47 CFR PART 15 SUBPART B

TEST REPORT

of

CDMA EVDO USB MODEM

Model Name: OT-X080C
Trade Name: ALCATEL
Brand Name: ALCATEL
Report No.: SH11030015E01
FCC ID: R5CX080C

prepared for

Huizhou TCL Mobile Communication Co.,Ltd
NO.23 Zone, ZhongKai High-Technology Development Zone

prepared by
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LAB CODE 20081223-00

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1 TEST CERTIFICATION

Equipment under Test:	CDMA EVDO USB MODEM
Trade Name:	ALCATEL
Brand Name:	ALCATEL
Model Name:	OT-X080C
FCC ID:	R5CX080C
Applicant:	Huizhou TCL Mobile Communication Co.,Ltd
Applicant Address:	NO.23 Zone, ZhongKai High-Technology Development Zone
Manufacturer:	Huizhou TCL Mobile Communication Co.,Ltd
Manufacturer Address:	NO.23 Zone, ZhongKai High-Technology Development Zone
Test Standards:	47 CFR Part 15 Subpart B
Test Date(s):	2011.03.20-2011.03.25
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: 2011.3.29

Zhang Wenjie

Reviewed by: Zhang Jun Dated: 2011.3.29

Zhang Jun

Approved by: Wei Bei Dated: 2011.3.29

Wei Bei

2 GENERAL INFORMATION

2.1 EUT Description

EUT Type.....: CDMA EVDO USB MODEM
Model Name .....: OT-X080C
Hardware Version …….: PCB_V1.1
Software Version……: MDM_V1.00.22T
Frequency ……..…….: CDMA 800MHz

Note 1: The normal configuration for the Measurement is the EUT associated with ancillary equipments.
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
1	15.107	Conducted Emission	PASS
2	15.109	Radiated Emission	PASS
3	ANSI C63.4-2003	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 (mbar):	1020

3 TEST CONDITIONS SETTING

3.1 Test Mode

The test modes of the EUT are showed as below:

Mode 1. EUT+PC Mode
The EUT configuration of the emission test is EUT + PC.
In this test mode, a connection was established between the EUT and a PC; and maintained during the measurement.
The worst case is mode 1.

3.2 Description Of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

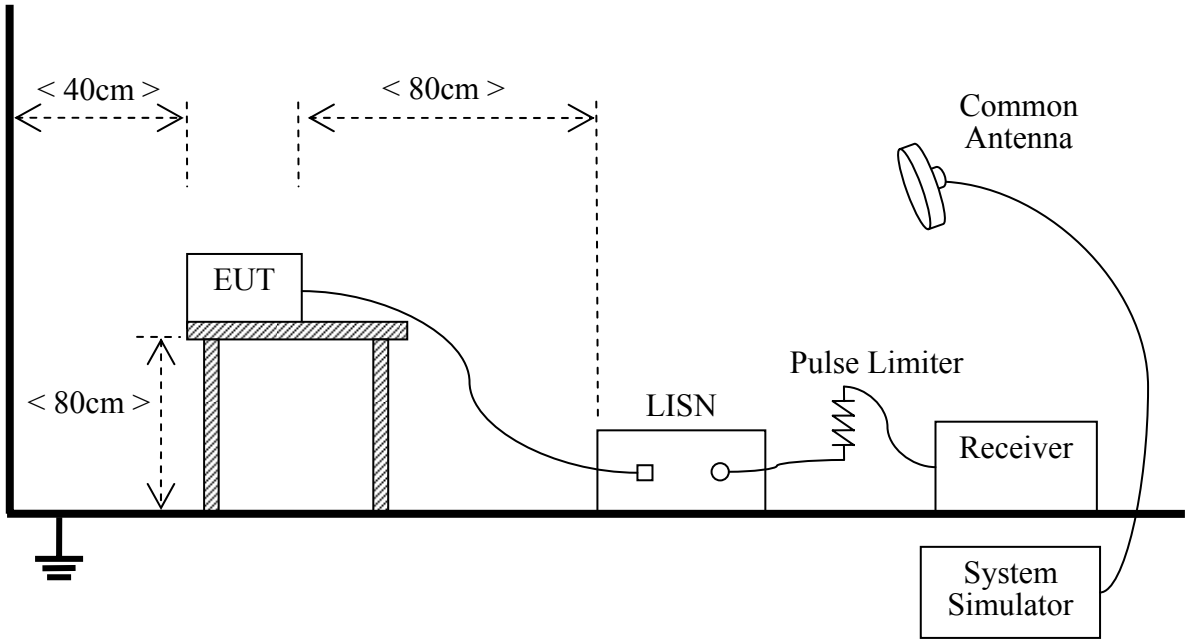
No.	Equipment	Model No.	Serial No.	Trade Name
1	Notebook	HP520	CDP7450MTI	HP

