

## DECLARATION OF CONFORMITY

Cellular Italia S.p.A.  
Via Lambrakis, 1/A  
42100 Reggio Emilia (Italy)

declares under its own responsibility that the product:

- **MODEL: CBRAR**
- **TYPE: 12 – 24V PLUG-IN CHARGER WITH AUTOMATIC WIRE WINDER**

has been manufactured in compliance with the below listed directives

- ◆ **EN 61000 – 6 – 3 : 2001, EN 61000 – 6 – 1 : 2001**
- ◆ **EN 61000 – 4 – 2 : 1995, EN 61000 – 4 – 3 : 1997**

and meets the essential requirements of following directives:

- 89/336/CEE and following modifications, that came into force with decree law No.615 dated November 12<sup>TH</sup>, 1996.

Reggio Emilia, 24 May 2004

A handwritten signature in black ink, appearing to read 'Paolo Ramponi', is written over a horizontal line.

**Paolo RAMPONI**  
(Technical Department Chief)  
per  
**Piero FOGLIO**  
(President)



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG

Ministère des Transports

L-2938 Luxembourg

SOCIÉTÉ NATIONALE DE  
CERTIFICATION ET D'HOMOLOGATION  
s à r.l.

Registre de Commerce: B 27180

L-5201 Sandweiler

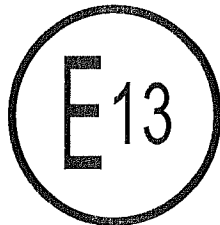


Référence: E13\*10R00\*10R02\*3918\*00

Annexes: - Rapport Technique  
- Fiche de Renseignements du constructeur

Sandweiler, 19 octobre 2006

Communication concernant:<sup>(2)</sup>  
Communication concerning:




- la délivrance d'une homologation  
approval granted  
- l'extension d'homologation  
approval extended  
- le refus d'homologation  
approval refused  
- le retrait d'homologation  
approval withdrawn  
- l'arrêt définitif de la production  
production definitely discontinued

d'un type de sous-ensemble électrique/électronique<sup>(2)</sup> en ce qui concerne le Règlement N° 10  
of a type of electrical/electronic sub-assembly with regard to Regulation N° 10

Numéro d'homologation par type:  
Approval number:

E13\*10R00\*10R02\*3918\*00

Marque d'homologation:  
Approval mark:

 10R-02 3918

1. **Fabricant: (marque commerciale du constructeur):**  
Make (trade name of manufacturer):
2. **Type:**  
Type: CRC-01  
**Dénomination(s) commerciale(s) générale(s):**  
General commercial description(s): Mobile Charger  
**Version(s)/Variante(s):**  
Version(s)/Variant(s): CRC-XX
3. **Moyens d'identification du type, s'ils sont marqués sur le véhicule / composant / entité technique<sup>(2)</sup>:**  
Means of identification of type, if marked on the vehicle / component / separate technical unit: See item 6.
- 3.1. **Emplacement de ce marquage:**  
Location of that marking: See item 6.

4. **Catégorie du véhicule:**  
Category of vehicle: Not applicable
5. **Nom et adresse du constructeur:**  
Name and address of manufacturer:
6. **Dans le cas de composants ou d'entités techniques, emplacement et procédé de fixation de la marque de réception CEE:**  
In the case of components and separate technical units, location and method of affixing of the ECE approval mark: Printed label durable fixed on housing of ESA
7. **Adresse(s) de l' (des) usine(s) d'assemblage:**  
Address(es) of assembly plant(s):
8. **Informations supplémentaires (s'il y a lieu):**  
Additional informations (where applicable): See appendix
9. **Autorité déléguée:**  
*Assigned authority:* *Société Nationale de Certification et d'Homologation L-5230 Sandweiler*
- Service technique responsable de l'exécution des essais:**  
Technical service responsible for carrying out the tests: Société Nationale de Certification et d'Homologation  
11, route de Luxembourg  
L-5230 Sandweiler
10. **Date du rapport d'essai:**  
Date of test report: 17.10.2006
11. **Numéro du rapport d'essai:**  
Number of test report: 27604J
12. **Remarques (s'il y a lieu):**  
Remarks (if any): Not applicable
13. **Lieu:**  
Place: Sandweiler
14. **Date:**  
Date: 19 octobre 2006
15. **Signature:**  
Signature:

Pour le Ministre des Transports



**Paul SCHMIT**  
Commissaire du Gouvernement

Pour la SNCH



**Claude LIESCH**  
Conseiller de Direction

**16. L'index de l'ensemble des renseignements déposé chez l'autorité de réception, qui peut être obtenu sur demande, est joint.**

The index to the information package lodged with the approval authority, which may be obtained on request, is attached.

