

## **Globe View Technology Limited**

Application For Certification

FCC ID: 2AHCXGV100H

**Sport DV** 

Model: GV100H Additional Models: GV200H, GV300H, GV400H, GV500H, GV600H

**Brand name: GVT** 

#### 2.4GHz WiFi Transceiver

Report No.: 151229024SZN-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 [10-1-14]

Prepared and Checked by:	Approved by:	
Sign on file		
Jenner Liu	Kidd Yang	
Engineer	Senior Project Engineer	
-	Date: April 22, 2016	

- 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.
- This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- For Terms And Conditions of the services, it can be provided upon request.
- The evaluation data of the report will be kept for 3 years from the date of issuance.

TRF no.: FCC 15C\_Tx\_c

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TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

## MEASUREMENT/TECHNICAL REPORT

# **Sport DV**

Model: GV100H

FCC ID: 2AHCXGV100H

This report concerns (check one)	Original Grant X Class II Change
Equipment Type: <u>DTS - Part 15 Dig</u> portion)	gital Transmission Systems (WiFi transmitter
Deferred grant requested per 47 CFR	0.457(d)(1)(ii)? Yes NoX
	If yes, defer until:
Company Name agrees to notify the C	date
Company Name agrees to notify the C	date
of the intended date of announceme issued on that date.	ent of the product so that the grant can be
Transition Rules Request per 15.37?	Yes NoX
If no, assumed Part 15, Subpart C [10-01-14] Edition] provision.	for intentional radiator - the new 47 CFR
Report prepared by:	
lı k 6 N I	lenner Liu ntertek Testing Services Shenzhen Ltd. Kejiyuan Branch SF, Block D, Huahan Building, Langshan Road, Janshan District, Shenzhen, P. R. China Phone: (86 755) 8614 0639 Fax: (86 755) 8614 6751

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

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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
Cover Letter	Confidentiality Letter	request.pdf
Cover Letter	Letter of Agency	agency.pdf

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# EXHIBIT 1

## **SUMMARY OF TEST RESULTS**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

## 1.0 Summary of Test results

## **Sport DV**

Model: GV100H Additional Models: GV200H, GV300H, GV400H, GV500H, GV600H

FCC ID: 2AHCXGV100H

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# EXHIBIT 2

## **GENERAL DESCRIPTION**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 2.0 **General Description**

## 2.1 Product Description

The Equipment Under Test (EUT) is a Sport DV with 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, 9 channels with 5MHz channel spacing. The EUT was powered by the fully-charged DC 3.7V, 1300mAh new rechargeable battery which was charged by USB port (DC 5V). For more detailed features description, please refer to the user's manual.

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

Antenna Type: Integral Antenna.

The Model: GV200H, GV300H, GV400H, GV500H, GV600H are the same as the Model: GV100H in hardware aspect (circuitry and electrical, mechanical and physical construction), the only differences are the appearance and model no. for trading purpose.

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

#### 2.2 Related Submittal(s) Grants

This is an application for certification of:

DTS- Part 15 Digital Transmission Systems (WiFi transmitter portion). Other digital functions were reported in the verification report: 151229024SZN-002.

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#### 2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10: 2013 and KDB 558074 D01 v03r05. 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**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 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 the fully-charged DC 3.7V new rechargeable battery which was charged by an AC/DC adaptor or PC with input of AC 120V, 60Hz. Only the worst case data was reported.

On 802.11b, g, n (20MHz and 40MHz) mode, only one antenna is used, and all data rate were tested and only the worst case data is shown in the report.

For maximizing emissions, the EUT was rotated through 360°, the EUT was placed on the styrene turntable with 0.8m up to 1GHz and 1.5 m above 1GHz. 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.

The rear of unit was flushed with the rear of the table when it was powered by adapter up to 1GHz and placed in the centre of turntable above 1GHz.

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.

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## 3.3 Special Accessories

N/A.

## 3.4 Measurement Uncertainty

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

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

## 3.5 Equipment Modification

Any modifications installed previous to testing by Globe View Technology 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.

## 3.6 Support Equipment List and Description

This product was tested in the following configuration:

## Refer List:

Description	Manufacturer	Model No.
AC/DC adaptor (Provided by Intertek)	TP-Link	T050100-2A3 (Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 1.0A)
Laptop (Provided by Intertek)	Lenovo	T420
USB Cable (Provided by Intertek)	N/A	Unshielded, Length 120cm

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## **EXHIBIT 4**

## **MEASUREMENT RESULTS**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

## 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 broadband peak RF power meter. The power meter have a video bandwidth that is greater than DTS bandwidth and utilize a fast-responding diode detector. Power was read directly at the EUT antenna terminals with cable loss added.

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

IEEE 802.11b (Antenna Gain = 0dBi) (CCK, 1Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	15.88	38.73
Middle Channel: 2437	16.40	43.65
High Channel: 2462	16.60	45.71

IEEE 802.11g (Antenna Gain = 0dBi) (16QAM, 6Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	16.57	45.39
Middle Channel: 2437	16.81	47.97
High Channel: 2462	16.90	48.98

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

IEEE 802.11n-HT20 (Antenna Gain = 0dBi) (16QAM, 6.5Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	16.33	42.95
Middle Channel: 2437	16.68	46.56
High Channel: 2462	16.93	49.32

IEEE 802.11n-HT40 (Antenna Gain = 0dBi) (64QAM, 13.5Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2422	16.32	42.85
Middle Channel: 2437	16.69	46.67
High Channel: 2452	16.83	48.19

Cable loss: 1.0 dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

EUT max. output level = 16.93dBm

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

## 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 100 KHz according to FCC KDB 558074 D01 v03r05. 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	10.116	
2437	10.116	
2462	10.203	

IEEE 802.11g (16QAM, 6Mbps)		
Frequency (MHz)	6 dB Bandwidth (MHz)	
2412	16.614	
2437	16.614	
2462	16.614	

IEEE 802.11n-HT20 (16QAM, 6.5Mbps)		
Frequency (MHz)	6 dB Bandwidth (MHz)	
2412	17.829	
2437	17.829	
2462	17.829	

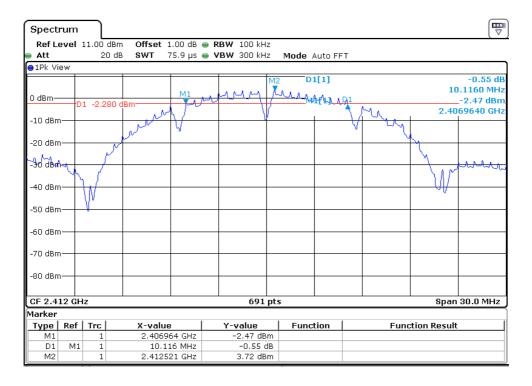
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

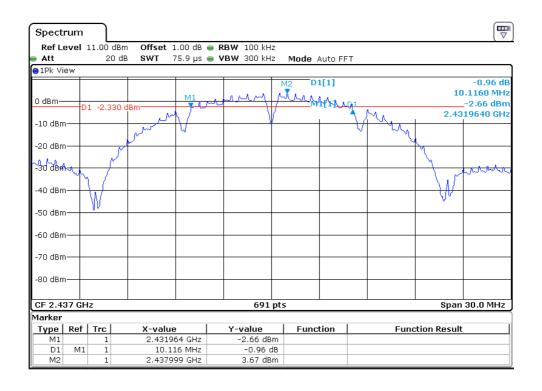
IEEE 802.11n-HT40 (64QAM, 13.5Mbps)		
Frequency (MHz)	6 dB Bandwidth (MHz)	
2422	36.462	
2437	36.469	
2452	36.469	

The test plots are attached as below.

