

# FCC Test Report

## E4064136301KY

Type / Model Name: MD-318

Brand Name: SKYLINK

Product Description: LIGHTING REMOTE CONTROL

Applicant: Capital Prospect Limited

FCC ID : KUTMD318

## FCC -- TEST REPORT

<b>Test Report No. :</b> <b>E4064136301KY</b>	Oct 09,2010 Date of issue
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Type / Model Name: MD-318

Brand Name : SKYLINK

Product Description: LIGHTING REMOTE CONTROL

**Applicant:** Capital Prospect LTD.

Address: Room 03, 13/F., Block B,

Veristrong Ind. Centre, 34-36 Au Pui Wan Street,

Fo Tan, N.T.,

Hong Kong

<b>Test Result</b> according to the standards listed in clause 1 test standards:	<b>PASS</b>
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The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

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## **1 TEST STANDARDS**

The tests were performed according to following standards:

FCC Part 15 Subpart B:2007-9-20

Radio frequency devices-Unintentional Radiators

ANSI C63.4:2003

Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

## **2 SUMMARY**

### **GENERAL REMARKS:**

N/A

### **FINAL ASSESSMENT:**

The equipment under test fulfils the FCC requirements cited in test standard listed in section 1.

Date of receipt of test sample : Jan 07, 2010

Testing commenced on : Jun 10, 2010

Testing concluded on : Oct 09, 2010

Reviewed by:

Prepared by:

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Ivan Toa  
Technical Manager

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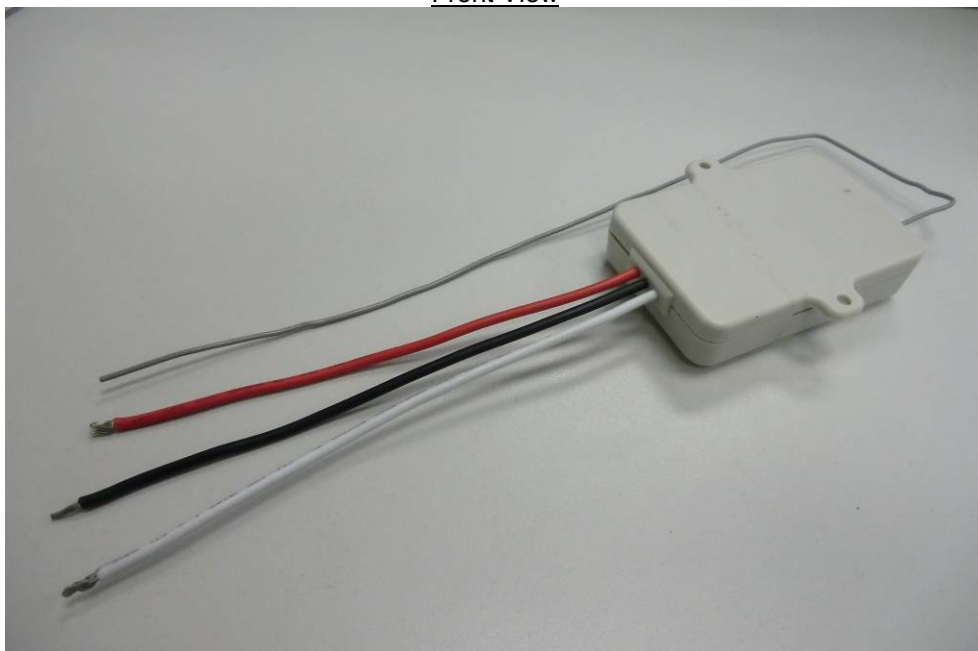
Kidd Yang  
Engineer

### **3 EQUIPMENT UNDER TEST**

#### **3.1 Photo documentation of the EuT**



Front View



Back View

### 3.2 Power supply system utilised

Power supply voltage: AC 120V/60Hz

### 3.3 Short description of the Equipment under Test (EuT)

The EuT is a 318MHz receiver and powered by AC 120V. The radio receiver is designed as a module to receive the signal from the transmitter. When the device receives the signal from the transmitter, It will responds to activate electronic switch.

