LABCODE: 500069-0

FCC PART 15.407

TEST REPORT

For

Chengdu Vantron Technology, Ltd.

No. 5 GaoPeng Road, Hi-Tech Zone, Chengdu, Sichuan 610045, China

FCC ID: 2AAGEVTM-TCVM

Report Type:	**Product Type:**
Original Report	M2M Gateway

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Report Number:	R2SC131023050-00D
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TABLE OF CONTENTS

GENERAL INFORMATION 3
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) 3
OBJECTIVE 3
RELATED SUBMITTAL(S)/GRANT(S) 3
TEST METHODOLOGY 3
TEST FACILITY 4
SYSTEM TEST CONFIGURATION 5
DESCRIPTION OF TEST CONFIGURATION 5
EUT EXERCISE SOFTWARE 5
EQUIPMENT MODIFICATIONS 5
SUPPORT EQUIPMENT LIST AND DETAILS 5
EXTERNAL CABLE 6
BLOCK DIAGRAM OF TEST SETUP 6
SUMMARY OF TEST RESULTS 7
FCC §15.407(f) & §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE) 8
APPLICABLE STANDARD 8
FCC §15.203 – ANTENNA REQUIREMENT 10
APPLICABLE STANDARD 10
ANTENNA CONNECTOR CONSTRUCTION 10
FCC §15.209, §15.205 & §15.407(b) (1) (6) (7) – UNDESIRABLE EMISSION & RESTRICTED BANDS 11
APPLICABLE STANDARD 11
MEASUREMENT UNCERTAINTY 11
EUT SETUP 12
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP 12
TEST PROCEDURE 13
CORRECTED AMPLITUDE & MARGIN CALCULATION 13
TEST EQUIPMENT LIST AND DETAILS 13
TEST RESULTS SUMMARY 14
TEST DATA 14

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Chengdu Vantron Technology, Ltd.*'s product, model number: *VT-M2M-TC VM (FCC ID: 2AAGEVTM2M-TCVM)* (the "EUT") in this report was a *M2M Gateway*, which was measured approximately: 19.1cm (L) x 10.1 cm (W) x 5.2 cm (H), rated input voltage: DC 12V.

** All measurement and test data in this report was gathered from production sample serial number: 131023050 (Assigned by BACL.Dongguan). The EUT was received on 2013-10-29.*

Objective

This type approval report is prepared on behalf of *Chengdu Vantron Technology, Ltd.* in accordance with Part 2-Subpart J, Part 15-Subparts A, B and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Related Submittal(s)/Grant(s)

FCC Part 15C DTS submissions with FCC ID: *2AAGEVTM2M-TCVM.*
FCC Part 15C DSS submissions with FCC ID: *2AAGEVTM2M-TCVM*
FCC Part 22H&24E PCB submissions with FCC ID: *2AAGEVTM2M-TCVM.*
FCC Part 15B JBC submissions with FCC ID: *2AAGEVTM2M-TCVM.*

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 02, 2012. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Dongguan) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 500069-0).

The current scope of accreditations can be found at http://ts.nist.gov/standards/scopes/5000690.htm

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

For 5180~5240MHz band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For 802.11a and 802.11n20, Channel 36, 40 and 48 was tested, for 802.11n40, Channel 38, 46 was tested.

The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all date rates bandwidths, and modulations.

EUT Exercise Software

The test was performed under "*DRTU.exe*" which was provided by the manufacturer.

Test Mode	Test Software Version	DRTU.exe		
802.11a	Test Frequency	5180MHz	5200MHz	5240MHz
	Data Rate	6Mbps	6Mbps	6Mbps
	Power Level Setting	10	10	10
802.11n ht20	Test Frequency	5180MHz	5200MHz	5240MHz
	Data Rate	6.5Mbps	6.5Mbps	6.5Mbps
	Power Level Setting	10.5	10.5	10.5
802.11n ht40	Test Frequency	5190MHz	/	5230MHz
	Data Rate	13Mbps	/	13Mbps
	Power Level Setting	10	/	10

Equipment Modifications

No modification was made to the EUT tested.

