FCC CLASS B COMPLIANCE REPORT

for

Electromagnetic Emissions

of

CS-II-5M-3.0

Trade Name	**:** N/A
Model Number	**:** SCND503H1231
Serial Number	**:** N/A
Report Number	**:** ST1103009F
FCC ID	**:**WFZSCND503H1231
Date	**:** March 23, 2011

Prepared for **:**

EU3C Company Limited

Unit 7, 8/F., Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong

Prepared by **:**

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d.b.a.

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VERIFICATION OF COMPLIANCE

Equipment Under Test:	CS-II-5M-3.0
Trade Name:	N/A
Model Number:	SCND503H1231
Serial Number:	N/A
Applicant:	EU3C Company Limited Unit 7, 8/F., Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer:	EU3C Company Limited Unit 7, 8/F., Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong
Type of Test:	FCC Class B
Measurement Procedure:	ANSI C63.4: 2001
File Number:	ST1103009F
FCC ID:	WFZSCND503H1231
Date of test:	March 15-23, 2011
Deviation:	None
Condition of Test Sample:	Normal

The above equipment was tested by SinTek Laboratory Co.,Ltd. for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, Subpart B and the measurement procedure according to ANSI C63.4. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Approved by Authorized Signatory: 

SYSTEM DESCRIPTION

EUT Test Program:

1. Set up EUT with the auxiliary equipment.
2. Let the EUT work in test mode and measure it.

PRODUCT INFORMATION

Housing Type:	Plastic
EUT Power Rating:	DC 5V
Power during Test:	DC 5V by Adapter
USB Cable:	Non-shielded Detachable Ferrite cor 1.2m
TV	Non-shielded Detachable Ferrite cor 3m
Power supply:	Input:100-240V Output:5.0V1.0A

I/O Port of EUT:

I/O Port Type	Q'TY	Tested with
USB	1	1
TV	1	1
DC IN	1	1

Difference between model numbers as below:

	Model Number	Trade Name
	N/A	N/A

SUPPORT EQUIPMENT

No.	Equipment	Model #	Serial #	Trade Name	Data Cable	Power Cord
1.	TV	ALJ-777	N/A	Anlijia	Non-shielded1.0m	Non-shielded 1.5m

****Note:** All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.

Grounding: Grounding was in accordance with the manufacturer's requirements and conditions for the intended use.

SECTION 1 FCC (LINE CONDUCTED AND RADIATED EMISSION)

MEASUREMENT PROCEDURE
(PRELIMINARY LINE CONDUCTED EMISSION TEST)

1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

2) Support equipment, if needed, was placed as per ANSI C63.4.

3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
4) The EUT received DC 5V by Adapter, and Adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane
5) All support equipments received 120V/60Hz power from a second LISN, if any.
6) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.

7) Analyzer / Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes.

8) During the above scans, the emissions were maximized by cable manipulation.

9) The following test mode(s) were scanned during the preliminary test:

Preliminary Conducted Emission Test			
Frequency Range Investigated		150KHz TO 30 MHz	
Mode of operation	Date	Data Report No.	Worst Mode
TV	03/16/2011	SCND503H1231 _0(L,N)	☒
SD	03/16/2011	SCND503H1231 _1(L,N)	☐
PLAY	03/16/2011	SCND503H1231 _2(L,N)	☐

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

MEASUREMENT PROCEDURE

(FINAL LINE CONDUCTED EMISSION TEST)

1) EUT and support equipment was set up on the test bench as per step 9 of the preliminary test.

2) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using an Average detector.

3) The test data of the worst case condition(s) was reported on the Summary Data page.

Data Sample:

Freq. MHz	Peak Raw dBuV	Q.P. Raw dBuV	Average Raw dBuV	Q.P. Limit dBuV	Average Limit dBuV	Q.P. Margin dB	Average Margin dB	Note
xxx.xxx	43.90	---	---	56.00	46.00	---	-2.10	L 1

Freq.	= Emission frequency in MHz
Raw dBuV	= Uncorrected Analyzer/Receiver reading
Limit dBuV	= Limit stated in standard
Margin dB	= Reading in reference to limit
Note	= Current carrying line of reading
"---"	= The emission level complied with the Average limits, with at least 2 dB margin, so no further recheck.

LINE CONDUCTED EMISSION LIMIT

Frequency	Maximum RF Line Voltage	
	Q.P.	AVERAGE
150kHz-500kHz	66-56dBuV	56-46dBuV
500kHz-5MHz	56dBuV	46dBuV
5MHz-30MHz	60dBuV	50dBuV

****Note:** The lower limit shall apply at the transition frequency.

MEASUREMENT PROCEDURE
(PRELIMINARY RADIATED EMISSION TEST)

1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

2) Support equipment, if needed, was placed as per ANSI C63.4.

