

# FCC CERTIFICATION RADIO MEASUREMENT TECHNICAL REPORT

On Model Name: Remote Control -2

Model Number : JLD-2

Trademark : N/A

FCC ID : UOPJLD-2

Prepared for Jiaxing ShuFuDe Adjustbale Bed Co., Ltd

According to FCC Part 15 (2006), Subpart C

*Test Report #:* JIA-0608-0676SH-FCC

*Prepared by:* Chris Huang

*Reviewed by:* Harry Zhao

*QC Manager:* Paul Chen

*Test Report Released by:* Paul J. Chen

Paul Chen

2006, November 14

Date

### **Test Location**

*Tests performed at EMC Compliance Management Group (China) in a Certified ANSI Semi-Anechoic Chamber and Shielded Room performed testing.*

*Test Site Location:* Jiangsu Electronic Products  
Supervision & Inspection Institute  
No 107 Ge lane ZhongQiao  
WuXi JiangSu, China  
*Tel:* 86-510-85140038  
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*Registration Number:* 399439

### **Accreditation Bodies**

*EMC Compliance Management Group is a fully accredited Test Laboratory for ITE, ISM and Telecommunications Products.*



*In compliance with the site registration requirements of Section 2.948 of the FCC Rules to perform EMI measurements for the general public.*



*Accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code # 200068-0.*

# *Table of Contents*

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<b>DISCLAIMER NOTICE</b>	1
<b>REPRODUCTION CLAUSE</b>	1
<b>OPINIONS AND INTERPRETATIONS</b>	1
<b>STATEMENT OF MEASUREMENT UNCERTAINTY</b>	1
<b>ADMINISTRATIVE DATA</b>	2
<b>EUT DESCRIPTION</b>	2
<b>TEST SUMMARY</b>	3
<b>TEST MODE JUSTIFICATION</b>	4
<b>EUT EXERCISE SOFTWARE</b>	4
<b>EQUIPMENT MODIFICATION</b>	4
<b>TEST SYSTEM DETAILS</b>	5
<b>CONFIGURATION OF TESTED SYSTEM</b>	6
<b>EUT SAMPLE PHOTOS OF JLD-2</b>	7
<b>ATTACHMENT 1 - ANTENNA REQUIREMENT</b>	13
<b>ATTACHMENT 2 - OPERATION MODE</b>	16
<b>ATTACHMENT 3 - RESTRICTED BAND OF OPERATION</b>	20
<b>ATTACHMENT 4 -FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSIONS</b>	26
<b>ATTACHMENT 5 - BANDWIDTH TEST</b>	37-41

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## **Opinions and Interpretations**

*This test report relates to the abovementioned equipment under test (EUT). Without the permission of EMC Compliance Management Group Test Lab this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark on this or similar products. The manufacturer has sole responsibility of continued compliance of the device.*

## **Statement of Measurement Uncertainty**

*The data and results referenced in the document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities that can account for a nominal measurement error. Furthermore, component and process variability of devices similar to that tested may result in additional deviation.*

## Administrative Data

*Test Sample : Remote Control -2*

*Model Number : JLD-2*

*Trade Mark : N/A*

*Date Tested : 2006, September 18 & November 12*

*Applicant : Jiaxing ShuFuDe Adjustbale Bed Co., Ltd  
No.16 Xiatang East Rd, Dongzha  
neighborhood Committee, Jiaxing*

*Telephone : 86-573-2281783*

*Fax : 86-573-2283336*

*Manufacturer : Jiaxing Refined Mechanics Hi-Tech Co., Ltd  
No.7 Henger Road, Wangjiangjing  
Development Zone, Jiaxing, Zhejiang, China*

*Telephone : 86-573-2283296*

*Fax : 86-573-2283298*

## EUT Description

*Jiaxing ShuFuDe Adjustbale Bed Co., Ltd model number JLD-1 (referred to as the EUT in this test report) is a Remote Control -2. The transmitter is manually operated and has buttons to control the signal. The coding method is DSC. At the back of the EUT, there is a selectable button, which can set the EUT to transmit signal at 433.05MHz, 433.35MHz, 434.45MHz and 434.75MHz. The receiver is connected to motors and the motors can move according to the transmitter.*

## Test Summary

The Electromagnetic Compatibility requirements on JLD-2 for this test are stated below. All results listed in this report relate exclusively to this above-mentioned model as the Equipment Under Test. This report confers no approval or endorsement upon any other component, host or subsystem used in the test set-up.

<b>EMC Test Items</b>			
Reference FCC Part 15 (2006), Subpart C			
<b>Specification</b>	<b>Description</b>	<b>Test Results</b>	<b>Remark</b>
FCC Part 15.203	Antenna Requirement	Compliance	Attachment 1
FCC Part 15.205	Restricted Band of Operation	Compliance	Attachment 3
FCC Part 15.209	Radiated Emission Limits	Compliance	Refer to Attachment 4
FCC Part 15.231	Periodic Operation in the Band 40.66-40.70MHz and above 70MHz	--	--
(a)	Operation Mode	Compliance	Attachment 2
(b)	Field Strength of Fundamental and Spurious Emissions	Compliance	Attachment 4
(c)	Bandwidth	Compliance	Attachment 5

### ***Test Mode Justification***

*The test modes (Lie, Side, Stand) were done for testing.*

*Note: Lie mode means let EUT put flat;*

*Side mode means let EUT stand with side;*

*Stand mode means let EUT stand up.*

*This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.*

### ***EUT Exercise Software***

*The device is not programmable and does not use software.*

### ***Equipment Modification***

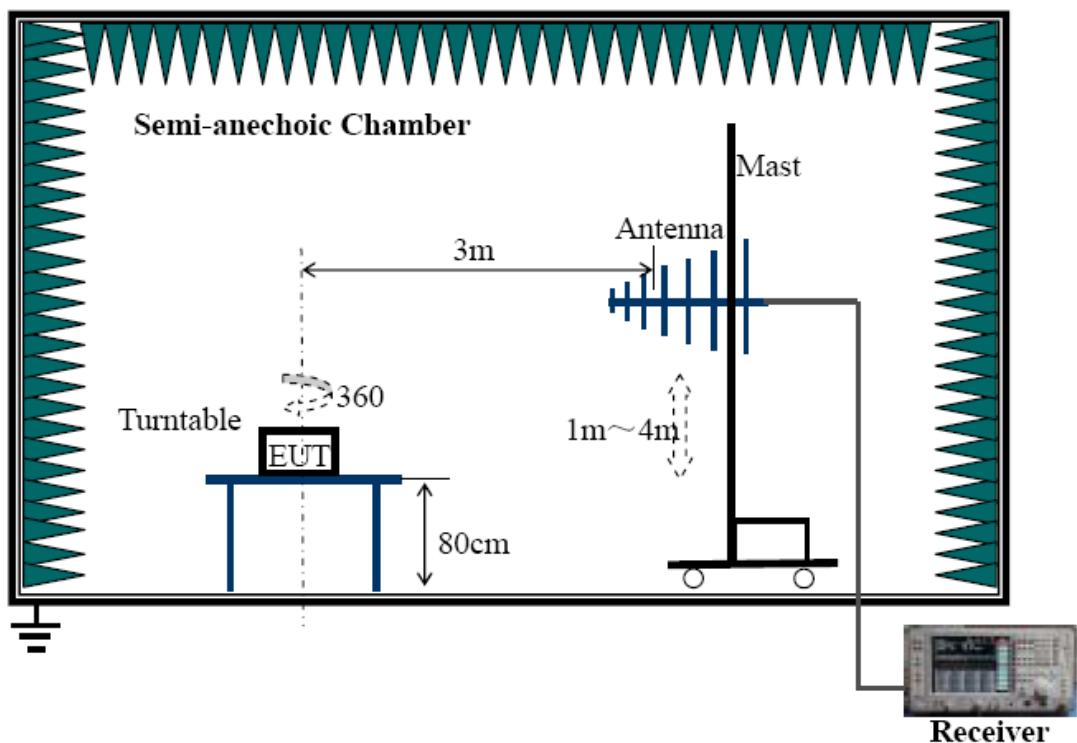
*Any modifications installed previous to testing by Jiaxing ShuFuDe Adjustable Bed Co., Ltd will be incorporated in each production model sold or leased in United States.*

*There were no modifications installed by EMC Compliance Management Group (China) test personnel.*