Number of tested samples: One  
 Serial number: Not Labelled  
 Dimensions: L: 7.6cm W: 7.0cm H: 2.0cm

#### EuT operation mode:

The equipment under test was operated during the measurement under the following conditions:

- Operation mode 1: Maximum load + receiving mode

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#### EuT configuration:

The following interface cables and peripheral devices were connected during the measurements:

##### Interface cables:

Interface cable	Length [m]	Type	Line		Line termination
			shielded	unshielded	
Power cable	1.2	2 wire	<input type="checkbox"/>	<input checked="" type="checkbox"/>	LISN
Power cable	0.8	2 wire	<input type="checkbox"/>	<input checked="" type="checkbox"/>	To Lamp

##### Peripheral devices:

Kind of equipment	Model and/or Manufacturer
300W Lamp(120V/60Hz)	Philips

## **4 TEST ENVIRONMENT**

### **4.1 Address of the test laboratory**

**emitel (Shenzhen) Limited  
Building 2, 171 Meihua Road,  
Futian District,  
Shenzhen, 518049  
China**

**FCC Registration No.: 746887**

### **4.2 Environmental conditions**

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 86-106 kPa

### **4.3 Statement of the measurement uncertainty**

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16-4-2 /11.2003 „Uncertainties, statistics and limit modelling – Uncertainty in EMC measurements“ and is documented in the quality system acc. to ISO 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.



## 5 TEST CONDITIONS AND RESULTS

### 5.1 Radiated disturbance (electric field)

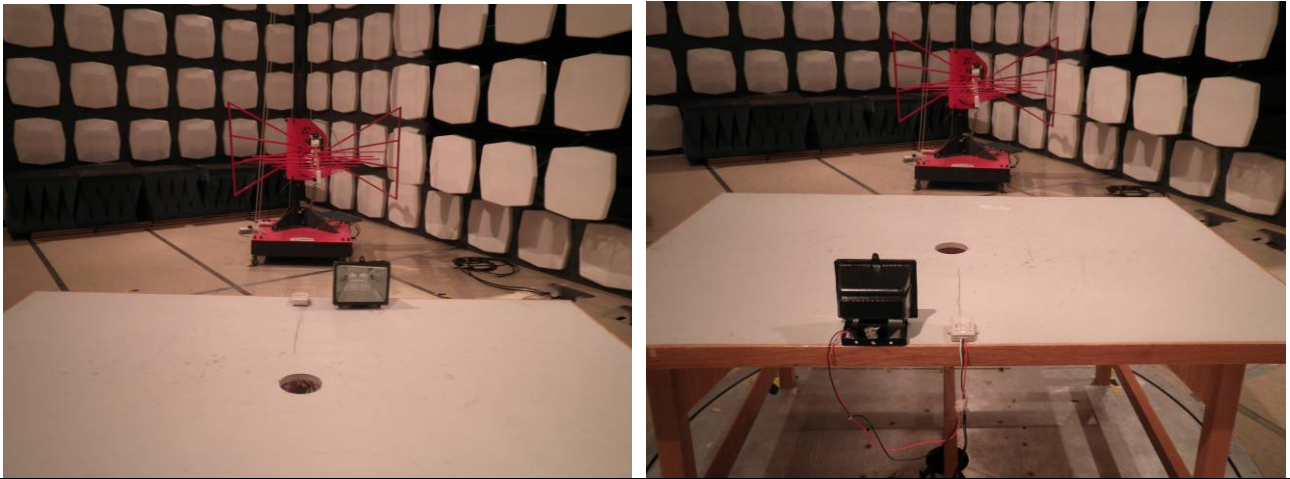
For test instruments and accessories used see section 6 Part II.