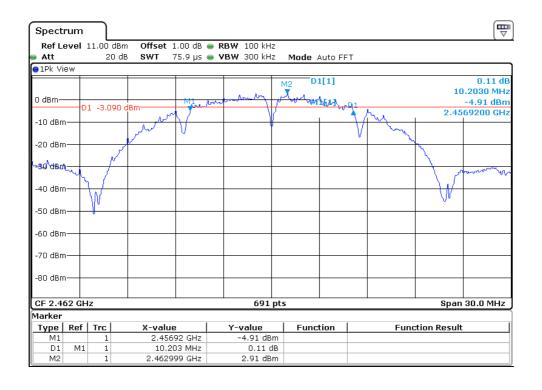
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 802.11b



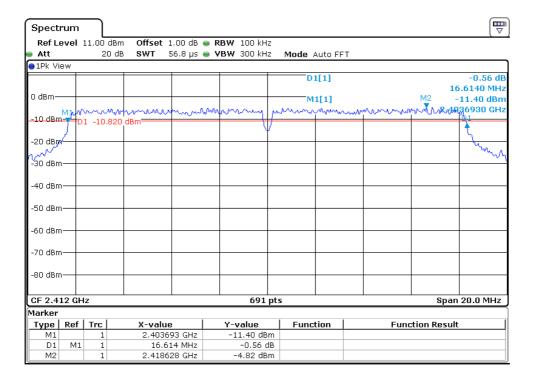


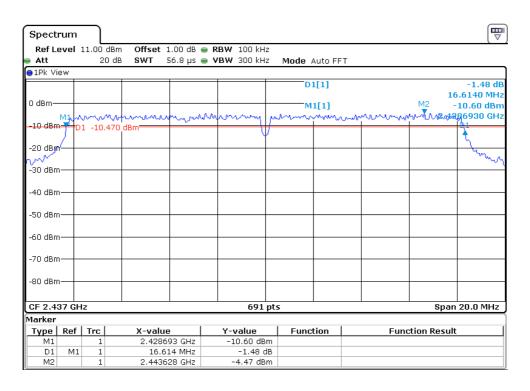
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



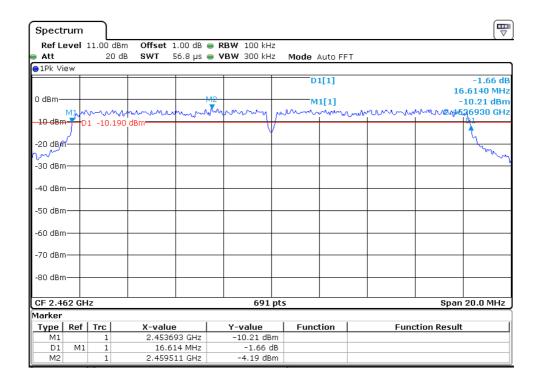
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

## 802.11g



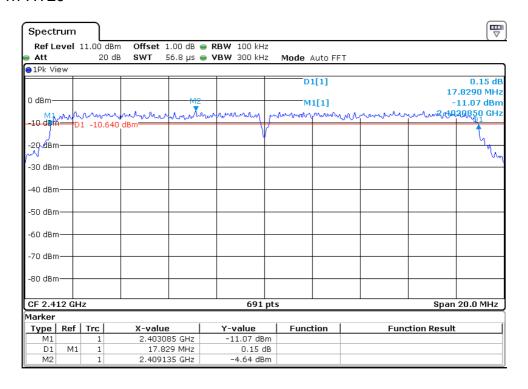


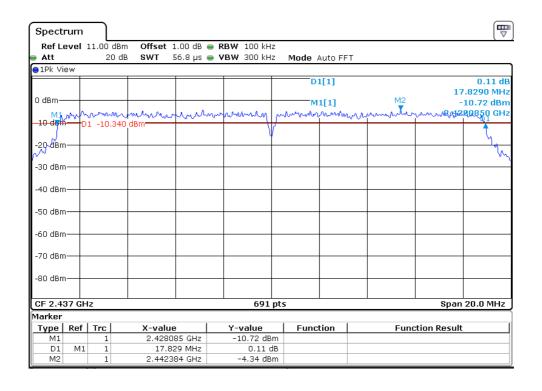
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



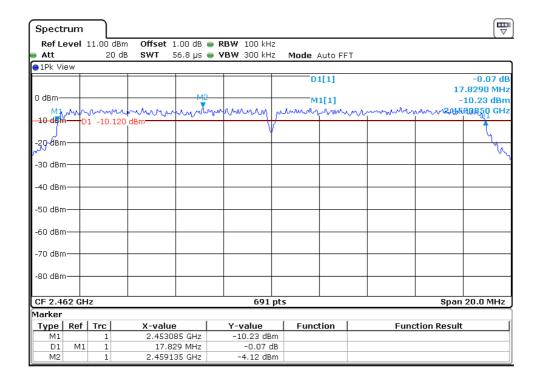
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 802.11n-HT20



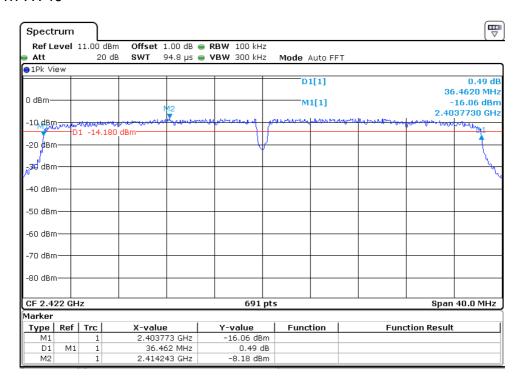


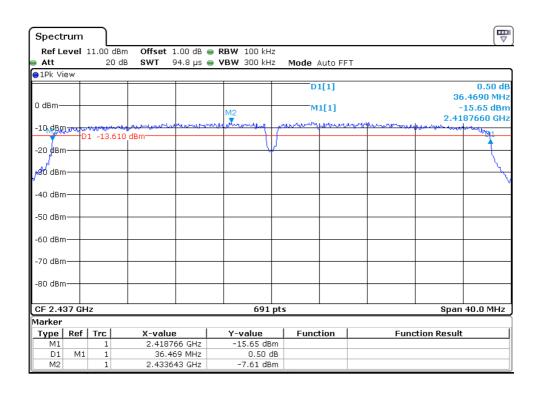
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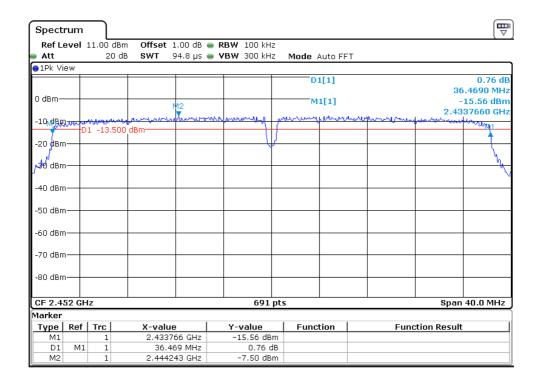
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 802.11n-HT40





TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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

The Measurement Procedure PKPSD was set according to the FCC KDB 558074 D01 v03r05.

