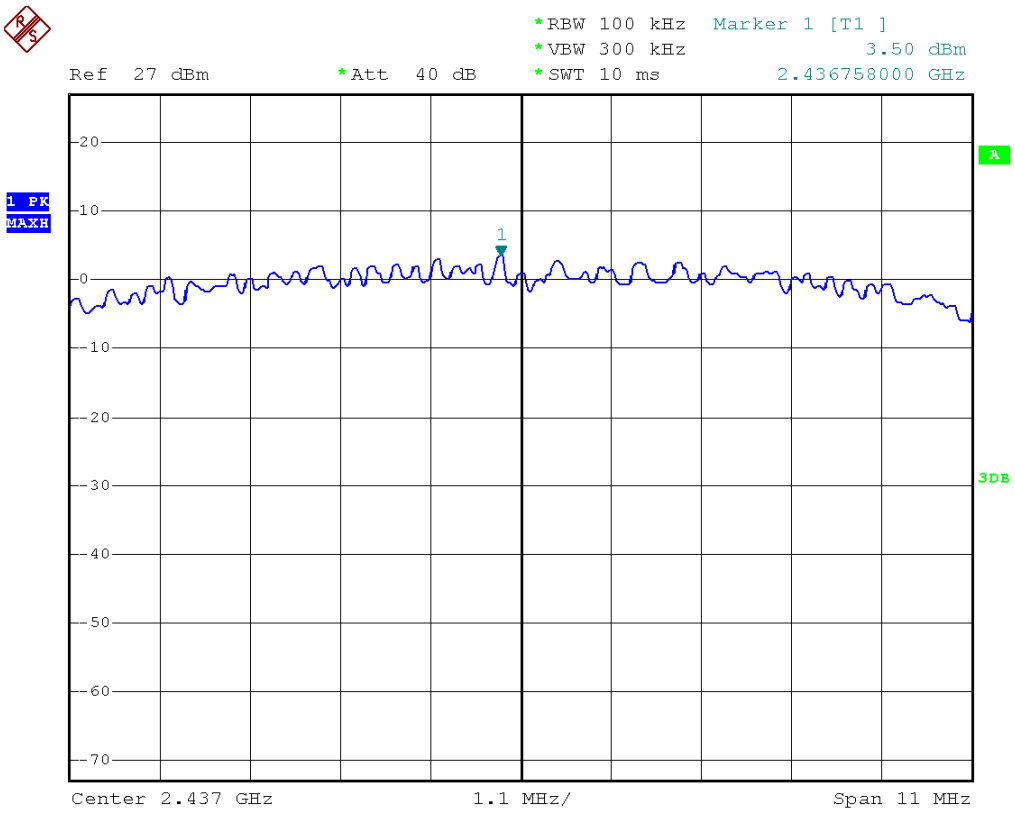
Cable loss: 0.3 dB External Attenuation: 0 dB

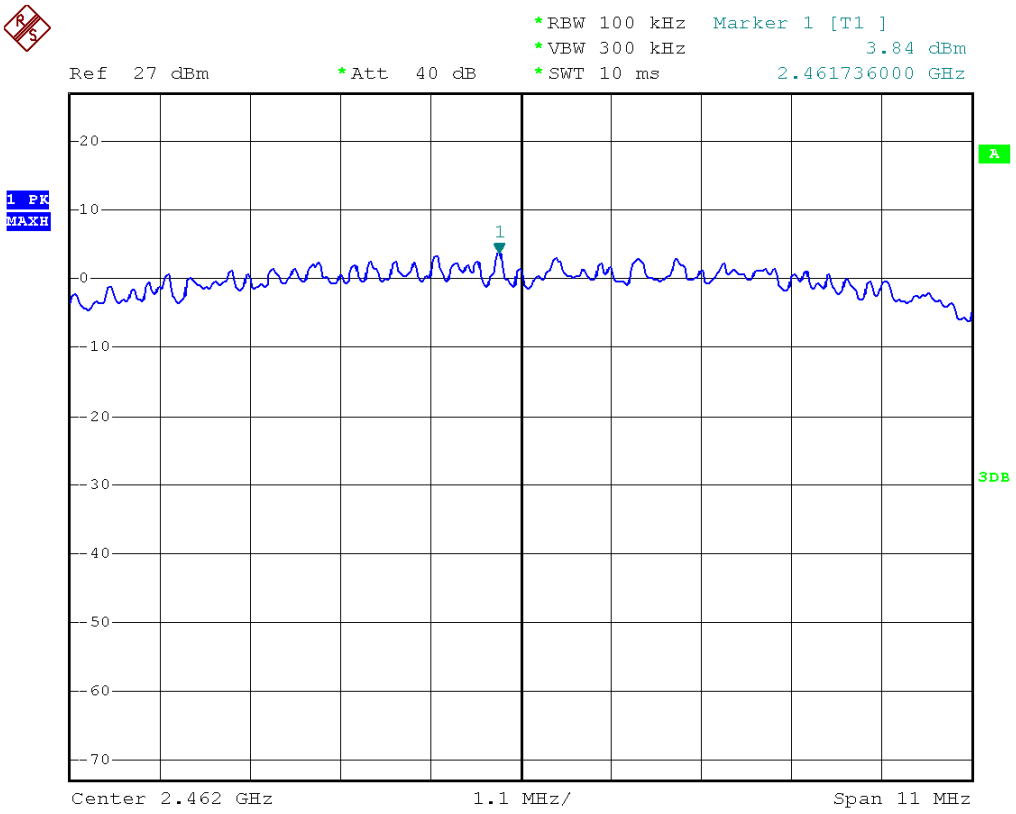
Cable loss and External Attenuation have been included in the value of Power Density above.

The test plots are attached as below.

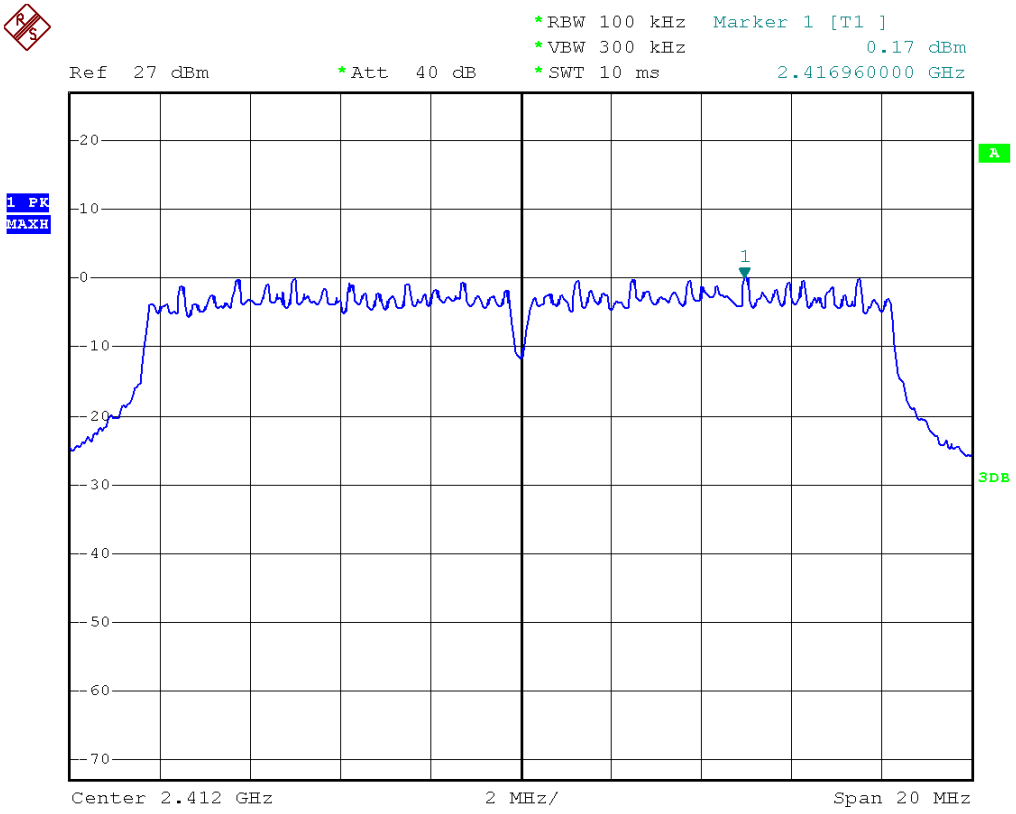
802.11b

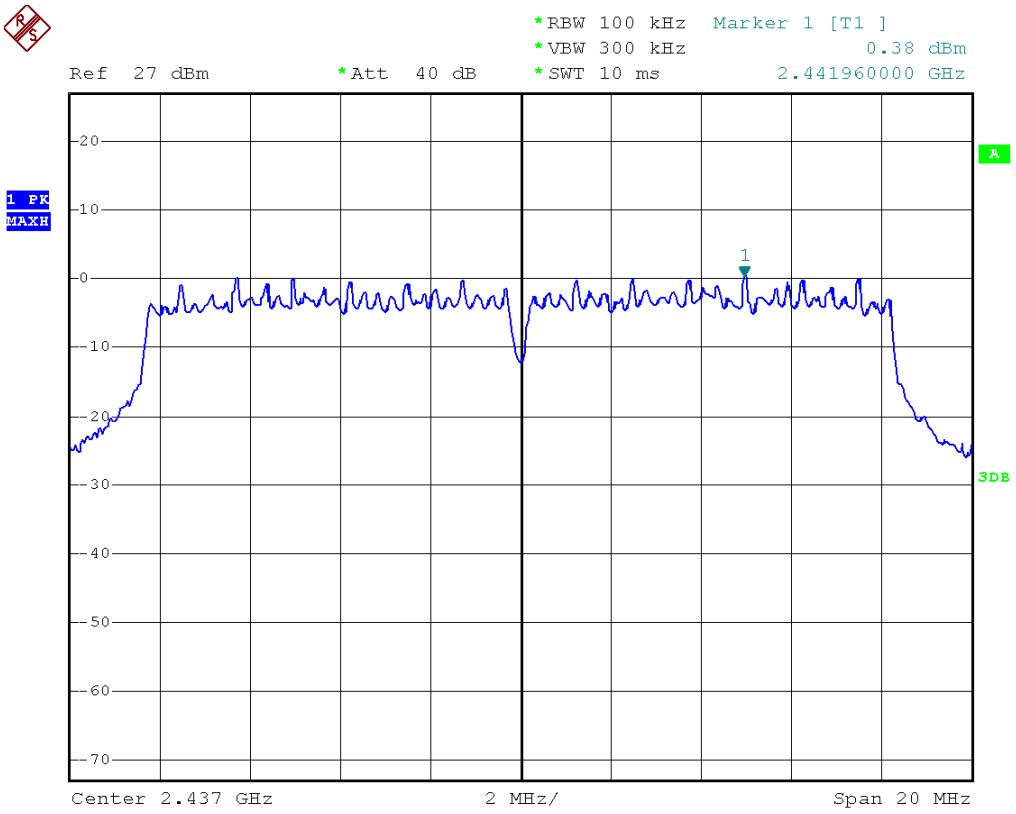

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
2.81 dBm
Ref 27 dBm
*Att 40 dB
*SWT 10 ms
2.411736000 GHz
1 PK
MAXH
A
3DB
20
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.412 GHz
1.1 MHz/
Span 11 MHz

