FCC CERTIFICATION On Behalf of SKYION (SHENZHEN) CO., LTD.

Radio Controller Model No.: SGK-3/SID-5

FCC ID: WE5SGK-3

Prepared for : SKYION (SHENZHEN) CO., LTD.

Address : F4, BUILDING 3, HUIHAO INDUSTRIAL AREA,

HESHUIKOU, GONGMING TOWN, SHENZHEN,

CHINA

Prepared by : ACCURATE TECHNOLOGY CO. LTD

Address : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

Tel: (0755) 26503290 Fax: (0755) 26503396

Report Number : ATE20112078
Date of Test : October 8-18, 2011
Date of Report : October 18, 2011

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APPENDIX I (TEST CURVES) (24 pages)

Test Report Certification

Applicant : SKYION (SHENZHEN) CO., LTD.

Manufacturer : SKYION (SHENZHEN) CO., LTD.

EUT Description : Radio Controller

(A) MODEL NO.: SGK-3/SID-5

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 9V ("AA" batteries 6×)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.249: 2008 ANSI C63.4: 2003

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section15.249 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test :	October 8-18, 2011
Prepared by :	Apple Lu
	(Engineer)
Approved & Authorized Signer :	Lemb
	(Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : Radio Controller

Model Number : SGK-3/SID-5

Power Supply : DC 9V ("AA" batteries $6\times$)

Operate Frequency : 2407.000-2477.000MHz

Applicant : SKYION (SHENZHEN) CO., LTD.

Address : F4, BUILDING 3, HUIHAO INDUSTRIAL AREA

HESHUIKOU, GONGMING TOWN, SHENZHEN,

CHINA

Manufacturer : SKYION (SHENZHEN) CO., LTD.

Address : F4, BUILDING 3, HUIHAO INDUSTRIAL AREA

HESHUIKOU, GONGMING TOWN, SHENZHEN,

CHINA

Date of sample received: October 8, 2011

Date of Test : October 8-18, 2011

1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee

for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2

(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2

(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2

(Above 1GHz)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 15, 2012
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 15, 2012
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 15, 2012
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 15, 2012
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2012
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2012
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2012
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 15, 2012
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 15, 2012
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 15, 2012

3. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission	Compliant
Section 15.249(a)	Fundamental and Harmonics Radiated Emission	Compliant
Section 15.249(d)	Spurious Radiated Emission	Compliant
Section 15.249(d)	Band Edge	Compliant
Section 15.203	Antenna Requirement	Compliant

Remark: "N/A" means "Not applicable".

4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR SECTION 15.249(A)

4.1.Block Diagram of Test Setup

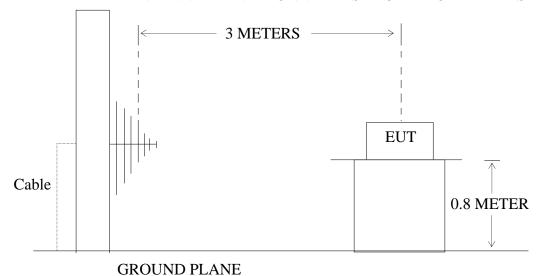
4.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: Radio Controller)

4.1.2.Semi-Anechoic Chamber Test Setup Diagram

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



(EUT: Radio Controller)

4.2. The Emission Limit

4.2.1.For intentional radiators, According to section 15.249(a), Operation within the frequency band of 2.4 to 2.4835GHz, The fundamental field strength shall not exceed 94 dB μ V/m and the harmonics shall not exceed 54 dB μ V/m.

Fundamental	Field Strength of Fundamental	Field Strength of harmonics
Frequency	(millivolts/meter)	(microvolts/meter)
902-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

4.2.2.According to section 15.249(e), as shown in section 15.35(b), the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

4.3. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1. Radio Controller (EUT)

Model Number : SGK-3/SID-5

Serial Number : N/A

Manufacturer : SKYION (SHENZHEN) CO., LTD.

4.4. Operating Condition of EUT

- 4.4.1. Setup the EUT and simulator as shown as Section 4.1.
- 4.4.2. Turn on the power of all equipment.
- 4.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2407-2477MHz MHz. We are select 2407MHz, 2442MHz, 2477MHz TX frequency to transmit.

4.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 120kHz in 30-1000MHz, and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

4.6. The Field Strength of Radiation Emission Measurement Results **PASS.**

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2407MHz	Test Engineer:	Pei

Fundamental Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(d)	BμV/m)	Marg	in(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2407.000	90.54	95.30	-7.44	83.10	87.86	94	114	-10.90	-26.14	Vertical
2407.000	90.04	94.49	-7.44	82.60	87.05	94	114	-11.40	-26.95	Horizontal

Harmonics Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(d	BμV/m)	Marg	in(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4814.000	45.63	49.99	-0.23	45.40	49.76	54	74	-8.6	-24.24	Vertical
4814.000	50.83	53.09	-0.23	50.60	52.86	54	74	-3.4	-21.14	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2442MHz	Test Engineer:	Pei

Fundamental Radiated Emissions

Frequency (MHz)	Reading(o	dBμV/m	Factor(dB) Corr.	Result(d	BμV/m)	Limit(dl	BμV/m)	Margi	n(dB)	Polarization
(IVIIIZ)	AV	PEAK	Con.	AV	PEAK	AV	PEAK	AV	PEAK	
2442.000	83.66	85.94	-7.36	76.30	78.58	94	114	-17.7	-35.42	Vertical
2442.000	83.26	86.34	-7.36	75.90	78.98	94	114	-18.10	-35.02	Horizontal