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

3.3 Test Setup and Equipments List

3.3.1 Conducted Emission

A. Test Setup:



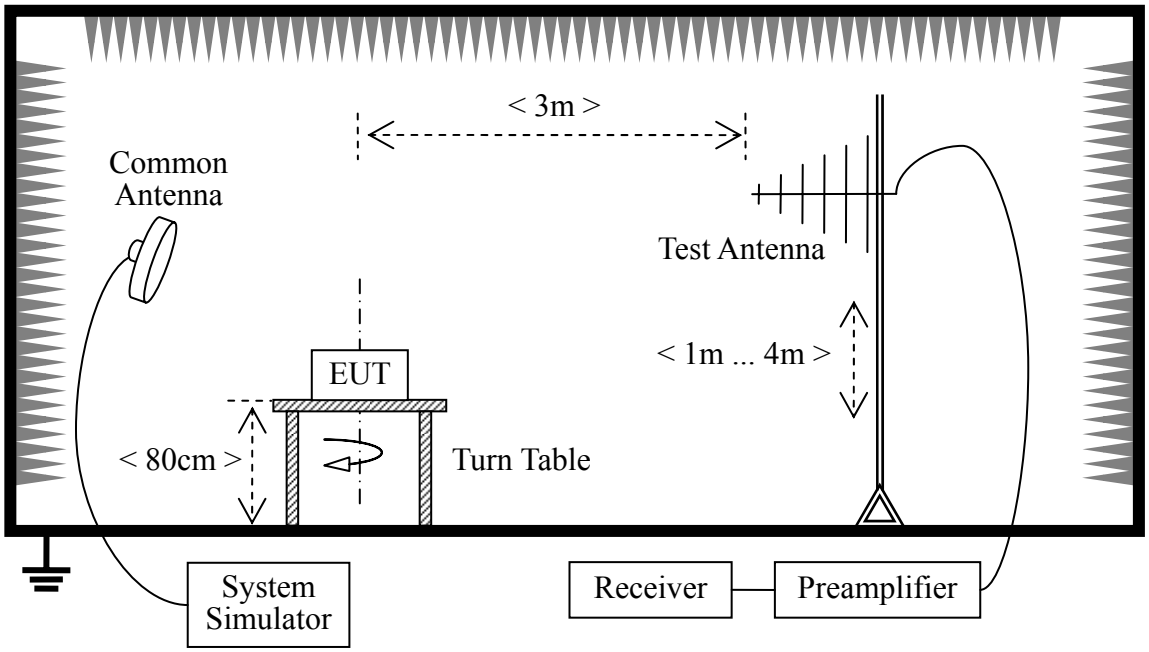
The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides 50Ω/50μH of coupling impedance for the measuring instrument. The Common Antenna 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	2010.09	1year
LISN	Rohde&Schwarz	ENV216	812744	2010.09	1year
System Simulator	Rohde&Schwarz	CMU200	105571	2010.09	1year
Personal Computer	Lenovo	(n.a.)	(n.a.)	(n.a.)	(n.a.)

3.3.2 Radiated Emission

A. 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).

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Rohde&Schwarz	ESCI3	100666	2010.09	1year
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2010.09	1year
Test Antenna - Bi-Log	Rohde&Schwarz	HL562	100385	2010.09	1year
System Simulator	Rohde&Schwarz	CMU200	105571	2010.09	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 3.3.1 of this report.

4.3 Test Result

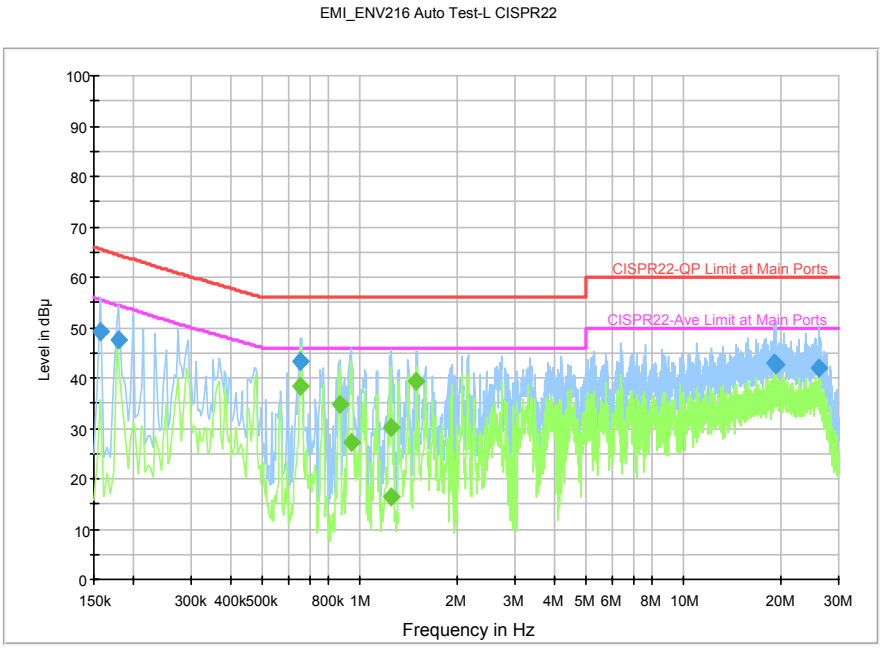
The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines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

