

47 CFR PART 15 SUBPART B

TEST REPORT

of

Plextalk Pocket

Model Name: PTP1
Brand Name: Plector
Report No.: SZ080060125E03
FCC ID: WNU-PTP1

prepared for

Shinano Kenshi Co., Ltd.

6-15-26, Chuo, Ueda-shi Nagano-ken, 386-0012 JAPAN

prepared by
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1. TEST CERTIFICATION

Equipment under Test: Plectalk Pocket

Brand Name: Plector

Model Name: PTP1

FCC ID: WNU-PTP1

Applicant: Shinano Kenshi Co., Ltd.

6-15-26, Chuo, Ueda-shi Nagano-ken, 386-0012 JAPAN

Manufacturer: GROUP SENSE Mobile-Tech Ltd

6th Floor, Building 9, No.5 Science Park West Avenue, Hong Kong
Science Park, Shatin, New Territories, Hong Kong.

Test Standards: 47 CFR Part 15 Subpart B

EUT Received Date: August 15, 2008

Test Date(s): August 16, 2008 - August 20, 2008

Test Result: PASS

* We Hereby Certify That:

The equipment under test was tested by Shenzhen Electronic Product Quality Testing Center Morlab Laboratory. The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the requirement of related FCC rules.

The test results of this report only apply for the tested sample equipment identified above. The test report shall be invalid without all the signatures of the test engineer, the reviewer and the approver.

Tested by:

Luo Biao

Luo Biao

Dated:

2008.09.05

Reviewed by:

Wei Yanquan

Wei Yanquan

Dated:

2008.09.05

Approved by:

Shu Luan

Shu Luan

Dated:

2008.09.05



2. GENERAL INFORMATION

2.1 EUT Description

EUT Type: Plectalk Pocket
Serial No.: (n.a, marked #1 by test site)
IMEI: (n.a)
Hardware Version.....: QA 2.1
Software Version: QA 2.1
Modulation Type: DSSS
Power Supply: Battery
 Brand Name: PLEXTOR
 Model No.: PTP1
 Serial No.: (n.a. marked #1 by test site)
 Capacitance: 1500mAh
 Rated Voltage: 3.7V
 Charge Limit: 4.2V
 Manufacturer: HUANYU Power Source Co. Ltd.
 Manufacturer Address: Huanyu Avenue, Xinxiang, He Nan, China
Ancillary Equipment 1 : AC Adapter (Charger for Battery)
 Brand Name: TEN PAO
 Model Name: S012BU0500180
 Serial No.: (n.a. marked #1 by test site)
 Rated Input: ~ 100-240V, 0.45A, 50/60Hz
 Rated Output: = 5V, 1800mA
 Manufacturer: TEN PAO International Ltd.
 Manufacturer Address: Room 10-11, 6/F., Kwong Sang Hong Centre,
 151-153 Hoi Bun Road, Kwun Tong, Kowloon, H.K.
 Wire Length: 180cm

Note 1: The EUT is DAISY Book Playback and Voice Recording Machine include and Wi-Fi Module, with 802.11b/g interface

Note 2: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

2.2 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart B:

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-05 Edition)	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result	Test date
1	15.107	Conducted Emission	PASS	2008-08-19
2	15.109	Radiated Emission	PASS	2008-08-16

NOTE:

The tests were performed according to the method of measurements prescribed in ANSI C63.4 2003.

2.3 Facilities and Accreditations

2.3.1 Facilities

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

All measurement facilities used to collect the measurement data are located at Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen 518055 CHINA. The test site is constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22; the FCC registration number is 741109.

2.3.2 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	20 - 25
Relative Humidity (%):	40 - 60
Atmospheric Pressure (kPa):	96

2.3.3 Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Uncertainty of Conducted Emission:	$\pm 1.8\text{dB}$
Uncertainty of Radiated Emission:	$\pm 3.1\text{dB}$

3. TEST CONDITIONS SETTING

3.1 Test Mode

During the measurement, the test modes of the EUT are showed as below:

- (1) The first test mode (SD)

The EUT configuration of the emission tests is EUT + Battery + Charger + SD Card.

During the test, the SD Card was inserted into the EUT. And the date was transmitted between EUT and SD Card

- (2) The second test mode (USB)

The EUT configuration of the emission tests is EUT + Battery + Charger + USB.

During the test, the USB was connected with EUT via USB cable. And the date was transmitted between EUT and USB.

- (3) The second test mode (WI-FI)

The EUT configuration of the emission tests is EUT + SD Card + Battery + Charger + Wireless Router.

