

Huawei Technologies Co.,Ltd

Application
For
Certification

FCC ID: QISM210

OTT HDMI Dongle

Model: MediaQ M210

WiFi Transceiver

Report No.: 130401027SZN-001

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-12]

Prepared and Checked by:

Approved by:

Sign on file

Lin Lin
Project Engineer

Billy Li
Supervisor
Date: April 8, 2013

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
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TRF no.: FCC 15C_Tx_b

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MEASUREMENT/TECHNICAL REPORT

Huawei Technologies Co.,Ltd - MODEL: MediaQ M210

FCC ID: QISM210

This report concerns (check one) Original Grant 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

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

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-12 Edition] provision.

Report prepared by:

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List of attached file

Exhibit type	File Description	Filename
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 / safety info.pdf
Cover Letter	Confidentiality Letter	request.pdf
RF Exposure report	RF exposure	RF exposure.pdf
Cover Letter	Letter of Agency	agency.pdf

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EXHIBIT 1

SUMMARY OF TEST RESULTS

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1.0 Summary of Test

Huawei Technologies Co.,Ltd - MODEL: MediaQ M210

FCC ID: QISM210

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)(3)	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)

Notes: The EUT uses 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

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2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a OTT HDMI Dongle, Model: MediaQ M210 (OS version: Smart operating system) with internal WiFi function operating at 2412-2462MHz for 802.11b/g/n-HT20, 11 channels with 5MHz channel spacing and 2422-2452MHz for 802.11n-HT40, 7 channels with 5MHz channel spacing, The EUT was powered by AC/DC Adapter (input: 120Vac, 60Hz; output: 5Vdc, 1A). For more detailed features description, please refer to the user's manual.

Type of Modulation: DBPSK, DQPSK, BPSK, QPSK, 16QAM, 64QAM.

Antenna Type: Integral Antenna.

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

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2.2 Related Submittal(s) Grants

This is an application for certification of:

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

Remaining portions are subject to the following procedures:

Host:

1. Bluetooth 4.0 Transceiver: (130401027SZN-002).

2. OTT HDMI Dongle (Version: Smart operating system): (130401027SZN-003).

Remote controller:

3. Bluetooth 4.0 remote controller (130401027SZN-004)

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).

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EXHIBIT 3

SYSTEM TEST CONFIGURATION

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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. The EUT was powered by AC/DC Adapter (input: 120Vac, 60Hz; output: 5Vdc, 1A) 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

Note1: 802.11b Mode: All channel power setting: 15dBm. For 802.11g Mode: All channel power setting: 14dBm except channel 1: 10dBm, Channel 11: 9dBm. For 802.11n HT20 Mode: All channel power setting: 14dBm except channel 1: 10dBm, Channel 11: 8dBm. For 802.11n HT40 Mode: All channel power setting: 9dBm except channel 3: 7dBm, Channel 9: 6dBm.

Note2: On 802.11b/g/n (HT20 & HT40) mode, only one antenna is used for transmission.

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3.3 Special Accessories

Shielded USB cable & shielded HDMI extension cable were attached with the EUT.

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.
TV	Sony	KDL-24EX520
HDMI extension cable	Huawei	Shielded, Length: 32cm
USB Cable	Huawei	Shielded, Length: 120cm
AC/DC Adapter (Huawei)	Huntkey	HW-050100U1W Input: 100-240Vac, 50/60Hz; Output: 5Vdc, 1A
	Tech-Power	

Note: The Model: M210 have two different AC/DC Adapter power suppliers, which have already arranged the test accordingly, and the worst case data was record in this report.

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EXHIBIT 4

MEASUREMENT RESULTS

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Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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 (Antenna Gain < 3.0dBi) (DBPSK, 1Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	20.11	102.57
Middle Channel: 2437	20.20	104.71
High Channel: 2462	20.48	111.69

IEEE 802.11g (Antenna Gain < 3.0dBi) (BPSK, 6Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	17.33	54.08
Middle Channel: 2437	21.30	134.90
High Channel: 2462	16.32	42.85

IEEE 802.11n-HT20 (Antenna Gain < 3.0 dBi) (BPSK, 6.5Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	17.29	53.58
Middle Channel: 2437	21.61	144.88
High Channel: 2462	15.71	37.24

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IEEE 802.11n-HT40 (Antenna Gain < 3.0dBi) (BPSK, 13.5Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2422	15.01	31.70
Middle Channel: 2437	16.49	44.57
High Channel: 2452	14.05	25.41

Cable loss: 0.6 dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

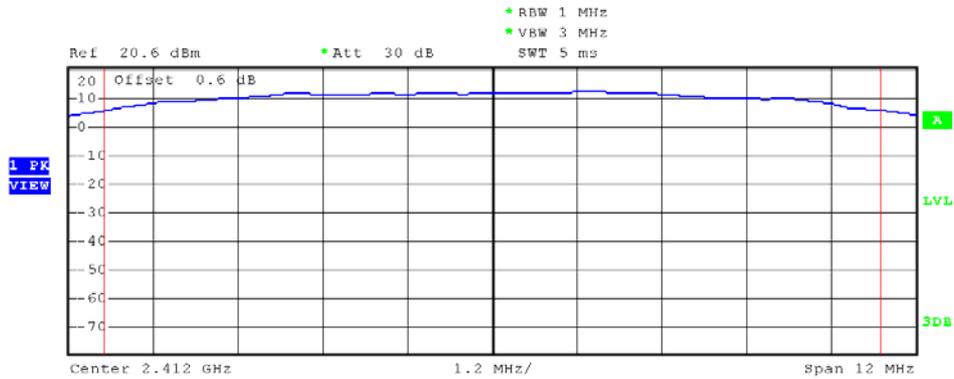
EUT max. output level = 21.61dBm

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

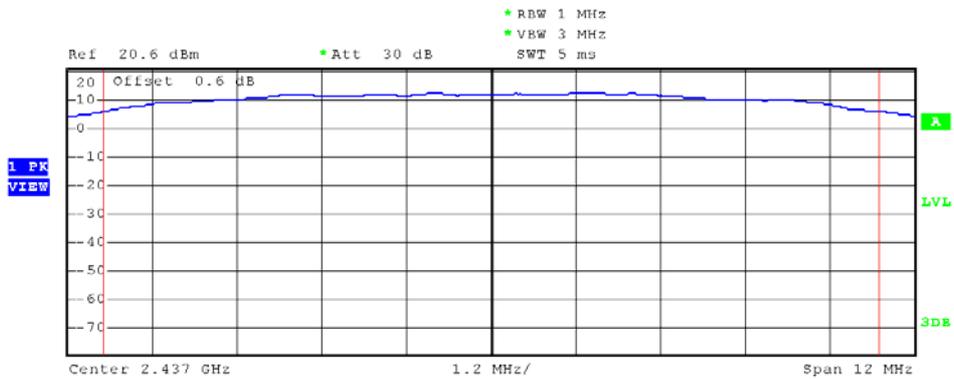
The test plots are attached as below.

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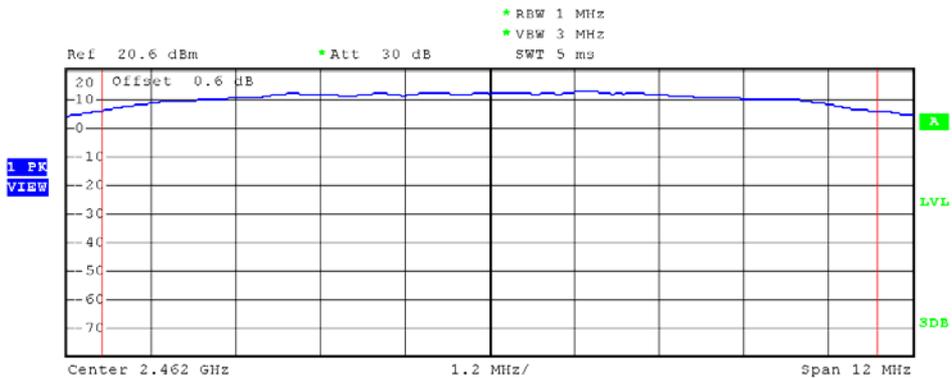
802.11b



Tx Channel
Bandwidth 11 MHz Power 20.11 dBm



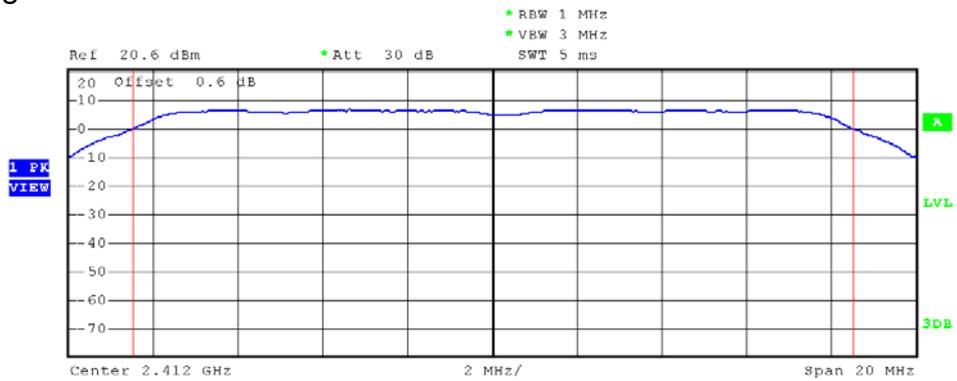
Tx Channel
Bandwidth 11 MHz Power 20.20 dBm



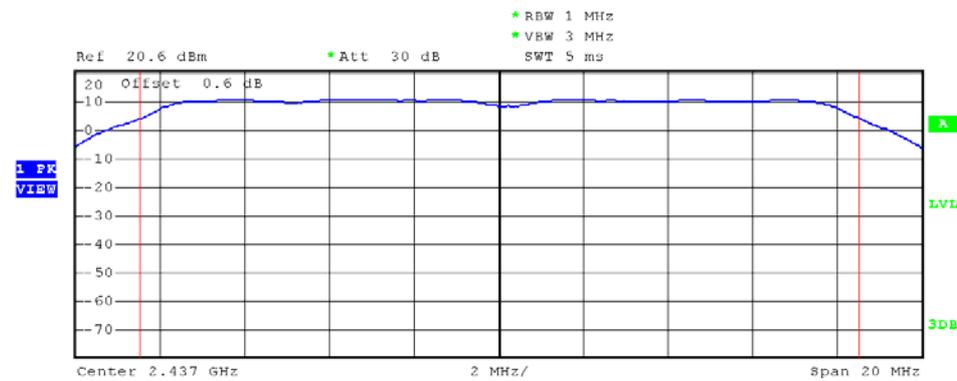
Tx Channel
Bandwidth 11 MHz Power 20.48 dBm

INTERTEK TESTING SERVICES

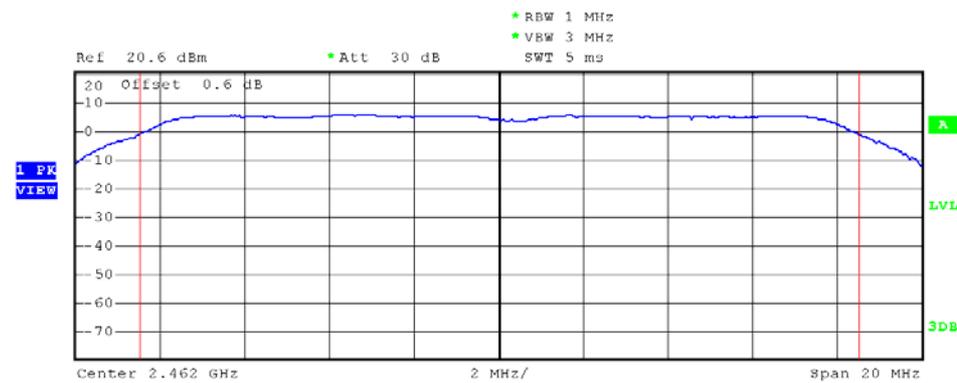
802.11g



Tx Channel
Bandwidth 17 MHz Power 17.33 dBm



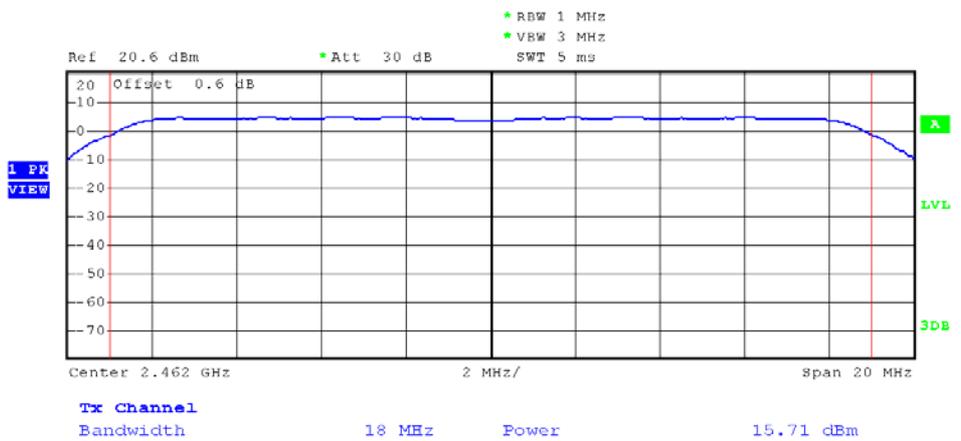
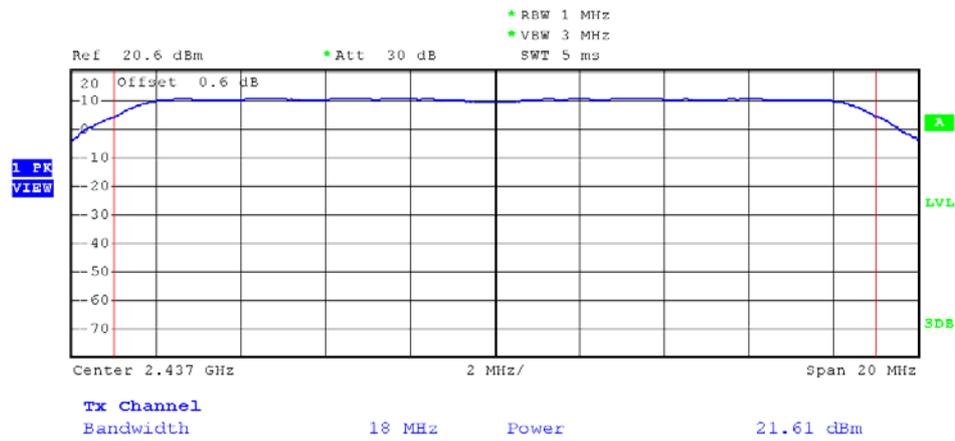
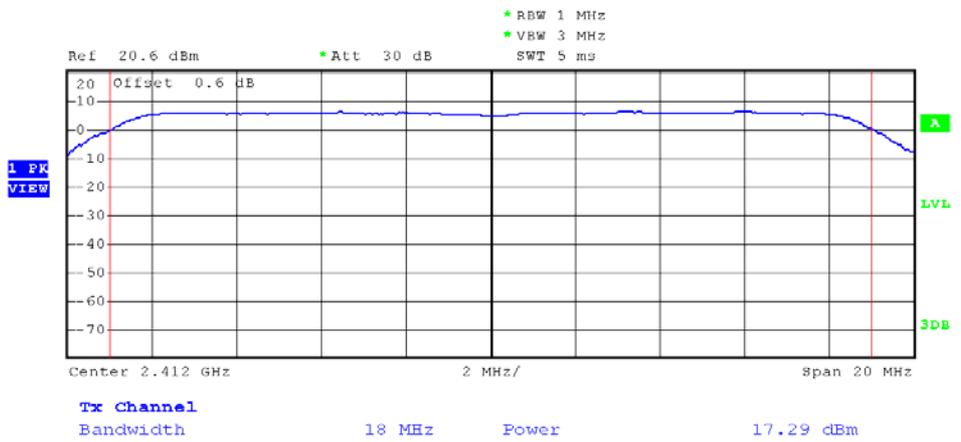
Tx Channel
Bandwidth 17 MHz Power 21.30 dBm



Tx Channel
Bandwidth 17 MHz Power 16.32 dBm

INTERTEK TESTING SERVICES

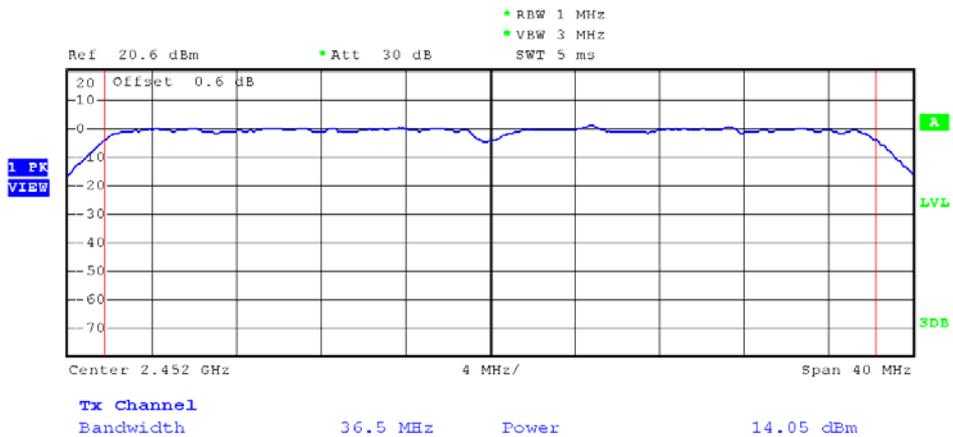
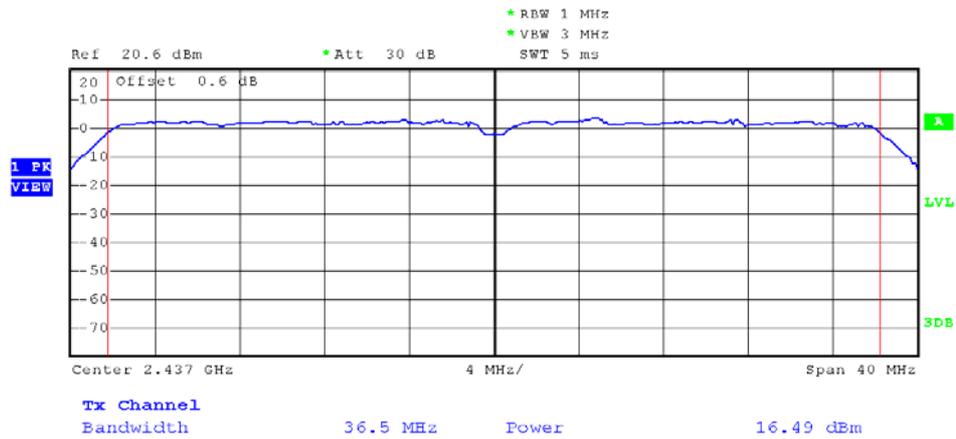
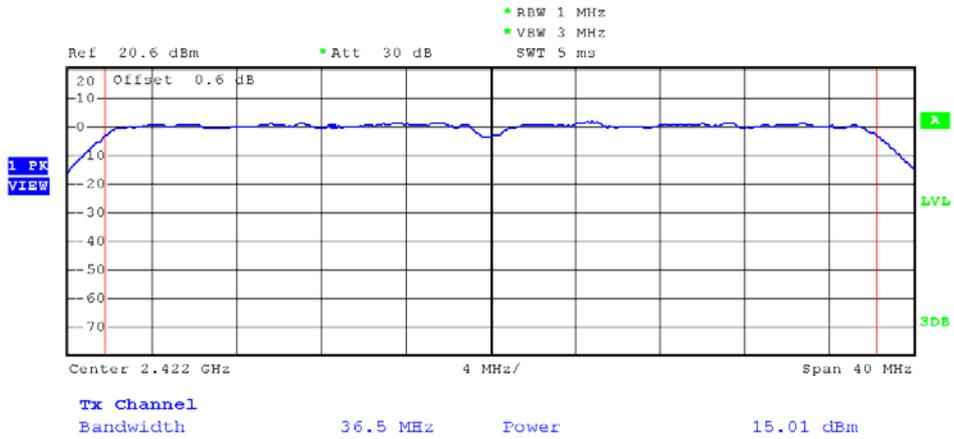
802.11 n-HT20



