

**KEEN HIGH HOLDING(HK) LIMITED**

Application  
For  
Certification

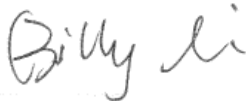
Mobile Internet Device  
(WiFi Transceiver)

**(FCC ID: ZYQ-NABI2-NV7A)**

Model: NABI2-NV7A  
Additional Model: MT799

Report No.: SZ12050093-1

Prepared and Checked by:



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Billy Li  
Team Leader  
May 16, 2012

Approved by:



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Shawn Xing  
Manager  
Date: 18 May, 2012

- 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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- The evaluation data of the report will be kept for 3 years from the date of issuance.

TRF no.: FCC 15C\_Txa  
FCC ID: ZYQ-NABI2-NV7A

**Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch**

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## LIST OF EXHIBITS

### *INTRODUCTION*

<i>EXHIBIT 1:</i>	Summary of Tests
<i>EXHIBIT 2:</i>	General Description
<i>EXHIBIT 3:</i>	System Test Configuration
<i>EXHIBIT 4:</i>	Measurement Results
<i>EXHIBIT 5:</i>	Equipment Photographs
<i>EXHIBIT 6:</i>	Product Labeling
<i>EXHIBIT 7:</i>	Technical Specifications
<i>EXHIBIT 8:</i>	Instruction Manual
<i>EXHIBIT 9:</i>	Miscellaneous Information
<i>EXHIBIT 10:</i>	Test Equipment List

## INTERTEK TESTING SERVICES

### MEASUREMENT/TECHNICAL REPORT

**KEEN HIGH HOLDING(HK) LIMITED - MODEL: NABI2-NV7A**  
**Additional Model: MT799**

**FCC ID: ZYQ-NABI2-NV7A**

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

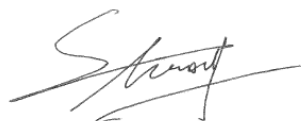
Company Name agrees to notify the Commission by:   
date

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 [10-01-11 Edition] provision.

Report prepared by:



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# INTERTEK TESTING SERVICES

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## Table of Contents

<b>1.0 <u>Summary of test results</u></b>	<b>2</b>
<b>2.0 <u>General Description</u></b>	<b>4</b>
2.1 Product Description	4
2.2 Related Submittal(s) Grants	5
2.3 Test Methodology	5
2.4 Test Facility	5
<b>3.0 <u>System Test Configuration</u></b>	<b>7</b>
3.1 Justification	7
3.2 EUT Exercising Software	7
3.3 Details of EUT and Description of Peripherals	8
3.4 Measurement Uncertainty	8
3.5 Equipment Modification	8
3.6 Support Equipment List and Description	9
<b>4.0 <u>Measurement Results</u></b>	<b>11</b>
4.1 Maximum Conducted Output Power at Antenna Terminals	11
4.2 Minimum 6dB RF Bandwidth	16
4.3 Maximum Power Density	22
4.4 Out of Band Conducted Emissions	28
4.5 Out of Band Radiated Emissions	38
4.6 Transmitter Radiated Emissions in Restricted Bands	39
4.7 Field Strength Calculation	40
4.8 Radiated Spurious Emission	41
4.9 Conducted Emission	52
4.10 Radiated Emission from Digital Section of Transceiver	57
4.11 Transmitter Duty Cycle Calculation and Measurements	58
<b>5.0 <u>Equipment Photographs</u></b>	<b>60</b>
<b>6.0 <u>Product Labelling</u></b>	<b>62</b>
<b>7.0 <u>Technical Specifications</u></b>	<b>64</b>
<b>8.0 <u>Instruction Manual</u></b>	<b>66</b>
<b>9.0 <u>Miscellaneous Information</u></b>	<b>68</b>
<b>10.0 <u>Test Equipment List</u></b>	<b>70</b>

## INTERTEK TESTING SERVICES

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### List of attached file

<b>Exhibit Type</b>	<b>File Description</b>	<b>Filename</b>
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 1 of 3. pdf
RF Exposure info	SAR Report	sar report 2 of 3. pdf
RF Exposure info	SAR Report	sar report 3 of 3. pdf

# **INTERTEK TESTING SERVICES**

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## **EXHIBIT 1**

### **SUMMARY OF TEST RESULTS**

## INTERTEK TESTING SERVICES

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### 1.0 Summary of Test

**KEEN HIGH HOLDING(HK) LIMITED - MODEL: NABI2-NV7A**

**FCC ID: ZYQ-NABI2-NV7A**

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)

Notes: 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**



## INTERTEK TESTING SERVICES

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### 2.0 General Description

#### 2.1 Product Description

The Equipment Under Test (EUT) is a Mobile Internet Device with internal WiFi & BT module operating at 2412-2462MHz for 802.11b/g/n-20MHz, 11 channels with 5MHz channel spacing and 2402-2480MHz for Bluetooth, 79 channels with 1MHz channel spacing. The EUT has a capacitive multi-touch screen and is powered by 1 X 3.7V rechargeable battery or AC/DC Adapter (INPUT: AC100-240, 50/60Hz; OUTPUT: DC 5V, 2A). For more detailed features description, please refer to the user's manual.

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

The Model: MT799 is the same as the Model: NABI2-NV7A in hardware aspect. The difference in model number serves as marketing strategy.

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

## INTERTEK TESTING SERVICES

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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:

1. Receiver portion of WiFi: exempt from technical requirement of this Part.
2. Transmitter portion of Bluetooth: (Report No.: SZ11050093-2).
3. Other function: FCC Part 15B DOC.

### 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).

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 3**

### **SYSTEM TEST CONFIGURATION**

## INTERTEK TESTING SERVICES

### 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 AC/DC Adapter (INPUT: AC100-240, 50/60Hz, 0.5A; OUTPUT: DC 5V, 2A) and 1 X 3.7V fully charged battery.

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	13.0	802.11b: 1-11Mbps	802.11b: CCK, DQPSK, DBPSK
	13.0	802.11g: 6-54Mbps	802.11g: OFDM
1,6,11	13.0	802.11n: 7.2-65Mbps	802.11n-20M: OFDM

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

## **INTERTEK TESTING SERVICES**

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### **3.3 Special Accessories**

There have one shielding USB cable with one ferrite core, two AC adapters respectively with one ferrite core attached.

### **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 KEEN HIGH HOLDING(HK) LIMITED 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.

## INTERTEK TESTING SERVICES

### 3.6 Support Equipment List and Description

This product was tested in the following configuration:

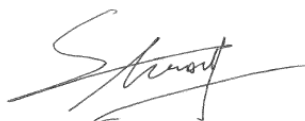
Refer List:

Description	Manufacturer	Model No.
Adapter + 1.3m USB cable with one ferrite core	Ktec	KSAPK0110500200FU (INPUT: 100-240, 50/60Hz, 0.5A; OUTPUT: DC 5V-2A)
Adapter + 1.3m USB cable with one ferrite core	JingQuanHua	NSA12UU-050200 (INPUT: 100-240, 50/60Hz, 0.5A; OUTPUT: DC 5V-2A)
1.2m Earphone	N/A	N/A
Micro sd Card	Sandisk	1G
1.0m shielding USB Cable	Keen	N/A
1.5m HDMI Cable	N/A	N/A
Laptop	Lenovo	T420
Hard Disk	Smart.drive	HD-003
USB Cable	Smart.drive	Unshielded, Length 155cm
1394 Cable	Smart.drive	Unshielded, Length 180cm

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 KEEN HIGH HOLDING(HK) LIMITED*



\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
May 16, 2012

\_\_\_\_\_  
*Date*

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 4**

### **MEASUREMENT RESULTS**

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

### 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 = 1.35 dBi) (CCK, 1Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	14.60	28.8
Middle Channel: 2437	14.86	30.6
High Channel: 2462	15.15	32.7

IEEE 802.11g (Antenna Gain = 1.35 dBi) (OFDM, 6Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	20.21	105.0
Middle Channel: 2437	20.32	107.6
High Channel: 2462	20.62	115.3

IEEE 802.11n 20M (Antenna Gain = 1.35 dBi) (OFDM, 7.2Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	20.20	104.7
Middle Channel: 2437	20.30	107.2
High Channel: 2462	20.63	115.6



## INTERTEK TESTING SERVICES

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Cable loss: 0.3 dB    External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

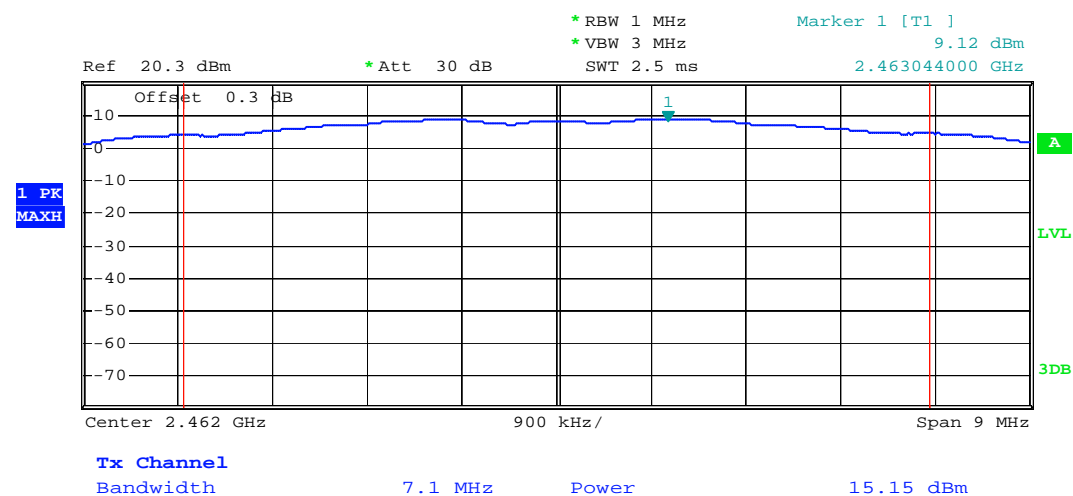
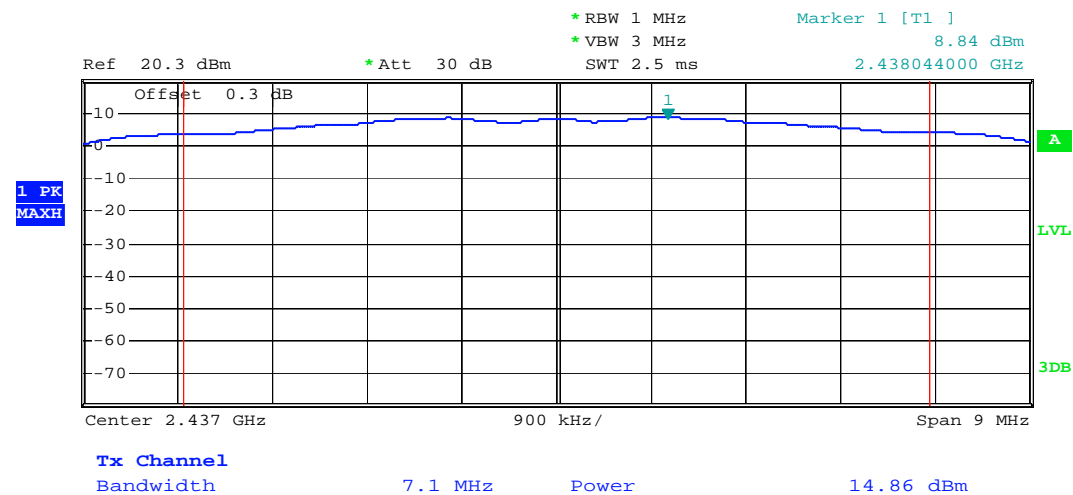
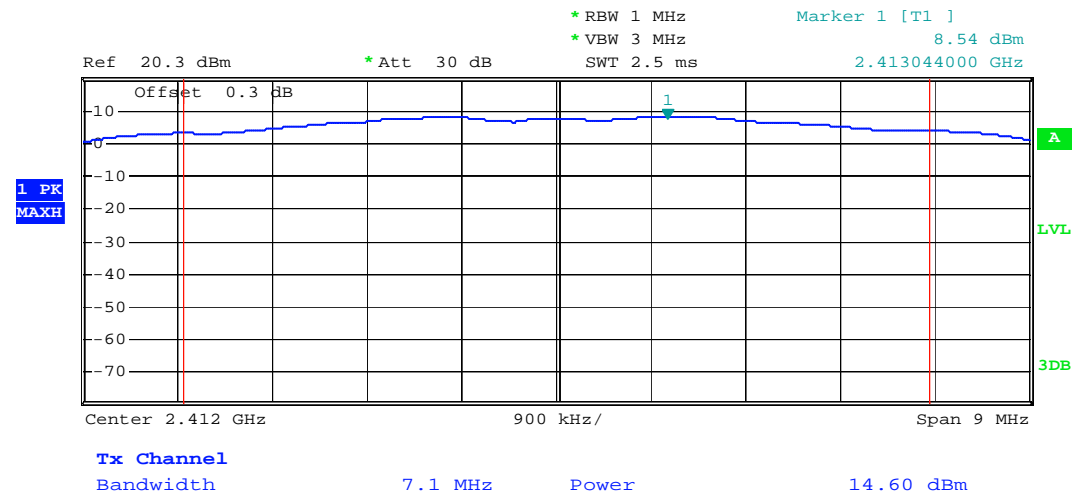
EUT dBm max. output level = 20.63dBm

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

The test plots are attached as below.

# INTERTEK TESTING SERVICES

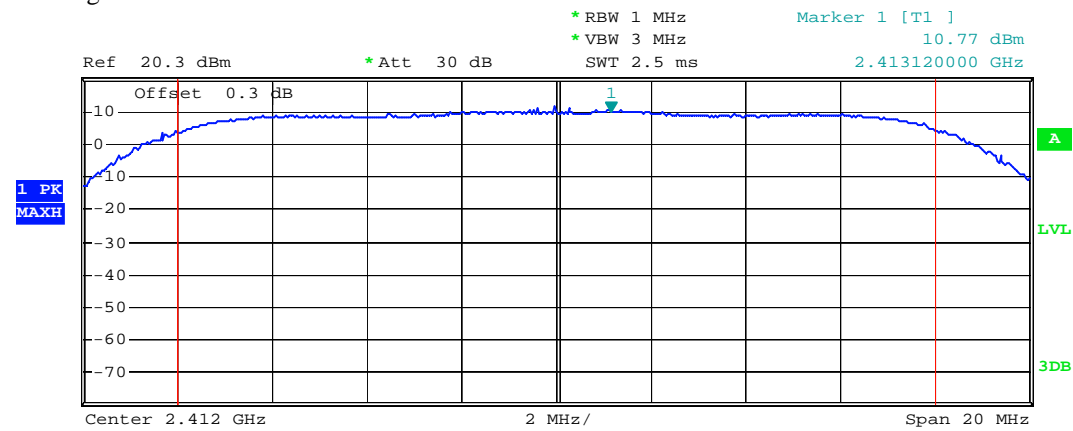
802.11b



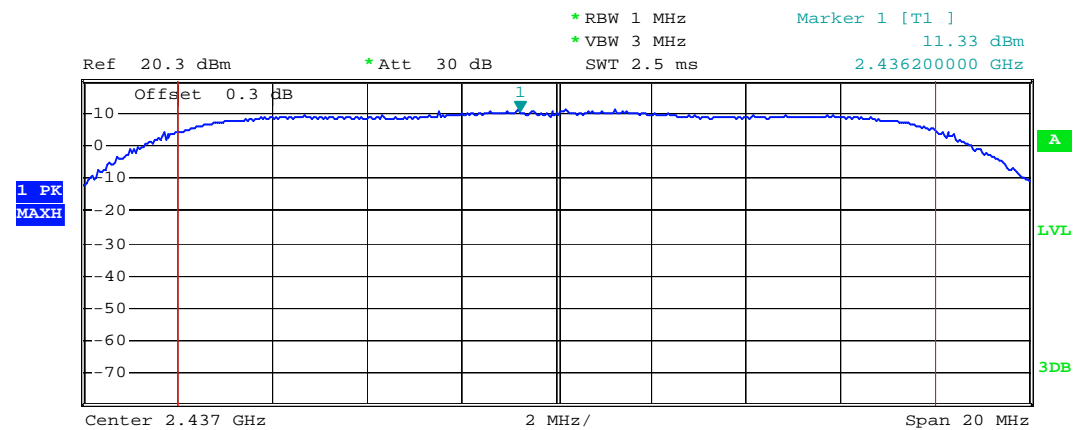
TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

