

# FCC VERIFICATION TEST REPORT

## For Electromagnetic Interference of

Report Reference No. : ATSE160506621

Date of issue : 2016-5-13

Testing Laboratory : ATS Electronic Technology Co., Ltd.

Address : 3/F, Building A, No. 1 Hedong Three Road, Jinxia Community, Changan Town, DongGuan City, GuangDong, P.R.China

Holder of Certificate : VitaCig Inc.

Address : 433 North Camden Drive 6th Floor Beverly Hills California  
90210 USA

Manufacturer : SURPASS INTERNATIONAL TECHNOLOGY LTD.

Test specification:

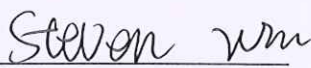
Test item description : VITAMINE ELECTRONIC CIGARETTES

Trade Mark : 

Model/Type reference : Marvelous Mint, Vintage Vanilla, Cool Citrus, Charming Cherry, Boisterous Berry, Succulent Strawberry

Ratings : I/P:3.7Vdc

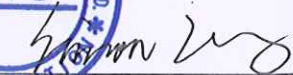
Responsible Engineer



(Steven Wu / Engineer)



Approved by



(Simon Zeng /EMC Manager)

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**1. CERTIFICATION**

Testing Laboratory .....: ATS Electronic Technology Co., Ltd.  
 Address.....: 3/F, Building A, No. 1 Hedong Three Road, Jinxia Community,  
 Changan Town, DongGuan City, GuangDong, P.R.China  
 Holder of Certificate.....: VitaCig Inc.  
 Address.....: 433 North Camden Drive 6th Floor Beverly Hills California  
 90210 USA  
 Manufacturer .....: SURPASS INTERNATIONAL TECHNOLOGY LTD.  
 Address.....: 603, Fuman Science Building, Qiaotou, Fuyong, Bao'an,  
 Shenzhen, China  
 Test specification:  
 Test item description.....: VITAMINE ELECTRONIC CIGARETTES  
 Trade Mark .....:   
 Model/Type reference .....: Marvelous Mint, Vintage Vanilla, Cool Citrus, Charming Cherry,  
 Boisterous Berry, Succulent Strawberry  
 Test Sample: Marvelous Mint  
 Ratings.....: I/P:3.7Vdc  
 Tested Power: 3.7Vdc  
 Standards .....: FCC Part 15 Subpart B

The device described above was tested by ATS Product Service Co., Ltd to determine the maximum emission levels emanated from the device and severity levels of the device endure and it performance criterion. The measurement results are contained in this test report and ATS Product Service Co., Ltd assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is technically compliance with the above official standards.

This report applies to the above sample only and shall not be reproduced in part without written approval of ATS Product Service Co., Ltd.

**2. SUMMARY OF TEST RESULTS**

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part 15 B	Conducted Emission	Clause 15.107	N/A	
	Radiated Emission	Clause 15.109	PASS	

**2.1 MEASUREMENT UNCERTAINTY**

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	2.44	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U , (dB)	NOTE
R03	ANSI	30MHz ~ 200MHz	V	3.42	
		30MHz ~ 200MHz	H	3.52	
		200MHz ~ 1,000MHz	V	3.52	
		200MHz ~ 1,000MHz	H	3.54	
		1,000MHz ~ 6,000MHz	V	4.08	
		1,000MHz ~ 6,000MHz	V	4.08	