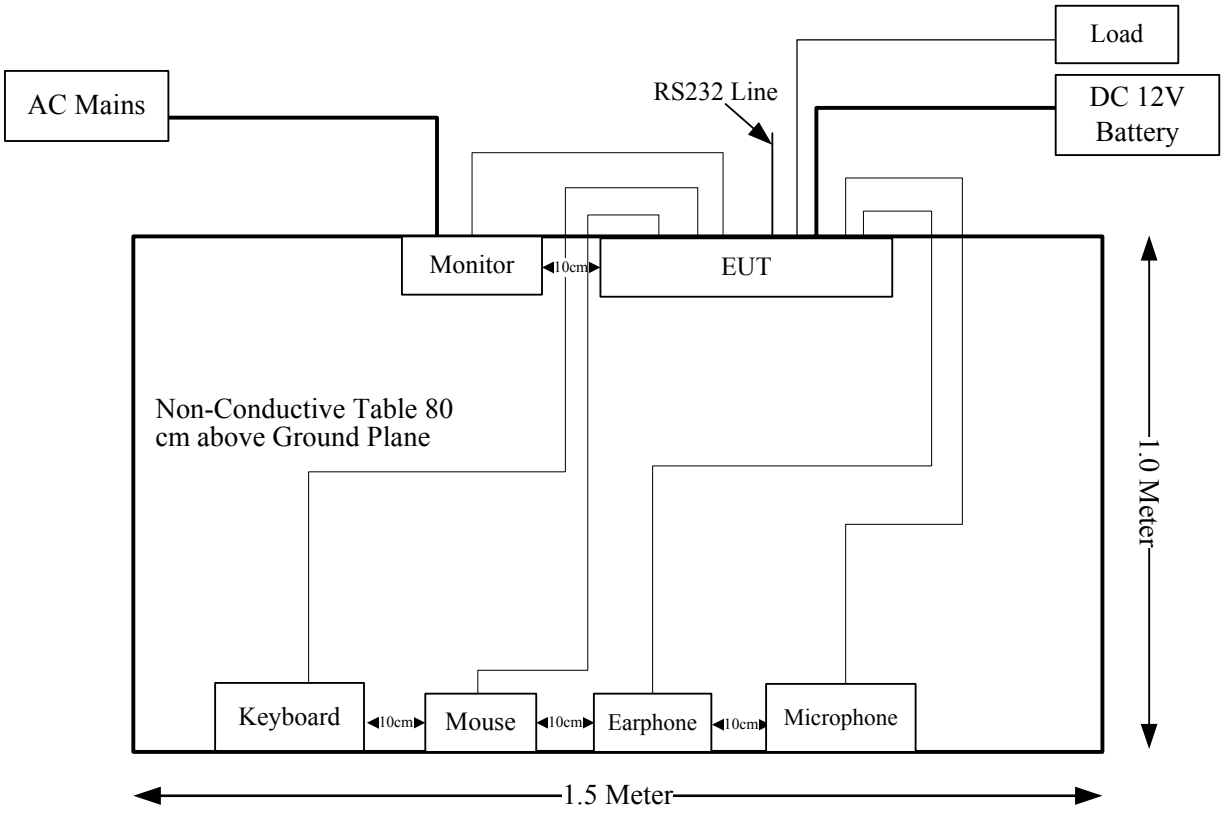
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Dell	Monitor	U3011t	CN-OPH5NY-74445-16T-290L
Keenion	Microphone	KM-206	N/A
Keenion	Earphone	KDM-911	N/A
DELL	Keyboard	SK-8115	CN-0J4628-71616-52H-0RT6
DELL	Mouse	MO56UOA	F0Y02P7Y

External Cable

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45 Cable	No	No	10m	EUT RJ45 Port	Internet
DC Power Cable	No	No	5m	EUT	Battery
Antenna	No	No	5.1m	EUT	Antenna
VGA Cable	Yes	Yes	1.8m	EUT VGA Port	Monitor
Audio Cable	No	No	1.5m	EUT Earphone Port	Earphone
Audio Cable	No	No	1.5m	EUT Microphone Port	Microphone
Keyboard Line	Yes	No	2.0	EUT	Keyboard
Mouse Line	Yes	No	1.8	EUT	Mouse

