Deutscher Akkreditierungs Rat

No. DAT-P-114/01-01

TEST REPORT

No. 2007TAR028

Product	GSM Dual-Band GPRS Mobile Phone
Model	A996
Client	Beijing Tianyu Communication Equipment Co., Ltd

Telecommunication Metrology Center

of Ministry of Information Industry

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Product	GSM Dual-Band GPRS Mobile Phone	**Model**	A996
		Trade mark	
Client	Beijing Tianyu Communication Equipment Co., Ltd		
Manufacturer	Beijing Tianyu Communication Equipment Co., Ltd		
Arrival Date of sample	Nov 22th, 2007	**Carrier of the samples**	Yang Ye
Quantity of the samples	1	**Date of product**	/
Series number	EUT1:		
Standard(s)	FCC Part 15 (10-1-06 Edition)		
Conclusion	**Final Judgment: Pass** Date of issue: 2007-12-10		
Comment	The test result relates only to the tested samples.		

Approved by (Lu Bingsong) **Reviewed by** (Sun Xiangqian) **Tested by** (Zi Xiaogang)

(Lu Bingsong - **Deputy Director of the laboratory**)

1. COMPETENCE AND WARRANTIES

Telecommunication Metrology Center of Ministry of Information Industry(hereinafter TMC) is a test laboratory accredited by DAR (DATech) – Deutschen Akkreditierungs Rat (Deutsche Akkreditierungsstelle Technik), for the tests indicated in the Certificate No. **DAT-P-114/01-01**.

TMC is a test laboratory accredited by CNAS–China national Accreditation Service for Conformity Assessment, for the tests indicated in the Certificate No. **L0442**.

TMC is FCC listed lab. FCC listed number is **733176**.

The test site in **TMC** is registered in Industry Canada. The IC registration number is **6629.**

TMC is a testing laboratory competent to carry out the tests described in this report.

TMC guarantees the reliability of the data presented in this report, which is the result of measurements and tests performed to the item under test on the date and under the conditions stated on the report and is based on the knowledge and technical facilities available at TMC at the time of execution of the test.

TMC is liable to the client for the maintenance by its personnel of the confidentiality of all information related to the item under test and the results of the test.

2. Testing Laboratory

2.1 Testing Location

Company Name:	Telecommunication Metrology Center of Ministry of Information Industry
Address:	No 52, Huayuan beilu, Haidian District, Beijing,P.R.China
Postal Code:	100083
Telephone:	00861062303288
Fax:	00861062304793

2.2 Testing Environment

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

Temperature	Min. = 15 ℃, Max. = 30 ℃
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 26 to 1000 MHz

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

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

Fully-anechoic chamber (6.8 meters×3.08 meters×3.53 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 30 ℃
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 26 to 1000 MHz

2.3 Testing Period

Testing Start Date:	Nov 24,2007
Testing End Date:	Dec 07,2007

3. Applicant Information

3.1 Client Information

Name or Company	Beijing Tianyu Communication Equipment Co., Ltd
Address/Post	27th Floor, Tengda Plaza, 168 Xizhimenwai Street, Haidian District, Beijing China
City	Beijing
Postal Code	100044
Country	China
Telephone	0086-10-68393572
Fax	0086-10-66512209

3.2 Manufacture Information

Name or Company	Beijing Tianyu Communication Equipment Co., Ltd
Address/Post	27th Floor, Tengda Plaza, 168 Xizhimenwai Street, Haidian District, Beijing China
City	Beijing
Postal Code	100044
Country	China
Telephone	0086-10-68393572
Fax	0086-10-66512209

4. Equipment under Test (EUT) and Ancillary Equipment (AE)

4.1 About EUT

Model	A996
Description	GSM Dual-Band GPRS Mobile Phone
FCC ID	VUN07770LA996
Hardware status	TBM770_P3
Software status	077010_590_V1509
Power supply	Battery or Charger (AC Adaptor)

4.2 Internal Identification of EUT used during the test

EUT ID	SN or IMEI	HW Version	SW Version
EUT1	135790246811220	TBM770_P3	077010_590_V1509

4.3 Photographs of EUT

Photographs of MS Hand Telephone Set and Charger are respectively shown in ANNEX B of this test report.