## Test System Details

<b>EUT</b>	
<b>Model Number:</b>	<b>JLD-2</b>
<b>Trademark::</b>	<b>N/A</b>
<b>Serial Number:</b>	<b>Engineering Sample</b>
<b>Input Voltage:</b>	<b>4.5V DC (3* AAA Batteries)</b>
<b>Description:</b>	<b>Remote Control -2</b>
<b>Manufacturer:</b>	<b>Jiaxing Refined Mechanics Hi-Tech Co., Ltd</b>
<b>Support Equipment</b>	
<b>None</b>	
<b>Cable Description</b>	
<b>None</b>	

## Configuration of Tested System



**EUT Sample Photos of JLD-2**



**Front View**



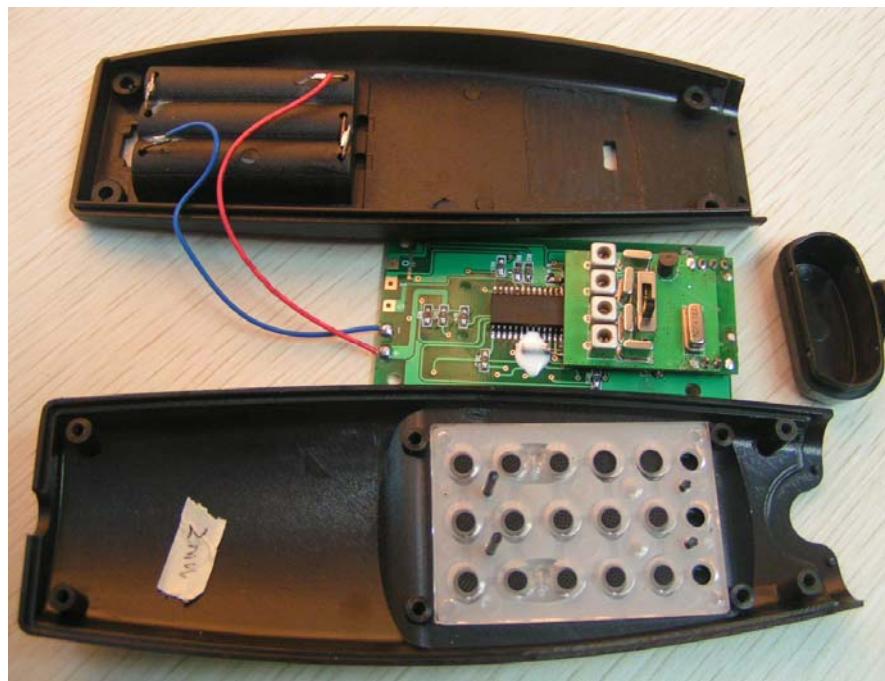
**Rear View**



*Uncovered #1*



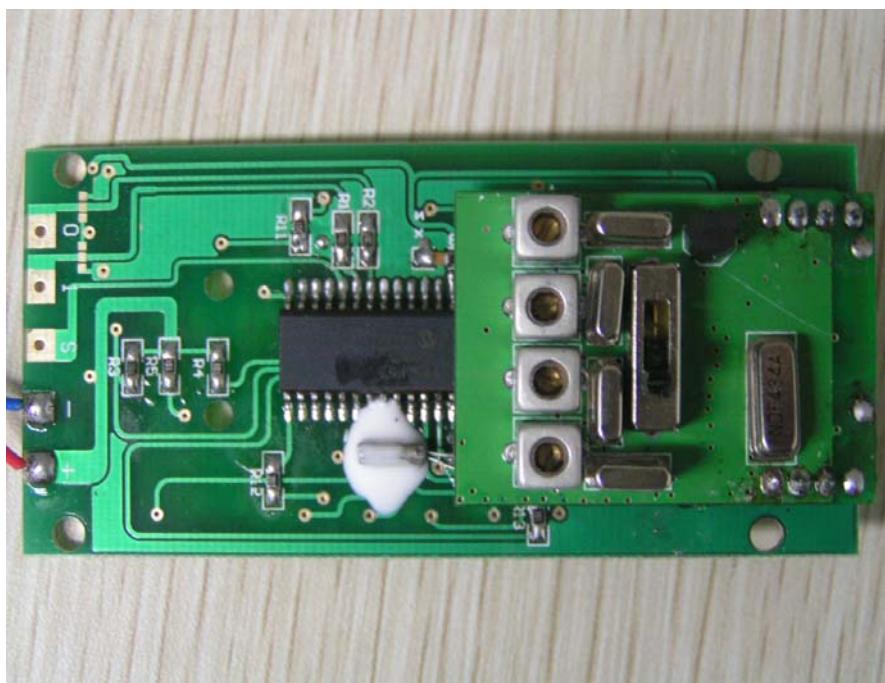
*Uncovered #2*

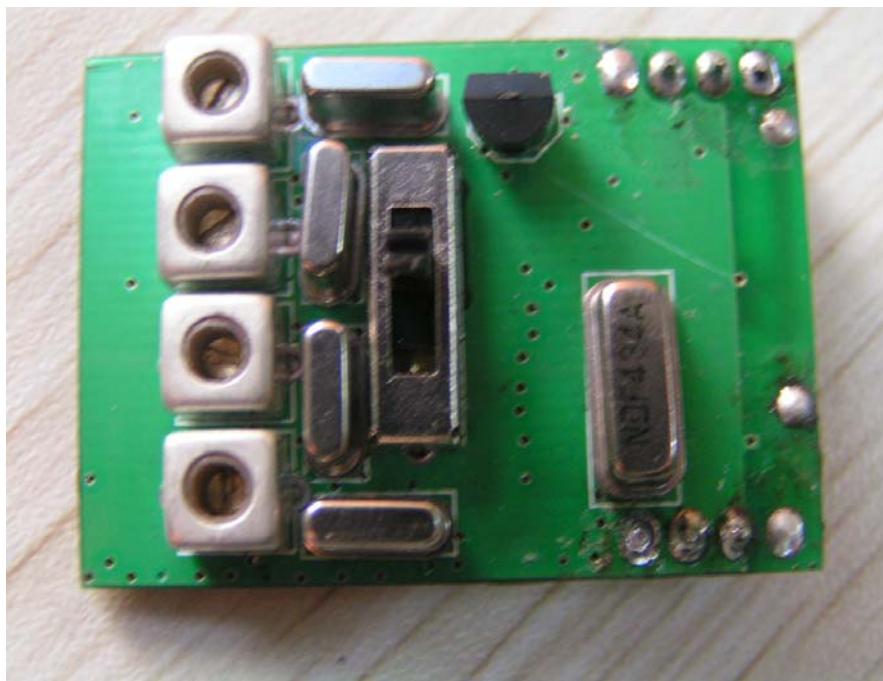


*Uncovered #3*

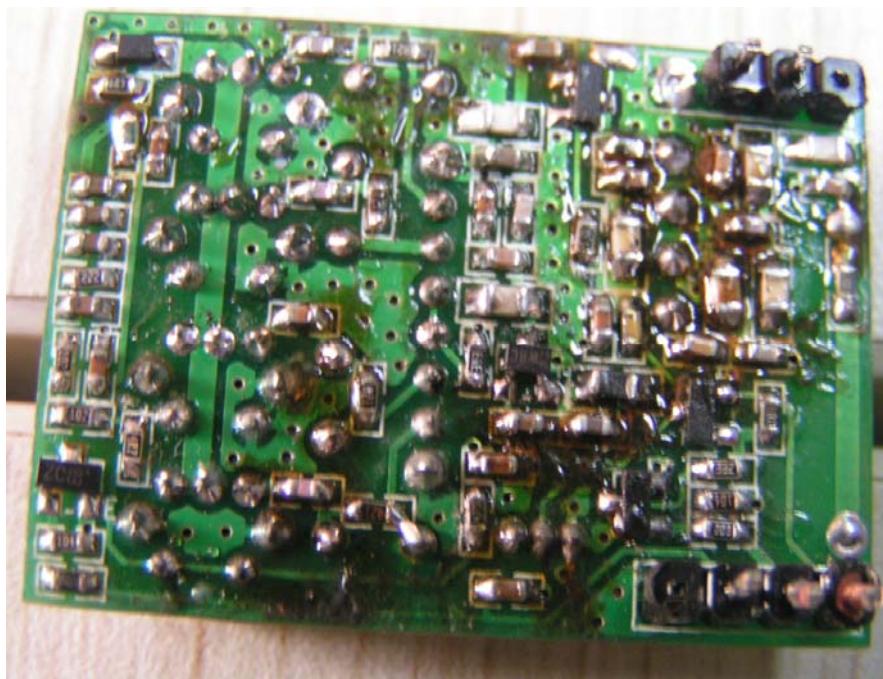


*Button View*

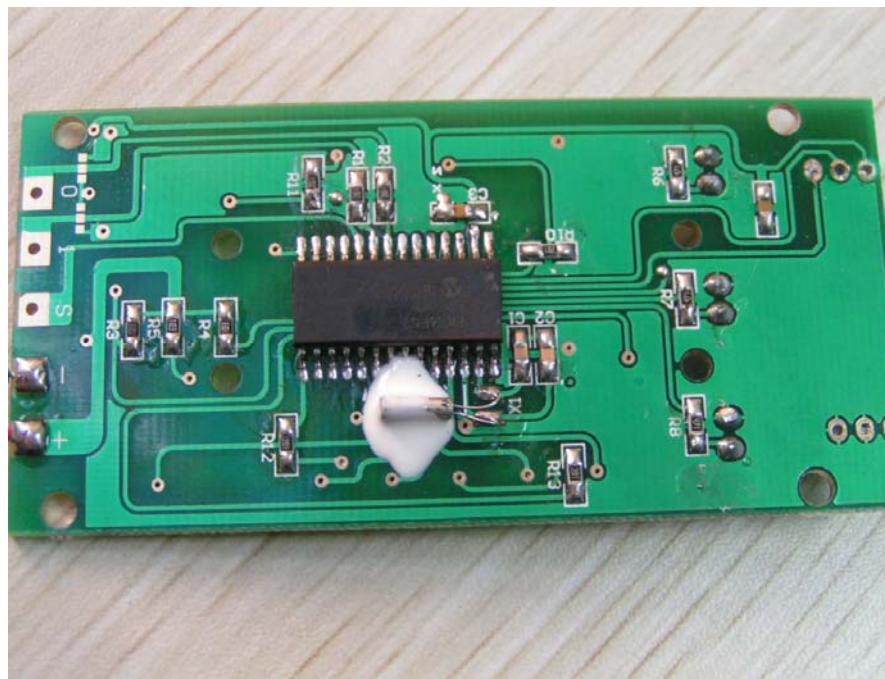




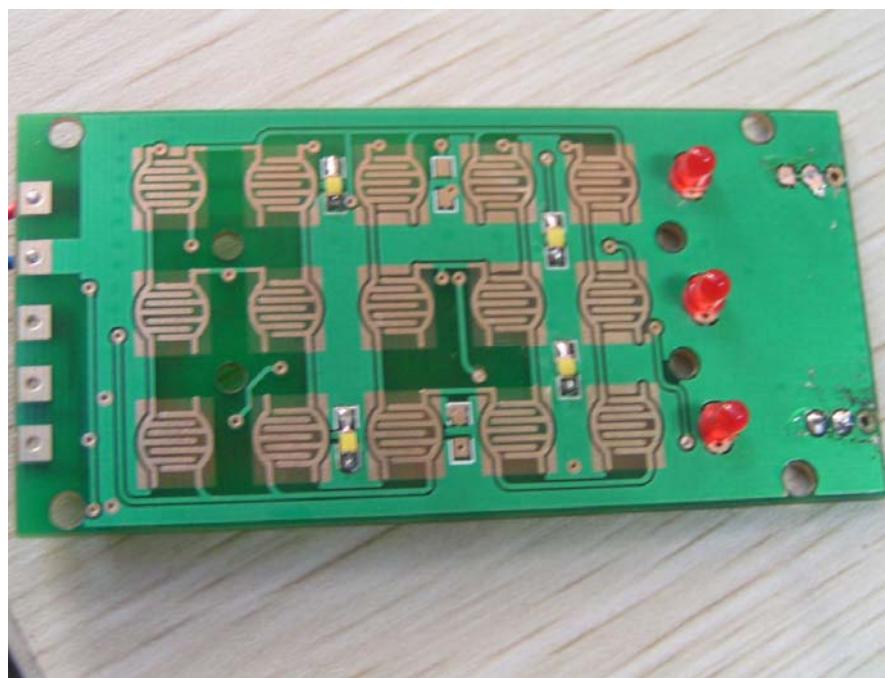
**Main Board #1 Front View**



**Main Board #1 Rear View**



**Main Board #2 Front View**

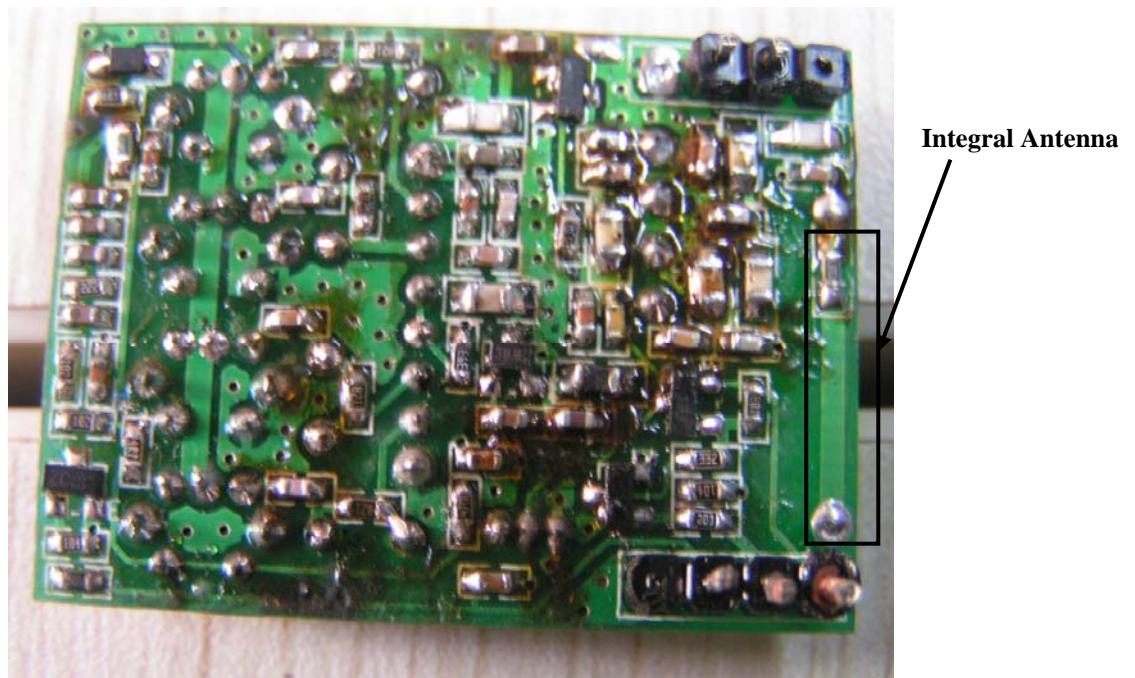


**Main Board #2 Rear View**

## ATTACHMENT 1 - ANTENNA REQUIREMENT

<b>CLIENT:</b>	Jiaxing ShuFuDe Adjustable Bed Co., Ltd	<b>TEST STANDARD:</b>	FCC Part 15.203 (2006)
<b>MODEL NUMBER:</b>	JLD-2	<b>PRODUCT:</b>	Remote Control -2
<b>SERIAL NO.:</b>	Engineering Sample	<b>EUT DESIGNATION:</b>	RF Equipment
<b>TEMPERATURE:</b>	22°C	<b>HUMIDITY:</b>	56%RH