A. Test Verdict Recorded for Suspicious Points:

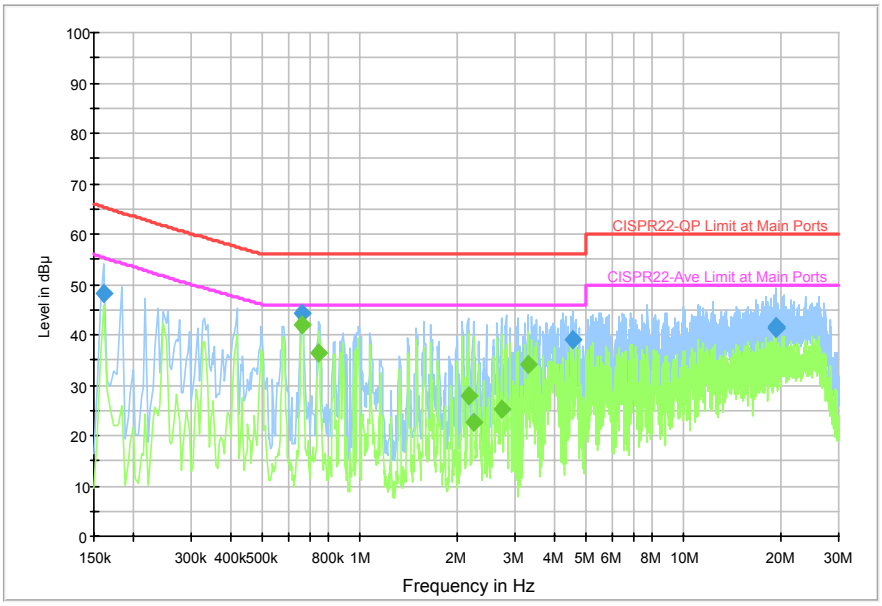
Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Band width (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.161194	48.1	150.000	9.000	N	9.7	17.3	65.4	PASS
0.661181	44.2	150.000	9.000	N	9.7	11.8	56.0	PASS
4.545412	39.2	150.000	9.000	N	9.9	16.8	56.0	PASS
19.123406	41.2	150.000	9.000	N	10.4	18.8	60.0	PASS
19.145794	41.8	150.000	9.000	N	10.4	18.2	60.0	PASS
19.160719	41.4	150.000	9.000	N	10.4	18.6	60.0	PASS
0.157462	49.3	150.000	9.000	L	9.5	16.3	65.6	PASS
0.179850	47.5	150.000	9.000	L	9.6	16.9	64.4	PASS
0.653719	43.1	150.000	9.000	L	9.7	12.9	56.0	PASS
19.037588	42.9	150.000	9.000	L	10.3	17.1	60.0	PASS
19.119675	42.7	150.000	9.000	L	10.3	17.3	60.0	PASS
25.921744	41.9	150.000	9.000	L	10.5	18.1	60.0	PASS

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Band width (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.661181	42.1	150.000	9.000	N	9.7	3.9	46.0	PASS
0.743269	36.5	150.000	9.000	N	9.7	9.5	46.0	PASS
2.149950	27.7	150.000	9.000	N	9.8	18.3	46.0	PASS
2.228306	22.6	150.000	9.000	N	9.8	23.4	46.0	PASS
2.724562	25.2	150.000	9.000	N	9.8	20.8	46.0	PASS
3.306638	34.0	150.000	9.000	N	9.8	12.0	46.0	PASS
0.653719	38.4	150.000	9.000	L	9.7	7.6	46.0	PASS
0.862669	34.8	150.000	9.000	L	9.7	11.2	46.0	PASS
0.937294	27.2	150.000	9.000	L	9.7	18.8	46.0	PASS
1.235794	30.3	150.000	9.000	L	9.7	15.7	46.0	PASS
1.246988	16.4	150.000	9.000	L	9.7	29.6	46.0	PASS
1.489519	39.4	150.000	9.000	L	9.8	6.6	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.