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802.11 n-HT40



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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 and not to exceed 100 KHz 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 (DBPSK, 1Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	10.48
2437	10.40
2462	9.96

IEEE 802.11g (BPSK, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	16.60
2437	16.56
2462	16.60

IEEE 802.11n-HT20 (BPSK, 6.5Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	17.84
2437	17.80
2462	17.80

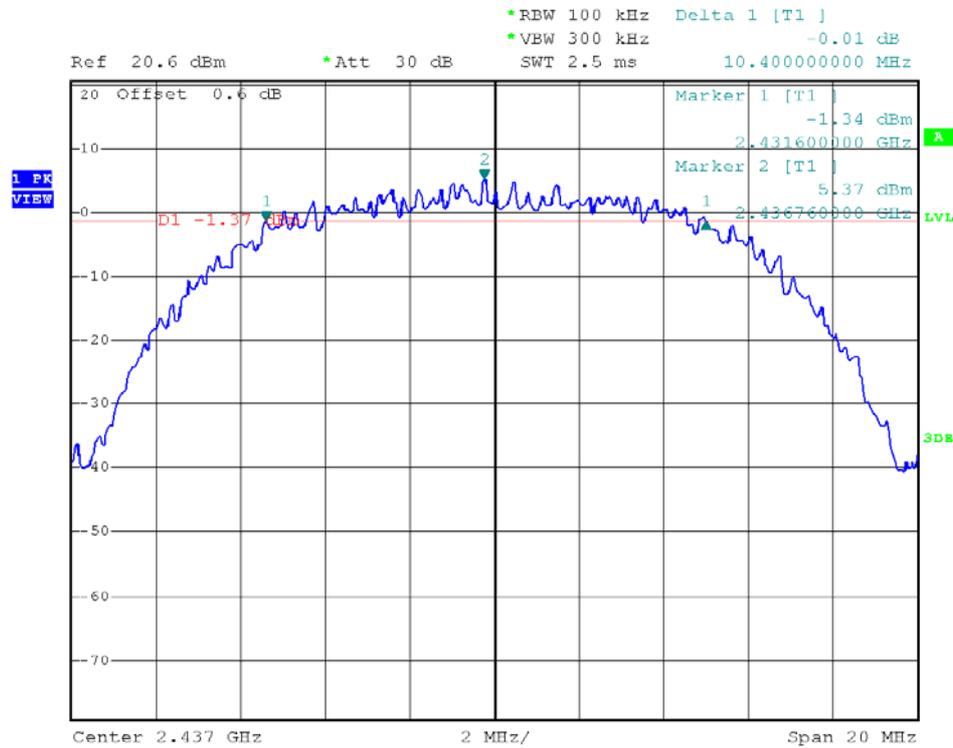
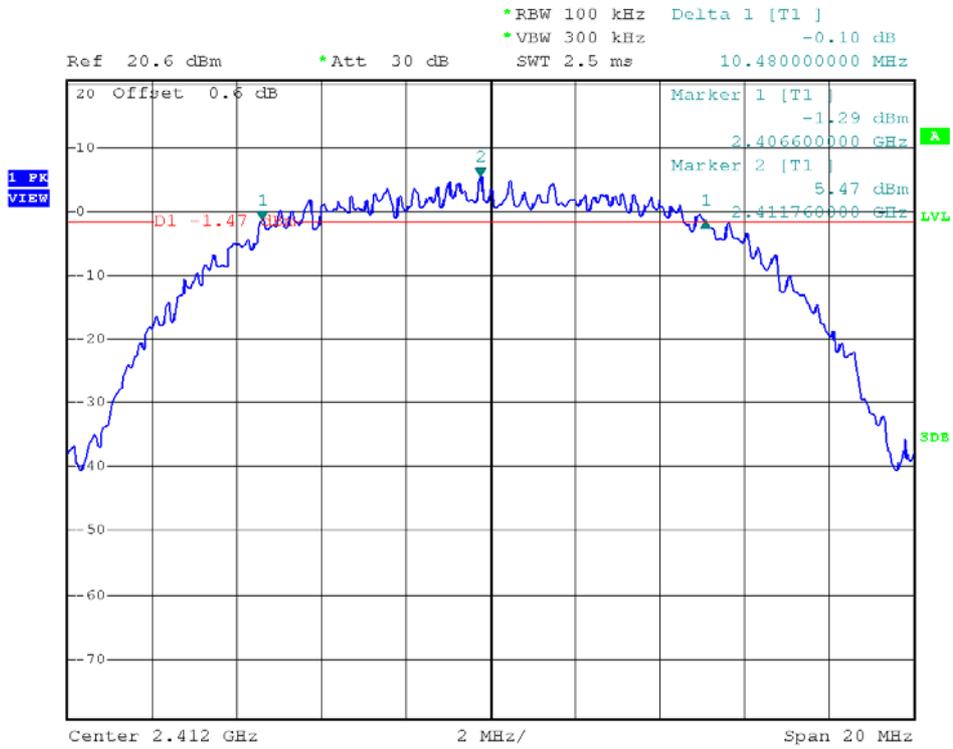
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IEEE 802.11n-HT40 (BPSK 13.5Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2422	36.56
2437	36.48
2452	36.48

The test plots are attached as below.

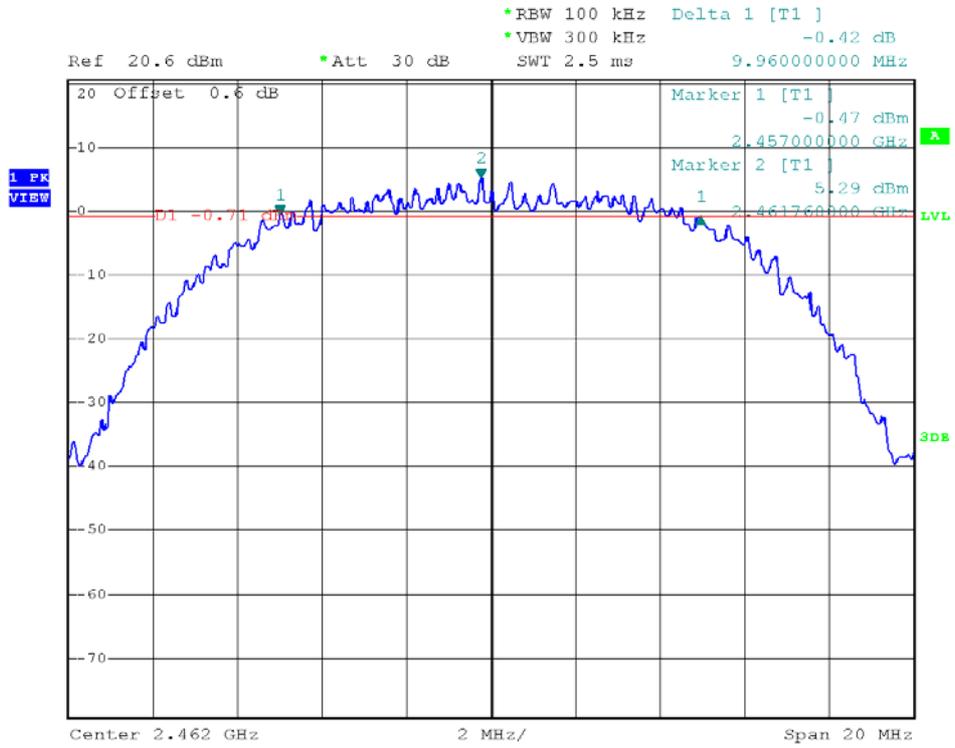
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802.11b



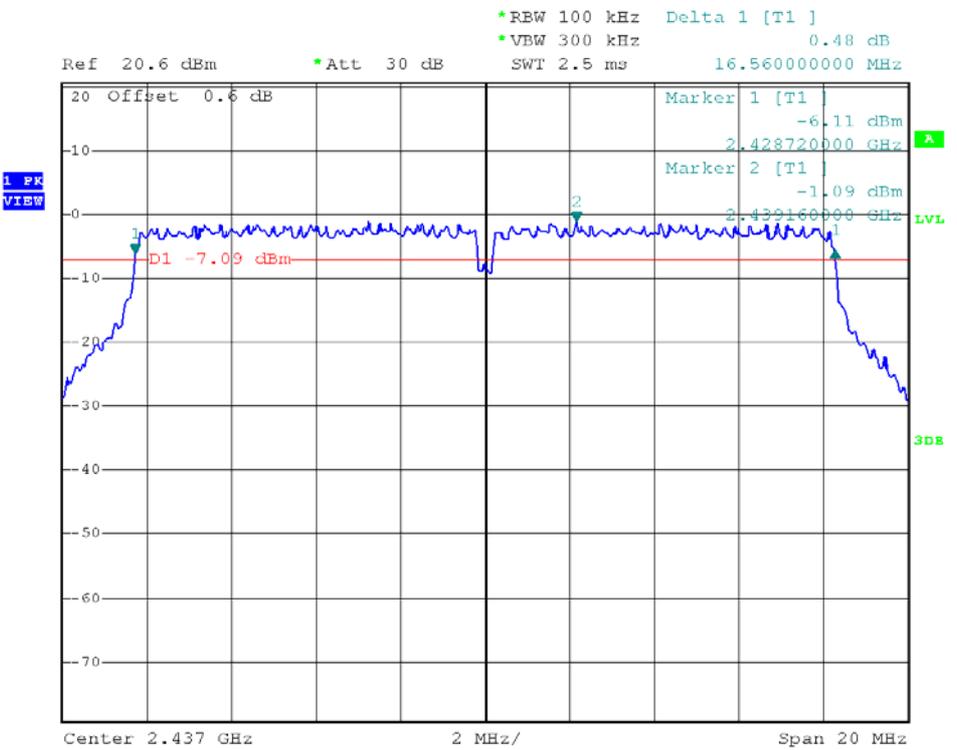
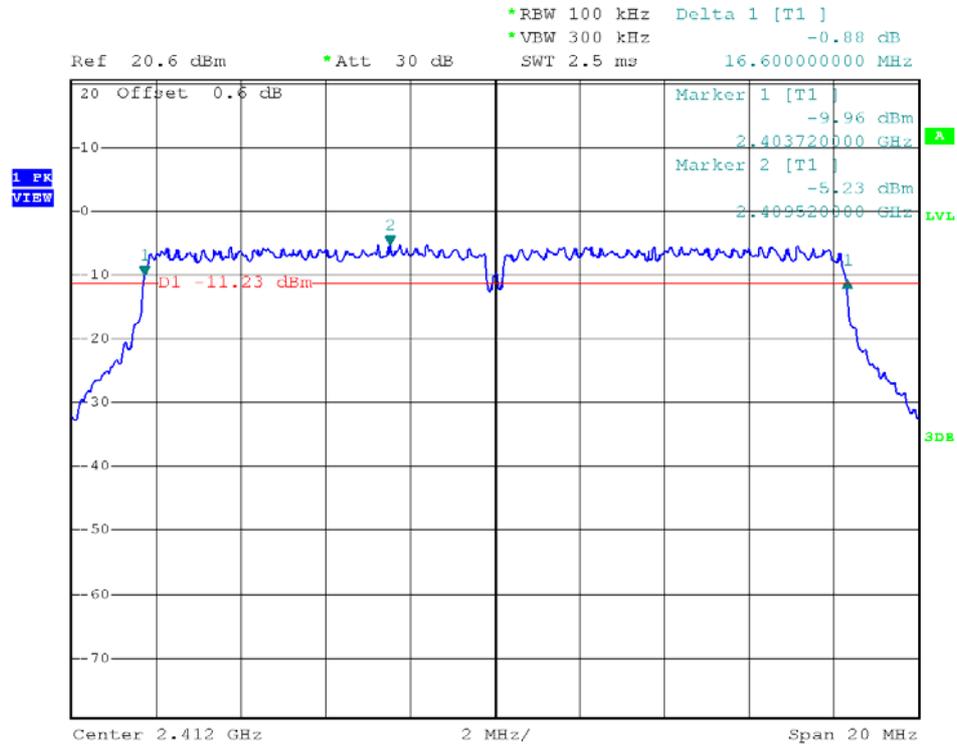
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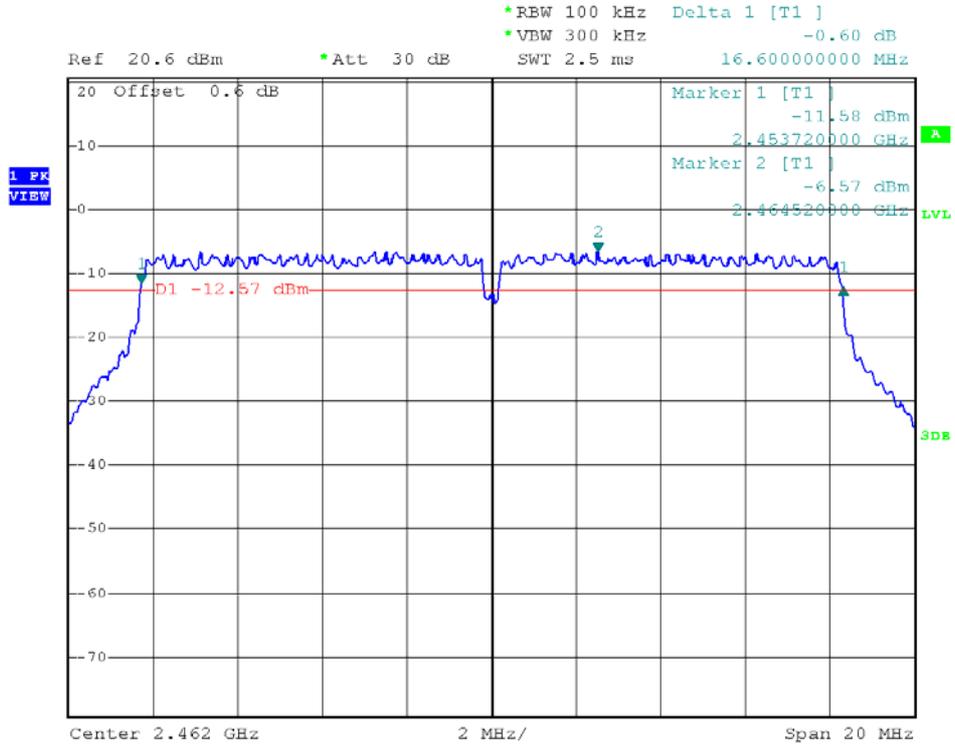
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802.11g