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.407 (f) & §1.1310 & §2.1091	Maximum Permissible Exposure	Compliance
§15.203	Antenna Requirement	Compliance
§15.407(b)(6)& §15.207(a)	Conducted Emissions	Not Applicable*
§15.205& §15.209 &§15.407(b) (1),(6),(7)	Undesirable Emission& Restricted Bands	Compliance
§15.407(b) (1),(2),(3),(4)	Out Of Band Emissions	Not Applicable**
§15.407(a) (1)	26 dB Bandwidth	Not Applicable**
§15.407(a)(1),	Conducted Transmitter Output Power	Not Applicable**
§15.407 (a)(1),(5)	Power Spectral Density	Not Applicable**
§15.407(a)(6)	Peak Excursion Ratio	Not Applicable**

Note:
* EUT is used in vehicle and not connected to public ac mains.
** Please refer to the certified Wi-Fi module with FCC ID: PD962205ANH.

FCC §15.407(f) & §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.407(f)and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Per 447498 D01 General 25 RF Exposure Guidance v05r01, simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0.

Calculated Formulary:

Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

RF module	Frequency band	Antenna Gain		Conducted Power	Duty cycle	Evaluation	Power Density	MPE Limit	MPE Ratios
	(MHz)	(dBi)	(numeric)	(mW)	(%)	(cm)	(mW/cm^2)	(mW/cm^2)	(%)
WIFI*	2412-2462	2.1	1.62	117	100	20	0.038	1	3.77
	2422-2452	2.1	1.62	32	100	20	0.010	1	1.03
	5475-5825	2.1	1.62	36	100	20	0.012	1	1.16
	5755-5795	2.8	1.91	120	100	20	0.046	1	**4.56**
	5190-5230	3.8	2.40	30	100	20	0.014	1	1.43
	5180-5240	3.8	2.40	32	100	20	0.015	1	1.53
BT	2402-2480	2.5	1.78	4	100	20	0.001	1	**0.13**
CDMA**	824.7-848.31	2.1	1.62	298	100	20	0.096	0.55	**17.48**
	1851.25-1908.75	3.0	2.00	274	100	20	0.109	1	10.86
Total sum of MPE ratios (%)									22.17

Note:
* For WIFI module, 2.4GHz and 5GHz band can't transmit simultaneously, the worst case for MPE was chosen to be added up.
* For CDMA module, the worst case for MPE was chosen to be added up.

Result: 22.17 %< 1, the device meet FCC MPE at 20 cm distance.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
And according to FCC 47 CFR section 15.407 (a)(1),if transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has two external antennas for transceiver, which are used unique type of connectors to attach to the EUT, and complied with 15.203, please refer to the internal photos and following table:

RF Module	Ant manufacturer	Ant Model Name	Ant Connector Type	Max. Antenna Gain
WIFI	Taoglas	MA600*	SMA(Female)**	2400-2500MHz: 2.1dBi 5150-5250MHz: 3.8dBi 5725-5850MHz: 2.8dBi
3G			SMA(Female)**	CDMA800 : 2.1dBi
				CDMA1900 : 3.0dBi
BT	Norminson	NW001	SMA(Male)	2402-2480MHz: 2.5dBi

Note:
* MA600 is an external antenna cover frequency band of 2.4 G, 5G WIFI, CDMA800 and CDMA1900.
** WIFI&3G antenna connector type is SMA (Femal), it must to be professionally installed, please refer to user manual.

Result: Compliance.

FCC §15.209, §15.205 & §15.407(b) (1) (6) (7) – UNDESIRABLE EMISSION & RESTRICTED BANDS

Applicable Standard

FCC §15.407 (b) (1), (6), (7); §15.209; §15.205;

For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

According to KDB 789033 D01 General UNII Test Procedures v01,emission shall be computed as: E[dBuV/m] = EIRP[dBm] + 95.2, for d = 3 meters.

Measurement Uncertainty

Compliance or non- compliance with a disturbance limit shall be determined in the following manner：

If U_{lab} is less than or equal to U_{cispr} of Table 1, then:
- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non - compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cispr} of Table 1, then:
- compliance is deemed to occur if no measured disturbance level, increased by ($U_{lab} - U_{cispr}$), exceeds the disturbance limit;
- non - compliance is deemed to occur if any measured disturbance level, increased by ($U_{lab} - U_{cispr}$), exceeds the disturbance limit.

