

TEST REPORT

Report No.: SRMC2009-H024-E0019

Product Name: Broadband Wireless Desktop Terminal

Product Model: SkyWay-Mobile CPE

Applicant: Solectek Corporation

Manufacture: Solectek Corporation

Specification: FCC Part15B July 10, 2008 (Certification)

FCC ID: KA370MOB2

The State Radio Monitoring Center

State Radio Spectrum Monitoring and Testing Center

No.80 Beilishi Road Xicheng District Beijing, China

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1. General information

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company: The State Radio Monitoring Center
State Radio Spectrum Monitoring and Testing Center
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1.3 Applicant's details

Company: Solectek Corporation
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City: San Diego
Country or Region: USA
Grantee Code: KA3
Contacted person: David Gell
Tel: +1-858-450-1220-3020
Fax: +1-858-457-2681
Email: dgell@solectek.com

1.4 Manufacturer's details

Company: Solectek Corporation
Address: 6370 Nancy Ridge Drive, Suite 109, San Diego, CA 92121,
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City: San Diego
Country or Region: USA
Grantee Code: KA3
Contacted person: David Gell
Tel: +1-858-450-1220-3020
Fax: +1-858-457-2681
Email: dgell@solectek.com

1.5 Application details

Date of reception of test sample: 20th July. 2008

Date of test: 20th July. 2008 to 5th Aug. 2008

1.6 Reference specification

FCC Part 15B July 10, 2008 (Certification)

1.7 Information of EUT

1.7.1 General information

Name of EUT	Broadband Wireless Desktop Terminal
FCC ID	KA370MOB2
Frequency Range	698MHz ~ 746MHz
Rated Output Power	21.71dBm (ERP)
Access Method	CS-OFDMA
Modulation Type	QPSK, 8PSK, 16QAM, 64QAM
Emission Designator	1M00W9W
Duplex Mode	TDD
Channel Bandwidth	1MHz
Equipment Class	Class B
Antenna Type	External
Power Supply	External power supply
Rated Power Supply Voltage	5V
Extreme Temperature	Lowest: 0°C Highest: +50°C
Extreme Voltage	Minimum: 4.25V Maximum: 5.75V
HW Version	CPE_M.PCB 72.20.00.00
SW Version	CPE.om.1.4.5.9

1.7.2 EUT details

Name	Model	Serial Number
Broadband Wireless Desktop Terminal	SkyWay-Mobile CPE	C5C0810011360A

1.7.3 Auxiliary equipment details

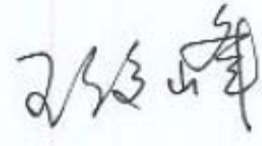
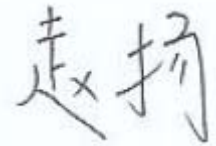
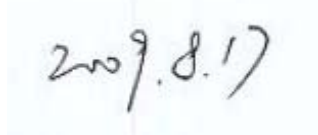
Equipment	Power supply
Manufacturer	Shi Jiazhuang Guoyao Electronic
Model Number	UE15W1-050200SPA
Serial Number	-----

Equipment	Laptop
Manufacturer	DELL
Model Number	PP17L
Serial Number	3915740949

2. Test information:

2.1 Summary of the test results:

No.	Test case	FCC reference	Verdict
1	Conducted emissions	15.107	Pass
2	Radiated emissions	15.109	Pass

This Test Report Is Issued by: Mr. Song Qizhu, Director of the test lab 	Checked by: 
Tested by: 	Issued date: 

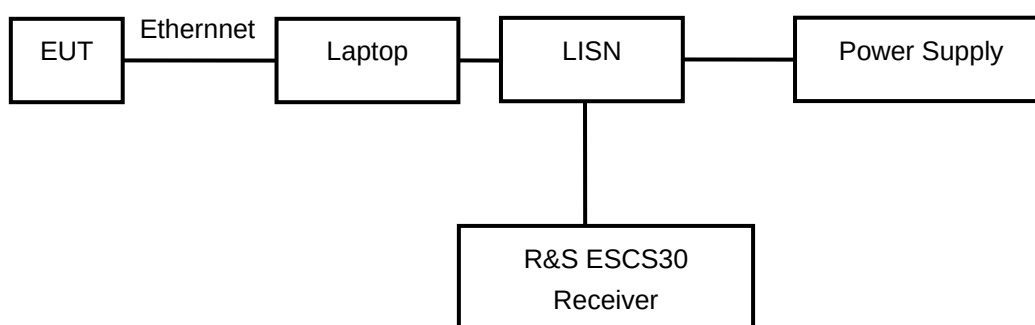
2.2 Test result

2.2.1 Conducted Emissions - FCC Part 15.107

Ambient condition:

Temperature	Relative humidity	Pressure
22°C	55%	101.5kPa

Test Setup:



Test Procedure:

The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The EUT connect with a laptop via the Ethernet port. The accessories of the EUT are connected with the EUT. During the test the data transferring via Ethernet cable between EUT and laptop is maintained. The AC main power supply of the laptop is connected to LISN and LISN is connected to the reference ground. The test set-up and the test methods are performed according to ANSI C63.4:2003. The measurement should be done for both L line and N line. The receiver uses both average detector and Quasi-peak detector. The EUT is working in idle mode.

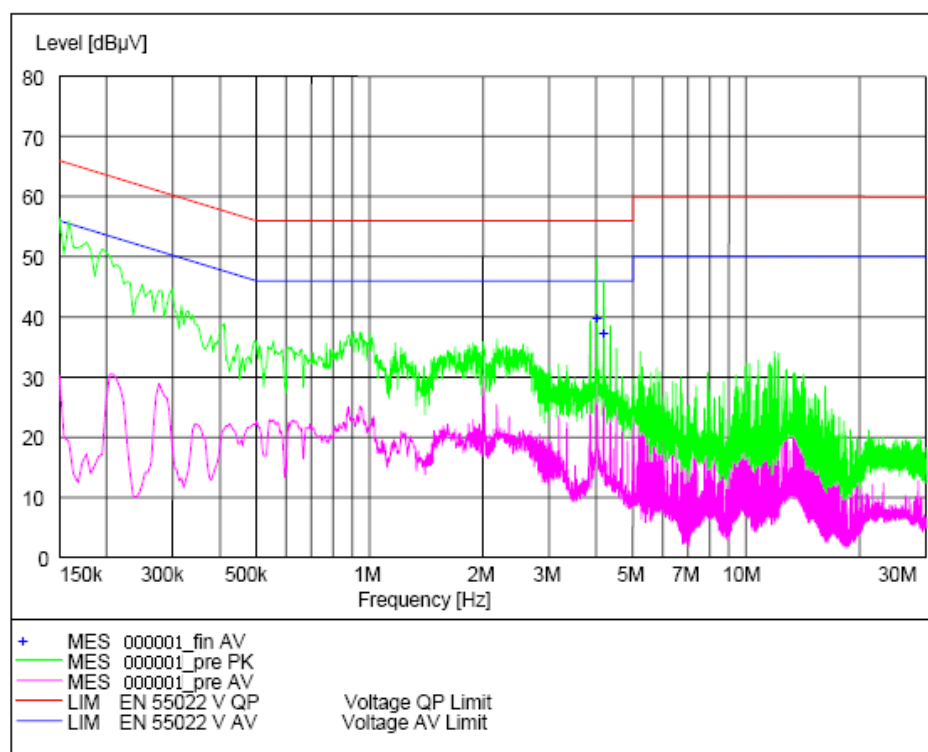
Limit:

Frequency of Emission(MHz)	Limits(dB μ V)	
	Quasi-peak	Average
0.15~0.5	66 to 56*	56 to 46*
0.5~5	56	46
5~30	60	50

