



Test Report

Product Name : RFID CF TYPE READER
Model No. : SLC-10200
FCC ID. : T39SLC-10200

Applicant : Sunlit SystemTechnology Corp.
Address : 8F., No. 19, Land 120, Sec. 1, Neihu Rd., Taipei 114, Taiwan
R.O.C.

Date of Receipt : Oct. 24, 2005
Issued Date : Sep. 26, 2006
Report No. : 05AL172FI

The Test Results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of Quietek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Test Report Certification

Issued Date: Sep. 26, 2006

Report No. : 05AL172FI



Accredited by NIST (NVLAP)

NVLAP Lab Code: 200533-0

Product Name : RFID CF TYPE READER

Applicant : Sunlit SystemTechnology Corp.


Address : 8F., No. 19, Land 120, Sec. 1, Neihu Rd., Taipei 114, Taiwan R.O.C.

Manufacturer : Sunlit SystemTechnology Corp.

Model No. : SLC-10200

Rated Voltage : AC 120V/60Hz

Working Voltage : DC 5V (via CF card socket)

Trade Name :  日晶科技股份有限公司 / Sunlit System Technology Corp.
µ-CHIP System Development

Applicable Standard : FCC Part 15 Subpart C Paragraph 15.249: 2005
ANSI C63.4: 2003


Test Result : Complied




The Test Results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By : 
(Genie Chang)

Tested By : 
(Tom Hsieh)


Approved By : 
(Georte Chen)




TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	4
1.1. EUT Description	4
1.2. Operation Description	5
1.3. Tested System Details	5
1.4. Configuration of Test System	5
1.5. EUT Exercise Software	6
1.6. Test Facility	7
2. Conducted Emission	8
2.1. Test Equipment	8
2.2. Test Setup	8
2.3. Limits	8
2.4. Test Procedure	9
2.5. Uncertainty	9
2.6. Test Result of Conducted Emission	10
3. Radiated Emission	12
3.1. Test Equipment	12
3.2. Test Setup	12
3.3. Limits	13
3.4. Test Procedure	14
3.5. Uncertainty	14
3.6. Test Result of Radiated Emission	15
4. Band Edge	20
4.1. Test Equipment	20
4.2. Test Setup	20
4.3. Limit	21
4.4. Test Procedure	21
4.5. Uncertainty	21
4.6. Test Result of Band Edge	22
5. EMI Reduction Method During Compliance Testing.....	27
Attachment 1: EUT Test Photographs	
Attachment 2: EUT Detailed Photographs	

1. GENERAL INFORMATION

1.1. EUT Description

Product Name : RFID CF TYPE READER

Trade Name :  日晶科技股份有限公司 / Sunlit System Technology Corp.
µ-Chip System Development

FCC ID. : T39SLC-10200

Model No. : SLC-10200

Frequency Range : 2435 – 2465MHz

Number of Channels : 31

Channel Separation : 1 MHz

Channel Control : Auto

Type of Modulation : FHSS

Antenna Type : Printed on the PCB

Antenna Gain : -2.056 dBi

Frequency of Each Channel

Channel	Frequency	Channel	Frequency	Channel	Channel	Frequency	Channel
Channel 01:	2435 MHz	Channel 02:	2436 MHz	Channel 03:	2437 MHz	Channel 04:	2438 MHz
Channel 05:	2439 MHz	Channel 06:	2440 MHz	Channel 07:	2441 MHz	Channel 08:	2442 MHz
Channel 09:	2443 MHz	Channel 10:	2444 MHz	Channel 11:	2445 MHz	Channel 12:	2446 MHz
Channel 13:	2447 MHz	Channel 14:	2448 MHz	Channel 15:	2449 MHz	Channel 16:	2450 MHz
Channel 17:	2451 MHz	Channel 18:	2452 MHz	Channel 19:	2453 MHz	Channel 20:	2454 MHz
Channel 21:	2455 MHz	Channel 22:	2456 MHz	Channel 23:	2457 MHz	Channel 24:	2458 MHz
Channel 25:	2459 MHz	Channel 26:	2460 MHz	Channel 27:	2461 MHz	Channel 28:	2462 MHz
Channel 29:	2463 MHz	Channel 30:	2464 MHz	Channel 31:	2465 MHz		

Note:

1. The EUT is a RFID CF TYPE READER with a built-in 2.4GHz transceiver.
2. These tests are conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.

