



TEST REPORT

Report No.: SRTC2011-H024-E0097

Product Name: 2.4GHz Wireless Memory Card

Marketing Name: ez Share

Product Model: ES100

Applicant: LZeal Information Technology Co., Ltd.

Manufacturer: LZeal Information Technology Co., Ltd.

Specification: FCC Part15B (Certification)

(October 1, 2009 edition)

FCC ID: A7JEZS126

The State Radio_monitoring_center Testing Center (SRTC)

No.80 Beilishi Road Xicheng District Beijing, China

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1. General information

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).

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 Testing Center (SRTC)
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Country or Region: China
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1.3 Applicant's details

Company: LZeal Information Technology Co., Ltd.
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1.4 Manufacturer's details

Company: LZeal Information Technology Co., Ltd.
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City: Wuxi City, Jiangsu Province
Country or Region: P.R. China
Contacted person: Guo Gang
Tel: +86-510-8117 0199
Fax: +86-510-8117 0187
Email: guog@lzeal.com

1.5 Application details

Date of reception of test sample: 16th December 2011

Date of test: 16th December 2011 to 21st December 2011

1.6 Reference specification

FCC Part 15B October 1, 2009 (Certification)

1.7 Information of EUT

1.7.1 General information

Name of EUT	2.4GHz Wireless Memory Card
FCC ID	A7JEZS126
Frequency range	2.4000GHz~2.4835GHz
Number of channel	13
Modulation type	DBPSK/DQPSK/CCK/BPSK/QPSK/16QAM/64QAM
Duplex mode	TDD
Channel spacing	5MHz
Emission Designator	5M00Q1D
Data rate	1Mbps/2Mbps/5.5Mbps/11Mbps/6Mbps/9Mbps/12Mbps/ 18Mbps/24Mbps/36Mbps/48Mbps/54Mbps/6.5Mbps/ 13 Mbps/19.5 Mbps/26 Mbps/39 Mbps/52 Mbps/ 58.5 Mbps/65 Mbps
Equipment Class	Class B
Antenna type	Fixed Internal
Power Supply	USB docking card
Rated Power Supply Voltage	3.1V
HW Version	EZS-P2
SW Version	V2.1.0

1.7.2 EUT details

Product Name	Marketing Name	Product Model	Serial Number
2.4GHz Wireless Memory Card	ez Share	ES100	EZ1448000060AA1

1.7.3 Auxiliary equipment details

AE (Auxiliary Equipment) 1#: USB docking card

Equipment	USB docking card
Manufacturer	LZeal Information Technology Co., Ltd.
Model Number	---

Note:

All the auxiliary equipments have been labeled with number in order to identify the test sample.

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: Mr. Wang Junfeng Deputy director of the test lab 
Tested by: Mr. Zhao Yang Test engineer 	Issued date: <p style="text-align: center;">2012.02.03</p>

2.2 Test result

2.2.1 Conducted Emissions-FCC Part15.107

Ambient condition:

Temperature	Relative humidity	Pressure
17.4°C	30.7%	99.5kPa

Test Setup:

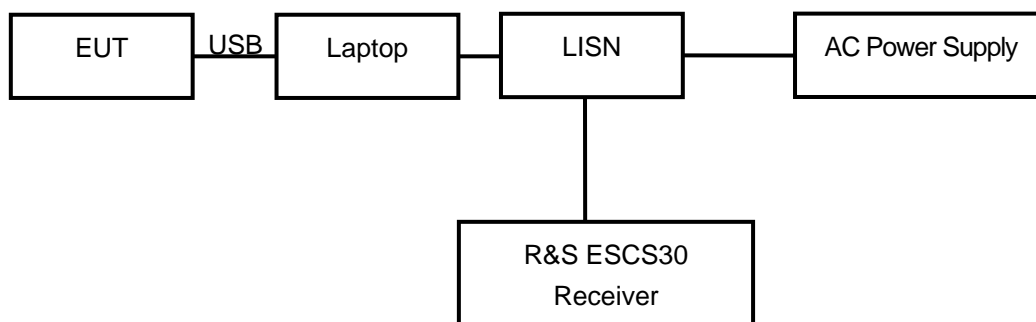


Figure 1

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 USB docking card. During the test the data transferring via USB docking card 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 C63.4:2009.