See index to type-approval report

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<sup>2</sup> **Biffer la mention inutile**  
Strike out what does not apply

## Appendice

Appendix

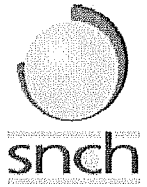
**au certificat d'homologation par type N° E13\*10R00\*10R02\*3918\*00**  
 to type-approval certificate N° E13\*10R00\*10R02\*3918\*00  
**concernant l'homologation par type d'un sous ensemble électrique/électronique selon le Règlement N° 10.**  
 concerning the type-approval of an electrical/electronic sub-assembly under Regulation N° 10.

- |               |  |   |
|---------------|--|---|
| <b>1.</b>     | <b>Informations supplémentaires</b><br>Additional informations   |   |
| <b>1.1.</b>   | <b>Tension nominale du système électrique [V]:</b><br>Electrical system rated voltage [V]:   | 12/24V DC   |
|               | <b>Masse:</b><br>Ground:   | Negative  |
| <b>1.2.</b>   | <b>Ce SEEE peut être utilisé sur n'importe quel type de véhicule avec les restrictions suivantes:</b><br>This ESA can be used on any vehicle type with the following restrictions:   | Not applicable  |
| <b>1.2.1.</b> | <b>Conditions d'installation, s'il y a lieu:</b><br>Installation conditions, if any:   | Not applicable  |
| <b>1.3.</b>   | <b>CE SEEE peut seulement être utilisé sur les types de véhicules suivants:</b><br>This ESA can be used only on the following vehicle types:   | Not applicable  |
| <b>1.3.1.</b> | <b>Conditions d'installation, s'il y a lieu:</b><br>Installation conditions, if any:   | Not applicable  |
| <b>1.4.</b>   | <b>La (les) méthode(s) spécifique(s) d'essais utilisée(s) et les bandes de fréquences couvertes pour déterminer l'immunité étai(ent):(indiquez s'il vous plaît à partir de l'annexe 9 la méthode précise utilisée):</b><br>The specific test method(s) used and the frequency ranges covered to determine immunity were: (Please specify precise method used from annex 9) | Not applicable  |
| <b>1.5.</b>   | <b>Laboratoire approuvé/accrédité (dans le cadre de ce Règlement) responsable de l'exécution des essais:</b><br>Approved/accredited laboratory (for the purpose of this Regulation) responsible for carrying out the test:   | SGS-TÜV SAARLAND FORSTER GmbH<br>Saarbrücker Strasse 1<br>D-66706 Perl-Sinz |
| <b>2.</b>     | <b>Commentaires:</b><br>Remarks:   | Not applicable  |
|               | <b>Raison(s) de l'extension:</b><br><i>Reason(s) for extension:</i>  | <i>Not applicable</i>   |



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SOCIÉTÉ NATIONALE DE  
CERTIFICATION ET D'HOMOLOGATION  
s.à r.l.  
Registre de Commerce: B 27180  
L-5201 Sandweiler



**Référence:** E13\*10R00\*10R02\*3918\*00

**Annexes:** - Rapport Technique  
- Fiche de Renseignements du constructeur

Sandweiler, 19 octobre 2006

### Index du dossier d'homologation Index to type-approval

	<b>Numéro d'homologation:</b> Approval number:	E13*10R00*10R02*3918*00
	<b>Révision:</b> Revision:	00
	<i>Marque de fabrique ou de commerce:</i> Trade name or mark:	
	<b>Type:</b> Type:	CRC-01
1.	<b>Procès-verbal d'essai:</b> Test report:  - Test report: - Compilation: - Information sheet:	27604J  Page 1 to 5; Page 1; Attachment 1 – Page 1, 2.
2.	<b>Dossier du constructeur:</b> Report of the manufacturer:  - Content:	Attachment 2  Refer to compilation of technical report
3.	<b>Autres documents annexés:</b> Other documents annexed:	Not applicable
4.	<b>Date de délivrance de l'homologation initiale:</b> Date of issue of initial type approval:	19.10.2006
5.	<b>Date de la dernière délivrance de pages révisées:</b> Date of last issue of revised pages:	Not applicable
6.	<b>Date de la dernière délivrance d'une homologation révisée:</b> Date of last extension:	Not applicable

<b>Technical service :</b> SGS-TÜV Saarland Forster GmbH Saarbrücker Strasse 1 66706 Perl	<b>Manufacturer :</b>  <b>Name/Type :</b> CRC-01	<b>Test report #.:</b>
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sheet : 1 von 5

## Test report #.: 27604J

### Tests on electronic parts in vehicles ( electromagnetic compatibility ) per ECE Reg.No.10

#### 0. General

- 0.1. **Model name :** Mobile Charger  
0.2. **Type/Brandname :** CRC-01  
0.2.1. **Variants :** CRC-XX

- 0.3. **Type identification,place of type plate :**  
Type plate with print to identify;  
Type plate is permanent fixed on housing of product.  
0.4. **Name and adress of manufacturer :**

- 0.4.1. **Name of represantive's** n.a.