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 with RBW 100KHz	
2412	3.66	
2437	3.56	
2462	3.68	

IEEE 802.11g (16QAM, 6Mbps)		
Frequency (MHz)	Power Density with RBW 100KHz	
2412	-4.82	
2437	-4.47	
2462	-4.29	

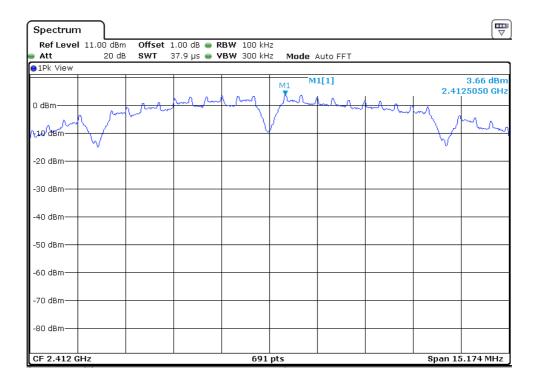
IEEE 802.11n-HT20 (16QAM, 6.5Mbps)		
Frequency (MHz)	Power Density with RBW 100KHz	
2412	-4.73	
2437	-4.40	
2462	-4.48	

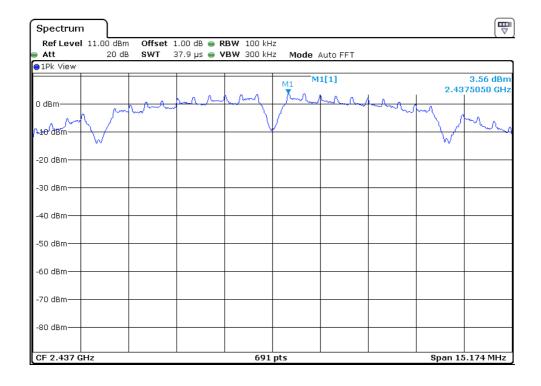
IEEE 802.11n-HT40 (64QAM, 13.5Mbps)		
Frequency (MHz)	Power Density with RBW 100KHz	
2422	-7.89	
2437	-8.01	
2452	-7.53	

The test plots are attached as below.

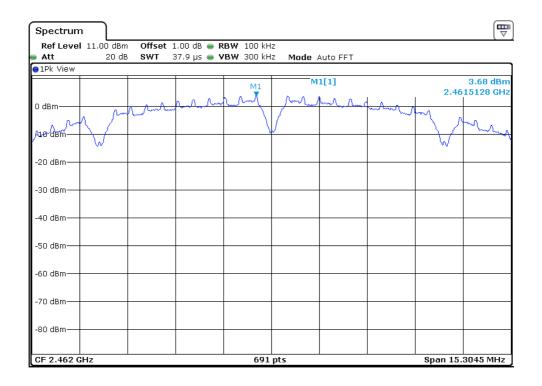
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 802.11b





TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

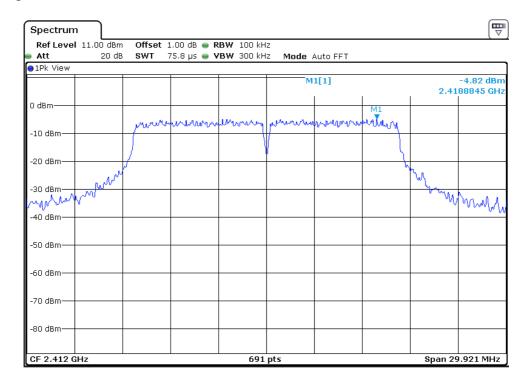


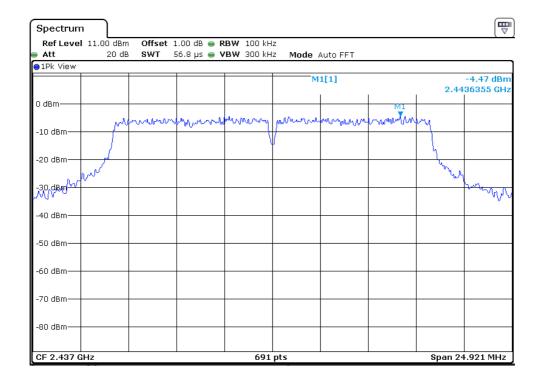
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

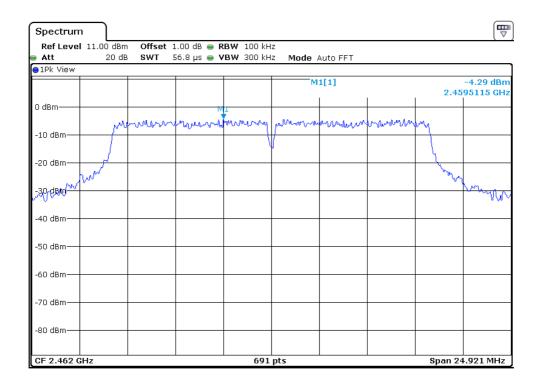
24

## 802.11g



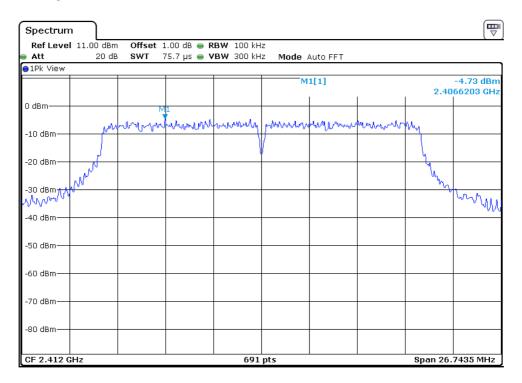


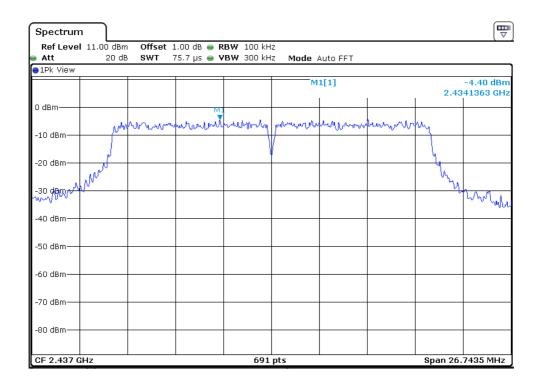
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



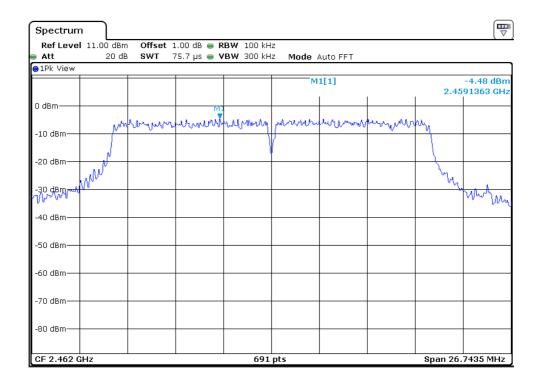
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 802.11n-HT20