<b>ATM PRESSURE:</b>	101.8 kPa	<b>GROUNDING:</b>	No Grounding
<b>TESTED BY:</b>	Shi Xiting	<b>DATE OF TEST:</b>	2006, September 18
<b>SETUP METHOD:</b>	N/A		
<b>ANTENNA REQUIREMENT:</b>	An intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.		
<b>TEST VOLTAGE:</b>	4.5V DC (3*1.5V AAA batteries)		
<b>TEST STATUS:</b>	Normal Operation As Usual		
<b>RESULTS:</b>	The EUT meets the Antenna requirement. The test results relate only to the equipment under test provided by client.		
<b>CHANGES OR MODIFICATIONS:</b>	There were no modifications installed by EMC Compliance Management Group (China) test personnel.		
<b>M. UNCERTAINTY:</b>	N/A		

FCC Section	FCC Rules	Conclusion
15.203	<p>Described how the EUT complies with the requirement that either its antenna is permanently attached, or that it employs a unique antenna connector, for every antenna proposed for use with the EUT.</p> <p>The exception is in those cases where EUT must be professionally installed. In order to demonstrate that professional installation is required, the following 3 points must be addressed:</p> <ul style="list-style-type: none"> <li>+ The application (or intended use) of the EUT</li> <li>+ The installation requirements of the EUT</li> <li>+ The method by which the EUT will be marketed</li> </ul>	The RF Device uses an integral antenna without connector.