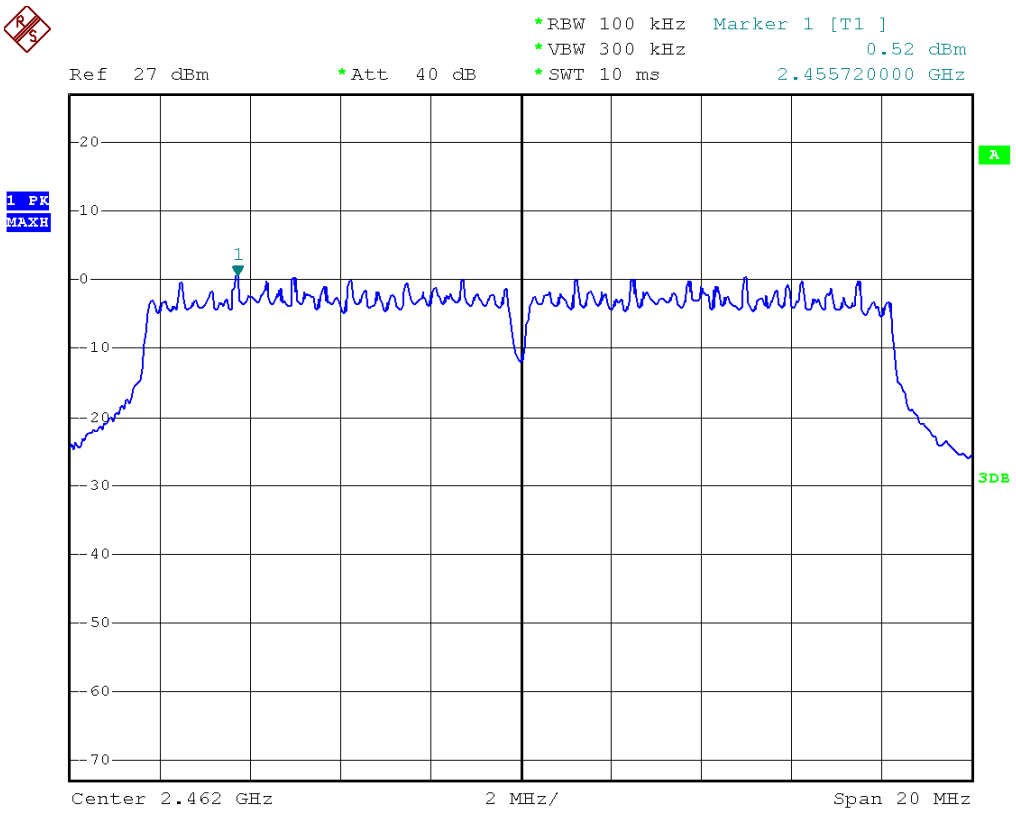

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
3.50 dBm
Ref 27 dBm
*Att 40 dB
*SWT 10 ms
2.436758000 GHz
1 PK
MAXH
A
3DB
20
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.437 GHz
1.1 MHz/
Span 11 MHz


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
3.84 dBm
Ref 27 dBm
*Att 40 dB
*SWT 10 ms
2.461736000 GHz
1 PK
MAXH
A
3DB
Center 2.462 GHz
1.1 MHz/
Span 11 MHz

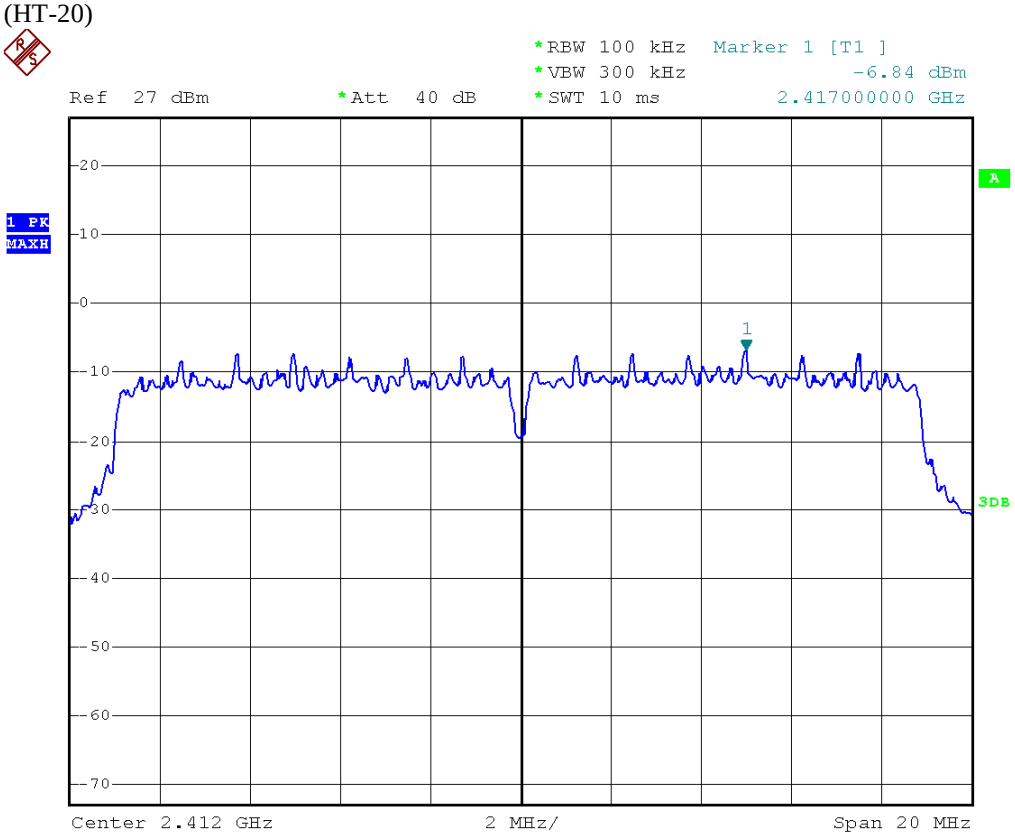
802.11g

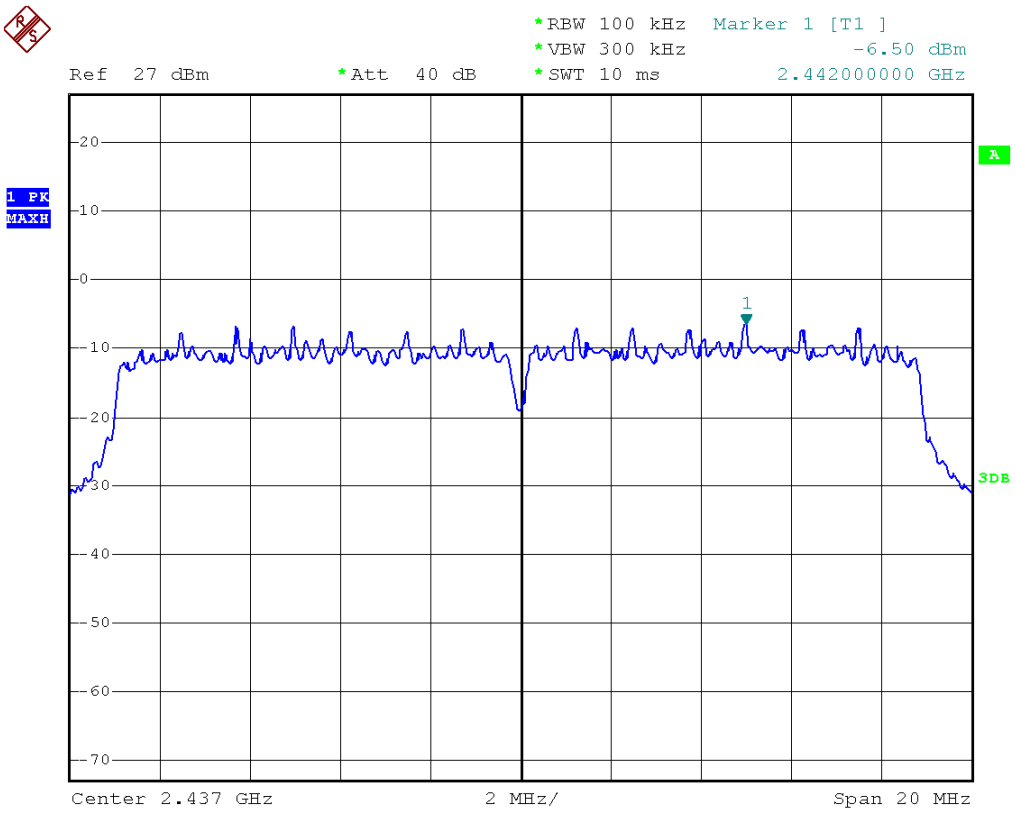

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
0.17 dBm
Ref 27 dBm
*Att 40 dB
*SWT 10 ms
2.416960000 GHz
1 PK
MAXH
A
3DB
Center 2.412 GHz
2 MHz/
Span 20 MHz