#### 5.1.1 Description of the test location

Test location: Semi-Anechoic Chamber

Test distance: 3m

#### 5.1.2 Photo documentation of the test set-up



#### 5.1.3 Test result

The test was carried out in the following operation mode(s):

- Maximum load +receiving mode

Frequency range: 30MHz to 2000MHz

Min. limit margin -18.6dB at 636.0MHz.

The requirements are **FULFILLED**

#### Remarks:

- 1) According to FCC part 15.33(b), since the EuT is used 318MHz frequency in the device, the upper frequency of measurement is up to 2000MHz.
- 2) During photo mode test, EUT is rotated through three orthogonal axes to determine the maximum emission.
- 3) The receiving antenna can be measured within the frequency range 26MHz to 3000MHz.
- 4) An unmodulated CW signal at the operating frequency of the EuT is supplied to the EuT for all measurements.

#### 5.1.4 Test protocol

Product Description	: LIGHTING REMOTE CONTROL	Result: <b>PASS</b>
Model	: MD-318	
Test mode	Maximum load + receiving mode	
Date	: 10-06-2010	

Start frequency [MHZ]	Stop frequency [MHZ]	Resolution bandwidth	step size	Measurement time	Detector
30	1000	120 kHz	40 kHz	1s	QP
1000	2000	1 MHz	400 kHz	1s	AV

Polarization	Frequency (MHz)	Read Value (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Measured Result (dBuV/m)	QP limit (dBuV/m)	margin (dB)
V	318.0	9.8	14.8	1.1	25.7	46.0	-20.3
H	318.0	9.5	14.3	1.1	24.9	46.0	-21.1
H	636.0	5.0	20.5	1.9	27.4	46.0	-18.6
H	954.0	1.3	23.1	2.2	26.6	46.0	-19.4

Remark: Emission is measured from 30MHz to 1000MHz.

Polarization	Frequency (MHz)	Read Value (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Measured Result (dBuV/m)	AV limit (dBuV/m)	margin (dB)
V	1272.0	-6.4	26.3	2.9	22.8	53.9	-31.1
V	1590.0	-9.4	30.1	3.9	24.6	53.9	-29.3

Remark: Emission is measured from 1000MHz to 2000MHz.

