FCC Part 15B
Measurement and Test Report

For

Verykoo USA Inc

4350 Executive Dr. #100, San Diego

FCC ID: WA6I130

Test Standards:	FCC Part 15 Subpart B
Product Description:	Verykool I130
Tested Model:	I130
Report No.:	STR12068201I-3
Tested Date:	2012-06-27 to 2012-07-06
Issued Date:	2012-07-11
Tested By:	Susan Su / Engineer
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TABLE OF CONTENTS

1. GENERAL INFORMATION 3
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) 3
1.2 TEST STANDARDS 4
1.3 TEST METHODOLOGY 4
1.4 TEST FACILITY 4
1.5 EUT SETUP AND OPERATION MODE 5
2. SUMMARY OF TEST RESULTS 6
3. CONDUCTED EMISSIONS 7
3.1 MEASUREMENT UNCERTAINTY 7
3.2 TEST EQUIPMENT LIST AND DETAILS 7
3.3 TEST PROCEDURE 7
3.4 BASIC TEST SETUP BLOCK DIAGRAM 7
3.5 ENVIRONMENTAL CONDITIONS 8
3.6 SUMMARY OF TEST RESULTS/PLOTS 8
3.7 CONDUCTED EMISSIONS TEST DATA 8
4. RADIATED EMISSIONS 11
4.1 MEASUREMENT UNCERTAINTY 11
4.2 TEST EQUIPMENT LIST AND DETAILS 11
4.3 TEST PROCEDURE 11
4.4 TEST RECEIVER SETUP 12
4.5 CORRECTED AMPLITUDE & MARGIN CALCULATION 12
4.6 ENVIRONMENTAL CONDITIONS 12
4.7 SUMMARY OF TEST RESULTS/PLOTS 12

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Verykool USA Inc
Address of applicant:	4350 Executive Dr. #100, San Diego
Manufacturer:	Verykool Wireless Technology Ltd.
Address of manufacturer:	Room 1701, Reward Building C, No.203, 2nd Section of WangJing, Li Ze Zhong Yuan, ChaoYang District, Beijing, P.R. of China 100102

General Description of EUT	
Product Name:	Verykool I130
Trade Name:	verykool
Model No.:	I130
Power Adapter Model:	ASUC30a-050050 (Input: AC 100-240V, Output: DC 5V)
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.7V
Rated Current:	800mAh
Rated Power:	2.96Wh
Highest Internal Frequency:	26MHz
Classification of ITE:	Class B
Support Interface:	USB 2.0

1.2 Test Standards

The following report is prepared on behalf of the Verykool USA in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 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.

1.4 Test Facility

- **FCC – Registration No.: 994117**
  SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**
  The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**
  Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin’an Fanshen Road, Bao’an District, Shenzhen, P.R.C (518101)

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark
TM1	Charging & Playing	/
TM2	Downloading	Test Software: CT3
TM3	/	/
TM4	/	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.0	Shielded	Without Ferrite
Earphone Cable	1.3	Unshielded	Without Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	SUMSUNG	R2	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.107 (a)	Conducted Emissions	Compliant
§ 15.109 (a)	Radiated Emissions	Compliant