# INTERTEK TESTING SERVICES

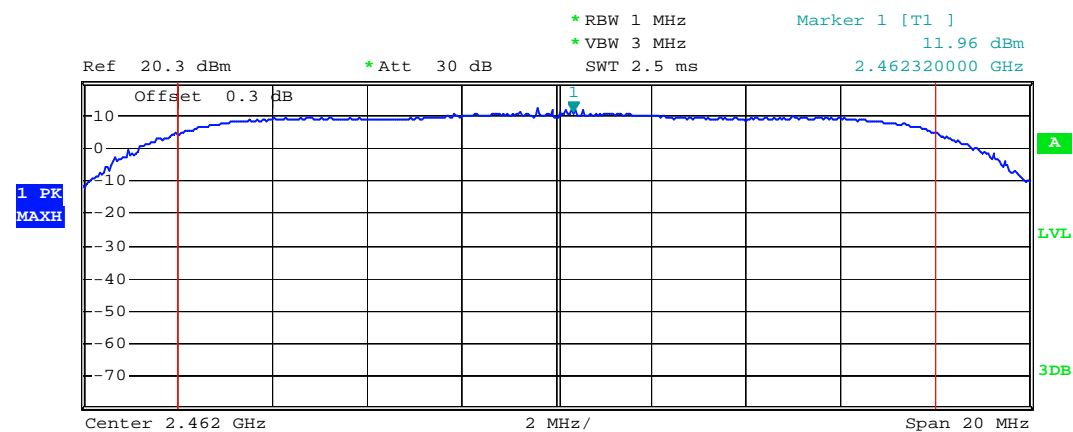
802.11g



**Tx Channel**  
Bandwidth 16 MHz Power 20.21 dBm



**Tx Channel**  
Bandwidth 16 MHz Power 20.32 dBm

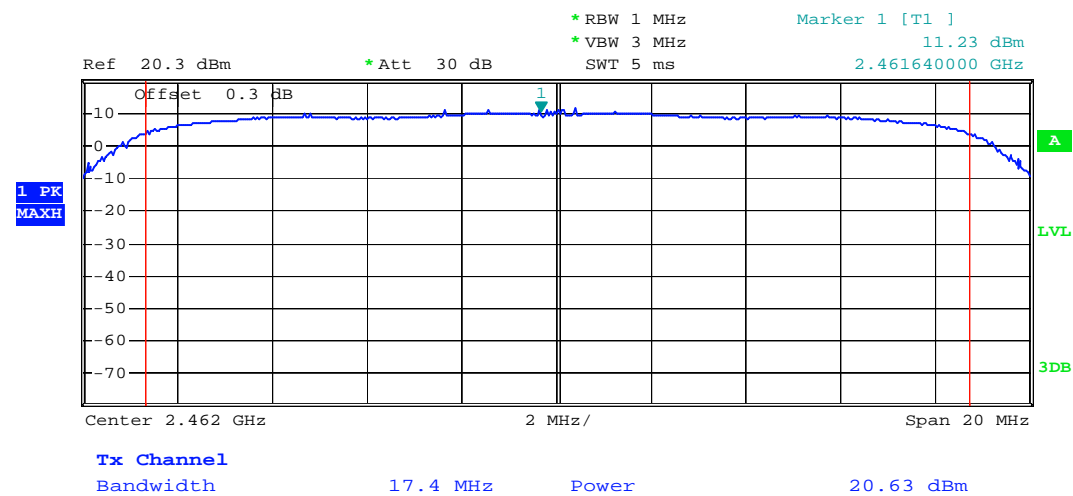
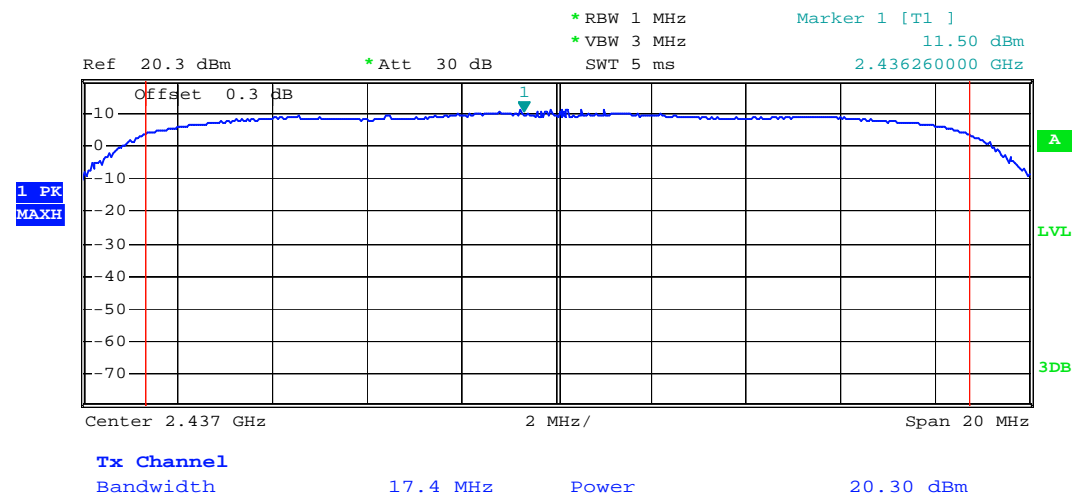
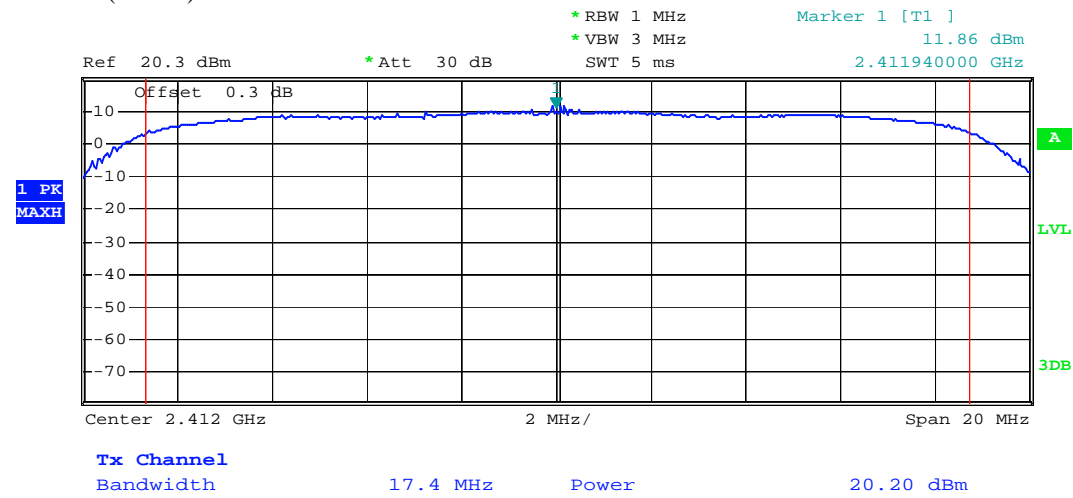


**Tx Channel**  
Bandwidth 16 MHz Power 20.62 dBm

TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

# INTERTEK TESTING SERVICES

802.11n (HT-20)



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

### 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)	6 dB Bandwidth (MHz)
2412	7.08
2437	7.12
2462	7.12

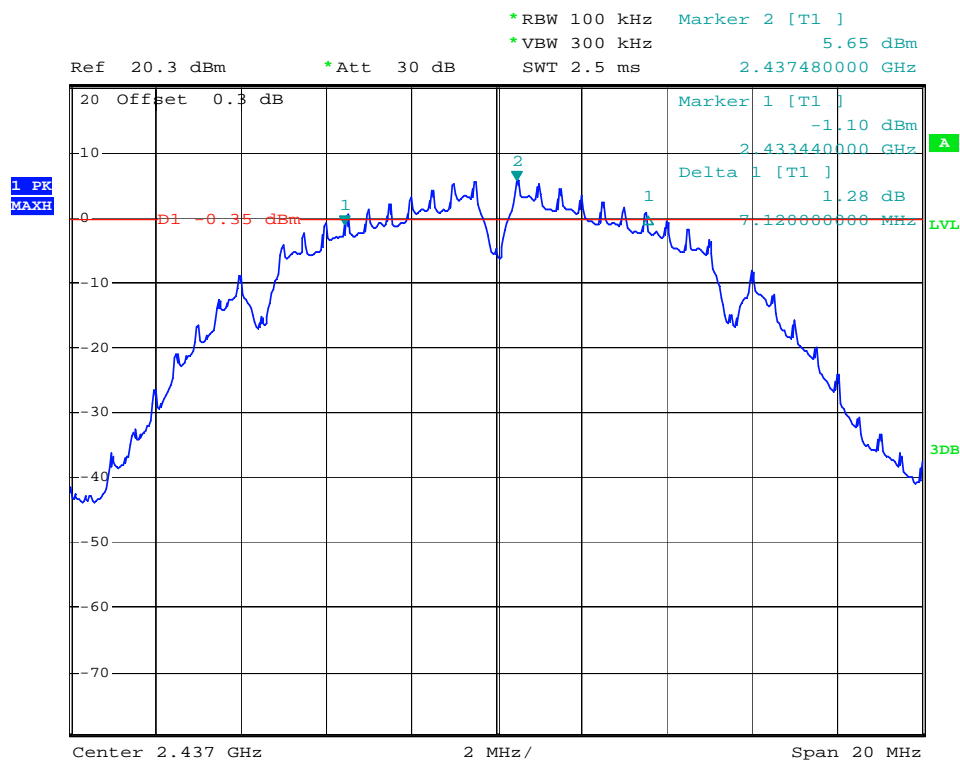
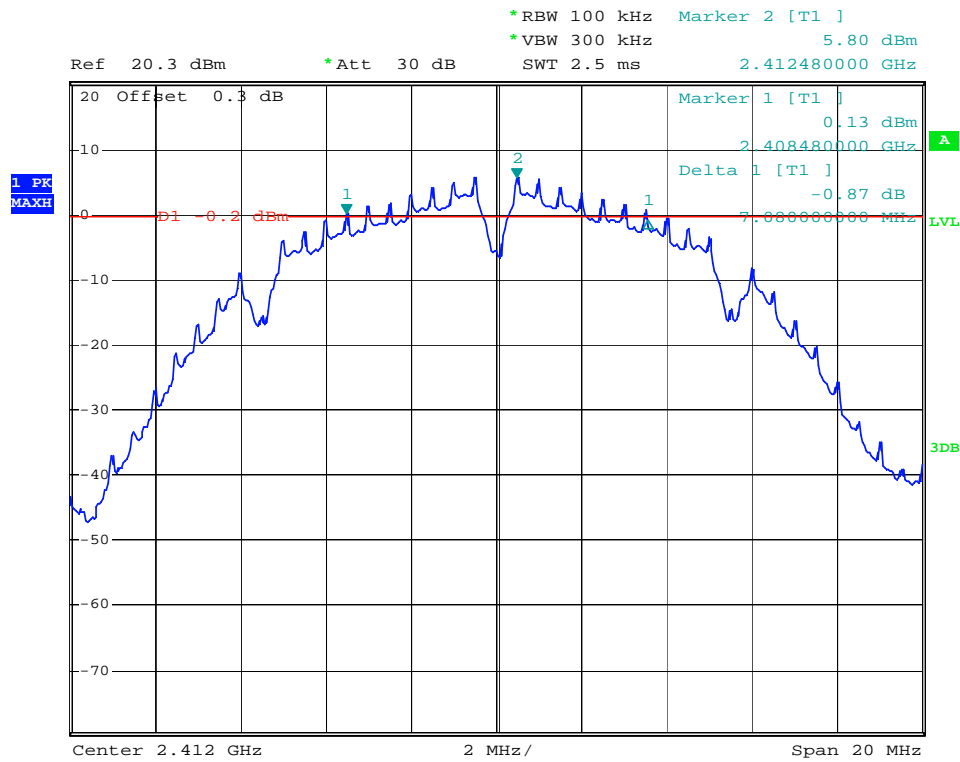
IEEE 802.11g (OFDM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	16.00
2437	16.00
2462	16.00

IEEE 802.11n 20M (OFDM, 7.2Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	17.36
2437	17.24
2462	17.28

The test plots are attached as below.