Harmonics Radiated Emissions

Frequency (MHz)	Reading(d	dBμV/m	Factor(dB) Corr.	Result(d	BμV/m)	Limit(dl	BμV/m)	Margi	n(dB)	Polarization
(WITIZ)	AV	PEAK	Con.	AV	PEAK	AV	PEAK	AV	PEAK	
4884.000	43.67	47.05	0.13	43.80	47.18	54	74	-10.20	-26.82	Vertical
4884.000	42.47	46.60	0.13	42.60	46.73	54	74	-11.40	-27.27	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2477MHz	Test Engineer:	Pei

Fundamental Radiated Emissions

Frequency (MHz)	Reading(dBμV/m	Factor(dB) Corr.	Result(d	BμV/m)	Limit(dl	BμV/m)	Margi	in(dB)	Polarization
(11112)	AV	PEAK	Con.	AV	PEAK	AV	PEAK	AV	PEAK	
2477.000	83.37	86.36	-7.37	76.00	78.99	94	114	-18.00	-35.01	Vertical
2477.000	84.07	86.49	-7.37	76.70	79.12	94	114	-17.30	-34.88	Horizontal

Harmonics Radiated Emissions

Frequency (MHz)	Reading(dBμV/m	Factor(dB) Corr.	Result(d	BμV/m)	Limit(d)	BμV/m)	Marg	in(dB)	Polarization
(WHIZ)	AV	PEAK	Con.	AV	PEAK	AV	PEAK	AV	PEAK	
4954.000	46.93	51.79	0.47	47.40	52.26	54	74	-6.60	-21.74	Vertical
4954.000	47.83	51.13	0.47	48.30	51.60	54	74	-5.70	-22.40	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

 $Result = Reading + Corrected \ Factor$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

5. SPURIOUS RADIATED EMISSION FOR SECTION 15.249(D)

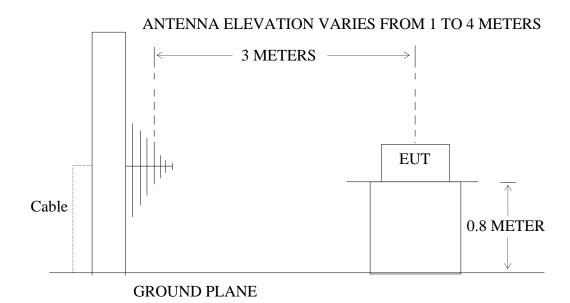
5.1.Block Diagram of Test Setup

5.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: Radio Controller)

5.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: Radio Controller)

5.2. The Emission Limit For Section 15.249(d)

5.2.1.Emission radiated outside of the specified frequency bands, except for harmonics, shall be comply with the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

			
		Limit	
Frequency (MHz)	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBµV/m)	The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is
30 - 88	100	40	performed with Average detector.
88 - 216	150	43.5	Except those frequency bands mention above, the
216 - 960	200	46	final measurement for frequencies below
Above 960	500	54	1000MHz is performed with Quasi Peak detector.

5.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1. Radio Controller (EUT)

Model Number : SGK-3/SID-5

Serial Number : N/A

Manufacturer : SKYION (SHENZHEN) CO., LTD.

5.4. Operating Condition of EUT

- 5.4.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.4.2. Turn on the power of all equipment.
- 5.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2407-2477MHz MHz. We are select 2407MHz, 2442MHz, 2477MHz TX frequency to transmit.

5.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 120kHz in 30-1000MHz, and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

5.6. The Emission Measurement Result

PASS.

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2407MHz	Test Engineer:	Pei

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2442MHz	Test Engineer:	Pei

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2477MHz	Test Engineer:	Pei

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

6. BAND EDGES

6.1.The Requirement

6.1.1.Band Edge from 2400MHz to 2483.5MHz. Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

6.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.2.1. Radio Controller (EUT)

Model Number : SGK-3/SID-5

Serial Number : N/A

Manufacturer : SKYION (SHENZHEN) CO., LTD.

6.3. Operating Condition of EUT

- 6.3.1. Setup the EUT and simulator as shown as Section 6.1.
- 6.3.2. Turn on the power of all equipment.
- 6.3.3. Let the EUT work in TX modes measure it. The transmit frequency are 2407-2477MHz MHz. We are select 2407MHz, 2477MHz TX frequency to transmit.

6.4. Test Procedure

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

6.5. The Measurement Result

Pass.