5. SUMMARY OF TEST RESULTS

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

Clause	List	Clause in FCC rules	Verdict
1	Radiated Emission	15.109(a)	P
2	Conducted Emission	15.107(a)	P

6. MAIN TEST INSTRUMENTS

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE
1	Test Receiver	ESS	847151/015	R&S	2008-10-30
2	Test Receiver	ESI40	831564/002	R&S	2008-2-11
3	BiLog Antenna	3142B	9908-1403	EMCO	2008-1-16
4	BiLog Antenna	VUL9163	9163 175	Schwarzbeck	2009-9-19
5	Signal Generator	SMT06	831285/005	R&S	2007-12-26
6	Signal Generator	SMP04	100070	R&S	2008-4-20
7	LISN	ESH2-Z5	829991/012	R&S	2008-8-13
8	Spectrum Analyzer	E4440A	MY41000262	Agilent	2008-4-18
9	Universal Radio Communication Tester	CMU200	100680	R&S	2008-8-23
10	Dual-Ridge Waveguide Horn Antenna	3115	9906-5827	EMCO	2008-3
11	Dual-Ridge Waveguide Horn Antenna	3116	2663	EMCO	2008-3
12	Dual-Ridge Waveguide Horn Antenna	3116	2661	EMCO	2008-3
13	Climatic chamber	SH-241	92003546	ESPEC	2008-5-15
14	Spectrum Analyzer	FSU26	200030	R&S	2008-6-19
15	Bluetooth Tester	MT8852A	6K0002698	Anritsu	2009-3-19

ANNEX A MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator (USB mode of MS) at a distance of 3 meters is tested. The test set-up please refers to Annex C.1.

A.1.2 EUT Operating Mode:

The MS is operating in the USB mode. During the test MS is connected to a laptop via a USB cable. The model of the laptop is IBM T42 2373-M6C, and the serial number of the laptop is 99-FV6P2. The software is used to let the laptop keep on copying data to MS, reading and erasing the data after copy action was finished.