EMI Test Mode	Mode 1: Transmitter
---------------	---------------------

1.2. Operation Description

The EUT is RFID CF TYPE **READER**. The operation frequency is 2.435GHz to 2.465GHz. Thirty-one channels are built in the EUT. The signals modulated by FHSS / GFSK are transmitted from the printed antenna on the PCB of the EUT. DC 5V (via CF card socket) shall be provided for EUT operation.

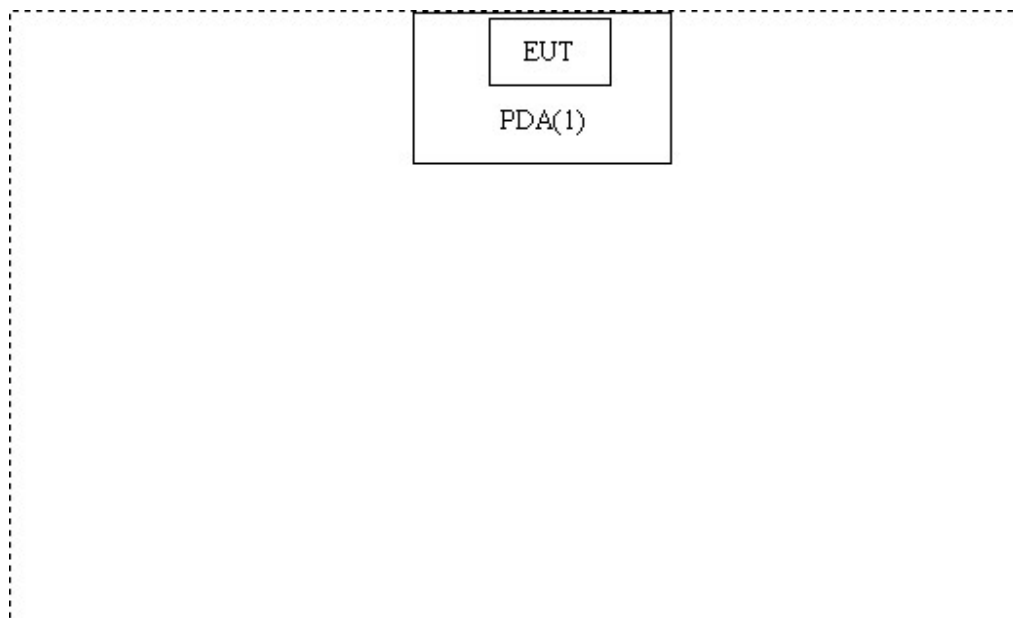
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
(1)	PDA	HP	IPAQ hx2100	2CK52107R2	DOC	Non-Shielded, 1.8m

	Signal Cable Type	Signal Cable Description
(A)	N/A	N/A

1.4. Configuration of Test System



1.5. EUT Exercise Software

- (1) Plug the EUT into the PDA as shown in Section 1.4.
- (2) Execute DLLTestVC.exe on the PDA.
- (3) Configure the test channel.
- (4) Press “OK” to start continuous transmission.
- (5) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Reference 31040/SIT1300F2



Accreditation on NVLAP
NVLAP Lab Code: 200533-0



Site Name: Quietek Corporation
Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com



2. Conducted Emission

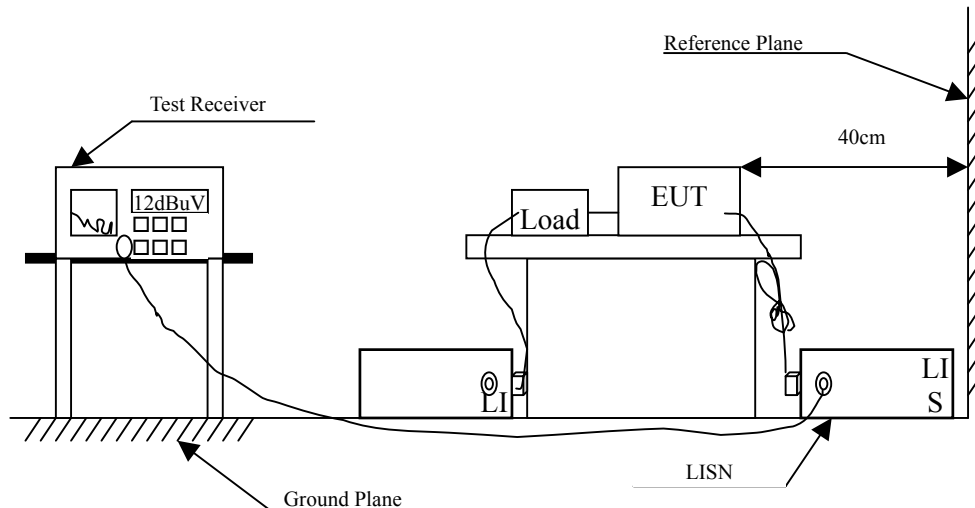
2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2006	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2006	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2006	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2006	
5	No.4 Shielded Room			N/A	

