



TEST REPORT

No. 2010TAR055

for

Sony Ericsson Mobile Communications AB

GSM 850/1900 dual bands mobile phone

Type: AAB-1880026-BV

FCC ID: PY7A1880026

IC Certification No: 4170B-A1880026

with

Hardware Version: A

Software Version: P1BC014

Issued Date: Mar 11th, 2010

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

Test Laboratory:

DAR accreditation (DIN EN ISO/IEC 17025): No. DAT-P-114/01-01

FCC 2.948 Listed: No.733176

IC O.A.T.S listed: No.6629A-1

TMC Beijing, Telecommunication Metrology Center of Ministry of Industry and Information Technology

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1. Test Laboratory

1.1. Testing Location

Company Name: TMC Beijing, Telecommunication Metrology Center of MIIT
Address: No 52, Huayuan beilu, Haidian District, Beijing, P.R.China
Postal Code: 100191
Telephone: +86-10-62304633
Fax: +86-10-62304793

1.2. Testing Environment

Normal Temperature: 15-35℃
Relative Humidity: 20-75%
Air pressure 990 - 1040 hPa

The climatic requirements above are general exclude the special requirements for dedicated test environments listed in section 5 and some specific test cases in other parts of this report.

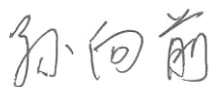
1.3. Project data

Testing Commence Date: Jan 21st, 2010
Testing End Date: Mar 4th, 2010

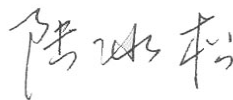
1.4. Signature



Qu Pengfei
(Prepared this test report)



Sun Xiangqian
(Reviewed this test report)



Lu Bingsong
Deputy Director of the laboratory
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Sony Ericsson Mobile Communications(China) Co., Ltd.
Address /Post:	1/F, China Digital Kingdom Building, No.1 North Road, Wangjing, Chaoyang District, Beijing, China
City:	Beijing
Postal Code:	100102
Country:	China
Contact Person:	Ma, Gang
Telephone:	+86-10-58656312
Fax:	+86-10-58656750

2.2. Manufacturer Information

Company Name:	Sony Ericsson Mobile Communications AB
Address /Post:	Nya Vattentorget, 22188 Lund, Sweden
City:	Lund
Postal Code:	22188
Country:	Sweden
Contact Person:	Nordlof, Anders
Telephone:	+46-46-193919
Fax:	+46-46-193295

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	GSM850/1900, GPRS EDGE, BT EDR2.0, FM-receiver mobile phone
Model Name	AAB-1880026-BV
FCC ID	PY7A1880026
IC Certification No	4170B-A1880026
Frequency range	GSM 850: 824.2MHz-848.8MHz; PCS 1900: 1850.2MHz-1909.8MHz
Antenna	Internal
Power supply	Battery or Charger (AC Adaptor)
Output power	31.11 dBm maximum ERP measured for GSM850 25.88 dBm maximum EIRP measured for PCS1900
Extreme vol. Limits	3.4VDC to 4.2VDC (nominal: 3.8VDC)
Extreme temp. Tolerance	-30°C to +50°C

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Telecommunication Metrology Center of MII of People's Republic of China.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN	IMEI	HW Version	SW Version
N16	WUJ07C0133	001003001759730	A	P1BC014

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	Revision
AE1	Battery	003281HNNIXH	Rev.1

AE1

Type Number	CBA-0002015
Manufacturer	Sony Ericsson
Capacitance	1000mAh
Nominal Voltage	3.6V

3.4. General Description

Equipment Under Test (EUT) is a model of GSM 850/1900 dual bands mobile phone with integrated antenna. It has MP3, Camera, FM radio, USB memory and Bluetooth functions. It also supports GPRS function with multi-slots class 10 and EGPRS function with multi-slots class 10 too.

It consists of normal options: Lithium Battery and Travel Charger. Since subscribers often use MS during charging, EUT is to be test in accordance with "Base Station and ancillary equipment for fixed use" besides in accordance with "Portable and ancillary equipment for portable use".

