Report No.:SZ11120021E01

TESTING
CNAS L3572

FCC TEST REPORT

Issued to

TCT Mobile Limited

For

HSPA USB Modem

Model Name:	One Touch X300Y
Trade Name:	Alcatel
Brand Name:	Alcatel
FCC ID:	RAD263
Test Rule:	47 CFR Part 15 Subpart B
Test date:	December 1, 2011 – December 20, 2011
Issue date:	December 20, 2011

Shenzhen Morlab Communications Technology Co., Ltd.

Tested by Li Liang	*Approved by* Huang Pulong	*Review by* Tu Lang
Li Liang	Huang Pulong	Tu Lang
Date 2011.12.20	*Date* 2011.12.20	*Date* 2011.12.20

The report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen MORLAB Communication Technology Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen MORLAB Telecommunication Co., Ltd to his customer. Supplier or others persons directly concerned. Shenzhen MORLAB Telecommunication Co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report, Shenzhen MORLAB Telecommunication Co., Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

TABLE OF CONTENTS

1. GENERAL INFORMATION 3

1.1 EUT Description 3

1.2 Test Standards and Results 4

1.3 Facilities and Accreditations 5

1.3.1 Facilities 5

1.3.2 Test Environment Conditions 5

1.3.3 Measurement Uncertainty 5

2. TEST CONDITIONS SETTING 6

2.1 Test Mode 6

2.2 Test Setup and Equipments List 7

2.2.1 Radiated Emission 7

3. 47 CFR PART 15B REQUIREMENTS 9

3.1 Radiated Emission 9

3.1.1 Requirement 9

3.1.2 Test Description 9

3.1.3 Test Result 10

Change History		
Issue	Date	Reason for change
1.0	December 20, 2011	First edition

1. GENERAL INFORMATION

1.1 EUT Description

EUT Type	HSPA USB Modem
Serial No.	(n.a., marked #1 by test site)
Hardware Version.....	PIO
Software Version	S1_B15001S_1110000_B10001S
Applicant	TCT Mobile Limited 5F, E building, No. 232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area, Shanghai, P.R. China. 201203
Manufacturer	TCL COMMUNICATION TECHNOLOGY HOLDINGS LIMITED 70 Huifeng 4rd, ZhongKai Hi-tech Development District, Huizhou, Guangdong 516006 P.R. China (TCL Mobile Communication Co., LTD. Huizhou)
Power supply.....	USB Power supply

NOTE:

1. The EUT is a HSPA USB Modem, it supports GSM 850MHz, 900MHz, 1800MHz, 1900MHz, GPRS, EGPRS, WCDMA 850MHz, 1900MHz, 2100MHz, HSDPA, and HSUPA bands.
2. The EUT was connected with a PC while testing.
3. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.2 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 (10-1-09 Edition)	Radio Frequency Devices

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

No.	Section	Description	Result
1	15.109	Radiated Emission	PASS
2	15.107	Conducted Emission	N/A

NOTE:

The tests were performed according to the method of measurements prescribed in ANSI C63.4 2009.

1.3 Facilities and Accreditations

1.3.1 Facilities

Shenzhen Morlab Communications Technology Co., Ltd. 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 L3572.

All measurement facilities used to collect the measurement data are located at 3/F, Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055 P. R. 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.

1.3.2 Test Environment Conditions

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 - 60
Atmospheric Pressure (kPa):	86 - 106

1.3.3 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:	±1.8dB
Uncertainty of Radiated Emission:	±3.1dB

2. TEST CONDITIONS SETTING

2.1 Test Mode

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

(1) The first test mode (USB)

The EUT configuration of the emission tests is EUT + TransFlash Card + PC.

In this test mode, the EUT with a TransFlash Card connected with a PC. During the measurement, the data was transmitting between the PC and the TransFlash Card of the EUT.

(2) The second test mode (Idle)

The EUT configuration of the emission tests is EUT + PC.

During the measurement, The EUT was powered by a PC and maintained until test end. No communication link was established between the EUT and the System Simulator (SS).