- 0.5. **Number of description map :** 001  
**date and change :** 17.10.2006

#### 1. Details to equipment under test :

- 1.1. **Representative EUT :** tested model were CRC-01  
1.2. **Description of EUT :** mobile charger

**Technical service :**  
SGS-TÜV Saarland Forster GmbH  
Saarbrücker Strasse 1  
66706 Perl

**Manufacturer :**  
**Name/Type :**  
CRC-01

**Test report #.:**

sheet : 2 von 5

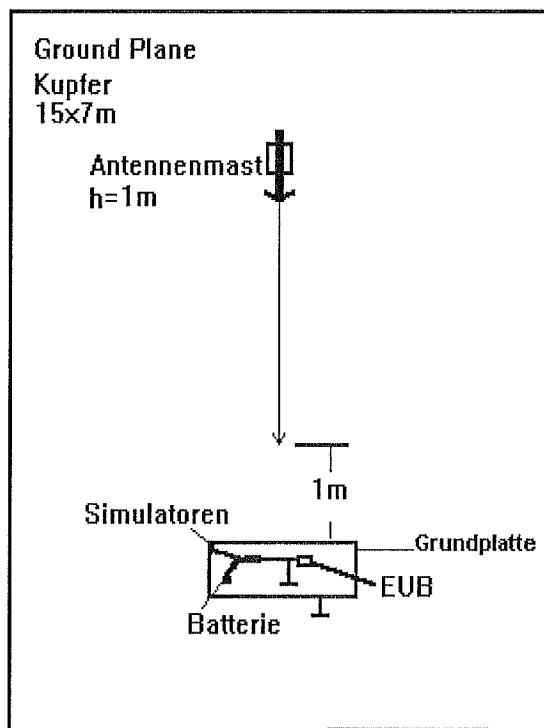
## **2. Test protocol :**

### **2.1. Measurements radiated broadband electromagnetic emissions**

**2.1.1. Details to test :** Power supply of E.U.T. with car battery and were measured with digital voltmeter METEX, type M2750. Power supply voltage comes over L.I.S.N. ( $5\mu\text{H}/50\Omega$ ) and were connected with original cable from E.U.T.. Additional ground point on tested product were connected on ground plane and were connected to earth ground system. E.U.B. were isolated with 50mm isolation from ground Plane. Ground plane is a alloy plate with dimension of 4.5x2.5m (l x w). Operation mode were with original cables during tests and works in charge mode

### **Messaufbau Störaussendungen (EUB's)**

Freifeldmesshalle 15x7m



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Société Nationale de Certification et d'Homologation  
L-5201 SANDWEILER (Luxembourg)  
Organisme accrédité OLAS EN 45011

Accréditation N° 5/001 (Portée communiquée sur demande)