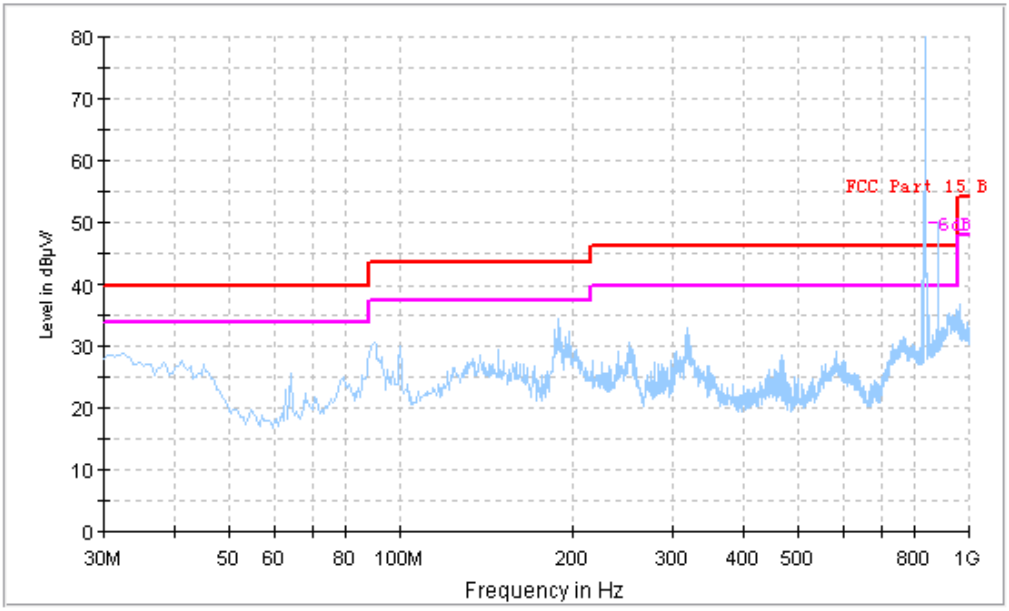
5.3 Test Result

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.

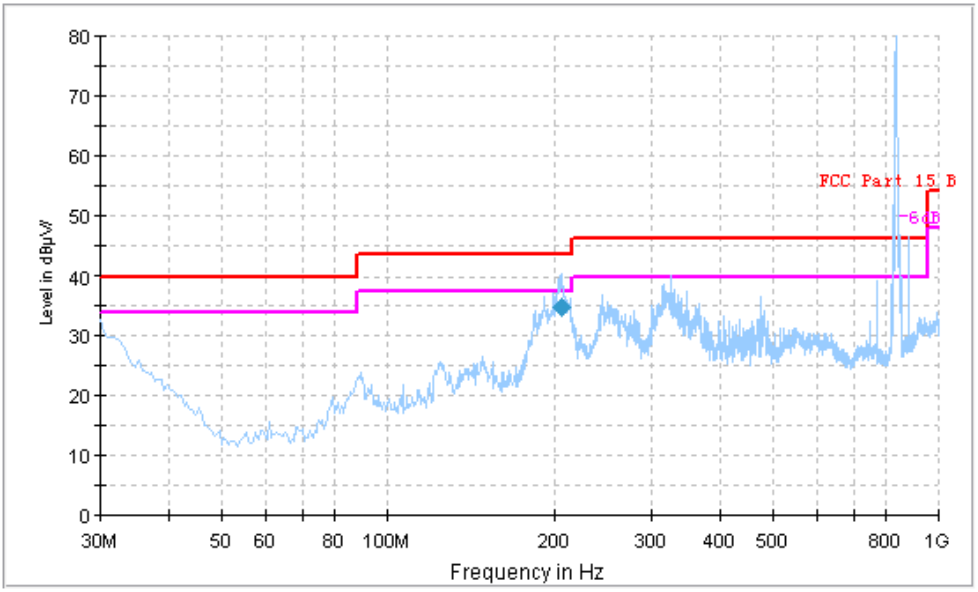
A. Test Verdict Recorded:

No.	@Frequency (MHz)	Measured Emission Level (dBμV)		Limit (dBμV)	Margin (dB)	Verdict
		QP	Polarity			
1	205.527520	34.7	H	43.5	8.8	PASS

B. Test Plot:



(Plot: Test Antenna Vertical)



(Plot: Test Antenna Horizontal)

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