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2407MHz	Test Engineer:	Pei

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	in(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	_	_	-	-	_	_	_	-	_	Vertical
_	_	-	-	-	-	_	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	October 12, 2011	Temperature:	25°C
EUT:	Radio Controller	Humidity:	50%
Model No.:	SGK-3/SID-5	Power Supply:	DC 9V
Test Mode:	TX 2477MHz	Test Engineer:	Pei

Frequency	Reading(dBµV/m)		Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	_	_	-	-	-	-	-	-	-	Vertical
-	_	_	_	-	_	_	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

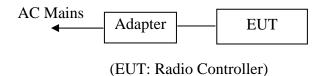
Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

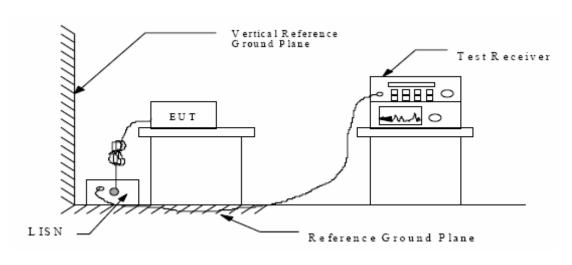
7. AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

7.1.Block Diagram of Test Setup

7.1.1.Block diagram of connection between the EUT and simulators



7.1.2. Shielding Room Test Setup Diagram



(EUT: Radio Controller)

7.2. The Emission Limit

7.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency	Limit dB(μV)				
(MHz)	Quasi-peak Level	Average Level			
0.15 - 0.50	66.0 - 56.0 *	56.0 – 46.0 *			
0.50 - 5.00	56.0	46.0			
5.00 - 30.00	60.0	50.0			

^{*} Decreases with the logarithm of the frequency.

7.3. Configuration of EUT on Measurement

The following equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.1.Radio Controller (EUT)

Model Number : SGK-3/SID-5

Serial Number : N/A

Manufacturer : SKYION (SHENZHEN) CO., LTD.

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in (Charging) mode measure it.

7.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

7.6. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Date of Test: October 13, 2011 Temperature: 25°C

EUT: Radio Controller Humidity: 50%

Model No.: SGK-3/SID-5 Power Supply: AC 120V/60Hz

Test Mode: Charging Test Engineer: Pei

Frequency	Result	Limit	Margin	Detector	Line	
(MHz)	(dBµV)	(dBµV)	(dB)			
0.166406	46.30	65.1	-18.8	QP		
0.195997	49.30	63.8	-14.5	QP		
0.261263	48.30	61.4	-13.1	QP		
0.328019	43.30	59.5	-16.2	QP		
0.395716	45.20	57.9	-12.7	QP		
0.466086	43.30	56.6	-13.3	QP	N T . 1	
0.167071	36.10	55.1	-19.0	AV	Neutral	
0.197568	38.40	53.7	-15.3	AV		
0.263357	34.00	51.3	-17.3	AV		
0.329331	31.00	49.5	-18.5	AV		
0.395716	31.00	47.9	-16.9	AV		
0.467950	27.90	46.6	-18.7	AV		
0.167071	44.10	65.1	-21.0	QP		
0.197568	51.30	63.7	-12.4	QP		
0.268666	52.10	61.2	-9.1	QP		
0.330648	43.90	59.4	-15.5	QP		
0.397299	44.70	57.9	-13.2	QP		
0.466086	43.60	56.6	-13.0	QP	T ·	
0.167739	35.90	55.1	19.2	AV	Live	
0.199152	37.10	53.6	16.5	AV		
0.267596	34.80	51.2	16.4	AV		
0.333299	29.30	49.4	20.1	AV		
0.397299	30.00	47.9	17.9	AV		
0.464229	25.90	46.6	20.7	AV		

Emissions attenuated more than 20 dB below the permissible value are not reported. The spectral diagrams are attached as below.

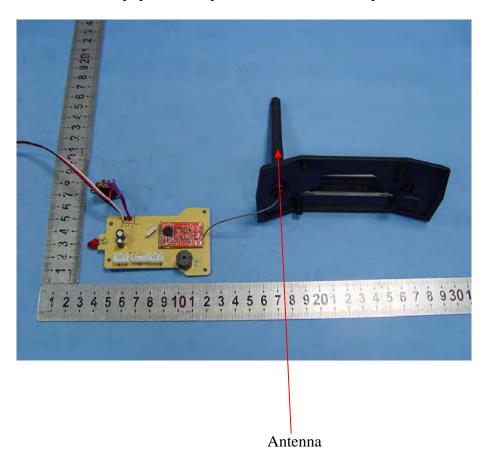
8. ANTENNA REQUIREMENT

8.1. The Requirement

8.1.1.According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2. Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



APPENDIX I (Test Curves)



F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5868

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

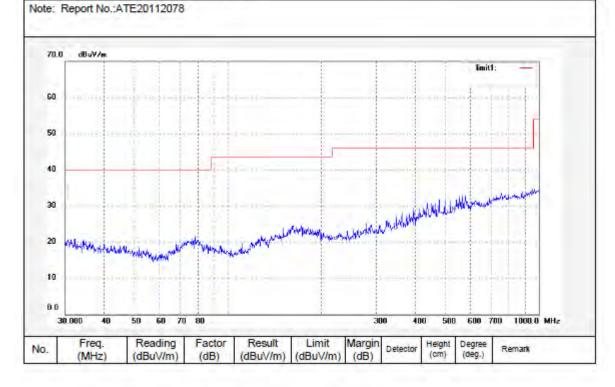
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: Radio Controller Mode: TX 2407MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Polarization: Horizontal Power Source: DC 9V Date: 2011/10/11 Time: 15:01:24