**Technical service :**  
SGS-TÜV Saarland Forster GmbH  
Saarbrücker Strasse 1  
66706 Perl

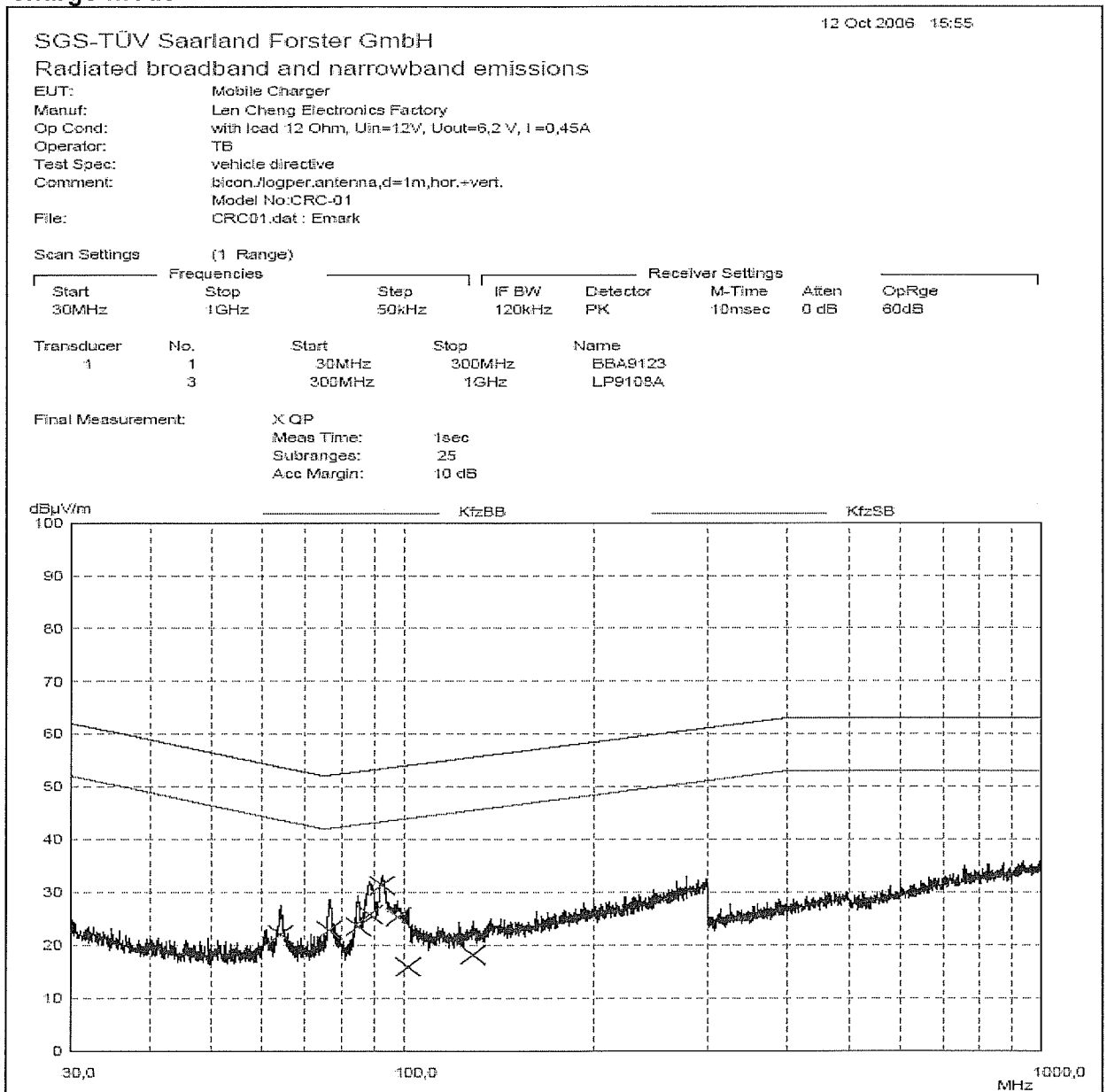
**Manufacturer :**  
**Name/Type :**  
CRC-01

**Test report #.:**

sheet : 3 von 5

- 2.1.2 Test results : passed,broadband emissions
- 2.2 Measurements radiated narrowband electromagnetic emissions
- 2.2.1 Details to tests : see pt.2.1.1
- 2.2.2 Test results : passed,narrowband emissions

### charge-mode



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Société Nationale de Certification et d'Homologation  
L-5201 SANDWEILER (Luxembourg)

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Accréditation N° 5/001 (Portée communiquée sur demande)

**Technical service :**  
SGS-TÜV Saarland Forster GmbH  
Saarbrücker Strasse 1  
66706 Perl

**Manufacturer :**  
**Name/Type :**  
CRC-01

**Test report #.:**

sheet : 4 von 5

12 Oct 2006 15:55

SGS-TÜV Saarland Forster GmbH  
Radiated broadband and narrowband emissions

EUT: Mobile Charger  
Manuf: Len Cheng Electronics Factory  
Op Cond: with load 12 Ohm, Uin=12V, Uout=6,2 V, I=0,45A  
Operator: TB  
Test Spec: vehicle directive  
Comment: bicon./logper.antenna,d=1m,hor.-vert.  
Model No:CRC-01  
File: CRC01.dat : Emark

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
30MHz	1GHz	50kHz	120kHz	PK	10msec	0 dB	60dB

Transducer	No.	Start	Stop	Name
1	1	30MHz	300MHz	BBA9123
	3	300MHz	1GHz	LP9100A

Final Measurement: X QP  
Meas Time: 1sec  
Subranges: 25  
Acc Margin: 10 dB

Final Measurement Results:

Frequency MHz	QP Level dBµV/m	QP Limit dBµV/m	QP Delta dB
64,25	21,96	53,69	31,73
76,6	22,78	52,14	29,36
86,0	23,44	52,82	29,38
88,55	25,75	53,09	27,34
92,8	31,27	53,39	22,12
97,95	25,21	53,75	28,54
101,75	15,90	54,00	38,10
128,75	18,13	55,55	37,42