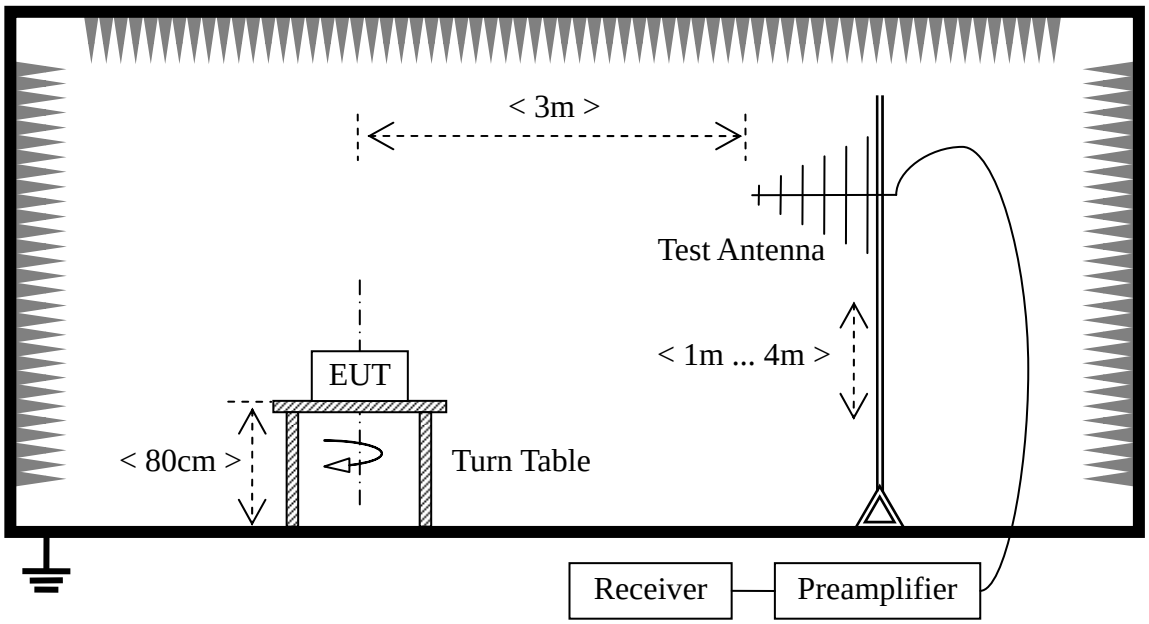
2.2 Test Setup and Equipments List

2.2.1 Radiated Emission

A. Test Procedure:

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz.For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

B. 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).

C. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date
Receiver	Agilent	E7405A	US44210471	2011.05
Semi-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2011.05
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2011.05
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2011.05
Test Antenna – Loop	R&S	HFH2-Z6	100231	2011.05
Personal Computer	IBM	IBM_T20	(n.a)	(n.a.)

3. 47 CFR PART 15B REQUIREMENTS

3.1 Radiated Emission

3.1.1 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		Field Strength Limitation at 3m Measurement Dist	
	μV/m	Dist	(uV/m)	(dBuV/m)
0.009 - 0.490	2400/F(KHz)	300m	10000* 2400/F(KHz)	20log 2400/F(KHz) + 80
0.490 - 1.705	2400/F(KHz)	30m	100* 2400/F(KHz)	20log 2400/F(KHz) + 40
1.705 - 30.00	30	30m	100*30	20log 30 + 40
30.0 - 88.0	100	3m	100	20log 100
88.0 - 216.0	150	3m	150	20log 150
216.0 - 960.0	200	3m	200	20log 200
Above 960.0	500	3m	500	20log 500

As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

Note:

1) The tighter limit shall apply at the boundary between two frequency range.
2) Limitation expressed in dBuV/m is calculated by 20log Emission Level(uV/m).
3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of $Ld1 = Ld2 * (d2/d1)^{2.}$
   Example:
   F.S Limit at 30m distance is 30uV/m, then F.S Limitation at 3m distance is adjusted as
   $Ld1 = L1 = 30uV/m * (10)^2 = 100 * 30uV/m$

3.1.2 Test Description

See section 2.2.1 of this report.