**2.2 DESCRIPTION OF TEST MODES**

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Working

For Radiated Test	
Final Test Mode	Description
Mode 1	Working

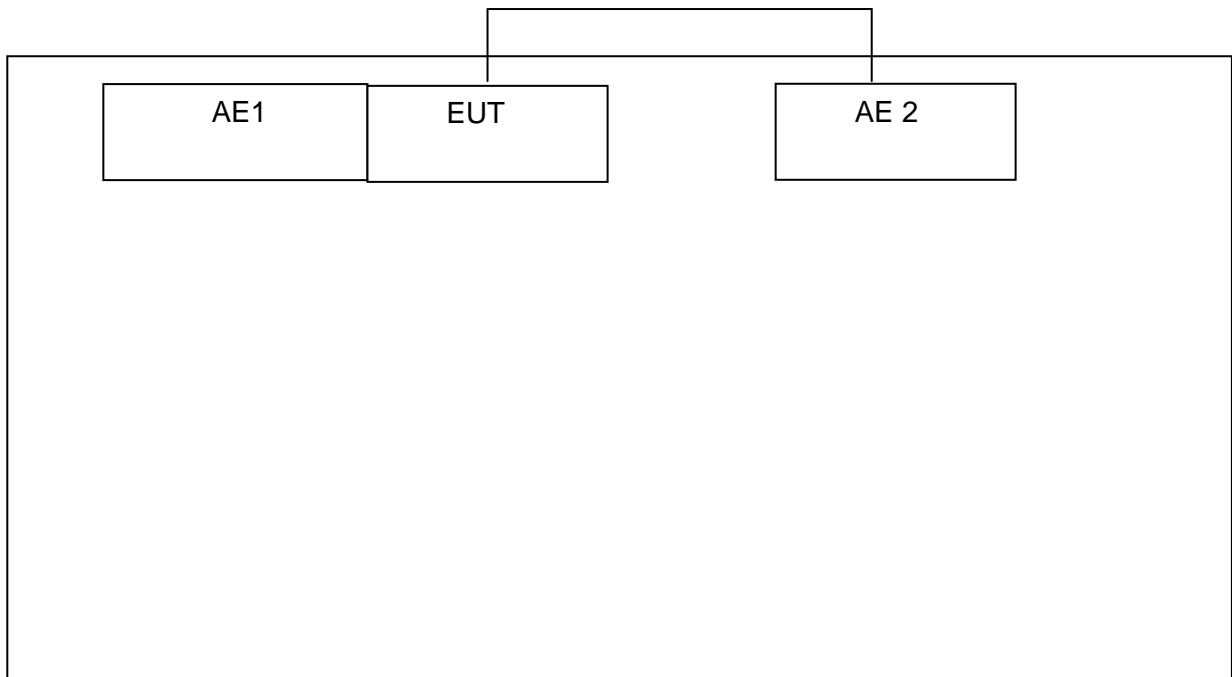
**2.3 EQUIPMENT USED DURING TESTING:**

Product Type*	Device	Manufacturer	Model No.	Comments
AE	--	--	--	--
CABL	--	--	--	--

\*Note: Use abbreviations:

- EUT - Equipment Under Test,
- AE - Auxiliary/Associated Equipment, or
- SIM - Simulator (Not Subjected to Test)
- CABL – Connecting cables

**2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED**



### 3. EMC EMISSION TEST

#### 3.1 RADIATED EMISSION MEASUREMENT

##### 3.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

FREQUENCY RANGE OF RADIATED MEASUREMENT (For FCC)

FCC Class B Limit at 3m

Frequency	Distance	Field Strength	
MHz	Meter	uV/m	dBuV/m
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0

### 3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Log-Bicon Antenna	SCHWARZBECK	VULB9168	VULB9168-192	11/13/2016
2	Pre-Amplifier	EM Electronics Corporation	EM330	60603	11/13/2016
3	EMI Test Receiver	R&S	ESCI	101368	05/29/2016
4	Turn Table	UC	UC3000	N/A	N/A
5	Antenna Mast	UC	UC3000	N/A	N/A