### 2.3. Tests to immunity against radiated electromagnetic fields

#### 2.3.1. Test methods : not applicable

**2.3.1.1.Details to test:** not applicable,there is no function involved in the direct control of the vehicle.

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Société Nationale de Certification et d'Homologation

L-5201 SANDWEILER (Luxembourg)

Organisme accrédité OLAS EN 45011

Accréditation N° 5/001 (Portée communiquée sur demande)

**Technical service :**

SGS-TÜV Saarland Forster GmbH  
Saarbrücker Strasse 1  
66706 Perl

**Manufacturer :**

**Name/Type :**  
CRC-01

**Test report #.:**

sheet : 5 von 5

- 2.3.1.2. **Test results:** refer to item 2.6.  
2.4. **Date of tests :** 12.10.2006  
2.5. **Place of tests :** SGS-TüV Saarland Forster GmbH  
Saarbrücker Strasse 1  
66706 Perl  
2.6. **Remarks :** all versions as stated in the test report are covered with test object (s) respectively. No further tests were necessary. Tested model was CRC-01.

### 3. Annex

- 3.1. not applicable  
3.2. not applicable

### 4. Final statement


The description map and in that described type comply with above standards.  
Test lab is recognized from recognition body of Federal Office for Vehicles,  
Germany under the registration number : KBA-P 00029-98.  
Parts of this report are not allowed to reproduced or published without written  
permission from test lab.  
This report covers complete sheet 1-5.

\_\_\_\_\_  
Perl , 17.10.2006

( Place ) ( date )

\_\_\_\_\_  
Karl-Heinz Forster

(name test engineer) (signature)

 **SGS-TüV Saarland Forster GmbH**  
Saarbrücker Str. 1, 66706 Perl-Sinz

( stamp of test lab )

<b>Technical service :</b> SGS-TÜV Saarland Forster GmbH Saarbrücker Strasse 1 66706 Perl	<b>Manufacturer :</b>  <b>Name/Type :</b> CRC-01	<b>Test report #.:</b>
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**Kompilation Nr.:27604J**

**page 1 of 1**

**Main Report**

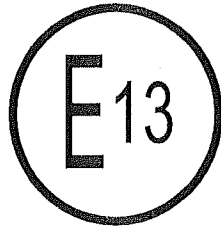
<b>Technical Report Nr.27604H</b>	<b>page 1 to 5</b>
<b>Kompilation</b>	<b>page 1 to 1</b>
<b>Information Sheet,Attachment 1</b>	<b>page 1-2</b>

**Attachment 2: Report of the manufacturer complete pages 8**

- Authorization ,page 1;
- ISO-Certificate ,page 2;
- Registrations of the company,page 3;
- Circuit diagram and system layout,page 4-7
- Photo of ESA,page 8



# Attachment 1



## Communication concernant<sup>(2)</sup>:

- Communication concerning:
- **délivrance d'une l'homologation**  
approval granted
  - **l'extension d'homologation**  
approval-extended
  - ~~le refus d'homologation~~  
approval-refused
  - ~~le retrait d'homologation~~  
approval-withdrawn
  - ~~l'arrêt définitif de la production~~  
production-definitely-discontinued

d'un type de sous-ensemble<sup>(2)</sup> électrique/électronique en ce qui concerne le Règlement N° 10  
of a type of electrical/electronic with regard to Regulation N° 10

1.	Make (trade name of manufacturer):	1
2.	Type:	CRC-01
	Variant's: /Brandnames	CRC-XX
	General commercial description(s):	Mobile Charger
3.	Means of identification of type, if marked on the vehicle / component / separate technical unit:	Laser printed label
3.1.	Location of that marking:	fixed durable on housing of ESA
4.	Category of vehicle:	not applicable
5.	Name and address of manufacturer:	RY
5.1	Représentant	n.a.
6.	In the case of components and separate technical units, location and method of affixing of the EEC approval mark:	printed label, fixed durable on housing of ESA
7.	Address(es) of assembly plant(s):	
8.	Additional informations (where applicable):	see appendix
9.	Assigned authority:	SNCH
	Technical service responsible for conducting approval tests:	SGS-TÜV Saarland Forster GmbH Saarbrücker Strasse 1 66706 Perl-Sinz
10.	Date of test report:	17.10.2006
11.	Number of test report:	27604J
12.	Remarks (if any):	not applicable