A.1.3 Measurement Limit

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

A.1.4 Measurement Results

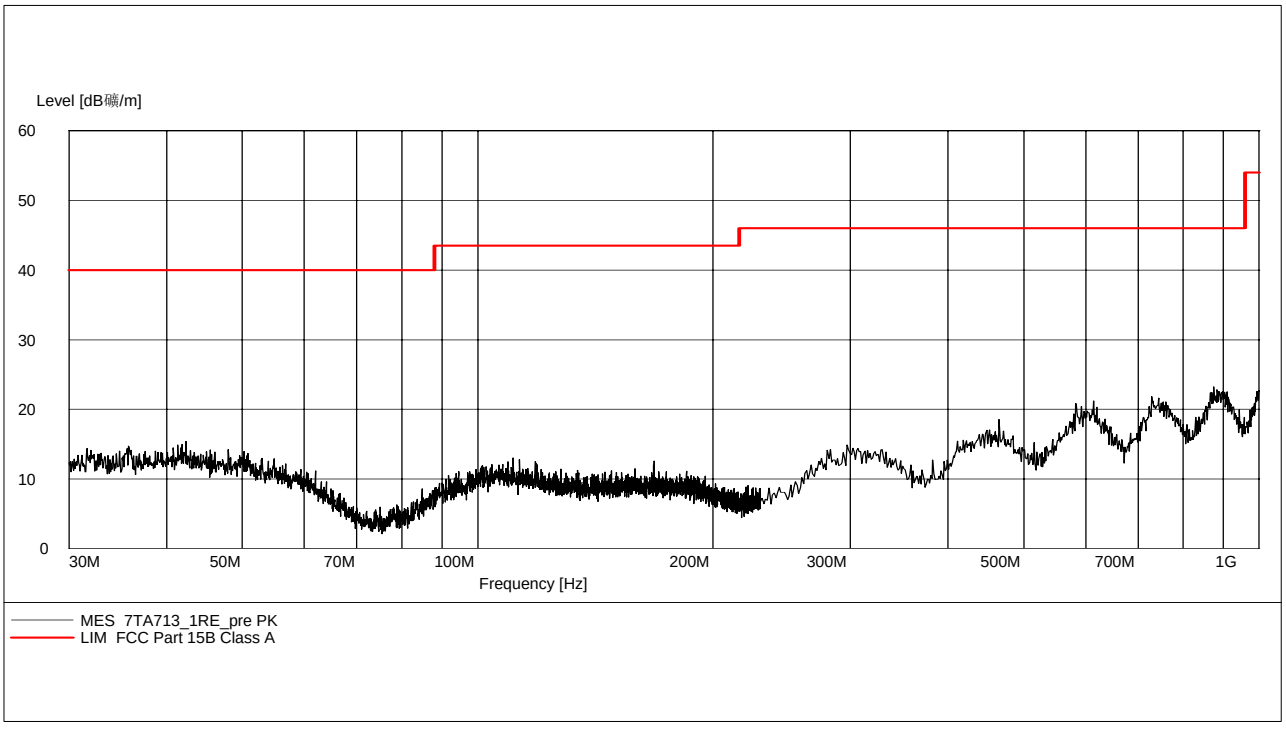


Figure A.1 Radiated Emission from 30MHz to 1GHz

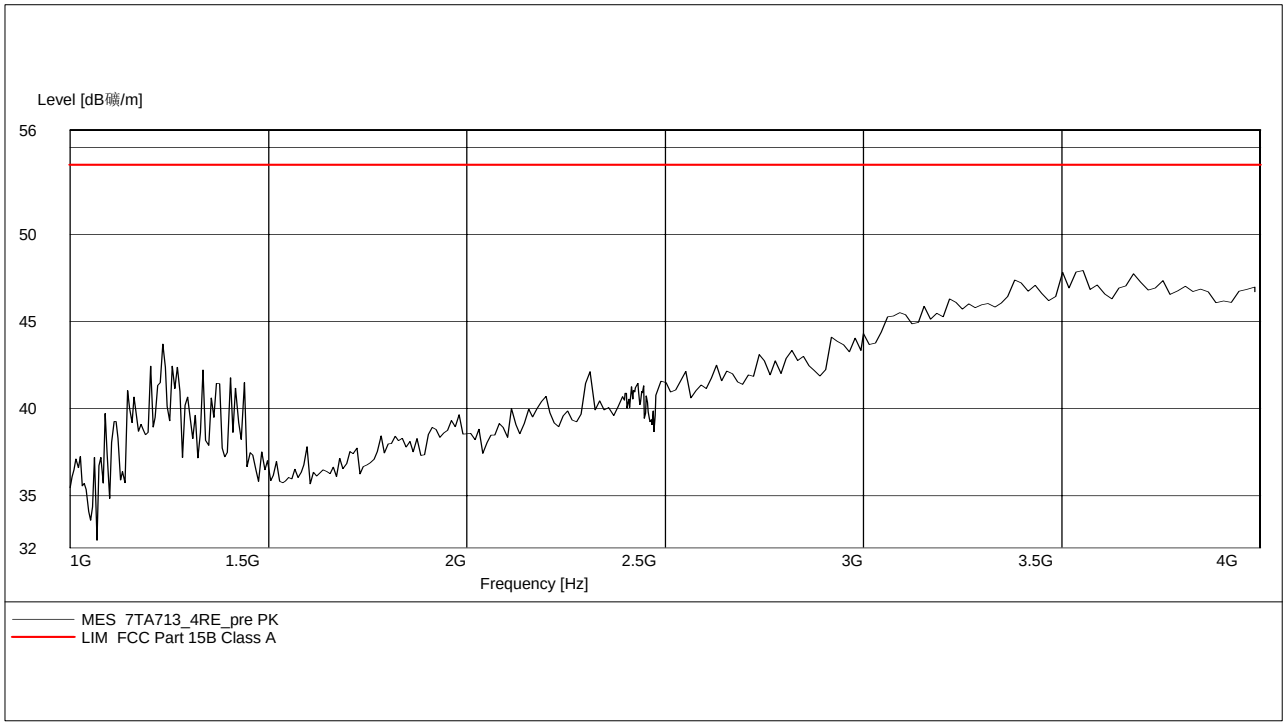


Figure A.2 Radiated Emission from 1GHz to 3GHz

A.2 Conducted Emission (§15.107(a))

A.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 150kHz to 30MHz shall not exceed the limits. The test set-up please refers to Annex C.2.

A.2.2 EUT Operating Mode:

The MS is operating in the USB mode. During the test MS is connected to a laptop via a USB cable. The model of the laptop is IBM T42 2373-M6C, and