3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

4) The EUT received DC 5V by Adapter , and Adapter received AC 120V/60Hz power from the outlet socket under the turntable. All support equipment received AC 120V/60Hz power from socket under the turntable, if any.

5) The antenna was placed at 3 meters away from the EUT as stated in ANSI C63.4. The antenna connected to the Analyzer via a cable and at times a pre-amplifier would be used.

6) The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

7) The following test mode(s) were scanned during the preliminary test:

Preliminary Radiated Emission Test			
Frequency Range Investigated		30 MHz TO 1000 MHz	
Mode of operation	Date	Data Report No.	Worst Mode
TV	03/16/2011	SCND503H1231 _0(L,N)	☒
SD	03/16/2011	SCND503H1231 _1(L,N)	☐
PLAY	03/16/2011	SCND503H1231 _2(L,N)	☐

Then, the EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for final testing.

MEASUREMENT PROCEDURE
(FINAL RADIATED EMISSION TEST)

1) EUT and support equipment were set up on the turntable as per step 7 of the preliminary test.

2) The Analyzer / Receiver scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

3) Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and Q.P/Peak. reading is presented.

4) The test data of the worst case condition(s) was reported on the Summary Data page.

Data Sample:

Freq. (MHz)	Raw Data (dBuV/m)	Corr. Factor (dB)	Emiss. Level (dBuV/m)	Limits	Margin (dB)	Reading Type P/Q
xxx.xx	14.02	12.25	26.27	40.00	-3.73	P

Freq.	= Emission frequency in MHz
Raw Data (dBuV/m)	= Uncorrected Analyzer / Receiver reading
Corr. Factor (dB)	= Correction factors of antenna factor and cable loss
Emiss. Level	= Raw reading converted to dBuV/m and CF added
Limit dBuV/m	= Limit stated in standard
Margin dB	= Reading in reference to limit
P	=Peak Reading
Q	=Quasi-peak

RADIATED EMISSION LIMIT

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m/ Q.P.)
30-88	3	40.00
88-216	3	43.50
216-960	3	46.00
960-1000	3	54.00

****Note:** The lower limit shall apply at the transition frequency.

SUMMARY DATA
(LINE CONDUCTED TEST)

Model Number: SCND503H1231 **Location:**843

Tested by: Ray

Test Mode: TV

Test Results: Passed

Temperature: 21°C **Humidity:** 60%RH

(The chart below shows the highest readings taken from the final data)

FREQ KHz	PEAK RAW dBuV	Q.P. RAW dBuV	AVG RAW dBuV	Q.P. Limit dBuV	AVG Limit dBuV	Q.P. Margin dB	AVG Margin dB	NOTE
161.100	60.28	---	38.04	65.68	55.68	-5.41	-17.65	L1
285.050	51.74	---	42.67	62.14	52.14	-10.40	-9.47	L1
416.400	42.91	---	33.85	58.39	48.39	-15.48	-14.54	L1
1141.600	40.21	---	31.00	56.00	46.00	-15.79	-15.00	L1
5259.815	41.04	---	29.87	60.00	50.00	-18.96	-20.13	L1
18525.566	56.32	---	44.13	60.00	50.00	-3.68	-5.87	L1
157.400	65.88	55.34	38.78	65.79	55.79	-10.44	-17.00	L2
190.700	61.49	---	35.38	64.84	54.84	-3.35	-19.46	L2
286.900	54.50	---	38.66	62.09	52.09	-7.59	-13.43	L2
708.700	42.24	---	30.07	56.00	46.00	-13.76	-15.93	L2
2983.246	39.24	---	27.89	56.00	46.00	-16.76	-18.11	L2
18951.619	54.36	---	41.04	60.00	50.00	-5.64	-8.96	L2

L1 = Line One (Hot side) / L2 = Line Two (Neutral side)

****NOTE:** "---" denotes the emission level was or more than 2dB below the Average limit, so no re-check anymore.

SUMMARY DATA
(RADIATED EMISSION TEST)

Model Number: SCND503H1231 **Location:** A-site

Tested by: Ray **Polar:** Vertical--3m

Test Mode:TV **Test Results:** Passed

Detector Function: Peak/QP

Temperature: 20°C **Humidity:** 60%RH

(The chart below shows the highest readings taken from the final data)

Freq. (MHz)	Raw Data (dBuV/m)	Corr. Factor (dB)	Emiss. Level (dBuV/m)	Limits	Margin (dB)	Reading Type (P/Q)
30.000	14.42	18.73	33.15	40.00	-6.85	P
79.470	24.39	12.71	37.10	40.00	-2.90	P
111.480	21.74	15.55	37.29	43.50	-6.21	P
147.370	19.87	16.23	36.10	43.50	-7.40	P
204.600	17.00	15.87	32.87	46.50	-10.63	P
237.580	16.26	16.36	32.62	46.00	-13.38	P