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the Client.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 15, Subpart B	Radio frequency devices	V 10.1.09
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2009
ICES-003	Spectrum Management and Telecommunications Policy Interference-Causing Equipment Standard Digital Apparatus	Issue 4, Feb. 2004

5. LABORATORY ENVIRONMENT

Semi-anechoic chamber (23 meters×17meters×10meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Normalised site attenuation (NSA)	< ±3.2 dB, 10 m distance, from 30 to 1000 MHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 2000 MHz

Control room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. =30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Conducted chamber did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:	
P	Pass
NA	Not applicable
F	Fail

Items	Test Name	Clause in FCC rules	Clause in IC rules	Section in this report	Verdict
1	Radiated Emission	15.109(a)	Section 6 Section 7.2.3	B.1	P
2	Conducted Emission	15.107(a)	Section 7.2.2	B.2	P

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE
1	Test Receiver	ESCI	100344	R&S	2010-03-12
2	Test Receiver	ESI40	831564/002	R&S	2011-02-12
3	BiLog Antenna	VULB 9163	9163 301	Schwarzbeck	2010-04-30
4	Signal Generator	SMP04	100070	R&S	2010-04-20
5	LISN	ESH2-Z5	829991/012	R&S	2010-08-13
6	Spectrum Analyzer	FSU26	200030	R&S	2010-06-17
7	Dual-Ridge Waveguide Horn Antenna	3115	9906-5827	EMCO	2010-08-14
8	PC	9439-IAC	L3B4535	LENOVO	N/A
9	Monitor	E178FPc	CN-OWR979-64 180-7AJ-D2MS	DELL	N/A
10	Printer	DeskJet D2368	TH72E12G7Q	HP	N/A
11	Keyboard	L100	CN0RH6596589 07ATOI40	DELL	N/A
12	Mouse	VR-301	6927225500198	XINGYU	N/A

