TEST REPORT

No.: HM100847

APPLICANT: (WIL002)

WING LEE TECHNOLOGY CO., LTD.
UNIT B, 6/F., SURSON COMMERCIAL BLDG.,
140-142, AUSTIN ROAD, TST., KOWLOON, HONG KONG

DATE OF SAMPLES RECEIVED: 1999-05-15

DATE OF TESTING: 1999-05-24 to 1999-06-14

DESCRIPTION OF SAMPLE(S):

A sample of product said to be:

Product:	MULTI-BAND RADIO RECEIVER
Manufacturer:	STEREO ELECTRONICS CORPORATION
Band Combination:	AM/FM/TV1/TV2/WEATHER
Model Number:	A350
Brand Name:	GPX
Rating:	120Va.c., 7W, 60Hz
	6Vd.c. ("AA" size battery × 4) for battery compartment
Origin :	China

Additional Model Number/Brand Name :
E265/CENTURION, M-200/SONNET. M-210/SONNET, A355/CENTURION, A355/GPX

INVESTIGATIONS REQUESTED:

Measurement to the relevant clauses of F.C.C. Rules and Regulations Part 15 Subpart B - Unintentional Radiators.

RESULT/ REMARK: Please see attached sheet(s).

CONCLUSION:

From the measurement data obtained, the tested sample was considered to have COMPLIED with the requirement after modification for the relevant clauses of Federal Communication Commission Rules for Radio Receivers.

TEST EQUIPMENT AUDIT: Please see Appendix A

MODIFICATION : Added inductor (5μH) between antenna and PCB.
(Inductor manufacturer : Nikko Electronics Co., part No. : W205R, material no. : NK8)

Law Man Kit	Kitty Choy	Patrick Wong
Testing Engineer	Verify by	Patrick Wong for Managing Director

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T E S T S U M M A R Y

(A) Measurement of Radiated Emissions
(On FM, TV1, TV2 & WEATHER BAND)

Result -- Satisfactory
Data -- See the attached data

(B) Measurement of Line-Conducted Voltage
(On FM, TV1, TV2 & WEATHER BAND)

Result -- Satisfactory
Data -- (The spectrum was checked from 450KHz to 30MHz. All emissions were too low to be measurable and they were all more than 20dB below the permitted limit.)

FM BAND RADIO RECEIVER

(A) Measurement of Radiated Interference

TEST REFERENCE: FCC Rules Part 15 Subpart B section 15.109
TEST CONDITION : FM Broadcast Receiver
TEST DATE : 1999-06-14

Freq. to which tuned MHz	Freq. of the emission MHz	Polarity	Meter Reading (including Antenna Factor) at 3m dB(μV/m)	Field Strength (at 3m) μV/m	FCC Limit @ μV/m
88.3	99.0	Vertical	35.6	60.3	150
98.3	109.0	Vertical	37.4	74.1	150
108.3	119.0	Vertical	37.0	70.8	150

=========SUMMARY=========
All Data is within limit
==========
Broad-band Antennas were used
==========

Remark: IF = 10.70 MHz

TV 1 BAND RADIO RECEIVER

(A) Measurement of Radiated Interference

TEST REFERENCE: FCC Rules Part 15 Subpart B section 15.109
TEST CONDITION : TV 1 BAND RECEIVER
TEST DATE : 1999-06-14

Freq. to which tuned MHz	Freq. of the emission MHz	Polarity	Meter Reading (including Antenna Factor) at 3m dB(μV/m)	Field Strength (at 3m) μV/m	FCC Limit @ μV/m
59.75	70.45	Horizontal	35.4	58.9	100
65.75	76.45	Horizontal	30.6	33.9	100
71.75	82.45	Horizontal	29.7	30.5	100
81.75	92.45	Horizontal	31.9	39.4	150
87.75	98.45	Horizontal	30.3	32.7	150

=========SUMMARY=========
All data is within limit
==========
Broad-band Antennas were used
==========