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5869

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

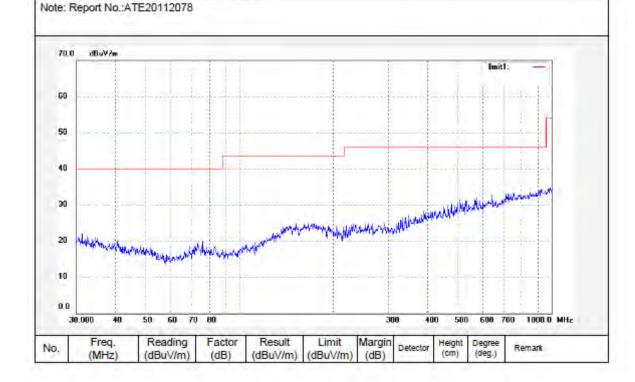
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: Radio Controller Mode: TX 2407MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Polarization: Vertical Power Source: DC 9V Date: 2011/10/11 Time: 15:05:27

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #579

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller Mode: TX 2407MHz Model: SGK-3/SID-5

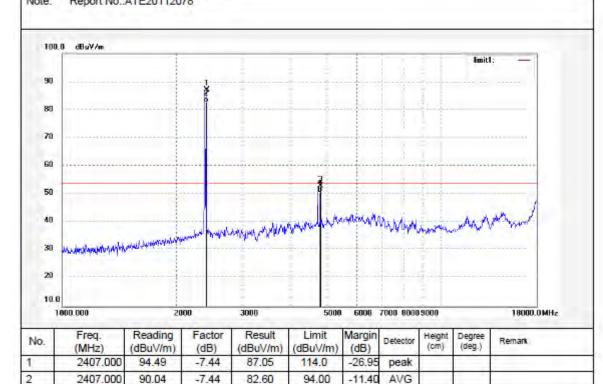
Manufacturer: SKYION(SHENZHEN) CO.,LTD

te: Report No.:ATE20112078

Polarization: Horizontal Power Source: DC 9V Date: 2011-10-12 Time: 4:44:18

Engineer Signature: STAR

Distance:



74.00

54.00

-21.14

-3.40

peak

AVG

3

4

4814.000

4814,000

53.09

50.83

-0.23

-0.23

52.86

50.60



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #578

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller Mode: TX 2407MHz Model: SGK-3/SID-5

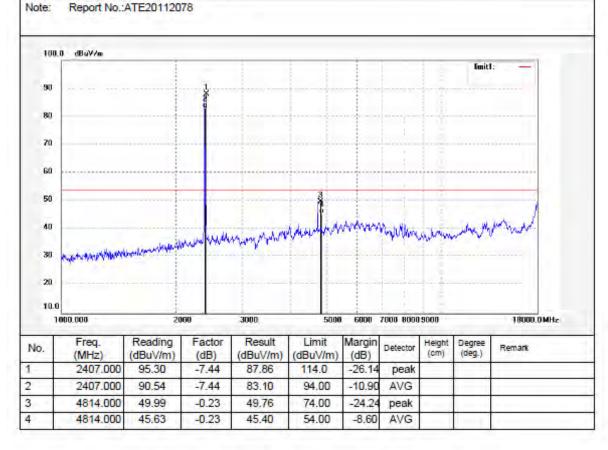
Manufacturer: SKYION(SHENZHEN) CO.,LTD

Wallowald Control (Oriel Exercity) CO

Polarization: Vertical Power Source: DC 9V Date: 2011-10-12 Time: 4:34:50

Engineer Signature: STAR

Distance:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5916 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

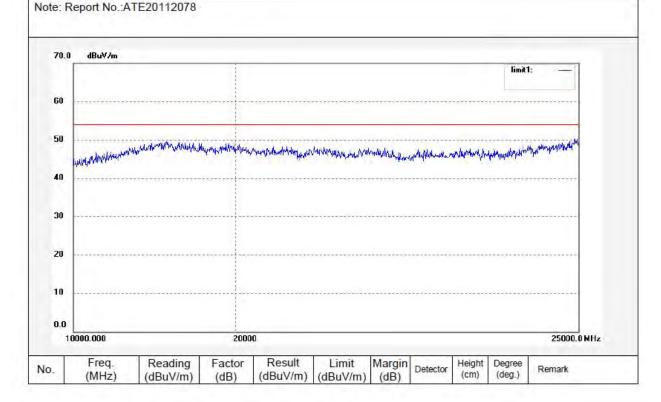
EUT: Radio Controller TTX 2407MHz Mode:

Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Polarization: Horizontal Power Source: DC 9V Date: 2011/10/12 Time: 11:52:09

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5917 Standard: FCC Class B 3M Radiated Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

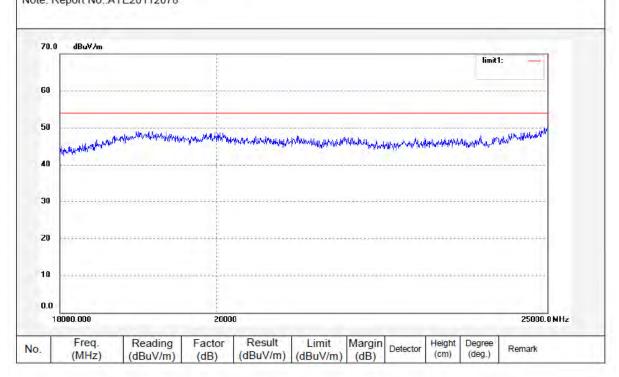
EUT: Radio Controller Mode: TX 2407MHz

Model: SGK-3/SID-5
Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Note: Report No.:ATE20112078