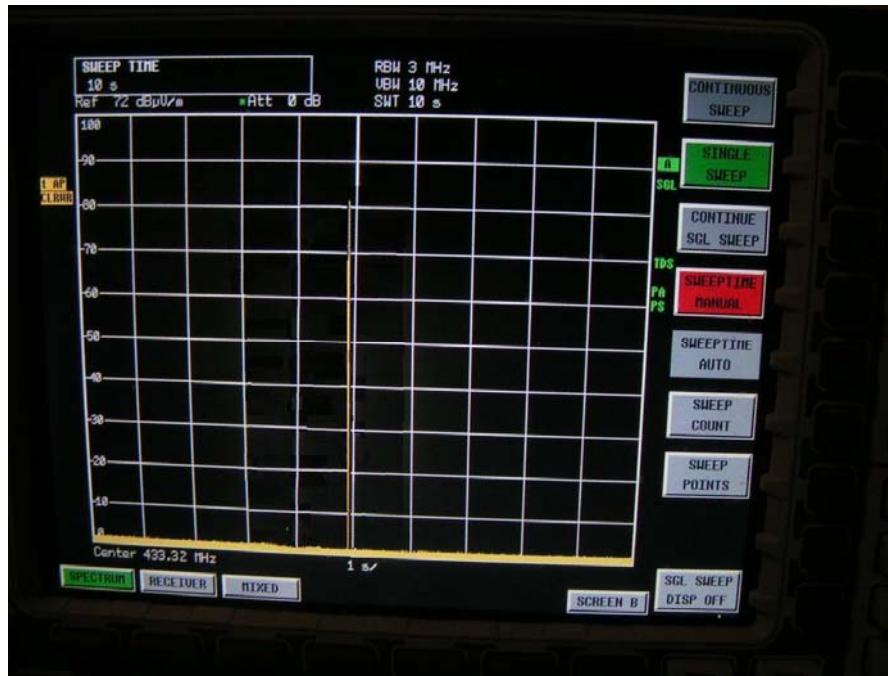
***Integral Antenna without Connector View***

## ATTACHMENT 2 – OPERATION MODE

<b>CLIENT:</b>	Jiaxing ShuFuDe Adjustable Bed Co., Ltd	<b>TEST STANDARD:</b>	FCC Part 15.231 (a) (2006)
<b>MODEL NUMBER:</b>	JLD-2	<b>PRODUCT:</b>	Remote Control -2
<b>SERIAL NO.:</b>	Engineering Sample	<b>EUT DESIGNATION:</b>	RF Equipment
<b>TEMPERATURE:</b>	22°C	<b>HUMIDITY:</b>	56%RH
<b>ATM PRESSURE:</b>	101.8 kPa	<b>GROUNDING:</b>	No Grounding
<b>TESTED BY:</b>	Shi Xiting	<b>DATE OF TEST:</b>	2006, November 12
<b>SETUP METHOD:</b>	N/A		
<b>OPERATION MODE REQUIREMENT:</b>	<ul style="list-style-type: none"> <li>(1) A manually operated transmitter shall employ a switch that will automatically turn off the transmitter within not more than 5 seconds of being released.</li> <li>(2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.</li> <li>(3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used on security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour.</li> <li>(4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition.</li> </ul>		
<b>TEST VOLTAGE:</b>	4.5V DC (3*1.5V AAA batteries)		
<b>TEST STATUS:</b>	Normal Operation As Usual		
<b>RESULTS:</b>	The EUT meets the operation mode requirement. The test results relate only to the equipment under test provided by client.		
<b>CHANGES OR MODIFICATIONS:</b>	There were no modifications installed by EMC Compliance Management Group (China) test personnel.		
<b>M. UNCERTAINTY:</b>	N/A		

FCC Section	FCC Rules	Conclusion
15.231 (a)	<p><i>The provisions of this Section are restricted to periodic operation within the band 40.66 – 40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of 15.231 Section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation:</i></p> <p class="list-item-l1">(1) <i>A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released</i></p> <p class="list-item-l1">(2) <i>A transmitter activated automatically shall cease transmission within 5 seconds after activation.</i></p> <p class="list-item-l1">(3) <i>Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used on security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour.</i></p> <p class="list-item-l1">(4) <i>Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety</i></p>	<p><i>The transmitter operates manually and employs a switch that automatically deactivates the transmitter and ceases transmission within 5 seconds after deactivation.</i></p> <p><i>The transmitter does not perform periodic transmissions.</i></p>

	<i>of life, when activated to signal an alarm, may operate during the pendency of the alarm condition.</i>	
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*Plot of the duration*

**Description:** Push the button on for a while and then release it, then the transmitting signal disappears at once.

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due Date
Spectrum	R&S	ESCI	1166.595003 100065	11/23/05	11/22/06
Bilog Antenna	CHASE	CBL6112	117.0800.20	02/17/06	02/16/07
Anechoic Chamber	LINDGREN	FACT-3	601	01/10/06	01/09/07
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

SIGNED BY: Shi-xiting  
ENGINEER

REVIEWED BY: Hanyuan  
SENIOR ENGINEER

**ATTACHMENT 3 – RESTRICTED BAND OF OPERATION**

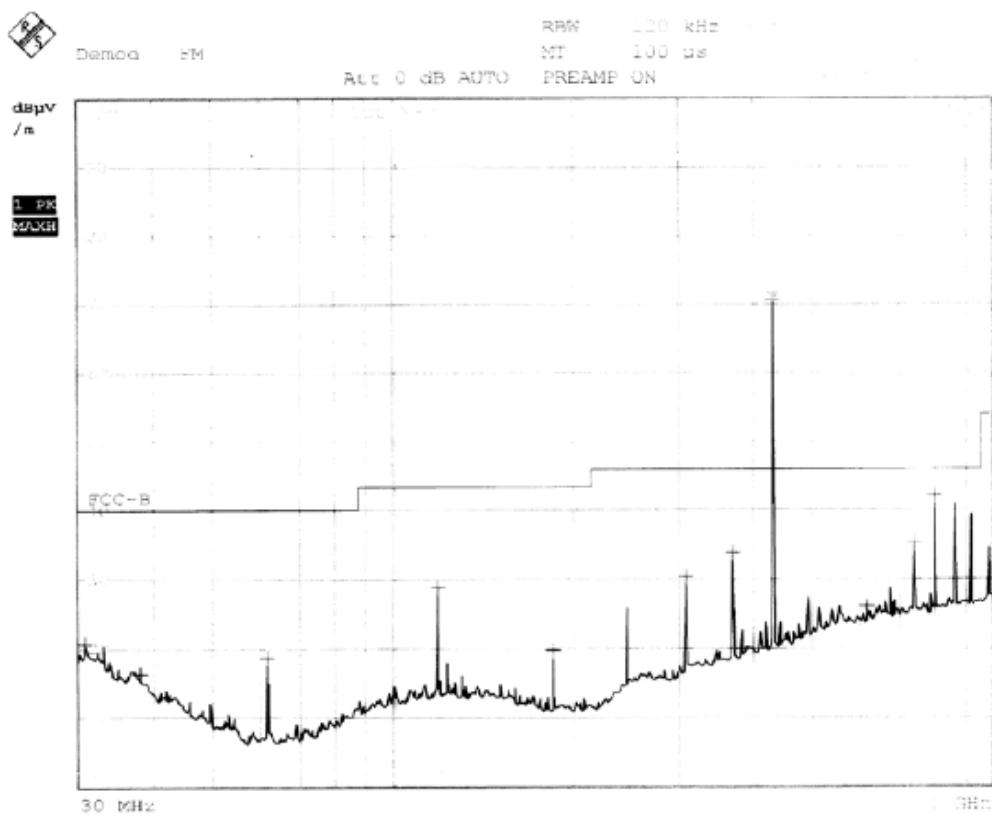
<b>CLIENT:</b>	Jiaxing ShuFuDe Adjustable Bed Co., Ltd	<b>TEST STANDARD:</b>	FCC Part 15.231(b), FCC Part 15.35
<b>MODEL NUMBER:</b>	JLD-2	<b>PRODUCT:</b>	Remote Control -2
<b>SERIAL NO.:</b>	Engineering Sample	<b>EUT DESIGNATION:</b>	RF Equipment
<b>TEMPERATURE:</b>	22°C	<b>HUMIDITY:</b>	56%RH
<b>ATM PRESSURE:</b>	101.6 kPa	<b>GROUNDING:</b>	No Grounding
<b>TESTED BY:</b>	Shi Xiting	<b>DATE OF TEST:</b>	2006, September 18
<b>SETUP METHOD:</b>	ANSI C63.4 : 2003		
<b>RESTRICTED BANDS OF OPERATION REQUIREMENT:</b>	The only spurious emissions are permitted in any of the frequency bands listed below table of next page.		
<b>TESTED RANGE:</b>	30MHz to 5000MHz		
<b>TEST VOLTAGE:</b>	4.5V DC (3*1.5V AAA batteries)		
<b>TEST STATUS:</b>	Keep Tx in continuous transmission mode, modulated		
<b>RESULTS:</b>	The EUT meets the restricted bands of operation requirement. The test results relate only to the equipment under test provided by client.		
<b>CHANGES OR MODIFICATIONS:</b>	There were no modifications installed by EMC Compliance Management Group (China) test personnel.		