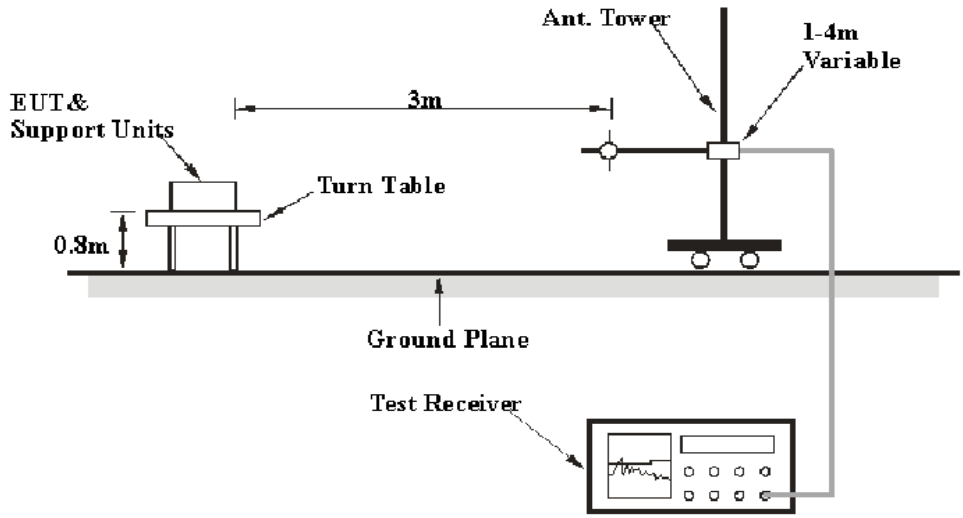
Based on CISPR 16-4-2: 2011, measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Dongguan) is:
30M~200MHz: 5.0 dB
200M~1GHz: 6.2 dB
1G~6GHz: 4.45 dB
6G~18GHz: 5.23 dB

Table 1 – Values of U_{cispr}

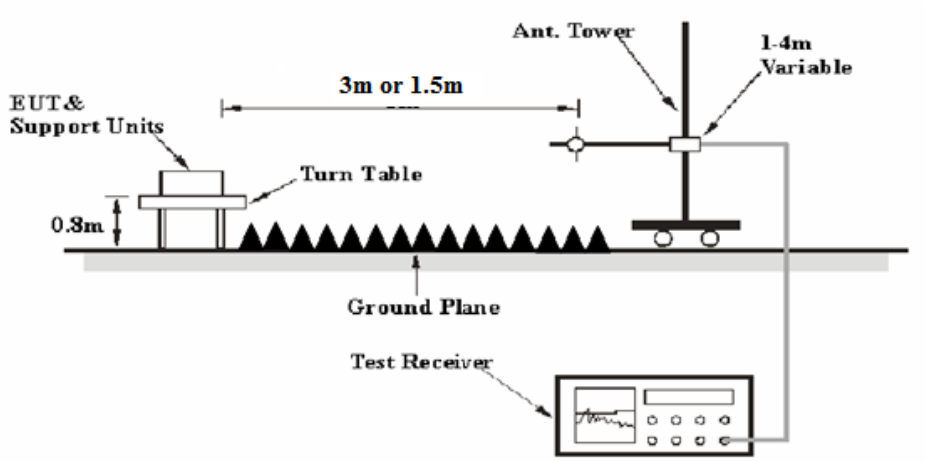
Measurement	U_{cispr}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	5.5 dB

EUT Setup

Below 1 G:



Above 1 G:



The radiated emission tests were performed in the 3 meters chamber, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC 15.209, and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The EUT was connected to a DC12 V battery.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz – 1000 MHz	120 kHz	300 kHz	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to C63.4, the above 1G test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1.5m
Distance extrapolation factor =20 log (3m/1.5m) dB
Extrapolation result = Corrected Amplitude (dBμV/m) -6dB

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Loss + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit –Extrapolation result