the serial number of the laptop is 99-FV6P2. The software is used to let the laptop keep on copying data to MS, reading and erasing the data after copy action was finished.

A.2.3 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		

A.2.4 Measurement Results

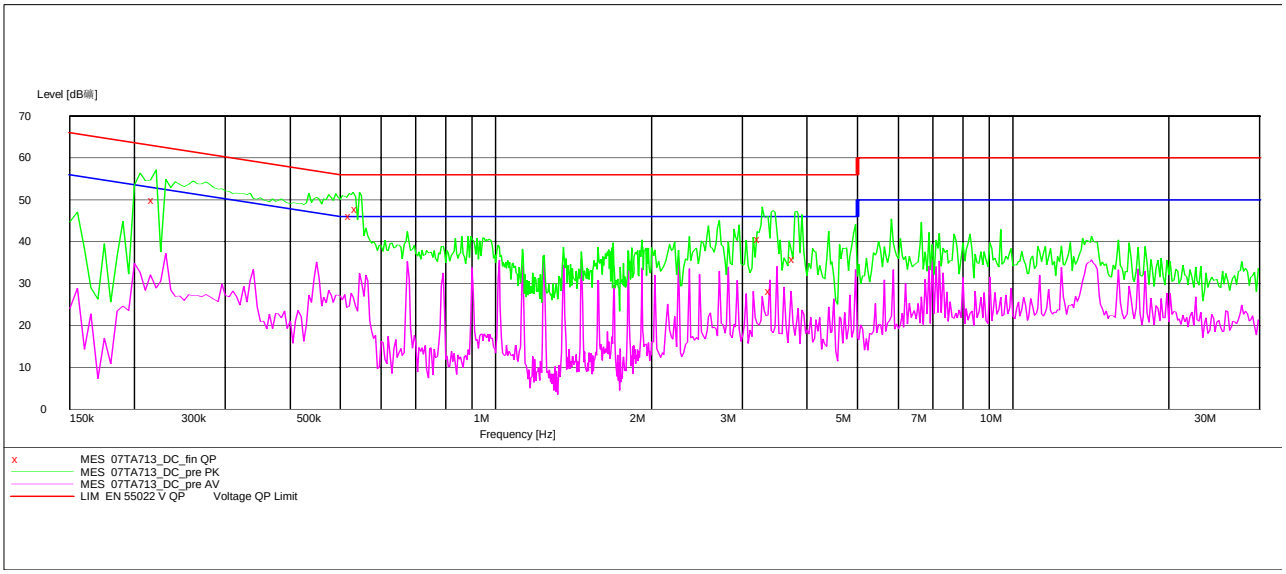


Figure A.3 Conducted Emission

MEASUREMENT RESULT: "7TA713_DC_fin QP"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.220000	49.90	10.1	63	13.0	N	FLO
0.530000	46.10	10.1	56	9.9	L1	GND
0.545000	47.80	10.1	56	8.2	L1	GND
3.277804	40.50	10.1	56	15.5	L1	GND
3.438319	28.20	10.1	56	27.8	L1	FLO
3.813582	35.80	10.2	56	20.2	L1	GND