N/A: not applicable

3. Conducted Emissions

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

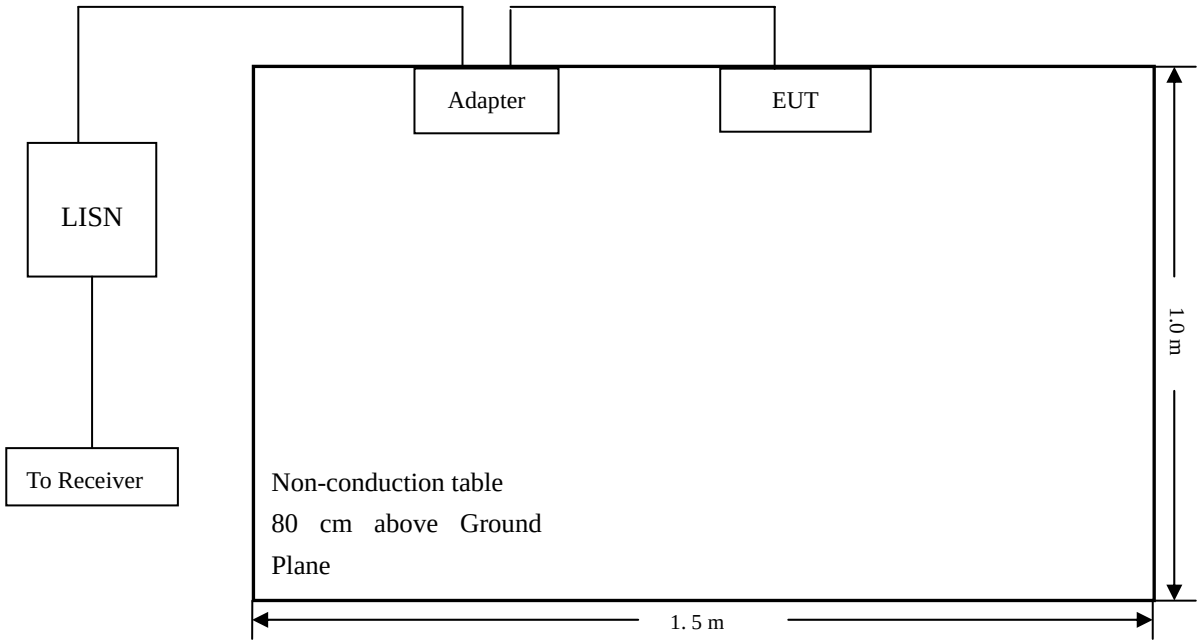
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2012-03-28	2013-03-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2012-03-28	2013-03-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2012-03-28	2013-03-27

3.3 Test Procedure

Test is conducting under the description of 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.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

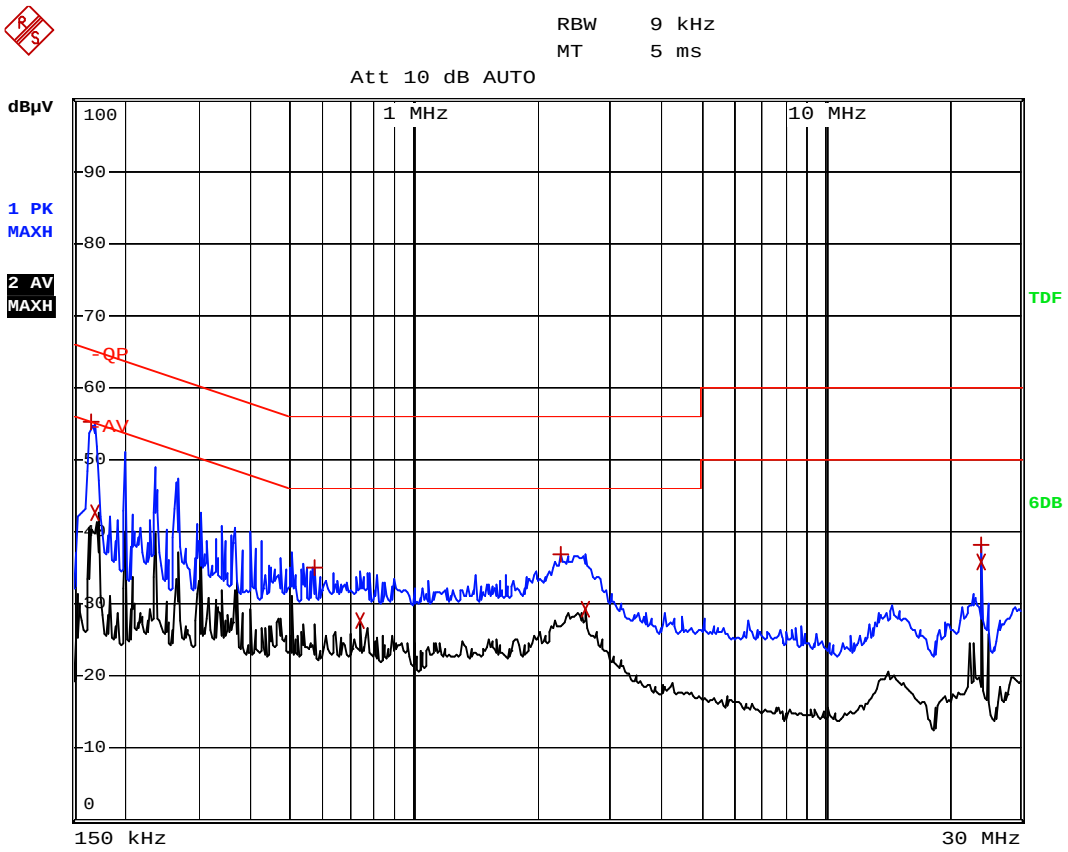
-9.84 dBμV at **0.166 MHz** in the **Neutral**, **Peak** detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