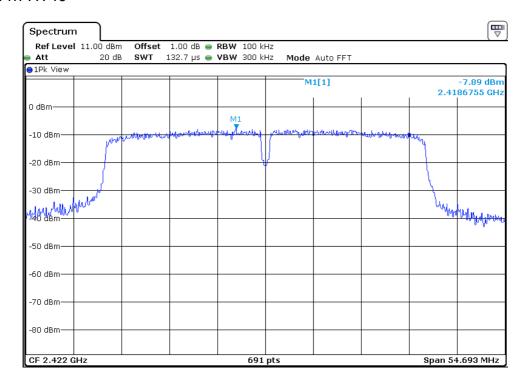


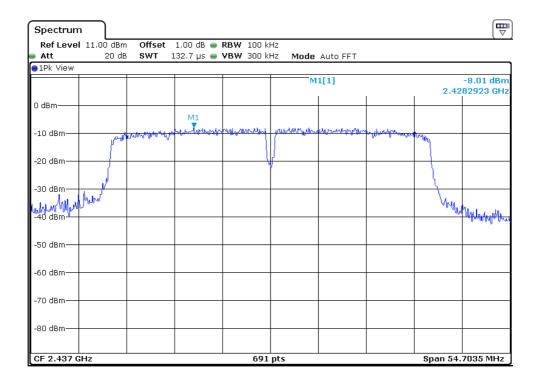
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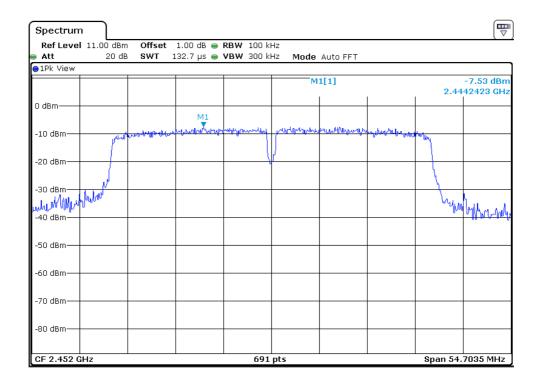
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 802.11n-HT40





TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

## 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 D01 v03r05.

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

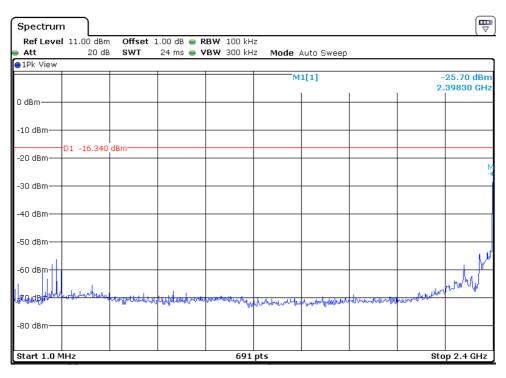
Refer to the attached test plots for out of band conducted emissions data with rate of 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n-HT20 and 13.5Mbps for 802.11n-HT40.

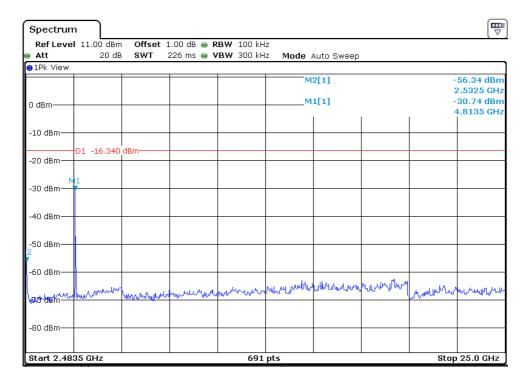
The test plots showed all spurious emission up to the tenth harmonic were measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The test plots are attached as below.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

802.11b Channel 01 (2412MHz) Reference Level: 3.66dBm



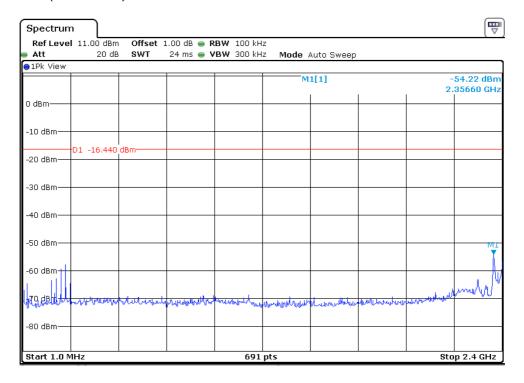


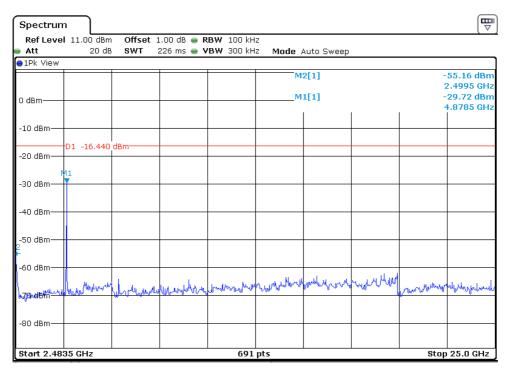
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

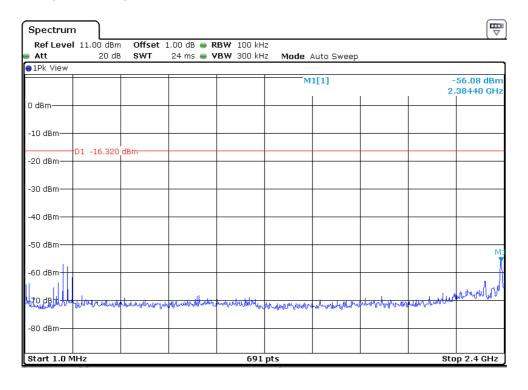
# Channel 06 (2437MHz) Reference Level: 3.56dBm

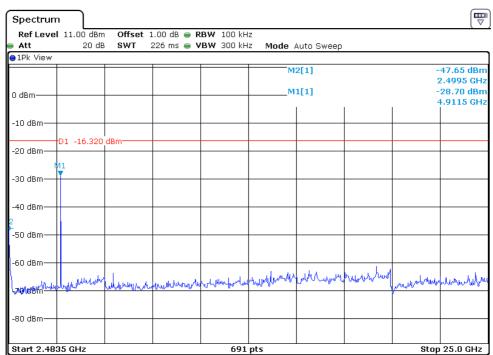




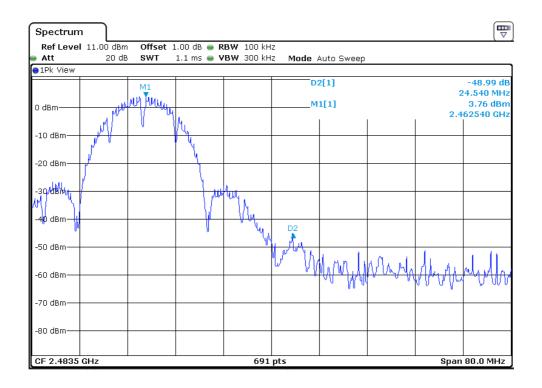
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# Channel 11 (2462MHz) Reference Level: 3.68dBm



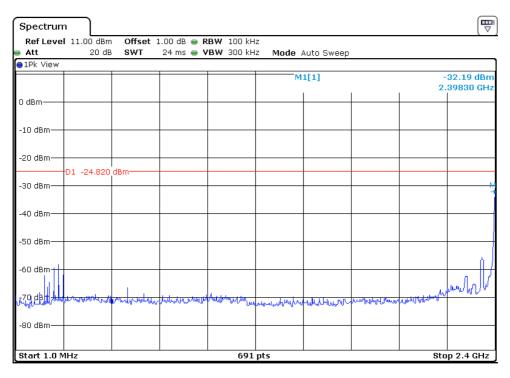


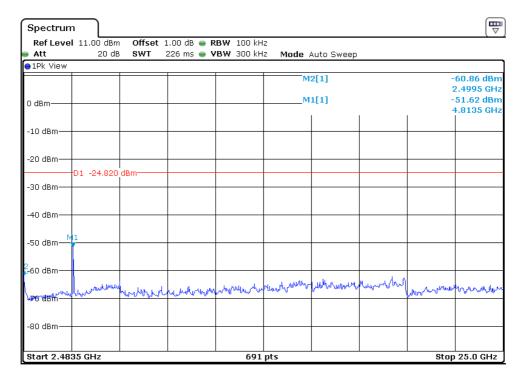
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