ANNEX A: EUT photograph



Mobile Phone



Mobile Phone



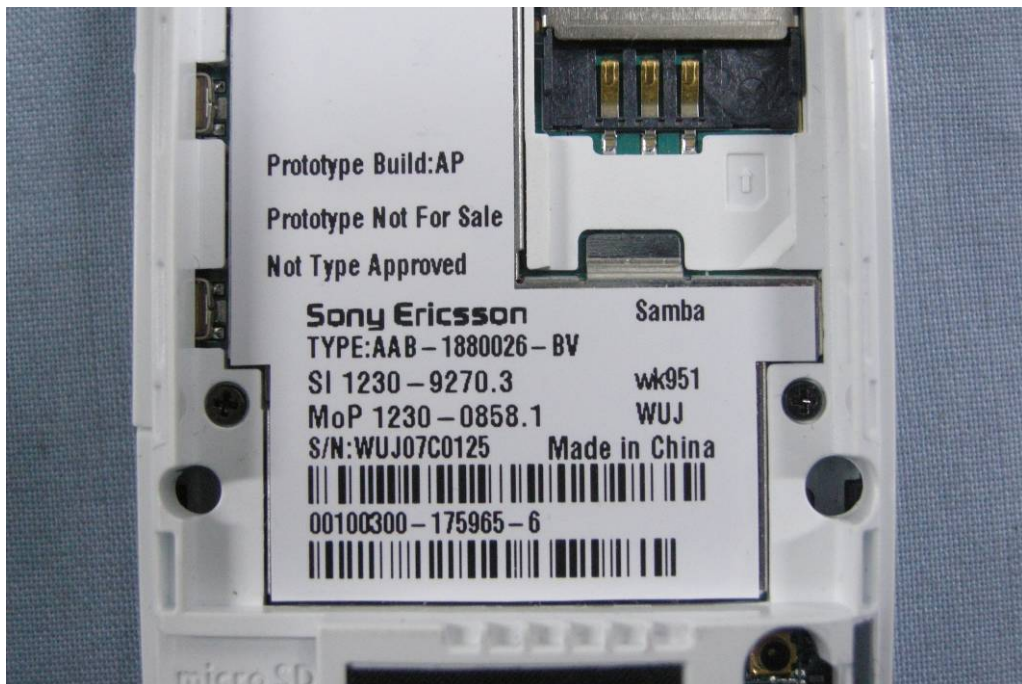
Mobile Phone



Mobile phone



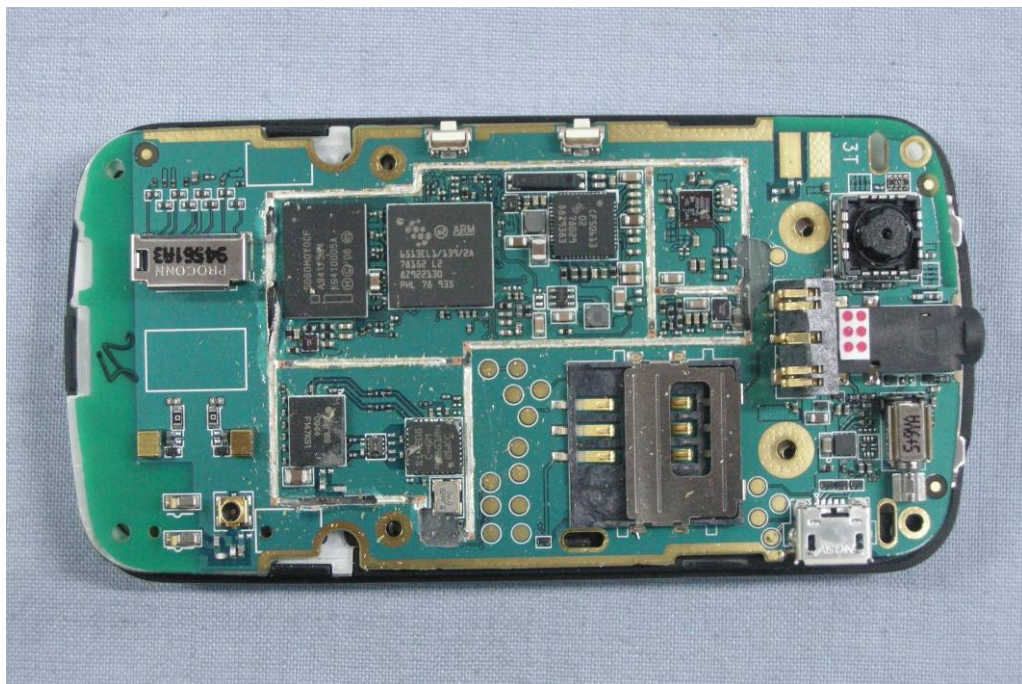
Mobile phone Disassembly



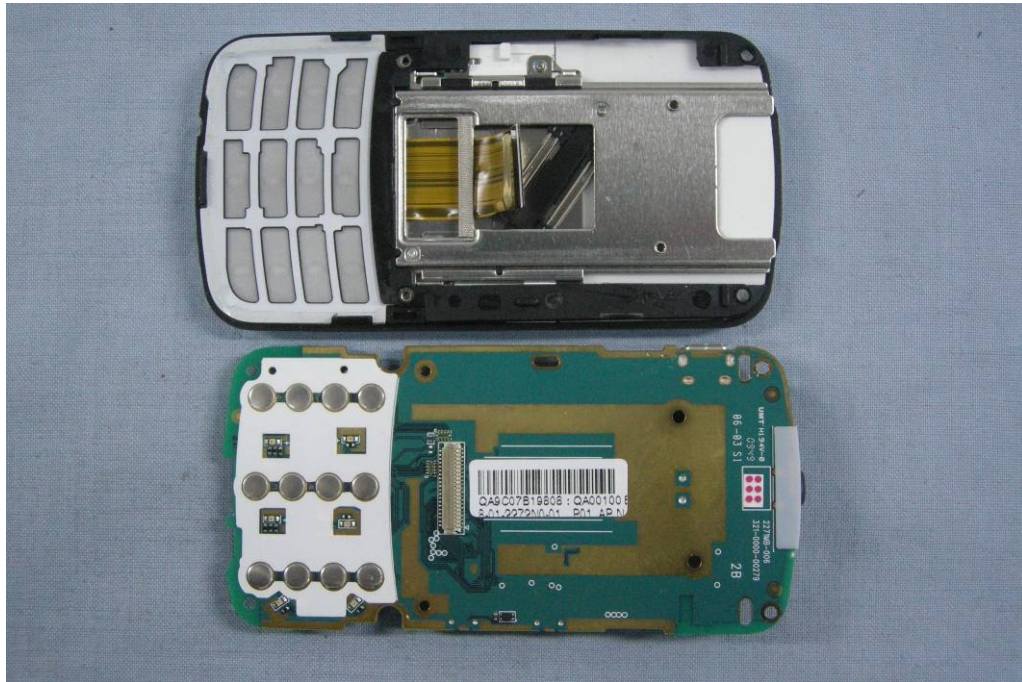
Mobile phone Disassembly



Mobile phone Disassembly



Mobile phone Disassembly



Mobile phone Disassembly



Mobile phone Disassembly



Mobile phone Disassembly



Battery



Travel Charger



Label of Travel Charger

ANNEX B: MEASUREMENT RESULTS

B.1 Radiated Emission

Reference

FCC: CFR Part 15.109(a)

IC: ICES-003 Section 5.5.

B.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator (USB mode of MS and/or charging mode of MS) at a distance of 3 meters is tested. Tested in accordance with the procedures of ANSI C63.4 - 2003, section 8.3.

