

# **TIMCO** ENGINEERING INC.

849 NW State Road 45

Newberry, Florida 32669

<http://www.timcoengr.com>

888.472.2424 F 352.472.2030 email: [tei@timcoengr.com](mailto:tei@timcoengr.com)



## Test Report

Product Name: SMART PHONE

FCC ID: MSQ-1210

Applicant:

**ASUSTEK COMPUTER INC.  
NO. 150, LI-TE RD.,  
PELTOU TAIPEI 112  
TAIWAN, R.O.C.**

**Date Receipt: 10/17/2006**

**Date Tested: 10/17/2006**

APPLICANT: ASUSTEK COMPUTER INC.  
FCC ID: MSQ-1210  
REPORT #: A\ASUSTEK\2900TC6\2900TC6TestReport.doc

COVER SHEET

# TIMCO ENGINEERING INC.

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## **EMC Equipment List**

<b>Device</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial Number</b>	<b>Cal/Char Date</b>	<b>Due Date</b>
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## TEST PROCEDURE

**GENERAL:** This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

**RADIATION INTERFERENCE:** The test procedure used was ANSI STANDARD C63.4-2003 using a HEWLETT PACKARD spectrum analyzer with a preselector. The bandwidth of the spectrum analyzer was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHZ and the video bandwidth was 300KHZ. The ambient temperature of the UUT was 80°F with a humidity of 70%.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

**Example:**

Freq (MHz) METER READING + ACF = FS  
33            20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

**POWER LINE CONDUCTED EMISSIONS: ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES:** The unit under test was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSIC63.4-2003 with the EUT 40 cm from the vertical ground wall.

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**APPLICANT:** ASUSTEK COMPUTER INC.  
**FCC ID:** MSQ-1210  
**NAME OF TEST:** RADIATION INTERFERENCE  
**RULES PART NO.:** 15.109

**REQUIREMENTS:**

30 to 88 MHz:	40.0 dBuV/M @ 3 METERS
88 to 216 MHz:	43.5 dBuV/M
216 to 960 MHz:	46.0 dBuV/M
ABOVE 960 MHz:	54.0 dBuV/M

**TEST RESULTS:** A search was made of the spectrum from 30 to 1000MHz and the measurements indicate that the unit DOES meet the FCC requirements.

**TEST DATA:**

[#FieldStrength\_Table]

**SAMPLE CALCULATION:**  $FSdBuV/m = MR (dBuV) + ACFdB.$

**TEST PROCEDURE:** The bandwidth of spectrum analyzer was 100 kHz with an appropriate sweep speed. When an emission was found, the table was rotated to produce the maximum signal strength. The antenna was placed in both the horizontal and vertical planes and the worse case emissions were reported.

**PERFORMED BY:** JOSEPH SCOGLIO

**DATE:**

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