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

### 3.1.3 TEST PROCEDURE

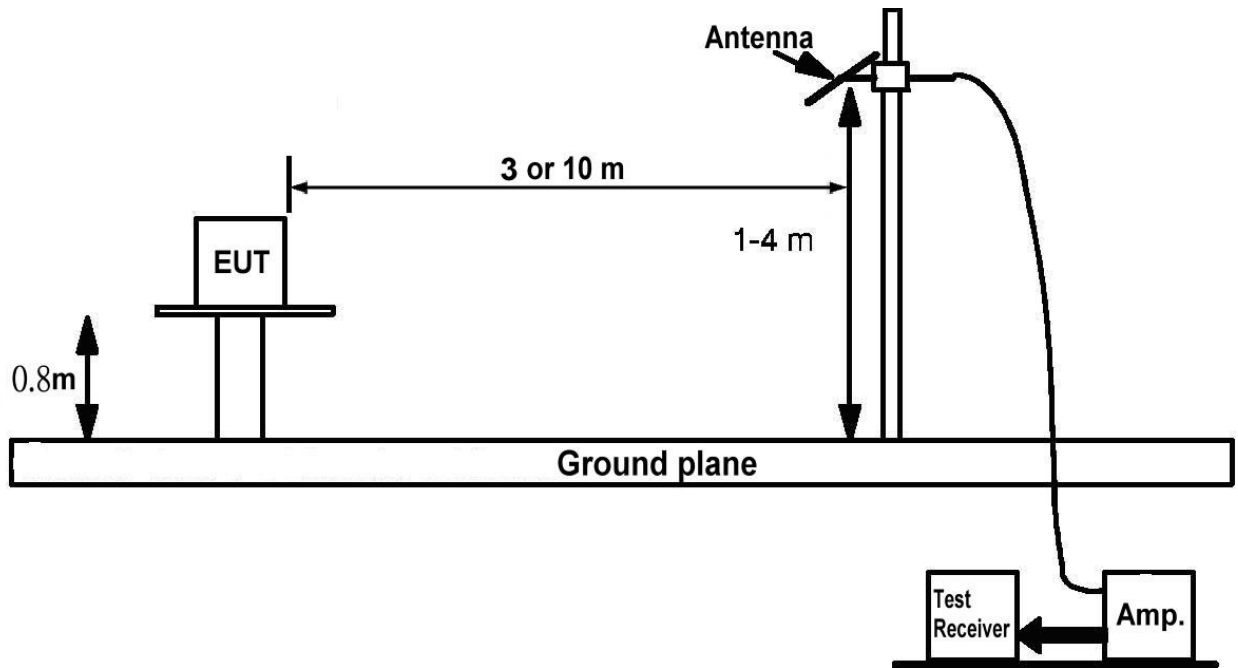
- a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.4 DEVIATION FROM TEST STANDARD

No deviation



3.1.5 TEST SETUP



3.1.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.2 Unless otherwise a special operating condition is specified in the follows during the testing.

### 3.1.7 TEST RESULTS

<b>EUT :</b>	VITAMINE ELECTRONIC CIGARETTES	<b>Model No. :</b>	Marvelous Mint
<b>Temperature :</b>	24 °C	<b>Relative Humidity :</b>	55 %
<b>Pressure :</b>	1009 hPa	<b>Test Power :</b>	3.7Vdc
<b>Test Mode :</b>	Working		

Remark :

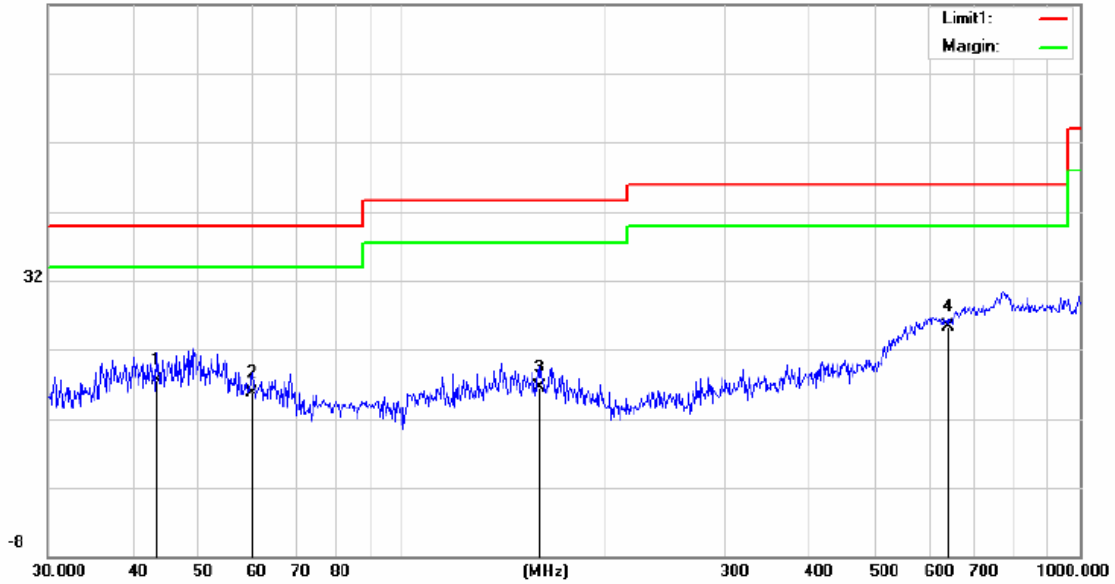
- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note 』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.
- (4) The highest internal source of the EUT is less than 108 MHz, the measurement shall only be made up to 1GHz.
- (5) Measurement result=Reading + Correct.