Appendix

<b>1.</b>	Additional informations:	not applicable
<b>1.1.</b>	Electrical system rated voltage [V]:	12/24VDC
	Ground:	Negative
<b>1.2.</b>	This ESA can be used on any vehicle type with the following restrictions:	not applicable
<b>1.2.1.</b>	Installation conditions, if any:	not applicable
<b>1.3.</b>	This ESA can be used only on the following vehicle types:	not applicable
<b>1.3.1.</b>	Installation conditions, if any:	not applicable
<b>1.4.</b>	The specific test method(s) used and the frequency ranges covered to determine immunity were:	not applicable
<b>1.5.</b>	Approved/accredited laboratory responsible for carrying out the test:	SGS-TÜV Saarland Forster GmbH Saarbrücker Strasse 1 66706 Perl-Sinz
<b>2.</b>	Remarks:	not applicable



LEN CHENG ELECTRONICS FACTORY

Address: Sicun, Shijie Town, Dongguan City, Guangdong, China  
Factory TEL: 769-86319951 FAX: 769-86321595

**Authorization**

This is to confirm that we authorize

**SGS-TÜV Saarland Forster GmbH**

**Saarbrücker Strasse 1**

**66706 Perl**

**Germany**

to apply at: E-mark

product name: Mobile Charger

model/type : CRC-XX , CRC-01

(XX indicates the types of cellular phones)

brandname :

in behalf of

applicant name

address: Sicun, Shijie Town, Dongguan City, Guangdong, China

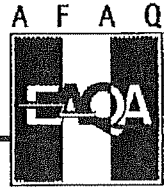
Place, date

Signature and stamp

*China, Sep 25, 2006*

*Jacky Zhang*





### CERTIFICATE OF REGISTRATION

This is to certify that the  
Quality Management System of

Skoun Industrial Area, Shijie Town, Dongguan City, Guangdong Province, China

For  
Manufacture of Mobile Antenna, Charger and Headset

Has been assessed by AFAQ-EAQA and complies with the  
Quality Management System requirements of

**ISO 9001:2000**

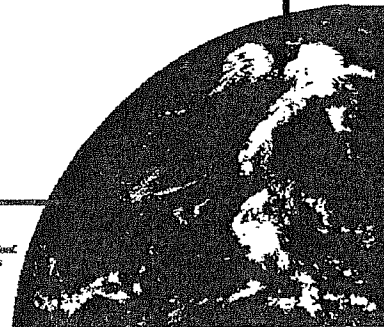
CERTIFICATE NO.	ORIGINAL DATE OF CERTIFICATION	DATE OF ISSUE	DATE OF EXPIRY
3547	1 October, 2002	31 October, 2005	30 October, 2008



APPROVED BY

ON BEHALF OF  
AFAQ-EAQA LTD

AFAQ-EAQA Ltd 185 Park Street LONDON SE1 3DY  
Part of the AFAQ Group of Companies  
This certificate is the property of AFAQ-EAQA Ltd and issued subject to the conditions outlined.  
The use of the ANAB Accreditation Mark indicates accreditation in respect of those activities  
covered by the ANAB certificate.



page 2

27604J

E13\*10R00\*10R02\*3918\*00  
Société Nationale de Certification et d'Homologation  
L-5201 SANDWEILER (Luxembourg)  
Organisme accrédité OLAS EN 45011  
Accréditation N° 5/001 (Portée communiquée sur demande)

# Business license

CODE: NO. 0194465

Register no : Industry and business enterprise process Yue Guan  
NO.17951  
Dong process approval Jie NO.0630

Establish date : May 12, 1998

Register organization : Industry and business administration management  
bureau of DongGuan city.