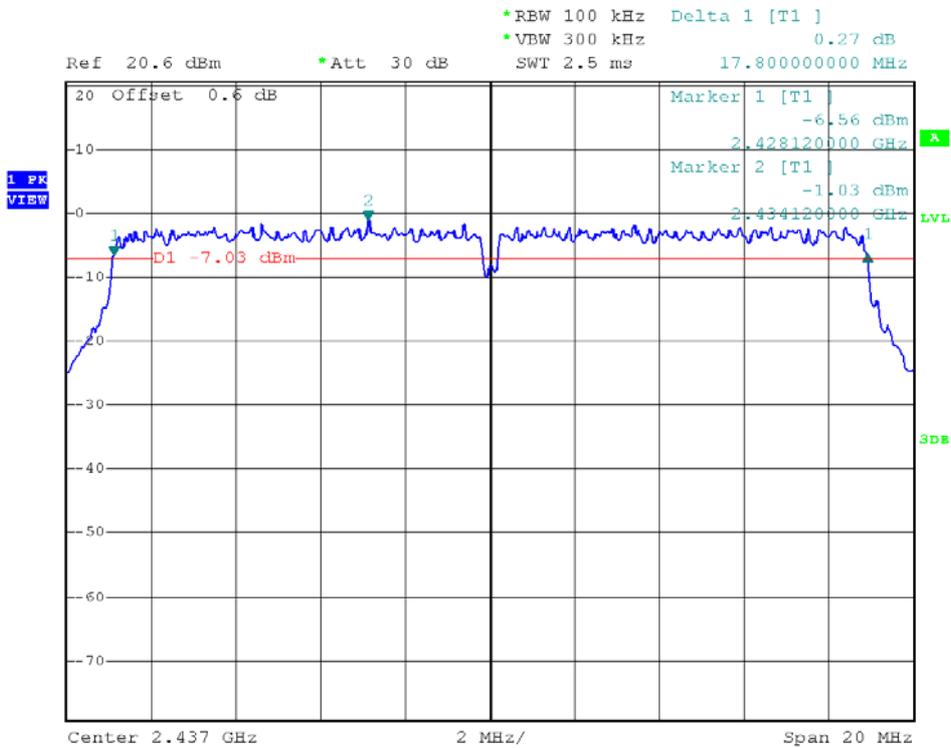
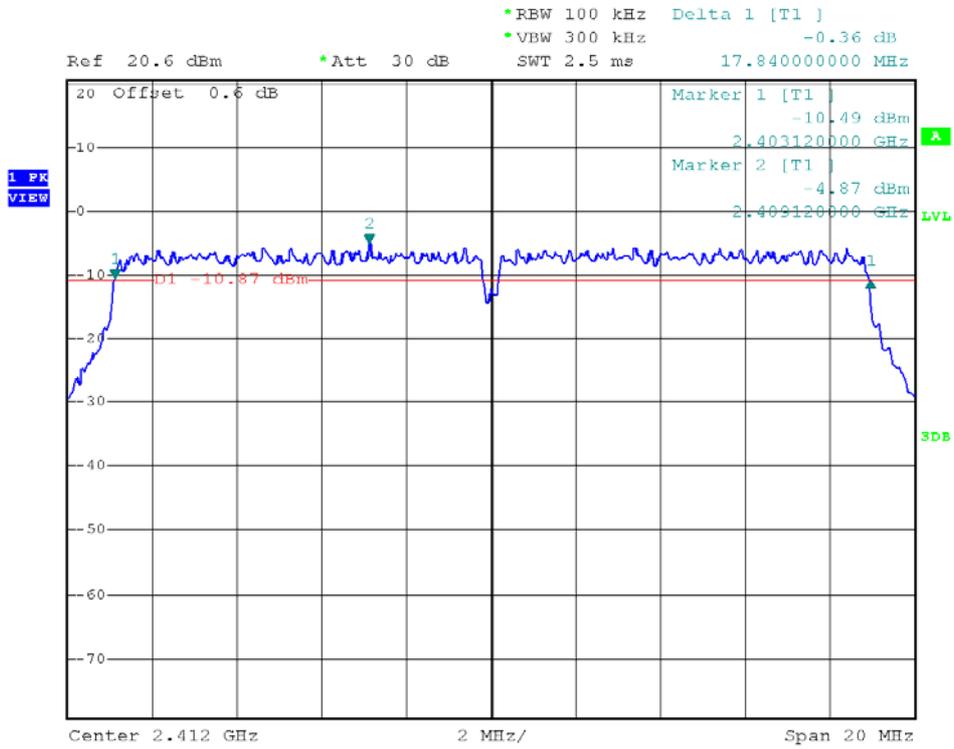
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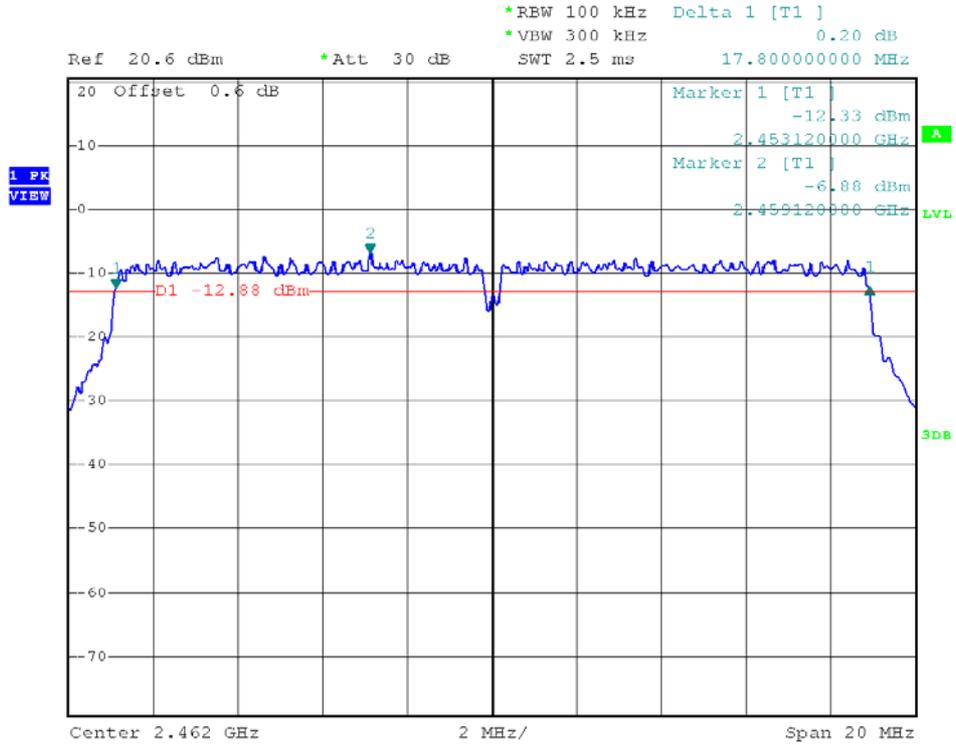
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802.11 n-HT20



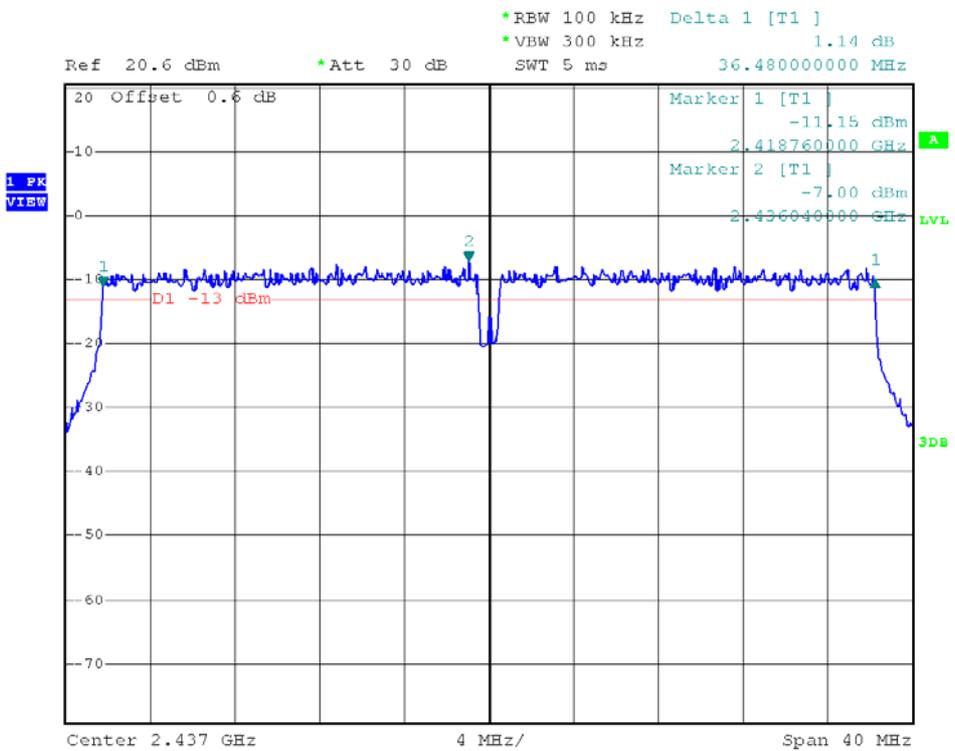
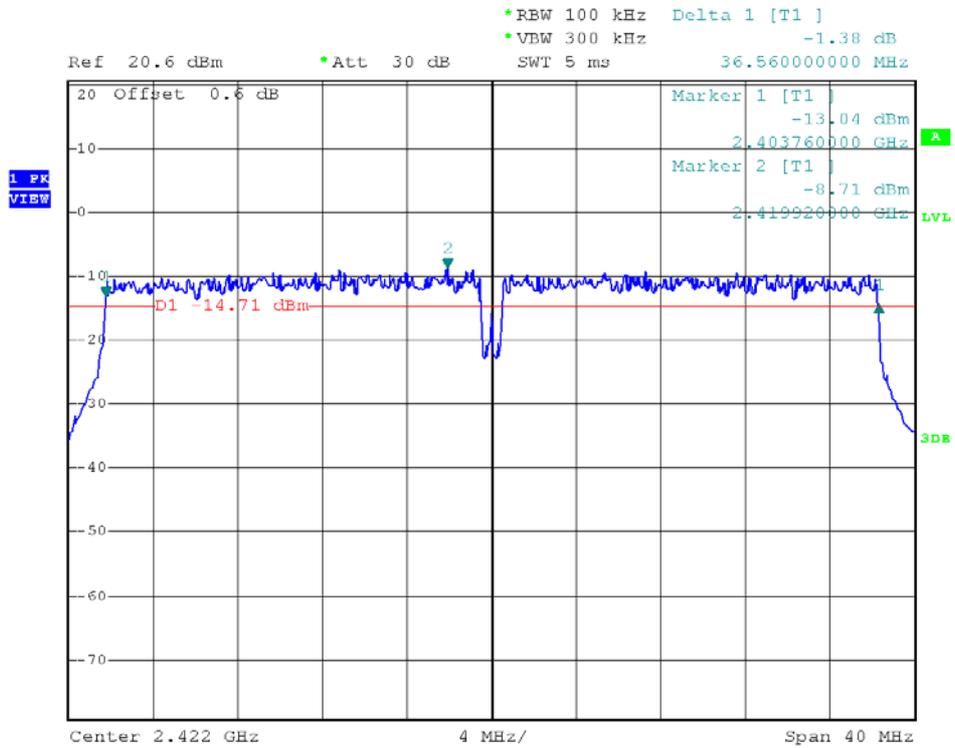
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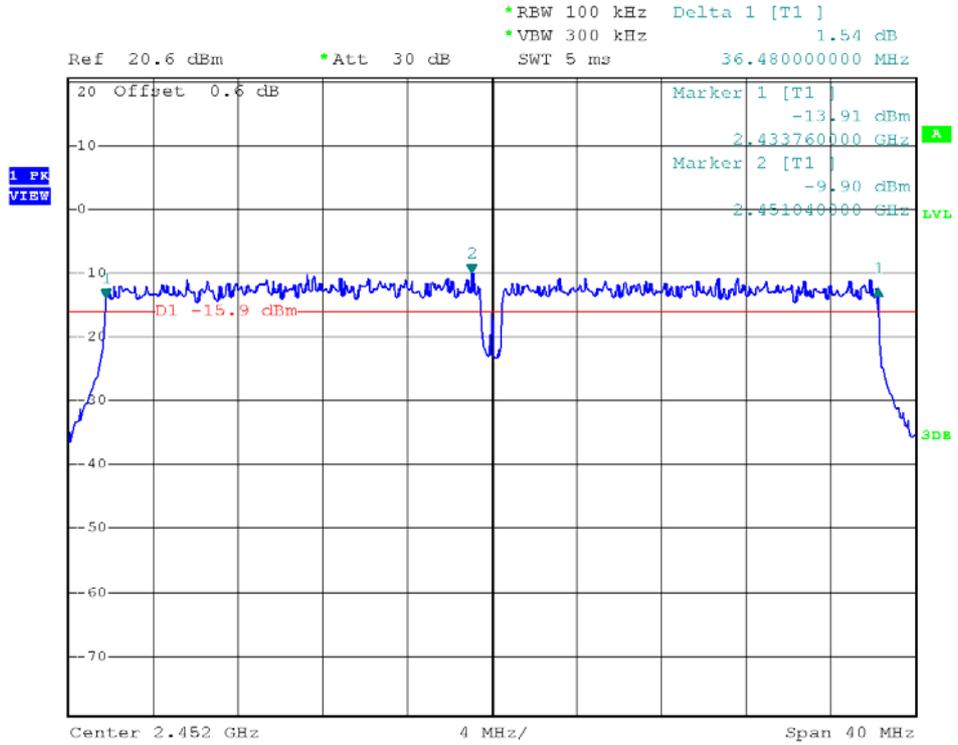
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802.11 n-HT40



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Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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

The Measurement Procedure PKPSD was set according to the FCC KDB 558074.

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 (DBPSK, 1Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz (dBm)
2412	5.27
2437	5.31
2462	5.30

IEEE 802.11g (BPSK, 6Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz (dBm)
2412	-5.17
2437	-1.16
2462	-5.93

IEEE 802.11n-HT20 (BPSK, 6.5Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz (dBm)
2412	-4.94
2437	-0.94
2462	-6.62

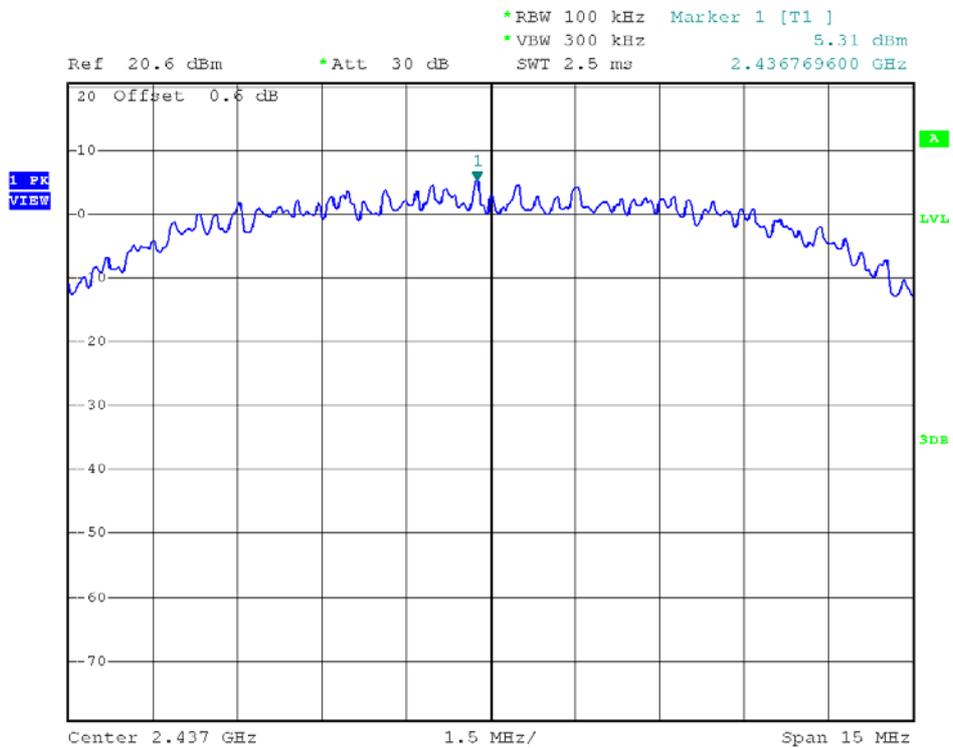
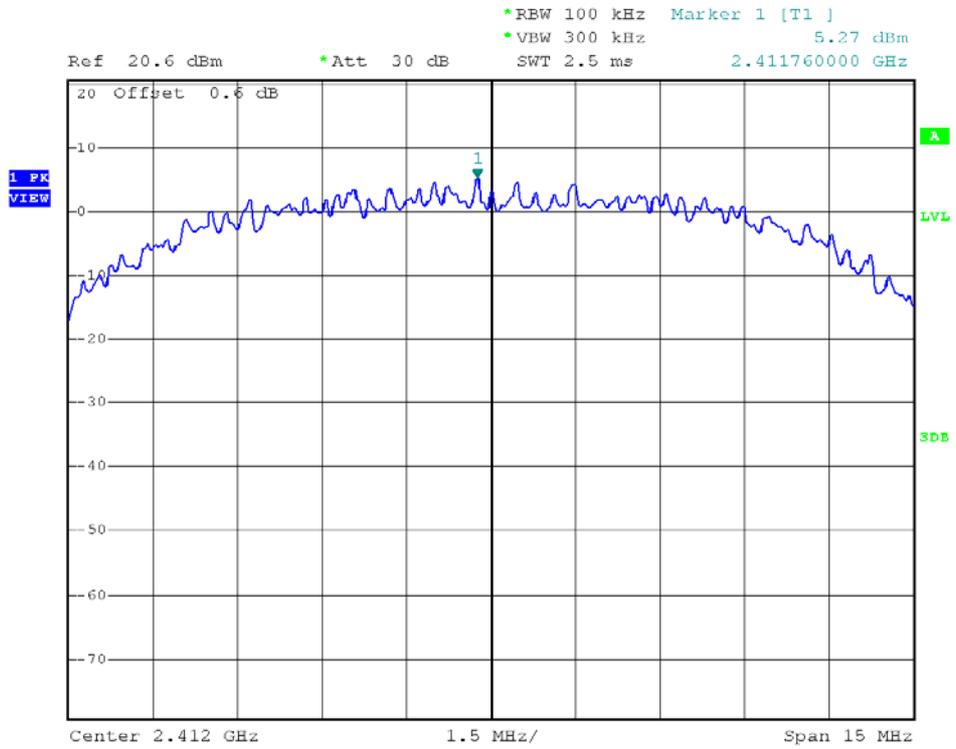
INTERTEK TESTING SERVICES

IEEE 802.11n-HT40 (BPSK, 13.5Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz (dBm)
2422	-8.94
2437	-7.12
2452	-9.93

The test plots are attached as below.