ANNEX B PHOTOGRAPH OF EUT

External Photo

Mobile Phone

Mobile Phone

Charger (AC/DC Adapter)

Label of Charger (AC/DC Adapter)

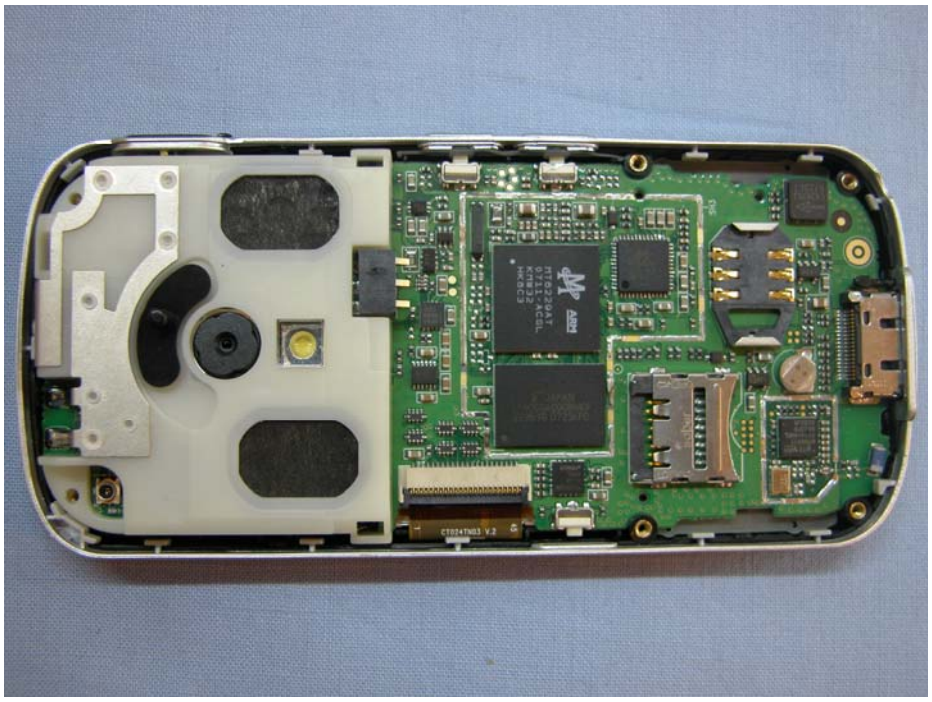

K-Touch
Made in China
Li-ion 3.7V 800mAh
Rechargeable Li-ion Battery
Model:TYC88252600
Charge Voltage Limited:4.2V
Manufacture by BYD Company Limited
Tianyu Communication Equipment Co.,Ltd
8# Zhengfu St,the incorporate industrial base of optics,mechanics and electronics, Zhongguancun Technology Garden in Tongzhou,Beijing
Warning
Do not use unspecified charger.
Dot not throw the battery in fire or open by self.
Do not short circuit.
Do not expose to temperature above 60℃.
Do not put in wet or corrosive surrounding.
S/N:BYD 07111500246