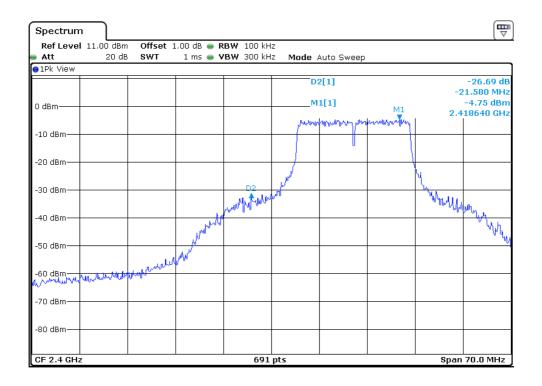
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

802.11g Channel 01 (2412MHz) Reference Level: -4.82dBm



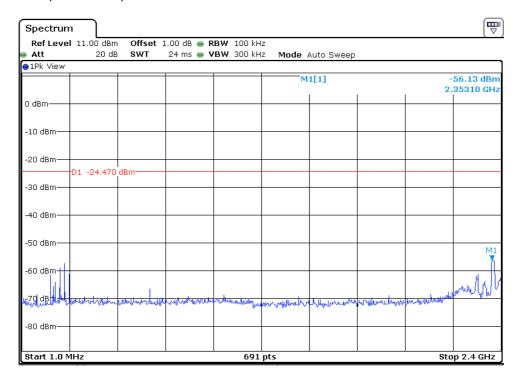


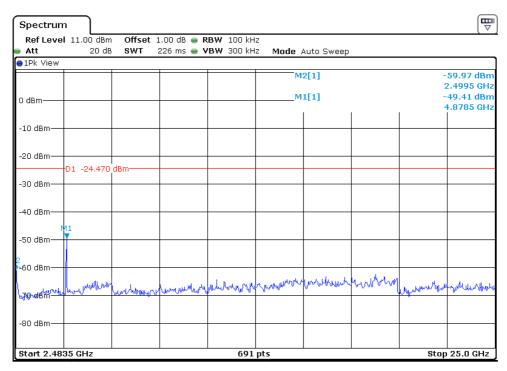
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

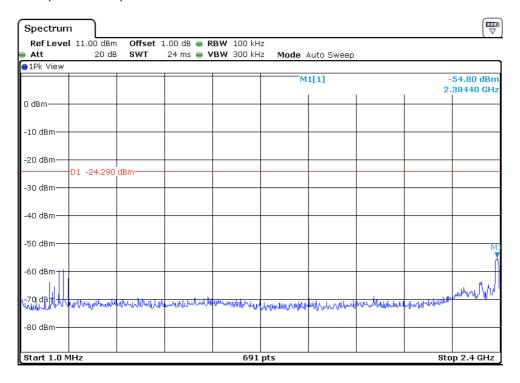
# Channel 06 (2437MHz) Reference Level: -4.47dBm

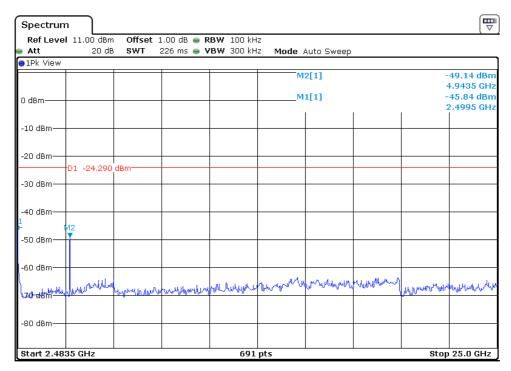




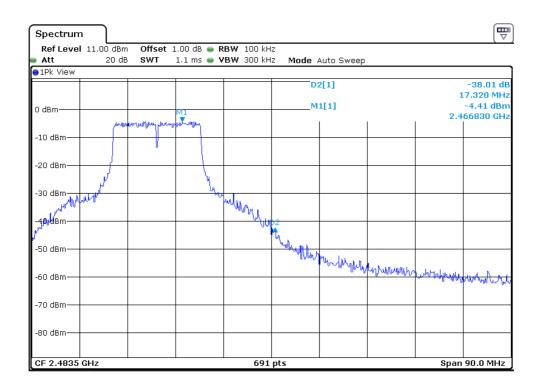
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Channel 11 (2462MHz) Reference Level: -4.29dBm



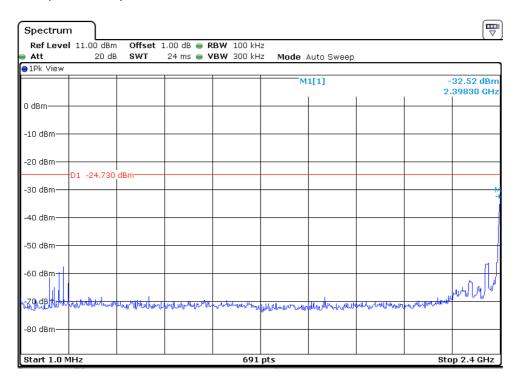


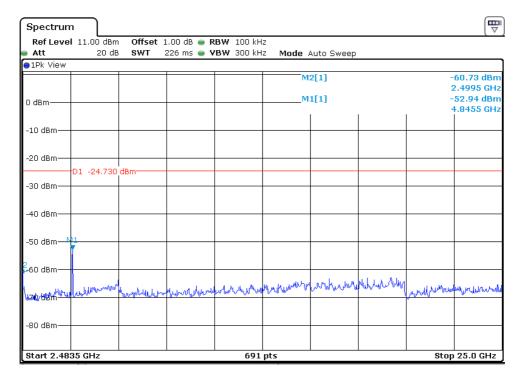
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



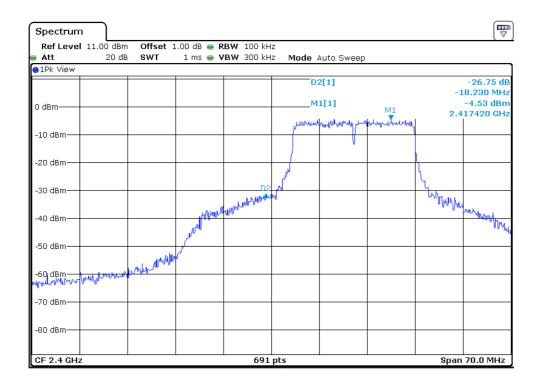
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

## 802.11n-HT20 Channel 01 (2412MHz) Reference Level: -4.73dBm



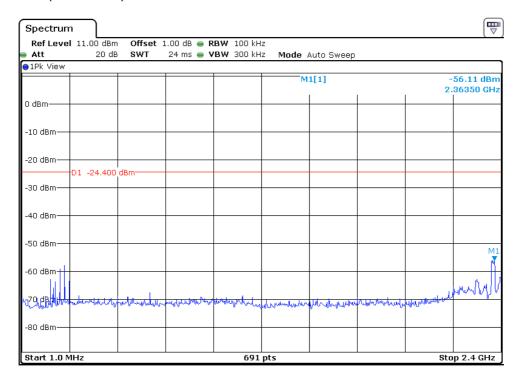


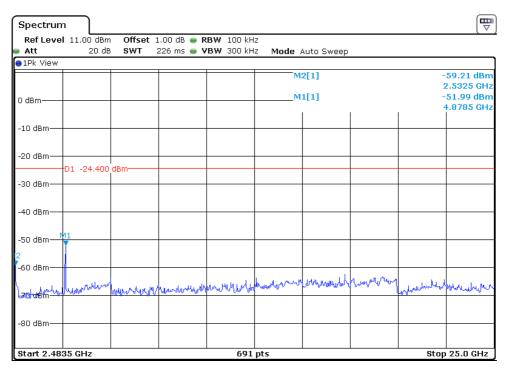
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