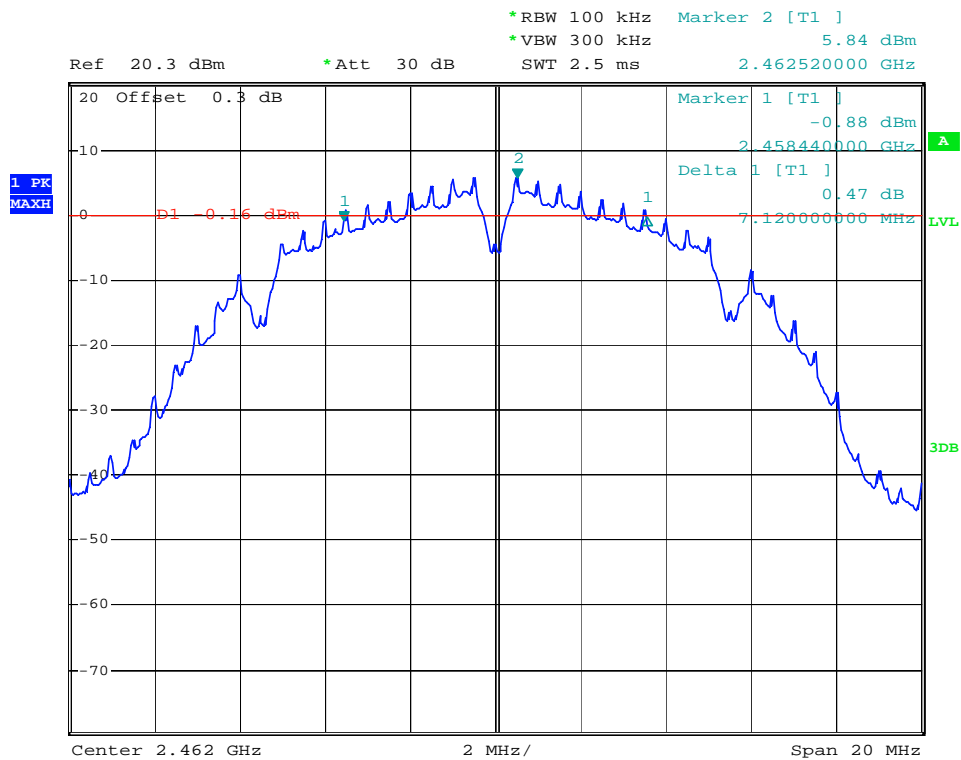
# INTERTEK TESTING SERVICES

802.11b

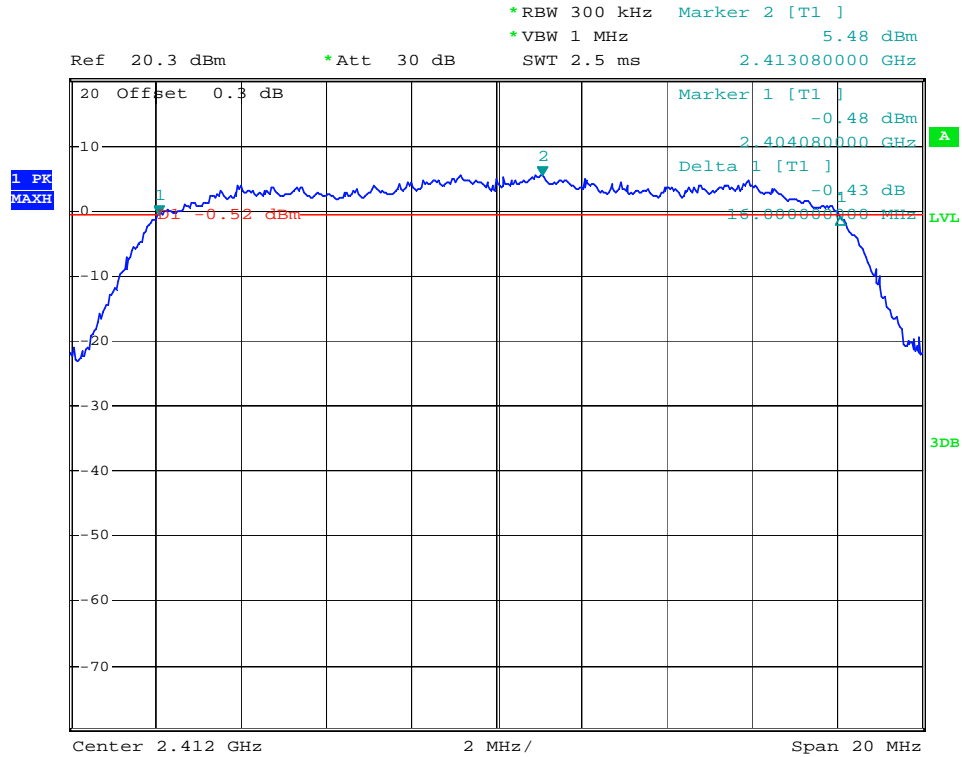


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 FCC ID: ZYQ-NAB12-NV7A

# INTERTEK TESTING SERVICES

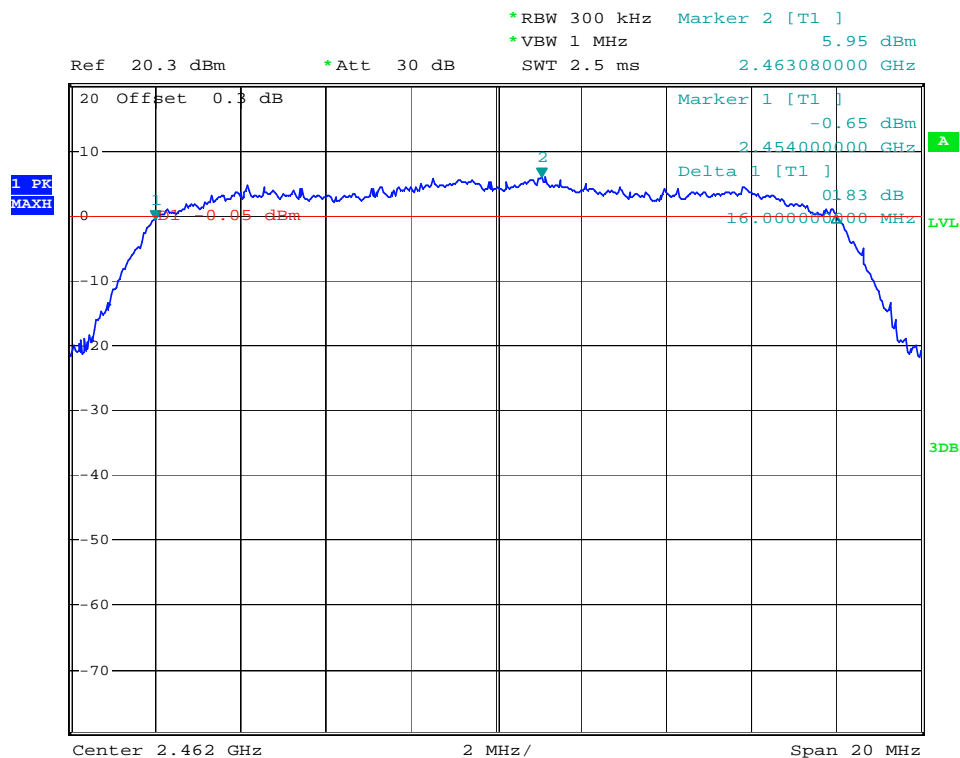
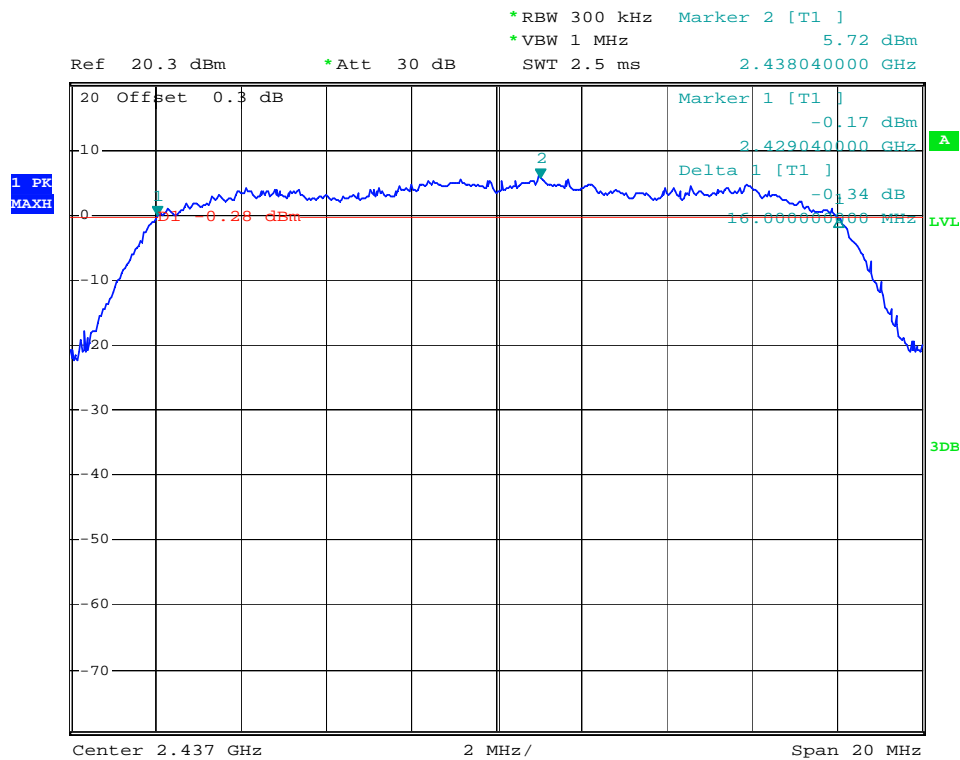


802.11g



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 FCC ID: ZYQ-NAB12-NV7A

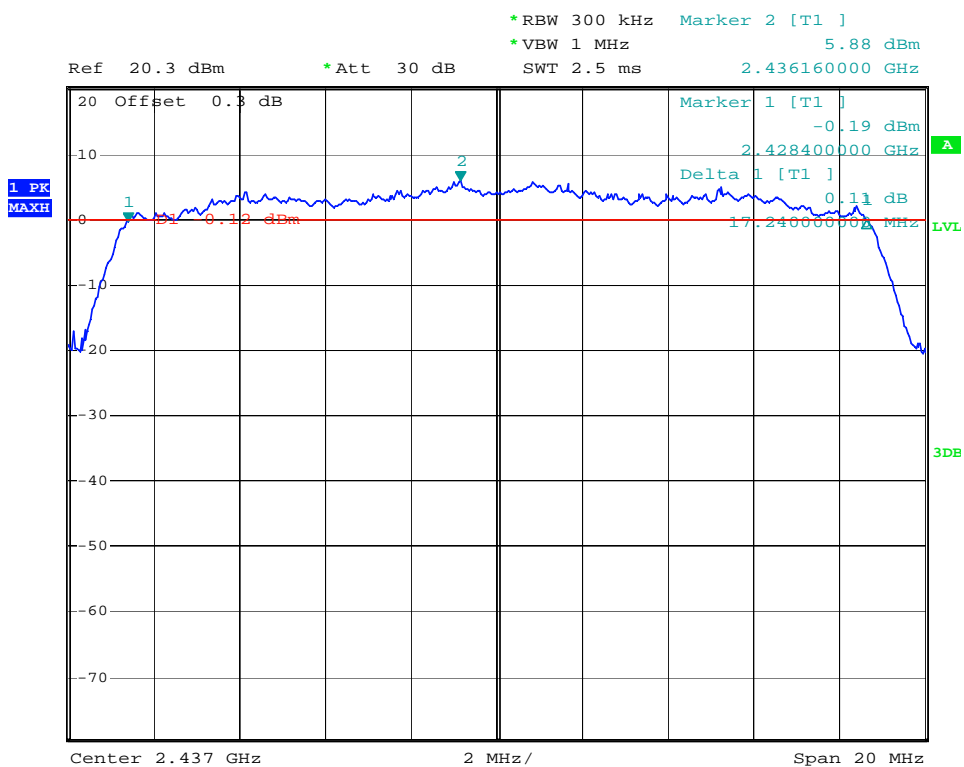
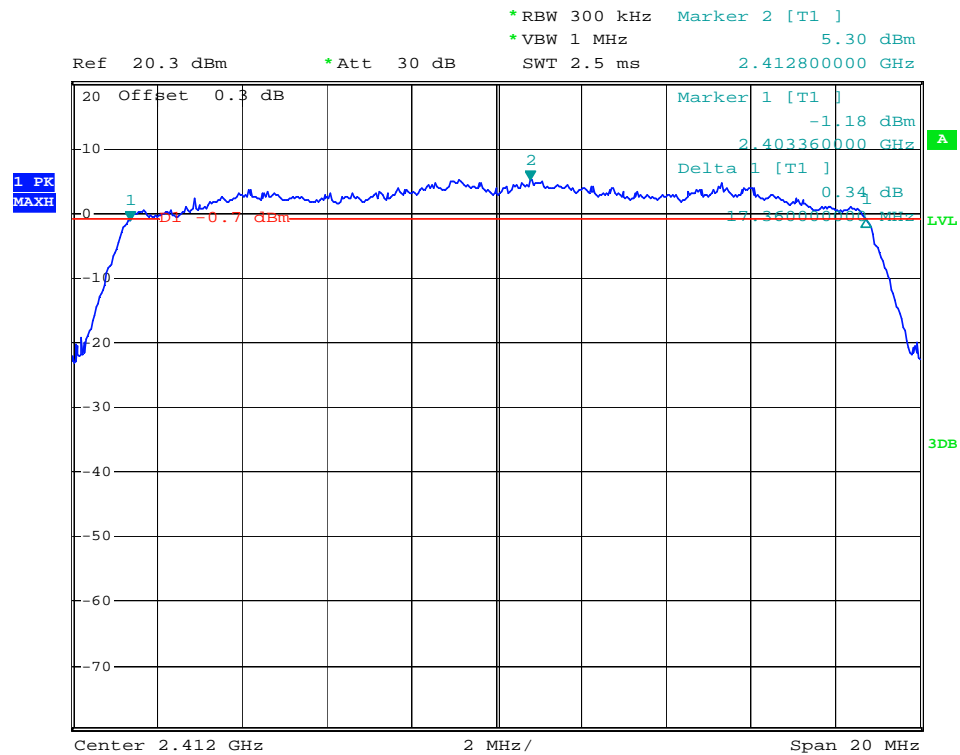
# INTERTEK TESTING SERVICES





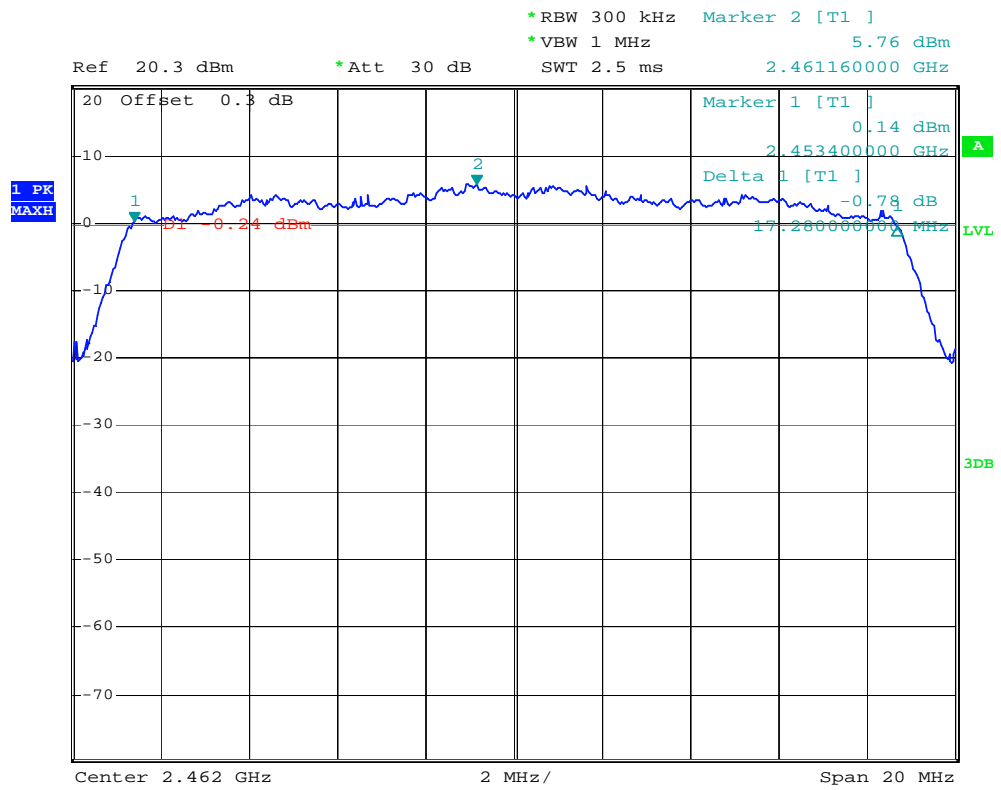
# INTERTEK TESTING SERVICES

802.11n (HT-20)



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

# INTERTEK TESTING SERVICES



## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

### 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  $BWCF = 10\log(3 \text{ kHz}/100 \text{ kHz}) = -15.2 \text{ dB}$ .

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)
2412.504	-10.06
2437.504	-9.80
2461.496	-9.44

IEEE 802.11g (OFDM, 6Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2413.240	-13.14
2438.240	-13.17
2463.320	-13.12

IEEE 802.11n 20M (OFDM, 7.2Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2413.280	-13.09
2438.280	-12.92
2463.280	-12.52

Cable loss: 0.3 dB    External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

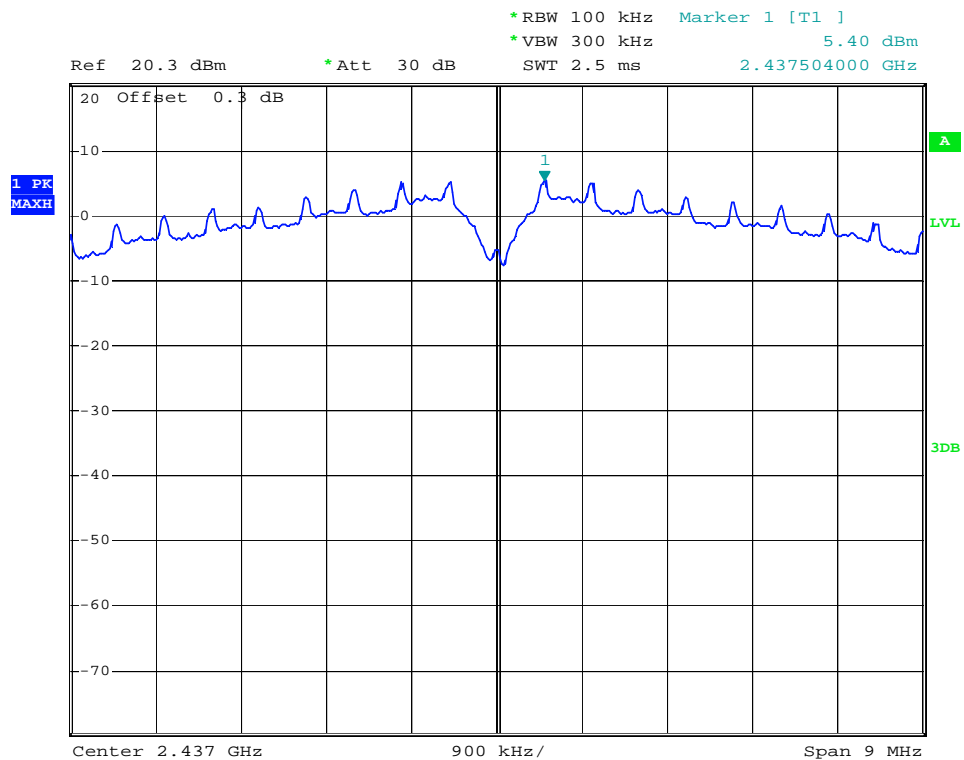
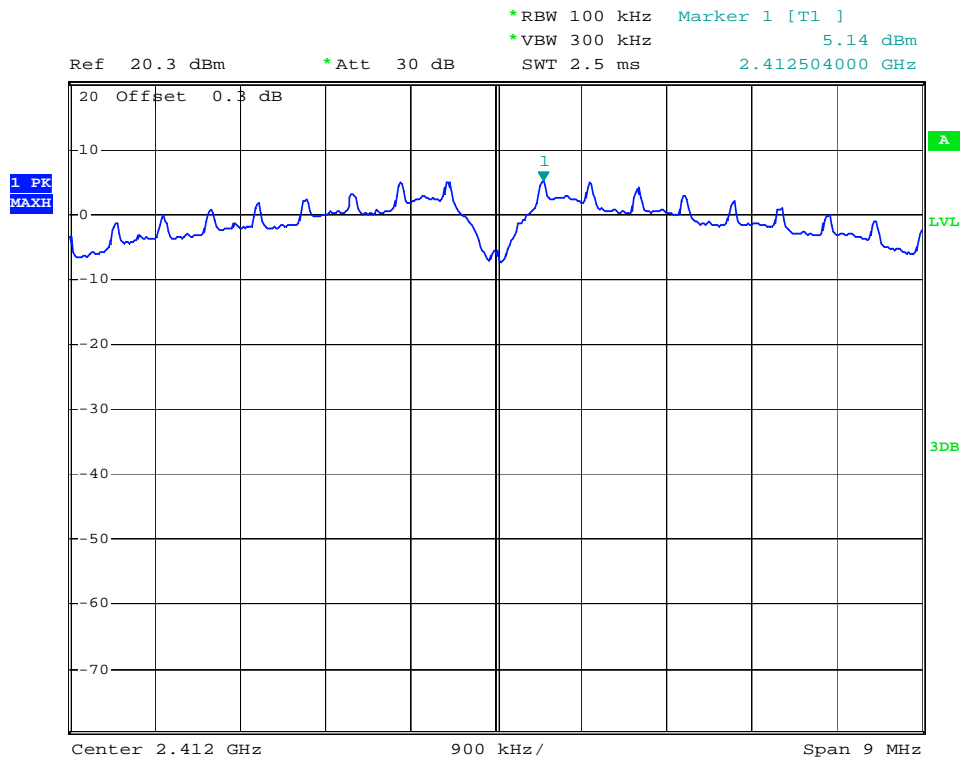
The test plots are attached as below.