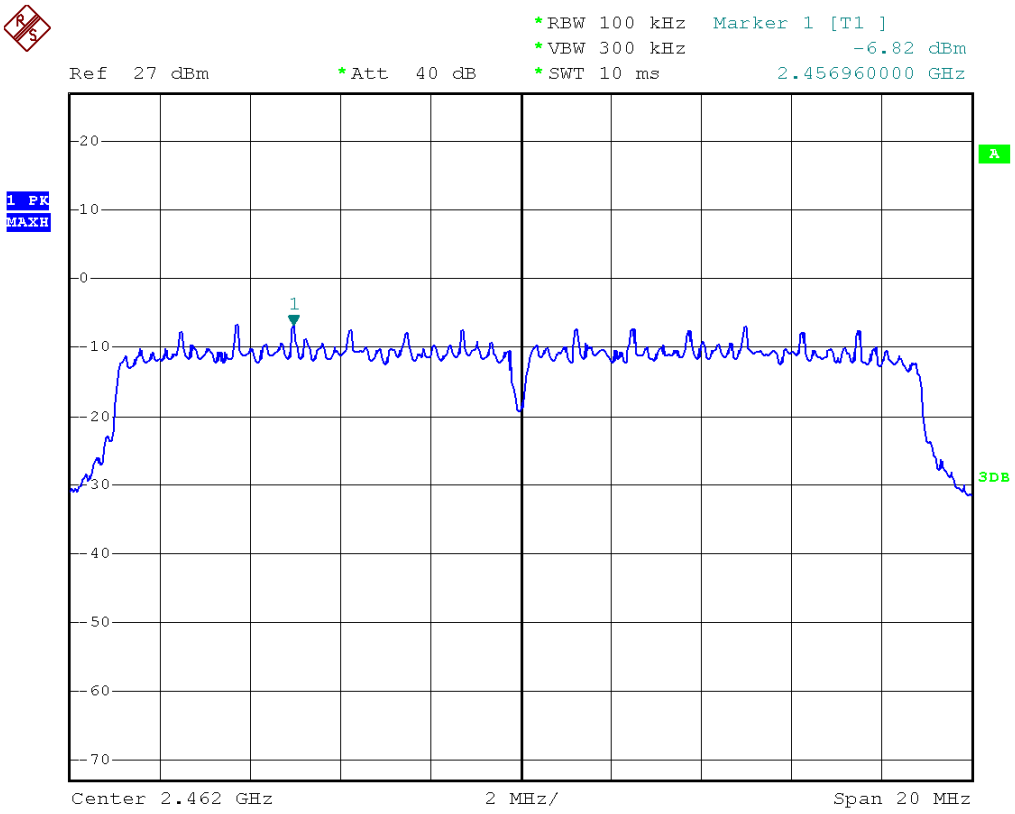

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
0.38 dBm
Ref 27 dBm
*Att 40 dB
*SWT 10 ms
2.441960000 GHz
1 PK
MAXH
A
3DB
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
0.52 dBm
Ref 27 dBm
*Att 40 dB
*SWT 10 ms
2.455720000 GHz
1 PK
MAXH
A
3DB
Center 2.462 GHz
2 MHz/
Span 20 MHz

802.11n (HT-20)


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
Marker 1 [T1]
-6.84 dBm
2.417000000 GHz
Ref 27 dBm
Att 40 dB
1 PK
MAXH
A
3DB
Center 2.412 GHz
2 MHz/
Span 20 MHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
Marker 1 [T1]
-6.50 dBm
2.442000000 GHz
Ref 27 dBm
Att 40 dB
1 PK
MAXH
A
3DB
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 100 kHz
*VBW 300 kHz
*SWT 10 ms
Marker 1 [T1]
-6.82 dBm
2.456960000 GHz
Ref 27 dBm
*Att 40 dB
1 PK
MAXH
A
3DB
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.462 GHz
2 MHz/
Span 20 MHz

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation. The Measurement Procedure was set according to the FCC KDB 558074.

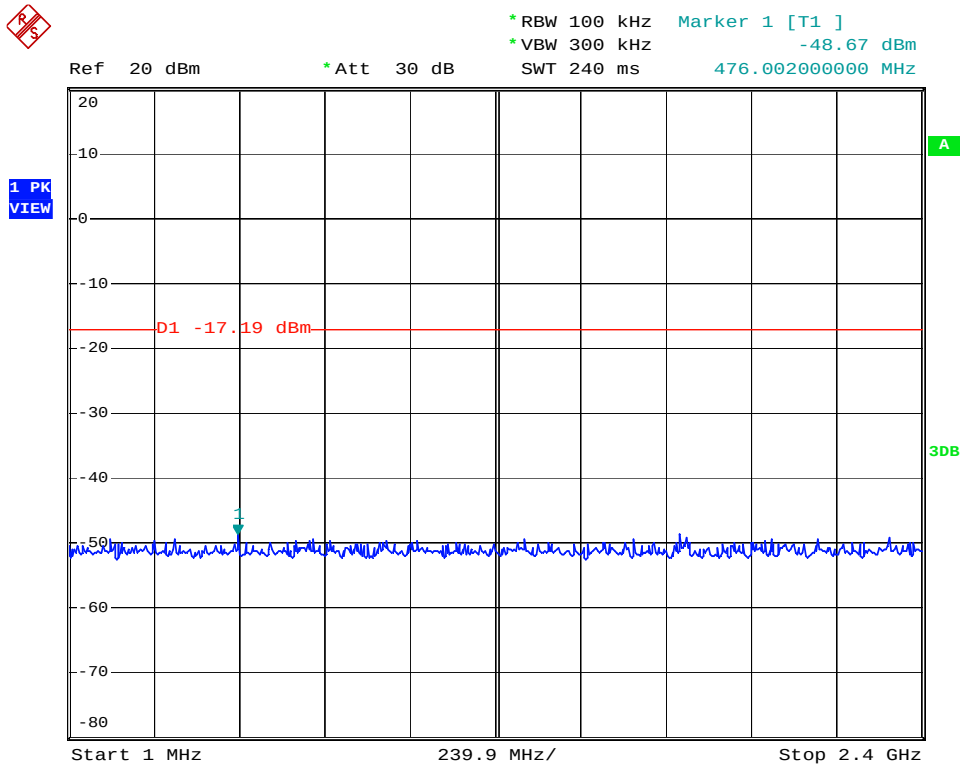
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

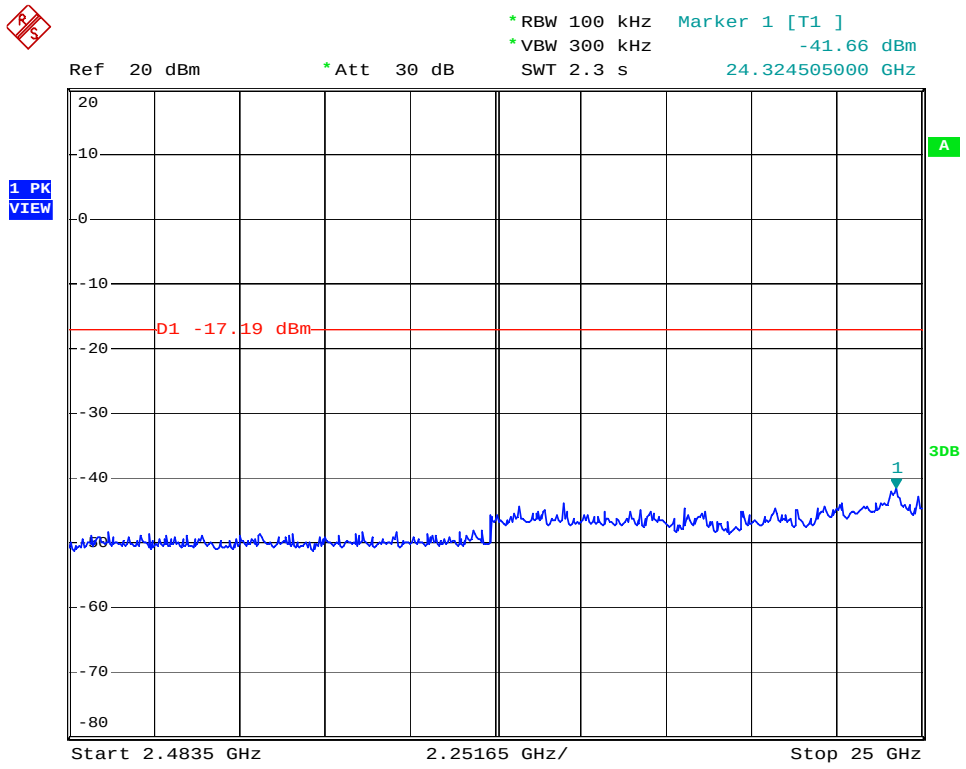
Refer to the attached test plot for out of band conducted emissions data with rate of 1Mbps for 802.11b, 6Mbps for 802.11g and 7.2Mbps for 802.11n HT20.

The test plots showed all spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

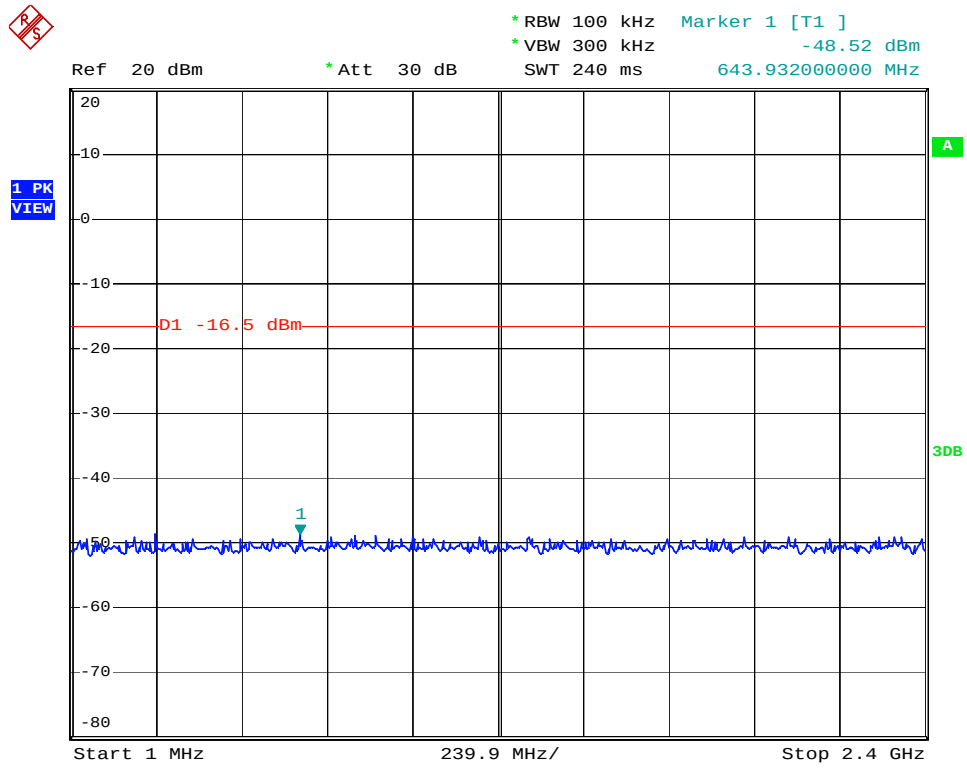
The test plots are attached as below.

