



Report No.:SZ11120021E01



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.



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Date 2011.12.20

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

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).

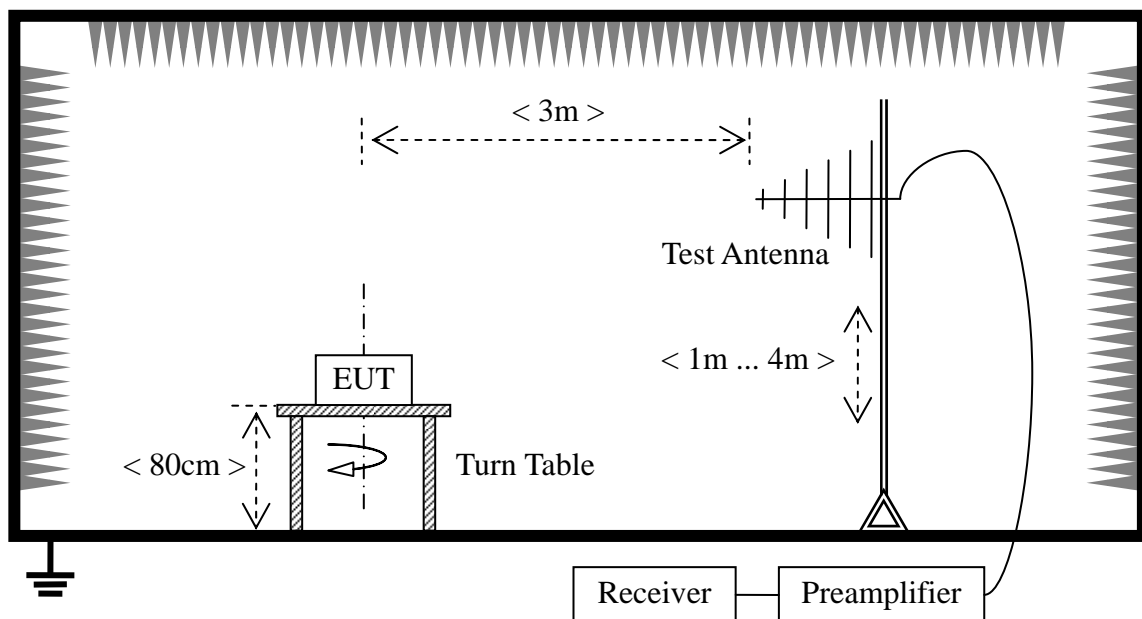
2.2 Test Setup and Equipments List

2.2.1 Radiated Emission

A. Test Procedure:

- 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.
- 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.
- 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.
- 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.
- 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.
- 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 | |
|-----------------------|----------------------|------|--|----------------------------------|
| | $\mu\text{V/m}$ | Dist | (uV/m) | (dBuV/m) |
| 0.009 - 0.490 | $2400/\text{F(KHz)}$ | 300m | $10000 * 2400/\text{F(KHz)}$ | $20\log 2400/\text{F(KHz)} + 80$ |
| 0.490 - 1.705 | $2400/\text{F(KHz)}$ | 30m | $100 * 2400/\text{F(KHz)}$ | $20\log 2400/\text{F(KHz)} + 40$ |
| 1.705 - 30.00 | 30 | 30m | $100 * 30$ | $20\log 30 + 40$ |
| 30.0 - 88.0 | 100 | 3m | 100 | $20\log 100$ |
| 88.0 - 216.0 | 150 | 3m | 150 | $20\log 150$ |
| 216.0 - 960.0 | 200 | 3m | 200 | $20\log 200$ |
| Above 960.0 | 500 | 3m | 500 | $20\log 500$ |

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 $20\log \text{Emission Level}(\text{uV/m})$.
- 3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of $L_{d1} = L_{d2} * (d_2/d_1)^2$.

Example:

F.S Limit at 30m distance is 30uV/m , then F.S Limitation at 3m distance is adjusted as

$$L_{d1} = L_1 = 30\text{uV/m} * (10)^2 = 100 * 30\text{uV/m}$$

3.1.2 Test Description

See section 2.2.1 of this report.