Note: All equipments are calibrated every one year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : RFID CF TYPE READER
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 1: Transmitter (2450MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV	dB	dBuV
Quasi-Peak					
0.220	0.202	45.310	45.512	-18.488	64.000
0.445	0.216	44.130	44.346	-13.226	57.571
0.673	0.228	38.950	39.178	-16.822	56.000
0.893	0.232	39.180	39.412	-16.588	56.000
1.873	0.274	31.650	31.924	-24.076	56.000
6.373	0.465	26.100	26.565	-33.435	60.000
Average					
0.220	0.202	39.680	39.882	-14.118	54.000
0.445	0.216	36.540	36.756	-10.816	47.571
0.673	0.228	29.750	29.978	-16.022	46.000
0.893	0.232	28.510	28.742	-17.258	46.000
1.873	0.274	9.780	10.054	-35.946	46.000
6.373	0.465	12.620	13.085	-36.915	50.000

Note:

1. All reading levels are quasi-peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Product : RFID CF TYPE READER
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 1: Transmitter (2450MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV	dB	dBuV
Quasi-Peak					
0.224	0.202	47.310	47.512	-16.373	63.886
0.444	0.216	44.070	44.286	-13.314	57.600
0.669	0.218	40.330	40.549	-15.451	56.000
0.907	0.232	37.860	38.092	-17.908	56.000
1.122	0.244	39.820	40.064	-15.936	56.000
1.920	0.275	40.060	40.335	-15.665	56.000
Average					
0.224	0.202	42.930	43.132	-10.753	53.886
0.444	0.216	35.960	36.176	-11.424	47.600
0.669	0.218	31.370	31.589	-14.411	46.000
0.907	0.232	20.640	20.872	-25.128	46.000
1.122	0.244	29.590	29.834	-16.166	46.000
1.920	0.275	19.160	19.435	-26.565	46.000

Note:

1. All reading levels are quasi-peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Radiated Emission

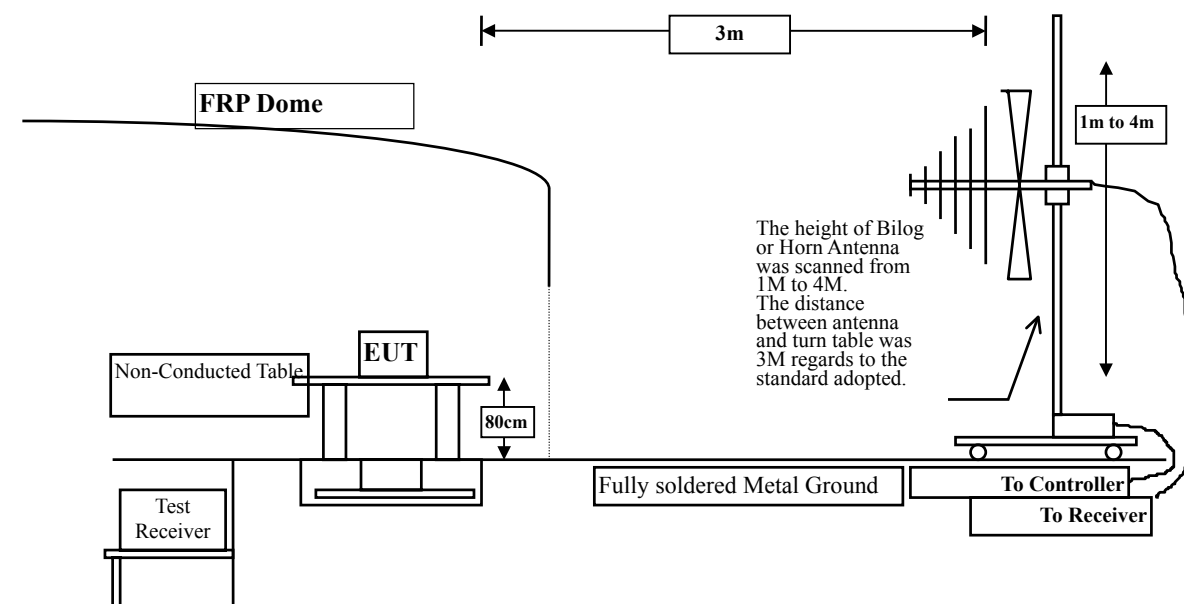
3.1. Test Equipment

The following test equipment are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
	Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2006
	Pre-Amplifier	HP	8447D/3307A01812	May, 2006
	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2006
	Horn Antenna	EM	EM6917 / 103325	May, 2006
	Test Receiver	R & S	ESCS 30 / 825442/17	May, 2006
Site # 2	Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2006
	Pre-Amplifier	HP	8447D/3307A01814	May, 2006
	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
	Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 3	X Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
	X Spectrum Analyzer	Advantest	R3162 / 100803480	May, 2006
	X Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2006
	X Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2006
	X Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2006
	X Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006
	X Pre-Amplifier	HP	8449B / 3008A01123	July, 2006

Note: 1. All equipments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup



3.3. Limits

➤ Fundamental and Harmonics Emission Limits

FCC Part 15 Subpart B Paragraph 15.249 Limits				
Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	(mV/m @3m)	(dBuV/m @3m)	(uV/m @3m)	(dBuV/m @3m)
902-928	50	94	500	54
2400-2483.5	50	94	500	54
5725-5875	50	94	500	54

Remarks :

1. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart B Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks :

1. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.

Radiated emissions were investigated over the frequency range from 30MHz to 1GHz using a receiver bandwidth of 120kHz. Radiated was performed at an antenna to EUT distance of 3 meters.

The frequency range from 30MHz to 10th harmonics is checked.

3.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

3.6. Test Result of Radiated Emission

Product : RFID CF TYPE READER
 Test Item : Fundamental Radiated Emission
 Test Site : No.3OATS
 Test Mode : Mode 1: Transmitter

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Average Limit dBuV/m
Horizontal					
Peak Detector:					
Channel 01					
2435.000	-2.158	106.100	103.942	-10.058	114.000
Channel 16					
2450.000	-2.088	101.400	99.313	-14.687	114.000
Channel 31					
2465.000	-2.020	102.300	100.281	-13.719	114.000
Average Detector					
Channel 01					
2435.000	-2.158	86.030	83.872	-10.128	94.000
Channel 16					
2450.000	-2.088	81.700	79.613	-14.387	94.000
Channel 31					
2465.000	-2.020	83.700	81.681	-12.319	94.000
Vertical					
Peak Detector:					
Channel 01					
2435.000	-2.158	107.700	105.542	-8.458	114.000
Channel 16					
2450.000	-2.088	108.100	106.013	-7.987	114.000
Channel 31					
2465.000	-2.020	103.600	101.581	-12.419	114.000
Average Detector					
Channel 01					
2435.000	-2.158	77.500	75.342	-18.658	94.000
Channel 16					
2450.000	-2.088	78.060	75.973	-18.027	94.000
Channel 31					
2465.000	-2.020	82.670	80.651	-13.349	94.000

Note:

1. Emission Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.

Product : RFID CF TYPE READER
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2435MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Average Limit dBuV/m
Horizontal					
Peak Detector:					
4870.000	14.319	38.749	53.068	-20.902	74.000
7305.000	17.962	37.809	55.771	-18.199	74.000
9740.000	22.635	36.523	59.159	-14.811	74.000
Average Detector					
4870.000	14.319	36.660	50.979	-2.991	54.000
7305.000	17.962	28.043	46.005	-7.965	54.000
9740.000	22.635	28.026	50.662	-3.308	54.000
Vertical					
Peak Detector:					
4870.000	14.319	38.799	53.118	-20.852	74.000
7305.000	17.962	37.809	55.771	-18.199	74.000
9740.000	22.635	36.575	59.211	-14.759	74.000
Average Detector					
4870.000	14.319	36.400	50.719	-3.251	54.000
7305.000	17.962	28.112	46.074	-7.896	54.000
9740.000	22.635	27.392	50.028	-3.942	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : RFID CF TYPE READER
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2450MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Average Limit dBuV/m
Horizontal					
Peak Detector:					
4900.000	14.411	37.742	52.153	-21.817	74.000
7350.000	18.007	37.484	55.491	-18.479	74.000
9800.000	22.807	37.689	60.496	-13.474	74.000
Average Detector					
4900.000	14.411	36.150	50.561	-3.409	54.000
7350.000	18.007	28.041	46.048	-7.922	54.000
9800.000	22.807	27.295	50.102	-3.868	54.000
Vertical					
Peak Detector:					
4900.000	14.411	37.139	51.550	-22.420	74.000
7350.000	18.007	37.730	55.737	-18.233	74.000
9800.000	22.807	37.097	59.904	-14.066	74.000
Average Detector					
4900.000	14.411	36.390	50.801	-3.169	54.000
7350.000	18.007	27.946	45.953	-8.017	54.000
9800.000	22.807	27.349	50.156	-3.814	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : RFID CF TYPE READER
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2465MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Average Limit dBuV/m
Horizontal					
Peak Detector:					
4930.000	14.493	37.573	52.067	-21.903	74.000
7395.000	18.049	37.290	55.338	-18.632	74.000
9860.000	22.979	36.930	59.909	-14.061	74.000
Average Detector					
4930.000	14.493	36.410	50.904	-3.066	54.000
7395.000	18.049	27.988	46.036	-7.934	54.000
9860.000	22.979	27.311	50.290	-3.680	54.000
Vertical					
Peak Detector:					
4930.000	14.493	36.385	50.879	-23.091	74.000
7395.000	18.049	37.653	55.701	-18.269	74.000
9860.000	22.979	37.110	60.089	-13.881	74.000
Average Detector					
4930.000	14.493	36.990	51.484	-2.486	54.000
7395.000	18.049	27.956	46.004	-7.966	54.000
9860.000	22.979	27.277	50.256	-3.714	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : RFID CF TYPE READER
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2450MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
115.100	12.862	22.380	35.242	-8.258	43.500
520.000	18.594	12.600	31.194	-14.806	46.000
540.000	19.517	11.100	30.617	-15.383	46.000
550.000	20.182	11.400	31.582	-14.418	46.000
675.000	20.785	13.800	34.585	-11.415	46.000
830.000	21.904	11.800	33.704	-12.296	46.000
Vertical					
205.000	9.941	21.100	31.041	-12.459	43.500
480.000	18.475	16.400	34.875	-11.125	46.000
500.000	18.389	15.200	33.589	-12.411	46.000
566.100	21.249	18.300	39.549	-6.451	46.000
675.000	20.085	16.200	36.285	-9.715	46.000
830.000	21.443	14.100	35.543	-10.457	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

4. Band Edge

4.1. Test Equipment

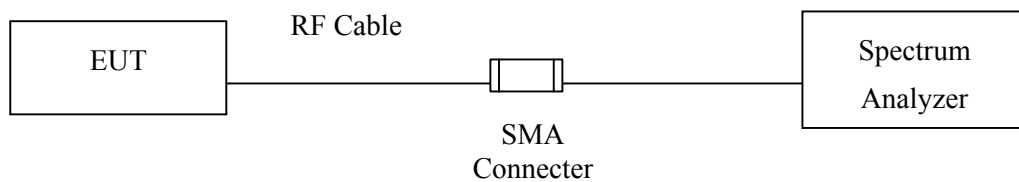
The following test equipments are used during the band edge tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
X Spectrum Analyzer	Advantest	R3162 / 100803480	May, 2006
X Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2006
X Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2006
X Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2006
X Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006
X Pre-Amplifier	HP	8449B / 3008A01123	July, 2006

