47 CFR PART 15 SUBPART B

TEST REPORT

of

GPS TRACKER

Model Name:	GS200
Brand Name:	QUECTEL
Report No.:	SH10010035E01
FCC ID:	XMR-16182010001

prepared for

Quectel Wireless Solutions Co.,Ltd
Room 801, Building E, No.1618 Yishan Road, Shanghai,China,201103

prepared by

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LAB CODE 20081223-00

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1 TEST CERTIFICATION

Equipment under Test:	GPS TRACKER
Brand Name:	QUECTEL
Model Name:	GS200
FCC ID:	XMR-16182010001
Applicant:	Quectel Wireless Solutions Co.,Ltd Room 801, Building E, No 1618 Yishan Road, Shanghai,China,201103
Manufacturer:	Quectel Wireless Solutions Co.,Ltd Room 801, Building E, No 1618 Yishan Road, Shanghai,China,201103
Test Standards:	47 CFR Part 15 Subpart B
Test Date(s):	Jan 25 ,2009 –Jan 27 , 2009
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: Zhang Wenjie Dated: 2010.2.1
Zhang Wenjie

Reviewed by: Zhang Jun Dated: 2010.2.1
Zhang Jun

Approved by: Su Feng Dated: 2010.2.1
Su Feng

2 GENERAL INFORMATION

2.1 EUT Description

EUT Type ..... :	GPS TRACKER
Model Name ..... :	GS200
Serial No. ..... :	(n.a)
IMEI ..... :	000000000000000
Hardware Version ..... :	V1.02
Software Version ..... :	B03
Frequency Range ..... :	GSM 850MHz: Tx: 824.20 - 848.80MHz (at intervals of 200kHz); Rx: 869.20 - 893.80MHz (at intervals of 200kHz) GSM 1900MHz: Tx: 1850.20 - 1909.80MHz (at intervals of 200kHz); Rx: 1930.20 - 1989.80MHz (at intervals of 200kHz)
Modulation Type..... :	GMSK
Power Supply ..... :	Battery Brand name: Jiade Mode Name.: GS200 Capacitance: 1150mAh Rated voltage: 3.7V Charge limited: 4.2V Manufacturer: Jiade Energy Technology(ZHUHAI)Co.,Ltd. 2/F,Helping Industrial Center Building,#209 Shihua Road West, Jida Area Zhuhai, China
Ancillary Equipments..... :	AC Adapter (Charger for Battery) Brand name: SOMETHING Mode Name.: P-051B-050050 Rated Input: AC 100/240V,200mA,50/60Hz Rated Output: DC 5V,500mA,Max 2.5W Manufacturer: SOMETHING HIGH ELECTRIC（XIAMEN）Co.,Ltd. No.421, Xiahushe, Houkengshe Area, Huli Industrial Park, Xiamen, China

Note 1: The EUT is a model of GSM 850/1900、GPRS、Bluetooth mobile phone.

Note 2: The normal configuration for the EUT is the MS associated with ancillary equipments e.g.theBattery and/or the AC Adapter(Charger).

Note 3: 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
1	15.107	Conducted Emission	PASS
2	15.109	Radiated Emission	PASS

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 Laboratories (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

3 TEST CONDITIONS SETTING

3.1 Test Mode

1. The test modes of the EUT are showed as below:

a) The first test mode (GSM)

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

During the measurement, the lithium battery was installed into the EUT, and the charger was connected to the EUT.A communication link was established between the EUT and a System Simulator (SS).

b) The second test mode (GPRS)

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

In this test mode, a GPRS link was established between the EUT and a System Simulator (SS); date was transmitted between EUT and System Simulator (SS), and maintained during the measurement.

c) The third test mode (Bluetooth)

The EUT configuration of the emission test is EUT + Battery + Charger.

In this test mode , A communication link was established between the MS and Bluetooth headset (Model: GSH300, Manufacturer: GoerTek).

d) The four test mode (connected to PC)

The EUT configuration of the emission test is EUT + Battery + USB+PC

In this test mode ,a Data transmitted was established between the EUT and PC,

Data was transmitted between EUT and PC ,and maintained during the measurement.

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

NOTE: Simultaneous transmission ,Bluetooth and GSM can all in working.