B.1.2 EUT Operating Mode:

The MS is operating under the USB mode. During the test MS is connected to a PC via a USB cable in the case of USB mode. The model of the PC is LENOVO 9439-IAC, and the serial number of the PC is L3B4535. A software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

B.1.3 Test layout: see Pic.1 in ANNEX C.

B.1.4 Measurement Limit

Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

B.1.5 Measurement Results

USB Mode

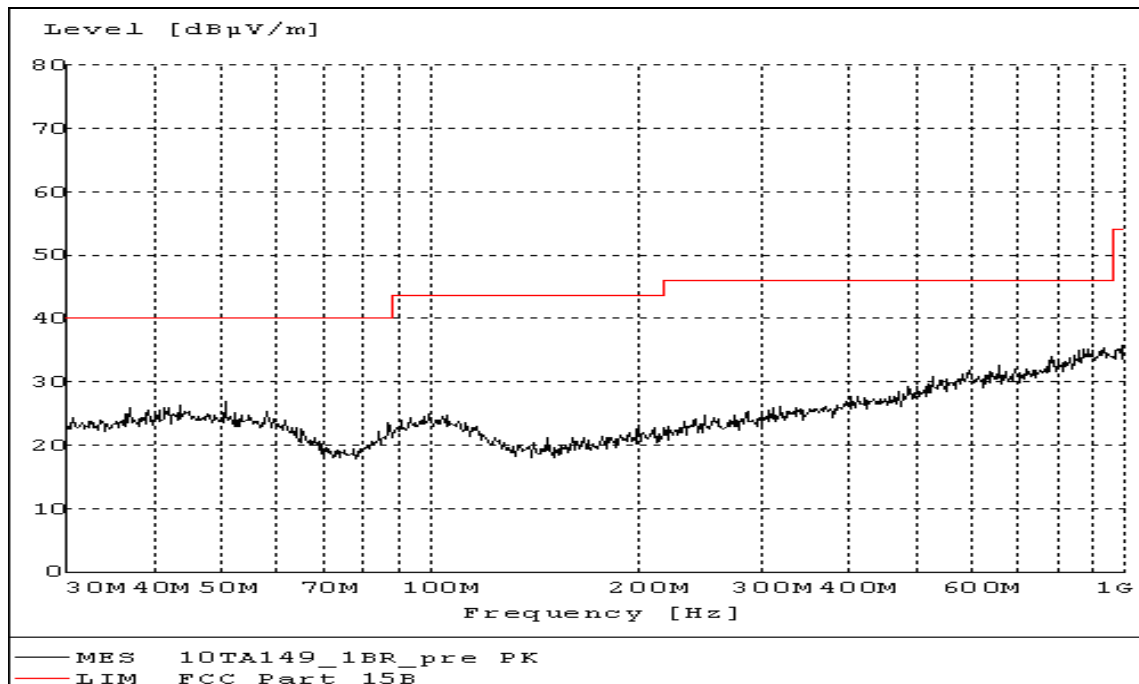


Figure B.1 Radiated Emission from 30MHz to 1GHz

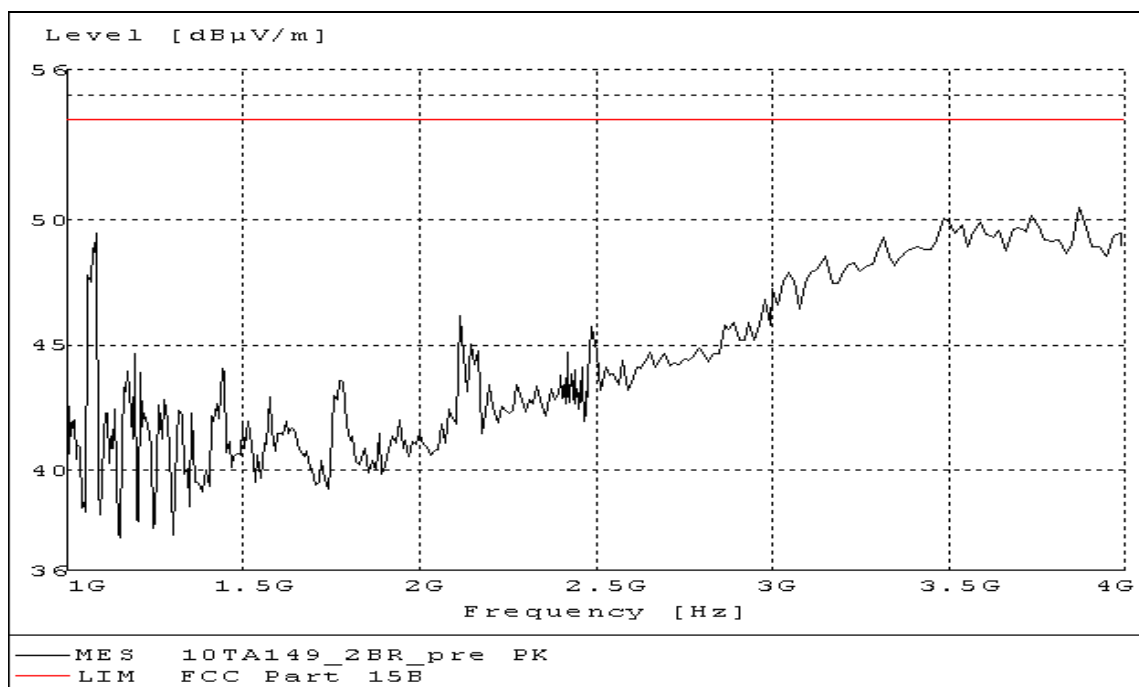


Figure B.2 Radiated Emission from 1GHz to 4GHz

B.2 Conducted Emission

FCC: CFR Part 15.107(a)

IC: ICES-003 Section 5.3.