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	<sup>2</sup> )
13.36 - 13.41			

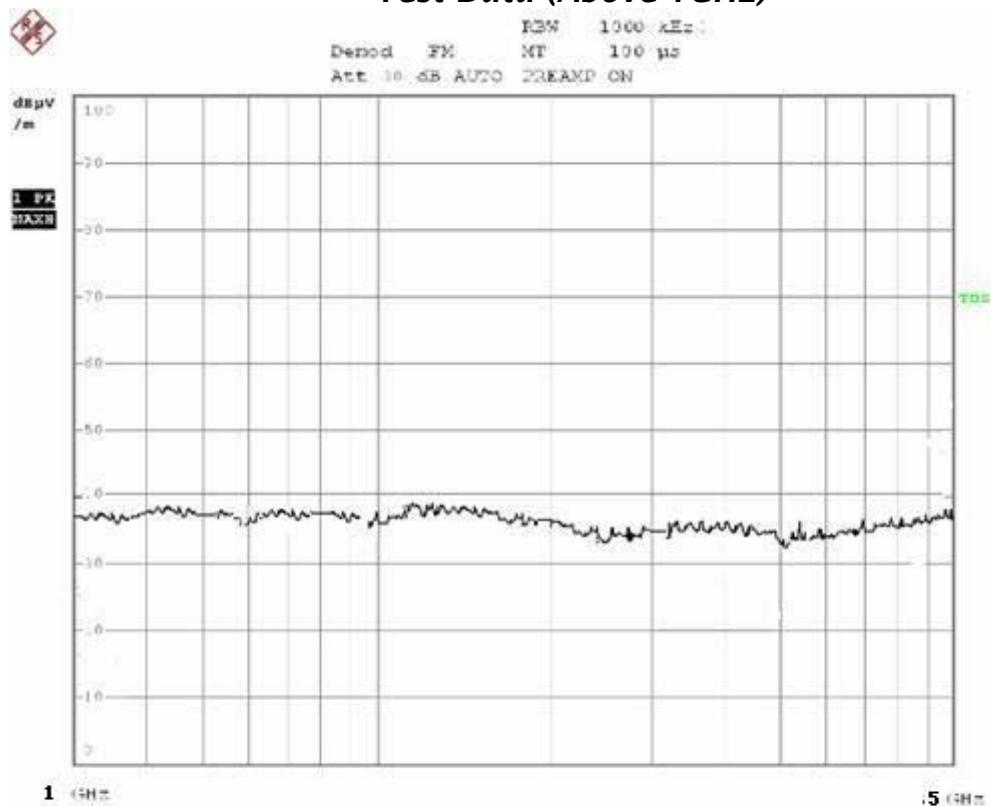
<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup> Above 38.6

### Test Data (Below 1GHz)



### Test Data (Above 1GHz)



Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due Date
Spectrum	R&S	ESCI	1166.595003 100065	11/23/05	11/22/06
Spectrum Analyzer	Agilent	E4440A	US45303119	03/20/06	03/19/07
Bilog Antenna	CHASE	CBL6112	117.0800.20	02/17/06	02/16/07
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120 D	513	02/10/06	02/09/07
Anechoic Chamber	LINDGREN	FACT-3	601	01/10/06	01/09/07
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

*Shi-Xiting*  
SIGNED BY: \_\_\_\_\_

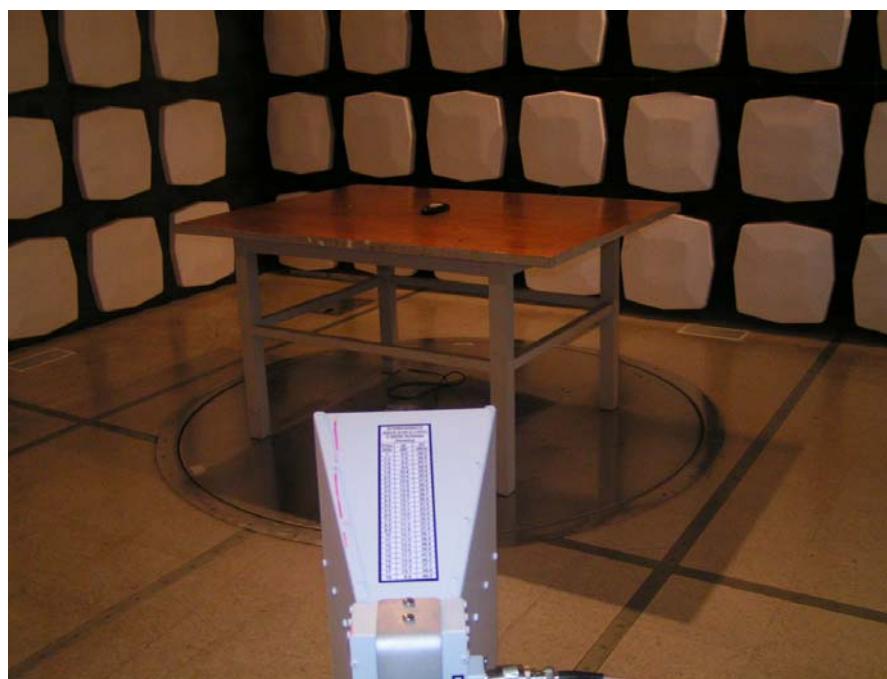
ENGINEER

*Hangzhou*  
REVIEWED BY: \_\_\_\_\_

SENIOR ENGINEER



***Field Strength Emissions Test Set-up (Below 1GHz)***



***Field Strength Emissions Test Set-up (Above 1GHz)***

**ATTACHMENT 4 -FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSIONS**

<b>CLIENT:</b>	Jiaxing ShuFuDe Adjustable Bed Co., Ltd	<b>TEST STANDARD:</b>	FCC Part 15.231(b), FCC Part 15.35
<b>MODEL NUMBER:</b>	JLD-2	<b>PRODUCT:</b>	Remote Control -2
<b>SERIAL NO.:</b>	Engineering Sample	<b>EUT DESIGNATION:</b>	RF Equipment
<b>TEMPERATURE:</b>	22°C	<b>HUMIDITY:</b>	56%RH
<b>ATM PRESSURE:</b>	101.6 kPa	<b>GROUNDING:</b>	No Grounding
<b>TESTED BY:</b>	Shi Xiting	<b>DATE OF TEST:</b>	2006, September 18
<b>SETUP METHOD:</b>	ANSI C63.4 : 2003, FCC Part 15.35		
<b>TEST PROCEDURE:</b>	<p>a. The EUT was placed on a rotatable table with 0.8 meters above ground.</p> <p>b. The EUT was set 3 meters from the interference-receiving antenna, which was mounted on the top of a variable height antenna tower.</p> <p>c. The antenna was varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna were set to make measurement.</p> <p>d. For each suspected emission the EUT was arranged to its worst case and then change the antenna tower height (from 1m to 4m) and turn table (from 0 degree to 360 degree) to find the maximum reading.</p> <p>e. If the emission level of the EUT in peak mode was 20 dB lower than the specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be tested using the quasi-peak method in about six maximal points and the results will be reported.</p> <p>f. Broadband antenna (Calibrated antenna) was used as receiving antenna below 1000MHz. Horn antenna were used as receiving antenna above 1000MHz.</p> <p>g. The bandwidth is 120 kHz below 1000 MHz, and 1 MHz above 1000 MHz</p> <p>Explanation of the Correction Factor are given as follows:</p> <p>FS= RA + AF + CF - AG - DC</p> <p>Where: FS = Field Strength</p> <p>RA = Receiver Amplitude</p> <p>AF = Antenna Factor</p> <p>CF = Cable Attenuation Factor</p> <p>AG = Amplifier Gain</p> <p>DC = Duty Cycle Correction Factor</p>		

CONTINUE ON THE NEXT PAGE...