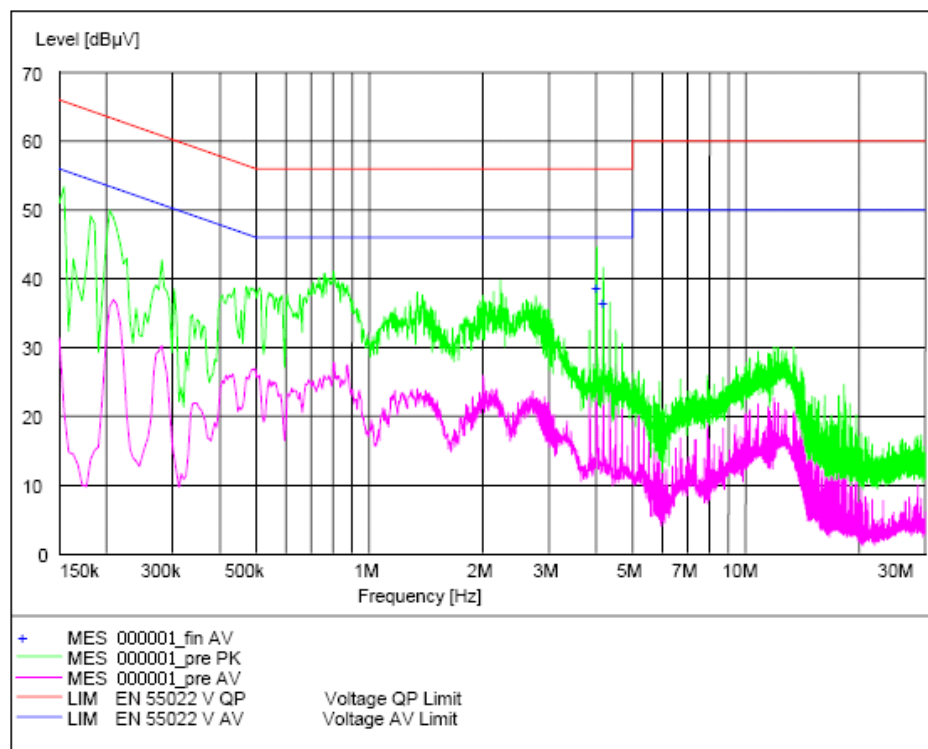
Note: * Decreases with the logarithm of the frequency

Test result:

Refer to the following figures.



L Line



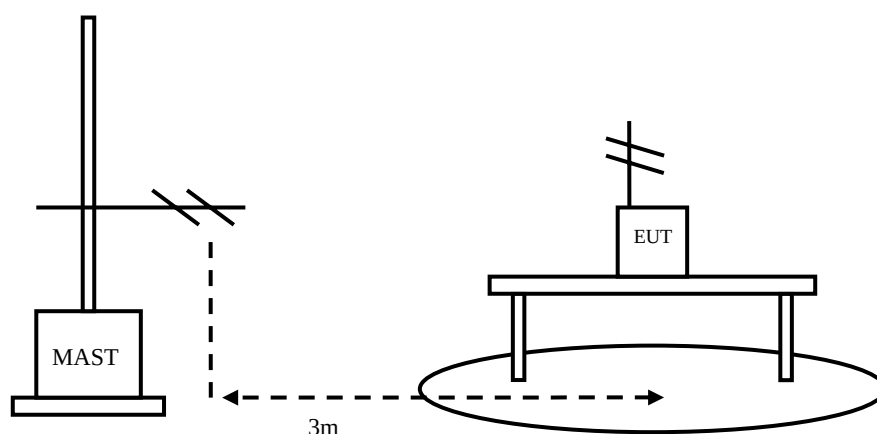
N Line

2.2.2 Radiated Emissions - FCC Part 15.109

Ambient condition:

Temperature	Relative humidity	Pressure
22°C	55%	101.5kPa

Test Setup:



Test Procedure:

The EUT should be placed on a non-metallic table 80cm above the ground plane. The receive antennas shall be moved from 1 to 4 meters. The distance between EUT and receive antenna should be 3 meters.

The accessories of the EUT are connected with the EUT. During the test the data transferring via Ethernet cable between EUT and laptop is maintained. The test set-up and the test methods are performed according to ANSI C63.4:2003.

Then start the test software ES-K1. Sweep the whole frequency band through the range from 30MHz to 1GHz or above, using receive log period antenna HL562 or Ridge horn antenna HF906.

During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna.