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FCC ID: ZYQ-NABI2-NV7A

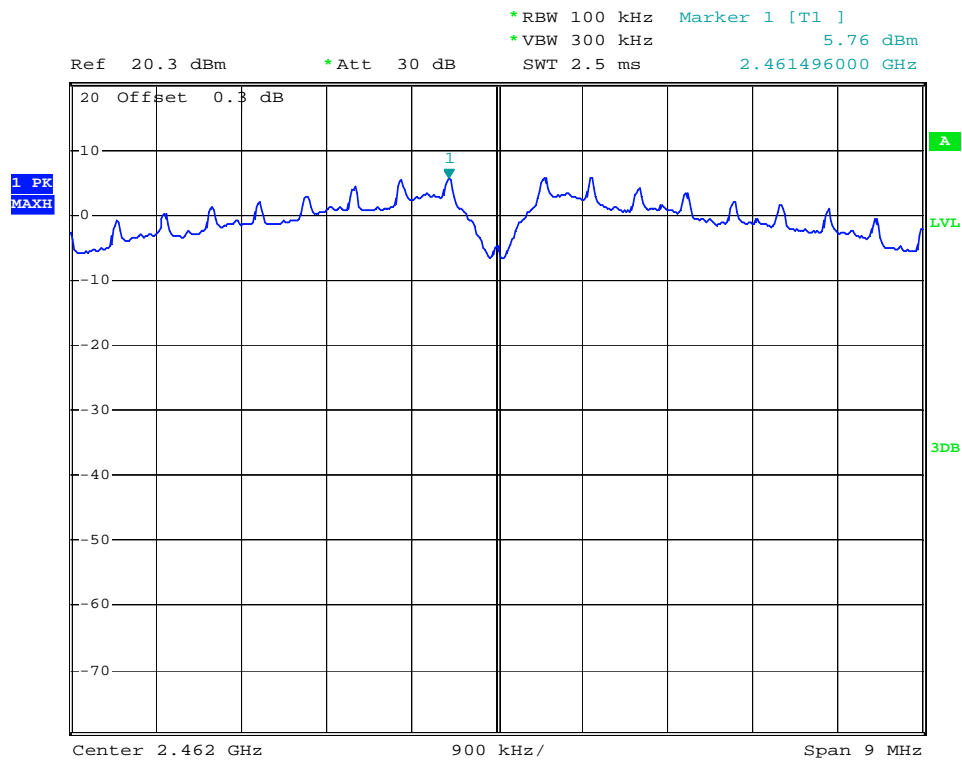
# INTERTEK TESTING SERVICES

802.11b

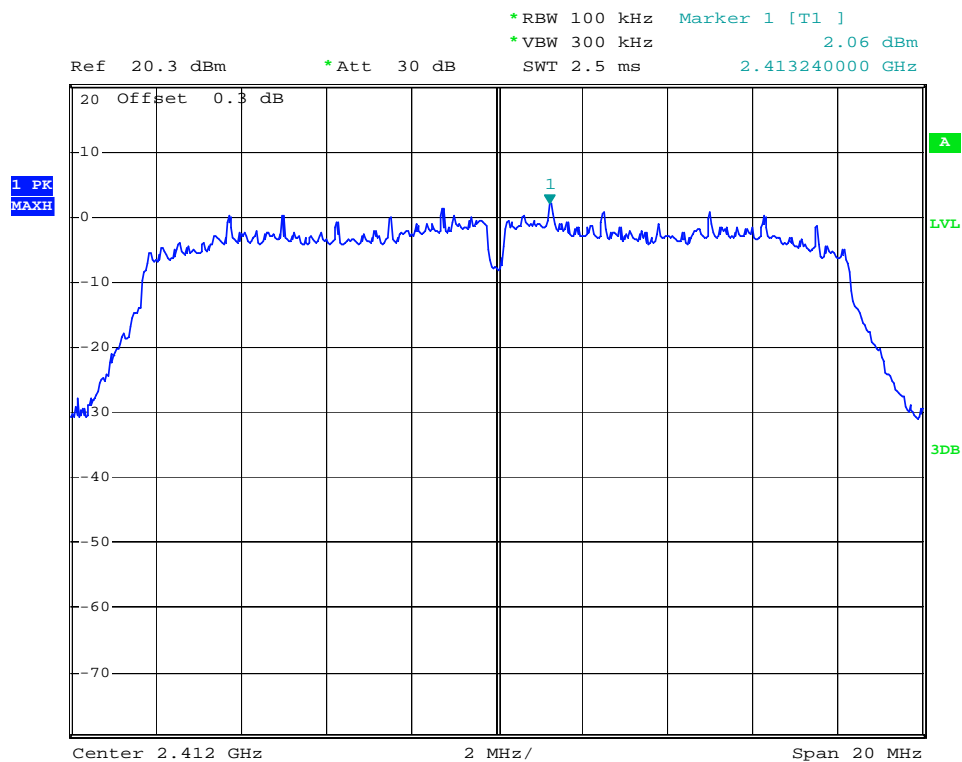


TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

## INTERTEK TESTING SERVICES

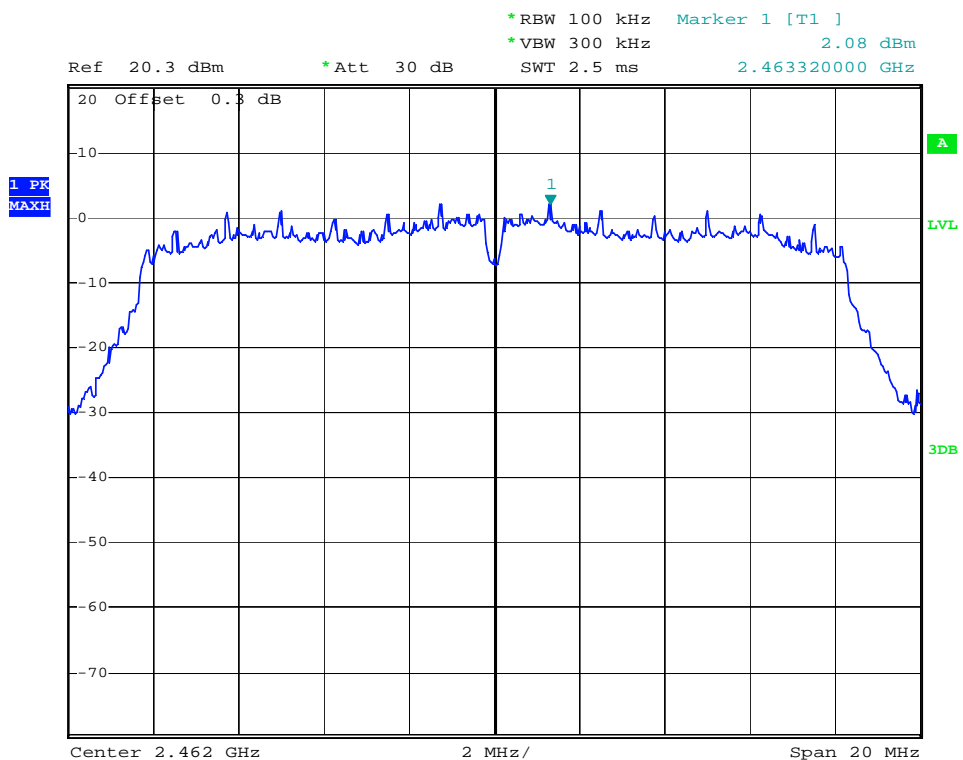
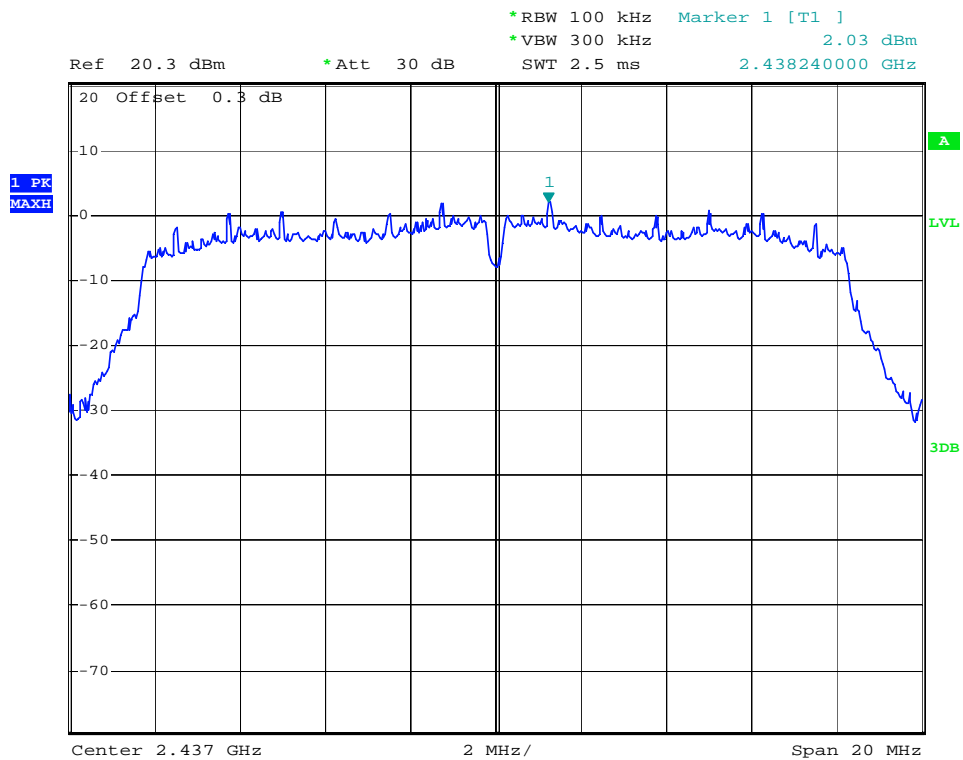


802.11g



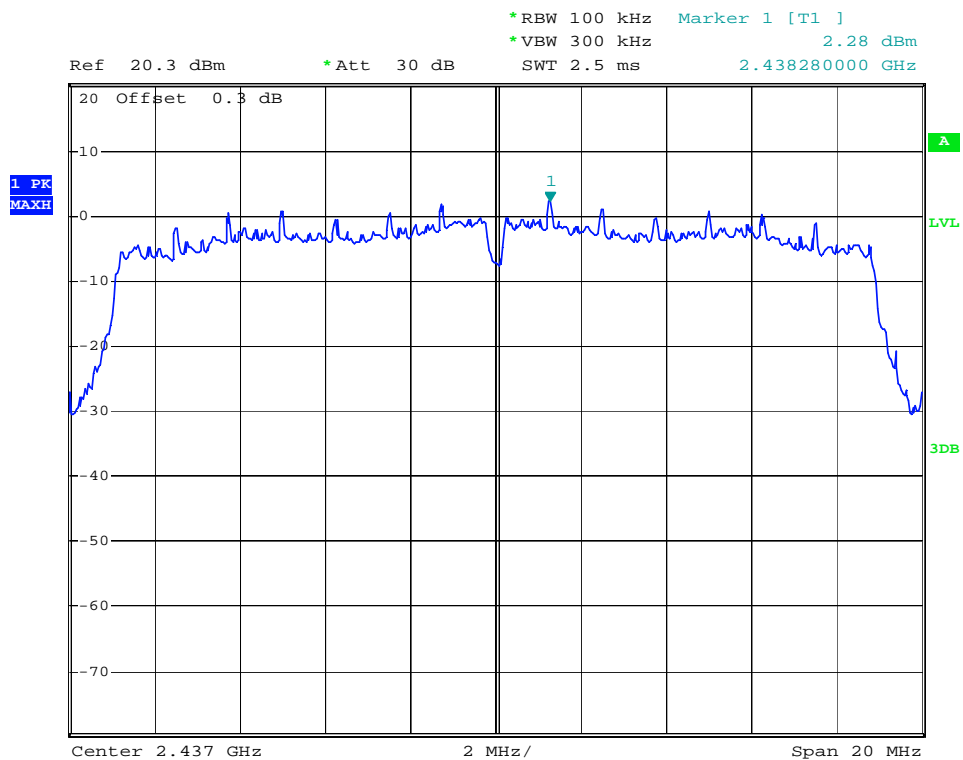
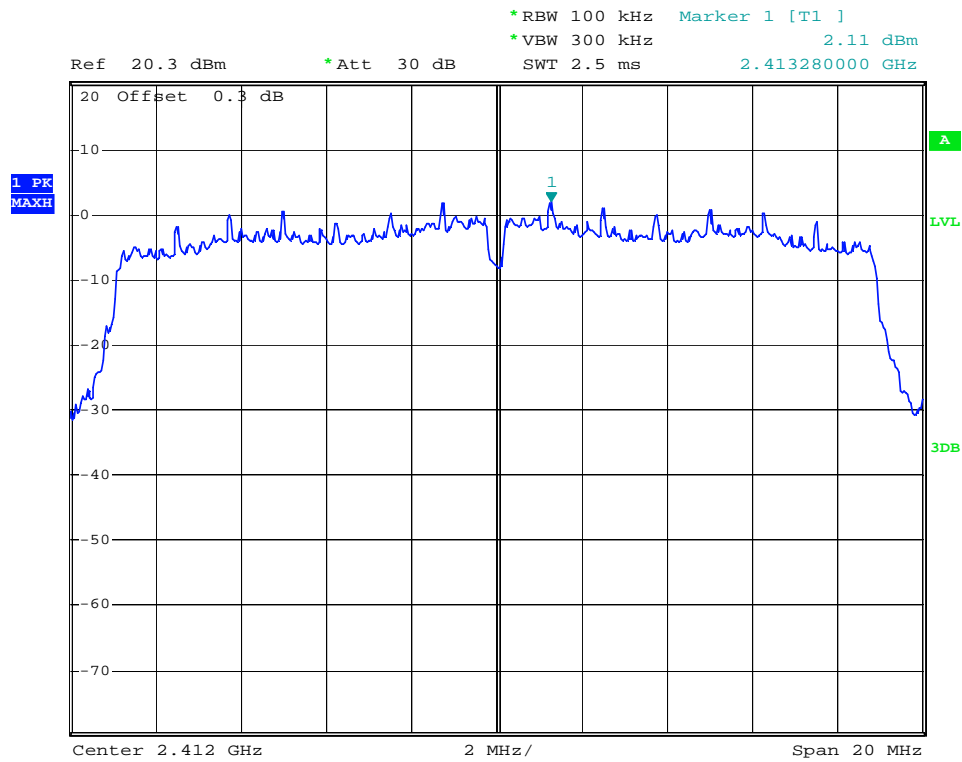
TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

