



<b>Prüfbericht - Nr.:</b> Test Report No.		14013998 001		<b>Seite 1 von 9</b> Page 1 of 9	
<b>Auftraggeber:</b> Applicant		Sure Win Technologies Ltd. Flat C & A, 17/F. International Industry Centre 2 - 8 Kwei Tei Street, Fotan, N.T. Hong Kong			
<b>Gegenstand der Prüfung:</b> Test item		Wireless Door Chime Receiver			
<b>Bezeichnung:</b> Identification		UA-1228, UA-1229		<b>Serien-Nr.:</b> Serial No. Engineering sample	
<b>Wareneingangs-Nr.:</b> Receipt No.		060801015		<b>Eingangsdatum:</b> Date of receipt 01.08.2006	
<b>Prüfart:</b> Testing location		TÜV Rheinland Hong Kong Ltd. Unit 8, 25 <sup>th</sup> Floor, Skyline Tower, 39 Wang Kwong Road, Kowloon Bay Kowloon, Hong Kong  Hong Kong Productivity Council HKPC Building, 78 Tat Chee Avenue, Kowloon, Hong Kong			
<b>Prüfgrundlage:</b> Test specification		FCC Part 15, Subpart B			
<b>Prüfresultat:</b> Test Result		Das vorstehend beschriebene Gerät wurde geprüft und entspricht oben genannter Prüfgrundlage. The above mentioned product was tested and passed.			
<b>geprüft / tested by:</b>		<b>kontrolliert / reviewed by:</b>			
11.08.2006	Derek Leung Project Manager		11.08.2006	Thomas Berns Manager	
<b>Datum</b> Date	<b>Name</b> Name	<b>Unterschrift</b> Signature	<b>Datum</b> Date	<b>Name</b> Name	<b>Unterschrift</b> Signature
<b>Sonstiges:</b> FCC ID: S8ABCEBEE Other Aspects					
<b>Abkürzungen:</b>		OK, Pass, P = entspricht Prüfgrundlage Fail, F = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet		<b>Abbreviations:</b> OK, Pass, P = passed Fail, F = failed N/A = not applicable N/T = not tested	
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b> This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicate in extracts. This test report does not entitle to carry any safety mark on this or similar products.					

# Test Summary

## Spurious Radiated Emissions

*Result: Pass*

## Conducted Emissions

*Result: Pass*

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**List of Test and Measurement Instruments**

Kind of Equipment	Manufacturer	Type	S/N
Test Receiver	Rohde & Schwarz	ESVS30	842807/009
Biconical Antenna	Rohde & Schwarz	HK116	841489/015
Log.-Periodic Antenna	Rohde & Schwarz	HL223	841516/017
Double Ridge Horn Antenna	EMCO	3115	9002-3347
Spectrum Analyzer	Rohde & Schwarz	FSP30	1093.4495K30
LISN	Rohde & Schwarz	ESH 3-Z5	849876/026

## General Product Information

### Product Function and Intended Use

The equipment under test (EUT) is a wireless door chime receiver operating at 315MHz for generating music tone after receiving the signal from the associated door chime transmitter.

Client declared that UA-1228 and UA-1229 are identical in their circuit layout and only difference in their cabinets. And UA-1228 was tested in this report.

The EUT was tested with the associated door chime transmitter model TX-100A provided by the client.

### Ratings and System Details

FCCID	:	S8ABCEBEE
Operating frequency	:	315MHz
Number of channel	:	One ( receives different time frames from associated transmitter in one frequency channel)
Modulation scheme	:	ASK
Type of antenna	:	Integral antenna
Power supply	:	AC mains, 110Volt, 60Hz

### Independent Operation Mode

The basic operation mode:

- receives data signal from the associated transmitter.

For further information refer to User Manual

### Submitted Documents

- Block diagram
- User manual
- Bill of material
- Schematic circuit diagram

## **Test Set-up and Operation Mode**

### **Principle of Configuration Selection**

**Emission:** The test was performed under normal operating mode to obtain the maximum emission.

### **Test Operation and Test Software**

- There was no special software to exercise the device.

### **Special Accessories and Auxiliary Equipment**

The product has been tested together with the following additional accessories:

- none

### **Countermeasures to achieve EMC Compliance**

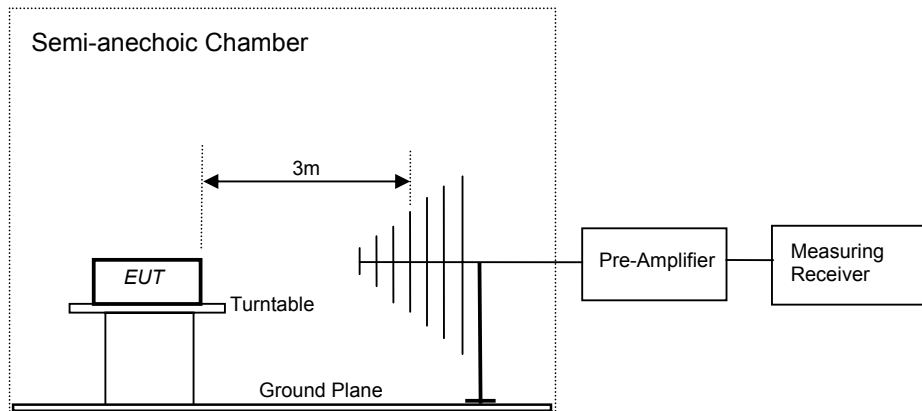
- none

## Test Methodology

### Radiated Emission

The radiated emission measurements were performed according to the procedures in ANSI C63.4-2003. The equipment under test (EUT) was placed at the middle of the 80 cm height turntable, and the turntable is 3 meters far from the measuring antenna. The EUT was tested in three orthogonal planes and the turntable was rotated 360° for obtaining the maximum emission. The antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained.

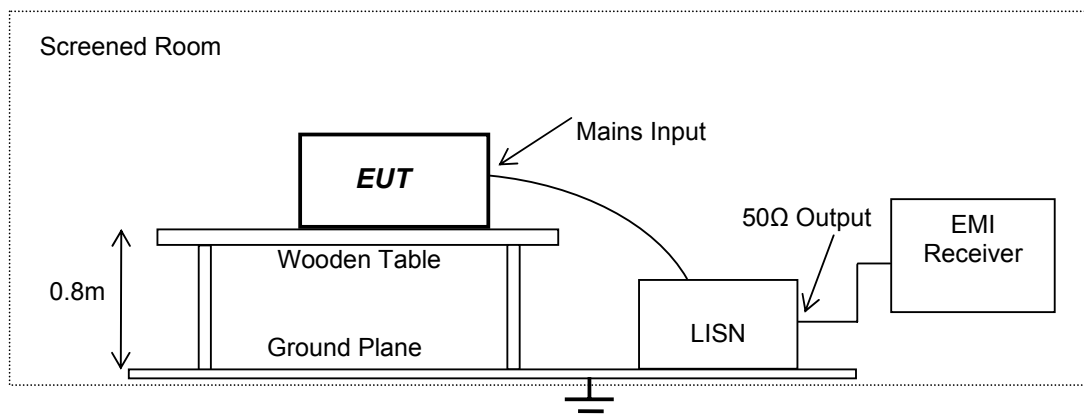
#### Test Setup:



### Conducted Emission

The conducted emission measurements were performed according to the procedures in ANSI C63.4-2003. Initial measurements were performed in peak and average detection modes on the live line. Any emission(s) recorded within 30dB below the relevant limit lines were re-measured using quasi-peak and average detection on the live and neutral lines with the worst case recorded in the table of results.

#### Test Setup:



## Test Results

### Spurious Radiated Emissions

### Section 15.109

#### RESULT:

Pass

Test Specification : FCC Part 15 Section 15.109  
 Test Method : ANSI C63.4-2003  
 Measurement Location : Semi Anechoic Chamber  
 Detector Function : QP  
 Supply Voltage : 110Volt a.c.  
 Measuring Frequency Range : 30MHz – 2GHz  
 Measuring Distance : 3m

Fundamental Carrier Signal  (MHz)	Spurious Emission  (MHz)	Antenna Polarization	Field Strength  (dB $\mu$ V/m)
315.00	*	Vertical	*
	*	Horizontal	*

\* All emissions are at least 20dB below the limit.

#### Limit of radiated emission test under Section 15.109:

Frequency (MHz)	Field strength ( $\mu$ V/m) at 3m	Field strength (dB $\mu$ V/m) at 3m
30-88	100	40.00
88-216	150	43.52
216-960	200	46.02
Above 960	500	53.98



**Conducted Emissions****Section 15.107****RESULT:****Pass**

Test Specification : FCC Part 15 Section 15.107  
 Test Method : ANSI C63.4-2003  
 Measurement Location : Semi Anechoic Chamber  
 Detector Function : QP and Average  
 Supply Voltage : 110Volt a.c.  
 Measuring Frequency Range : 0.15MHz – 30MHz

Conductor	Frequency (MHz)	Quasi Peak Value (dB $\mu$ V)	Average Value (dB $\mu$ V)
L	1.22400	7.9	7.0
	1.96800	12.9	0.1
N	1.28400	10.5	3.7
	1.96800	6.5	0.1

**Limit of conducted emission test under Section 15.107:**

Frequency Range (MHz)	dB $\mu$ V	
	QP	Average
0.15 – 0.5	*66 to 56	*56 to 46
0.50 – 5.0	56	46
5.0 – 30	60	50
Remark: The lower limit shall apply at the transition frequencies. *The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		