Battery

Internal Photo

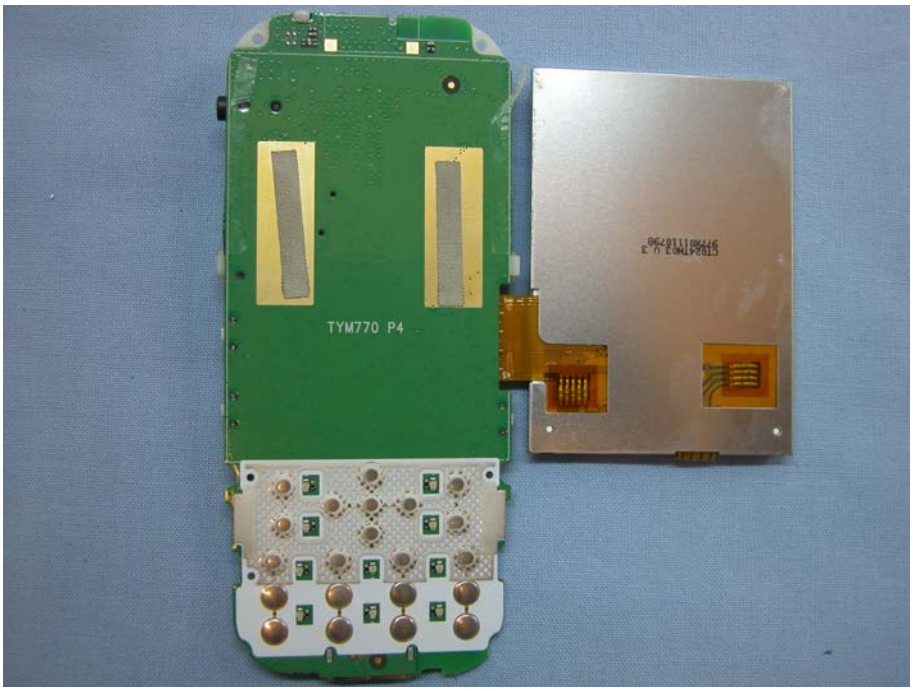
Mobile phone Disassembly

Mobile phone Disassembly



Mobile phone Disassembly

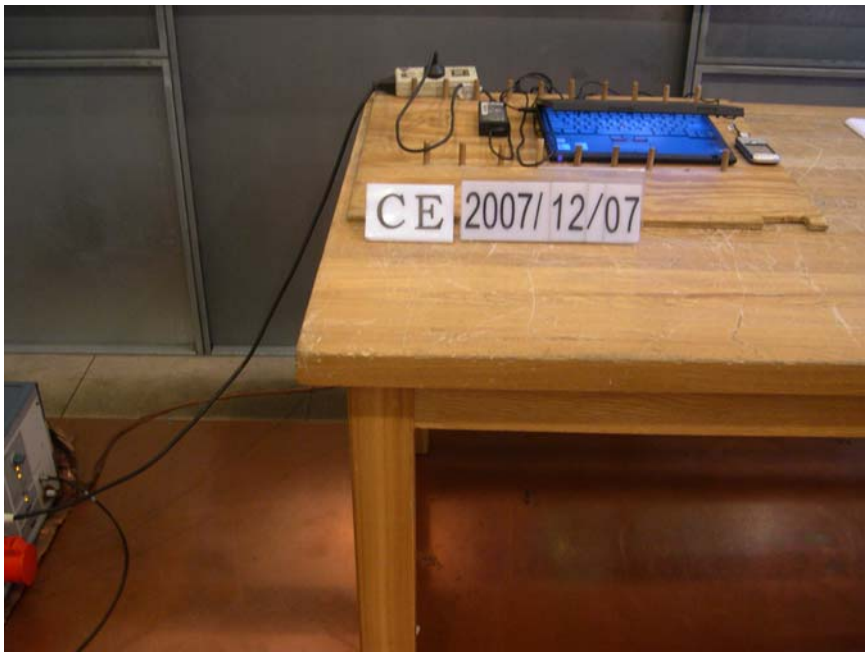
Mobile phone Disassembly



Mobile phone Disassembly

ANNEX C TEST LAYOUT

Pic C.1 Radiated Emission



Pic C.2 Conducted Emission

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