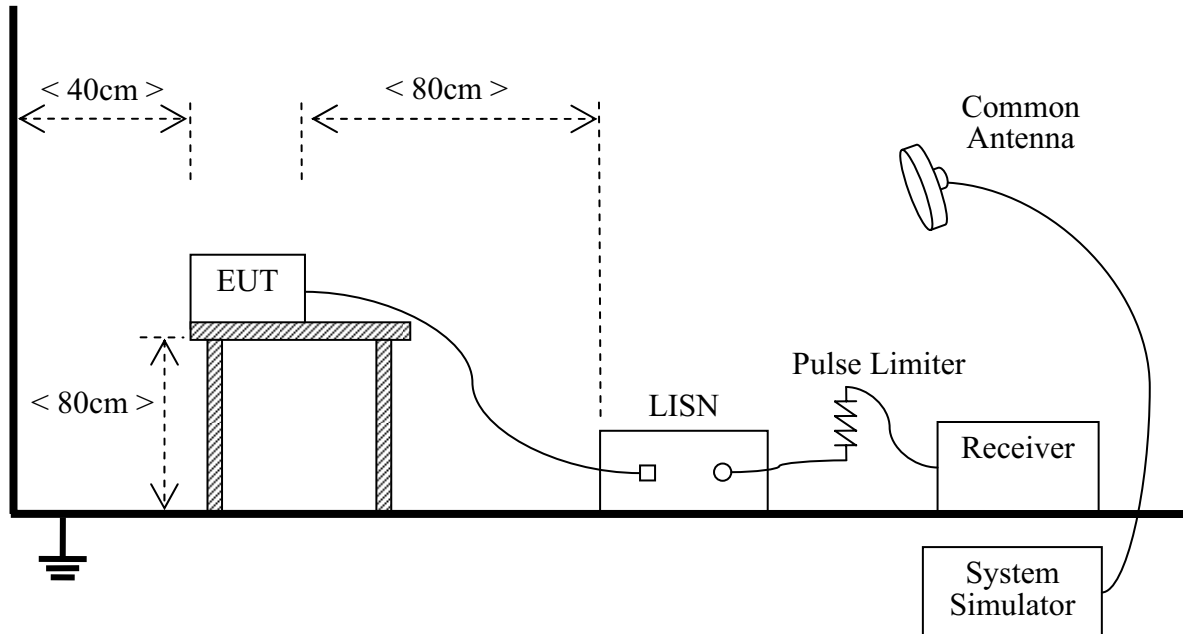
During the test, a communication link was established between the EUT and the Wireless Router until test end.

NOTE: All test modes are performed, only the worst cases are recorded in this report.

3.2 Test Setup and Equipments List

3.2.1 Conducted Emission

A. Test Setup:



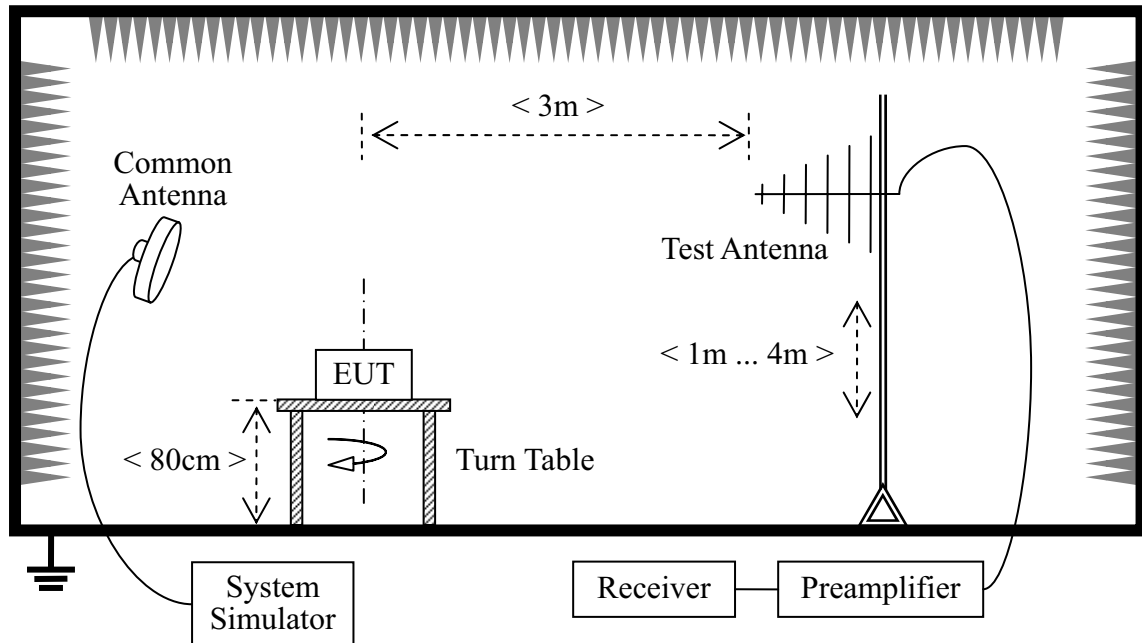
The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides $50\Omega/50\mu\text{H}$ of coupling impedance for the measuring instrument. The Common Antenna is used for the call between the EUT and the System Simulator (SS). A Pulse Limiter is used to protect the measuring instrument. The factors of the whole test system are calibrated to correct the reading.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2008.07	1year
LISN	Schwarzbeck	NSLK 8127	812744	2008.08	1year
Pulse Limiter (20dB)	Schwarzbeck	VTSD 9561-D	9391	(n.a.)	(n.a.)
System Simulator	Agilent	E5515C	GB43130131	2008.06	1year