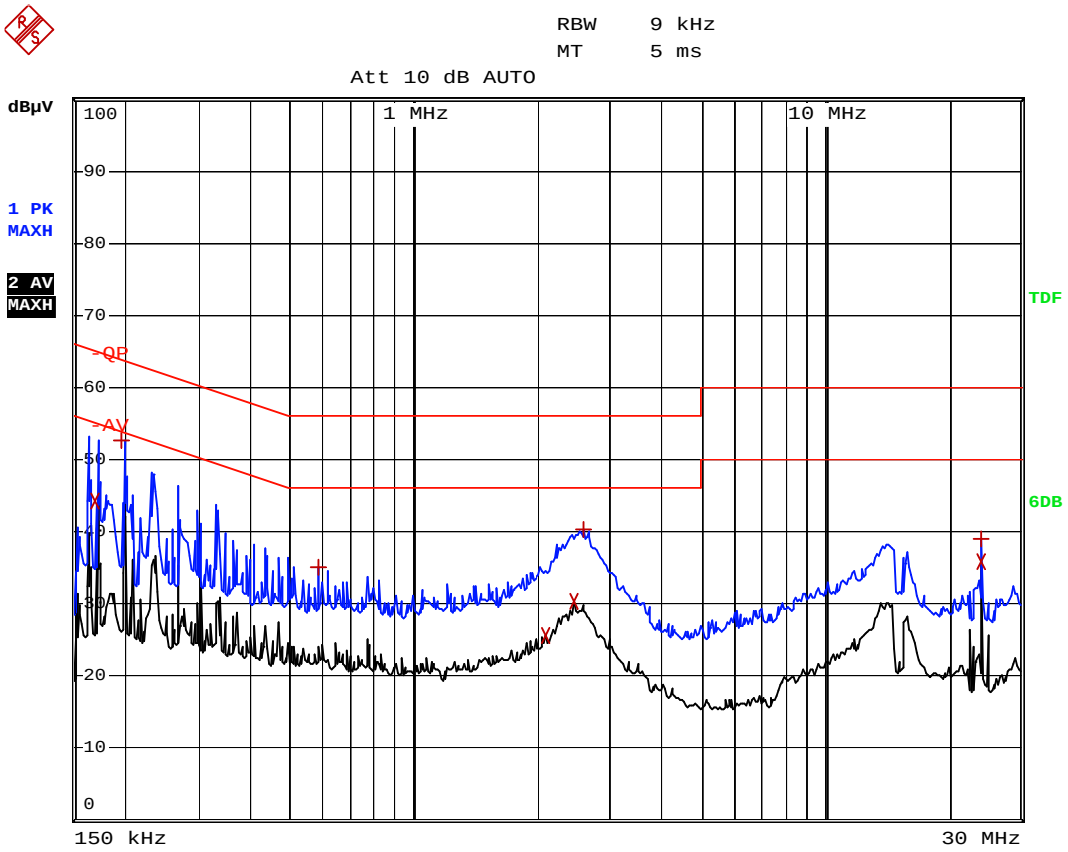
EUT: *Verykoo I130*
Tested Model: *I130*
Operating Condition: *Charging*
Comment: *AC 120V/60Hz*