Polarization: Vertical Power Source: DC 9V Date: 2011/10/12 Time: 11:56:43

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site; 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5871

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

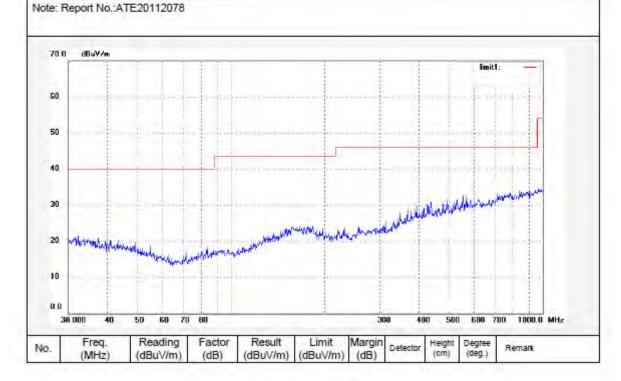
EUT: Radio Controller Mode: TX 2442MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Mandiacturer. SKYTON(SHENZHEN)CO

Polarization: Horizontal Power Source: DC 9V Date: 2011/10/11 Time: 15:14:30

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5868 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: Radio Controller Mode: TX 2442MHz Model: SGK-3/SID-5

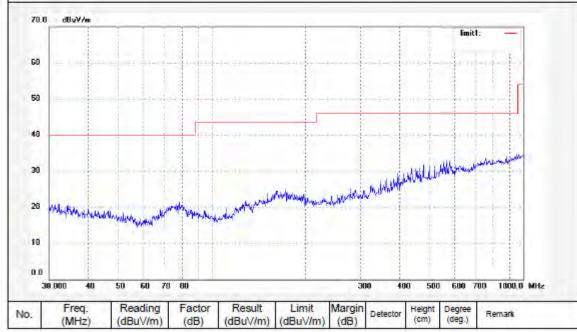
Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Polarization: Vertical Power Source: DC 9V Date: 2011/10/11 Time: 15:01:24

Engineer Signature: STAR

Distance: 3m

Note: Report No.:ATE20112078





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #580

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller Mode: TX 2442MHz

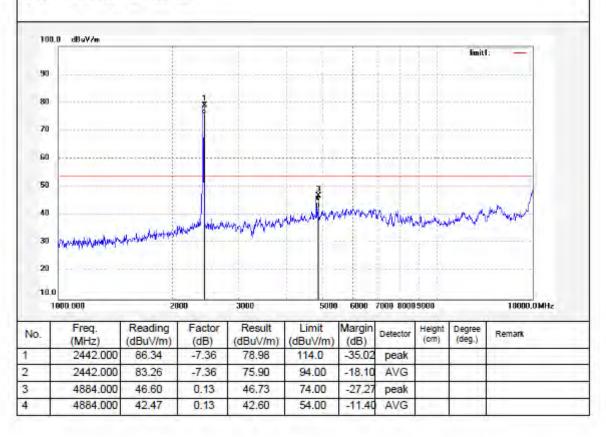
Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

Note: Report No.:ATE20112078



Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

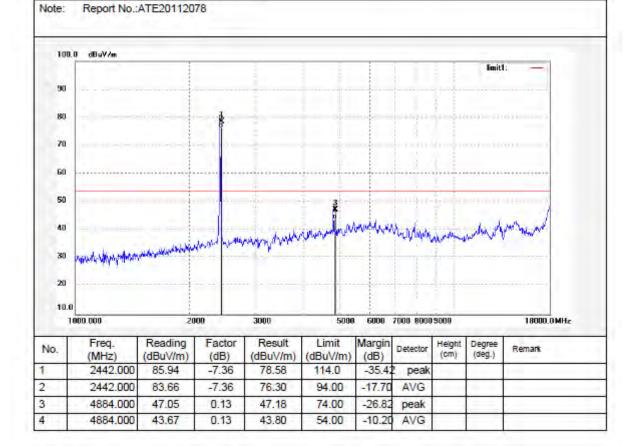
Test item: Radiation Test Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller Mode: TX 2442MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

Polarization: Vertical Power Source: DC 9V Date: 2011-10-12 Time: 4:58:15

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: STAR

Power Source: DC 9V

Date: 2011/10/12

Time: 12:05:30

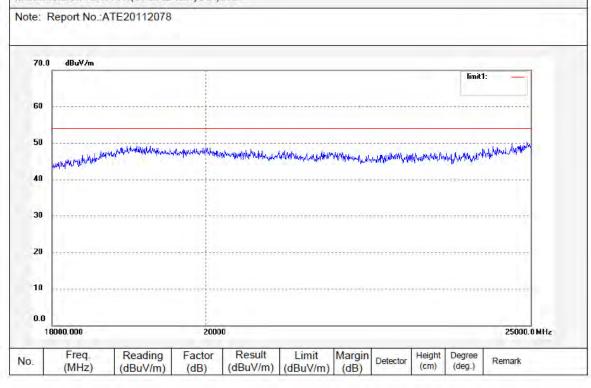
Distance: 3m

Job No.: RTTE #5919 Standard: FCC Class B 3M Radiated Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: Radio Controller TX 2442MHz Mode: Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