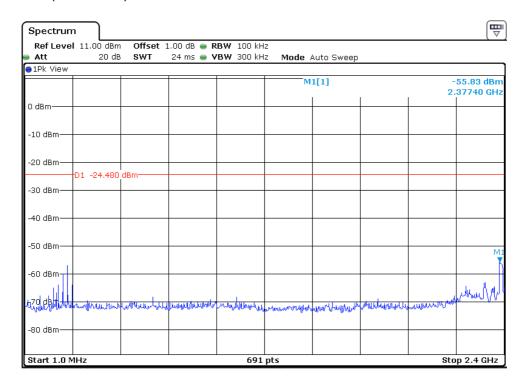
# Channel 06 (2437MHz) Reference Level: -4.40dBm

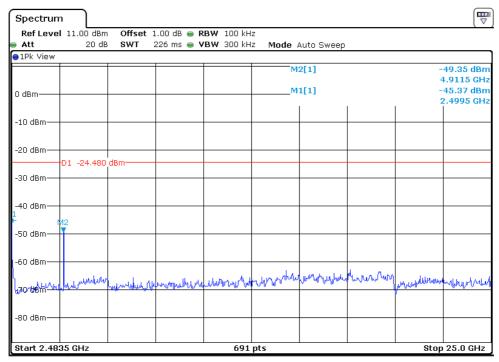




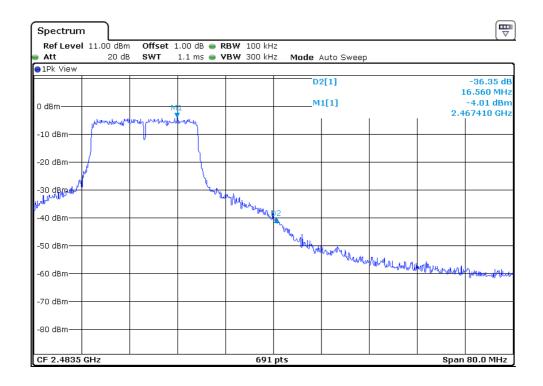
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# Channel 11 (2462MHz) Reference Level: -4.48dBm





TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

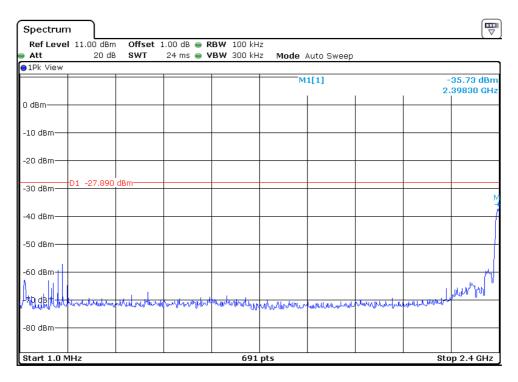


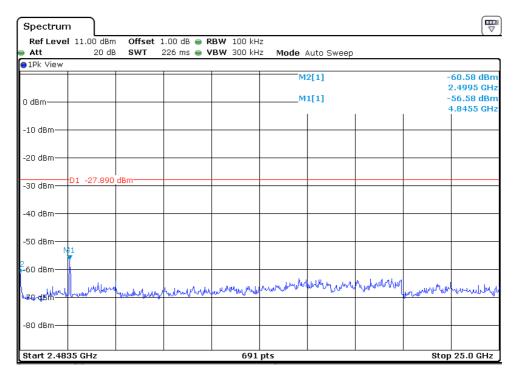
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

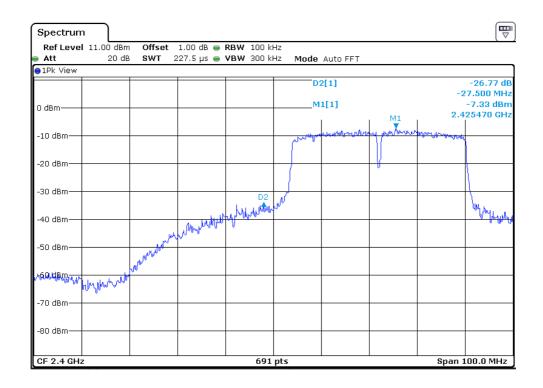
46

## 802.11n-HT40 Channel 03 (2422MHz) Reference Level: -7.89dBm





TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

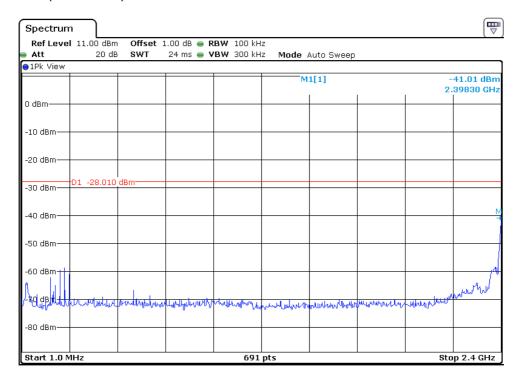


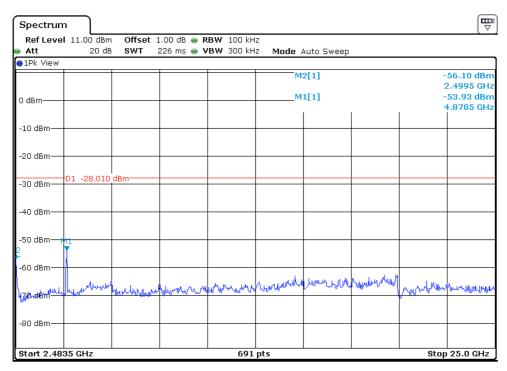
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

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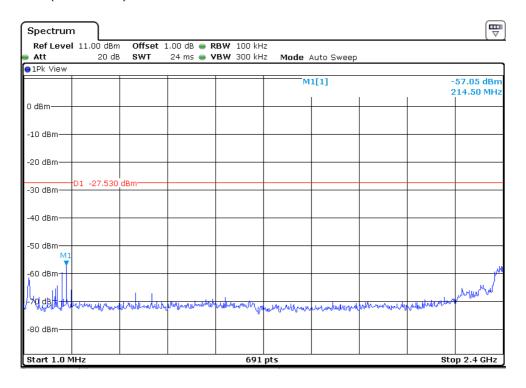
## Channel 06 (2437MHz) Reference Level: -8.01dBm

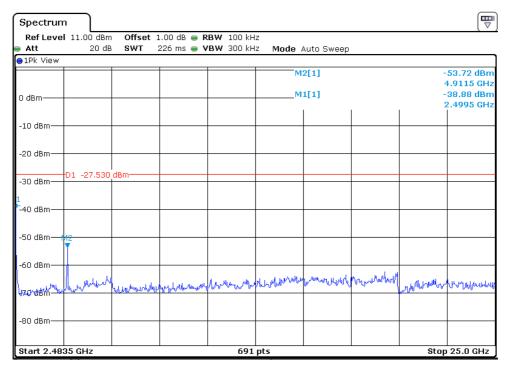




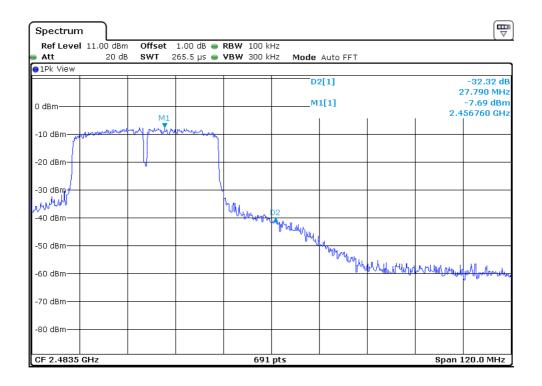
TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# Channel 09 (2452MHz) Reference Level: -7.53dBm





TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H



TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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.