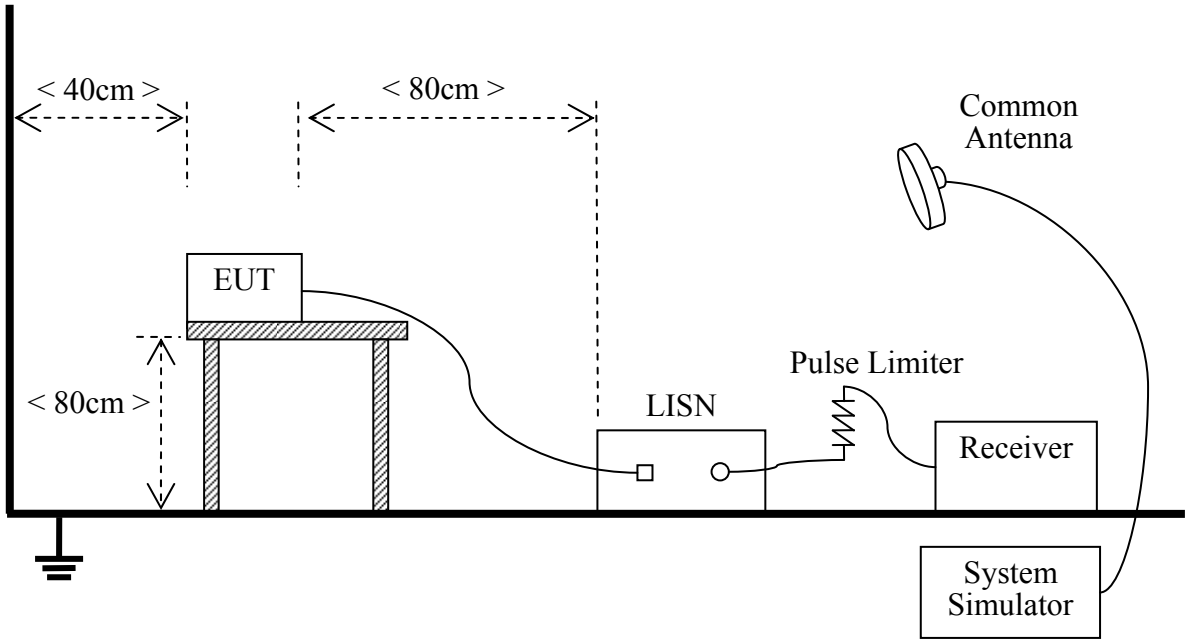
NOTE: In the Conducted Emission, the worst cases are operated at GSM 850

NOTE: In the Radiated Emission, the worst cases are operated at GSM 1900

3.2 Test Setup and Equipments List

3.2.1 Conducted Emission

A. Test Setup:



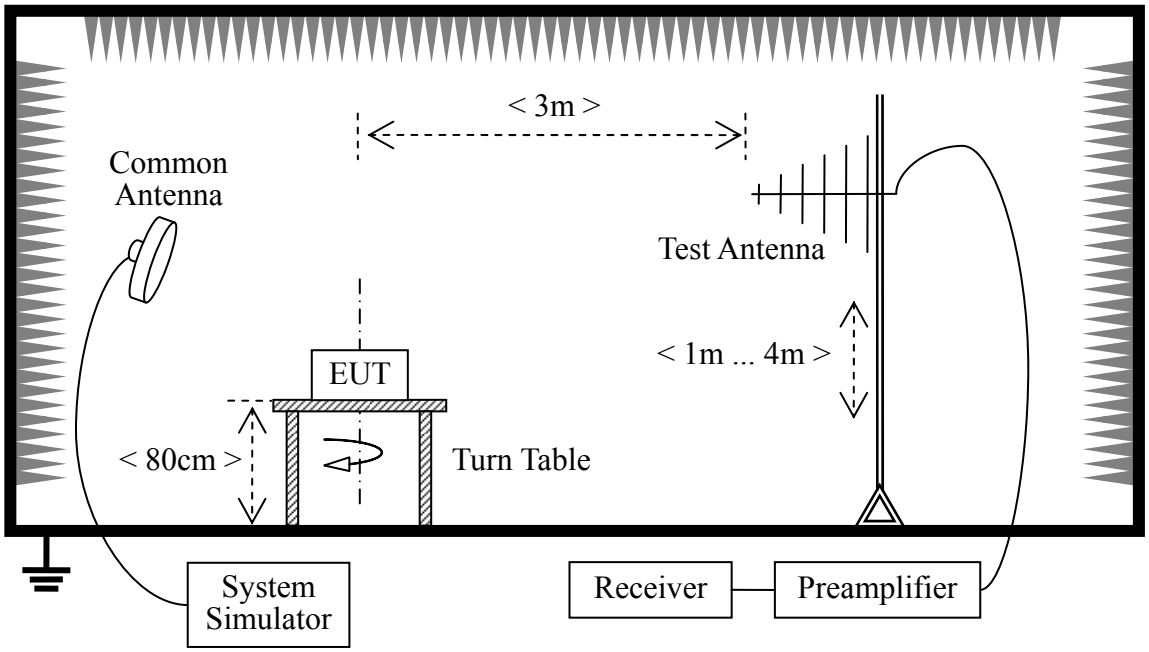
The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides 50Ω/50μH of coupling impedance for the measuring instrument. The Common Antenna 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	Rohde&Schwarz	ESCI3	100666	2009.10	1year
LISN	Rohde&Schwarz	ENV216	812744	2009.10	1year
System Simulator	Rohde&Schwarz	CMU200	105571	2009.10	1year
Personal Computer	Lenovo	(n.a.)	(n.a.)	(n.a.)	(n.a.)