<b>TESTED RANGE:</b>	30MHz to 5000MHz
<b>TEST VOLTAGE:</b>	4.5V DC (3*1.5V AAA batteries)
<b>TEST STATUS:</b>	Keep Tx in continuous transmission mode in all four channels, modulated
<b>RESULTS:</b>	The EUT meets the requirements of field strength test. The test results only to the equipment under test provided by client.
<b>CHANGES OR MODIFICATIONS:</b>	There were no modifications installed by EMC Compliance Management Group (China) test personnel.
<b>M. UNCERTAINTY:</b>	Freq. $\pm 2 \times 10^{-7} \times$ Center Freq., Amp $\pm 2.6$ dB

*There are multiple different codes that can be transmitted by the device. Rather than calculate the duty cycle for each mode to determine the highest average value of the signals, the table below shows the peak readings recorded in the test report against the average limit. As all peak readings are below the average limit, compliance with the requirements of the FCC's rules is demonstrated without having to determine the average field strength.*

*For the transmitter: Lowest Channel  
 Peak value of the measured emissions:*

Direction	Polarization	Frequency Type	Frequency (MHz)	Read Level dB(µV)	Factor (dB)	Field Strength dB(µV/m)	Average Field Strength Limit dB(µV/m)	Over Limit dB(µV/m)
Lie	Horizontal	Fundamental	<b>433.05</b>	<b>70.83</b>	<b>-6.68</b>	<b>64.15</b>	<b>80.82</b>	<b>-16.67</b>
		Spurious	<b>866.10</b>	<b>58.27</b>	<b>-14.13</b>	<b>44.14</b>	<b>60.82</b>	<b>-16.68</b>
		Spurious	<b>1299.15</b>	<b>42.56</b>	<b>1.70</b>	<b>44.26</b>	<b>60.82</b>	<b>-16.56</b>
		Spurious	<b>1732.20</b>	<b>41.78</b>	<b>0.92</b>	<b>42.70</b>	<b>60.82</b>	<b>-18.12</b>
	Vertical	Fundamental	<b>433.05</b>	<b>68.94</b>	<b>-6.68</b>	<b>62.26</b>	<b>80.82</b>	<b>-18.56</b>
		Spurious	<b>866.10</b>	<b>56.82</b>	<b>-14.13</b>	<b>42.69</b>	<b>60.82</b>	<b>-18.13</b>
		Spurious	<b>1299.15</b>	<b>43.67</b>	<b>1.70</b>	<b>45.37</b>	<b>60.82</b>	<b>-15.45</b>
		Spurious	<b>1732.20</b>	<b>44.87</b>	<b>0.92</b>	<b>45.79</b>	<b>60.82</b>	<b>-15.03</b>
Side	Horizontal	Fundamental	<b>433.05</b>	<b>69.03</b>	<b>-6.68</b>	<b>62.35</b>	<b>80.82</b>	<b>-18.47</b>
		Spurious	<b>866.10</b>	<b>57.75</b>	<b>-14.13</b>	<b>43.62</b>	<b>60.82</b>	<b>-17.20</b>
		Spurious	<b>1299.15</b>	<b>43.94</b>	<b>1.70</b>	<b>45.64</b>	<b>60.82</b>	<b>-15.18</b>
		Spurious	<b>1732.20</b>	<b>42.41</b>	<b>0.92</b>	<b>43.33</b>	<b>60.82</b>	<b>-17.49</b>
	Vertical	Fundamental	<b>433.05</b>	<b>68.80</b>	<b>-6.68</b>	<b>62.12</b>	<b>80.82</b>	<b>-18.70</b>
		Spurious	<b>866.10</b>	<b>58.96</b>	<b>-14.13</b>	<b>44.83</b>	<b>60.82</b>	<b>-15.99</b>
		Spurious	<b>1299.15</b>	<b>43.27</b>	<b>1.70</b>	<b>44.97</b>	<b>60.82</b>	<b>-15.85</b>
		Spurious	<b>1732.20</b>	<b>42.82</b>	<b>0.92</b>	<b>43.74</b>	<b>60.82</b>	<b>-17.08</b>
Stand	Horizontal	Fundamental	<b>433.05</b>	<b>71.27</b>	<b>-6.87</b>	<b>64.4</b>	<b>80.82</b>	<b>-16.42</b>
		Spurious	<b>866.10</b>	<b>56.22</b>	<b>-14.13</b>	<b>42.09</b>	<b>60.82</b>	<b>-18.73</b>
		Spurious	<b>1299.15</b>	<b>44.64</b>	<b>1.70</b>	<b>46.34</b>	<b>60.82</b>	<b>-14.48</b>
		Spurious	<b>1732.20</b>	<b>45.09</b>	<b>0.92</b>	<b>46.01</b>	<b>60.82</b>	<b>-14.81</b>
	Vertical	Fundamental	<b>433.05</b>	<b>68.15</b>	<b>-6.68</b>	<b>61.47</b>	<b>80.82</b>	<b>-19.35</b>
		Spurious	<b>866.10</b>	<b>57.18</b>	<b>-14.13</b>	<b>43.05</b>	<b>60.82</b>	<b>-17.77</b>
		Spurious	<b>1299.15</b>	<b>44.22</b>	<b>1.70</b>	<b>45.92</b>	<b>60.82</b>	<b>-14.90</b>
		Spurious	<b>1732.20</b>	<b>44.76</b>	<b>0.92</b>	<b>45.68</b>	<b>60.82</b>	<b>-15.14</b>