Test Specification: *Neutral*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	166 kHz	55.30	-9.84
2 Average	170 kHz	42.61	-12.34
1 Max Peak	574 kHz	35.14	-20.86
2 Average	738 kHz	27.79	-18.20
1 Max Peak	2.282 MHz	36.98	-19.02
2 Average	2.606 MHz	29.30	-16.70
1 Max Peak	23.986 MHz	38.08	-21.91
2 Average	23.986 MHz	35.84	-14.15

Test Specification: *Line*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	170 kHz	44.14	-10.81
1 Max Peak	198 kHz	52.74	-10.95
1 Max Peak	582 kHz	34.95	-21.04
2 Average	2.102 MHz	25.59	-20.40
2 Average	2.454 MHz	30.26	-15.73
1 Max Peak	2.586 MHz	40.40	-15.59
1 Max Peak	23.982 MHz	38.91	-21.08
2 Average	23.982 MHz	35.86	-14.13

4. Radiated Emissions

4.1 Measurement Uncertainty

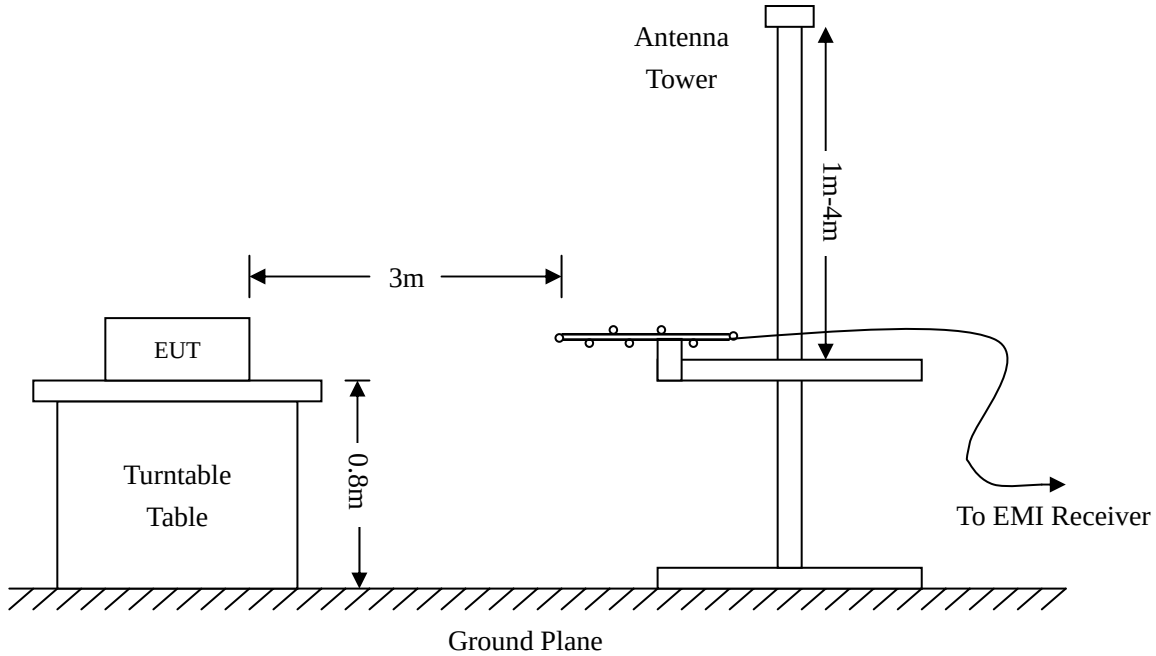
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.109 Limit.
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.