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	Rohde&Schwarz	ESCI3	100666	2009.10	1year
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2009.10	1year
Test Antenna - Bi-Log	Rohde&Schwarz	HL562	100385	2009.10	1year
System Simulator	Rohde&Schwarz	CMU200	105571	2009.10	1year
Personal Computer	Lenovo	(n.a.)	(n.a.)	(n.a.)	(n.a.)

47 CFR PART 15B REQUIREMENTS

4 Conducted Emission

4.1 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 50μH/50Ω line impedance stabilization network (LISN).

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

NOTE:

a) The limit subjects to the Class B digital device.

b) The lower limit shall apply at the band edges.

c) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

4.2 Test Description

See section 3.2.1 of this report.

4.3 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.

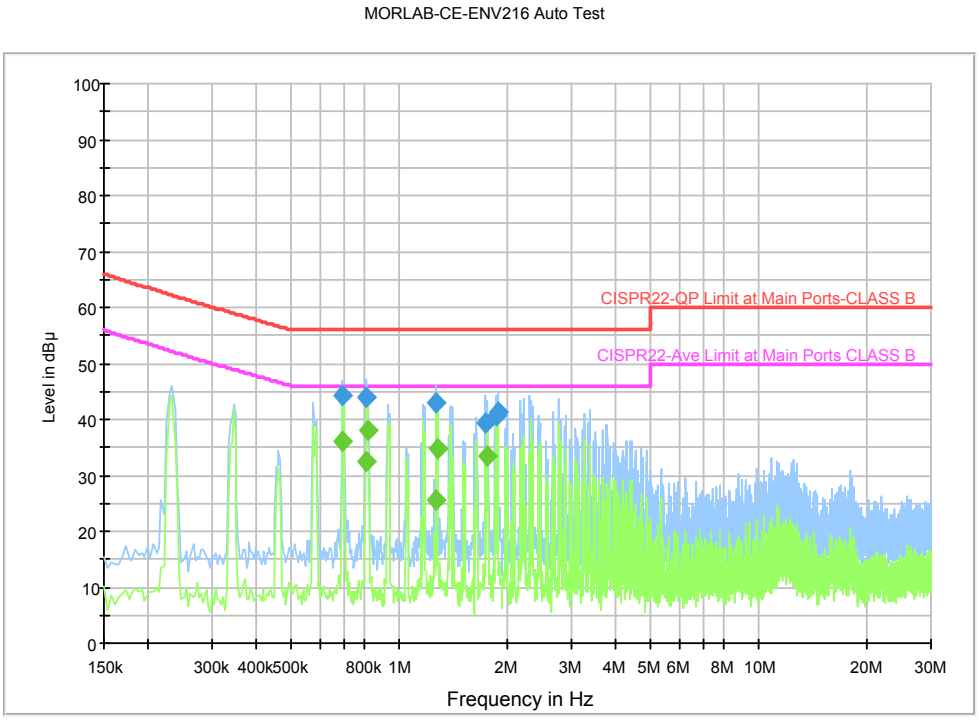
4.3.1.1 Test Mode

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

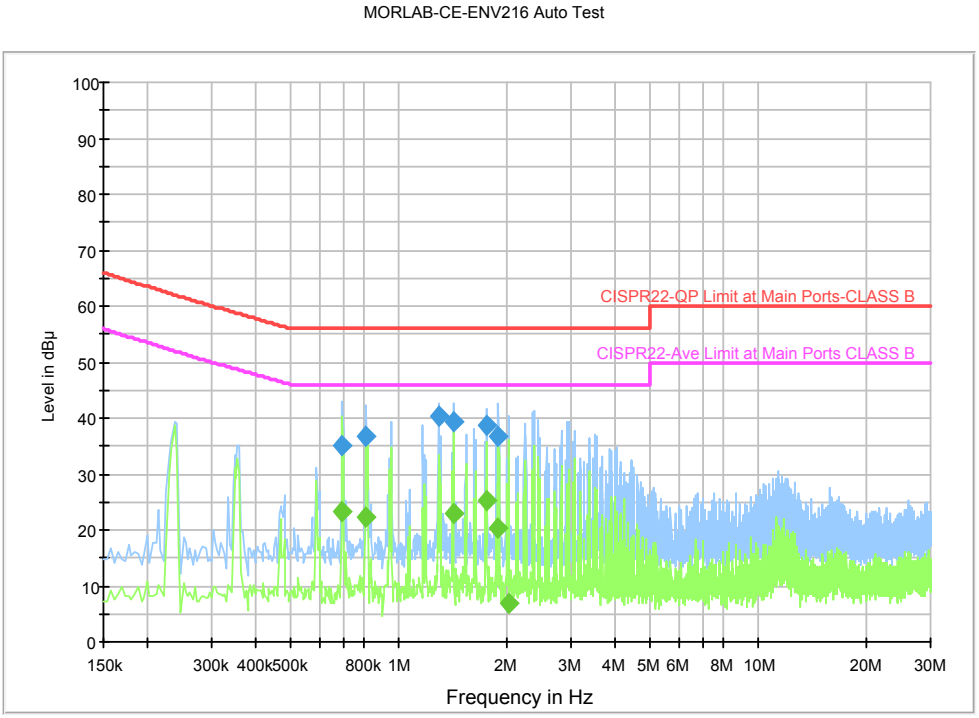
A. Test Verdict Recorded for Suspicious Points:

No.	@Frequency (MHz)	Measured Emission Level (dBµV)			Limit (dBµV)		Verdict
		QP	AV	Phase	QP	AV	
1	0.691031	44.4	36.0	L	56.0	46.0	PASS
2	0.806700	44.0	32.4	L	56.0	46.0	PASS
3	1.258181	42.9	37.9	L	56.0	46.0	PASS
4	1.724588	39.2	25.5	L	56.0	46.0	PASS
5	1.843988	40.6	34.6	L	56.0	46.0	PASS
6	1.870106	41.5	33.3	L	56.0	46.0	PASS
7	0.691031	34.9	23.2	N	56.0	46.0	PASS
8	0.806700	36.8	22.5	N	56.0	46.0	PASS
9	1.280569	40.4	23.1	N	56.0	46.0	PASS
10	1.411162	39.3	25.2	N	56.0	46.0	PASS
11	1.746975	38.6	20.4	N	56.0	46.0	PASS
12	1.885031	36.6	6.9	N	56.0	46.0	PASS

B. Test Plot:



(Plot: L Phase)



(Plot: N Phase)

5 Radiated Emission

5.1 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	
	µV/m	dBµV/m
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

NOTE:

a) Field Strength (dBµV/m) = 20*log[Field Strength (µV/m)].

b) In the emission tables above, the tighter limit applies at the band edges.

5.2 Test Description

See section 3.2.2 of this report.

5.3 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.