# INTERTEK TESTING SERVICES



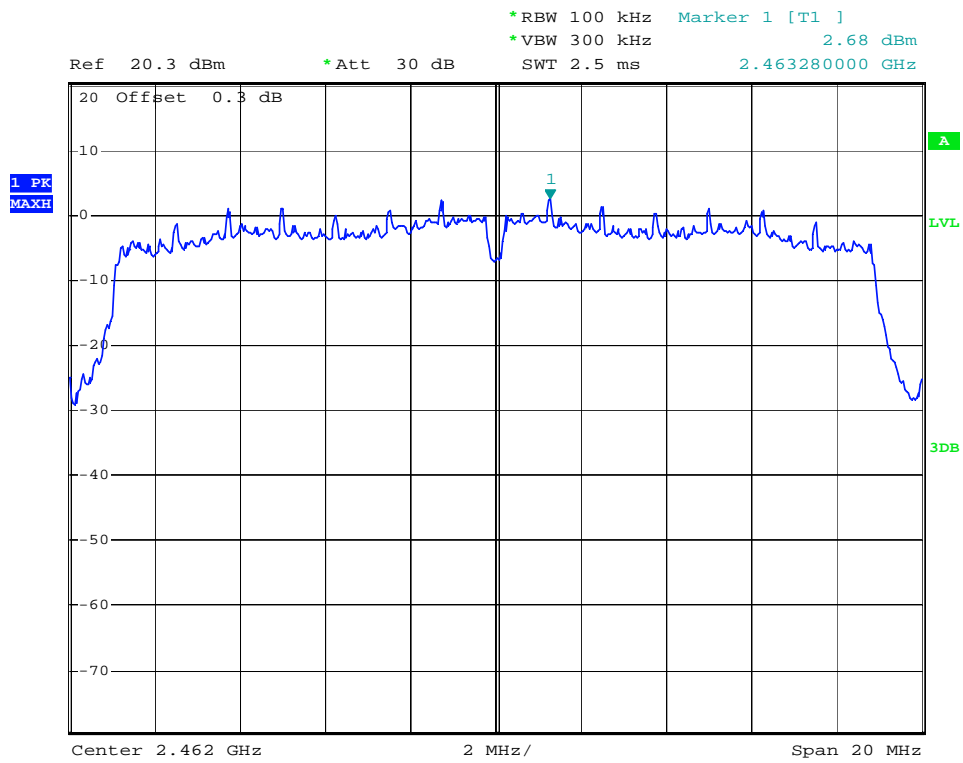
# INTERTEK TESTING SERVICES

802.11n (HT-20)



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

# INTERTEK TESTING SERVICES





## INTERTEK TESTING SERVICES

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Applicant: KEEN HIGH HOLDING(HK) LIMITED  
Date of Test: May 16, 2012  
Model: NABI2-NV7A

### 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.

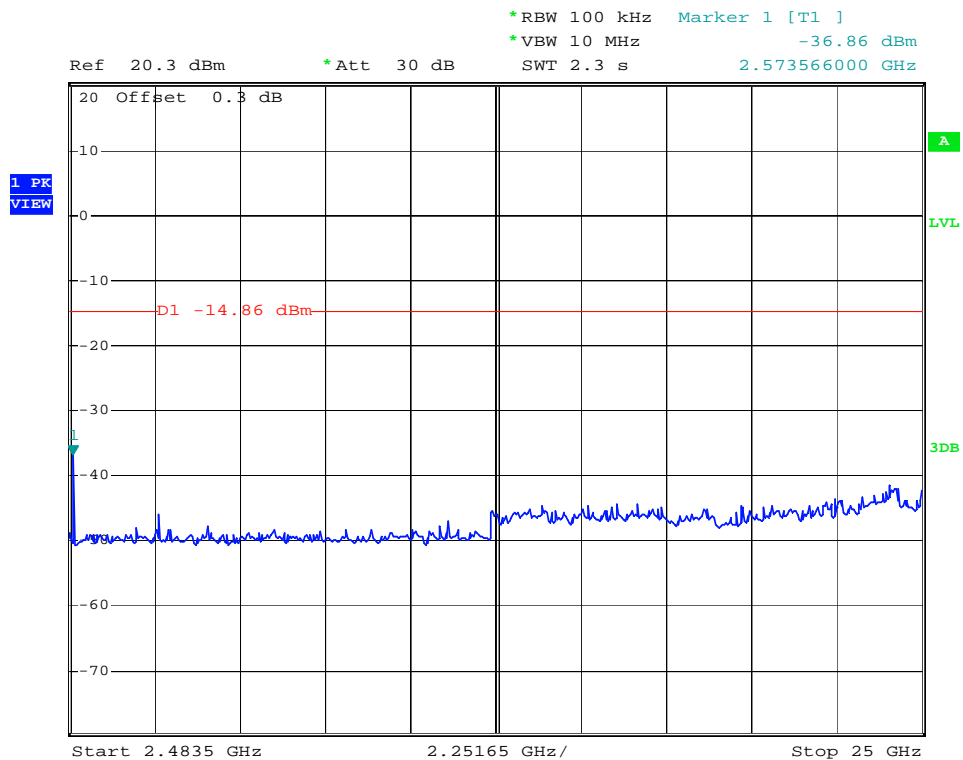
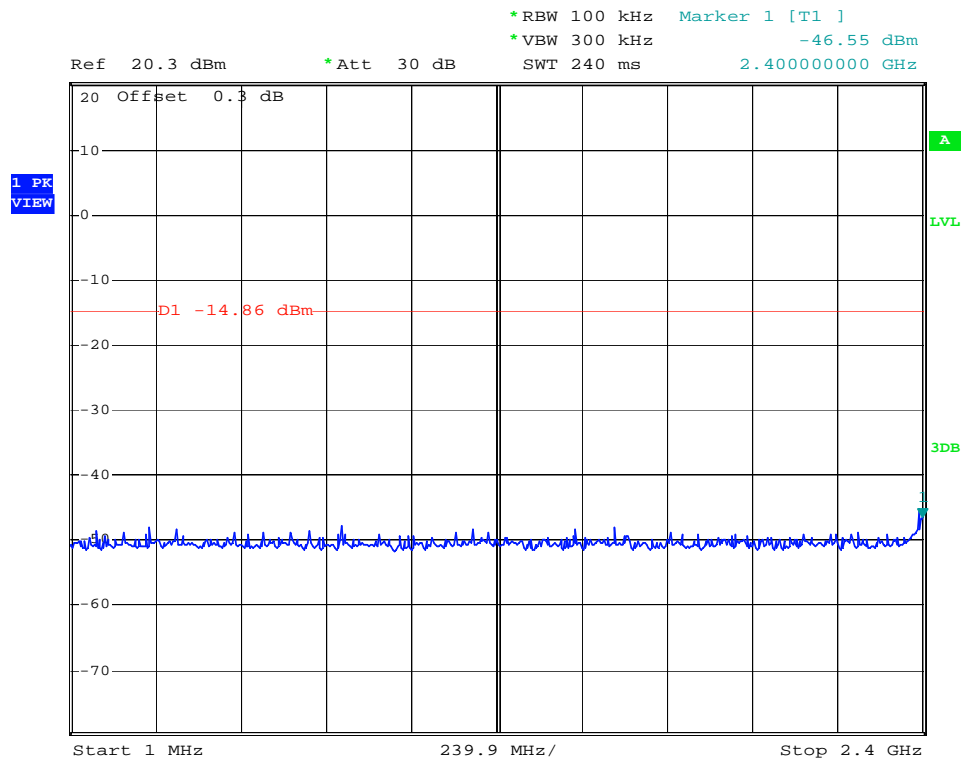
The test plots showed all spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The test plots are attached as below.

## INTERTEK TESTING SERVICES

802.11b

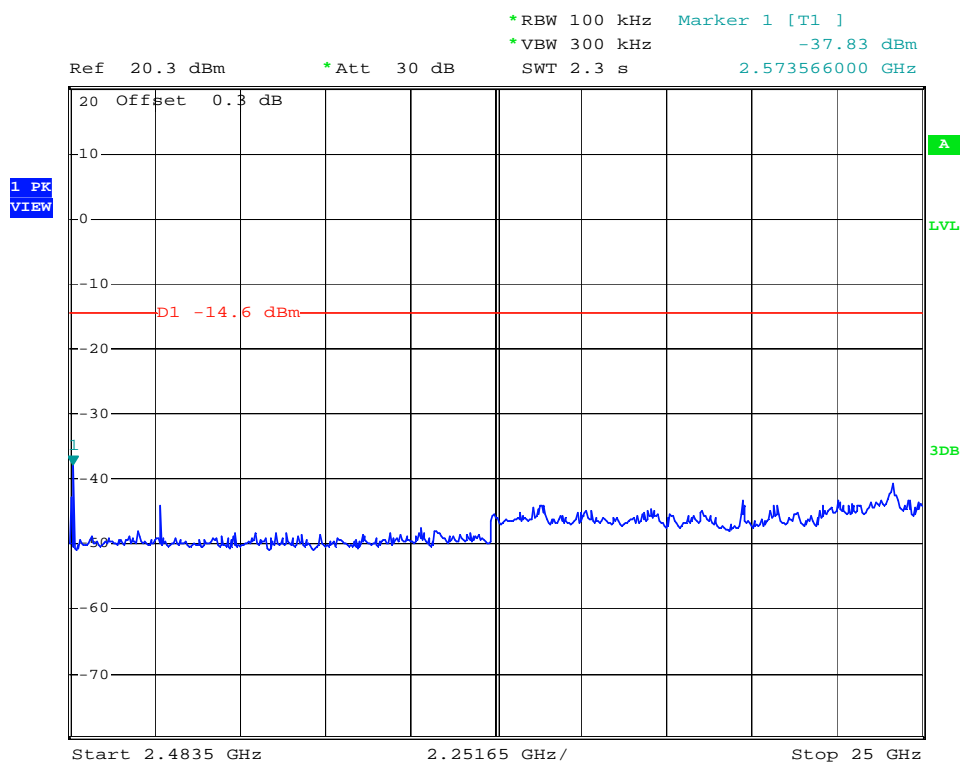
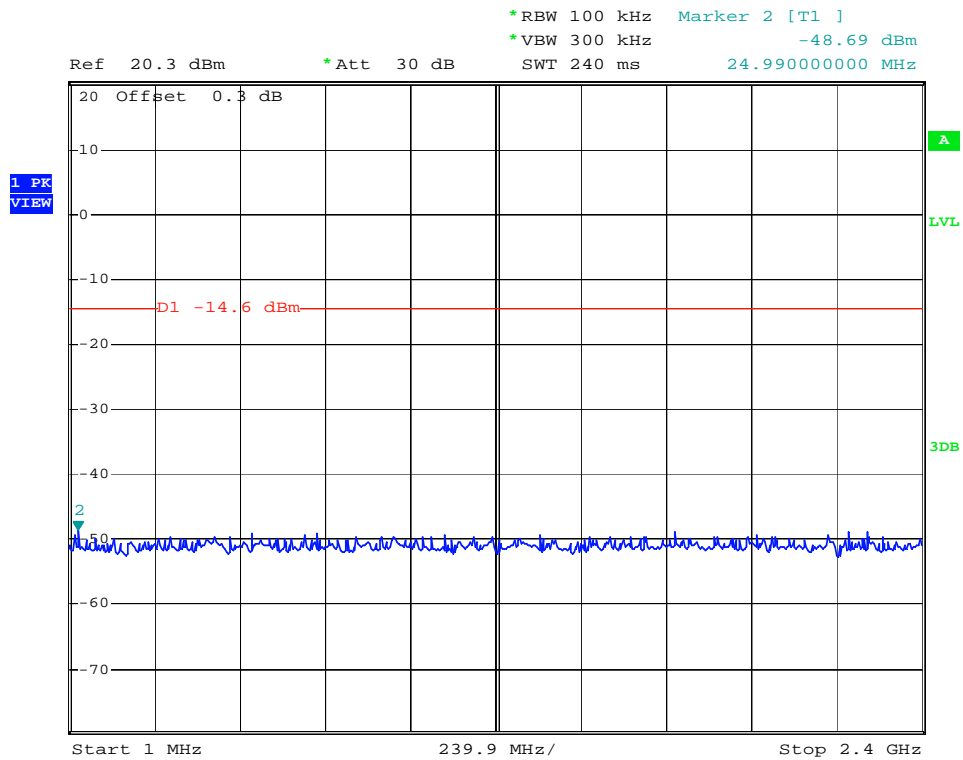
Channel 1 (2412MHz) Reference Level: -14.86dBm



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

# INTERTEK TESTING SERVICES

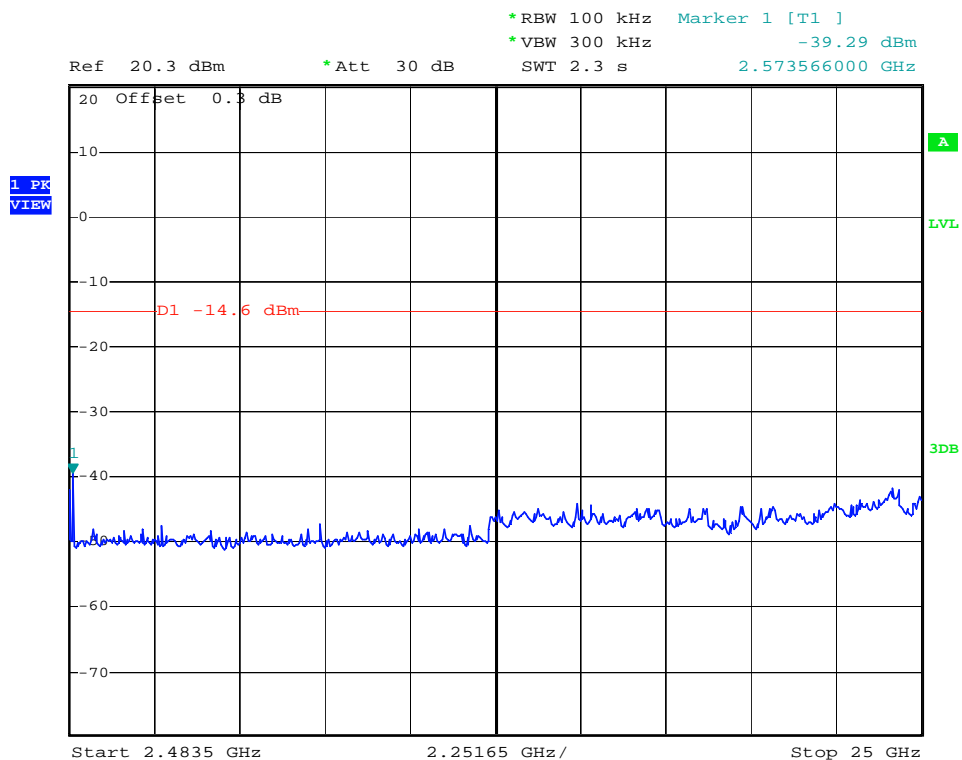
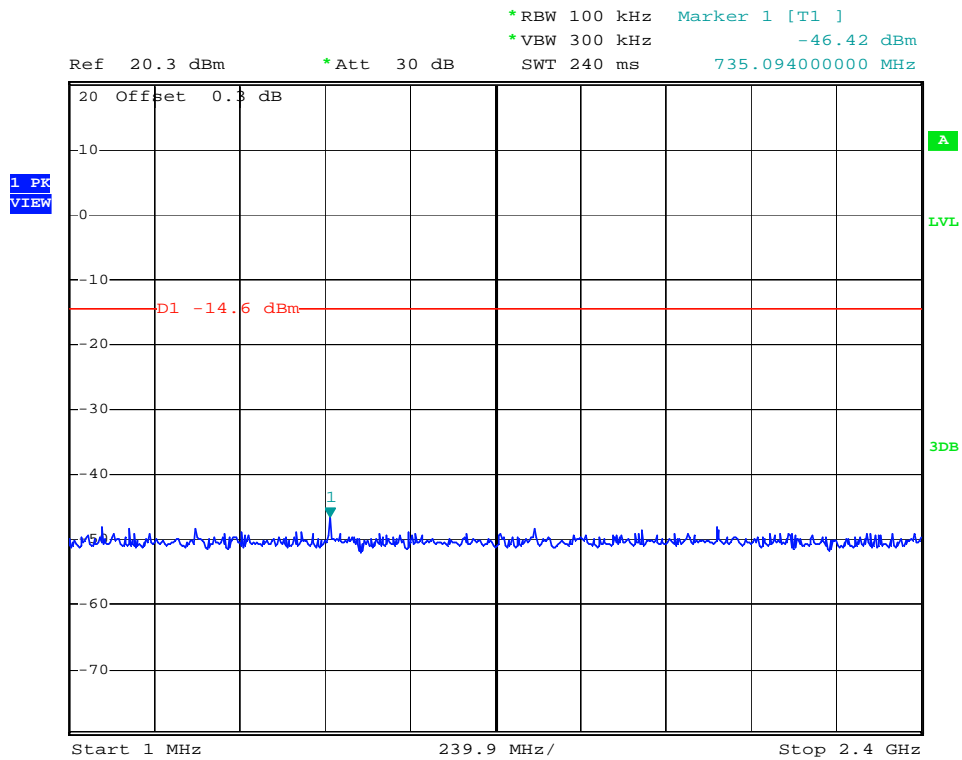
Channel 6 (2437MHz) Reference Level: -14.60dBm