*For the transmitter: Highest Channel  
 Peak value of the measured emissions:*

Direction	Polarization	Frequency Type	Frequency (MHz)	Read Level dB(µV)	Factor (dB)	Field Strength dB(µV/m)	Limit dB(µV/m)	Over Limit dB(µV/m)
Lie	Horizontal	Fundamental	<b>434.75</b>	<b>68.19</b>	<b>-6.68</b>	<b>61.51</b>	<b>80.82</b>	<b>-19.31</b>
		Spurious	<b>869.50</b>	<b>57.34</b>	<b>-14.13</b>	<b>43.21</b>	<b>60.82</b>	<b>-17.61</b>
		Spurious	<b>1304.25</b>	<b>44.29</b>	<b>1.72</b>	<b>46.01</b>	<b>54.00</b>	<b>-7.99</b>
		Spurious	<b>1739.00</b>	<b>44.03</b>	<b>0.93</b>	<b>44.96</b>	<b>60.82</b>	<b>-15.86</b>
	Vertical	Fundamental	<b>434.75</b>	<b>71.19</b>	<b>-6.68</b>	<b>64.51</b>	<b>80.82</b>	<b>-16.31</b>
		Spurious	<b>869.50</b>	<b>54.63</b>	<b>-14.13</b>	<b>40.50</b>	<b>60.82</b>	<b>-20.32</b>
		Spurious	<b>1304.25</b>	<b>43.24</b>	<b>1.72</b>	<b>44.96</b>	<b>54.00</b>	<b>-9.04</b>
		Spurious	<b>1739.00</b>	<b>45.38</b>	<b>0.93</b>	<b>46.31</b>	<b>60.82</b>	<b>-14.51</b>
Side	Horizontal	Fundamental	<b>434.75</b>	<b>69.64</b>	<b>-6.68</b>	<b>62.96</b>	<b>80.82</b>	<b>-17.86</b>
		Spurious	<b>869.50</b>	<b>59.29</b>	<b>-14.13</b>	<b>45.16</b>	<b>60.82</b>	<b>-15.66</b>
		Spurious	<b>1304.25</b>	<b>43.22</b>	<b>1.72</b>	<b>44.94</b>	<b>54.00</b>	<b>-9.06</b>
		Spurious	<b>1739.00</b>	<b>45.98</b>	<b>0.93</b>	<b>46.91</b>	<b>60.82</b>	<b>-13.91</b>
	Vertical	Fundamental	<b>434.75</b>	<b>70.29</b>	<b>-6.68</b>	<b>63.61</b>	<b>80.82</b>	<b>-17.21</b>
		Spurious	<b>869.50</b>	<b>57.64</b>	<b>-14.13</b>	<b>43.51</b>	<b>60.82</b>	<b>-17.31</b>
		Spurious	<b>1304.25</b>	<b>47.43</b>	<b>1.72</b>	<b>49.15</b>	<b>54.00</b>	<b>-4.85</b>
		Spurious	<b>1739.00</b>	<b>47.32</b>	<b>0.93</b>	<b>48.25</b>	<b>60.82</b>	<b>-12.57</b>
Stand	Horizontal	Fundamental	<b>434.75</b>	<b>68.94</b>	<b>-6.68</b>	<b>62.26</b>	<b>80.82</b>	<b>-18.56</b>
		Spurious	<b>869.50</b>	<b>57.04</b>	<b>-14.13</b>	<b>42.91</b>	<b>60.82</b>	<b>-17.91</b>
		Spurious	<b>1304.25</b>	<b>43.48</b>	<b>1.72</b>	<b>45.20</b>	<b>54.00</b>	<b>-8.80</b>
		Spurious	<b>1739.00</b>	<b>44.29</b>	<b>0.93</b>	<b>45.22</b>	<b>60.82</b>	<b>-15.60</b>
	Vertical	Fundamental	<b>434.75</b>	<b>71.28</b>	<b>-6.68</b>	<b>64.60</b>	<b>80.82</b>	<b>-16.22</b>
		Spurious	<b>869.50</b>	<b>56.94</b>	<b>-14.13</b>	<b>42.81</b>	<b>60.82</b>	<b>-18.01</b>
		Spurious	<b>1304.25</b>	<b>44.93</b>	<b>1.72</b>	<b>46.65</b>	<b>54.00</b>	<b>-7.35</b>
		Spurious	<b>1739.00</b>	<b>45.11</b>	<b>0.93</b>	<b>46.04</b>	<b>60.82</b>	<b>-14.78</b>

**Note:**

1. Where  $F$  is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follow:

For fundamental frequency ( $F=433\text{MHz}$ )

Average field Strength of Fundamental (dBuV/m)

$$\begin{aligned}&=20\log(41.6667 \times F - 7083.3333) \\&=20\log(41.6667 \times 433 - 7083.3333) \\&=80.82 \text{ dBuV/m}\end{aligned}$$

Average field Strength of Spurious (dBuV/m) =  $80.82 - 20 = 60.82 \text{ dBuV/m}$

2. Field Strength=Read Level + Factor

Factor = Antenna Factor + Cable Loss - Preamp Factor

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due Date
Spectrum	R&S	ESCI	1166.595003 100065	11/23/05	11/22/06
Spectrum Analyzer	Agilent	E4440A	US45303119	03/20/06	03/19/07
Bilog Antenna	CHASE	CBL6112	117.0800.20	02/17/06	02/16/07
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120 D	513	02/10/06	02/09/07
Anechoic Chamber	LINDGREN	FACT-3	601	01/10/06	01/09/07
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