4.4 Test Receiver Setup

During the radiated emission test for above 1GHz, the test receiver was set with the following configurations:

For peak detector:
RBW = 1000kHz, VBW = 3000kHz, Sweep Time = Auto

For average detector:
RBW = 1000kHz, VBW = 10Hz, Sweep Time = Auto

4.5 Corrected Amplitude & Margin Calculation

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

Corr. Ampl. = Indicated Reading – Corr. Factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for a Class B device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15.109(a) Limit

4.6 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

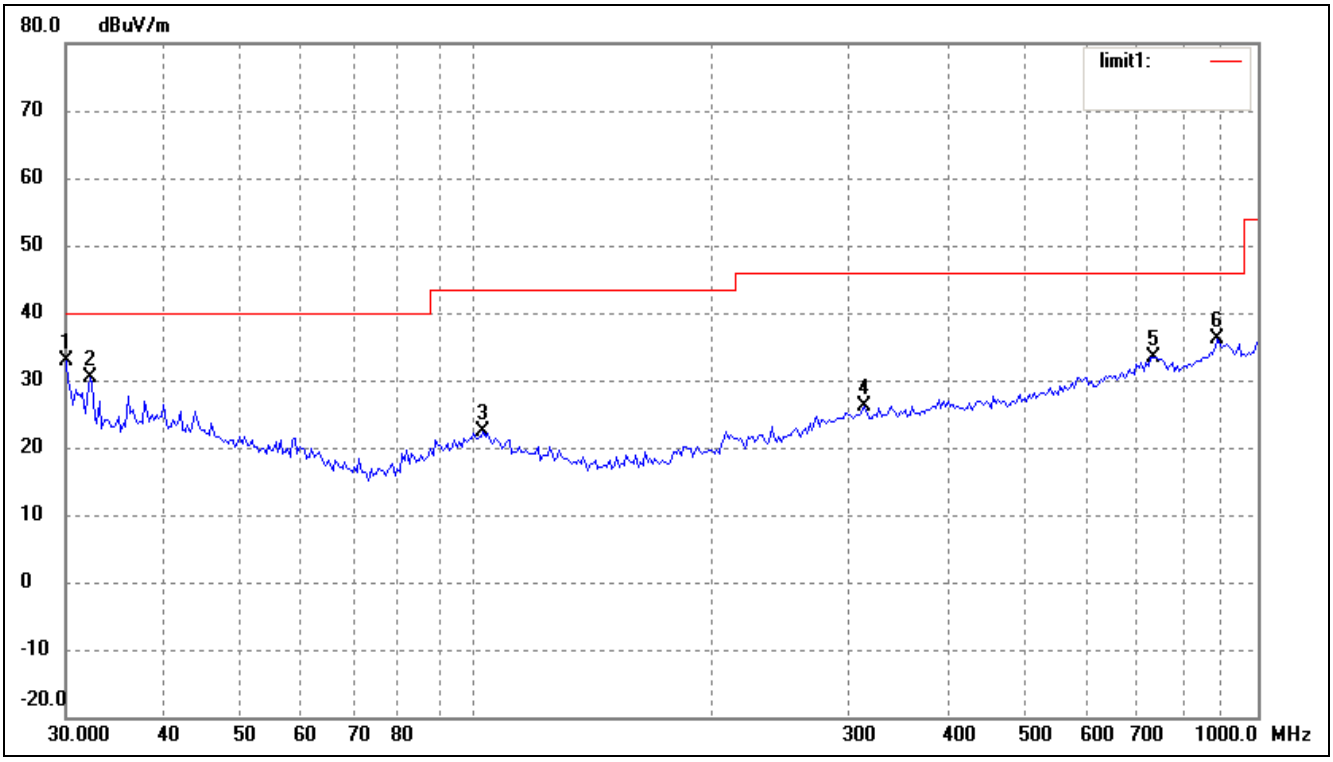
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-3.83 dBμV at **30.0000 MHz** in the **Vertical** polarization, **Charging** mode, **30 MHz** to **1 GHz**, **3Meters**
-2.31 dBμV at **62.6507 MHz** in the **Horizontal** polarization, **Downloading** mode, **30 MHz** to **1 GHz**, **3Meters**