Remark: IF = 10.70 MHz

TV 2 BAND RADIO RECEIVER

(A) Measurement of Radiated Interference

TEST REFERENCE: FCC Rules Part 15 Subpart B section 15.109
TEST CONDITION : TV 2 BAND RECEIVER
TEST DATE : 1999-06-14

Freq. to which tuned MHz	Freq. of the emission MHz	Polarity	Meter Reading (including Antenna Factor) at 3m dB(μV/m)	Field Strength (at 3m) μV/m	FCC Limit @ μV/m
179.75	190.45	Horizontal	39.3	92.3	150
185.75	196.45	Horizontal	34.7	54.3	150
191.75	202.45	Horizontal	38.5	84.1	150
197.75	208.45	Horizontal	39.0	89.1	150
203.75	214.45	Horizontal	39.4	93.3	150
209.75	220.45	Horizontal	38.9	88.1	200
215.75	226.45	Horizontal	33.9	49.5	200

=========SUMMARY=========
All data is within limit
==========
Broad-band Antennas were used
==========

Remark: IF = 10.70 MHz

*** WEATHER BAND RADIO RECEIVER***

(A) Measurement of Radiated Interference

TEST REFERENCE: FCC Rules Part 15 Subpart B section 15.109
TEST CONDITION : WEATHER BAND RECEIVER
TEST DATE : 1999-06-14

Freq. to which tuned MHz	Freq. of the emission MHz	Polarity	Meter Reading (including Antenna Factor) at 3m dB(μV/m)	Field Strength (at 3m) μV/m	FCC Limit @ μV/m
162.6	173.3	Horizontal	37.9	78.5	150

=========SUMMARY=========
All data is within limit
==========
Broad-band Antennas were used
==========

Remark: IF = 10.70 MHz

NOTES FOR THE RADIATION MEASUREMENT

(1) Test site facility:
Open field test site located at Taipo (Hong Kong) with a metal ground plane on filed with the FCC pursuant to section 15.109 of the FCC rules.

(2) Distance between the EUT and measuring antenna:
3 meters.

(3) Measuring instrumentations:
CISPR Quasi-peak type field strength meter (25MHz - 1000MHz) 6 dB bandwidth set at 120KHz.

(4) Measuring antenna:
Broad band antenna for the frequency range 25 - 1000 MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable included in the Antenna Factor for measurement data. The antenna are capable of measuring both horizontal and vertical polarization.

(5) Frequency range scanned:
The frequency range from 25 MHz to 1000 MHz had been searched. Readings of the highest emissions relating to the limit were reported as above.

(6) Arrangement of EUT:
During the test, the sample was operated at rated supply voltage and arranged for maximum emissions.

(7) Measuring Procedure:
In accordance with the relevant sections of ANSI C63.4:1992.

(8) Measuring Uncertainty:
The calculated uncertainty for measurement performed at 3M test distance are:-
30MHz to 300MHz = ± 3.7dB, 300MHz to 1000MHz + 3.0dB/-2.7dB.

Remark: Purpose of this test is to provide the Applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under FCC Equipment Authorization Program. This test itself is not an Approval Test.

NOTES FOR THE CONDUCTED POWER-LINE MEASUREMENT

(1) LISN (Line Impedance Stabilization Network) used :
50μH LISN in accordance with Section of ANSI C63.4:1992.

(2) Measurement Instrumentations:
CISPR quasi-peak type radio noise meter (9 KHz - 30 MHz), 6 dB bandwidth set at 9 KHz for measurement between 150 KHz & 30mhz.

(3) Frequency range scanned :
The frequency range form 450 KHz to 30 MHz had been searched. Reading of the highest emissions relating to the limit were reported as above.

(4) Configuration of EUT
Connection of equipment and operation conditions were same as those in the Radiation measurement.

(5) Measurement procedure :
In accordance with the relevant sections of ANSI C63.4:1992 "FCC Methods of measurement of Radio Noise Emissions from Computing Devices".

(6)Measuring Uncertainty:
The calculated uncertainty for conducted power-line measurement is = ±2.3dB.

Remark: Purpose of this test is to provide the Applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under FCC Equipment Authorization Program. This test itself is not an Approval Test.

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