JOD NO.: RITE #5918

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

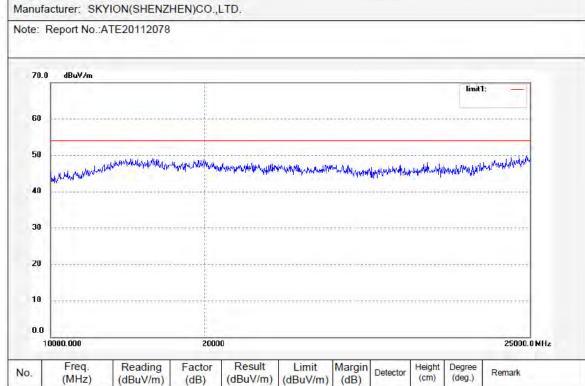
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: Radio Controller Mode: TX 2442MHz

Model: SGK-3/SID-5

Polarization: Vertical Power Source: DC 9V Date: 2011/10/12 Time: 12:01:19

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5872 Standard: FCC Class B 3M Radiated

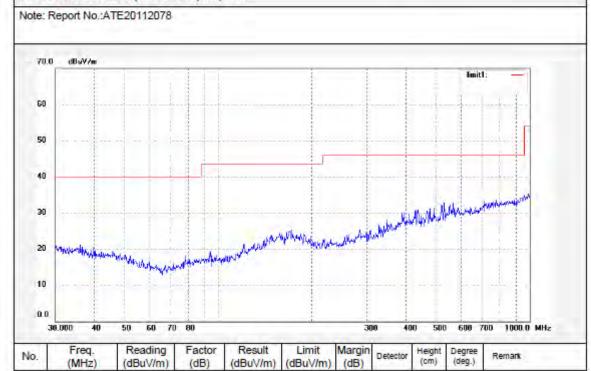
Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 %

EUT: Radio Controller Mode: TX 2477MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Polarization: Horizontal Power Source: DC 9V Date: 2011/10/11 Time: 15:19:41

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 9V

Date: 2011/10/11

Time: 15:23:50

Job No.: RTTE #5873

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

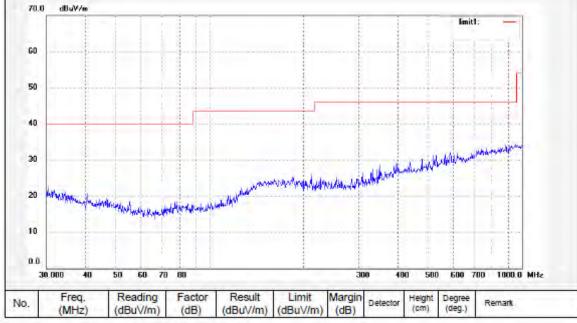
EUT: Radio Controller Mode: TX 2477MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

o Controller Engineer Signature: STAR
77MHz Distance: 3m

Note: Report No.:ATE20112078

70.0 dBuV/m limit1: —





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #583

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

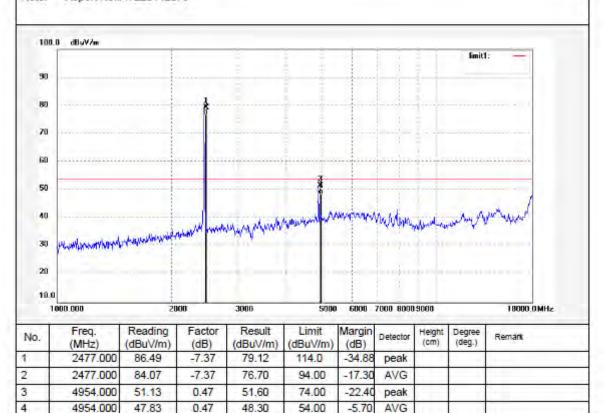
EUT: Radio Controller Mode: TX 2477MHz

Model: SGK-3/SID-5
Manufacturer: SKYION(SHENZHEN) CO.,LTD

Note: Report No.:ATE20112078

Polarization: Horizontal Power Source: DC 9V Date: 2011-10-12 Time: 5:17:29

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #582

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

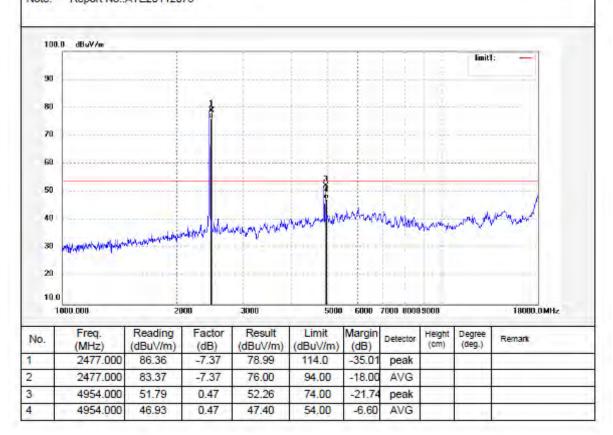
EUT: Radio Controller Mode: TX 2477MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