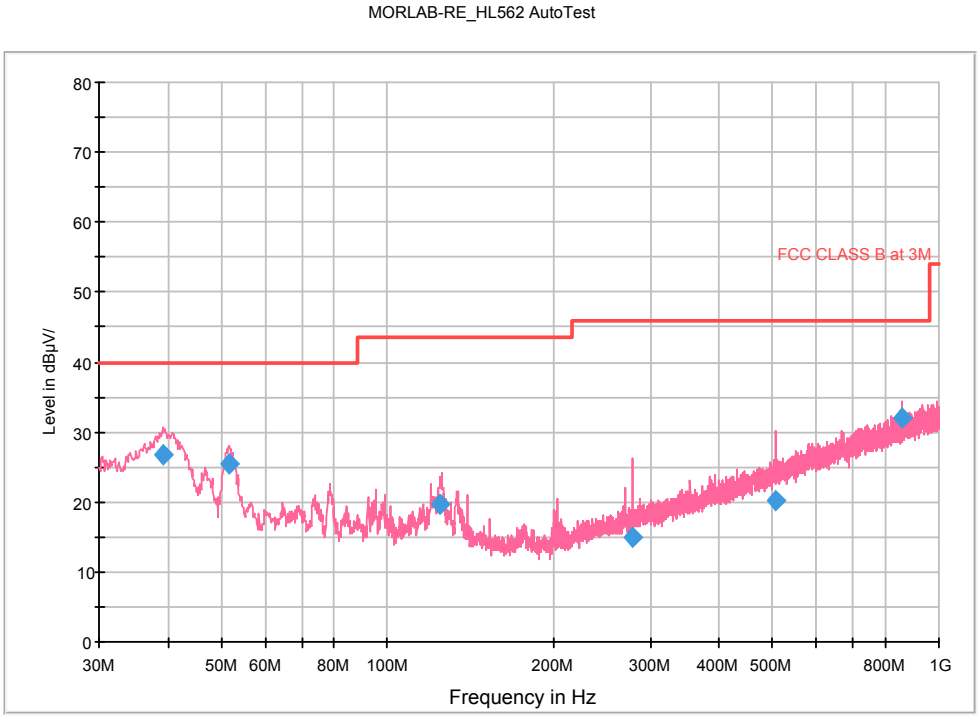
5.3.1.1 test mode

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

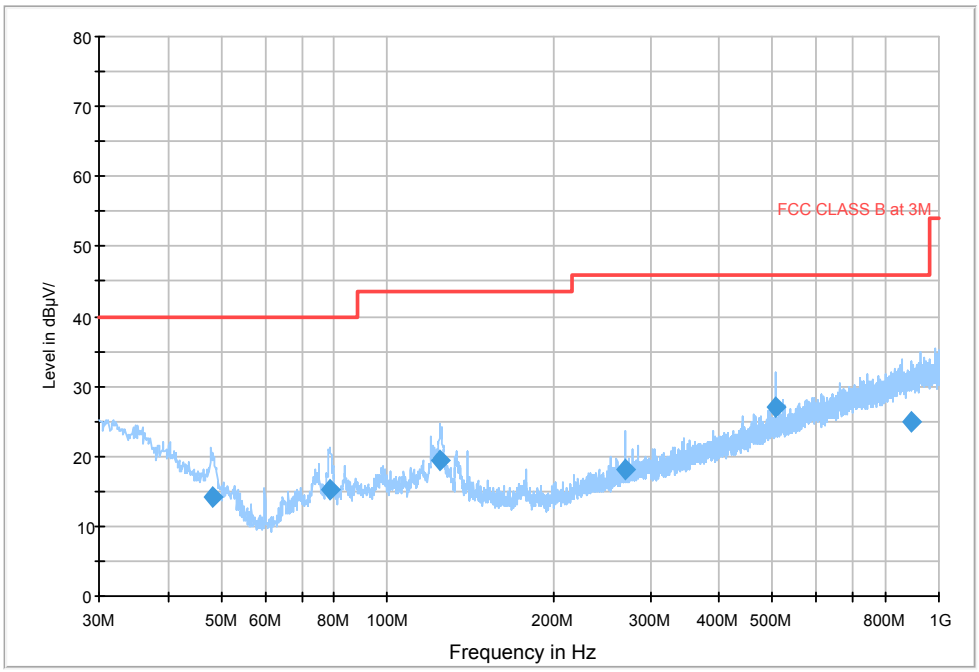
A. Test Verdict Recorded:

No.	@Frequency (MHz)	Measured Emission Level (dBμV)		Limit (dBμV)	Margin (dB)	Verdict
		QP	Polarity			
1	39.093750	26.8	V	40.0	13.2	PASS
2	51.825000	25.4	V	40.0	14.6	PASS
3	124.938750	19.7	V	43.5	23.8	PASS
4	279.168750	15.0	V	46.0	31.0	PASS
5	506.027500	20.2	V	46.0	25.8	PASS
6	860.441250	32.0	V	46.0	14.0	PASS
7	48.187500	14.3	H	40.0	25.7	PASS
8	78.742500	15.1	H	40.0	24.9	PASS
9	124.817500	19.5	H	43.5	24.0	PASS
10	269.953750	18.2	H	46.0	27.8	PASS
11	506.148750	27.1	H	46.0	18.9	PASS
12	893.057500	24.9	H	46.0	21.1	PASS

B. Test Plot:



(Plot: Test Antenna Vertical)



(Plot: Test Antenna Horizontal)

**** END OF REPORT ****