3.2.2 Radiated Emission

C. Test Setup:



The test is performed in a 3m Semi-Anechoic Chamber; the antenna factor, cable loss and so on of the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower. The Common Antenna is used for the call between the EUT and the System Simulator (SS).

D. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2008.07	1year
Semi-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2008.08	2year
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2008.07	1year
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2008.07	1year
System Simulator	Agilent	E5515C	GB43130131	2008.06	1year

4. 47 CFR PART 15B REQUIREMENTS

4.1 Conducted Emission

4.1.1 Requirement

According to FCC section 15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- The limit subjects to the Class B digital device.
- The lower limit shall apply at the band edges.
- The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

4.1.2 Test Description

See section 3.2.1 of this report.

4.1.3 Test Result

The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. All test modes are considered, refer to recorded points and plots below.

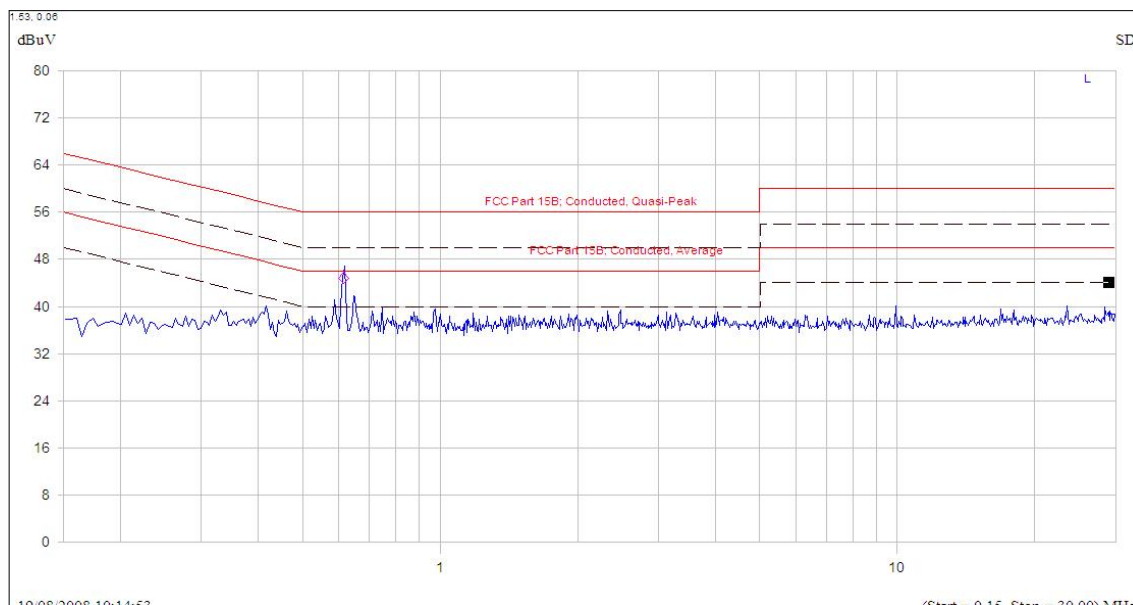
A. Test Verdict Recorded for Suspicious Points:

No.	@Frequency (MHz)	Measured Emission Level (dB μ V)				Limit (dB μ V)		Verdict
		PK	QP	AV	Phase	QP	AV	
1	0.15 - 0.50	--	--	--	L	66 to 56	56 to 46	PASS
2	0.614	44.8	42.7	29.6	L	56	46	PASS
3	5 - 30	--	--	--	L	60	50	PASS
4	0.15 - 0.50	--	--	--	N	66 to 56	56 to 46	PASS
5	0.613	44.0	41.8	31.5	N	56	46	PASS