Note: Report No.:ATE20112078

Polarization: Vertical Power Source: DC 9V Date: 2011-10-12 Time: 5:10:05

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5920

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

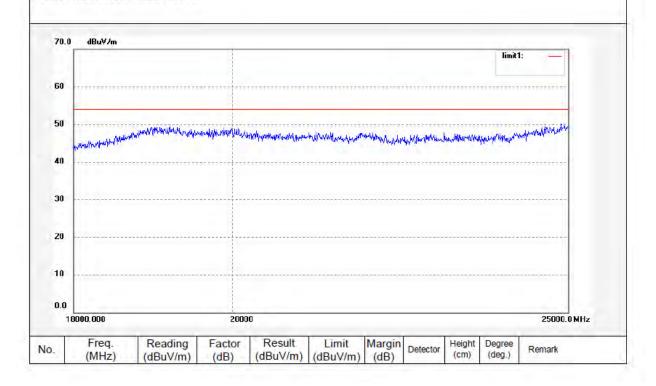
EUT: Radio Controller Mode: TX 2477MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Note: Report No.:ATE20112078

Polarization: Horizontal Power Source: DC 9V Date: 2011/10/12 Time: 12:10:41

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5921

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

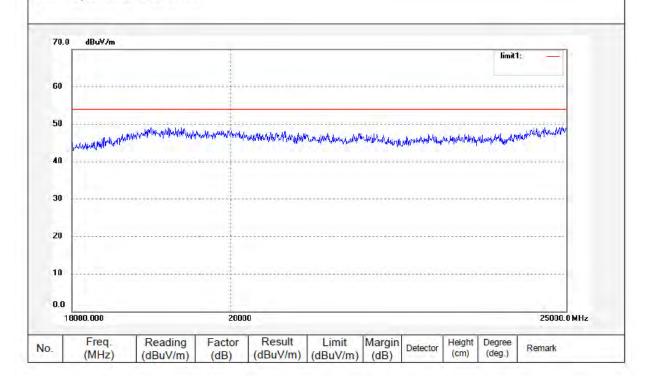
EUT: Radio Controller Mode: TX 2477MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN)CO.,LTD.

Note: Report No.:ATE20112078

Polarization: Vertical Power Source: DC 9V Date: 2011/10/12 Time: 12:15:08

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

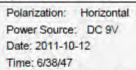
Job No.: STAR #601 Standard: FCC Part 15 PEAK 2.4G Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 % EUT: Radio Controller

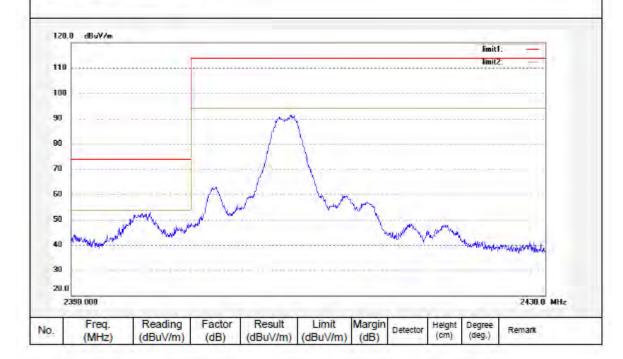
Mode: TX 2407MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

ote: Report No.:ATE20112078



Engineer Signature: STAR





F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #600

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

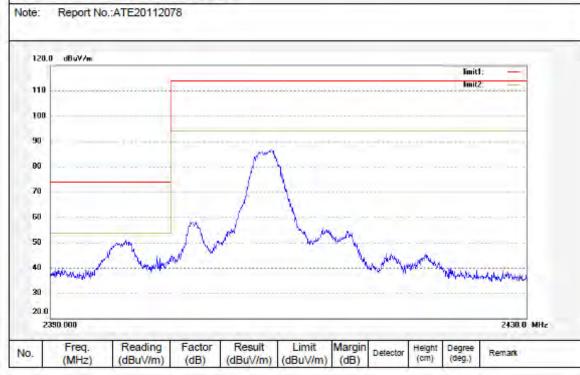
Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller TX 2407MHz Mode: Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

Power Source: DC 9V Date: 2011-10-12 Time: 6/36/51

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: STAR #603 Standard: FCC Part 15 PEAK 2.4G Test item: Radiation Test

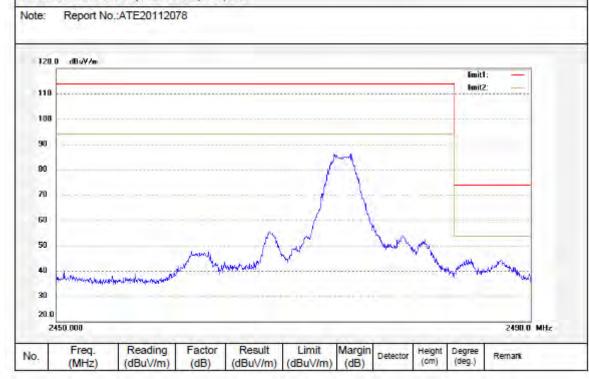
Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller Mode: TX 2477MHz Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

Polarization: Vertical Power Source: DC 9V Date: 2011-10-12 Time: 6/43/14

Engineer Signature: STAR





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Part 15 PEAK 2.4G
Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Radio Controller Mode: TX 2477MHz