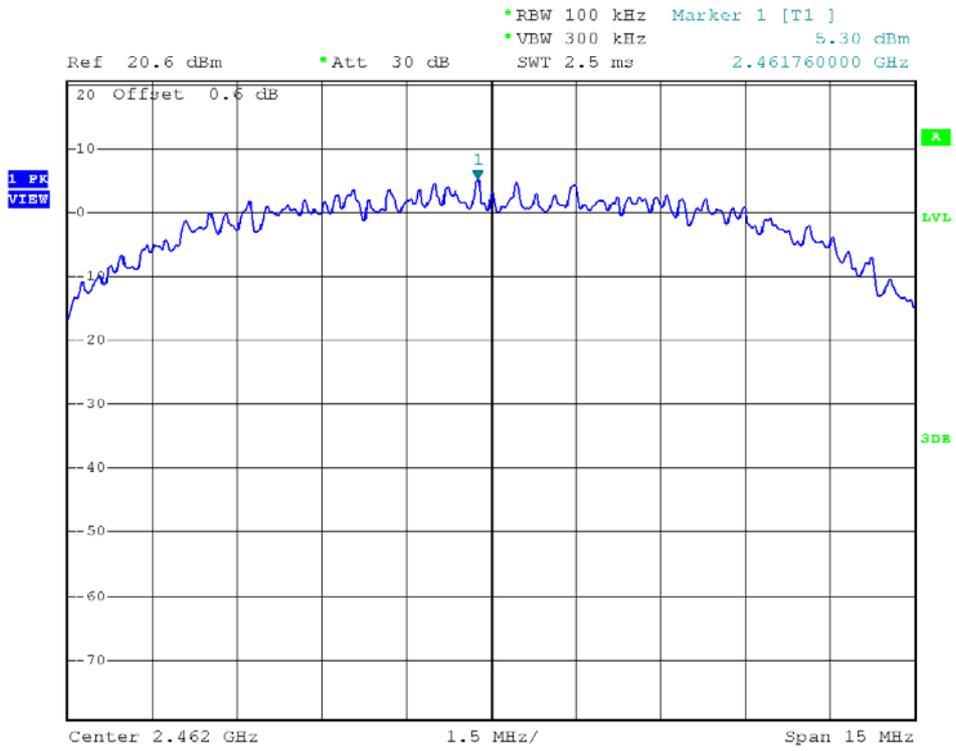
INTERTEK TESTING SERVICES

802.11b



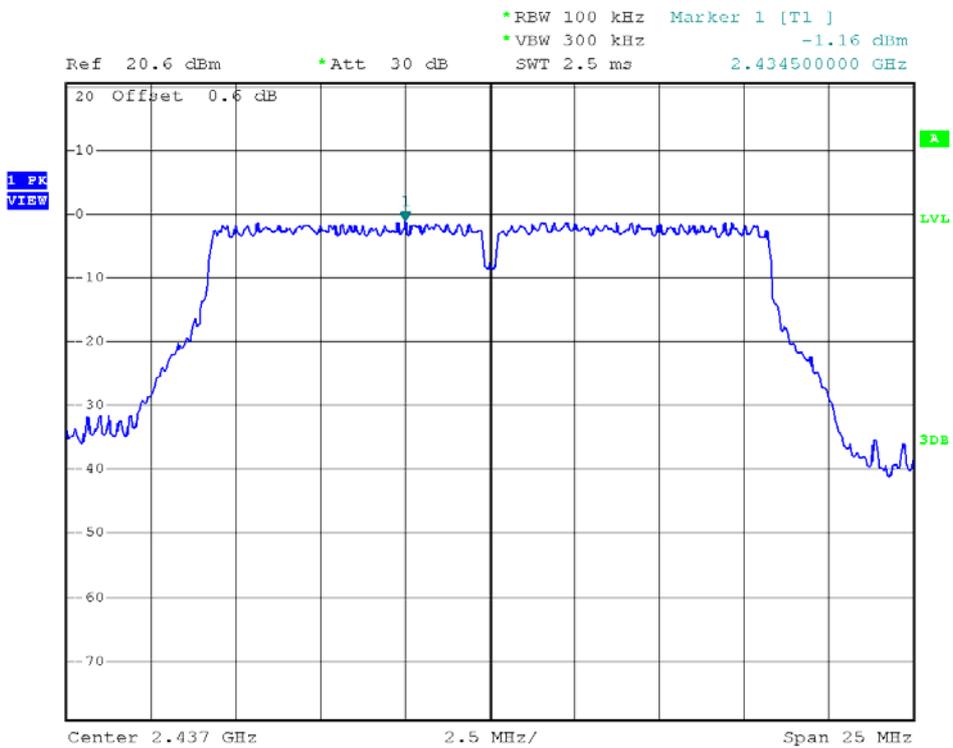
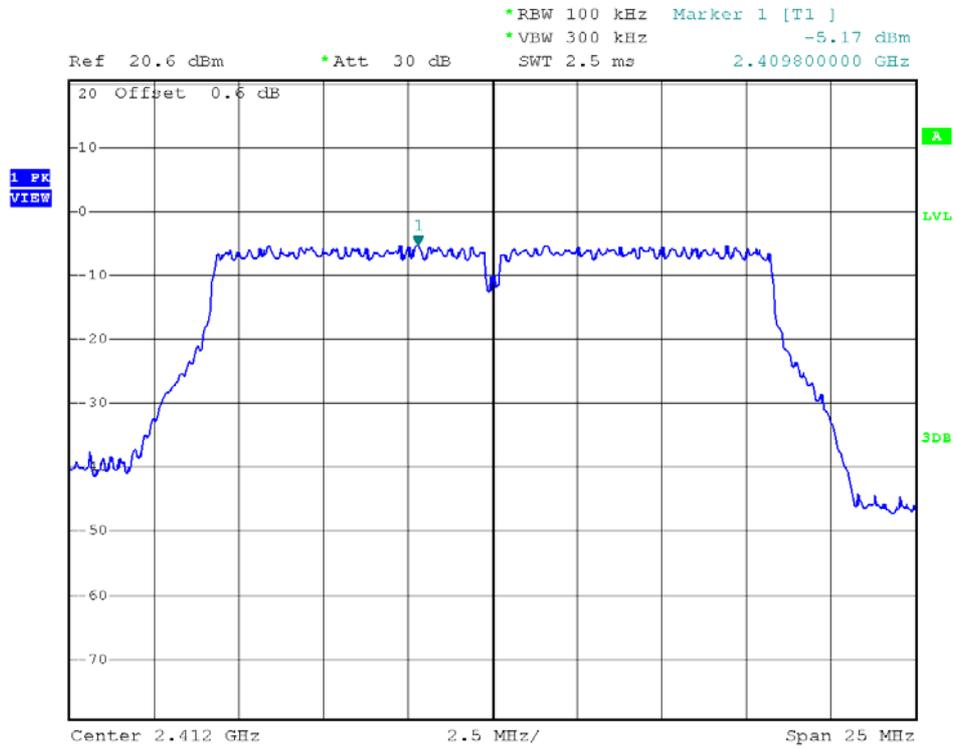
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Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES



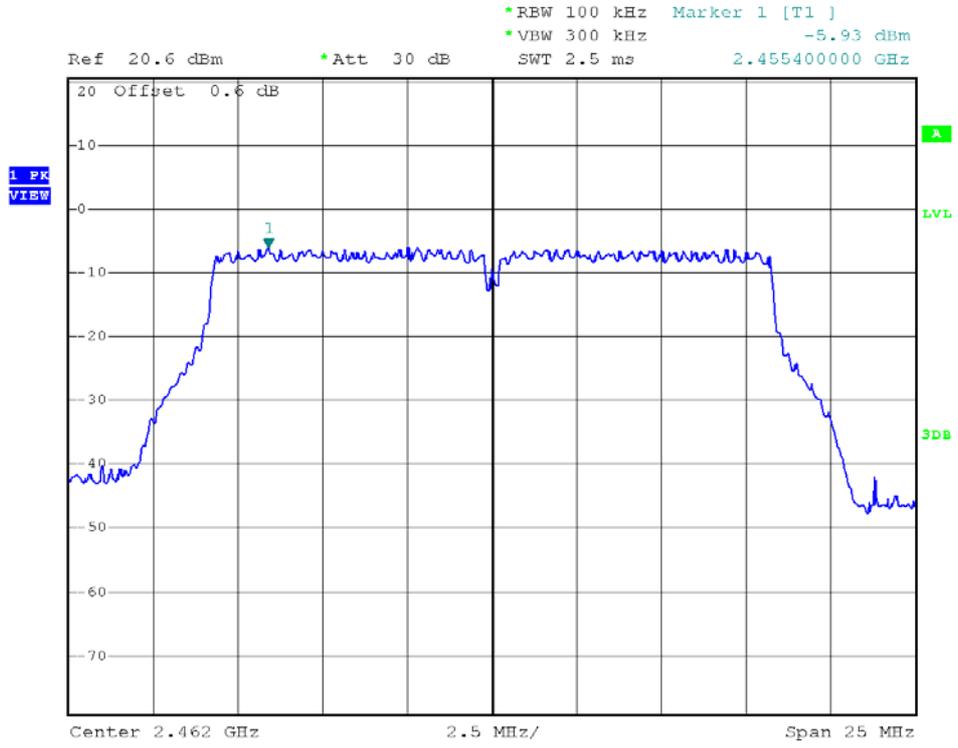
INTERTEK TESTING SERVICES

802.11g



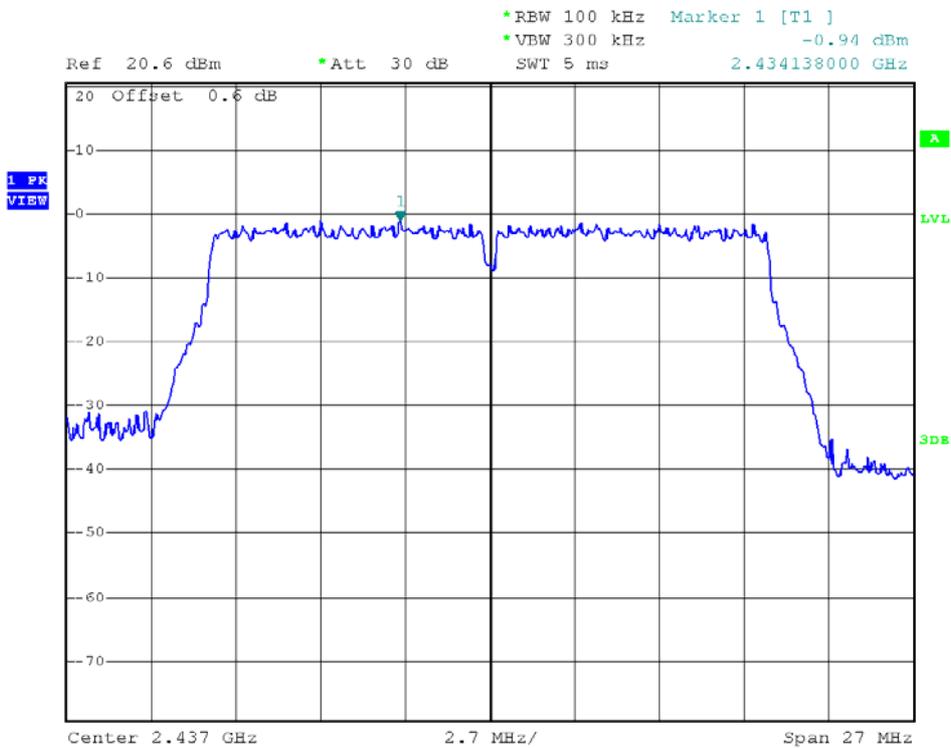
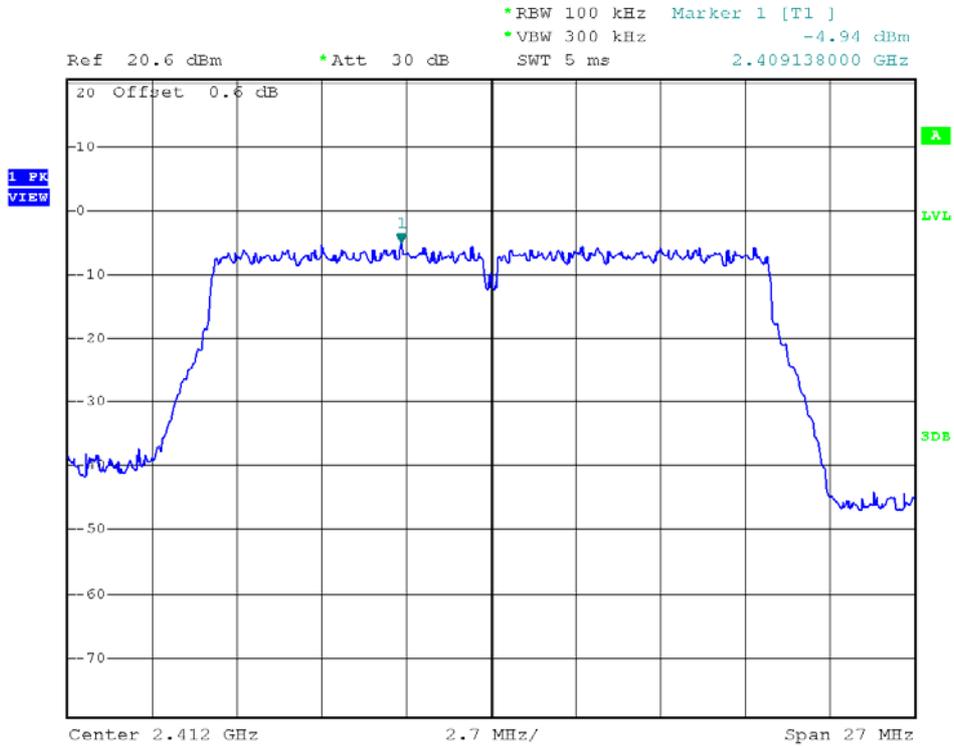
TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES



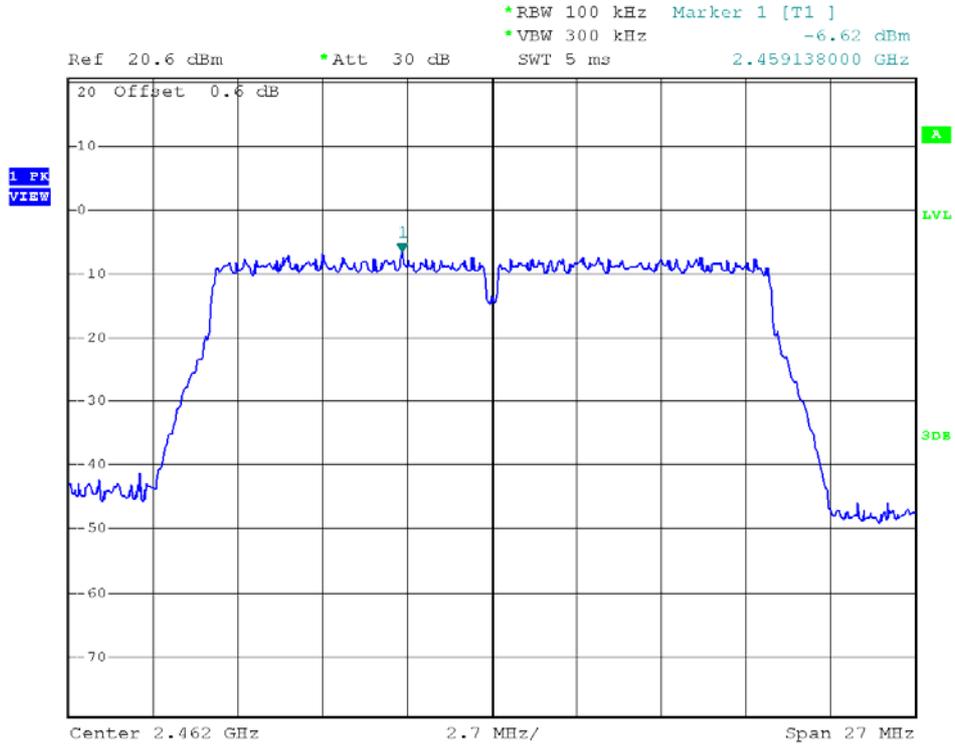
INTERTEK TESTING SERVICES

802.11 n-HT20



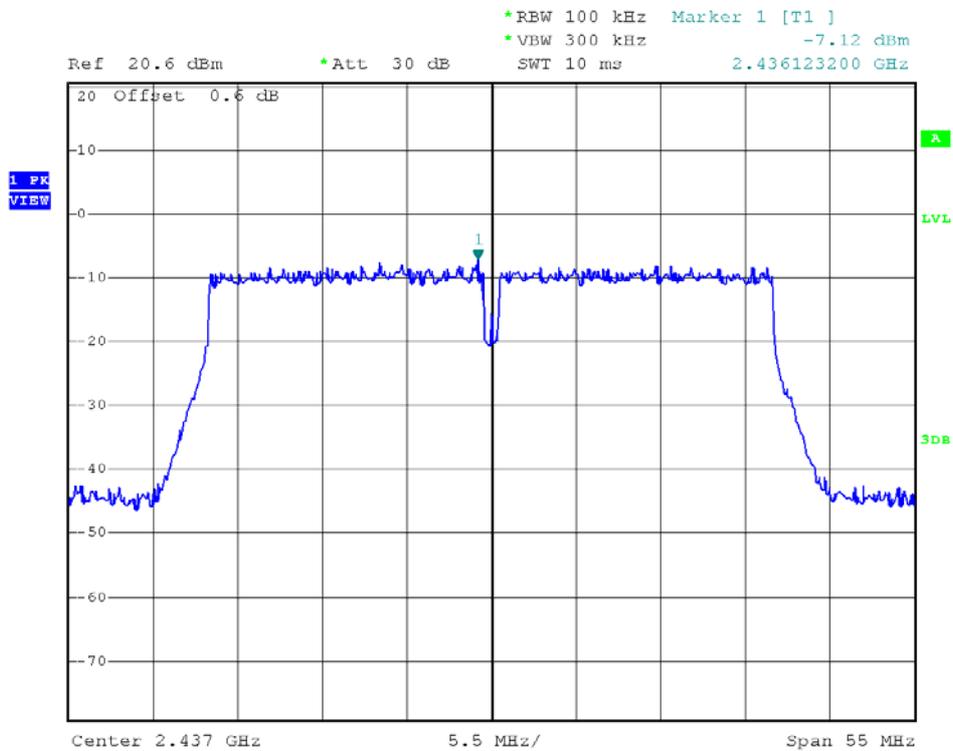
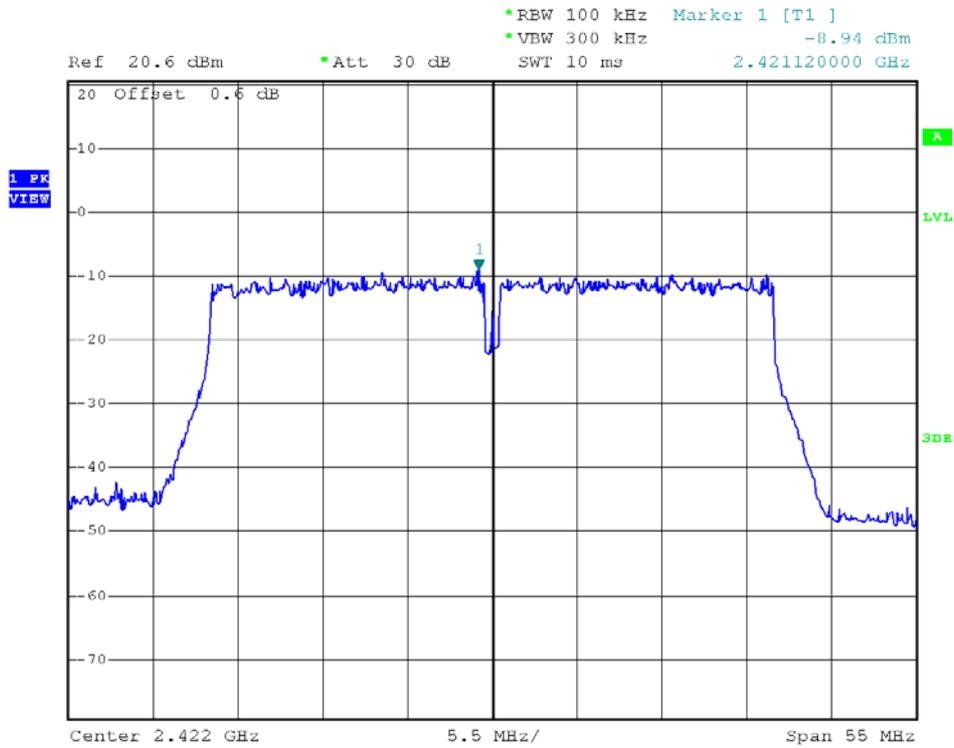
TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES



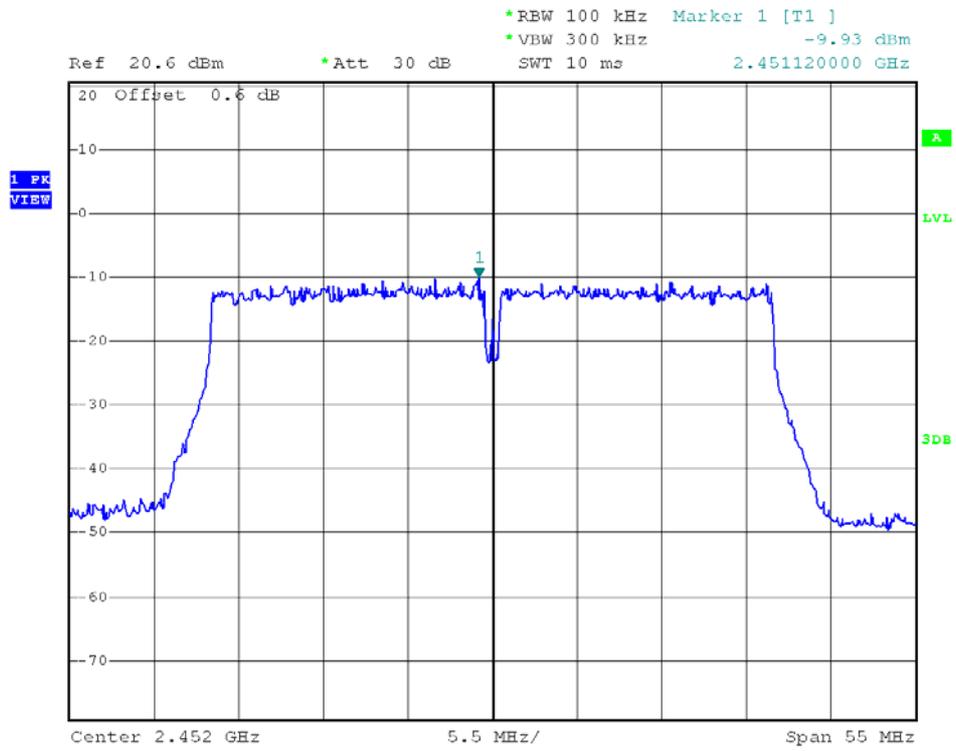
INTERTEK TESTING SERVICES

802.11 n-HT40



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES



INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. The Measurement Procedure was set according to the FCC KDB 558074.

Refer to the attached test plots for out of band conducted emissions data with rate of 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n-HT20 and 13.5Mbps for 802.11n-HT40.

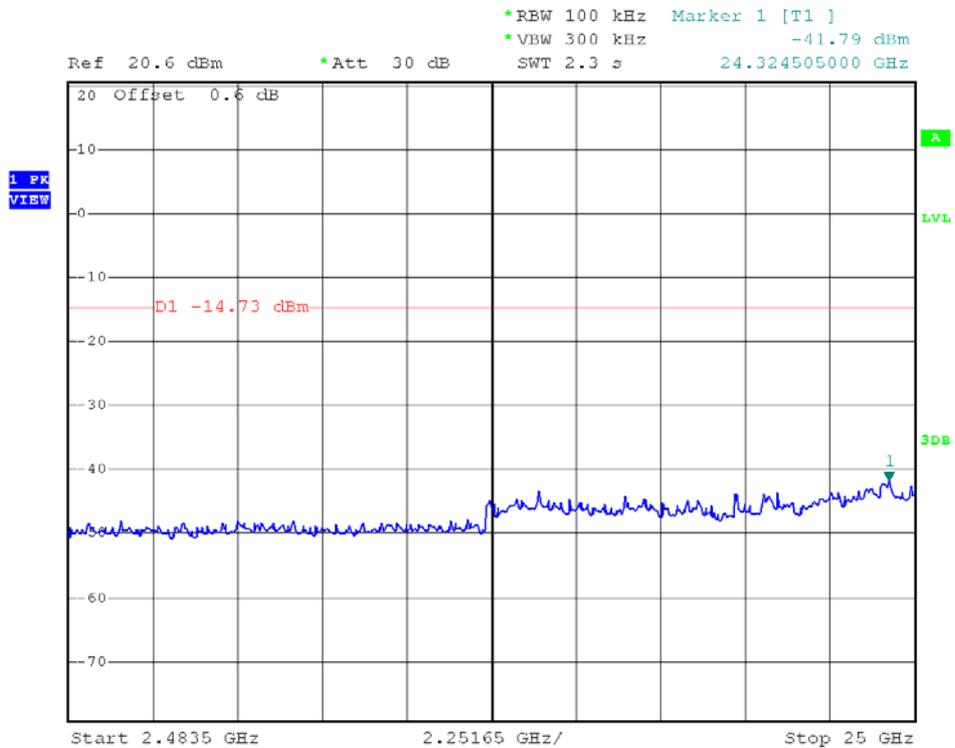
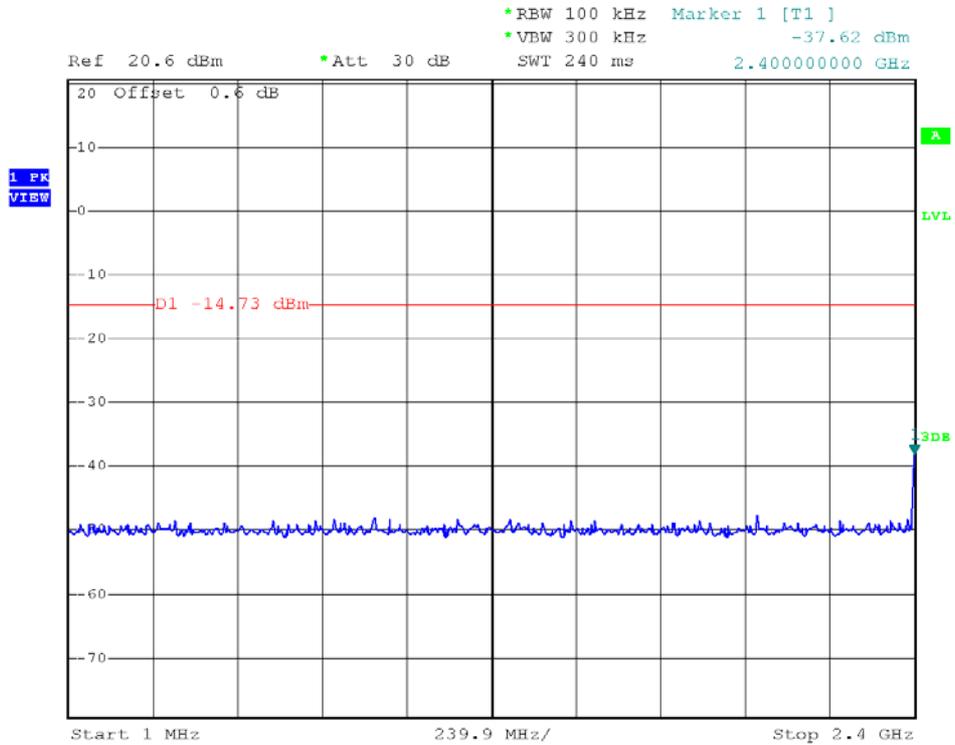
The test plots showed all spurious emission up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The test plots are attached as below.

INTERTEK TESTING SERVICES

802.11b

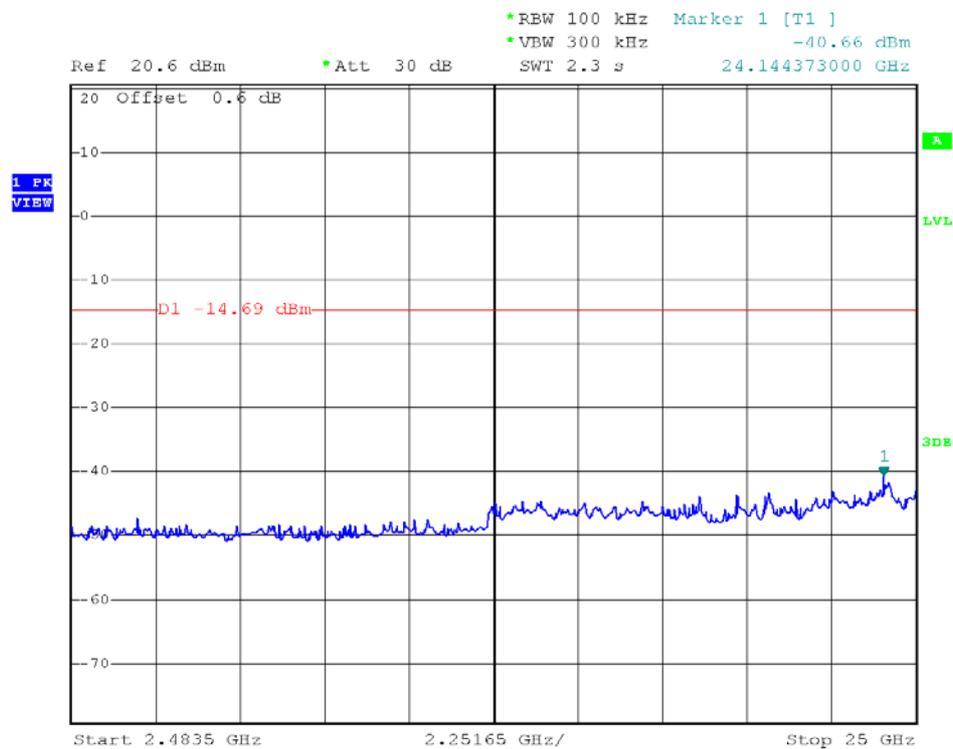
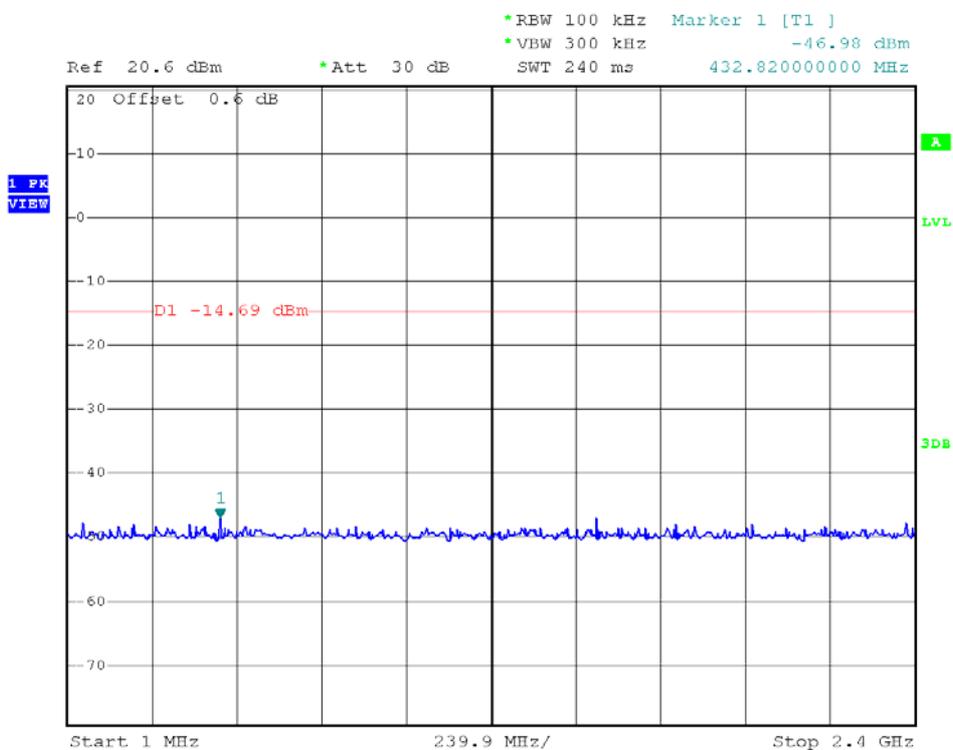
Channel 01 (2412MHz) Reference Level: 5.27dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

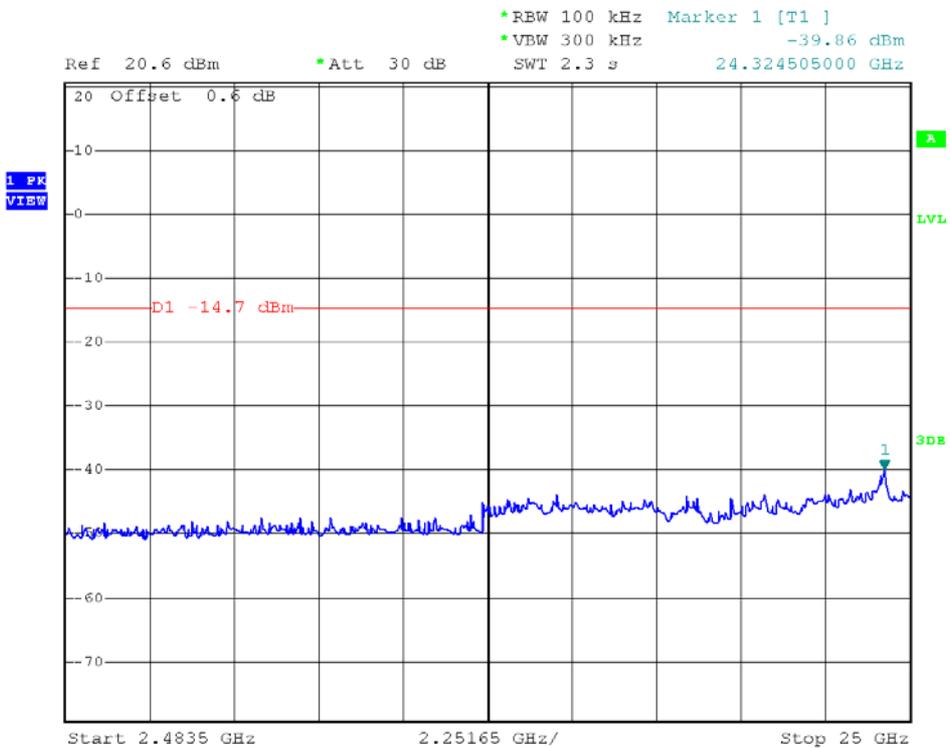
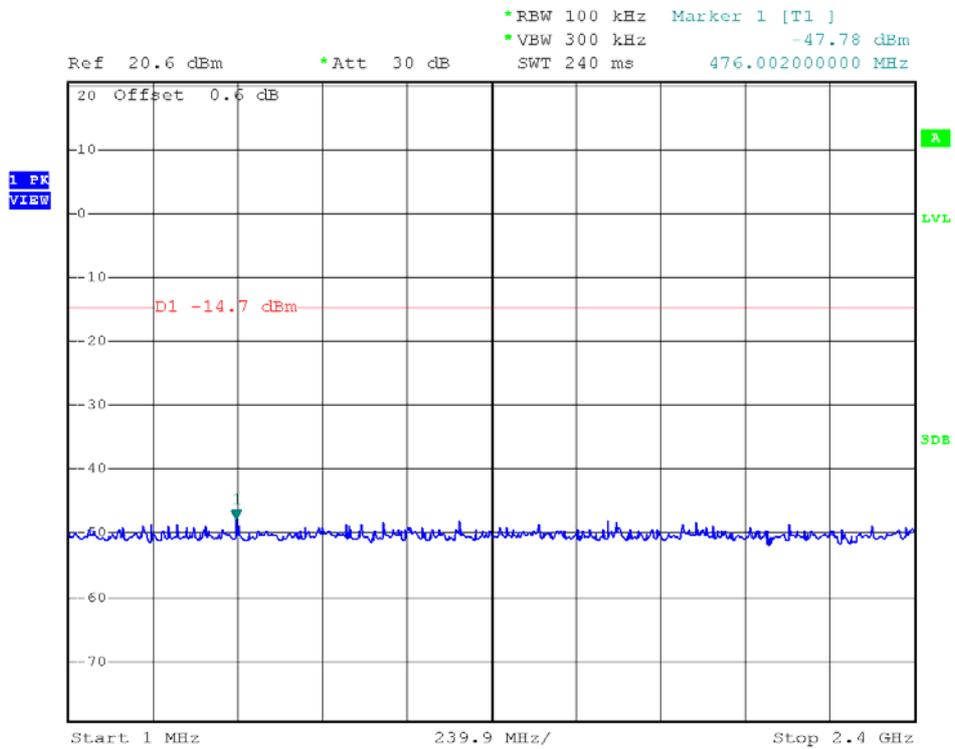
Channel 06 (2437MHz) Reference Level: 5.31dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: 5.30dBm