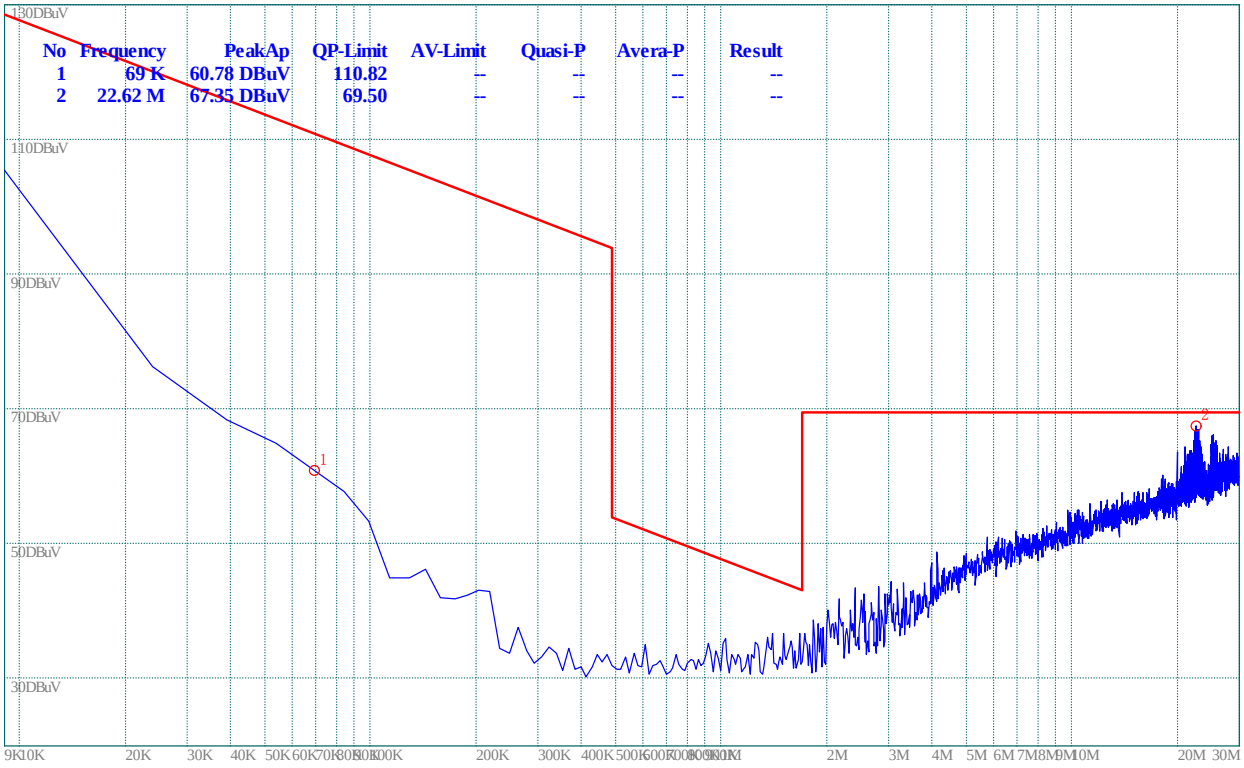
3.1.3 Test Result

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.

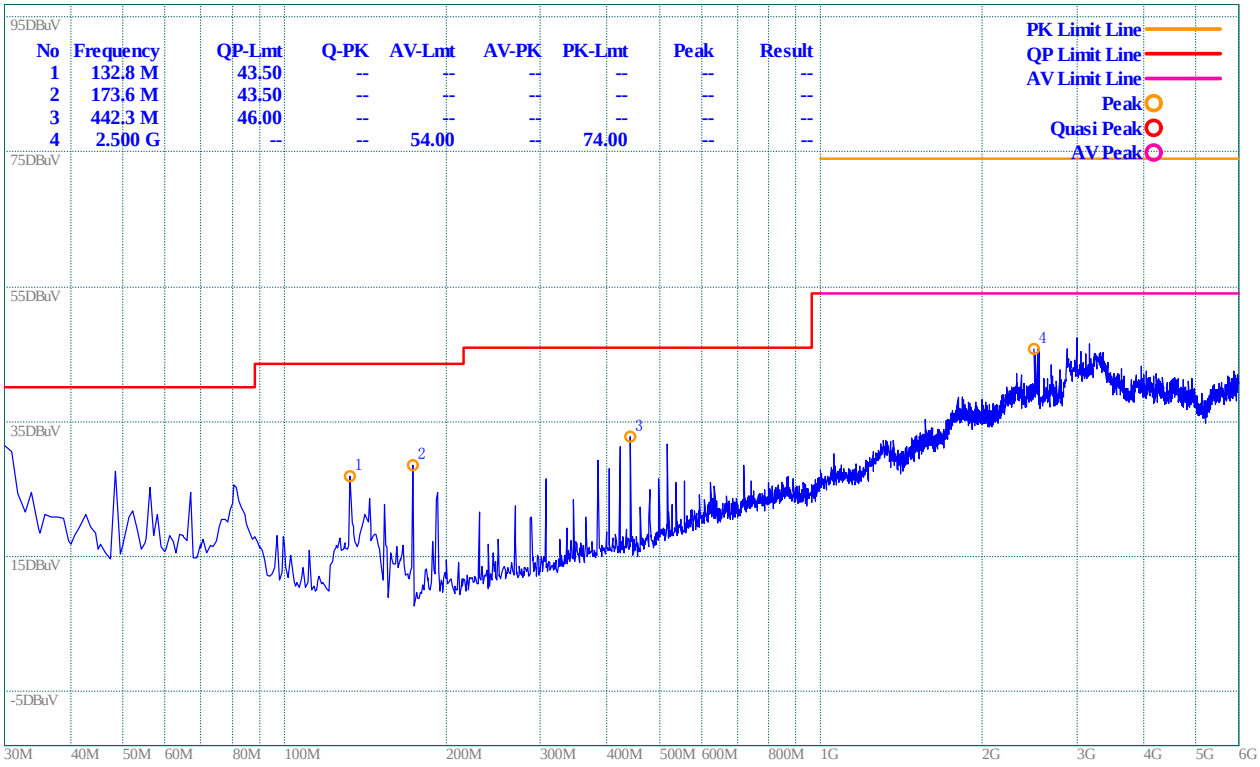
The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.