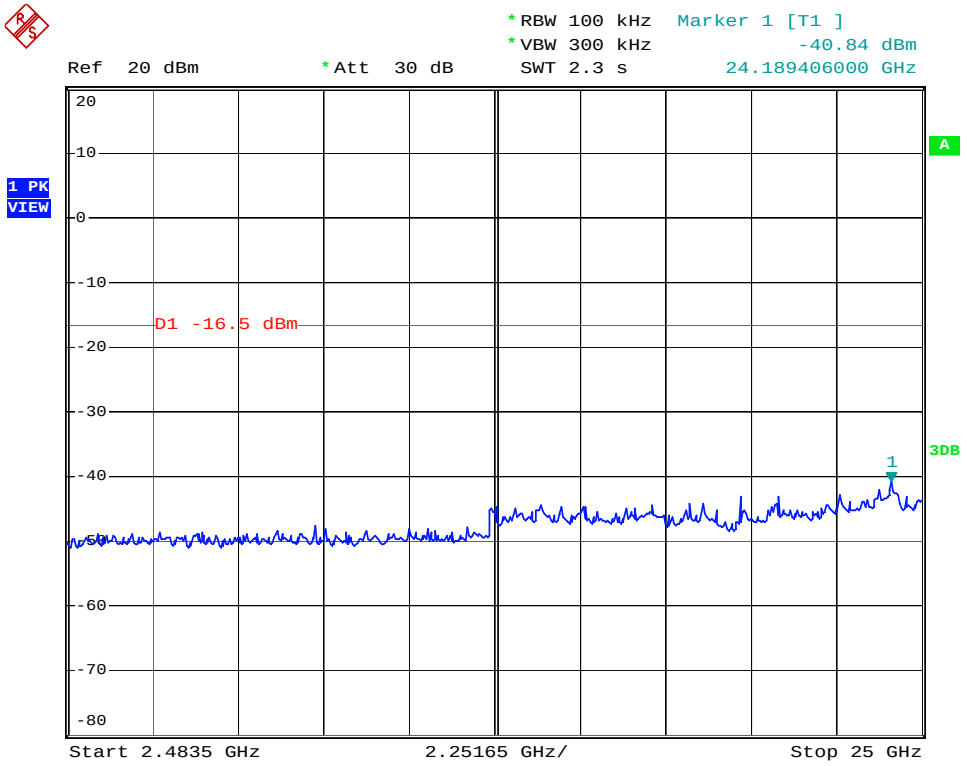
802.11b
Channel 1 (2412MHz) Reference Level: 2.81dBm



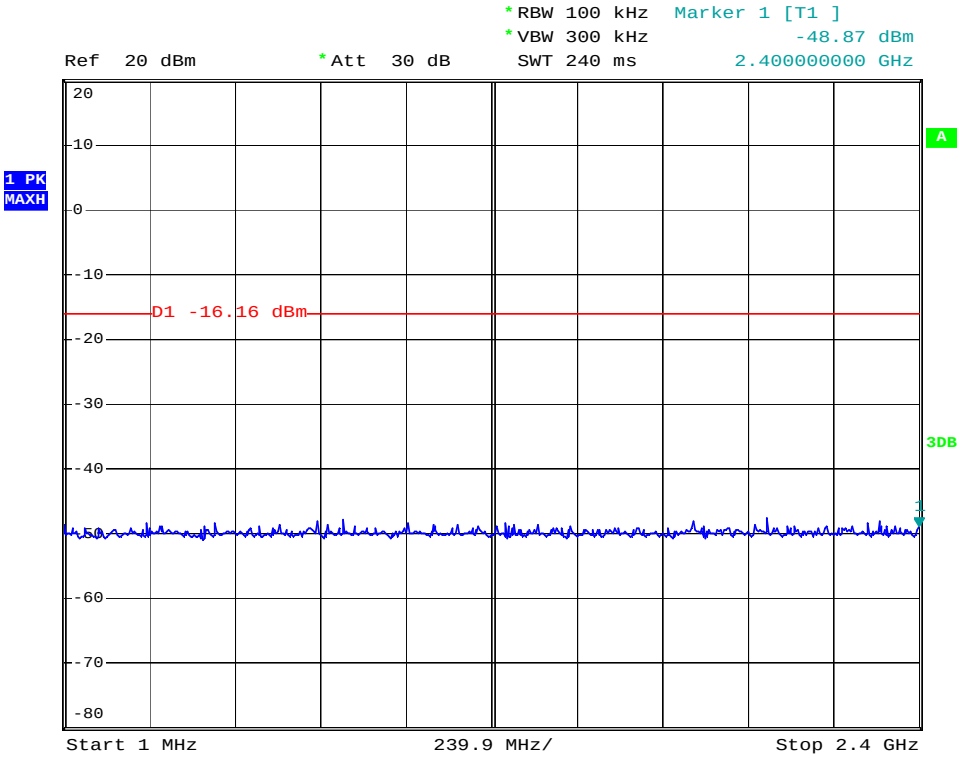


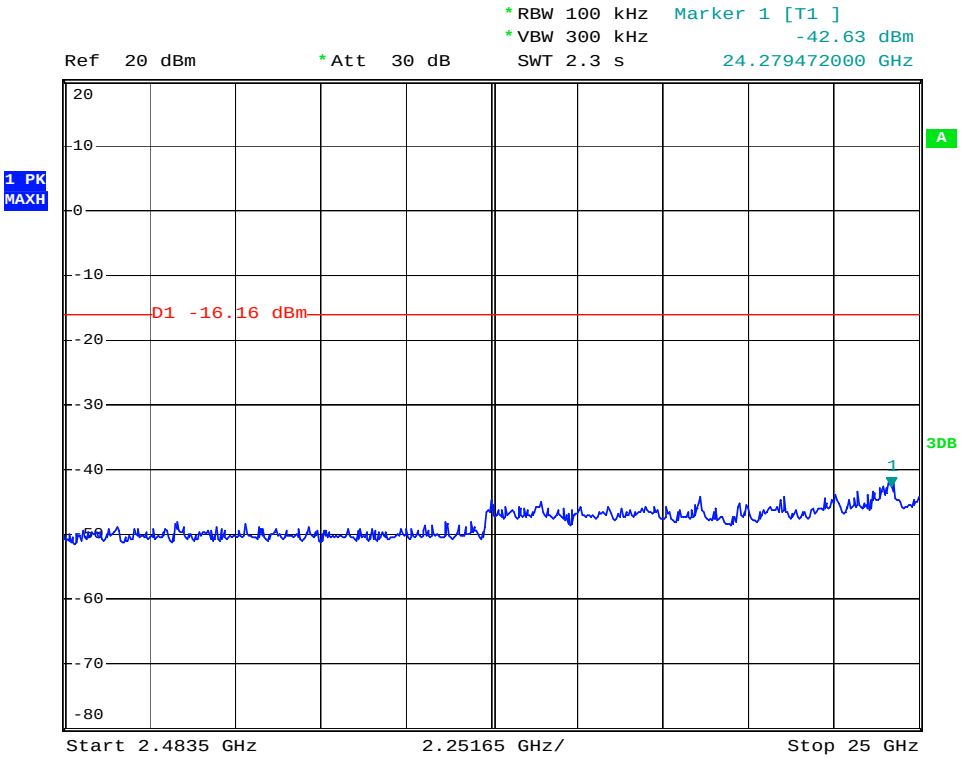
Channel 6 (2437MHz) Reference Level: 3.50dBm