$[\times]$	Not required, since a	II emissions are	more than 20d	3 below fur	ndamental
[ ]	See attached data s	neet			

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

### 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:

#### 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 42 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 dB CF = 1.6 dB AG = 29.0 dBPD = 0 dB

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

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

### 4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission (802.11n-HT20) at 2389.920MHz is passed by 1.3dB margin.

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	692.510	24.1	20.0	26.8	30.9	46.0	-15.1
Horizontal	805.030	24.5	20.0	27.7	32.2	46.0	-13.8
Horizontal	971.870	25.2	20.0	29.4	34.6	54.0	-19.4
Vertical	576.110	37.9	20.0	23.1	41.0	46.0	-5.0
Vertical	720.155	34.5	20.0	26.5	41.0	46.0	-5.0
Vertical	960.051	35.0	20.0	29.6	44.6	54.0	-9.4

NOTES: 1. Quasi-Peak detector is used for frequency below 1GHz.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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

#### **Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dBµV)	Amp Gain	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4824.000	58.2	(dB) 36.1	34.2	56.3	74.0	-17.7
Horizontal	*2386.380	53.0	36.7	28.4	44.7	74.0	-29.3

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain (dB)	(dB)	(dBµV/m)	(dBµV/m)	
Horizontal	*4824.000	45.0	36.1	34.2	43.1	54.0	-10.9
Horizontal	*2386.380	47.2	36.7	28.4	38.9	54.0	-15.1

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11b (TX-Channel 06)

### **Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	59.3	36.1	34.6	57.8	74.0	-16.2
Horizontal	*7311.000	53.9	35.6	37.1	55.4	74.0	-18.6

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	47.2	36.1	34.6	45.7	54.0	-8.3
Horizontal	*7311.000	39.8	35.6	37.1	41.3	54.0	-12.7

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11b (TX-Channel 11)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)	` '	, , ,	, , ,	
Horizontal	*4924.000	59.0	36.1	34.6	57.5	74.0	-16.5
Horizontal	*7386.000	54.3	35.6	37.2	55.9	74.0	-18.1
Horizontal	*2487.560	59.0	36.7	28.1	50.4	74.0	-23.6

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)	, ,			
Horizontal	*4924.000	48.0	36.1	34.6	46.5	54.0	-7.5
Horizontal	*7386.000	40.3	35.6	37.2	41.9	54.0	-12.1
Horizontal	*2487.560	53.0	36.7	28.1	44.4	54.0	-9.6

- NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
  - 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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

#### **Radiated Emissions**

- 4								
	Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
		(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
				Gain	(dB)	(dBµV/m)	(dBµV/m)	
				(dB)	, ,	, , ,		
	Horizontal	*4824.000	55.4	36.1	34.2	53.5	74.0	-20.5
	Horizontal	*2390.000	64.8	36.7	28.8	56.9	74.0	-17.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4824.000	38.1	36.1	34.2	36.2	54.0	-17.8
Horizontal	*2390.000	53.8	36.7	28.8	45.9	54.0	-8.1

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11g (TX-Channel 06)

#### **Radiated Emissions**

-								
	Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
		(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
				Gain	(dB)	(dBµV/m)	(dBµV/m)	
				(dB)	, ,	` ' '	, , ,	
	Horizontal	*4874.000	54.5	36.1	34.6	53.0	74.0	-21.0
ſ	Horizontal	*7311.000	53.8	35.6	37.1	55.3	74.0	-18.7

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	36.8	36.1	34.6	35.3	54.0	-18.7
Horizontal	*7311.000	39.0	35.6	37.1	40.5	54.0	-13.5

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11g (TX-Channel 11)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)	, ,	, ,		
Horizontal	*4924.000	53.2	36.1	34.6	51.7	74.0	-22.3
Horizontal	*7386.000	52.6	35.6	37.2	54.2	74.0	-19.8
Horizontal	*2483.760	69.1	36.7	28.0	60.4	74.0	-13.6

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	*4924.000	37.3	36.1	34.6	35.8	54.0	-18.2
Horizontal	*7386.000	38.7	35.6	37.2	40.3	54.0	-13.7
Horizontal	*2483.760	57.8	36.7	28.0	49.1	54.0	-4.9

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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

#### **Radiated Emissions**

- 4								
	Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
		(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
				Gain	(dB)	(dBµV/m)	(dBµV/m)	
				(dB)	, ,	, , ,		
	Horizontal	*4824.000	58.4	36.1	34.2	56.5	74.0	-17.5
	Horizontal	*2389.920	78.8	36.7	28.7	70.8	74.0	-3.2

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4824.000	39.7	36.1	34.2	37.8	54.0	-16.2
Horizontal	*2389.920	60.7	36.7	28.7	52.7	54.0	-1.3

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11n-HT20 (TX-Channel 06)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)	` ,	` ' '	,	
Horizontal	*4874.000	57.6	36.1	34.2	55.7	74.0	-18.3
Horizontal	*7311.000	51.7	35.6	37.1	53.2	74.0	-20.8

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	38.8	36.1	34.2	36.9	54.0	-17.1
Horizontal	*7311.000	37.7	35.6	37.1	39.2	54.0	-14.8

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11n-HT20 (TX-Channel 11)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	*4924.000	55.8	36.1	34.6	54.3	74.0	-19.7
Horizontal	*7386.000	50.6	35.6	37.2	52.2	74.0	-21.8
Horizontal	*2484.080	73.8	36.7	28.0	65.1	74.0	-8.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
			(dB)				
Horizontal	*4924.000	37.0	36.1	34.6	35.5	54.0	-18.5
Horizontal	*7386.000	36.7	35.6	37.2	38.3	54.0	-15.7
Horizontal	*2484.080	58.7	36.7	28.0	50.0	54.0	-4.0

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11n-HT40 (TX-Channel 03)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)	, ,			
Horizontal	*4844.000	57.0	36.1	34.2	55.1	74.0	-18.9
Horizontal	*7266.000	55.7	36.8	37.1	56.0	74.0	-18.0
Horizontal	*2388.770	71.2	36.7	28.2	62.7	74.0	-11.3

Polarization	. ,	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	*4844.000	35.2	36.1	34.2	33.3	54.0	-20.7
Horizontal	*7266.000	41.1	36.8	37.1	41.4	54.0	-12.6
Horizontal	*2388.770	56.1	36.7	28.2	47.6	54.0	-6.4

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11n-HT40 (TX-Channel 06)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)	` ,	` . ,	, , ,	
Horizontal	*4874.000	55.4	36.1	34.2	53.5	74.0	-20.5
Horizontal	*7311.000	53.4	35.6	37.1	54.9	74.0	-19.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*4874.000	35.4	36.1	34.2	33.5	54.0	-20.5
Horizontal	*7311.000	39.8	35.6	37.1	41.3	54.0	-12.7

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

Worst Case Operating Mode: 802.11n-HT40 (TX-Channel 09)

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Net	Peak Limit	Margin	
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)	
			Gain	(dB)	(dBµV/m)	(dBµV/m)		
			(dB)	, ,	, , ,			
Horizontal	*4904.000	55.6	36.1	34.6	54.1	74.0	-19.9	
Horizontal	*7356.000	53.7	35.6	37.0	55.1	74.0	-18.9	
Horizontal	*2488.190	70.0	36.7	28.0	61.3	74.0	-12.7	