B.2.1 Method of measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 – 2003, section 7.2.

B.2.2 EUT Operating Mode:

The MS is operating in the USB mode. During the test MS is connected to a PC via a USB cable in the case of USB mode. The model of the PC is LENOVO 9439-IAC, and the serial number of the PC is L3B4535. A software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

B.2.3 Test layout: see Pic.2 in ANNEX C.

B.2.4 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

B.2.5 Measurement Results

USB Mode

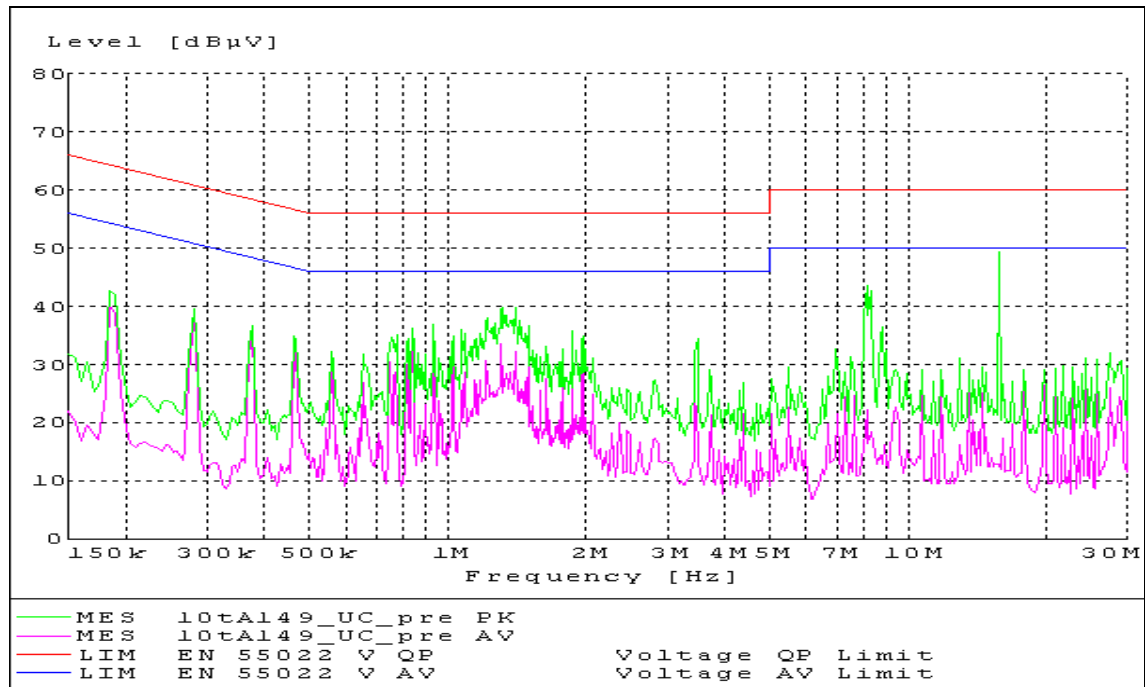


Fig B.3 Conducted Continuous Emission from 150 kHz to 30 MHz

ANNEX C: TEST LAYOUT**Pic.1 Radiated emission****Pic.2 Conducted emission*******END OF REPORT*****