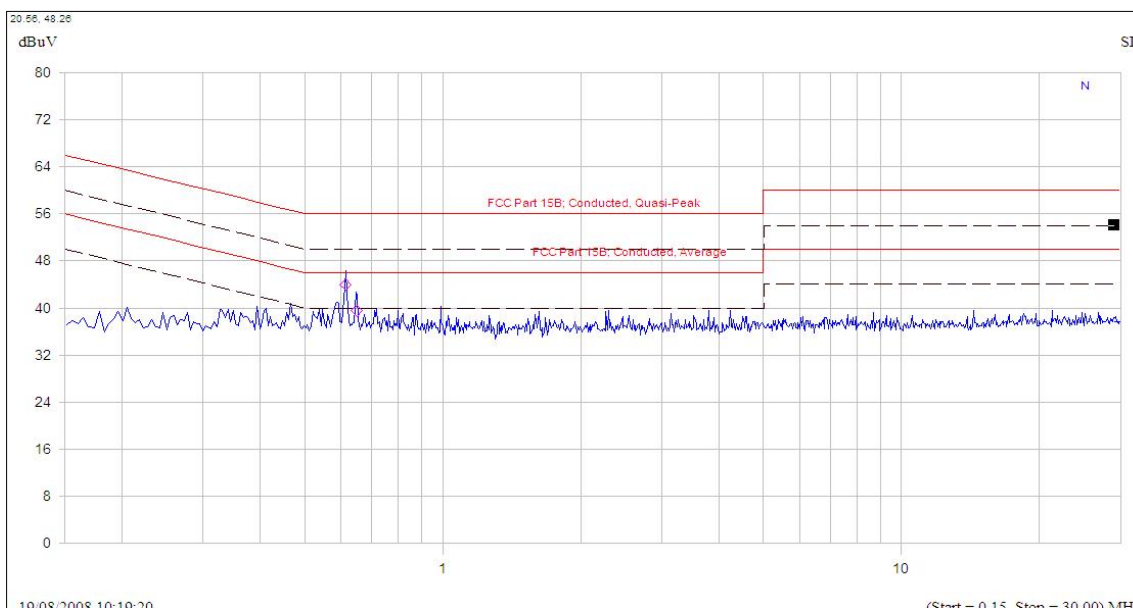
No.	@Frequency (MHz)	Measured Emission Level (dB μ V)				Limit (dB μ V)		Verdict
		PK	QP	AV	Phase	QP	AV	
6	5 - 30	--	--	--	N	60	50	PASS

Note: "--" in the table above means that the emissions are too small to be measured and are at least 10 dB below the limit.

B. Test Plot:



(Plot A: L Phase)



(Plot B: N Phase)

4.2 Radiated Emission

4.2.1 Requirement

According to FCC section 15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency range (MHz)	Field Strength	
	$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

NOTE:

- Field Strength ($\text{dB}\mu\text{V/m}$) = $20 \cdot \log[\text{Field Strength } (\mu\text{V/m})]$.
- In the emission tables above, the tighter limit applies at the band edges.

4.2.2 Test Description

See section 3.2.2 of this report.