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

# INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: -14.60dBm

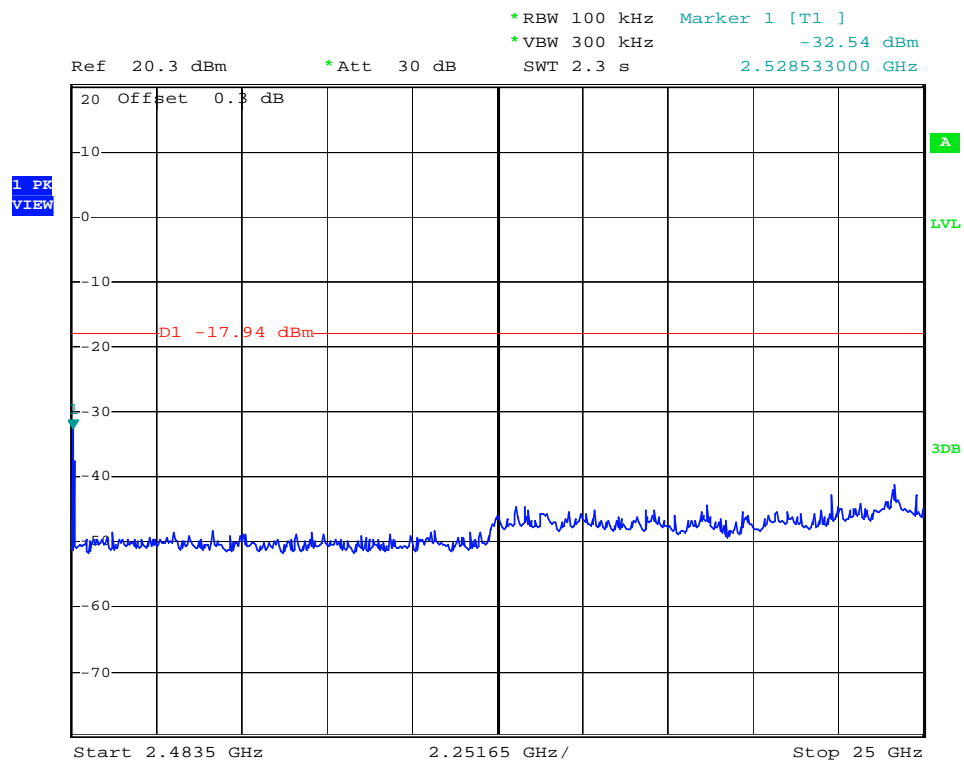
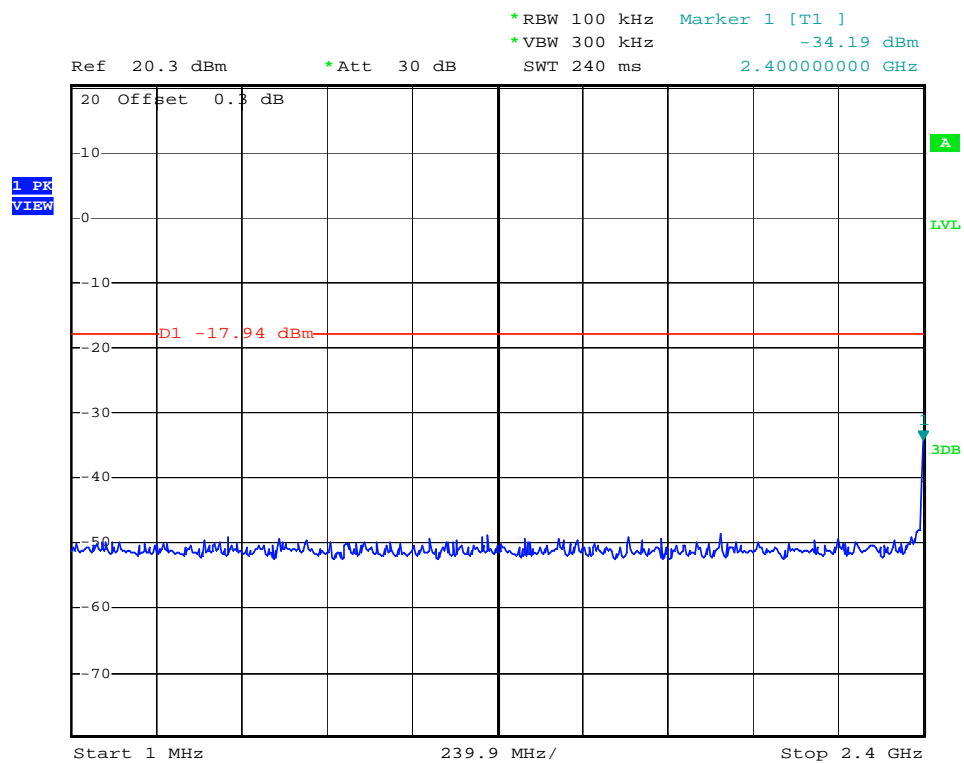


TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

## INTERTEK TESTING SERVICES

802.11g

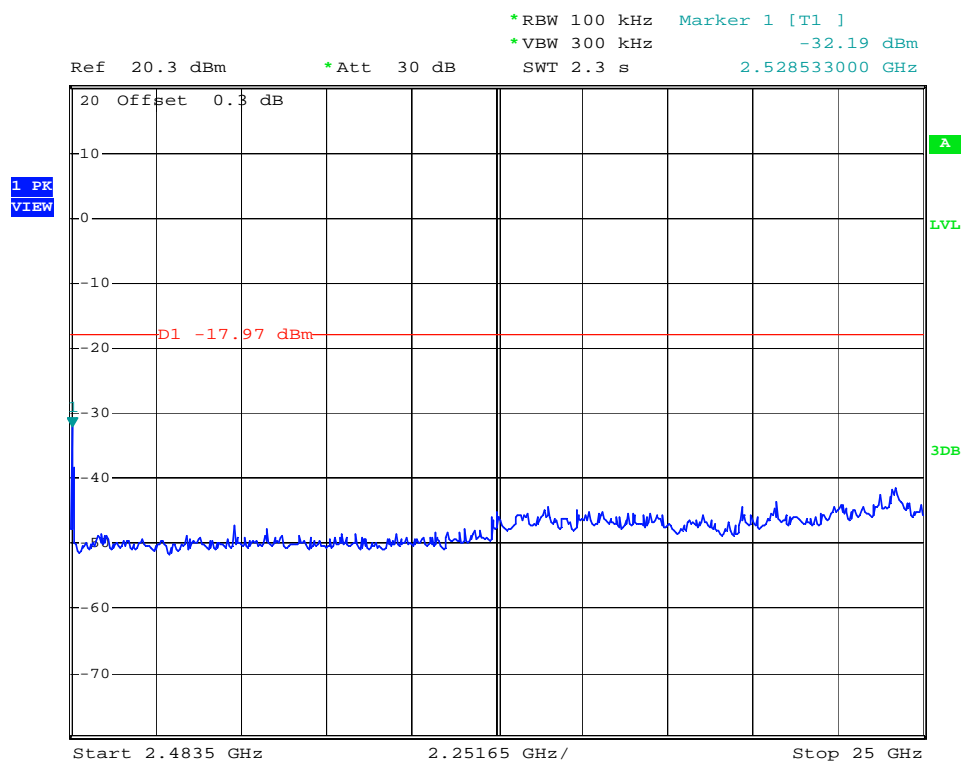
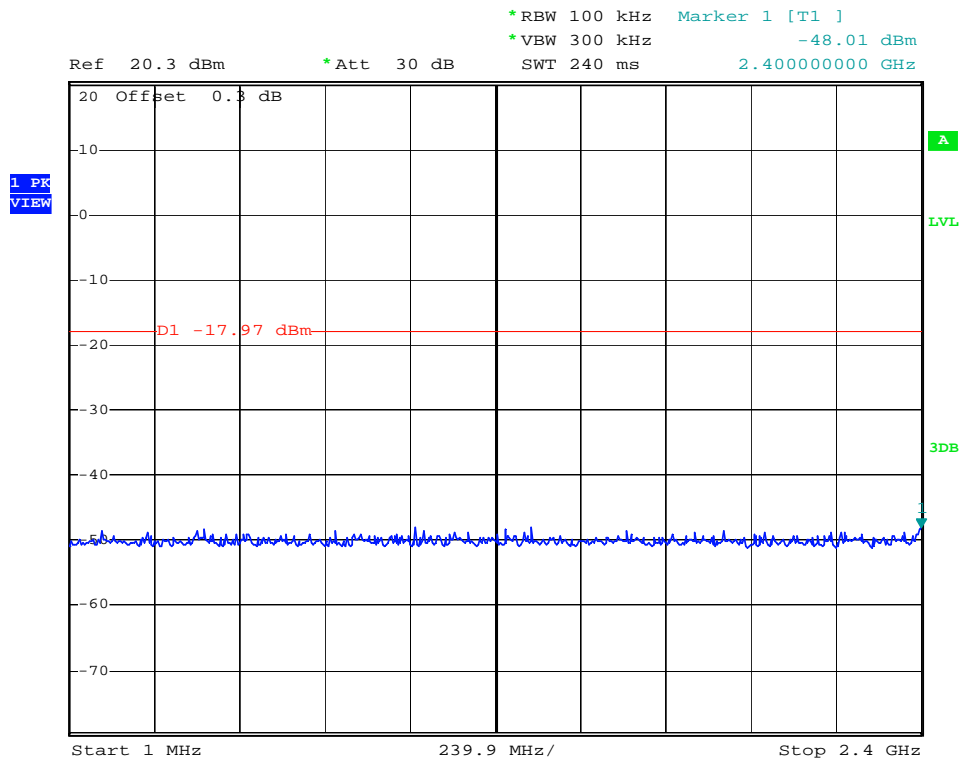
Channel 1 (2412MHz) Reference Level: -17.94dBm



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

# INTERTEK TESTING SERVICES

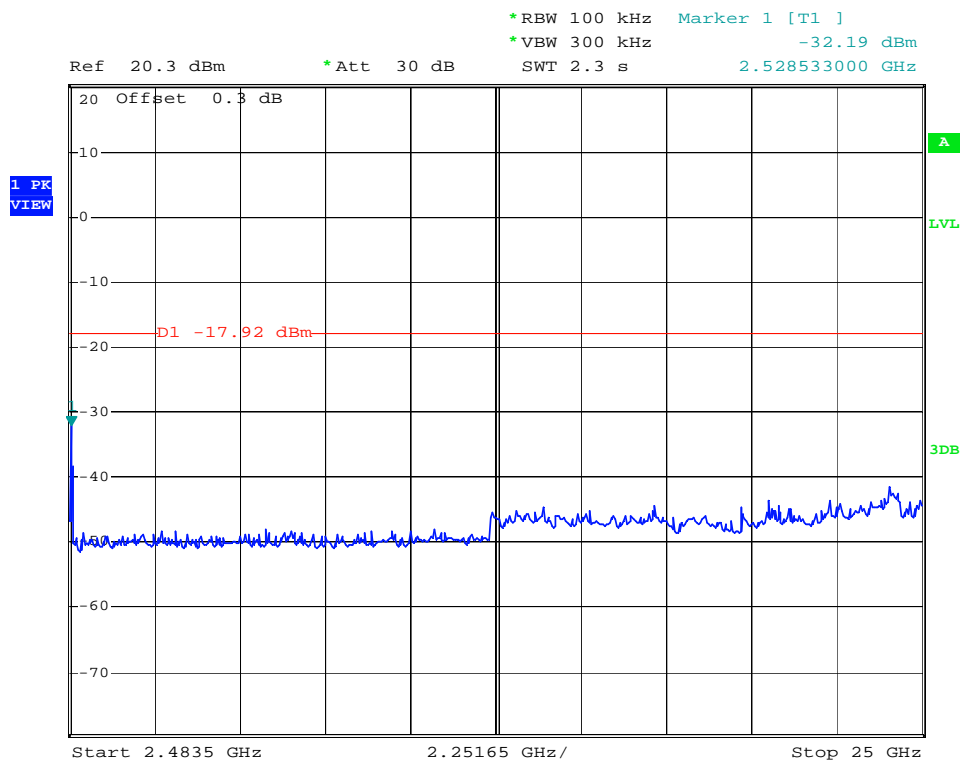
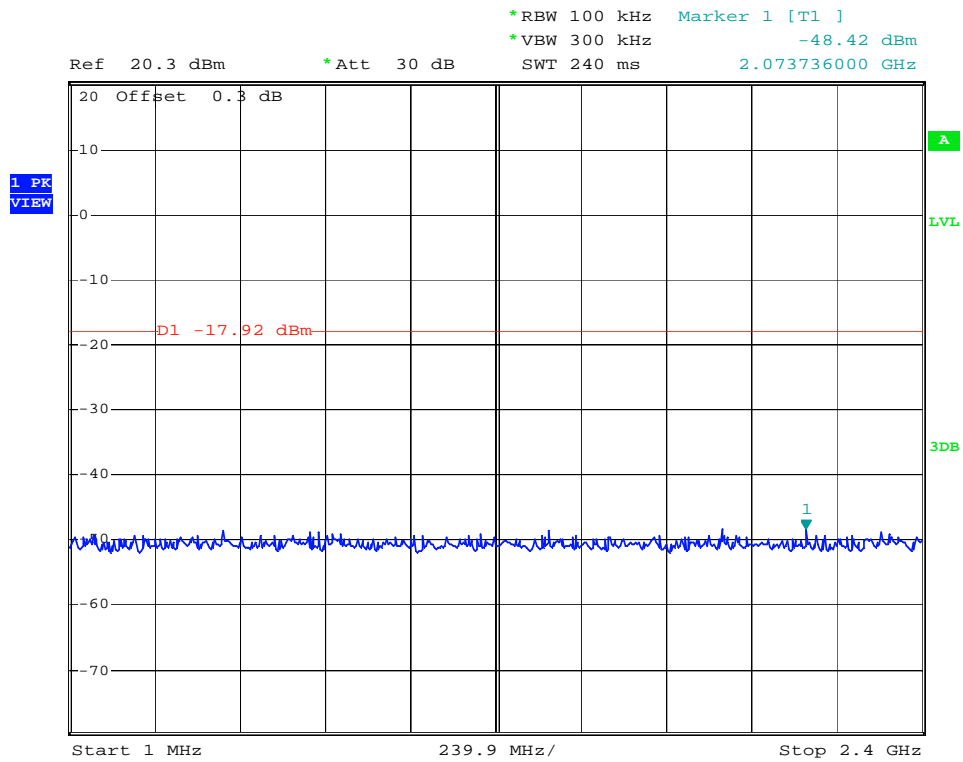
Channel 6 (2437MHz) Reference Level: -17.97dBm