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	*4904.000	34.9	36.1	34.6	33.4	54.0	-20.6
Horizontal	*7356.000	40.3	35.6	37.0	41.7	54.0	-12.3
Horizontal	*2488.190	55.2	36.7	28.0	46.5	54.0	-7.5

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

- 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 4.9 Conducted Emission

Worst Case Conducted emission at 0.190MHz is Passed by 15.2dB margin

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

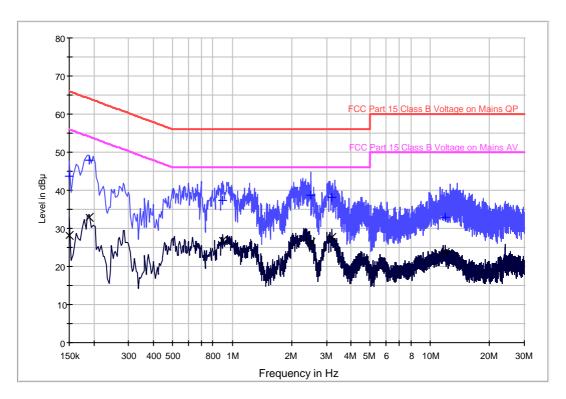
Date of Test: April 15, 2016

Model: GV100H

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

Line: Live

**Conducted Emission Test - FCC** 



#### **Result Table QP**

Frequency	QuasiPeak	Line	Corr.	Margin	Limit			
(MHz)	(dB µ V)		(dB)	(dB)	(dB µ V)			
0.150	43.8	L1	9.8	22.2	66.0			
0.190	47.9	L1	9.8	16.1	64.0			
0.898	37.5	L1	10.0	18.5	56.0			
2.506	38.6	L1	10.0	17.4	56.0			
3.198	38.1	L1	10.0	17.9	56.0			
11.914	32.8	L1	10.1	27.2	60.0			

#### **Result Table AV**

Frequency	Average	Line	Corr.	Margin	Limit
(MHz)	(dB µ V)		(dB)	(dB)	(dB µ V)
0.150	28.1	L1	9.8	27.9	56.0
0.190	33.0	L1	9.8	21.0	54.0
0.898	26.7	L1	10.0	19.3	46.0
2.506	26.3	L1	10.0	19.7	46.0
3.198	27.5	L1	10.0	18.5	46.0
11.914	23.6	L1	10.1	26.4	50.0

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

Applicant: Globe View Technology Limited

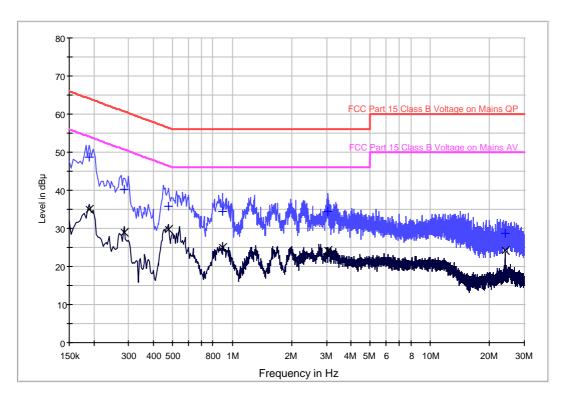
Date of Test: April 15, 2016

Model: GV100H

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

Line: Neutral

**Conducted Emission Test - FCC** 



#### **Result Table QP**

Frequency	QuasiPeak	Line	Corr.	Margin	Limit
(MHz)	(dB µ V)		(dB)	(dB)	(dB µ V)
0.190	48.8	N	10.1	15.2	64.0
0.286	40.2	N	10.2	20.4	60.6
0.478	35.8	N	10.2	20.6	56.4
0.894	34.6	N	10.3	21.4	56.0
3.062	34.5	N	10.3	21.5	56.0
24.002	28.8	N	10.4	31.2	60.0

#### **Result Table AV**

Frequency	Average	Line	Corr.	Margin	Limit
(MHz)	(dB µ V)		(dB)	(dB)	(dB µ V)
0.190	35.1	N	10.1	18.9	54.0
0.286	29.0	N	10.2	21.6	50.6
0.478	29.7	N	10.2	16.7	46.4
0.894	25.0	N	10.3	21.0	46.0
3.062	24.2	N	10.3	21.8	46.0
24.002	24.3	N	10.4	25.7	50.0

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

Applicant: Globe View Technology Limited Date of Test: April 15, 2016 Model: GV100H
4.10 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.10
x ] Not required - No digital part
[ ] Test results are attached
[ ] Included in the separated report.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Applicant: Globe View Technology Limited

Date of Test: April 15, 2016

Model: GV100H

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						
Х	Not applicable, duty cycle was not used.						

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# EXHIBIT 5 EQUIPMENT PHOTOGRAPHS

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 5.0 **Equipment Photographs**

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### **EXHIBIT 6**

#### **PRODUCT LABELLING**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

#### 6.0 **Product Labeling**

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# EXHIBIT 7 TECHNICAL SPECIFICATIONS

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

## 7.0 <u>Technical Specifications</u>

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### **EXHIBIT 8**

## **INSTRUCTION MANUAL**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### 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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

# **EXHIBIT 9**

## **CONFIDENTIALITY REQUEST**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

#### 9.0 **Confidentiality Request**

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

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### **EXHIBIT 10**

## **MISCELLANEOUS INFORMATION**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

Report No.: 151229024SZN-001

#### 10.0 <u>Discussion of Pulse Desensitization</u>

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.

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

#### **EXHIBIT 11**

#### **TEST EQUIPMENT LIST**

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H

## 11.0 <u>Test Equipment List</u>

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ182-02	RF Power Meter	Anritsu	ML2496A	1302005	20-May-2015	20-May-2016
SZ182-02-01	Power Sensor	Anritsu	MA2411B	1207429	20-May-2015	20-May-2016
SZ061-12	BiConiLog Antenna	ETS	3142E	00166158	15-Sep-2015	15-Sep-2016
SZ185-01	EMI Receiver	R&S	ESCI	100547	23-Jan-2016	23-Jan-2017
SZ061-09	Horn Antenna	ETS	3115	00092346	31-Oct-2015	31-Oct-2016
SZ061-07	Pyramidal Horn Antenna	ETS	3160-09	00083067	01-Sep-2015	01-Sep-2016
SZ061-06	Active Loop Antenna	Electro- Metrics	EM-6876	217	29-Apr-2015	29-Apr-2016
SZ056-06	Spectrum Analyzer	R&S	FSV40	101101	08-Jul-2015	08-Jul-2016
SZ181-04	Preamplifier	Agilent	8449B	3008A024 74	23-Jan-2016	23-Jan-2017
SZ188-01	Anechoic Chamber	ETS	RFD-F/A- 100	4102	19-Apr-2014	19-Apr-2016
SZ062-02	RF Cable	RADIALL	RG 213U		28-Dec-2015	28-Jun-2016
SZ062-05	RF Cable	RADIALL	0.04- 26.5GHz		06-Apr-2016	06-Oct-2016
SZ062-12	RF Cable	RADIALL	0.04- 26.5GHz		06-Apr-2016	06-Oct-2016
SZ067-04	Notch Filter	Micro-Tronics	BRM5070 2-02		20-May-2015	20-May-2016
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	03-Nov-2015	03-Nov-2016
SZ187-01	Two-Line V- Network	R&S	ENV216	100072	03-Nov-2015	03-Nov-2016
SZ187-02	Two-Line V- Network	R&S	ENV216	100073	24-Jun-2015	24-Jun-2016
SZ188-03	Shielding Room	ETS	RFD-100	4100	23-Aug-2014	23-Aug-2016

TRF no.: FCC 15C\_TX\_c FCC ID: 2AHCXGV100H