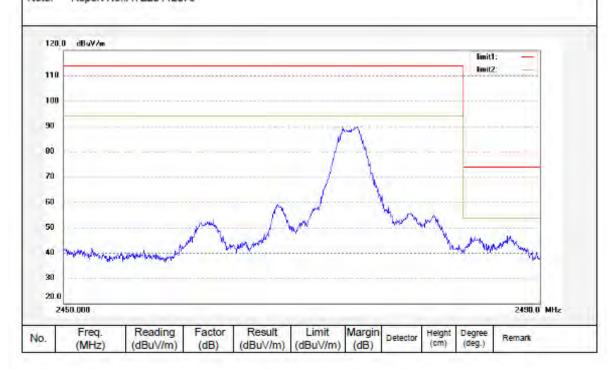
Model: SGK-3/SID-5

Manufacturer: SKYION(SHENZHEN) CO.,LTD

Note: Report No.:ATE20112078

Polarization: Vertical Power Source: DC 9V Date: 2011-10-12 Time: 6/40/43

Engineer Signature: STAR



CONDUCTED EMISSION STANDARD FCC PART 15 B

Radio Controller M/N:SGK-3/SID-5 EUT:

Manufacturer: SKYION (SHENZHEN) CO., LTD.

Operating Condition: Charging

Test Site: 1#Shielding Room Star Operator: Test Specification: N 120V/60Hz

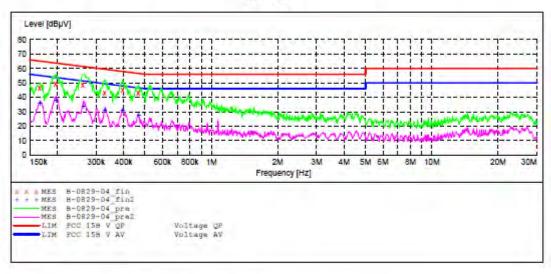
Report No.:ATE20112078 10/13/2011 / 1:59:15PM Comment: Start of Test:

SCAN TABLE: "V 150K-30MHz fin" Short Description: _SUB_STD_VTERM2 1.70

Detector Meas. IF Step Transducer

Start Stop Step Frequency Frequency Width 150.0 kHz 30.0 MHz 0.8 % Bandw. Time QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "B-0829-04 fin"

Frequency MHz	Level dBµV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.166406	46.30	11.1	65.1	18.8	QP	N	GND
0.195997	49.30	11.2	63.8	14.5	QP	N	GND
0.261263	48.30	11.5	61.4	13.1	QP	N	GND
0.328019	43.30	11.6	59.5	16.2	QP	N	GND
0.395716	45.20	11.8	57.9	12.7	QP	N	GND
0.466086	43.30	11.9	56.6	13.3	QP	N	GND

MEASUREMENT RESULT: "B-0829-04 fin2"

1	0/18/2011 2:0	3PM						
	Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0.167071	36.10	11.1	55.1	19.0	AV	N	GND
	0.197568	38.40	11.2	53.7	15.3	AV	N	GND
	0.263357	34.00	11.5	51.3	17.3	AV	N	GND
	0.329331	31.00	11.7	49.5	18.5	AV	N	GND
	0.395716	31.00	11.8	47.9	16.9	AV	N	GND
	0.467950	27.90	11.9	46.6	18.7	AV	N	GND

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Radio Controller M/N:3GK-3/3ID-5

Manufacturer: SKYION (SHENZHEN) CO., LTD.

Operating Condition: Charging

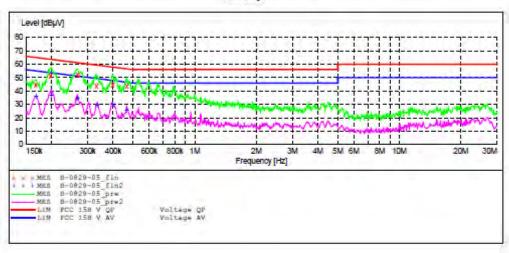
Test Site: 1#Shielding Room

Test Site:
Operator: Star
Test Specification: L 120V/60Hz
Comment: Report No.:ATE20112078
Start of Test: 10/13/2011 / 2:07:37PM

SCAN TABLE: "V 150K-30MHz fin" Short Description: SUB STD VTERM2 1.70 Short Description:

Step IF Start Detector Meas. Transducer Stop Frequency Frequency Width Time Bandw. 150.0 kHs 30.0 MHs 0.8 8 QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "B-0829-05 fin"

10/18/2011 2:09PM

TOTACTE TO	DEM.						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.167071	44.10	11.1	65.1	21.0	QP	Li	GND
0.197568	51.30	11.2	63.7	12.4	QP	Ll	GND
0.268666	52.10	11.5	61.2	9.1	QP	LI	GND
0.330648	43.90	11.7	59.4	15.5	QP	Ll	GND
0.397299	44.70	11.8	57.9	13.2	QP	LI	GND
0.466086	43.60	11.9	56.6	13.0	QP	LI	GND

MEASUREMENT RESULT: "B-0829-05 fin2"

10/18/2011 2-00PM

10/10/2011 2:0	SEM						
Frequency	Level dBuV	Transd	Limit dBuV	Margin dB	Detector	Line	PE
PHIS	авич	d.D	αυμν	QD.			
0.167739	35.90	11.1	55.1	19.2	AV	LL	GND
0.199152	37.10	11.2	52.6	16.5	AV	L1	GND
0.267596	34.80	11.5	51.2	16.4	AV	LI	GND
0.333299	29.30	11.7	49.4	20.1	AV	L1	GMD
0.397299	30.00	11.8	47.9	17.9	AV	LL	GND
0.464229	25.90	11.9	46.6	20.7	AV	L1	GND