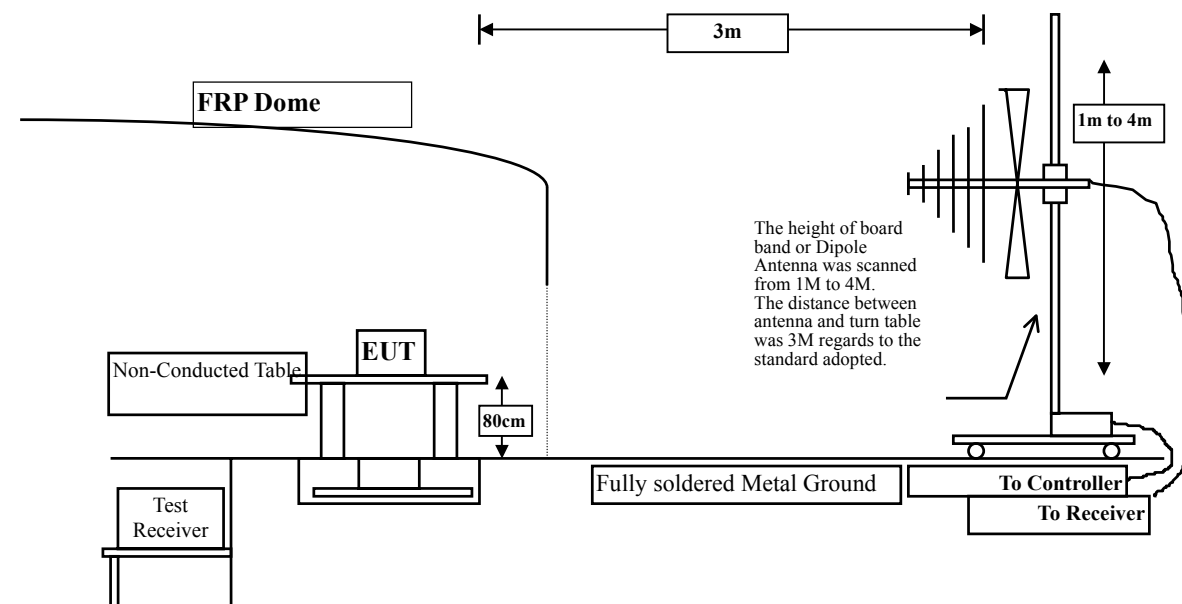
Note: 1. All equipments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

4.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



4.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 50 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

4.5. Uncertainty

Conducted is ± 1.27 dB

Radiated is ± 3.9 dB.

4.6. Test Result of Band Edge

Product : RFID CF TYPE READER
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2435MHz)

RF Radiated Measurement

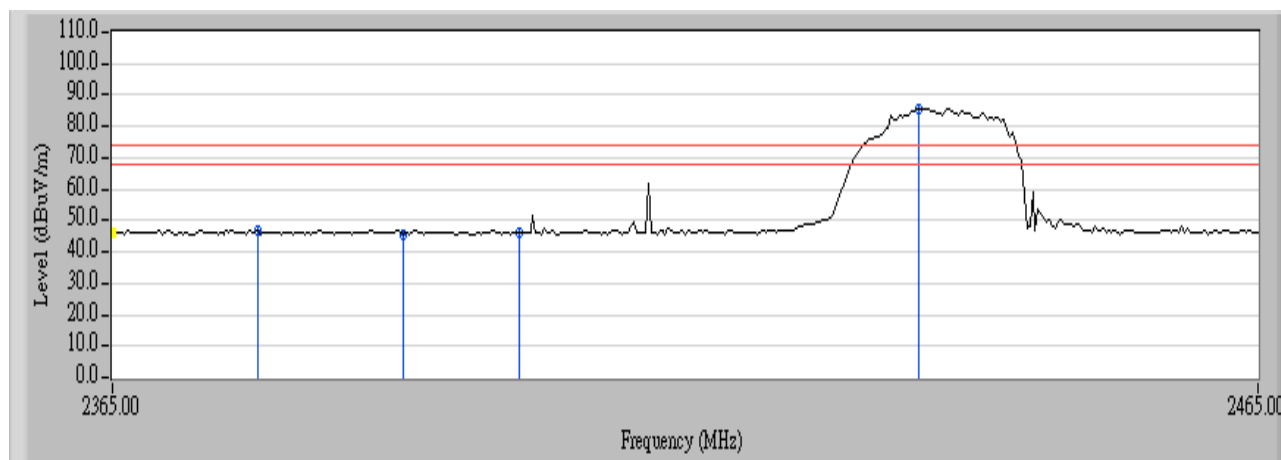
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	2377.500	9.313	37.778	47.090	74.00	54.00	Pass
01(Avg)	--	--	--	--	74.00	54.00	Pass

Figure Channel 01:

Horizontal



Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms

Product : RFID CF TYPE READER
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2435MHz)