Plot of Radiated Emissions Test Data

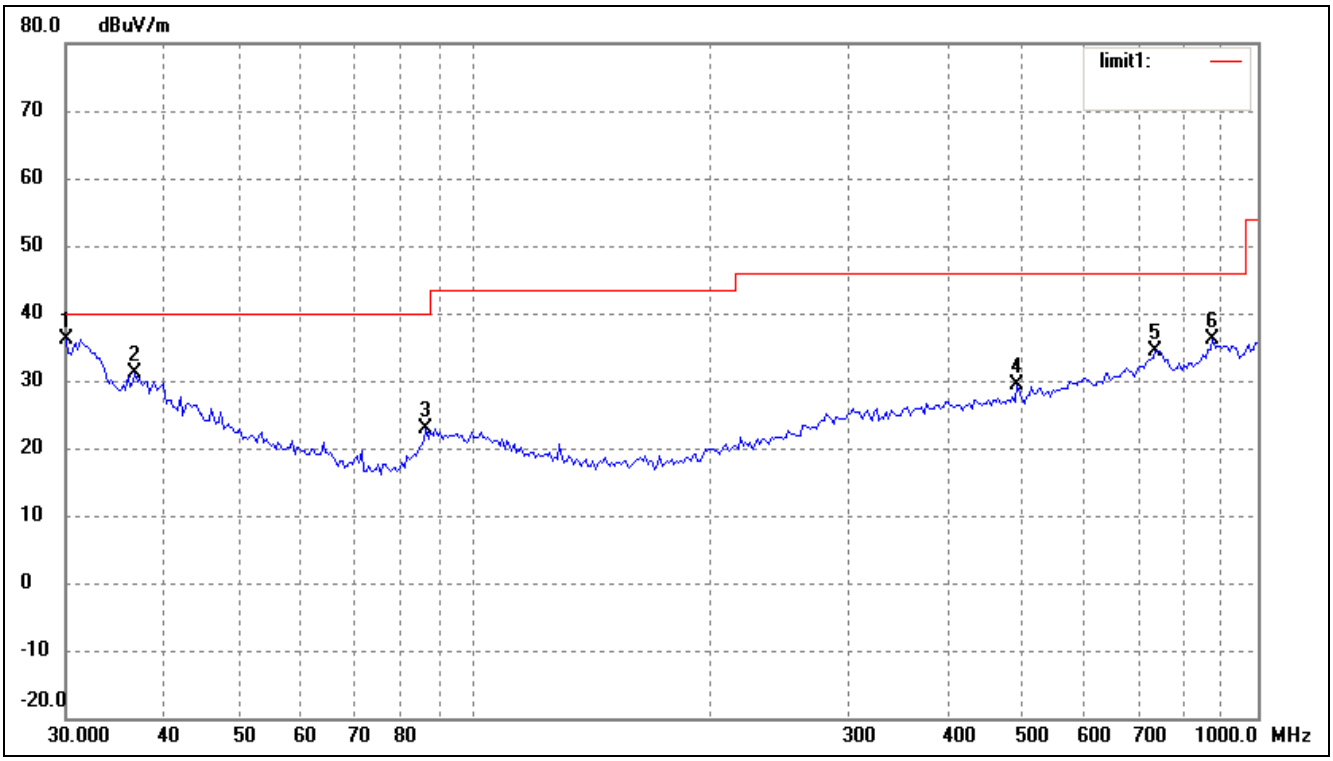
EUT: *Verykool I130*
Tested Model: *I130*
Operating Condition: *Charging*
Comment: *AC 120V/60Hz*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	30.0000	24.94	8.04	32.98	40.00	-7.02	103	100	peak
2	32.1795	21.89	8.41	30.30	40.00	-9.70	54	100	peak
3	102.3597	15.88	6.61	22.49	43.50	-21.01	54	100	peak
4	314.3765	15.72	10.40	26.12	46.00	-19.88	341	100	peak
5	734.4913	15.75	17.68	33.43	46.00	-12.57	24	100	peak
6	887.6099	17.01	19.15	36.16	46.00	-9.84	55	100	peak