SUMMARY DATA
(RADIATED EMISSION TEST)

Model Number: SCND503H1231 **Location:** A-Site

Tested by: Ray **Polar:** Horizontal--3m

Test Mode: Normal **Test Results:** Passed

Detector Function: Peak/QP

Temperature: 20°C **Humidity:** 60%RH

(The chart below shows the highest readings taken from the final data)

Freq. (MHz)	Raw Data (dBuV/m)	Corr. Factor (dB)	Emiss. Level (dBuV/m)	Limits	Margin (dB)	Reading Type (P/Q)
111.480	14.77	11.60	26.37	43.50	-17.13	P
144.460	21.00	11.83	32.83	43.50	-10.67	P
196.840	18.17	11.02	29.19	43.50	-14.31	P
237.580	30.18	13.42	43.60	46.00	-2.40	P
361.740	20.62	18.30	38.92	46.00	-7.08	P
598.420	14.14	23.24	37.38	46.00	-8.62	P

TEST FACILITY

Location: No. 7, Xingshidai Industrial city,Guantian village,Shiyan Town. Bao'an,shengzhen,Guangdong,China.

Description: There is one 3/10m open area test sites and one line conducted labs for final test.
The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4 and CISPR 22/EN 55022 requirements.

Site Filing: A site description is on file with the Federal Communications Commission, 7435 Oakland Mills Road, Columbia, MD 21046.
Accredited by FCC. November 02.2004

Site Accreditation: The certificate registration number is 963441
Accredited by TUV. November 11.2004

Instrument Tolerance: All measuring equipment is in accord with ANSI C63.4 and CISPR 22 requirements that meet industry regulatory agency and accreditation agency requirement.

Ground Plane: Two conductive reference ground planes were used during the Line Conducted Emission, one in vertical and the other in horizontal. The dimensions of these ground planes are as below. The vertical ground plane was placed distancing 40 cm to the rear of the wooden test table on where the EUT and the support equipment were placed during test. The horizontal ground plane projected 50 cm beyond the footprint of the EUT system and distanced 80 cm to the wooden test table. For Radiated Emission Test, one horizontal conductive ground plane extended at least 1m beyond the periphery of the EUT and the largest measuring antenna, and covered the entire area between the EUT and the antenna. It has no holes or gaps having longitudinal dimensions larger than one-tenth of a wavelength at the highest frequency of measurement up to 1GHz.

TEST EQUIPMENT LIST

Instrumentation: The following list contains equipment used at SinTek Laboratory Co., Ltd (China) for testing. The equipment conforms to the CISPR 16-1 / ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10kHz to 1.0GHz or above.
Equipment used during the tests:

Open Area Test Site: A

Open Area Test Site A					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL. DUE**
EMI TEST RECEIVER	SCHAFFNER	SCR3501	464	06/12/2010	06/12/2011
AMPLIFIER	Com-Power	PA-103	161062	06/12/2010	06/12/2011
ANTENNA	SCHAFFNER	CBL6111C	2775	06/12/2010	06/12/2011
CABLE	TIME MICROWAVE	LMR-400	N-TYPE04	06/12/2010	06/12/2011

Conducted Emission Test Site: 843

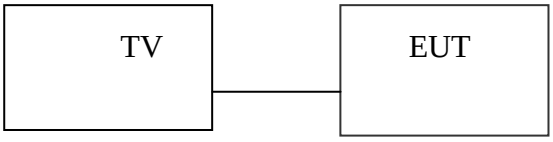
Conducted Emission Test Site 843					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL. DUE**
EMI TEST RECEIVER	SCHAFFNER	SCR3501	464	06/12/2010	06/12/2011
Spectrum Analyzer	ADVANTEST	R3132	140301570	06/12/2010	06/12/2011
LISN	Com-Power	LI115	2027	06/12/2010	06/12/2011

The calibrations of the measuring instruments, including any accessories that may effect such calibration, are checked frequently to assure their accuracy. Adjustments are made and correction factors applied in accordance with instructions contained in the manual for the measuring instrument.

BLOCK DIAGRAM OF TEST SETUP

System Diagram of Connections between EUT and Simulators

EUT: CS-II-5M-3.0
Trade Name: N/A
Model Number: SCND503H1231



(**EUT:** CS-II-5M-3.0)

APPENDIX 1

PHOTOGRAPHSOFTEST SETUP
(TEST SETUP OF LINE CONDUCTED EMISSION)

LINE CONDUCTED EMISSION TEST

APPENDIX 2

PHOTOGRAPHS OF TEST SETUP

(TEST SETUP OF RADIATED EMISSION)

RADIATED EMISSION TEST

APPENDIX 3

PHOTOGRAPHS OF EUT

View of EUT

View of EUT