RF Radiated Measurement

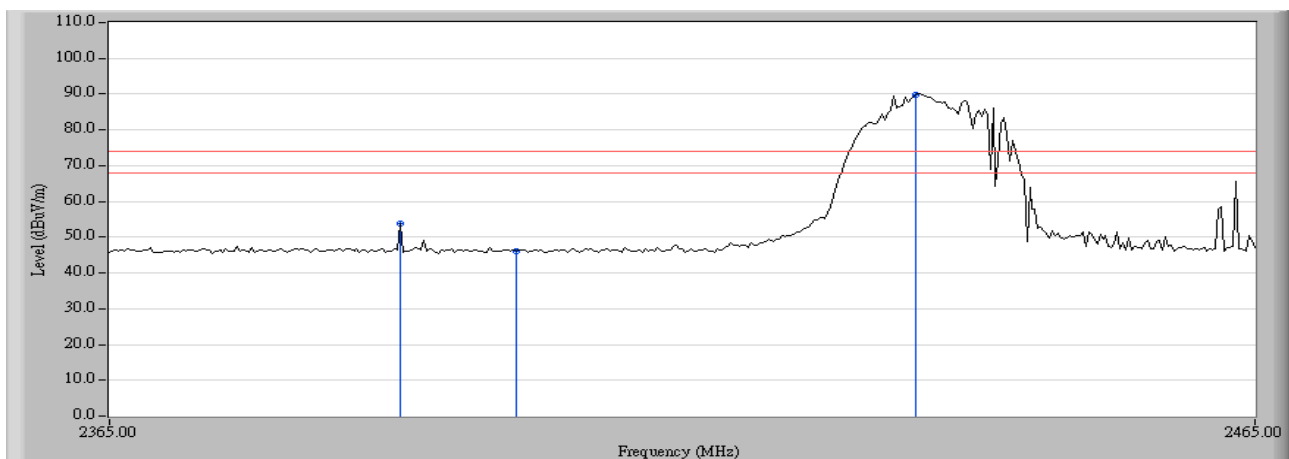
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	2390.000	9.368	44.392	53.760	74.00	54.00	Pass
01(Avg)	--	--	--	--	74.00	54.00	Pass

Figure Channel 01:

Vertical



Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms

Product : RFID CF TYPE READER
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2465MHz)

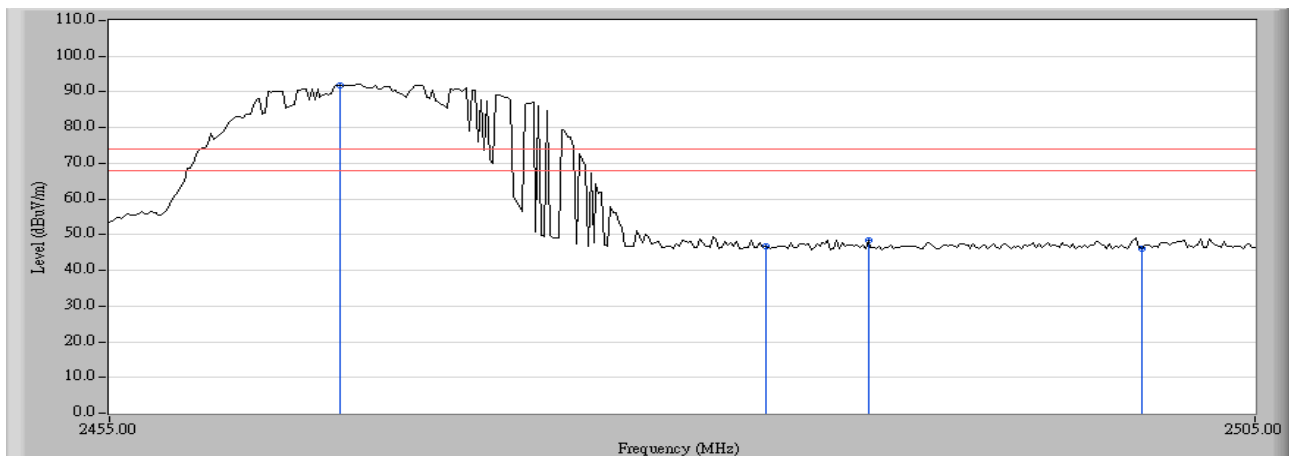
RF Radiated Measurement

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
31	>2483.5	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
31(Peak)	2488.000	9.785	38.755	48.540	74.00	54.00	Pass
31(Avg)	--	--	--	--	74.00	54.00	Pass

Figure Channel 78: Horizontal (Peak)



Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms

Product : RFID CF TYPE READER
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (2465MHz)