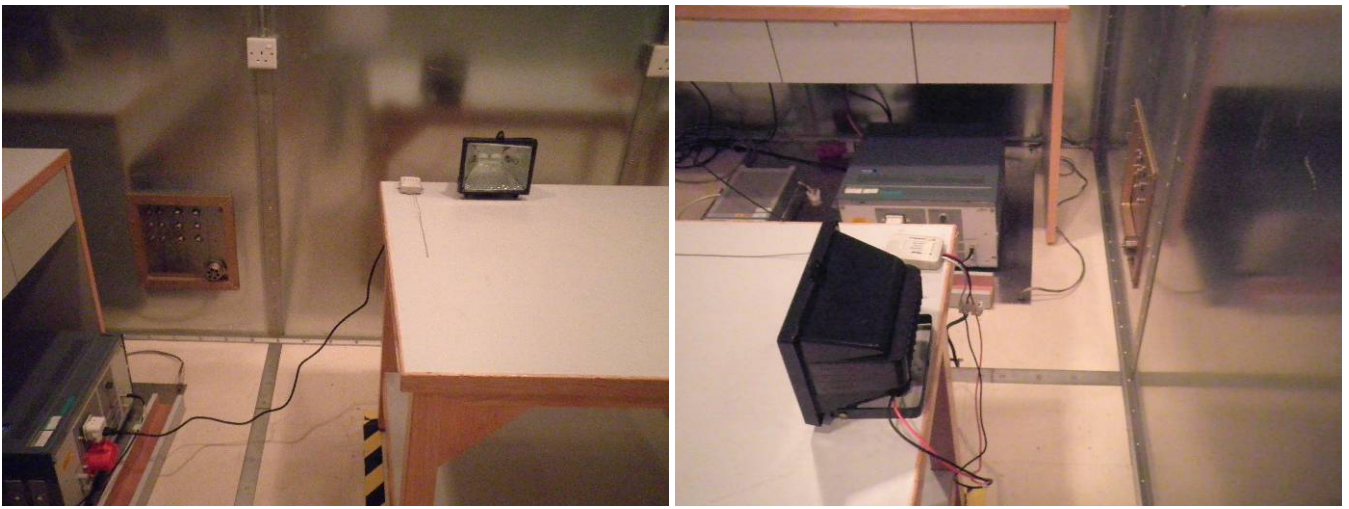
## 5.2 Conducted disturbance

For test instruments and accessories used see section 6 Part I2.

### 5.2.2 Description of the test location

Test location: Shield Room

### 5.2.3 Photo documentation of the test set-up



### 5.2.4 Test result

Frequency range: 0.15MHz – 30.00MHz

The test was carried out in the following operation mode(s):

- Maximum load + receiving mode

Min. limit margin -9.5dB at 0.258MHz.

The requirements are **FULFILLED**

- Remarks:**
- 1) Other emission with more than 10dB margin below the limit is not measured.
  - 2) An unmodulated CW signal at the operating frequency of the EuT is supplied to the EuT for all measurements.

### 5.2.5 Test protocol

Product Description : LIGHTING REMOTE CONTROL	Result: <b>PASS</b>
Model : MD-318	
Test mode : Maximum load + receiving mode	
Date : 29-09-2010	

LINE	Frequency	Measured QP Value	Limit	Margin
	[MHz]	[dB $\mu$ V]	[dB $\mu$ V/m]	[dB]
Line1	0.162	53.6	65.4	-11.8
Line1	0.170	52.3	65.0	-12.7
Line1	0.182	50.8	64.4	-13.6
Line1	0.194	49.2	63.9	-14.7
Line1	0.202	48.3	63.5	-15.2
Line1	0.214	46.8	63.0	-16.2
Line1	0.238	44.2	62.2	-18.0
Line1	0.250	43.1	61.8	-18.7
Line1	0.286	40.5	60.6	-20.1
Neutral	0.154	54.1	65.8	-11.7
Neutral	0.170	51.7	65.0	-13.3
Neutral	0.190	49.2	64.0	-14.8
Neutral	0.202	47.7	63.5	-15.8
Neutral	0.222	45.3	62.7	-17.4
Neutral	0.238	43.7	62.2	-18.5
Neutral	0.258	42.0	51.5	-9.5
Neutral	0.274	40.7	61.0	-20.3
Neutral	0.294	39.4	59.4	-20.0
Neutral	0.530	37.6	56.0	-18.4

LINE	Frequency	Measured AV Value	Limit	Margin
	[MHz]	[dB $\mu$ V]	[dB $\mu$ V/m]	[dB]
Line1	0.162	35.0	55.4	-20.4
Neutral	0.162	34.3	55.4	-21.1

## **6 USED TEST EQUIPMENT AND ACCESSORIES**

All test instruments used, in addition to the test accessories, are calibrated and verified regularly.

<b>Test ID</b>	<b>Kind of Equipment</b>	<b>Model / Type</b>	<b>Manufacturer</b>	<b>Next cal. Date</b>	<b>Equipment No.</b>
<b>I1</b>	Test Receiver	ESPI3	Rohe & Schwarz	Mar. 25,2011	04-02/03-06-002
	BicoNLog Antenna	3142C	EMCO	Jan. 08,2011	04-02/24-06-001
	Signal Generator	SML03	Rohde & Schwarz	Mar. 25,2011	04-02/05-06-002
<b>I2</b>	Test Receiver	ESPI3	Rohde & Schwarz	Mar. 25,2011	04-02/03-06-002
	LISN	ESH2-Z5	Rohde & Schwarz	Mar. 25,2011	04-02/20-06-001
	Signal Generator	SML03	Rohde & Schwarz	Mar. 25,2011	04-02/05-06-002