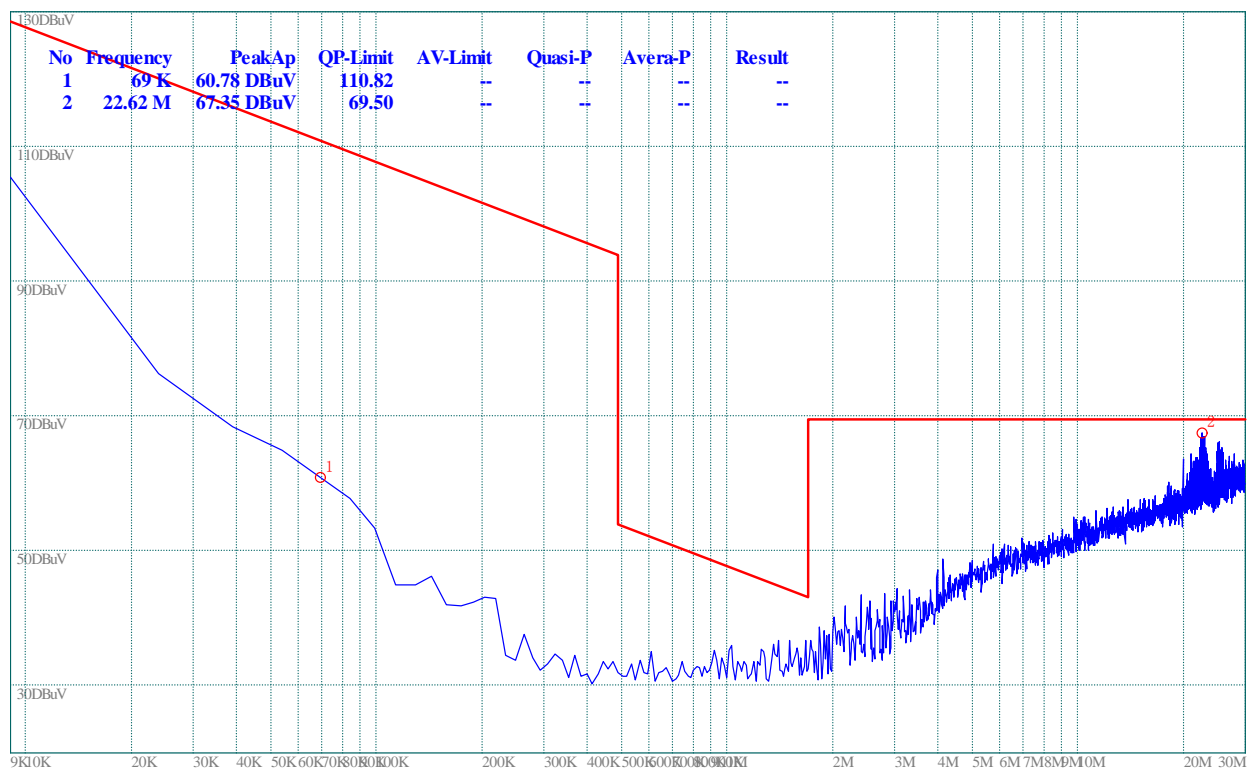
3.1.3 Test Result

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.

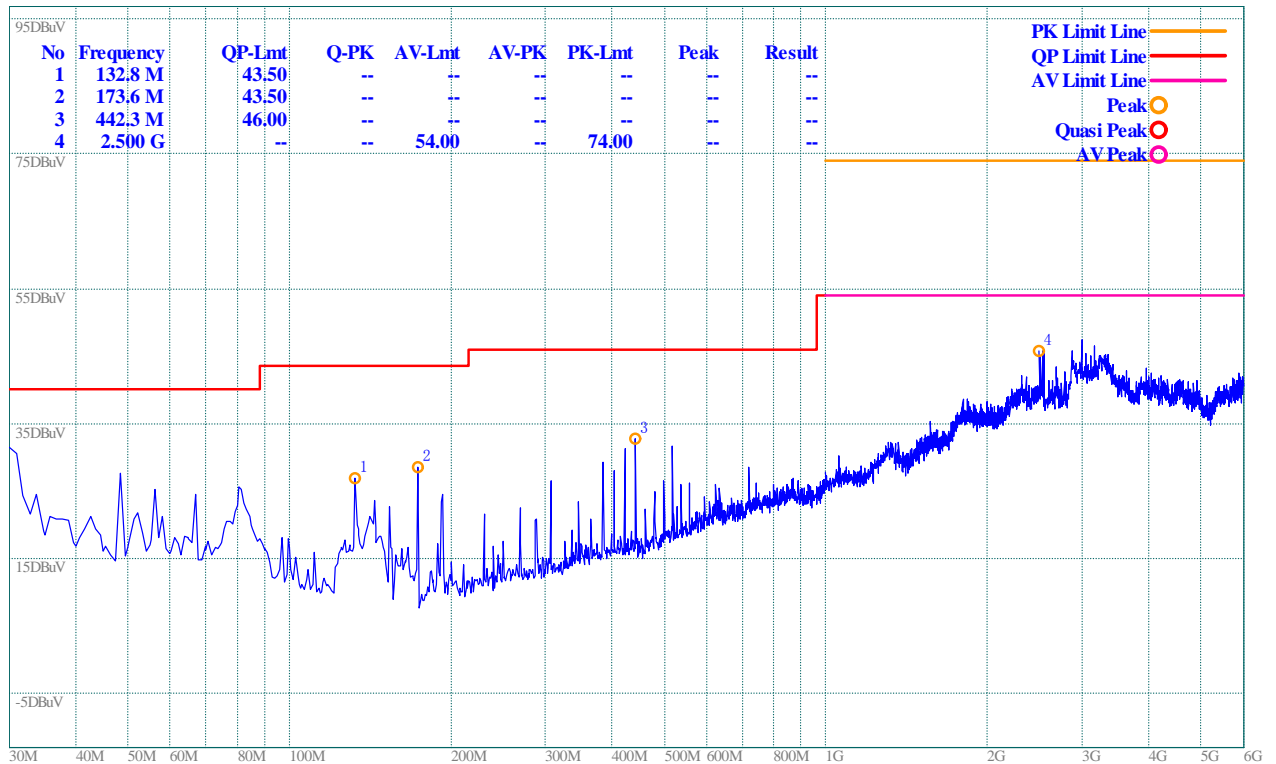
The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.