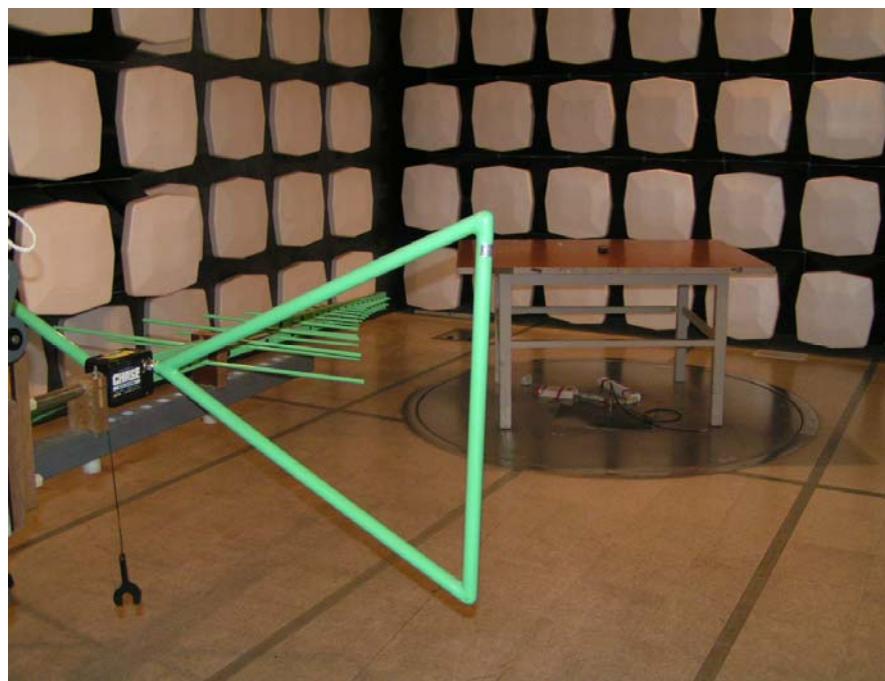
*Shi-Xiting*  
SIGNED BY: \_\_\_\_\_

ENGINEER

*Hangzhou*  
REVIEWED BY: \_\_\_\_\_

SENIOR ENGINEER

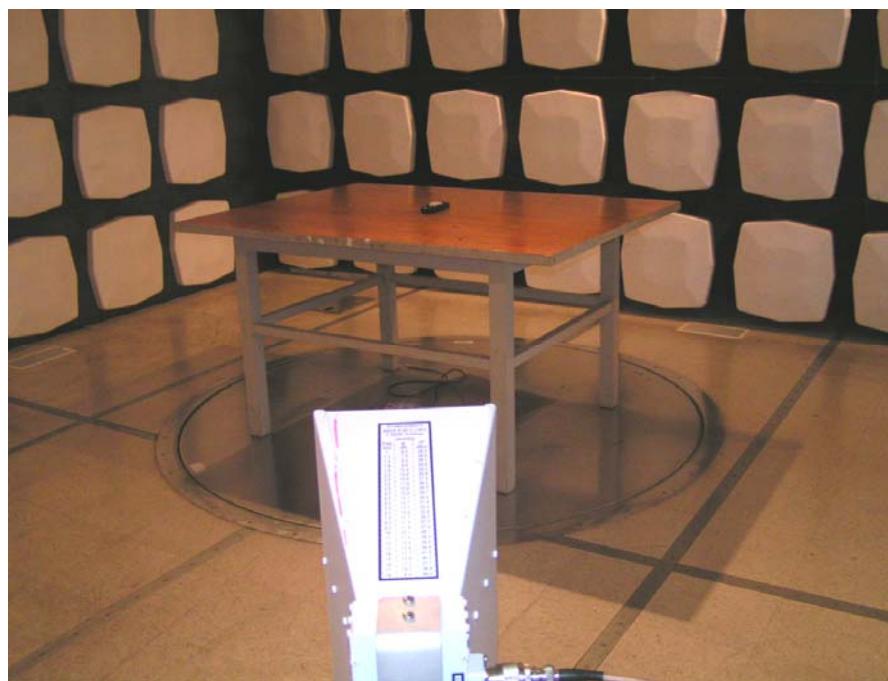
*For lying mode*



***Field Strength Emissions Test Set-up - Front View (Below 1GHz)***



***Field Strength Emissions Test Set-up - Rear View (Below 1GHz)***

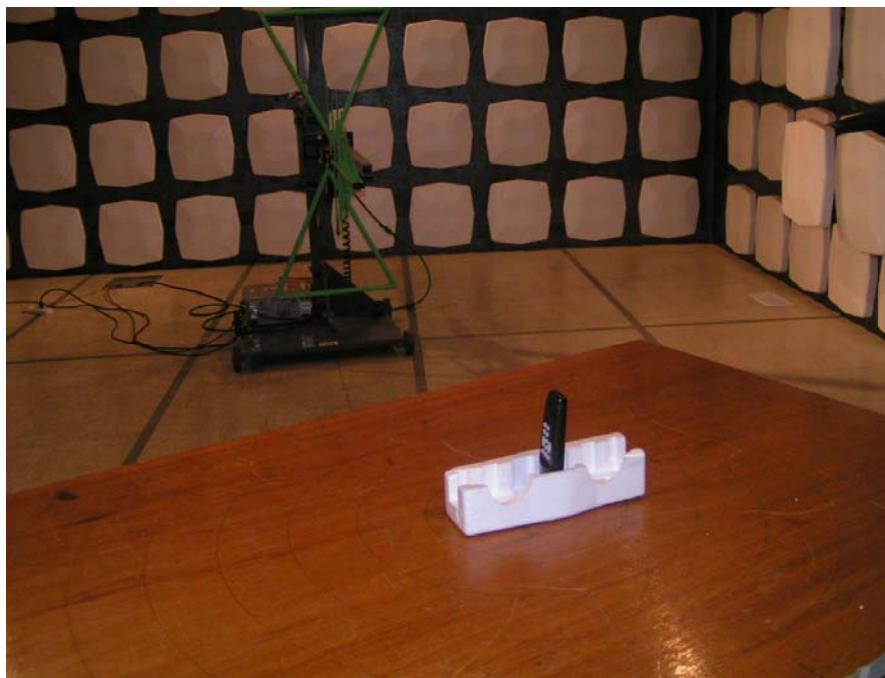


***Field Strength Emissions Test Set-up - Front View (Above 1GHz)***

*For standing mode*



***Field Strength Emissions Test Set-up - Front View (Below 1GHz)***



***Field Strength Emissions Test Set-up - Rear View (Below 1GHz)***

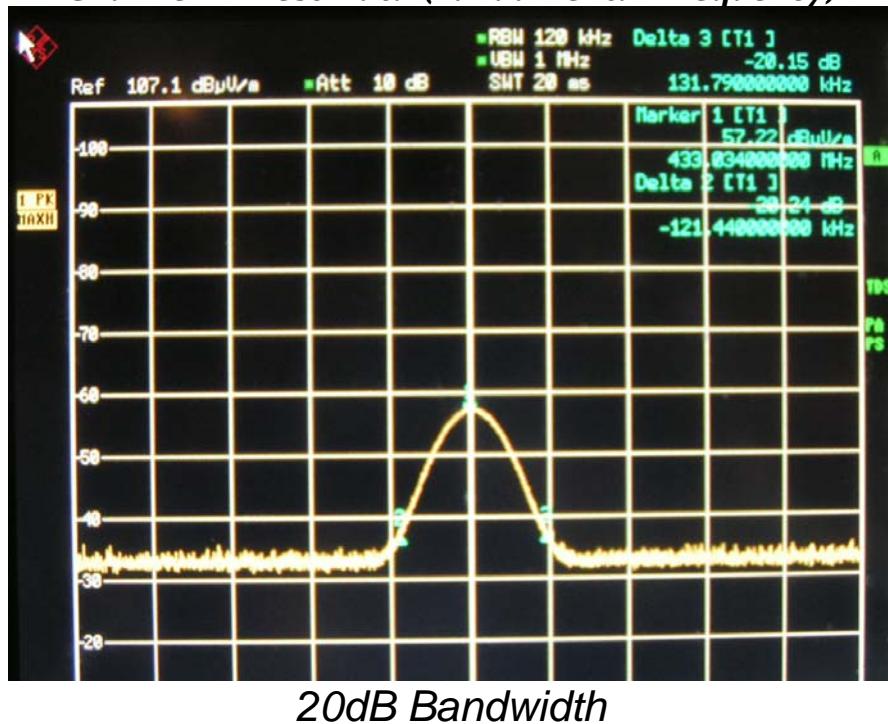


***Field Strength Emissions Test Set-up - Front View (Above 1GHz)***

## ATTACHMENT 5 – BANDWIDTH TEST

<b>CLIENT:</b>	Jiaxing ShuFuDe Adjustable Bed Co., Ltd	<b>TEST STANDARD:</b>	FCC Part 15.231 (C)
<b>MODEL TESTED:</b>	JLD-2	<b>PRODUCT:</b>	Remote Control -2
<b>SERIAL NO.:</b>	Engineering Sample	<b>EUT DESIGNATION:</b>	RF Equipment
<b>TEMPERATURE:</b>	22°C	<b>HUMIDITY:</b>	56%RH
<b>ATM PRESSURE:</b>	101.6 kPa	<b>GROUNDING:</b>	No Grounding
<b>TESTED BY:</b>	Shi Xiting	<b>DATE OF TEST:</b>	2006, September 18
<b>SETUP METHOD:</b>	ANSI C63.4 - 2003		
<b>BANDWIDTH REQUIREMENT:</b>	The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.		
<b>TEST VOLTAGE:</b>	4.5VDC (3*1.5V AAA batteries)		
<b>TEST STATUS:</b>	Keep Tx in continuous transmission mode in low and high channels, modulated		
<b>RESULTS:</b>	The EUT meets the bandwidth requirement. The test results relate only to the equipment under test provided by client.		
<b>CHANGES OR MODIFICATIONS:</b>	There were no modifications installed by EMC Compliance Management Group (China) test personnel.		
<b>M. UNCERTAINTY:</b>	Freq. $\pm 2 \times 10^{-7} \times$ Center Freq., Amp $\pm 2.6$ dB		

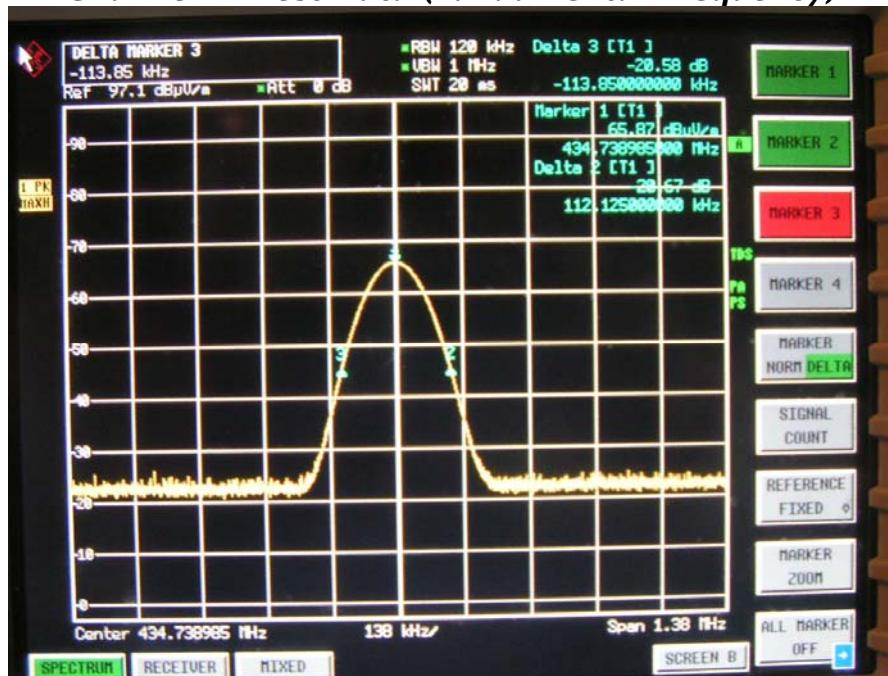
### Channel 1: Test Data (Fundamental Frequency)



20dB Bandwidth

Frequency (MHz)			Test Result (MHz)	Bandwidth Limit (MHz) ( $F_{center} \times 0.25\%$ )	Conclusion
Center	Left	Right			
433.034	0.12144	0.13179	0.25323	1.0826	Compliance

### Channel 4: Test Data (Fundamental Frequency)



20dB Bandwidth

Frequency (MHz)			Test Result (MHz)	Bandwidth Limit (MHz) ( $F_{center} \times 0.25\%$ )	Conclusion
Center	Left	Right			
434.739	0.11385	0.112125	0.225795	1.0868	Compliance

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due Date
Spectrum	R&S	ESCI	1166.595003 100065	11/23/05	11/22/06
Bilog Antenna	CHASE	CBL6112	117.0800.20	02/17/06	02/16/07
Anechoic Chamber	LINDGREN	FACT-3	601	01/10/06	01/09/07
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

SIGNED BY: Shi-xiting  
ENGINEER

REVIEWED BY: Hanyzhou  
SENIOR ENGINEER



***Bandwidth Test Set-up***