Issue date : Oct 23, 2003

The original date in force : may 13, 1998

Company name : Y

Operate place : Sicun, Shijie Town, Dongguan City, Guangdong

Business enterprise type : Three plus one

Representative director : Chen Qiubo

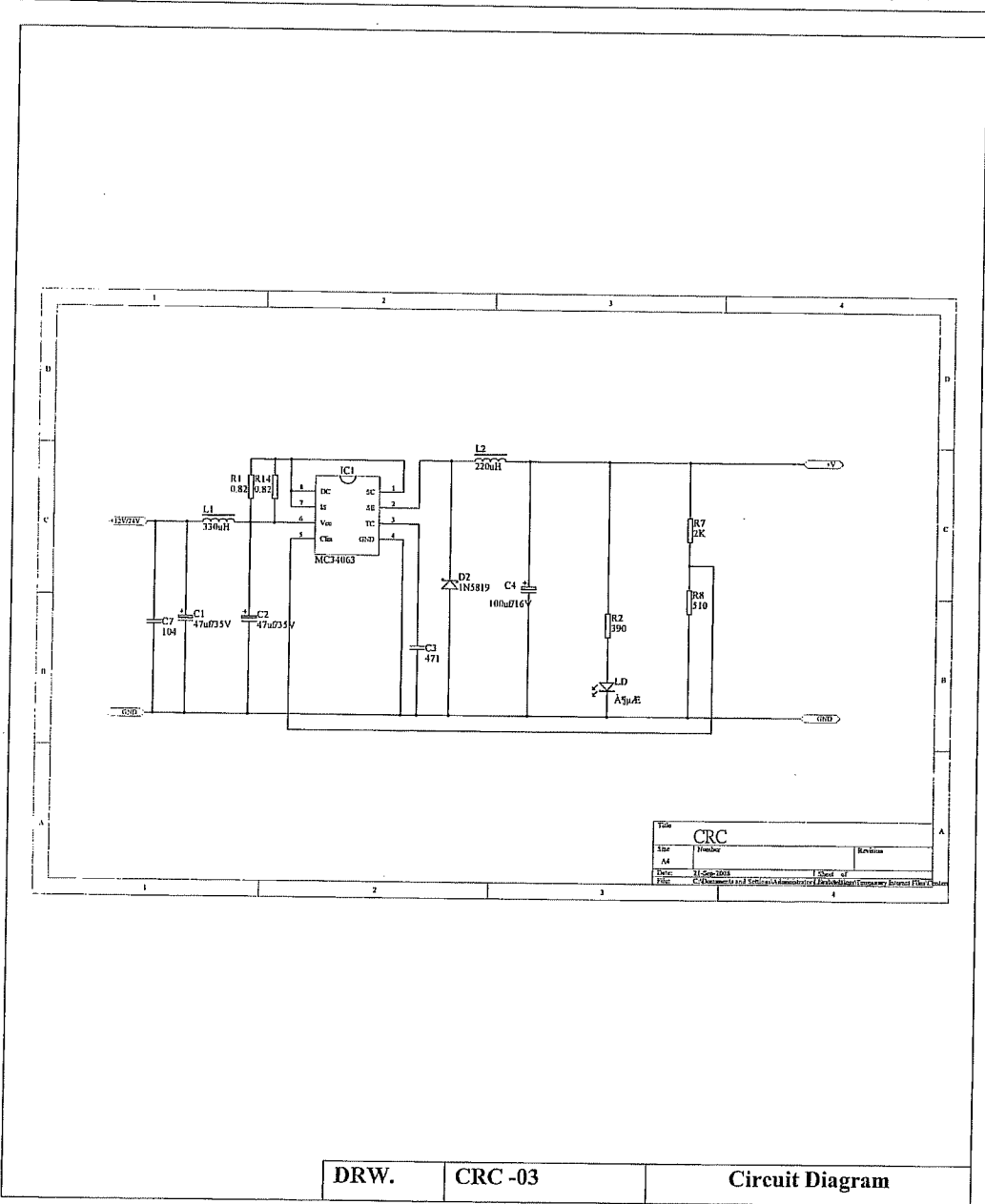
Operate scope : Process electrical appliances(power supply,  
Chargers, earphones, battery, antenna, etc.), mobile  
phones. Reference to the items of license, operate  
after get the license.

Subordinate corporation :