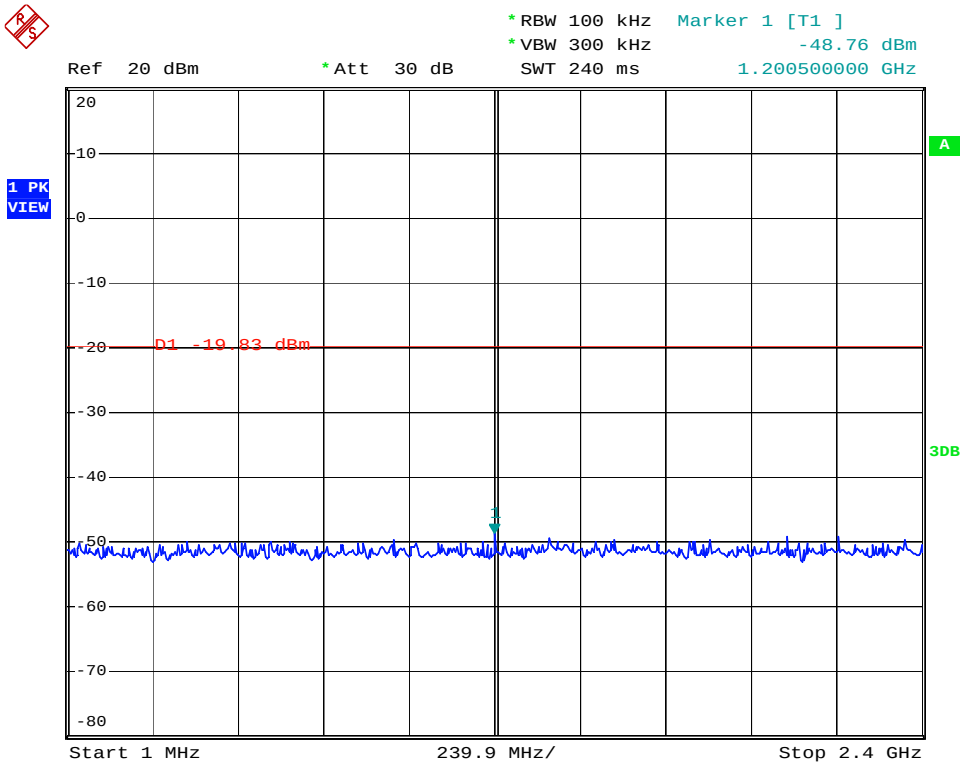


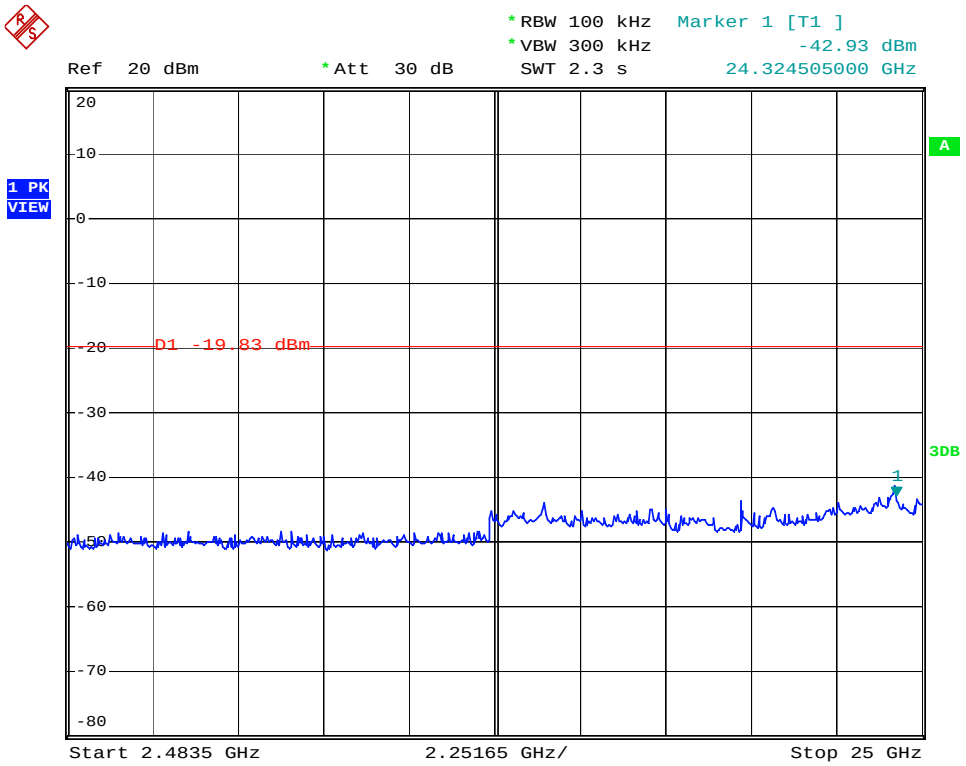
Channel 11 (2462MHz) Reference Level: 3.84dBm



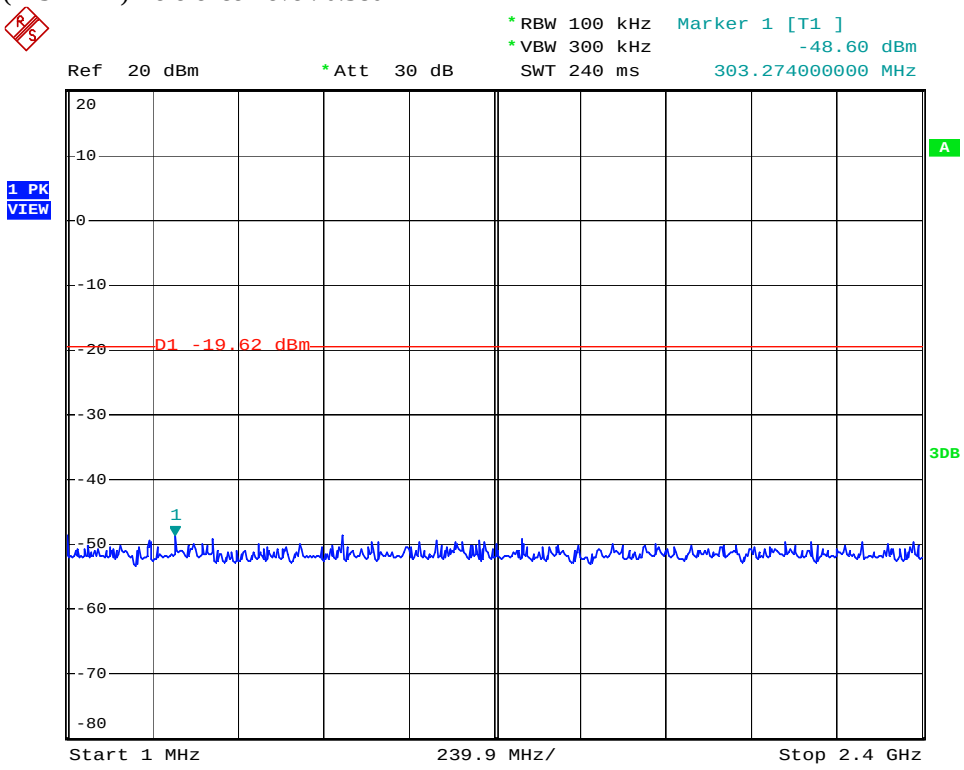


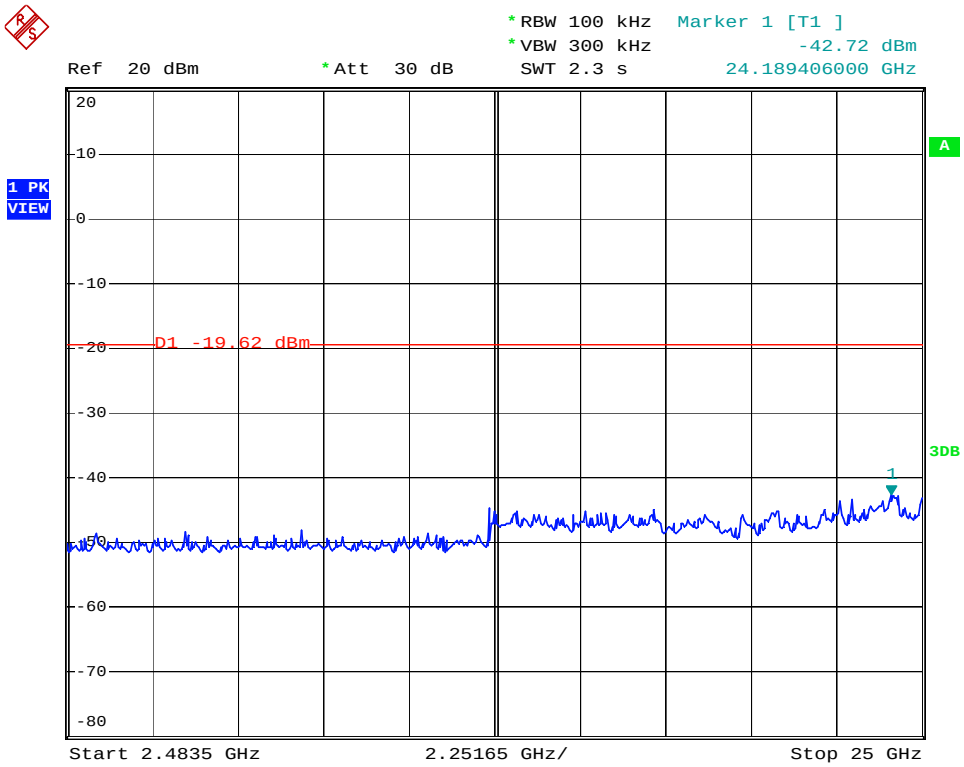
802.11g
Channel 1 (2412MHz) Reference Level: 0.17dBm