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI TEST RECEIVER	ESCI	100224	2013-5-6	2014-5-5
Sunol Sciences	Antenna	JB3	A060611-1	2011-9-6	2014-9-5
HP	AMPLIFIER	8447E	2434A02181	N/A	N/A
R&S	Spectrum analyzer	FSEM	DE31388	2013-5-7	2014-5-6
ETS LINDGREN	horn antenna	3115	000 527 35	2012-9-6	2015-9-5
Mini-Circuit	Amplifier	ZVA-213-S+	054201245	N/A	N/A
R&S	Spectrum Analyzer	FSP 38	100478	2013-6-16	2014-6-15
Ducommun Technolagies	horn antenna	ARH-4223-02	1007726-01 1304	2013-6-16	2014-6-15
Ducommun Technolagies	horn antenna	ARH-2823-02	1007726-01 1302	2013-6-16	2014-6-15
Quinstar	Amplifier	QLW-18405536-JO	15964001001	N/A	N/A

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, Section 15.205, 15.209 and 15.407, with the worst margin reading of:

4.23 dB at **625.35 MHz** in the **Vertical** polarization for 802.11n40 Mode

Test Data

Environmental Conditions

Temperature:	26°C
Relative Humidity:	49 %
ATM Pressure:	101.5 kPa

The testing was performed by Ares Liu on 2013-11-15.

Mode: Transmitting

802.11a Mode:

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)						
Low Channel:5180 MHz										
5180	62.15	PK	H	31.46	5.49	0.00	99.10	93.10	N/A	N/A
5180	51.57	AV	H	31.46	5.49	0.00	88.52	82.52	N/A	N/A
5180	71.36	PK	V	31.46	5.49	0.00	108.31	102.31	N/A	N/A
5180	60.33	AV	V	31.46	5.49	0.00	97.28	91.28	N/A	N/A
5150	30.2	PK	V	31.40	5.45	0.00	67.05	61.05	68.20	7.15
5150	16.33	AV	V	31.40	5.45	0.00	53.18	47.18	54.00	6.82
10360	36.28	PK	V	36.97	8.34	25.85	55.74	49.74	68.20	18.46
15540	33.41	PK	V	37.43	11.42	24.10	58.16	52.16	68.20	16.04
15540	21.63	AV	V	37.43	11.42	24.10	46.38	40.38	54.00	13.62
1526	35.65	PK	V	23.65	3.04	26.99	35.35	29.35	68.20	38.85
1526	21.19	AV	V	23.65	3.04	26.99	20.89	14.89	54.00	39.11
2435	35.44	PK	V	25.73	3.98	27.17	37.98	31.98	68.20	36.22
2435	20.18	AV	V	25.73	3.98	27.17	22.72	16.72	54.00	37.28
625.3	39.62	QP	V	19.89	3.06	22.28	40.29	\	46.00	5.71
Middle Channel:5200 MHz										
5200	61.52	PK	H	31.50	5.51	0.00	98.53	92.53	N/A	N/A
5200	50.96	AV	H	31.50	5.51	0.00	87.97	81.97	N/A	N/A
5200	70.44	PK	V	31.50	5.51	0.00	107.45	101.45	N/A	N/A
5200	59.68	AV	V	31.50	5.51	0.00	96.69	90.69	N/A	N/A
10400	36.21	PK	V	36.98	8.34	25.92	55.61	49.61	68.20	18.59
15600	32.87	PK	V	37.32	11.46	24.12	57.53	51.53	68.20	16.67
15600	20.11	AV	V	37.32	11.46	24.12	44.77	38.77	54.00	15.23
1526	35.47	PK	V	23.65	3.04	26.99	35.17	29.17	68.20	39.03
1526	20.36	AV	V	23.65	3.04	26.99	20.06	14.06	54.00	39.94
2215	32.54	PK	V	25.16	3.52	27.25	33.97	27.97	68.20	40.23
2215	18.36	AV	V	25.16	3.52	27.25	19.79	13.79	54.00	40.21
2435	34.74	PK	V	25.73	3.98	27.17	37.28	31.28	68.20	36.92
2435	19.87	AV	V	25.73	3.98	27.17	22.41	16.41	54.00	37.59
625.3	40.12	QP	V	19.89	3.06	22.28	40.79	\	46.00	5.21
Middle Channel:5240 MHz										
5240	60.52	PK	H	31.58	5.09	0.00	97.19	91.19	N/A	N/A
5240	50.47	AV	H	31.58	5.09	0.00	87.14	81.14	N/A	N/A
5240	71.23	PK	V	31.58	5.09	0.00	107.90	101.90	N/A	N/A
5240	60.28	AV	V	31.58	5.09	0.00	96.95	90.95	N/A	N/A
5350	31.25	PK	V	31.80	4.58	0.00	67.63	61.63	68.20	6.57
5350	16.54	AV	V	31.80	4.58	0.00	52.92	46.92	54.00	7.08
10480	36.23	PK	V	37.00	8.34	26.02	55.55	49.55	68.20	18.65
15720	35.87	PK	V	37.10	11.54	23.53	60.98	54.98	68.20	13.22
15720	20.14	AV	V	37.10	11.54	23.53	45.25	39.25	54.00	14.75
2215	36.58	PK	V	25.16	3.52	27.25	38.01	32.01	68.20	36.19
2215	22.34	AV	V	25.16	3.52	27.25	23.77	17.77	54.00	36.23
2435	35.47	PK	V	25.73	3.98	27.17	38.01	32.01	68.20	36.19
2435	21.61	AV	V	25.73	3.98	27.17	24.15	18.15	54.00	35.85
625.3	40.39	QP	V	19.89	3.06	22.28	41.06	\	46.00	4.94