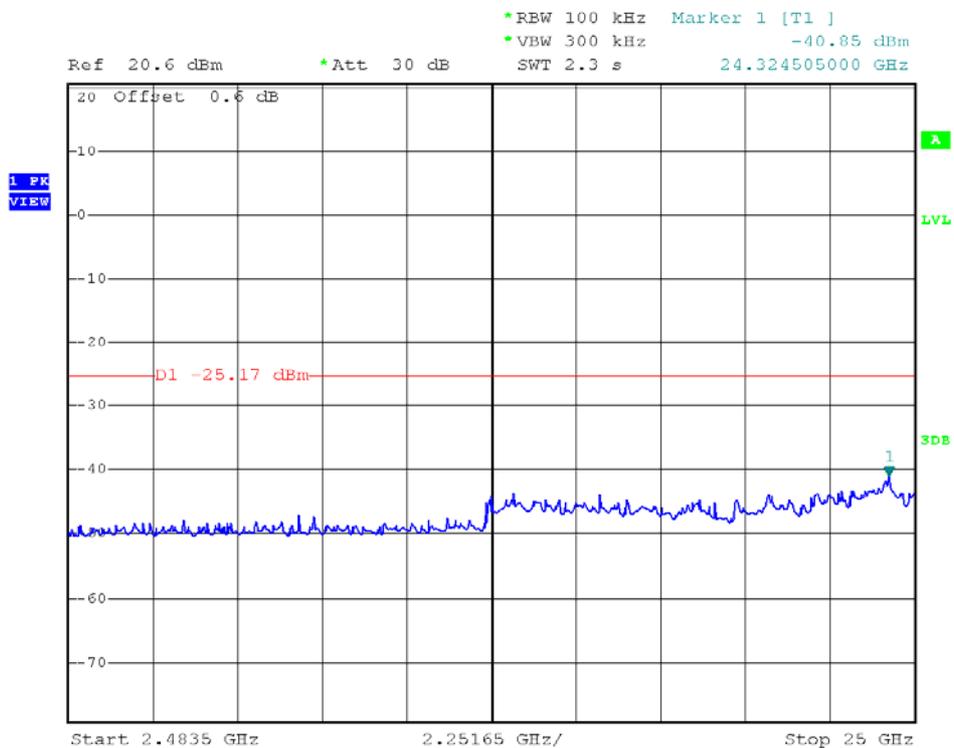
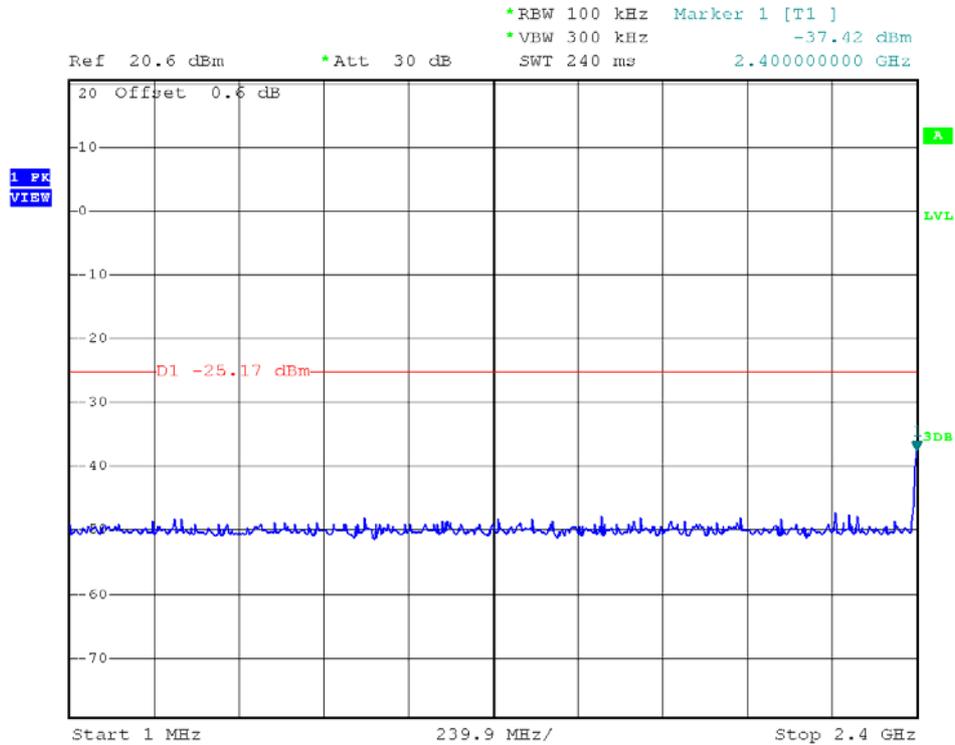


TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

802.11g

Channel 01 (2412MHz) Reference Level: -5.17dBm



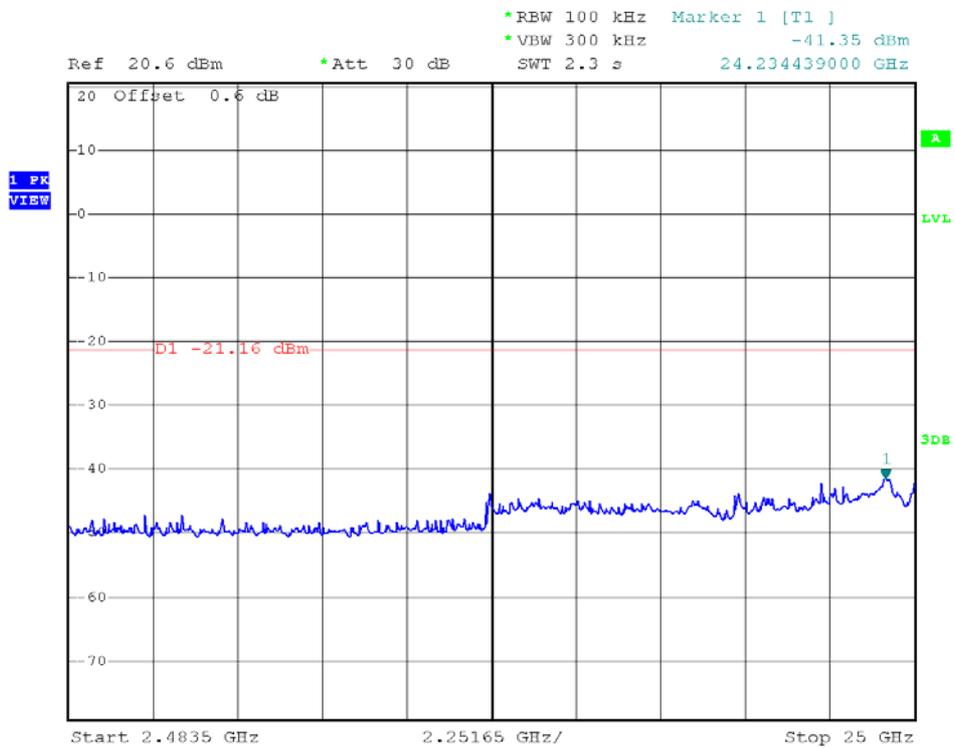
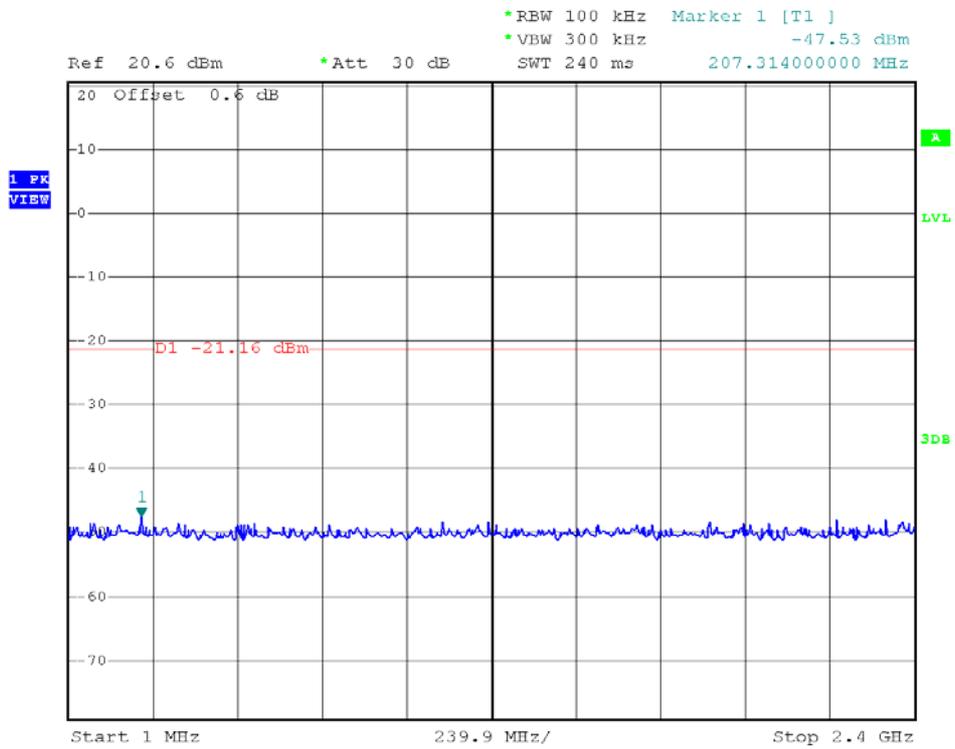
TRF no.: FCC 15C_TX_b

FCC ID: QISM210

Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

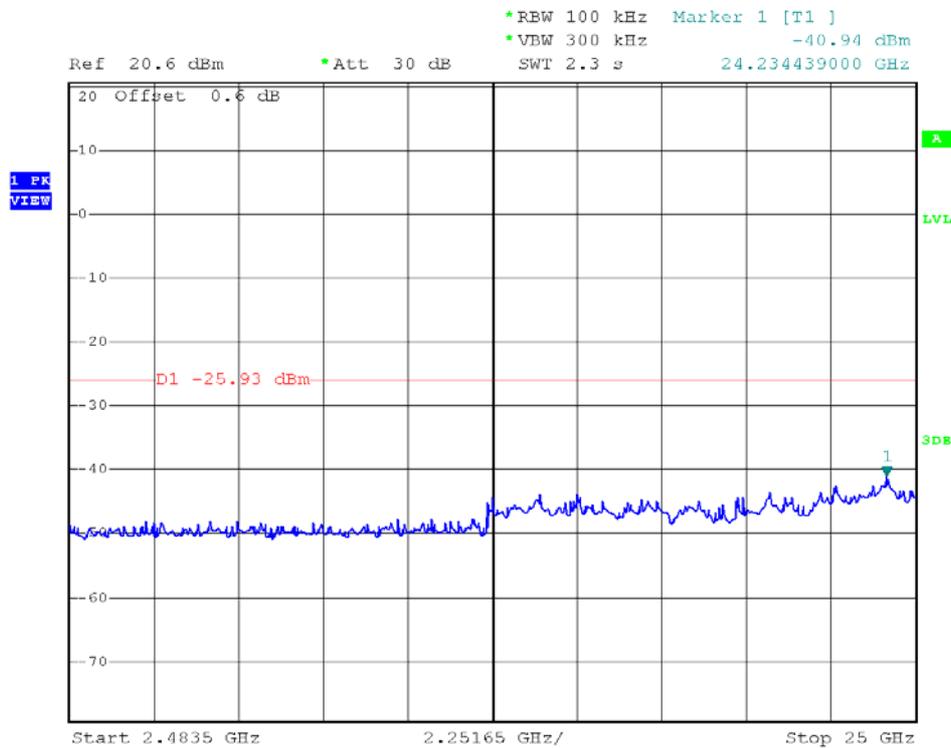
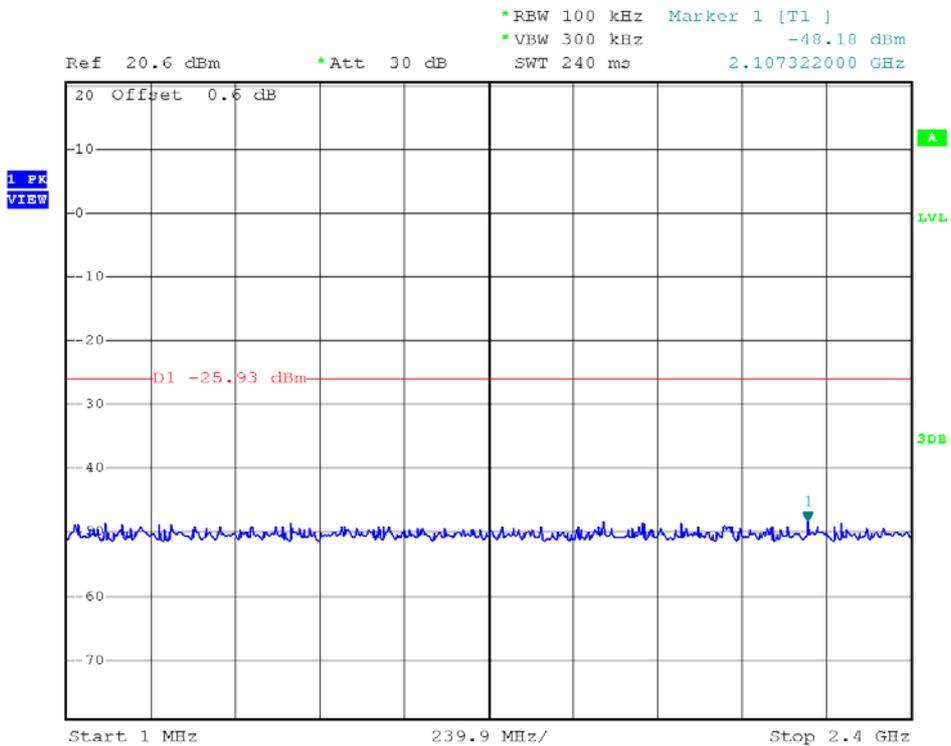
Channel 06 (2437MHz) Reference Level: -1.16dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: -5.93dBm

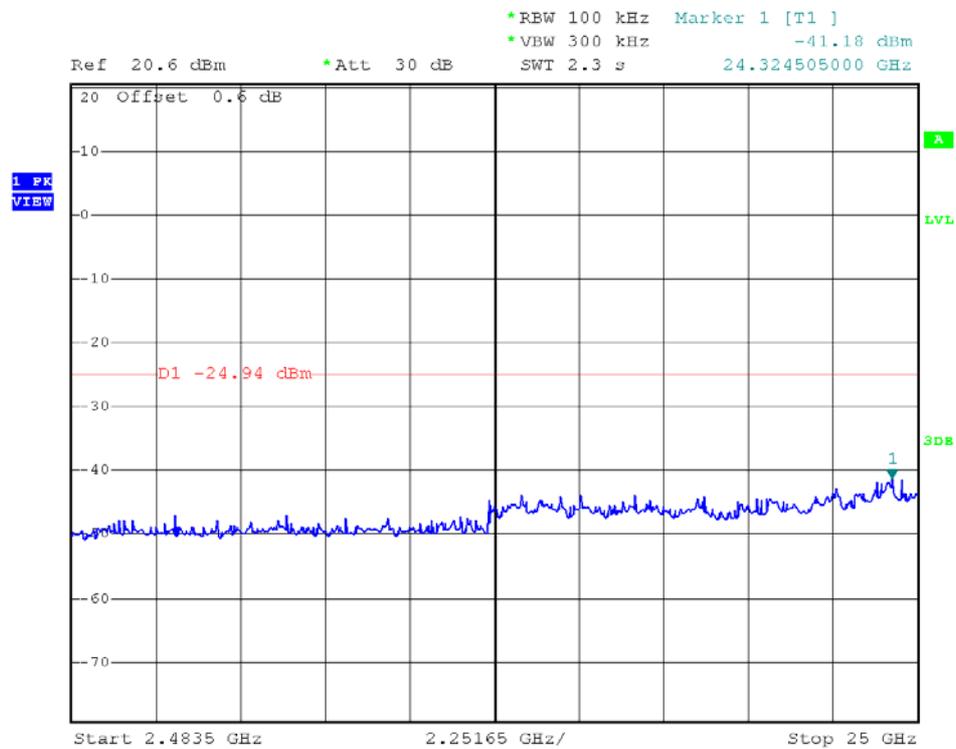
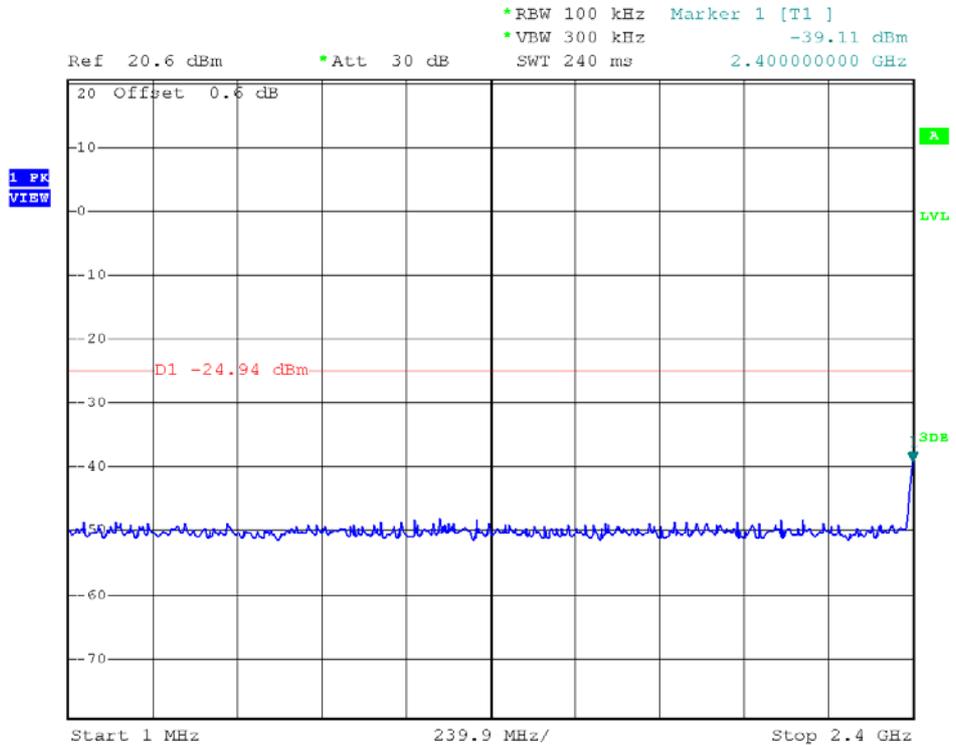


TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

802.11 n-HT20

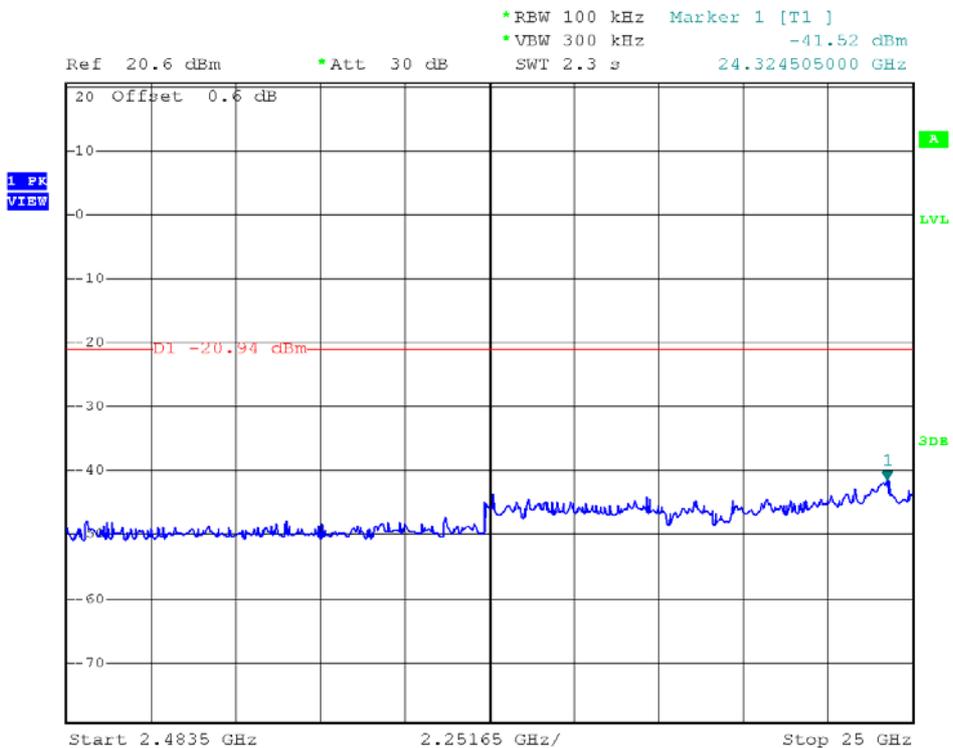
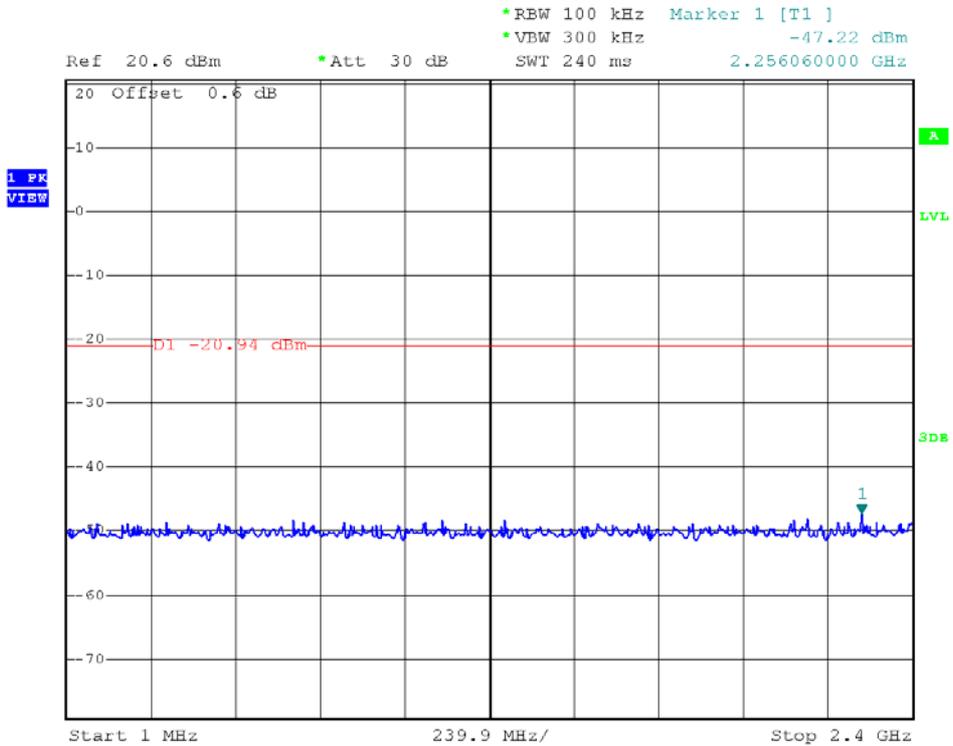
Channel 01 (2412MHz) Reference Level: -4.94dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

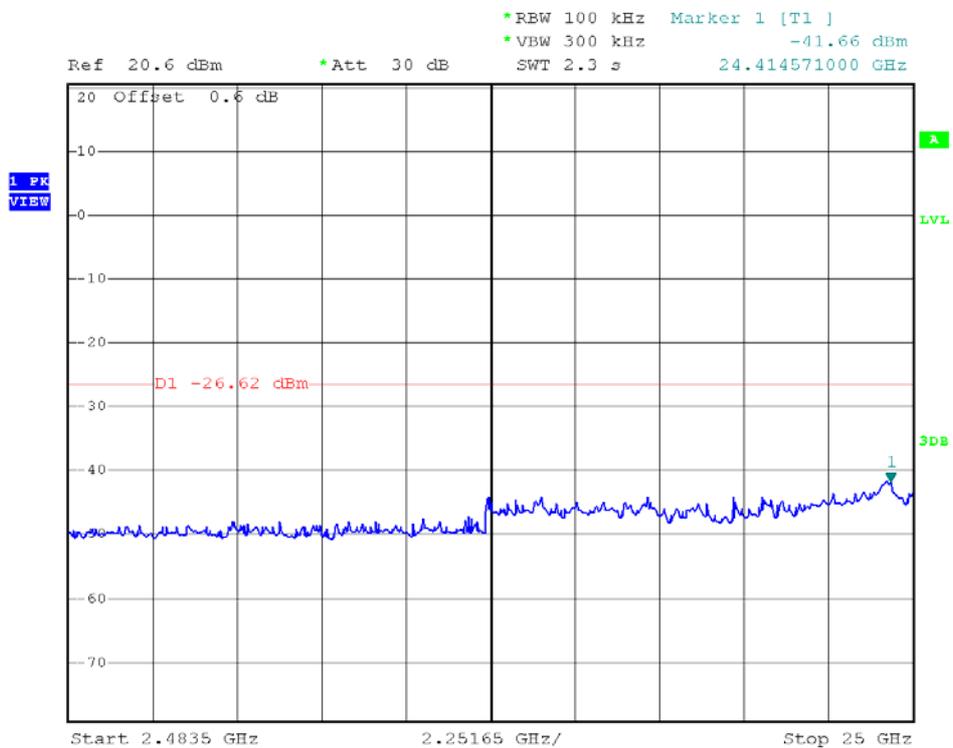
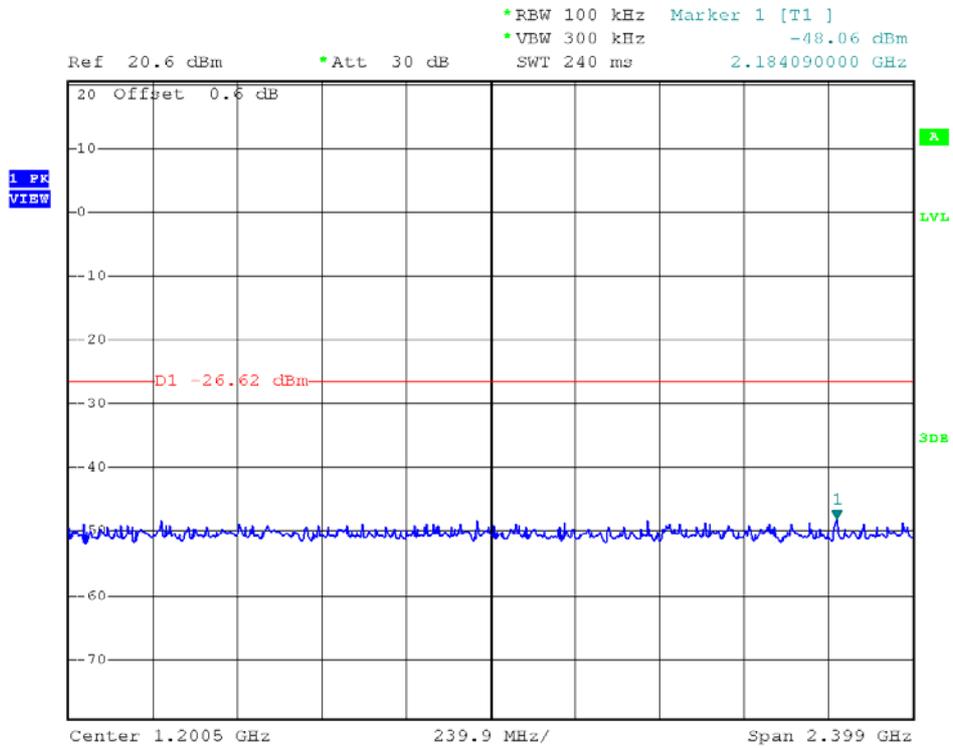
Channel 06 (2437MHz) Reference Level: -0.94dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: -6.62dBm

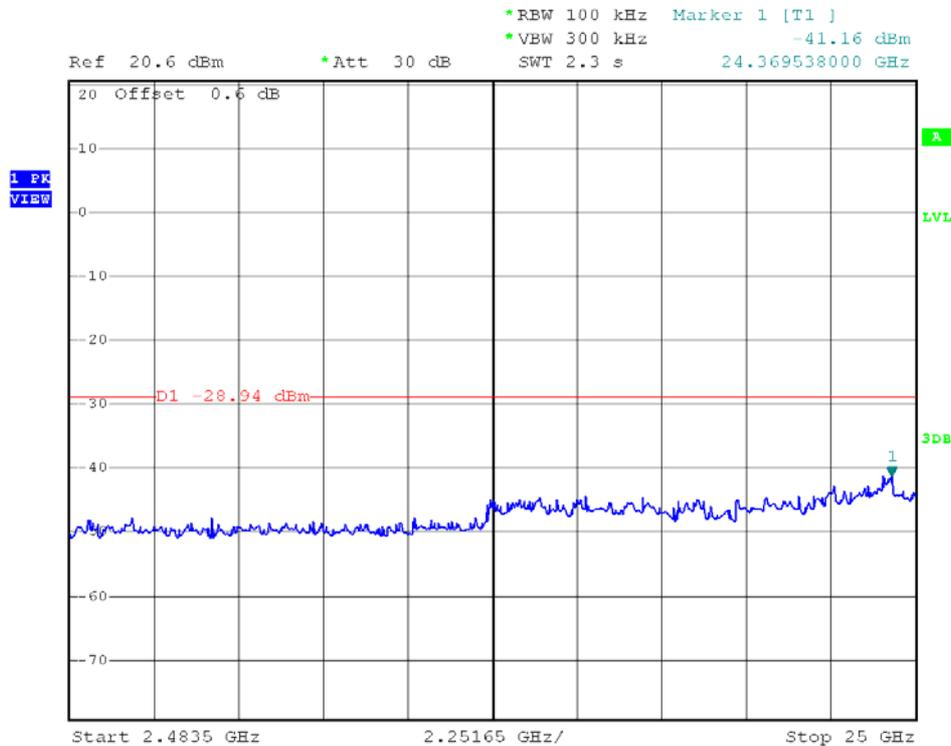
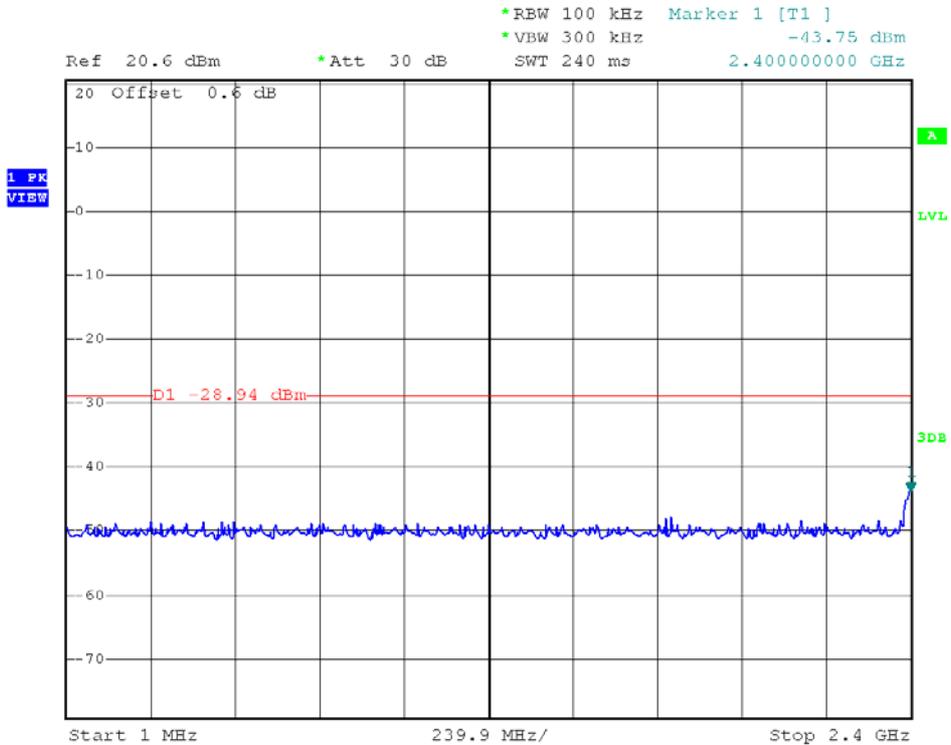


TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

802.11 n-HT40

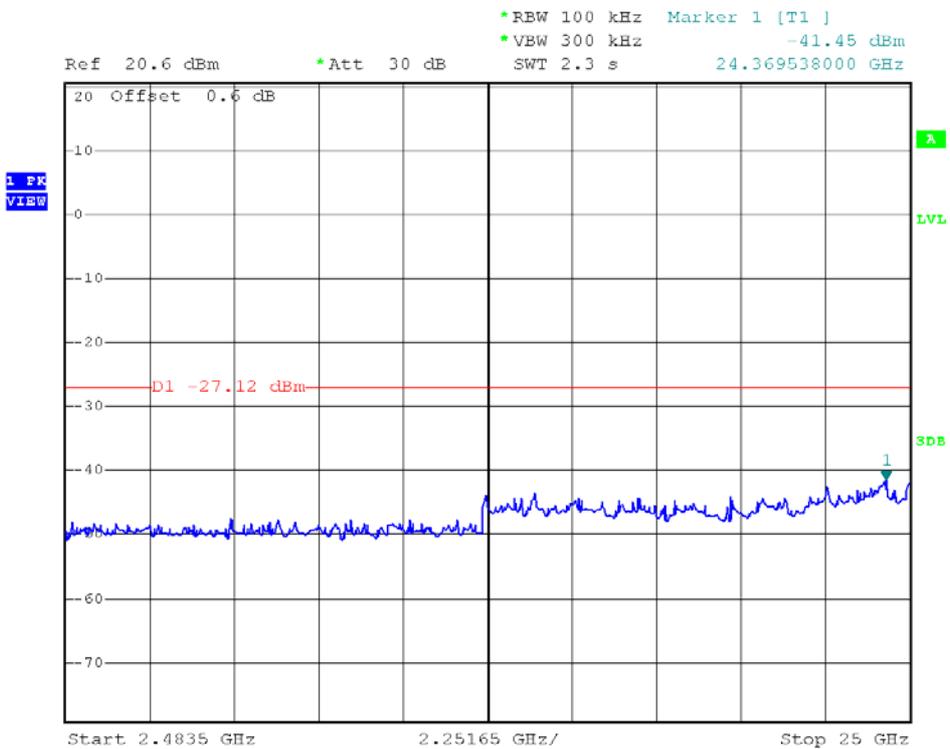
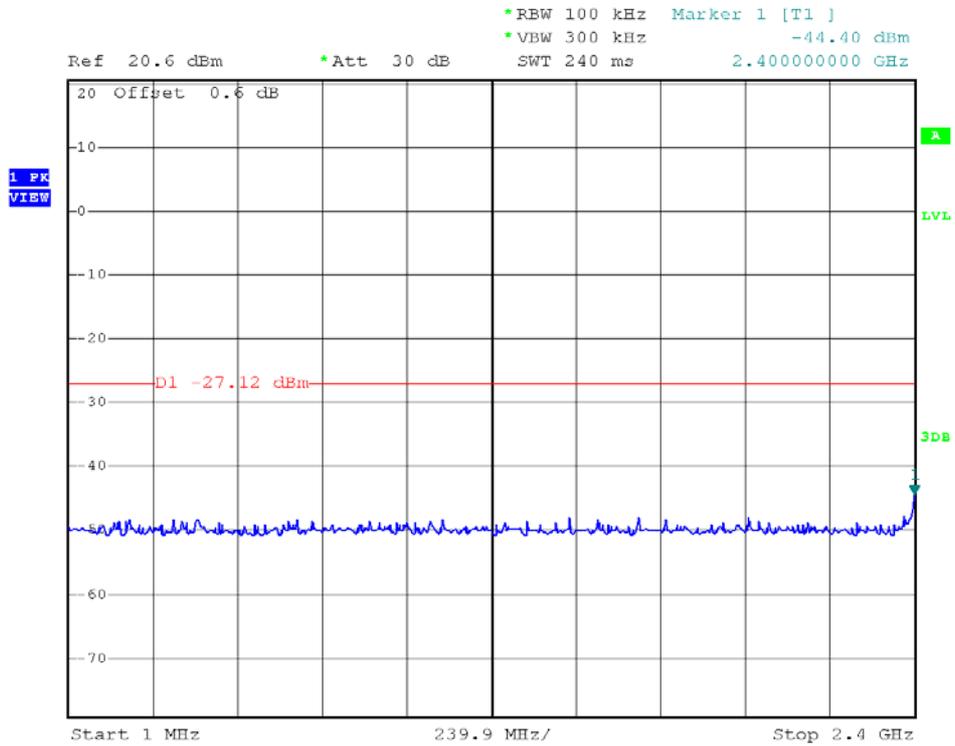
Channel 03 (2422MHz) Reference Level: -8.94dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