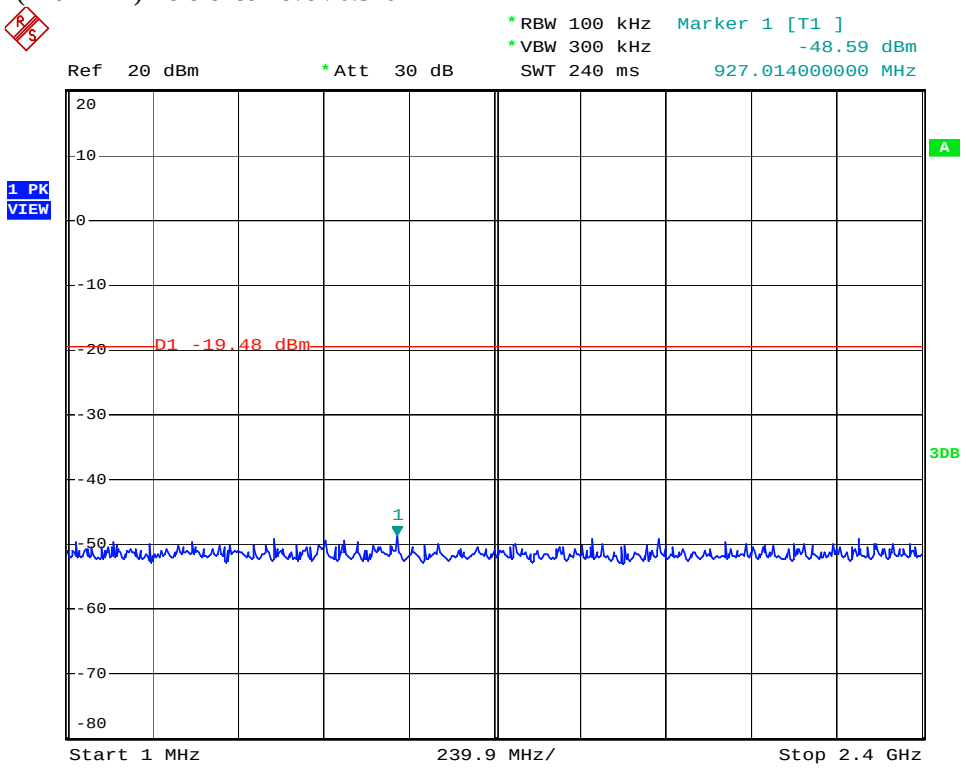


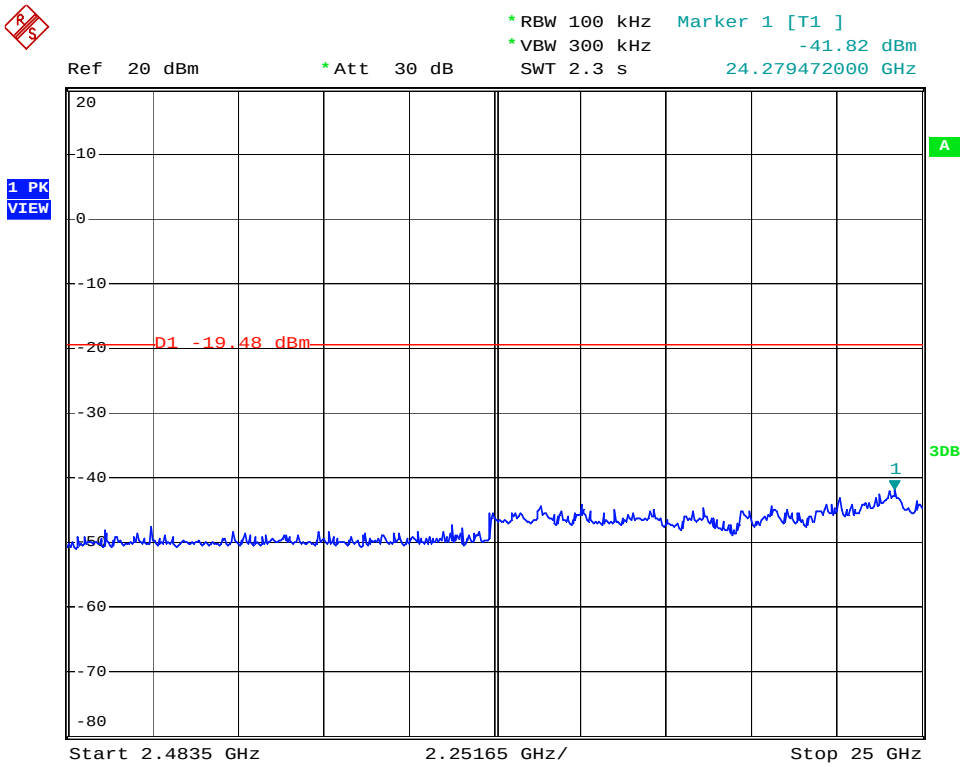
Channel 6 (2437MHz) Reference Level: 0.38dBm



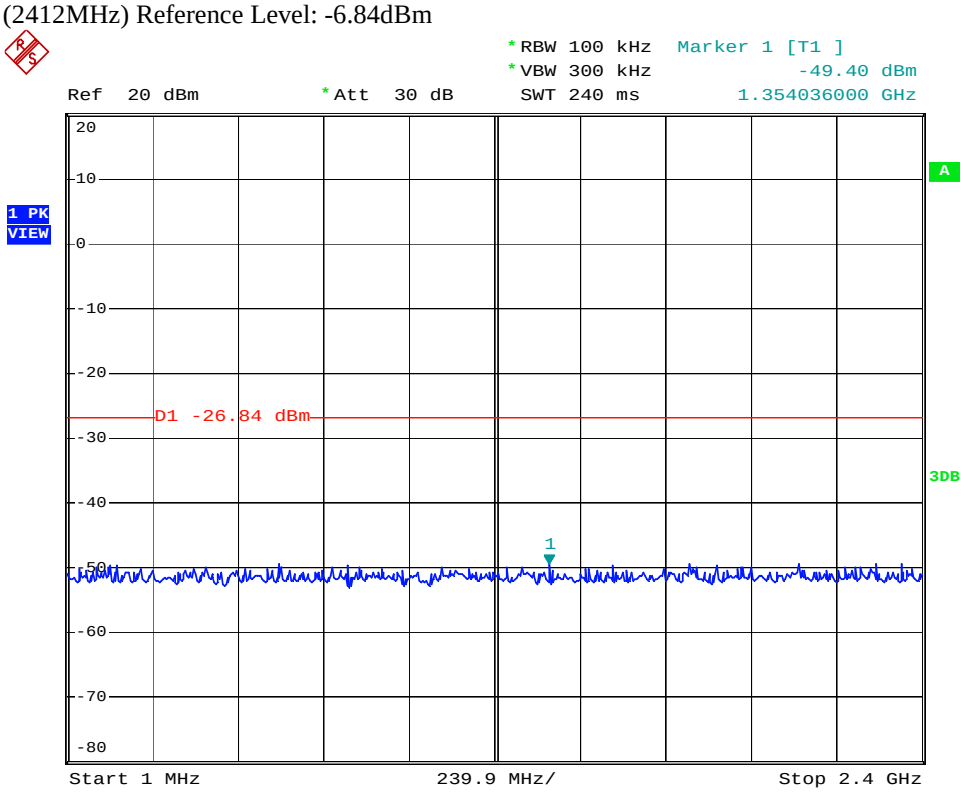


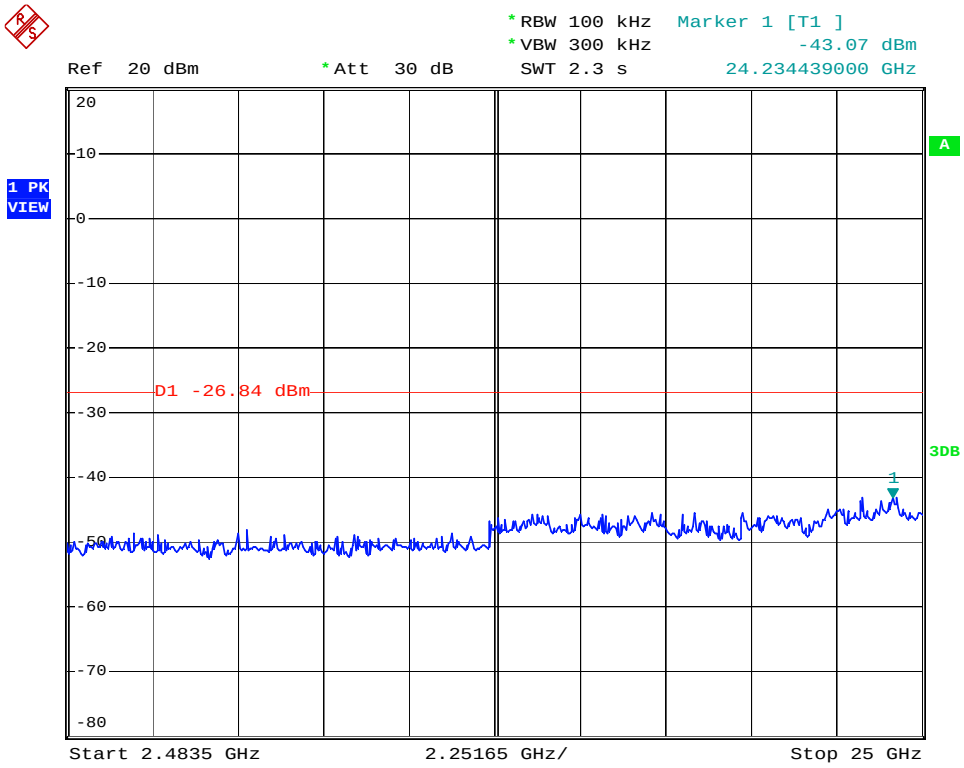
Channel 11 (2462MHz) Reference Level: 0.52dBm