802.11n20 Mode:

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)						
Low Channel:5180 MHz										
5180	62.15	PK	H	31.46	5.49	0.00	99.10	93.10	N/A	N/A
5180	51.41	AV	H	31.46	5.49	0.00	88.36	82.36	N/A	N/A
5180	71.36	PK	V	31.46	5.49	0.00	108.31	102.31	N/A	N/A
5180	60.23	AV	V	31.46	5.49	0.00	97.18	91.18	N/A	N/A
5150	31.24	PK	V	31.40	5.45	0.00	68.09	62.09	68.20	6.11
5150	17.31	AV	V	31.40	5.45	0.00	54.16	48.16	54.00	5.84
10360	35.64	PK	V	36.97	8.34	25.85	55.10	49.10	68.20	19.10
15540	35.47	PK	V	37.43	11.42	24.10	60.22	54.22	68.20	13.98
15540	20.18	AV	V	37.43	11.42	24.10	44.93	38.93	54.00	15.07
1526	36.53	PK	V	23.65	3.04	26.99	36.23	30.23	68.20	37.97
1526	21.47	AV	V	23.65	3.04	26.99	21.17	15.17	54.00	38.83
2435	35.23	PK	V	25.73	3.98	27.17	37.77	31.77	68.20	36.43
2435	20.09	AV	V	25.73	3.98	27.17	22.63	16.63	54.00	37.37
625.3	40.38	QP	V	19.89	3.06	22.28	41.05	\	46.00	4.95
Middle Channel:5200 MHz										
5200	61.25	PK	H	31.50	5.51	0.00	98.26	92.26	N/A	N/A
5200	50.39	AV	H	31.50	5.51	0.00	87.40	81.40	N/A	N/A
5200	71.08	PK	V	31.50	5.51	0.00	108.09	102.09	N/A	N/A
5200	59.37	AV	V	31.50	5.51	0.00	96.38	90.38	N/A	N/A
10400	36.39	PK	V	36.98	8.34	25.92	55.79	49.79	68.20	18.41
15600	35.87	PK	V	37.32	11.46	24.12	60.53	54.53	68.20	13.67
15600	20.22	AV	V	37.32	11.46	24.12	44.88	38.88	54.00	15.12
1526	36.39	PK	V	23.65	3.04	26.99	36.09	30.09	68.20	38.11
1526	21.14	AV	V	23.65	3.04	26.99	20.84	14.84	54.00	39.16
2215	35.74	PK	V	25.16	3.52	27.25	37.17	31.17	68.20	37.03
2215	19.63	AV	V	25.16	3.52	27.25	21.06	15.06	54.00	38.94
2435	36.33	PK	V	25.73	3.98	27.17	38.87	32.87	68.20	35.33
2435	21.2	AV	V	25.73	3.98	27.17	23.74	17.74	54.00	36.26
625.3	39.47	QP	V	19.89	3.06	22.28	40.14	\	46.00	5.86
Middle Channel:5240 MHz										
5240	61.58	PK	H	31.58	5.09	0.00	98.25	92.25	N/A	N/A
5240	52.09	AV	H	31.58	5.09	0.00	88.76	82.76	N/A	N/A
5240	70.44	PK	V	31.58	5.09	0.00	107.11	101.11	N/A	N/A
5240	59.89	AV	V	31.58	5.09	0.00	96.56	90.56	N/A	N/A
5350	31.23	PK	V	31.80	4.58	0.00	67.61	61.61	68.20	6.59
5350	16.26	AV	V	31.80	4.58	0.00	52.64	46.64	54.00	7.36
10480	36.4	PK	V	37.00	8.34	26.02	55.72	49.72	68.20	18.48
15720	36.87	PK	V	37.10	11.54	23.53	61.98	55.98	68.20	12.22
15720	21.35	AV	V	37.10	11.54	23.53	46.46	40.46	54.00	13.54
1526	35.44	PK	V	23.65	3.04	26.99	35.14	29.14	68.20	39.06
1526	20.63	AV	V	23.65	3.04	26.99	20.33	14.33	54.00	39.67
2435	34	PK	V	25.73	3.98	27.17	36.54	30.54	68.20	37.66
2435	20.57	AV	V	25.73	3.98	27.17	23.11	17.11	54.00	36.89
625.3	40.25	QP	V	19.89	3.06	22.28	40.92	\	46.00	5.08