<b>EUT:</b>	<b>VITAMINE ELECTRONIC CIGARETTES</b>	<b>Model No.:</b>	<b>Marvelous Mint</b>
<b>Temperature:</b>	<b>24°C</b>	<b>Relative Humidity:</b>	<b>55%</b>
<b>Distance:</b>	<b>3m</b>	<b>Test Power:</b>	<b>3.7Vdc</b>
<b>Polarization:</b>	<b>Vertical</b>	<b>Test Result:</b>	<b>Pass</b>
<b>Standard:</b>	<b>(RE)FCC PART 15 class B 3m</b>	<b>Test By:</b>	<b>Dick</b>
<b>Test Mode:</b>	<b>Working</b>		

**Radiated Emission Measurement**

File :ATSE160506611      Data :#1      Date: 2016/5/13      Time: 10:42:38  
 72.0 dBuV/m



Site : ATS Radiated Emission Test      Polarization: *Vertical*      Temperature: 24  
 Limit: FCC Class B 3M Radiation      Power: DC 3.7V      Humidity: 55 %

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure-ment dBuV/m	Limit dB/m	Over dB	Detector	Comment
1	43.5056	34.57	-16.99	17.58	40.00	-22.42	QP	
2	60.0690	34.13	-18.43	15.70	40.00	-24.30	QP	
3	159.7844	34.08	-17.60	16.48	43.50	-27.02	QP	
4 *	638.3686	34.70	-9.48	25.22	46.00	-20.78	QP	

\*:Maximum data    x:Over limit    !:over margin



<b>EUT:</b>	<b>VITAMINE ELECTRONIC CIGARETTES</b>	<b>Model No.:</b>	<b>Marvelous Mint</b>
<b>Temperature:</b>	<b>24°C</b>	<b>Relative Humidity:</b>	<b>55%</b>
<b>Distance:</b>	<b>3m</b>	<b>Test Power:</b>	<b>3.7Vdc</b>
<b>Polarization:</b>	<b>Horizontal</b>	<b>Test Result:</b>	<b>Pass</b>
<b>Standard:</b>	<b>(RE)FCC PART 15 class B 3m</b>	<b>Test By:</b>	<b>Dick</b>
<b>Test Mode:</b>	<b>Working</b>		