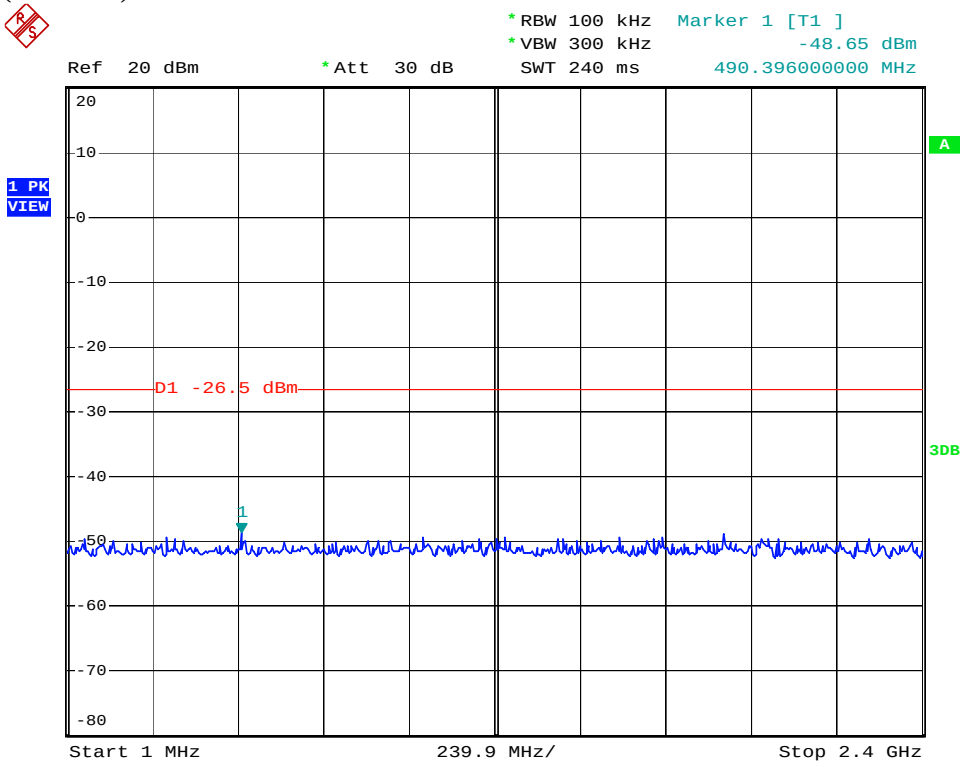


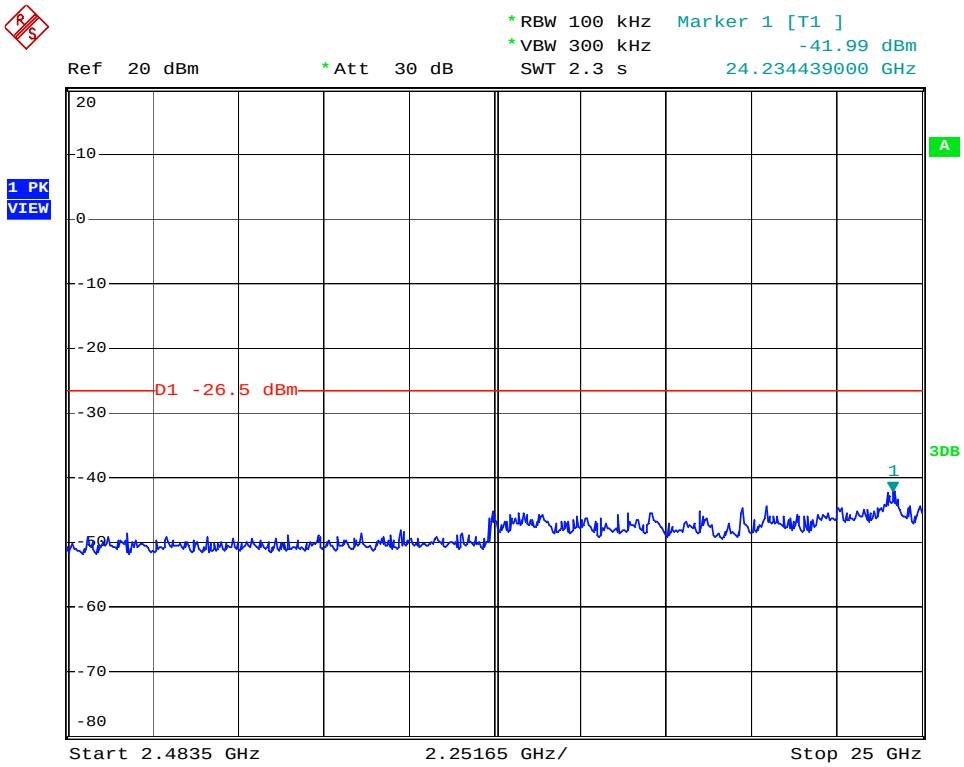
802.11n (HT-20)
Channel 1 (2412MHz) Reference Level: -6.84dBm



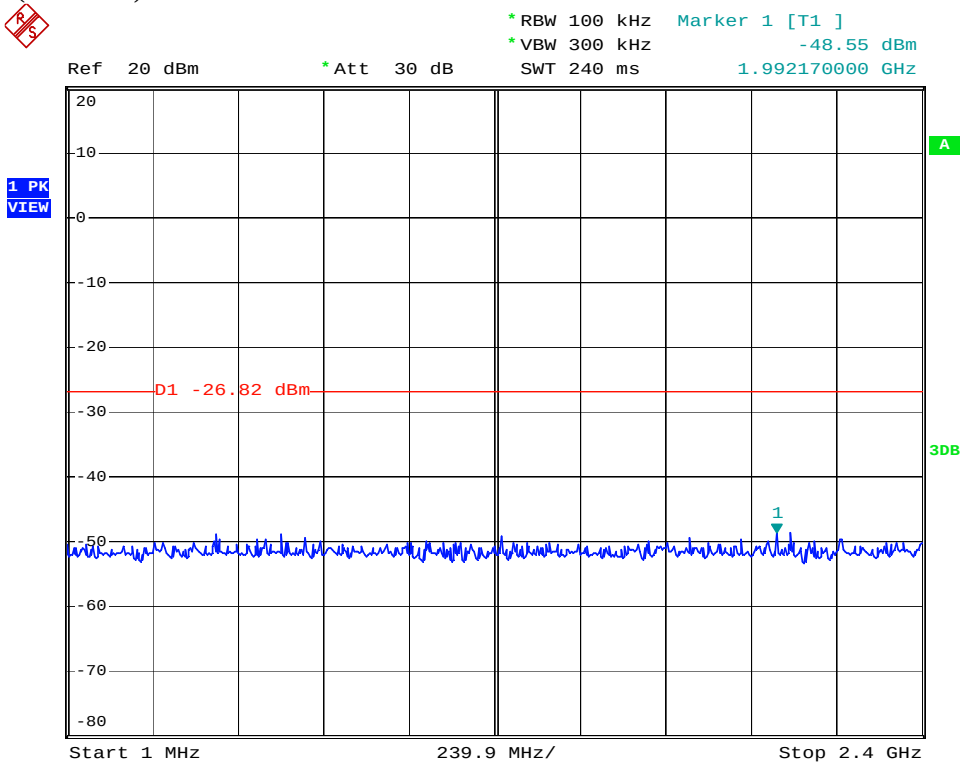


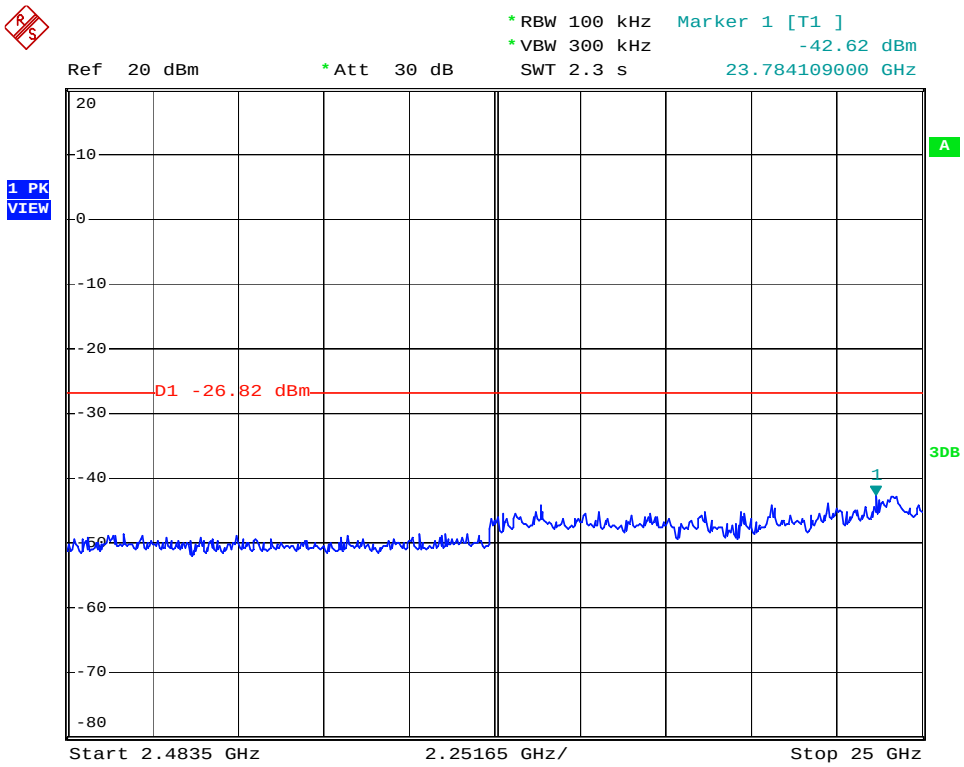
Channel 6 (2437MHz) Reference Level: -6.50dBm





Channel 11 (2462MHz) Reference Level: -6.82dBm





Applicant: Huawei Technologies Co.,Ltd.
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

[×] Not required, since all emissions are more than 20dB below fundamental
[ ] See attached data sheet

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance. The simultaneous transmission has been considered when perform spurious radiation test.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD

Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD

Example
Assume a receiver reading of 62.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB. The net field strength for comparison to the appropriate emission limit is 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 dBμV/m

Level in mV/m = Common Antilogarithm [(42 dBμV/m)/20] = 125.9 μV/m

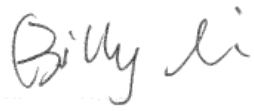
Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission (802.11g) at 7386.000MHz is passed by 0.4dB margin.

For the electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.pdf.

TEST PERSONNEL:



Signature

Billy Li, Team Leader
Typed/Printed Name

7 June, 2012
Date

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Worst Case Operating Mode: Transmit

Table 1

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	88.220	24.2	20.0	7.7	11.9	43.5	-31.6
Horizontal	173.560	23.8	20.0	10.2	14.0	43.5	-29.5
Horizontal	302.570	24.2	20.0	15.5	19.7	46.0	-26.3
Vertical	33.860	30.4	20.0	16.2	26.6	40.0	-13.4
Vertical	41.640	28.7	20.0	11.9	20.6	40.0	-19.4
Vertical	82.865	30.0	20.0	6.8	16.8	40.0	-23.2

NOTES:
1. Quasi-Peak detector is used except for others stated.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. All emissions are below the QP limit.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11b (TX-Channel 01)

Table 2
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4824.000	50.2	36.1	34.1	48.2	54.0	-5.8
Horizontal	*2389.496	53.0	36.7	27.2	43.5	54.0	-10.5

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11b (TX-Channel 06)

Table 3
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	49.5	36.1	34.5	47.9	54.0	-6.1
Horizontal	*7311.000	50.9	35.6	37.1	52.4	54.0	-1.6

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11b (TX-Channel 11)

Table 4
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4924.000	49.0	36.1	34.7	47.6	54.0	-6.4
Horizontal	*7386.000	51.6	35.6	37.2	53.2	54.0	-0.8
Horizontal	*2483.525	53.8	36.7	27.7	44.8	54.0	-9.2

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11g (TX-Channel 01)

Table 5
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4824.000	50.7	36.1	34.1	48.7	54.0	-5.3
Horizontal	*2389.470	53.3	36.7	27.2	43.8	54.0	-10.2

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11g (TX-Channel 06)