Test Specification: *Vertical*

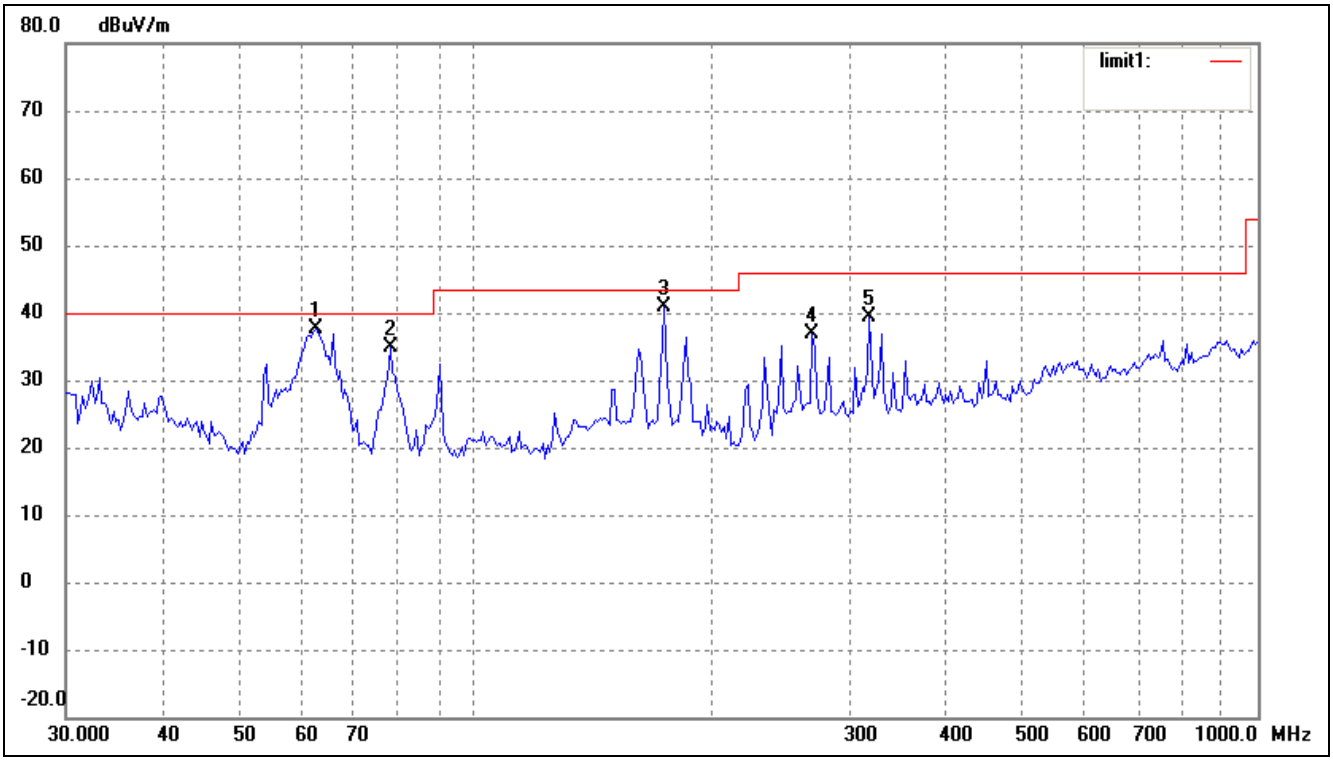


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	30.0000	28.13	8.04	36.17	40.00	-3.83	360	100	peak
2	36.7662	22.01	9.16	31.17	40.00	-8.83	54	100	peak
3	86.5029	19.46	3.47	22.93	40.00	-17.07	24	100	peak
4	492.4685	17.38	11.89	29.27	46.00	-16.73	154	100	peak
5	739.6605	16.31	18.07	34.38	46.00	-11.62	25	100	peak
6	875.2470	17.34	18.80	36.14	46.00	-9.86	36	100	peak