A. Test Plots and Suspicious Points:

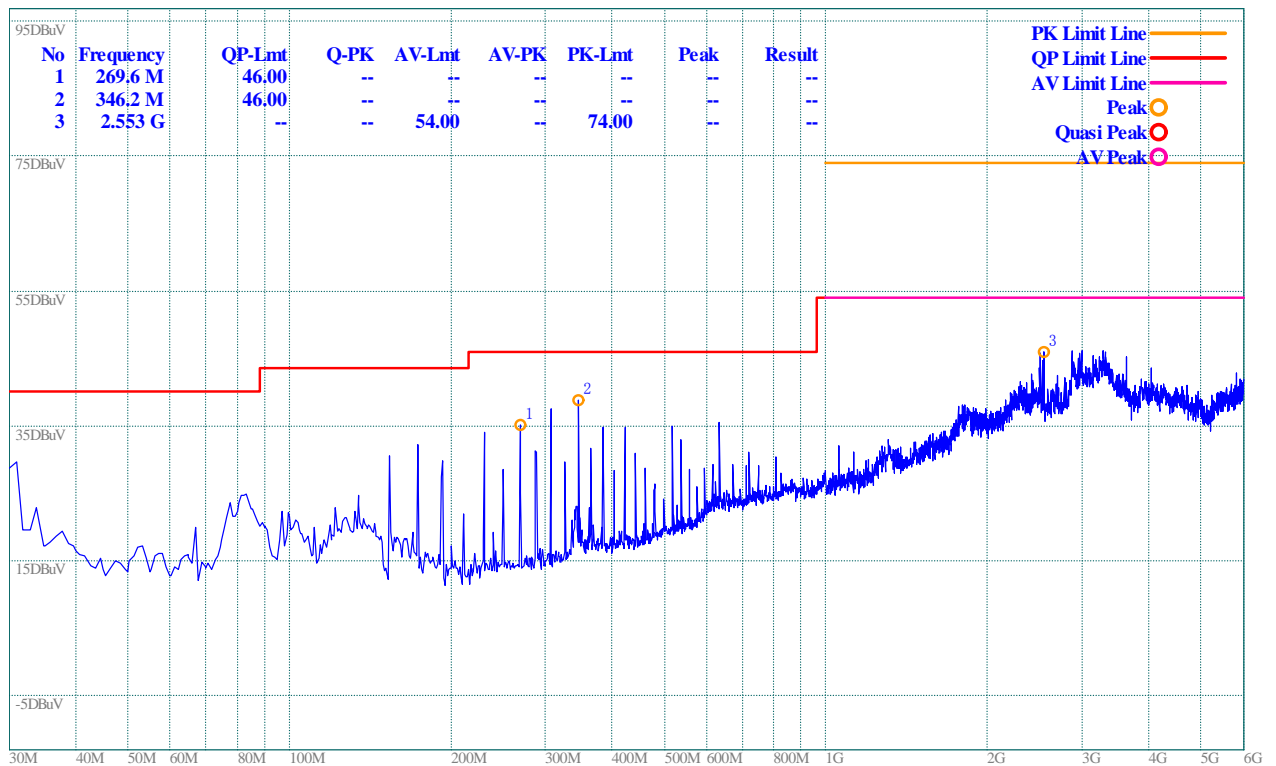
NOTE: The emissions are too small to be measured and are at least 6 dB below the limit, So all the data of marked are pass.



(Plot A: 9K – 30M)



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



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

** END OF REPORT **