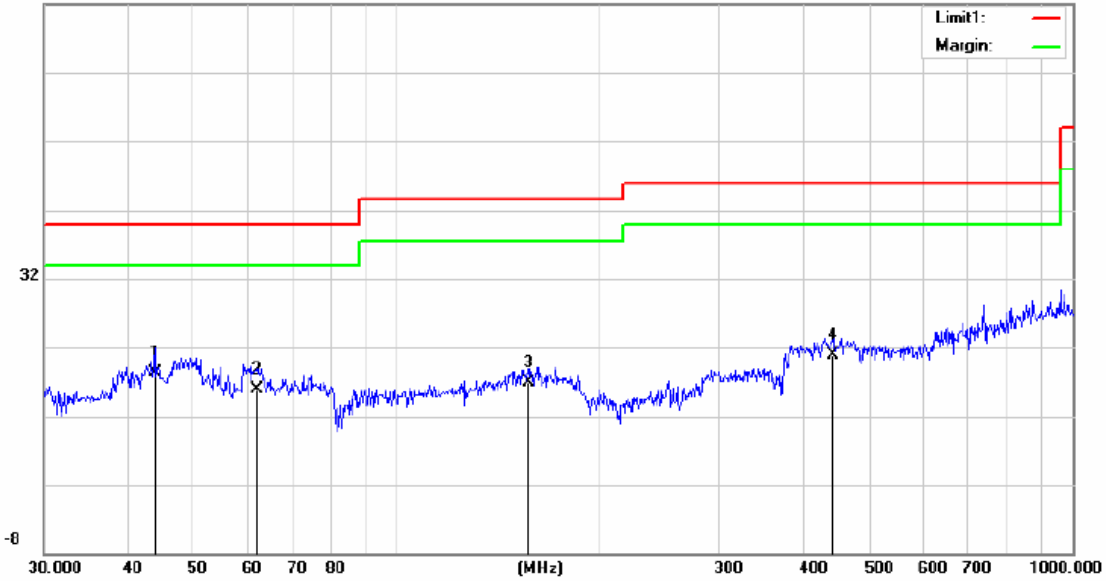
**Radiated Emission Measurement**

File :ATSE160506611  
72.0 dBuV/m

Data :#2

Date: 2016/5/13

Time: 10:42:48



Site : ATS Radiated Emission Test

Polarization: *Horizontal*

Temperature: 24

Limit: FCC Class B 3M Radiation

Power: DC 3.7V

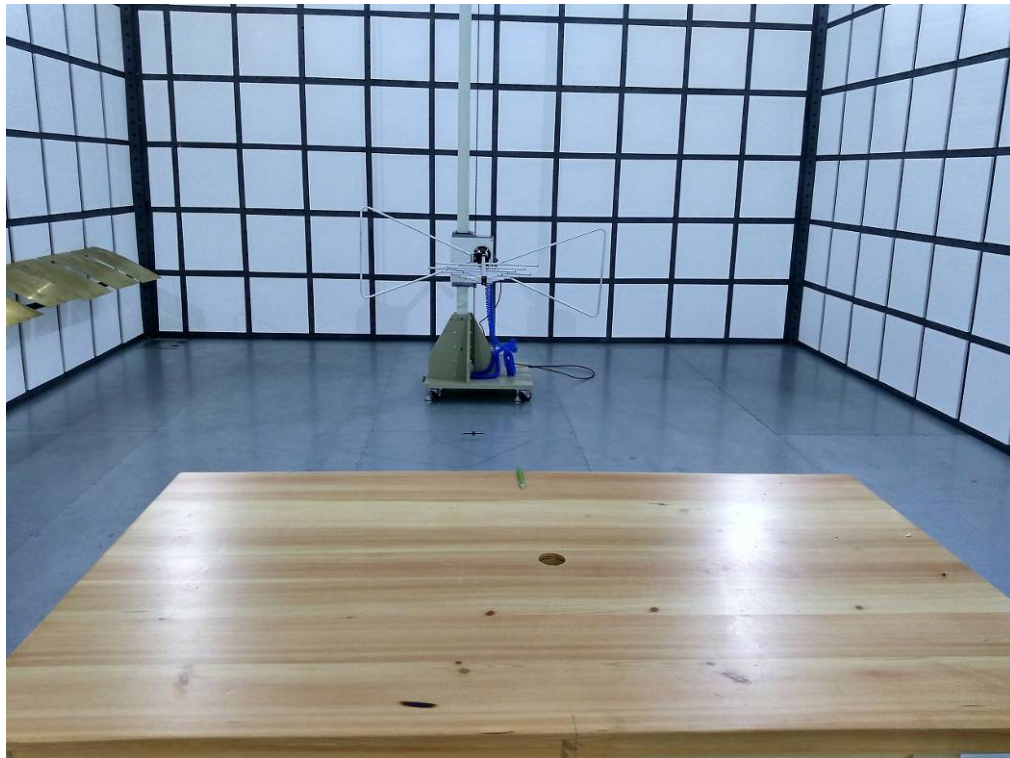
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dB/m	dB		
1	*	43.8119	35.35	-17.00	18.35	40.00	-21.65	QP	
2		61.9951	34.47	-18.64	15.83	40.00	-24.17	QP	
3		156.4577	34.59	-17.67	16.92	43.50	-26.58	QP	
4		441.7425	34.71	-13.76	20.95	46.00	-25.05	QP	

\*:Maximum data    x:Over limit    !:over margin

#### 4. EUT TEST PHOTOS

Radiated Measurement Photo



### 5. EUT PHOTOS