4.2.3 Test Result

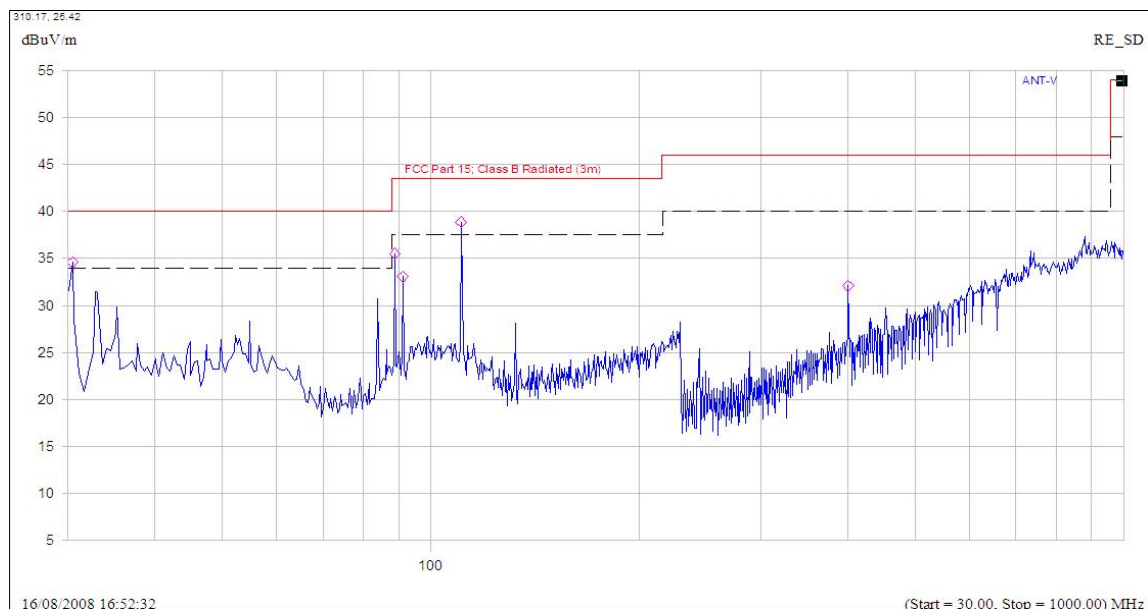
The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform the tests. All test modes are considered, refer to recorded points and plots below.

A. Test Verdict Recorded for Suspicious Points:

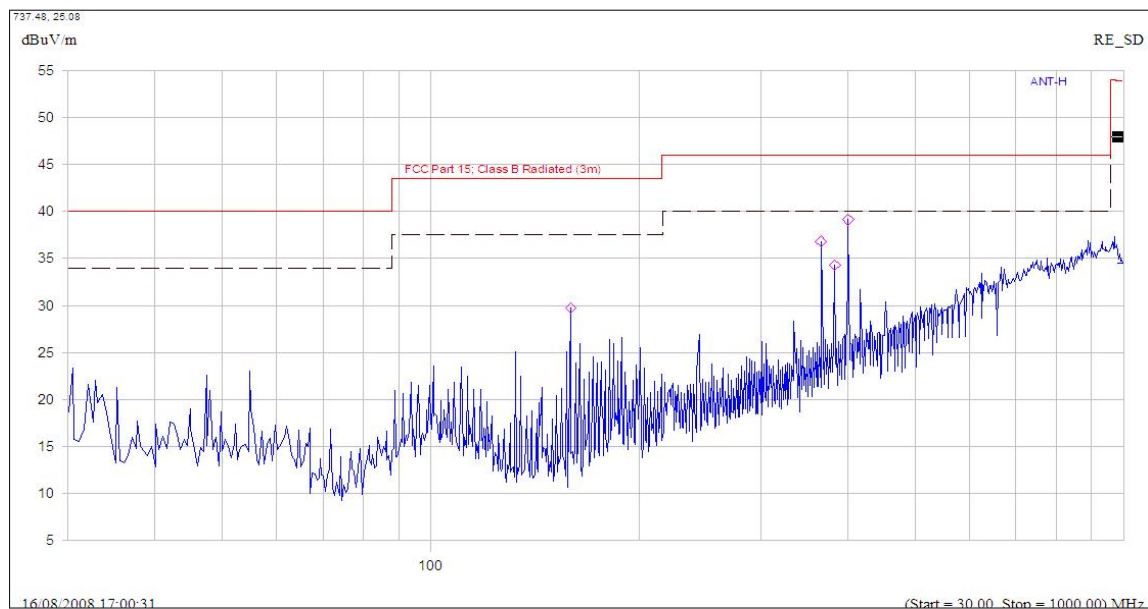
No.	@Frequency (MHz)	Emission Level ($\text{dB}\mu\text{V/m}$)			Quasi-Peak Limit ($\text{dB}\mu\text{V/m}$)	Result
		PK	QP	Antenna Polarization		
1	30.435	34.6	30.8	Vertical	40	PASS
2	88.875	35.5	31.5	Vertical	40	PASS
3	91.310	33.0	30.4	Vertical	40	PASS
4	110.790	38.9	36.2	Vertical	47	PASS
5	400.555	32.1	--	Vertical	47	PASS
6	159.490	29.7	--	Horizontal	40	PASS
7	366.465	36.8	--	Horizontal	47	PASS
8	383.510	34.3	--	Horizontal	47	PASS
9	400.555	39.1	--	Horizontal	47	PASS

Note: "--" in the table above means that the emissions are too small to be measured and are at least 10 dB below the limit.

B. Test Plot:



(Plot A: Test Antenna Vertical)



(Plot B: Test Antenna Horizontal)

**** END OF REPORT ****