Then start the test software ES-K1. Sweep the whole frequency band through the range from 150 KHz to 30 MHz. The measurement should be done for both L line and N line. During pre-test, the receiver uses both peak detector and average detector. And the final test, the receiver uses both average detector and Quasi-peak detector.

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

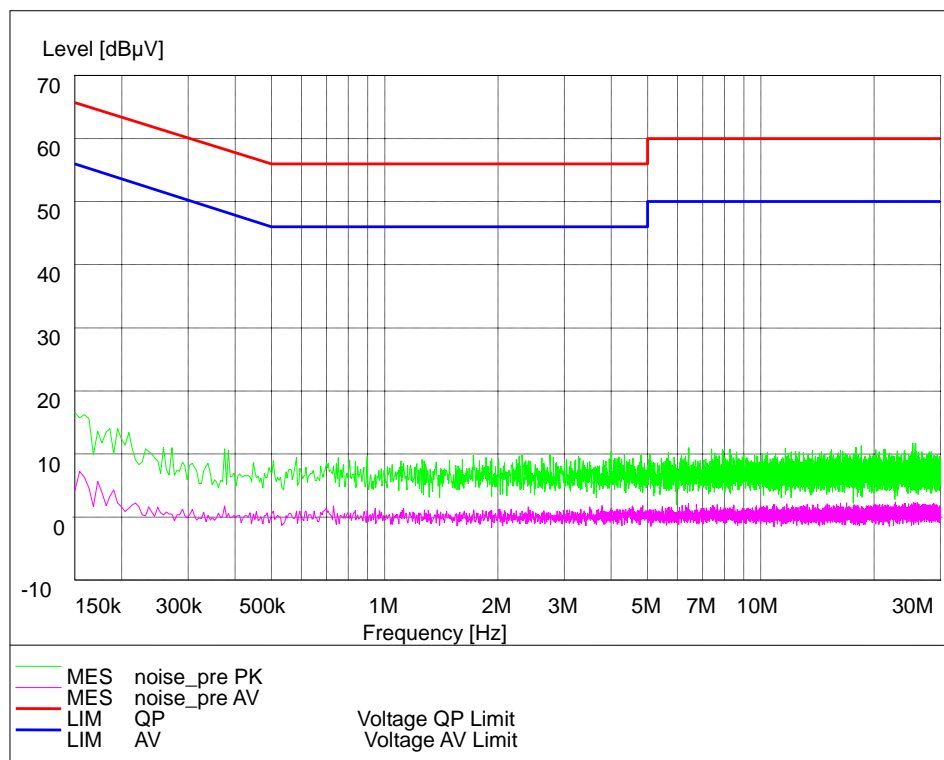
Limit:

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:

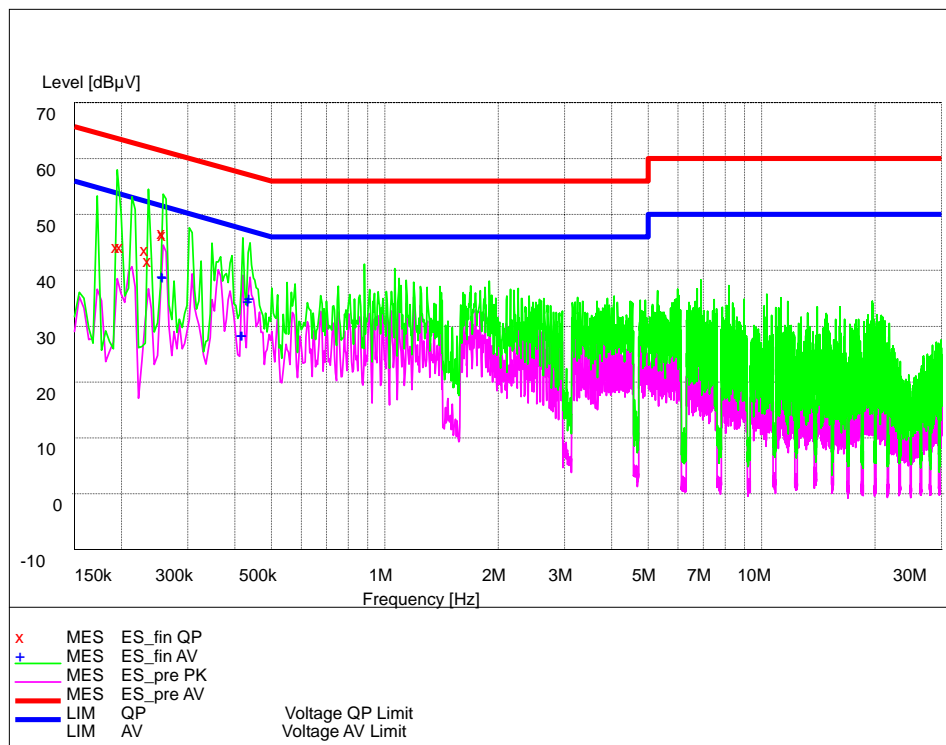
Noise Level of the Measuring Instrument



L and N Line

Note: Measuring instruments' noise level refers to the figure of "Noise Level of the Measuring Instrument".

Wifi Laptop+AE1



L and N Line

MEASUREMENT RESULT: "onetouch901S_fin AV"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.257500	41.20	20.2	52	10.8	N	GND
0.258000	40.90	20.2	52	10.1	L1	GND
0.417000	30.50	20.3	48	17.5	N	GND
0.420000	30.40	20.3	47	17.6	L1	GND
0.434500	36.70	20.3	47	10.3	N	GND
0.438500	37.20	20.3	47	9.8	N	GND

MEASUREMENT RESULT: "onetouch901S_fin QP"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.194500	46.10	20.2	64	17.9	L1	GND
0.198500	46.20	20.2	64	17.8	L1	GND
0.231500	45.50	20.2	62	16.5	N	GND
0.235500	43.60	20.2	62	18.4	N	GND
0.257500	48.60	20.2	61	12.4	L1	GND
0.258000	48.50	20.2	61	12.5	N	GND

2.2.2 Radiated Emissions-FCC Part15.109

Ambient condition:

Temperature	Relative humidity	Pressure
17.2°C	30.5%	100.1kPa

Test Setup:

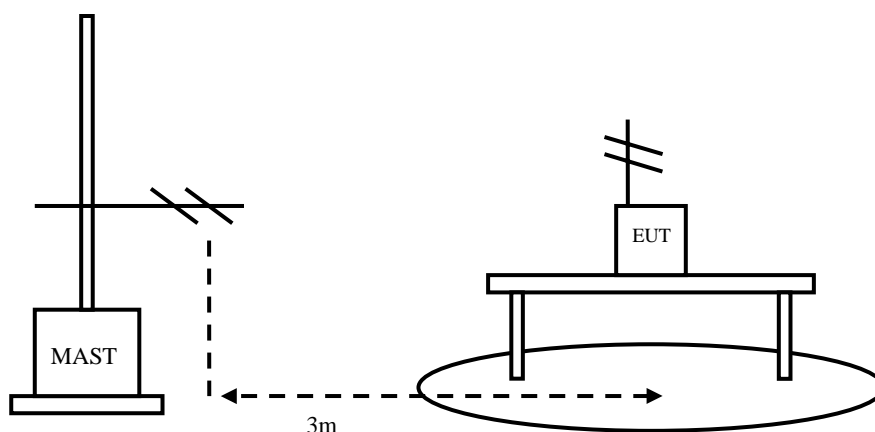


Figure 2

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.