A. Test Plots and Suspicious Points:

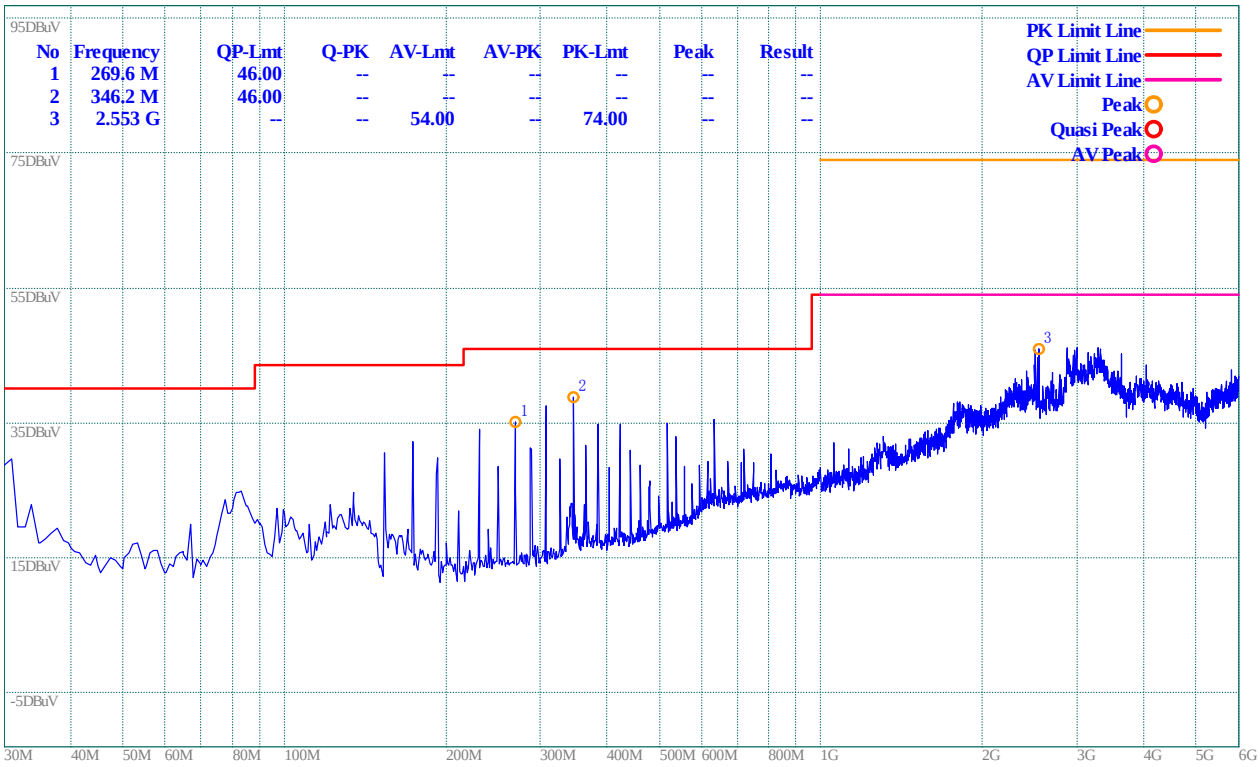
NOTE: The emissions are too small to be measured and are at least 6 dB below the limit, So all the data of marked are pass.



(Plot A: 9K – 30M)



(Plot B: 30M – 6G, Test Antenna Vertical)



(Plot C: 30M – 6G, Test Antenna Horizontal)

** END OF REPORT **