Plot of Radiated Emissions Test Data

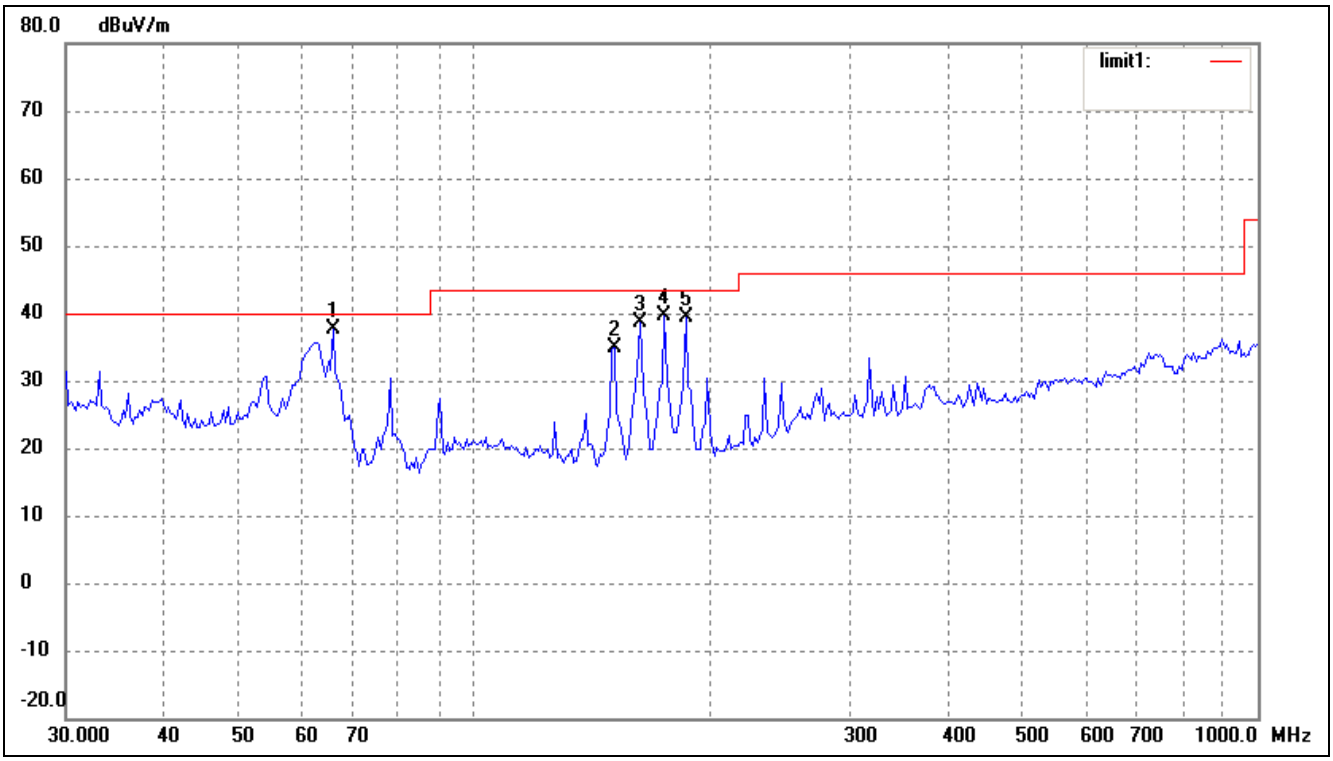
EUT: *Verykool I130*
Tested Model: *I130*
Operating Condition: *Downloading*
Comment: *Connected to PC*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	62.6507	32.84	4.85	37.69	40.00	-2.31	302	100	peak
2	77.8653	33.12	1.79	34.91	40.00	-5.09	11	100	peak
3	174.4241	37.16	3.72	40.88	43.50	-2.62	266	100	peak
4	269.4284	28.41	8.43	36.84	46.00	-9.16	44	100	peak
5	318.8170	28.81	10.46	39.27	46.00	-6.73	15	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	65.8031	33.75	3.85	37.60	40.00	-2.40	256	100	peak
2	150.5378	31.30	3.55	34.85	43.50	-8.65	31	100	peak
3	162.6106	35.05	3.66	38.71	43.50	-4.79	47	100	peak
4	174.4241	35.86	3.72	39.58	43.50	-3.92	172	100	peak
5	185.7882	35.28	4.01	39.29	43.50	-4.21	54	100	peak