During the test the data transferring via USB docking card between EUT and laptop is maintained. The test set-up and the test methods are performed according to ANSI C63.4:2009.

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

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 EUT is laid in two modes as follow: 1. put the EUT in horizontal direction; 2. put the EUT in vertical direction.

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

A “reference path loss” is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

The measurement results are obtained as described below:

$$\text{Result} = P_{\text{mea}} + A_{Rpl}$$

Limit:

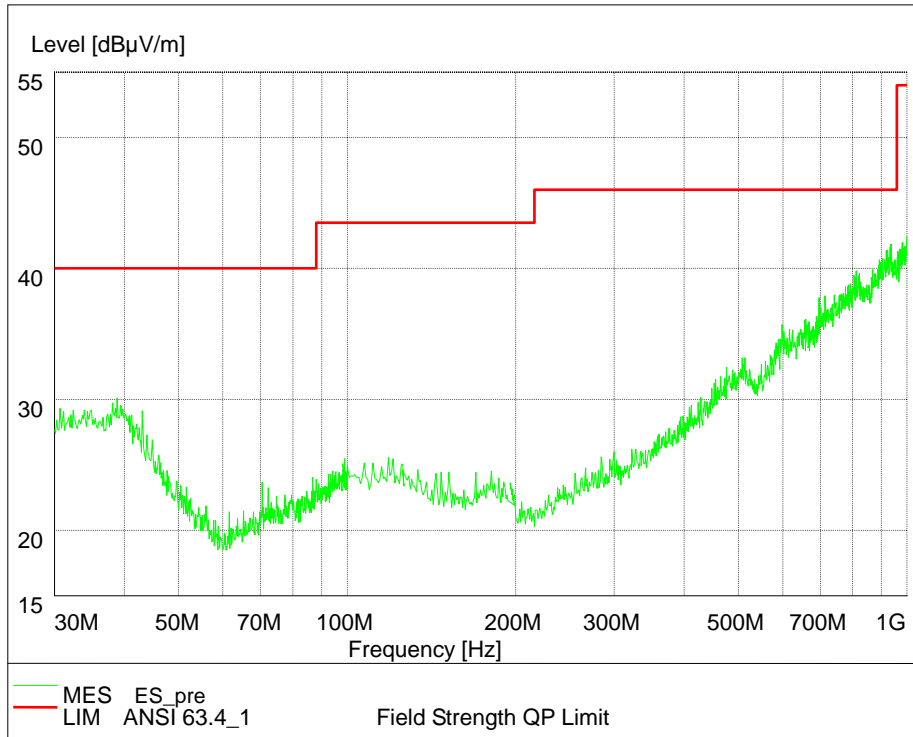
Frequency of Emission(MHz)	Limits	
	Detector	Unit (dB μ V/m)
30~88	Quasi-peak	40
88~216	Quasi-peak	43.5
216~960	Quasi-peak	46
960~1000	Quasi-peak	54
1000~5th harmonic of the highest frequency or 40GHz, whichever is lower	Average	54
	Peak	74

Test result:

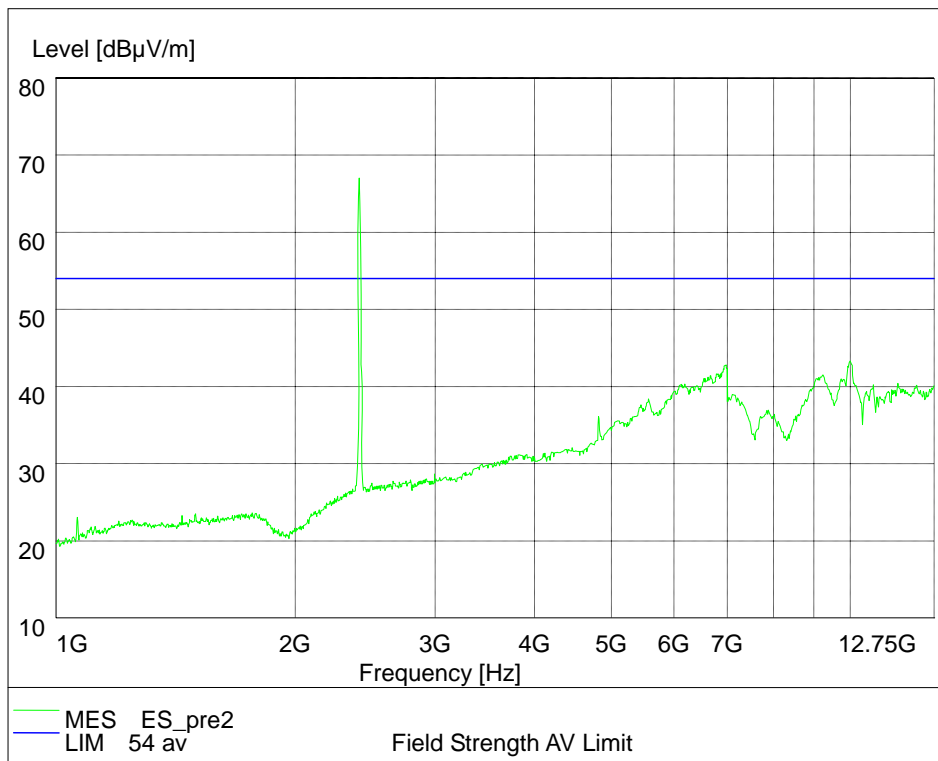
Wifi Mode

Frequency (MHz)	Result (dBuV/m)	A_{Rpl} (dB)	P_{mea} (dBuV/m)	Polarity
821.71	40.03	5.3	34.73	Horizontal
932.61	42.47	5.7	36.77	Vertical
6237.56	40.35	-16.7	57.05	Vertical
6974.38	42.93	-16.3	59.23	Horizontal
9348.52	41.79	-15.2	56.99	Horizontal
9917.39	43.51	-14.7	58.21	Vertical

Refer to the following figures.



30MHz - 1GHz



1GHz – 12.75GHz

Note: The signals beyond the limit are the carrier frequency.

2.3. List of test equipments

No.	Name/Model	Manufacturer	S/N	Calibration Due Date
1	23.18m×16.88m×9.60m Semi-Anechoic Chamber	FRANKONIA	-----	19 th Aug. 2012
2	ESI 40 EMI test receiver	R&S	100015	19 th Aug. 2012
3	E5515C(8960) Mobile Station Tester	Agilent	GB44050904	19 th Aug. 2012
4	9.080m×5.255m×3.525m Shielding room	FRANKONIA	-----	19 th Aug. 2012
5	ESCS30 EMI test receiver	R&S	100029	19 th Aug. 2012
6	HL562 Ultra log test antenna	R&S	100016	19 th Aug. 2012
7	ESH3-Z2 Pulse limiter	R&S	10002	19 th Aug. 2012
8	ESH3-Z5 Attenuator	R&S	100020	19 th Aug. 2012
9	ESH2Z11 LISN	R&S	50FH-020-10	19 th Aug. 2012
10	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100030	19 th Aug. 2012
11	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100029	19 th Aug. 2012
12	PS2000 Turn Table	FRANKONIA	-----	19 th Aug. 2012
13	MA260 Antenna Master	FRANKONIA	-----	19 th Aug. 2012
14	ES-K1EMI test software	R&S	-----	19 th Aug. 2012
15	HL562 Receive antenna	R&S	100167	19 th Aug. 2012
16	Wlan tester	MT8860C	1105002	19 th Aug. 2012
17	3160-09 Receive antenna	R&S	002058-002	19 th Aug. 2012

Appendix