Table 6
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	49.5	36.1	34.5	47.9	54.0	-6.1
Horizontal	*7311.000	51.7	35.6	37.1	53.2	54.0	-0.8

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11g (TX-Channel 11)

Table 7
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4924.000	49.9	36.1	34.7	48.5	54.0	-5.5
Horizontal	*7386.000	52.0	35.6	37.2	53.6	54.0	-0.4
Horizontal	*2483.524	53.0	36.7	27.7	44.0	54.0	-10.0

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11n-20M (TX-Channel 01)

Table 8
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4824.000	50.2	36.1	34.1	48.2	54.0	-5.8
Horizontal	*2389.685	53.2	36.7	27.2	43.7	54.0	-10.3

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11n-20M (TX-Channel 06)

Table 9
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	48.9	36.1	34.5	47.3	54.0	-6.7
Horizontal	*7311.000	51.1	35.6	37.1	52.6	54.0	-1.4

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Mode: 802.11n-20M (TX-Channel 11)

Table 10
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4924.000	48.9	36.1	34.7	47.5	54.0	-6.5
Horizontal	*7386.000	51.6	35.6	37.2	53.2	54.0	-0.8
Horizontal	*2483.521	53.5	36.7	27.7	44.5	54.0	-9.5

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

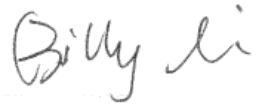
** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

4.9 Conducted Emission

Worst Case Line-Conducted emission at 0.534MHz is Passed by 12.4 dB margin

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

TEST PERSONNEL:



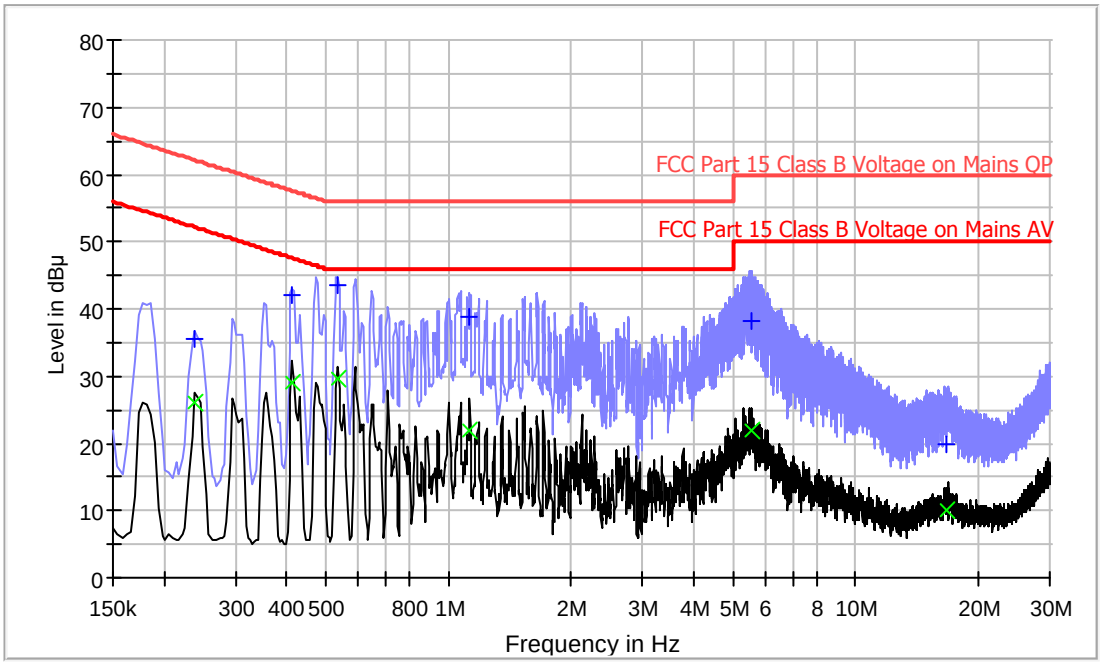
Signature

Billy Li, Team Leader
Typed/Printed Name

7 June, 2012
Date

Company: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Worst Case Operating Mode: Transmit (802.11n-20M 2437MHz)

Conducted Emission Test - FCC



Result Table-QP

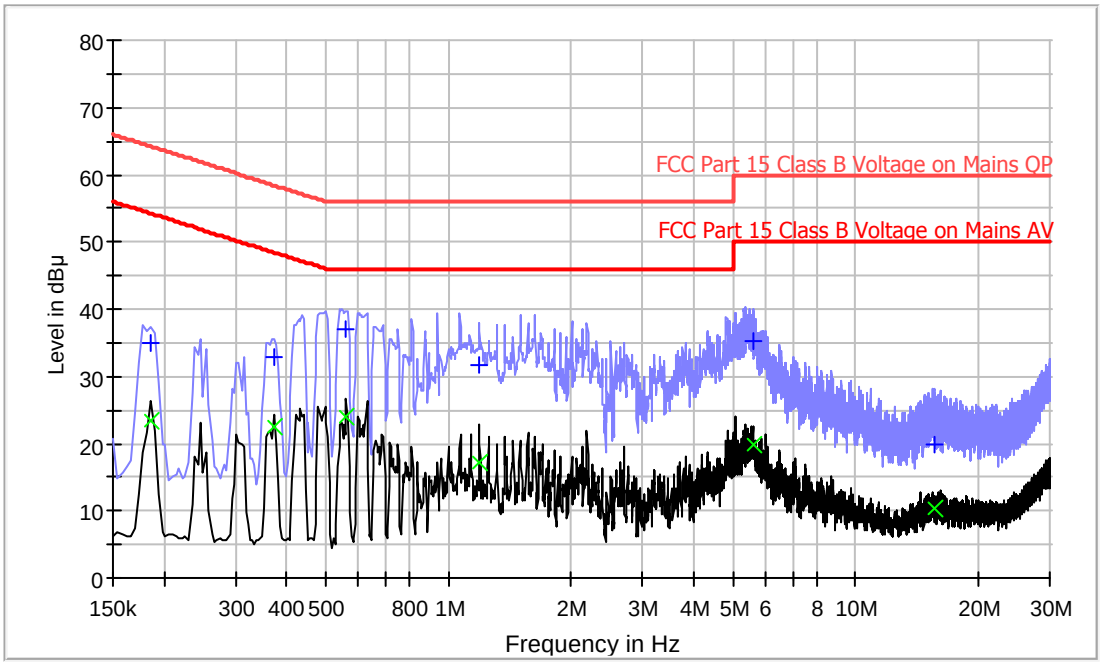
Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.238000	35.7	L1	9.6	26.5	62.2
0.414000	42.1	L1	9.6	15.5	57.6
0.534000	43.6	L1	9.6	12.4	56.0
1.126000	38.9	L1	9.7	17.1	56.0
5.538000	38.3	L1	9.8	21.7	60.0
16.650000	19.8	L1	10.4	40.2	60.0

Result Table-AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.238000	26.0	L1	9.6	26.2	52.2
0.414000	29.1	L1	9.6	18.5	47.6
0.534000	29.7	L1	9.6	16.3	46.0
1.126000	21.9	L1	9.7	24.1	46.0
5.538000	21.8	L1	9.8	28.2	50.0
16.650000	10.0	L1	10.4	40.0	50.0

Company: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1
Worst Case Operating Mode: Transmit (802.11n-20M 2437MHz)

Conducted Emission Test - FCC



Result Table-QP

Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.186000	34.8	N	9.6	29.4	64.2
0.374000	33.0	N	9.6	25.4	58.4
0.562000	37.2	N	9.6	18.8	56.0
1.190000	31.8	N	9.8	24.2	56.0
5.582000	35.1	N	9.8	24.9	60.0
15.658000	20.0	N	10.3	40.0	60.0

Result Table-AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.186000	23.3	N	9.6	30.9	54.2
0.374000	22.4	N	9.6	26.0	48.4
0.562000	24.1	N	9.6	21.9	46.0
1.190000	17.1	N	9.8	28.9	46.0
5.582000	19.8	N	9.8	30.2	50.0
15.658000	10.4	N	10.3	39.6	50.0

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.10 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.109

[ ] Not required - No digital part

[ ] Test results are attached

[x] Included in the separated report.

Applicant: Huawei Technologies Co.,Ltd
Date of Test: 7 June, 2012
Model: HUAWEI U8186-1/U8186-1

4.11 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

	See attached spectrum analyzer chart (s) for Transmitter timing
	See Transmitter timing diagram provided by manufacturer
x	Not applicable, duty cycle was not used.

EXHIBIT 5

EQUIPMENT PHOTOGRAPHS

5.0 Equipment Photographs

For electronic filing, the photographs are saved with filename: external photos.doc & internal photos.pdf.

EXHIBIT 6

PRODUCT LABELLING

6.0 **Product Labelling**

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

EXHIBIT 7

TECHNICAL SPECIFICATIONS

7.0 Technical Specifications

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

EXHIBIT 8

INSTRUCTION MANUAL

8.0 **Instruction Manual**

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

EXHIBIT 9

MISCELLANEOUS INFORMATION

9.0 Discussion of Pulse Desensitization

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF.*

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

EXHIBIT 10

TEST EQUIPMENT LIST

10.0 **Test Equipment List**

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ061-03	BiConiLog Antenna	ETS	3142C	00066460	02-Jul-11	02-Jan-13
SZ185-01	EMI Receiver	R&S	ESCI	100547	11-Mar-12	11-Mar-13
SZ061-08	Horn Antenna	ETS	3115	00092346	15-Oct-11	15-Oct-12
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	11-Mar-12	11-Mar-13
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	11-Mar-12	11-Mar-13
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	11-Mar-12	11-Mar-13
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	03-Mar-12	03-Mar-13
SZ062-02	RF Cable	RADIALL	RG 213U	--	17-Mar-12	17-Sep-12
SZ062-06	RF Cable	RADIALL	0.04-26.5GHz	--	01-Nov-11	01-Nov-12
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	25-Feb-12	25-Aug-12
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	15-Jul-11	15-Jul-12
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	05-Nov-11	05-Nov-12
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	05-Nov-11	05-Nov-12
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	05-Nov-11	05-Nov-12
SZ188-03	Shielding Room	ETS	RFD-100	4100	16-Sep-10	16-Sep-13