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

# INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: -17.92dBm

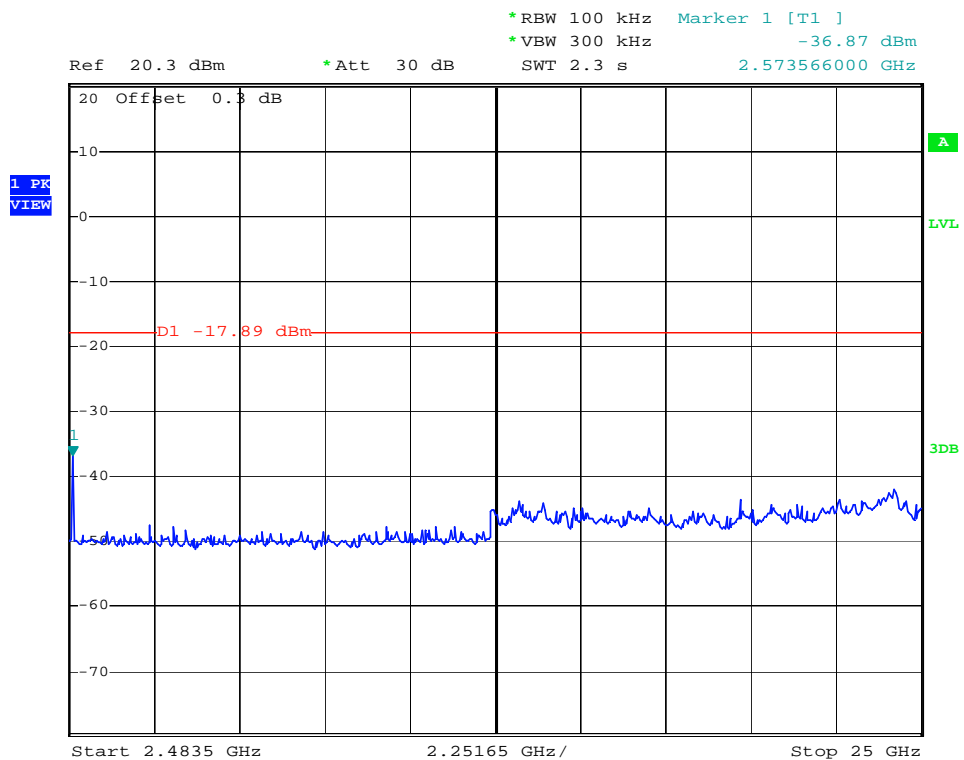
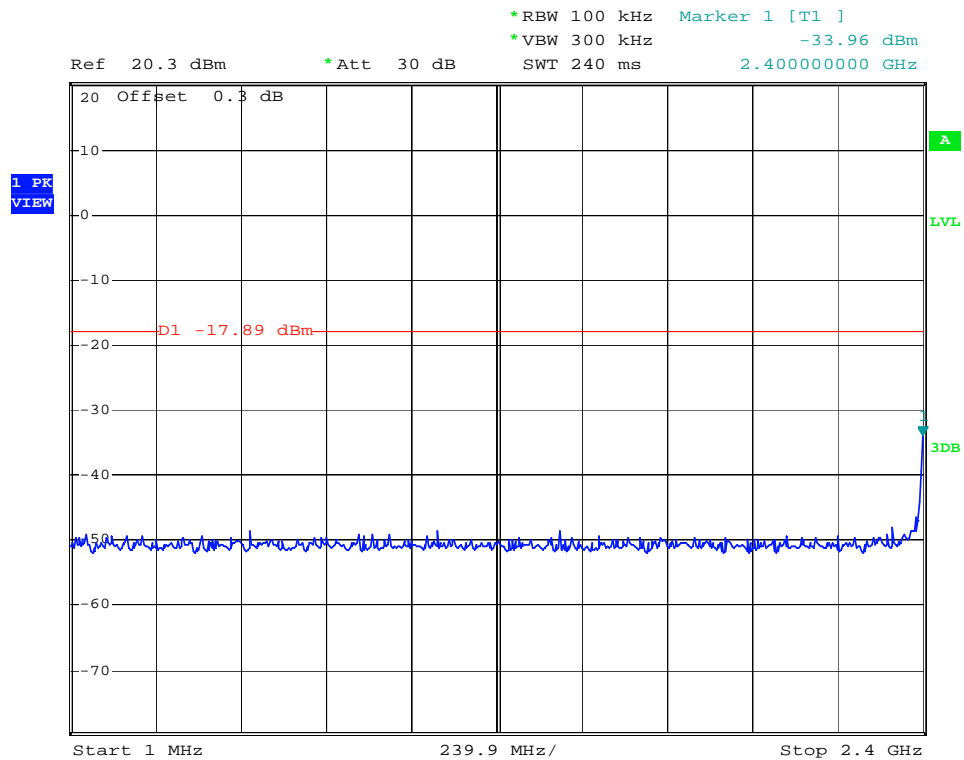


TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

## INTERTEK TESTING SERVICES

802.11n (HT-20)

Channel 1 (2412MHz) Reference Level: -17.89dBm

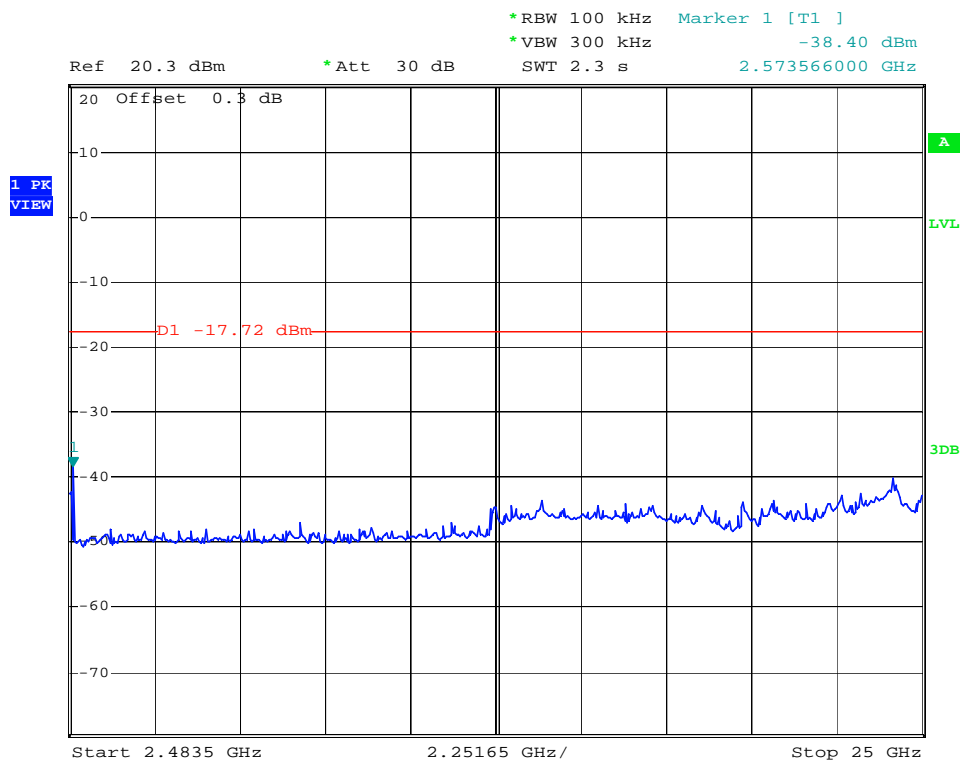
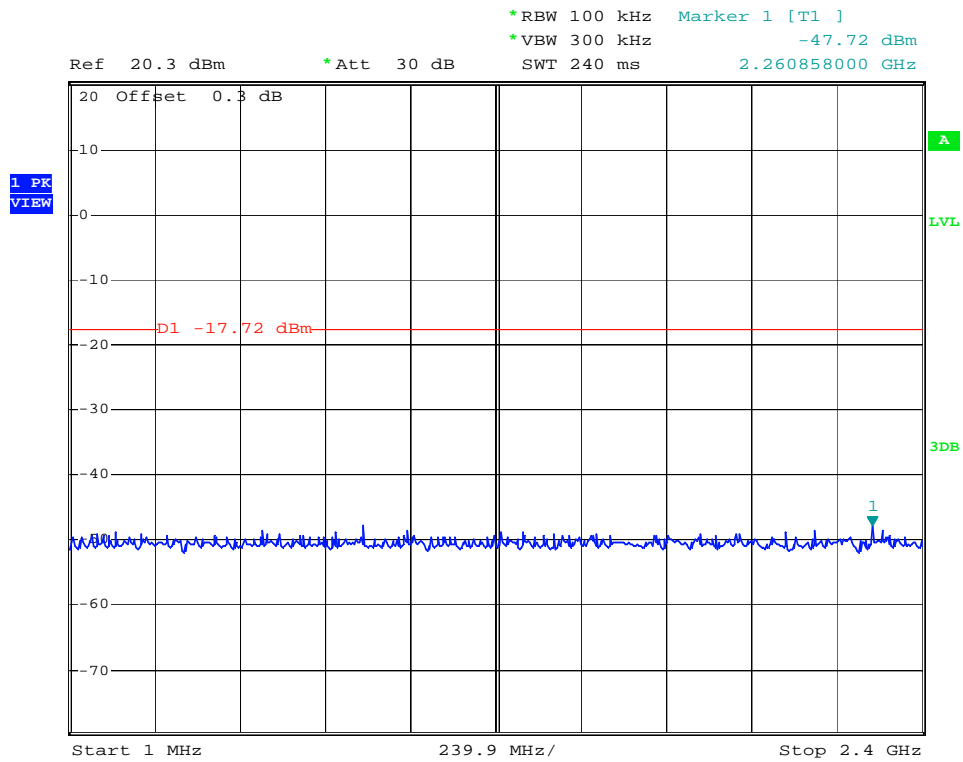


TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A



# INTERTEK TESTING SERVICES

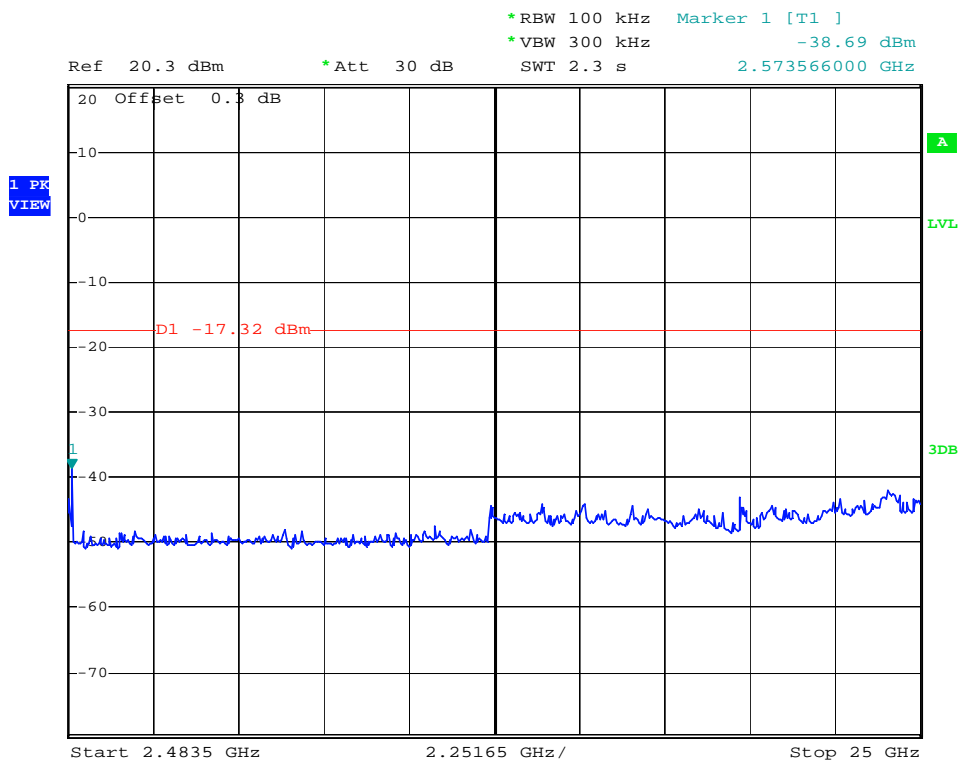
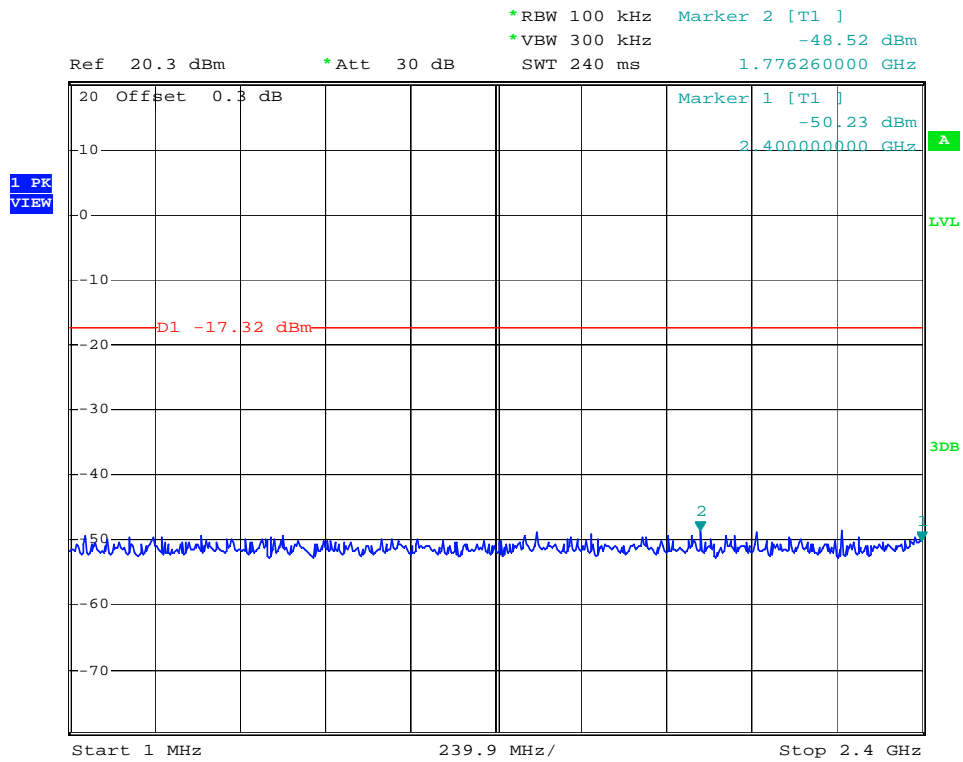
Channel 6 (2437MHz) Reference Level: -17.72dBm



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

# INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: -17.32dBm



TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NAB12-NV7A

## INTERTEK TESTING SERVICES

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Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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**

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Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

### 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

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Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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

$$RA = 62.0 \text{ dB}\mu\text{V}$$

$$AF = 7.4 \text{ dB}$$

$$CF = 1.6 \text{ dB}$$

$$AG = 29.0 \text{ dB}$$

$$PD = 0 \text{ dB}$$

$$FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 \text{ dB}\mu\text{V/m}$$

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

## INTERTEK TESTING SERVICES

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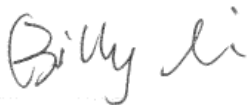
Applicant: KEEN HIGH HOLDING(HK) LIMITED  
Date of Test: May 16, 2012  
Model: NABI2-NV7A

### 4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission (802.11b) at 7311.000MHz is passed by 2.3 dB margin.

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

### **TEST PERSONNEL:**



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*Signature*

Billy Li, Team Leader  
*Typed/Printed Name*

May 16, 2012  
*Date*

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Worst Case Operating Mode: Transmit

Table 1

### Radiated Emissions

With AC adapter (Model: KSAPK0110500200FU)

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	73.250	39.3	20.0	6.8	26.1	40.0	-13.9
Horizontal	133.790	35.2	20.0	8.0	23.2	43.5	-20.3
Horizontal	332.241	32.7	20.0	15.8	28.5	46.0	-17.5
Vertical	37.800	28.5	20.0	18.0	26.5	40.0	-13.5
Vertical	38.000	25.1	20.0	18.1	23.2	40.0	-16.8
Vertical	112.400	31.1	20.0	7.2	18.3	43.5	-25.2

With AC adapter (Model: NSA12UU-050200)

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	73.251	38.6	20.0	6.8	25.4	40.0	-14.6
Horizontal	133.682	36.3	20.0	8.0	24.3	43.5	-19.2
Horizontal	332.256	31.8	20.0	15.8	27.6	46.0	-18.4
Vertical	37.563	28.4	20.0	18.0	26.4	40.0	-13.6
Vertical	37.982	25.4	20.0	18.1	23.5	40.0	-16.5
Vertical	113.210	32.9	20.0	7.2	20.1	43.5	-23.4

- 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.

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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	**2412.000	125.6	36.7	27.2	116.1	--	--
Horizontal	*4824.000	49.1	36.1	34.1	47.1	54.0	-6.9
Horizontal	*2389.425	52.7	36.7	27.2	43.2	54.0	-10.8

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



## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Mode: 802.11b (TX-Channel 06)

Table 3  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Average Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Horizontal	*4874.000	48.8	36.1	34.5	47.2	54.0	-6.8
Horizontal	*7311.000	50.2	35.6	37.1	51.7	54.0	-2.3

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.

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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	**2462.000	123.8	36.7	27.7	114.8	--	--
Horizontal	*4924.000	48.9	36.1	34.7	47.5	54.0	-6.5
Horizontal	*7386.000	49.9	35.6	37.2	51.5	54.0	-2.5
Horizontal	*2483.551	52.4	36.7	27.7	43.4	54.0	-10.6

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.

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

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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	**2412.000	125.4	36.7	27.2	115.9	--	--
Horizontal	*4824.000	48.9	36.1	34.1	46.9	54.0	-7.1
Horizontal	*2389.475	53.4	36.7	27.2	43.9	54.0	-10.1

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.