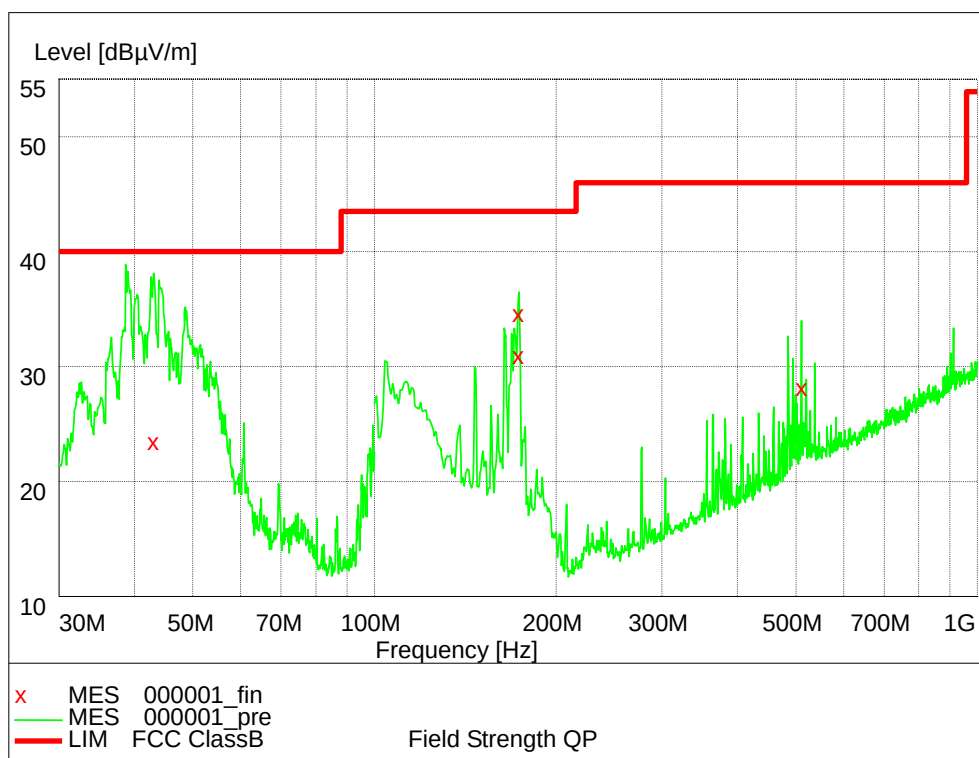
The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.

Limit:

Frequency of Emission(MHz)	Limits	
	Detector	Unit (dB μ V/m)
30~88	Quasi-peak	40
88~216	Quasi-peak	43.5
216~960	Quasi-peak	46
960~1000	Quasi-peak	54
1000~5th harmonic of the highest frequency or 40GHz, whichever is lower	Average	54
	Peak	74

Test result:

Refer to the following figures.



For measurement above 1GHz, all emissions level measured were more than 10dB below the limit.

2.3. List of test equipments

No.	Name/Model	Manufacturer	S/N	Calibration Date
1	23.18m×16.88m×9.60m Semi-Anechoic Chamber	FRANKONIA	-----	19 th Aug. 2008
2	ESI 40 EMI test receiver	R&S	100015	19 th Aug. 2008
3	E5515C(8960) Mobile Station Tester	Agilent	GB44050904	19 th Aug. 2008
4	9.080m×5.255m×3.525m Shielding room	FRANKONIA	-----	19 th Aug. 2008
5	ESCS30 EMI test receiver	R&S	100029	19 th Aug. 2008
6	HL562 Ultra log test antenna	R&S	100016	19 th Aug. 2008
7	ESH3-Z2 Pulse limiter	R&S	10002	19 th Aug. 2008
8	ESH3-Z5 Attenuator	R&S	100020	19 th Aug. 2008
9	ESH2Z11 LISN	R&S	50FH-020-10	19 th Aug. 2008
10	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100030	19 th Aug. 2008
11	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100029	19 th Aug. 2008
12	PS2000 Turn Table	FRANKONIA	-----	19 th Aug. 2008
13	MA260 Antenna Master	FRANKONIA	-----	19 th Aug. 2008
14	ES-K1EMI test software	R&S	-----	19 th Aug. 2008
15	HL562 Receive antenna	R&S	100167	19 th Aug. 2008

Appendix