802.11n40 Mode:

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)						
Low Channel:5190 MHz										
5190	63.25	PK	H	31.48	5.50	0.00	100.23	94.23	N/A	N/A
5190	53.21	AV	H	31.48	5.50	0.00	90.19	84.19	N/A	N/A
5190	72.14	PK	V	31.48	5.50	0.00	109.12	103.12	N/A	N/A
5190	62.55	AV	V	31.48	5.50	0.00	99.53	93.53	N/A	N/A
5150	30.21	PK	V	31.40	5.45	0.00	67.06	61.06	68.20	7.14
5150	16.58	AV	V	31.40	5.45	0.00	53.43	47.43	54.00	6.57
10380	35.63	PK	V	36.98	8.34	25.89	55.06	49.06	68.20	19.14
15570	32.44	PK	V	37.37	11.44	24.11	57.14	51.14	68.20	17.06
15570	19	AV	V	37.37	11.44	24.11	43.70	37.70	54.00	16.30
1526	32.2	PK	V	23.65	3.04	26.99	31.90	25.90	68.20	42.30
1526	19.43	AV	V	23.65	3.04	26.99	19.13	13.13	54.00	40.87
2435	29.99	PK	V	25.73	3.98	27.17	32.53	26.53	68.20	41.67
2435	16.85	AV	V	25.73	3.98	27.17	19.39	13.39	54.00	40.61
625.35	40.36	QP	V	19.89	3.06	22.28	41.03	\	46.00	4.97
Middle Channel:5230 MHz										
5230	63.11	PK	H	31.56	5.20	0.00	99.87	93.87	N/A	N/A
5230	52.74	AV	H	31.56	5.20	0.00	89.50	83.50	N/A	N/A
5230	73.72	PK	V	31.56	5.20	0.00	110.48	104.48	N/A	N/A
5230	62.79	AV	V	31.56	5.20	0.00	99.55	93.55	N/A	N/A
5350	28.94	PK	V	31.80	4.58	0.00	65.32	59.32	68.20	8.88
5350	14.59	AV	V	31.80	4.58	0.00	50.97	44.97	54.00	9.03
10460	34.43	PK	V	36.99	8.34	26.00	53.76	47.76	68.20	20.44
15690	32.4	PK	V	37.16	11.52	23.67	57.41	51.41	68.20	16.79
15690	18.95	AV	V	37.16	11.52	23.67	43.96	37.96	54.00	16.04
1526	32.16	PK	V	23.65	3.04	26.99	31.86	25.86	68.20	42.34
1526	19.41	AV	V	23.65	3.04	26.99	19.11	13.11	54.00	40.89
2435	30.01	PK	V	25.73	3.98	27.17	32.55	26.55	68.20	41.65
2435	16.75	AV	V	25.73	3.98	27.17	19.29	13.29	54.00	40.71
625.35	41.1	QP	V	19.89	3.06	22.28	41.77	\	46.00	4.23

******* END OF REPORT *******