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Mode: 802.11g (TX-Channel 06)

Table 6  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Average Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Horizontal	*4874.000	48.9	36.1	34.5	47.3	54.0	-6.7
Horizontal	*7311.000	50.0	35.6	37.1	51.5	54.0	-2.5

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.

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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	**2462.000	125.8	36.7	27.7	116.8	--	--
Horizontal	*4924.000	48.8	36.1	34.7	47.4	54.0	-6.6
Horizontal	*7386.000	49.8	35.6	37.2	51.4	54.0	-2.6
Horizontal	*2483.622	53.6	36.7	27.7	44.6	54.0	-9.4

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.

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

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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	**2412.000	128.6	36.7	27.2	119.1	--	--
Horizontal	*4824.000	49.3	36.1	34.1	47.3	54.0	-6.7
Horizontal	*2387.325	54.3	36.7	27.2	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.

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

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Mode: 802.11n-20M (TX-Channel 06)

Table 9  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Average Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Horizontal	*4874.000	48.9	36.1	34.5	47.3	54.0	-6.7
Horizontal	*7311.000	50.1	35.6	37.1	51.6	54.0	-2.4

- 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.

## INTERTEK TESTING SERVICES

Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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	**2462.000	125.0	36.7	27.7	116.0	--	--
Horizontal	*4924.000	49.1	36.1	34.7	47.7	54.0	-6.3
Horizontal	*7386.000	49.6	35.6	37.2	51.2	54.0	-2.8
Horizontal	*2483.749	54.2	36.7	27.7	45.2	54.0	-8.8

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.

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



## INTERTEK TESTING SERVICES

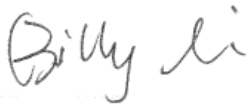
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### 4.9 Conducted Emission

Worst Case Line-Conducted emission with AC adapter (Model: NSA12UU-050200) at 1.874MHz is Passed by 8.4 dB margin

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

#### **TEST PERSONNEL:**



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*Signature*

Billy Li, Team Leader  
*Typed/Printed Name*

May 16, 2012  
*Date*

## INTERTEK TESTING SERVICES

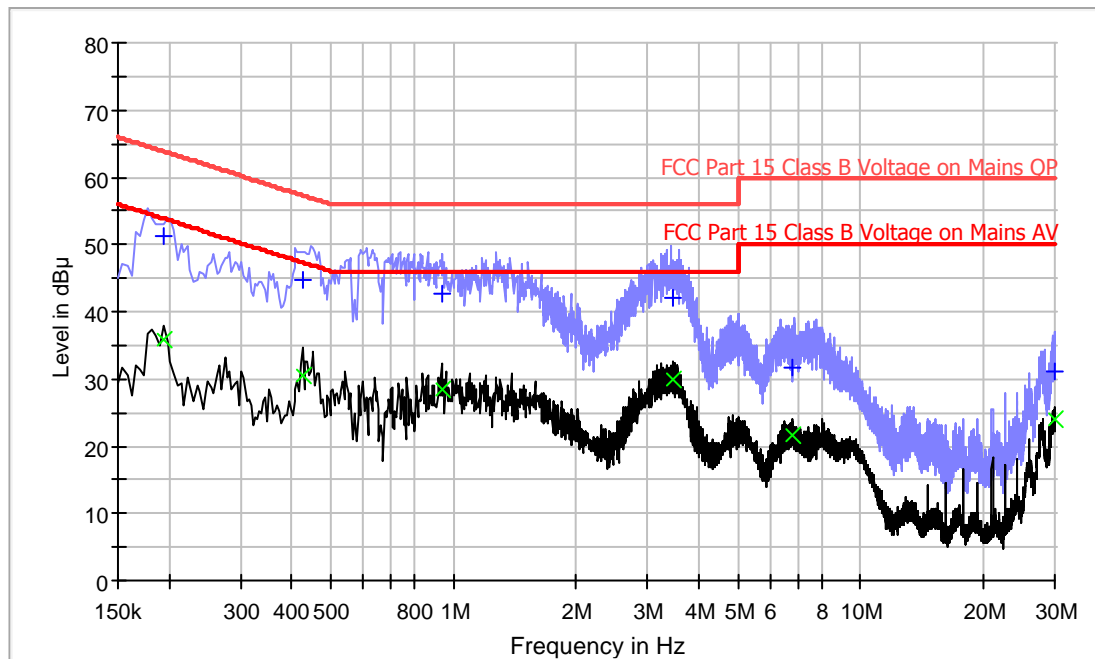
Company: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Worst Case Operating Mode: Transmit (802.11n-20M 2437MHz) + AC adapter with model: KSAPK0110500200FU

### Conducted Emission Test - FCC



### Result Table-QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.194000	51.1	L1	9.6	12.8	63.9
0.426000	44.9	L1	9.6	12.4	57.3
0.934000	42.7	L1	9.7	13.3	56.0
3.474000	42.0	L1	9.7	14.0	56.0
6.830000	31.6	L1	9.9	28.4	60.0
29.890000	31.2	L1	10.7	28.8	60.0

### Result Table-AV

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.194000	35.9	L1	9.6	18.0	53.9
0.426000	30.5	L1	9.6	16.8	47.3
0.934000	28.4	L1	9.7	17.6	46.0
3.474000	30.0	L1	9.7	16.0	46.0
6.830000	21.5	L1	9.9	28.5	50.0
29.890000	24.1	L1	10.7	25.9	50.0

TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

## INTERTEK TESTING SERVICES

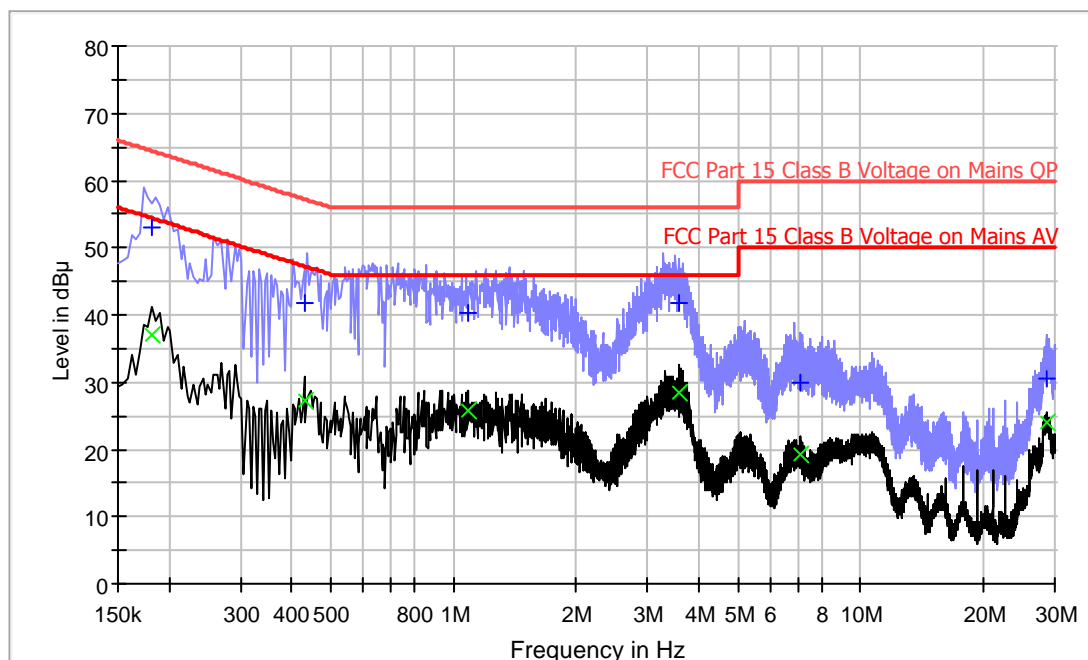
Company: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Worst Case Operating Mode: Transmit (802.11n-20M 2437MHz) + AC adapter with model: KSAPK0110500200FU

### Conducted Emission Test - FCC



### Result Table-QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.182000	53.1	N	9.6	11.3	64.4
0.430000	41.9	N	9.6	15.4	57.3
1.086000	40.3	N	9.9	15.7	56.0
3.574000	41.9	N	9.7	14.1	56.0
7.126000	29.8	N	9.9	30.2	60.0
28.638000	30.5	N	10.7	29.5	60.0

### Result Table-AV

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.182000	37.0	N	9.6	17.4	54.4
0.430000	27.3	N	9.6	20.0	47.3
1.086000	25.9	N	9.9	20.1	46.0
3.574000	28.4	N	9.7	17.6	46.0
7.126000	19.1	N	9.9	30.9	50.0
28.638000	24.0	N	10.7	26.0	50.0

TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

## INTERTEK TESTING SERVICES

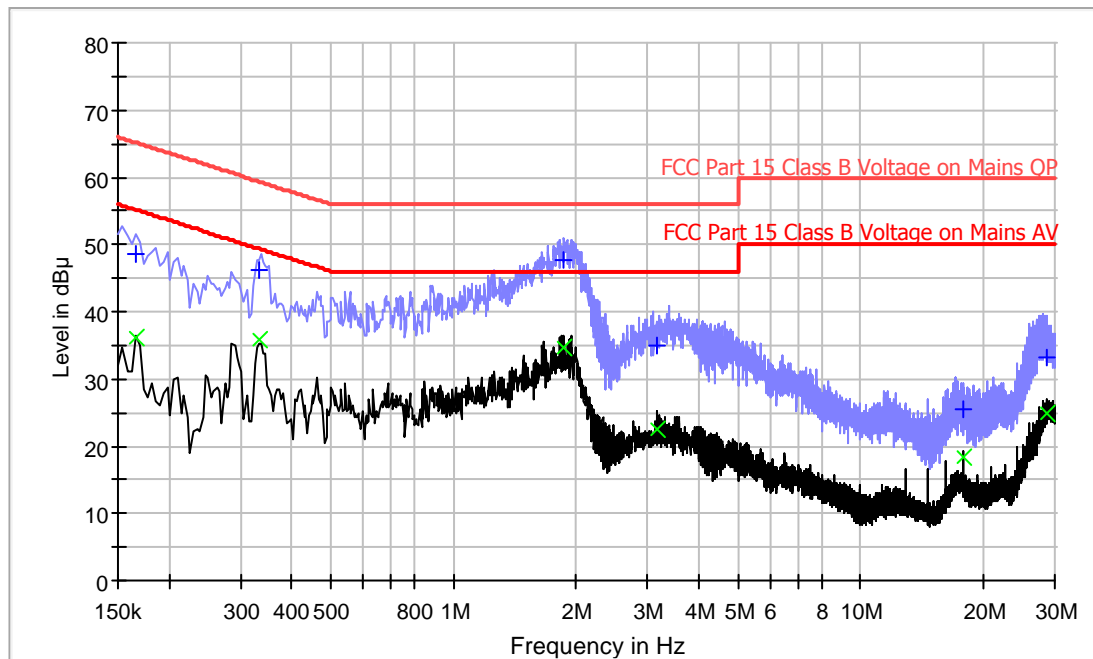
Company: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Worst Case Operating Mode: Transmit (802.11n-20M 2437MHz) + AC adapter with model: NSA12UU-050200

### Conducted Emission Test - FCC



### Result Table-QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.166000	48.5	L1	9.6	16.7	65.2
0.334000	46.2	L1	9.6	13.2	59.4
1.874000	47.6	L1	9.8	8.4	56.0
3.162000	34.9	L1	9.7	21.1	56.0
17.798000	25.4	L1	10.4	34.6	60.0
28.542000	33.3	L1	10.6	26.7	60.0

### Result Table-AV

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.166000	36.3	L1	9.6	18.9	55.2
0.334000	35.9	L1	9.6	13.5	49.4
1.874000	34.6	L1	9.8	11.4	46.0
3.162000	22.5	L1	9.7	23.5	46.0
17.798000	18.4	L1	10.4	31.6	50.0
28.542000	25.0	L1	10.6	25.0	50.0

## INTERTEK TESTING SERVICES

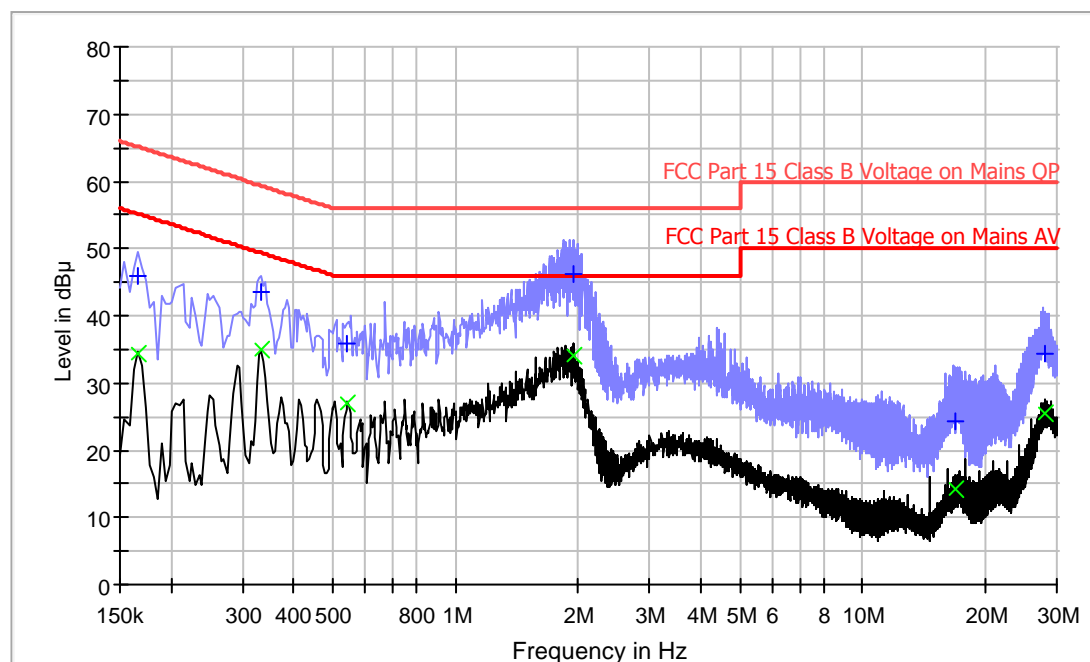
Company: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

Worst Case Operating Mode: Transmit (802.11n-20M 2437MHz) + AC adapter with model: NSA12UU-050200

### Conducted Emission Test - FCC



### Result Table-QP

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.166000	46.0	N	9.7	19.2	65.2
0.334000	43.5	N	9.6	15.9	59.4
0.542000	35.9	N	9.6	20.1	56.0
1.946000	46.1	N	9.8	9.9	56.0
16.966000	24.4	N	10.4	35.6	60.0
28.190000	34.5	N	10.7	25.5	60.0

### Result Table-AV

Frequency (MHz)	Average (dB $\mu$ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.166000	34.3	N	9.7	20.9	55.2
0.334000	34.9	N	9.6	14.5	49.4
0.542000	27.0	N	9.6	19.0	46.0
1.946000	34.2	N	9.8	11.8	46.0
16.966000	14.3	N	10.4	35.7	50.0
28.190000	25.5	N	10.7	24.5	50.0

TRF No.: FCC 15C\_TXa  
FCC ID: ZYQ-NABI2-NV7A

## INTERTEK TESTING SERVICES

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Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

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 DOC report.

## INTERTEK TESTING SERVICES

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Applicant: KEEN HIGH HOLDING(HK) LIMITED

Date of Test: May 16, 2012

Model: NABI2-NV7A

### 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**

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### **EXHIBIT 5**

### **EQUIPMENT PHOTOGRAPHS**



## INTERTEK TESTING SERVICES

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### 5.0 Equipment Photographs

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

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 6**

### **PRODUCT LABELLING**

## INTERTEK TESTING SERVICES

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### 6.0 **Product Labelling**

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

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 7**

### **TECHNICAL SPECIFICATIONS**

## INTERTEK TESTING SERVICES

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### 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**

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### **EXHIBIT 8**

### **INSTRUCTION MANUAL**

## INTERTEK TESTING SERVICES

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### 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.

## **INTERTEK TESTING SERVICES**

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### **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.

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 10**

### **TEST EQUIPMENT LIST**

## INTERTEK TESTING SERVICES

### 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	RADIAL	RG 213U	--	17-Mar-12	17-Sep-12
SZ062-06	RF Cable	RADIAL	0.04-26.5GHz	--	01-Nov-11	01-Nov-12
SZ062-12	RF Cable	RADIAL	0.04-26.5GHz	--	25-Feb-12	25-Aug-12
SZ067-04	Notch Filter	Micro-Tronics	BRM5070 2-02	--	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