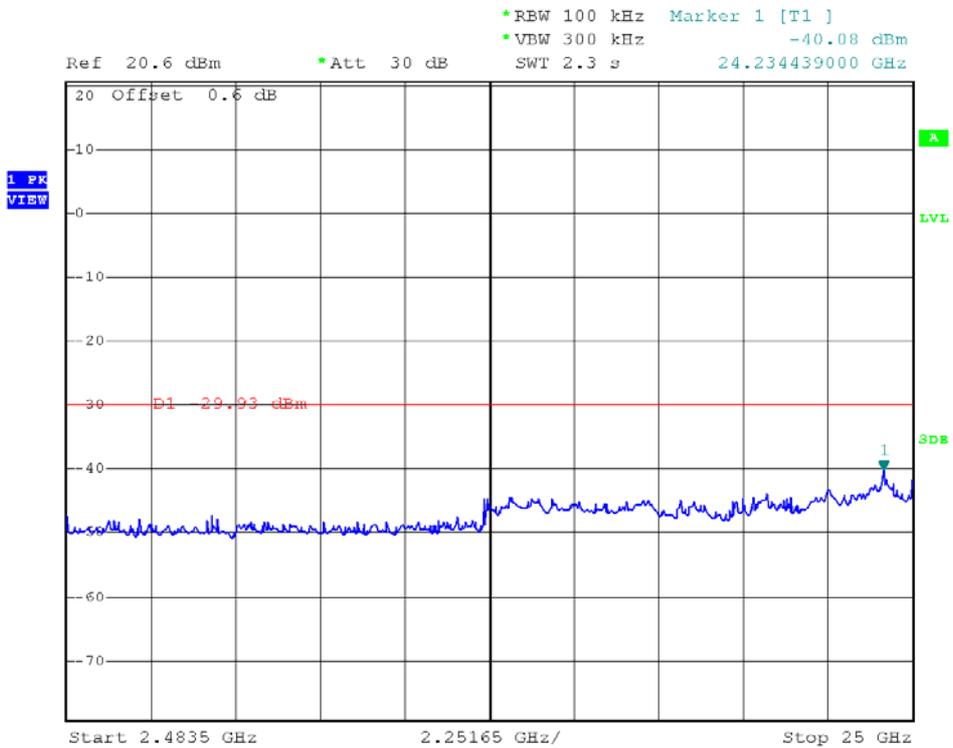
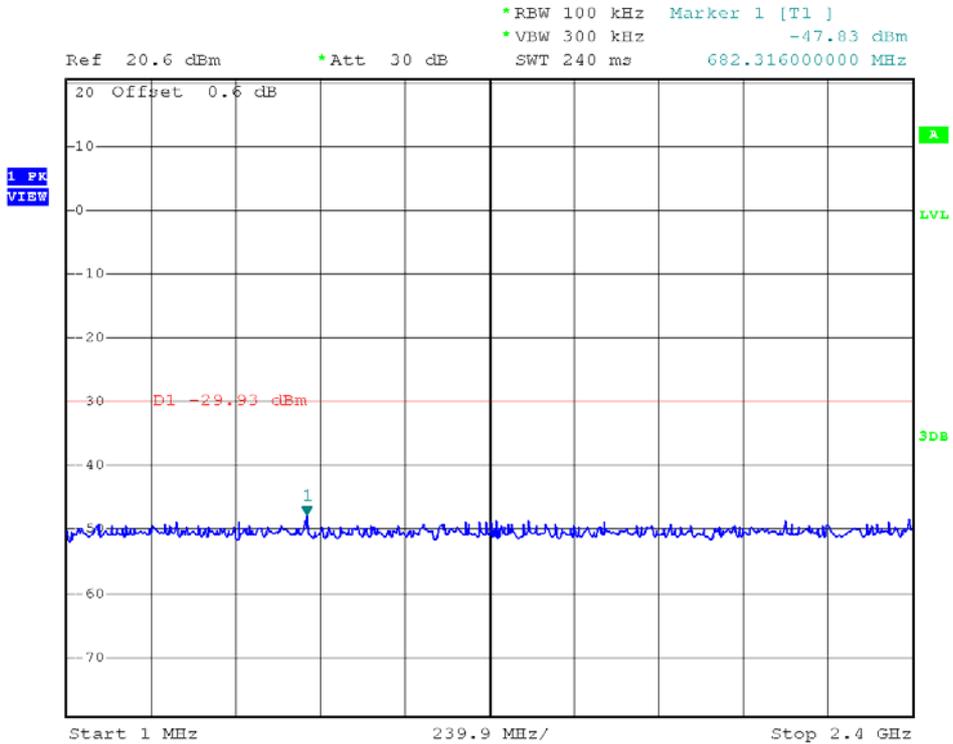
Channel 06 (2437MHz) Reference Level: -7.12dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Channel 09 (2452MHz) Reference Level: -9.93dBm



TRF no.: FCC 15C_TX_b
FCC ID: QISM210
Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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 dB μ V/m
- RA = Receiver Amplitude (including preamplifier) in dB μ V
- 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 dB μ V 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 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

$$\begin{aligned} RA &= 62.0 \text{ dB}\mu\text{V} \\ AF &= 7.4 \text{ dB} \\ CF &= 1.6 \text{ dB} \\ AG &= 29.0 \text{ dB} \\ PD &= 0 \text{ dB} \\ FS &= 62 + 7.4 + 1.6 - 29 + 0 = 42 \text{ dB}\mu\text{V/m} \end{aligned}$$

$$\text{Level in mV/m} = \text{Common Antilogarithm} [(42 \text{ dB}\mu\text{V/m})/20] = 125.9 \mu\text{V/m}$$

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission 802.11 g (TX-Channel 01) at 2388.328MHz is passed by 4.0 dB margin.

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

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd

Date of Test: April 7, 2013

Model: MediaQ M210

Worst Case Operating Mode: 802.11 n-HT20 (TX-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	207.995	35.8	20.0	11.6	27.4	43.5	-16.1
Horizontal	289.475	32.9	20.0	13.2	26.1	46.0	-19.9
Horizontal	742.465	34.8	20.0	22.6	37.4	46.0	-8.6
Vertical	288.990	38.0	20.0	13.2	31.2	46.0	-14.8
Vertical	445.470	39.5	20.0	16.9	36.4	46.0	-9.6
Vertical	742.514	38.9	20.0	22.6	41.5	46.0	-4.5

- 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.

TRF no.: FCC 15C_TX_b

FCC ID: QISM210

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INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11b (TX-Channel 01)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	59.5	36.1	35.5	58.9	74.0	-15.1
Horizontal	*2385.032	68.2	36.7	28.1	59.6	74.0	-14.4

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	48.2	36.1	35.5	47.6	54.0	-6.4
Horizontal	*2385.032	57.1	36.7	28.1	48.5	54.0	-5.5

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11b (TX-Channel 06)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	58.6	36.1	35.5	58.0	74.0	-16.0
Horizontal	*7311.000	59.4	36.2	36.5	59.7	74.0	-14.3

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	48.5	36.1	35.5	47.9	54.0	-6.1
Horizontal	*7311.000	49.3	36.2	36.5	49.6	54.0	-4.4

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11b (TX-Channel 11)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4924.000	59.8	36.1	35.5	59.2	74.0	-14.8
Horizontal	*2485.587	69.0	36.7	28.1	60.4	74.0	-13.6

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4924.000	48.8	36.1	35.5	48.2	54.0	-5.8
Horizontal	*2485.587	58.2	36.7	28.1	49.6	54.0	-4.4

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11g (TX-Channel 01)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	59.7	36.1	35.5	59.1	74.0	-14.9
Horizontal	*2388.328	68.9	36.7	28.1	60.3	74.0	-13.7

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	49.9	36.1	35.5	49.3	54.0	-4.7
Horizontal	*2388.328	58.6	36.7	28.1	50.0	54.0	-4.0

- NOTES: 1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11g (TX-Channel 06)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	60.4	36.1	35.5	59.8	74.0	-14.2
Horizontal	*7311.000	60.7	36.2	36.5	61.0	74.0	-13.0

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	49.2	36.1	35.5	48.6	54.0	-5.4
Horizontal	*7311.000	49.2	36.2	36.5	49.5	54.0	-4.5

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average date).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11g (TX-Channel 11)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4924.000	59.6	36.1	35.5	59.0	74.0	-15.0
Horizontal	*2485.525	68.8	36.7	28.1	60.2	74.0	-13.8

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4924.000	48.5	36.1	35.5	47.9	54.0	-6.1
Horizontal	*2485.525	57.9	36.7	28.1	49.3	54.0	-4.7

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average date).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11 n-HT20 (TX-Channel 01)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	59.9	36.1	35.5	59.3	74.0	-14.7
Horizontal	*2387.092	69.7	36.7	28.1	61.1	74.0	-12.9

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	48.9	36.1	35.5	48.3	54.0	-5.7
Horizontal	*2387.092	58.1	36.7	28.1	49.5	54.0	-4.5

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average date).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11 n-HT20 (TX-Channel 06)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	58.5	36.1	35.5	57.9	74.0	-16.1
Horizontal	*7311.000	59.0	36.2	36.5	59.3	74.0	-14.7

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	48.9	36.1	35.5	48.3	54.0	-5.7
Horizontal	*7311.000	49.2	36.2	36.5	49.5	54.0	-4.5

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11 n-HT20 (TX-Channel 11)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4924.000	59.8	36.1	35.5	59.2	74.0	-14.8
Horizontal	*2483.802	69.1	36.7	28.1	60.5	74.0	-13.5

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4924.000	48.1	36.1	35.5	47.5	54.0	-6.5
Horizontal	*2483.802	57.8	36.7	28.1	49.2	54.0	-4.8

- NOTES: 1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11 n-HT40 (TX-Channel 03)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4844.000	59.7	36.1	34.6	58.2	74.0	-15.8
Horizontal	*2386.597	70.5	36.7	27.2	61.0	74.0	-13.0

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4844.000	48.6	36.1	34.6	47.1	54.0	-6.9
Horizontal	*2386.597	58.7	36.7	27.2	49.2	54.0	-4.8

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average date).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11 n-HT40 (TX-Channel 06)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	59.8	36.1	35.5	59.2	74.0	-14.8
Horizontal	*7311.000	59.3	36.2	36.5	59.6	74.0	-14.4

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4874.000	48.0	36.1	35.5	47.4	54.0	-6.6
Horizontal	*7311.000	49.3	36.2	36.5	49.6	54.0	-4.4

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average data).
 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.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Mode: 802.11 n-HT40 (TX-Channel 09)

Date of Test: April 7, 2013

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4904.000	58.2	36.1	34.8	56.9	74.0	-17.1
Horizontal	2485.266	68.8	36.7	27.7	59.8	74.0	-14.2

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4904.000	48.6	36.1	34.8	47.3	54.0	-6.7
Horizontal	2485.266	57.9	36.7	27.7	48.9	54.0	-5.1

- NOTES:
1. Peak detector is used for the emission measurement (RBW=1MHz, VBW=3MHz for Peak data, RBW=1MHz, VBW=10Hz for Average date).
 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.

INTERTEK TESTING SERVICES

4.9 Conducted Emission

Worst Case Live-Conducted emission at 0.466MHz is Passed by 14.0 dB margin

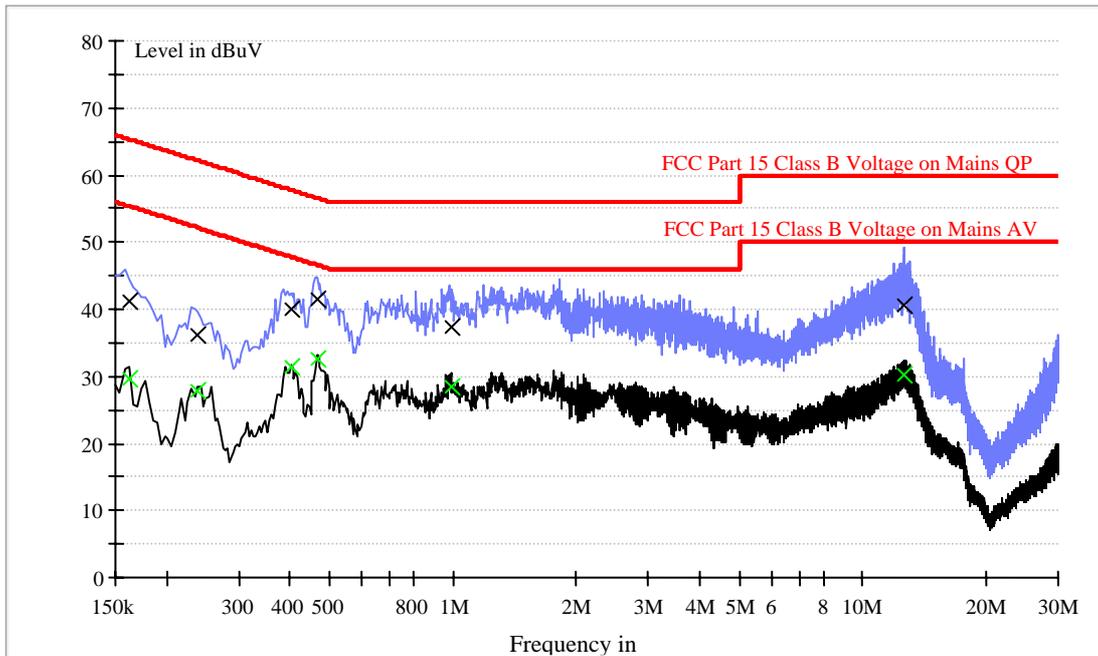
For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
 Model: MediaQ M210
 Worst Case Operating Mode: 802.11 n-HT20 (TX-Channel 01)
 AC/DC Adapter: Huntkey

Date of Test: April 7, 2013

Conducted Emission Test - FCC



Result Table QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.162	41.2	L1	9.6	24.2	65.4
0.238	36.1	L1	9.6	26.1	62.2
0.402	39.9	L1	9.6	17.9	57.8
0.466	41.4	L1	9.6	15.2	56.6
0.990	37.3	L1	9.7	18.7	56.0
12.574	40.7	L1	10.1	19.3	60.0

Result Table AV

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.162	29.6	L1	9.6	25.8	55.4
0.238	27.8	L1	9.6	24.4	52.2
0.402	31.5	L1	9.6	16.3	47.8
0.466	32.6	L1	9.6	14.0	46.6
0.990	28.6	L1	9.7	17.4	46.0
12.574	30.3	L1	10.1	19.7	50.0

TRF no.: FCC 15C_TX_b
 FCC ID: QISM210
 Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd

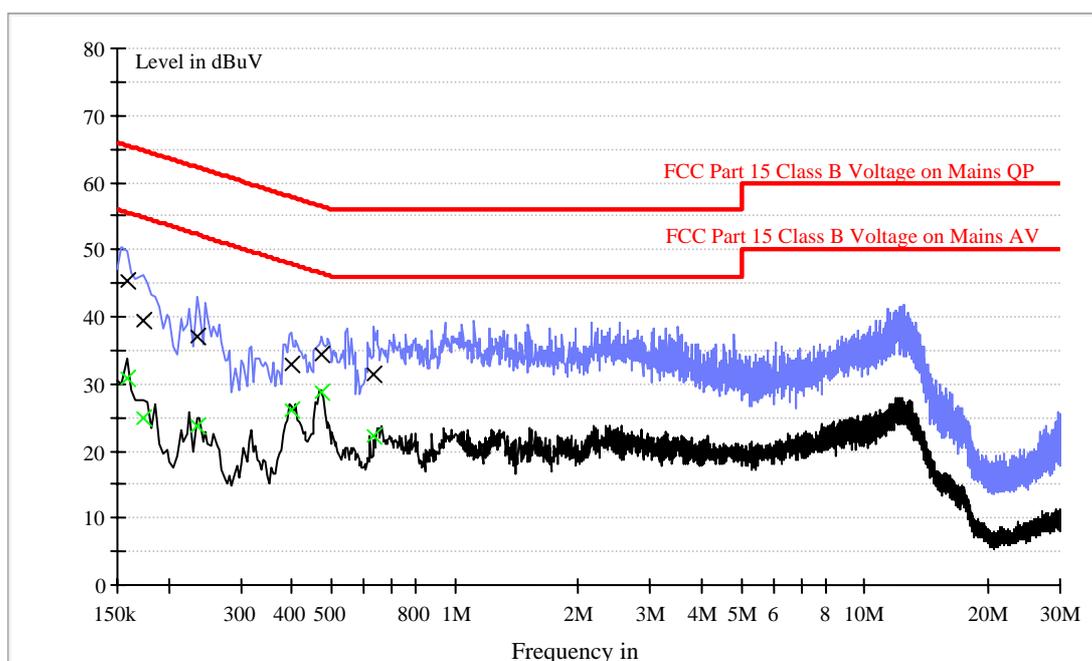
Date of Test: April 7, 2013

Model: MediaQ M210

Worst Case Operating Mode: 802.11 n-HT20 (TX-Channel 01)

AC/DC Adapter: Huntkey

Conducted Emission Test - FCC



Result Table QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.159	45.4	N	9.7	20.1	65.5
0.174	39.4	N	9.7	25.4	64.8
0.234	37.0	N	9.6	25.3	62.3
0.398	33.0	N	9.6	24.9	57.9
0.470	34.3	N	9.6	22.2	56.5
0.634	31.5	N	9.6	24.5	56.0

Result Table AV

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.159	30.9	N	9.7	24.6	55.5
0.174	24.9	N	9.7	29.9	54.8
0.234	23.6	N	9.6	28.7	52.3
0.398	26.0	N	9.6	21.9	47.9
0.470	28.7	N	9.6	17.8	46.5
0.634	22.2	N	9.6	23.8	46.0

TRF no.: FCC 15C_TX_b

FCC ID: QISM210

Report No.: 130401027SZN-001

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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

Not required - No digital part

Test results are attached

Included in the separated report.

INTERTEK TESTING SERVICES

Applicant: Huawei Technologies Co.,Ltd
Model: MediaQ M210

Date of Test: April 7, 2013

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.

INTERTEK TESTING SERVICES

EXHIBIT 5

EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

5.0 Equipment Photographs

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

INTERTEK TESTING SERVICES

EXHIBIT 6

PRODUCT LABELLING

INTERTEK TESTING SERVICES

6.0 Product Labeling

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

INTERTEK TESTING SERVICES

EXHIBIT 7

TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

7.0 Technical Specifications

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

INTERTEK TESTING SERVICES

EXHIBIT 8

INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

8.0 Instruction Manual

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

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

INTERTEK TESTING SERVICES

EXHIBIT 9

CONFIDENTIALITY REQUEST

INTERTEK TESTING SERVICES

9.0 **Confidentiality Request**

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

INTERTEK TESTING SERVICES

EXHIBIT 10

MISCELLANEOUS INFORMATION

INTERTEK TESTING SERVICES

10.0 **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.

INTERTEK TESTING SERVICES

EXHIBIT 11

TEST EQUIPMENT LIST

INTERTEK TESTING SERVICES

11.0 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ061-03	BiConiLog Antenna	ETS	3142C	00066460	30-Jun-12	30-Jun-13
SZ185-01	EMI Receiver	R&S	ESCI	100547	22-Sep-12	22-Jun-13
SZ061-09	Horn Antenna	ETS	3115	00092346	28-Nov-12	28-Nov-13
SZ061-07	Pyramidal Horn Antenna	ETS	3160-09	00083067	8-Sep-12	22-Jun-13
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	8-Dec-12	8-Jun-13
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	22-Sep-12	22-Jun-13
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	17-Nov-12	17-May-13
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	3-Dec-12	08-Jun-13
SZ062-02	RF Cable	RADIALL	RG 213U	--	17-Mar-12	17-Sep-13
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	29-Dec-12	29-Jun-13
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	29-Dec-12	29-Jun-13
SZ067-04	Notch Filter	Micro-Tronics	BRM5070 2-02	--	11-Jun-12	11-Jun-13
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	5-Nov-12	5-Nov-13
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	5-Nov-12	5-Nov-13
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	5-Nov-12	5-Nov-13
SZ188-03	Shielding Room	ETS	RFD-100	4100	10-Sep-12	10-Sep-13