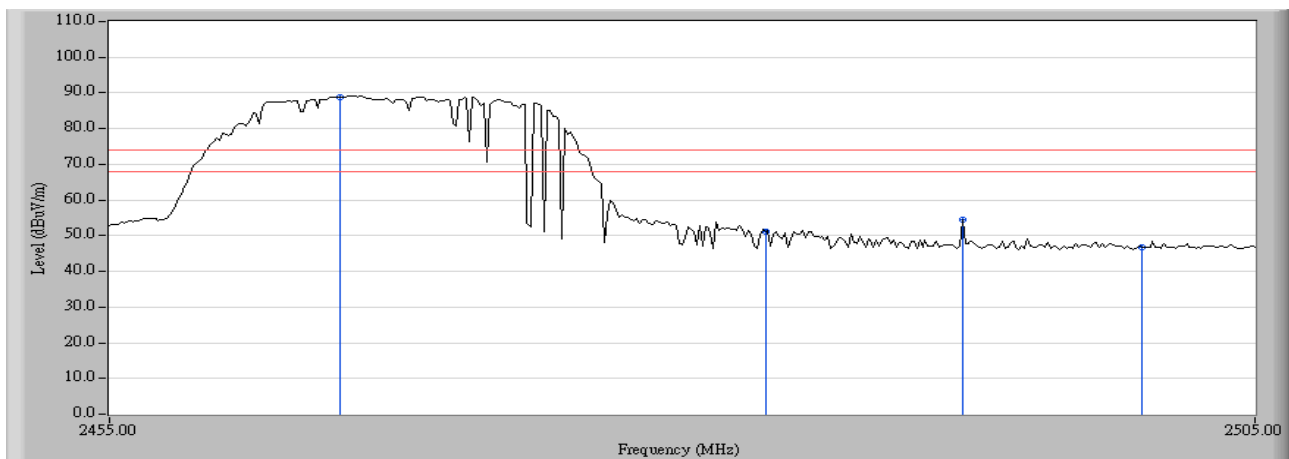
RF Radiated Measurement

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
31	>2483.5	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
31(Peak)	2492.120	9.808	44.712	54.520	74.00	54.00	Pass
31(Avg)	2492.120	9.808	27.757	37.565	74.00	54.00	Pass

Figure Channel 78: Vertical (Peak)

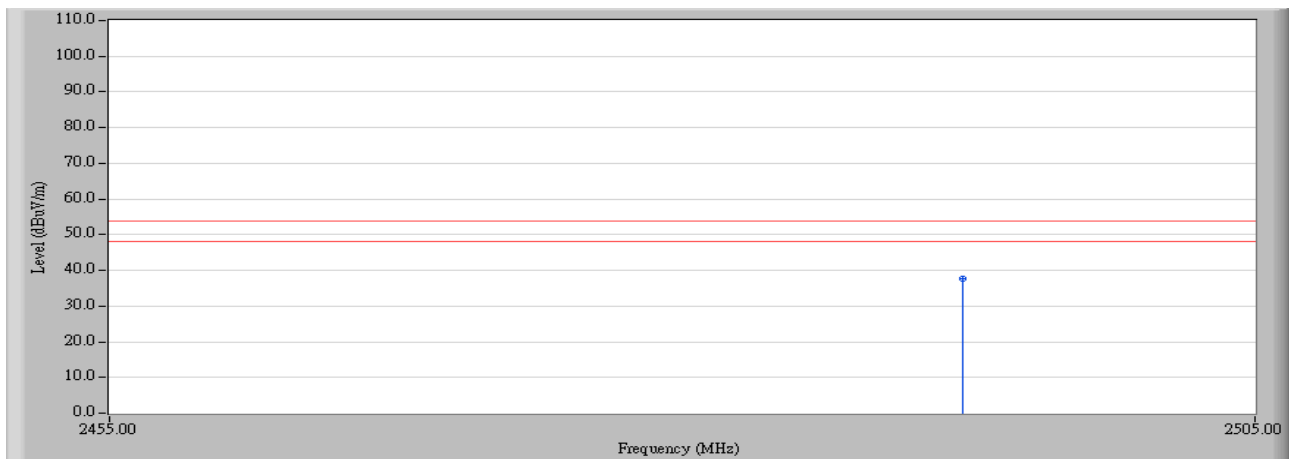


Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms

Figure Channel 78:

Vertical (Average)



Note:

RBW=1MHz, VBW=300Hz, Sweep Time=500ms

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

5. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1 : EUT Test Photographs

Attachment 2 : EUT Detailed Photographs