License expiration date : since May 12, 1998 to Mar 23, 2008

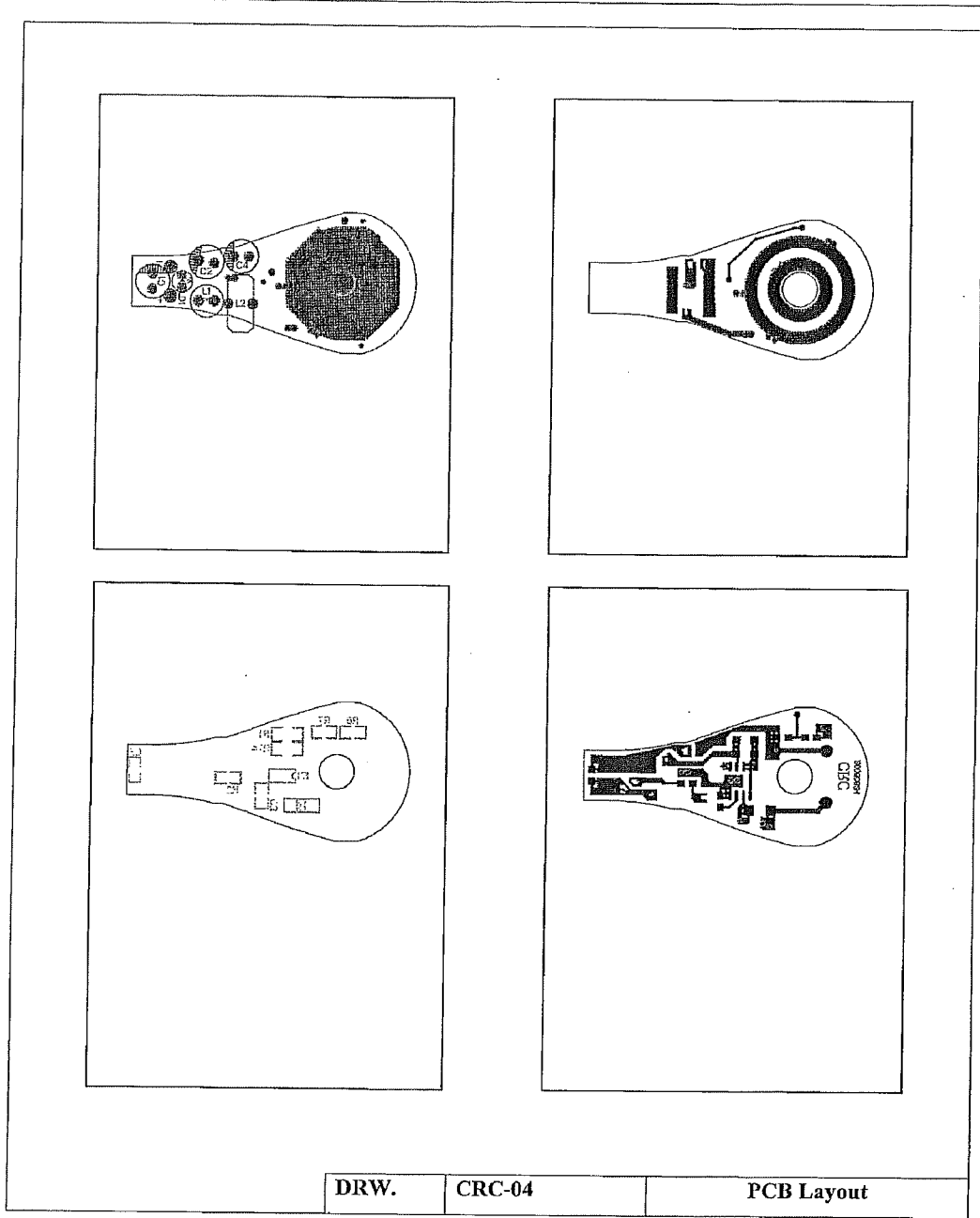
Operate expiration date : since May 12, 1998 to Mar 23, 2008





Type : CRC

27604J



Type : CRC

### 6.BOM

MODEL	CRC	BOARD	CRC		
DESCRIPTION	SPECIFICATION	Q'ty	LOCATION	REMARK	
1	IC	MC34063 SMD SO-8	1	IC1	
2	DIODE	1N5819 SMD DO-214	1	D2	
3	RESISTOR	0.82Ω±5% SMD 1206	2	R1,R14	
4	RESISTOR	390Ω±5% SMD 0805	1	R2	
5	RESISTOR	2KΩ±5% SMD 0805	1	R7	
6	RESISTOR	510Ω±5% SMD 0805	1	R8	
7	CAPACITOR	Y5V 471/50V SMD 0805	1	C3	
8	CAPACITOR	Y5V 104/50V SMD 0805	1	C7	
9	LED	Φ3,blue light	1	LD	
10	E. C.	47uF/35V Φ6×7mm	2	C1,C2	
11	E.C.	100uF/16V Φ6×7mm	1	C4	
12	INDUCTOR	Φ6×8mm , 330uH , 0.9Ω	1	L1	
13	INDUCTOR	T10×5×3.5 , 220uH , 0.3Ω	1	L2	
14	PCB	CRC,53×26×1.2mm,FR-4	1		
15	LEAD	30mm×9/0.1 , PVC,RED	1		
16	LEAD	30mm×9/0.1 , PVC,BLACK	1		
17	FUSE	Φ5×20mm 1A/250V	1		

## Design Spec. of CRC

### 1. Description

#### 1.1 Purpose

This document describes the electrical and safety design requirements of CRC.

#### 1.2 Function

It is provided to the DC-DC switchover function for cellular phone.

### 2. Electric specifications

2.1 Input voltage: 11V~28V

2.2 Maximum input power (with full load): Below 8.5W

2.3 Working efficiency of the charger > 60%

2.4 Output voltage and current: DC4.2V~6.2V  
500mA

2.5 Maximum output ripple:  $\leq 250\text{mVp-p}$  (peak-peak), under no load and rated load condition.

2.6 Input current (with no load ): Below 30mA

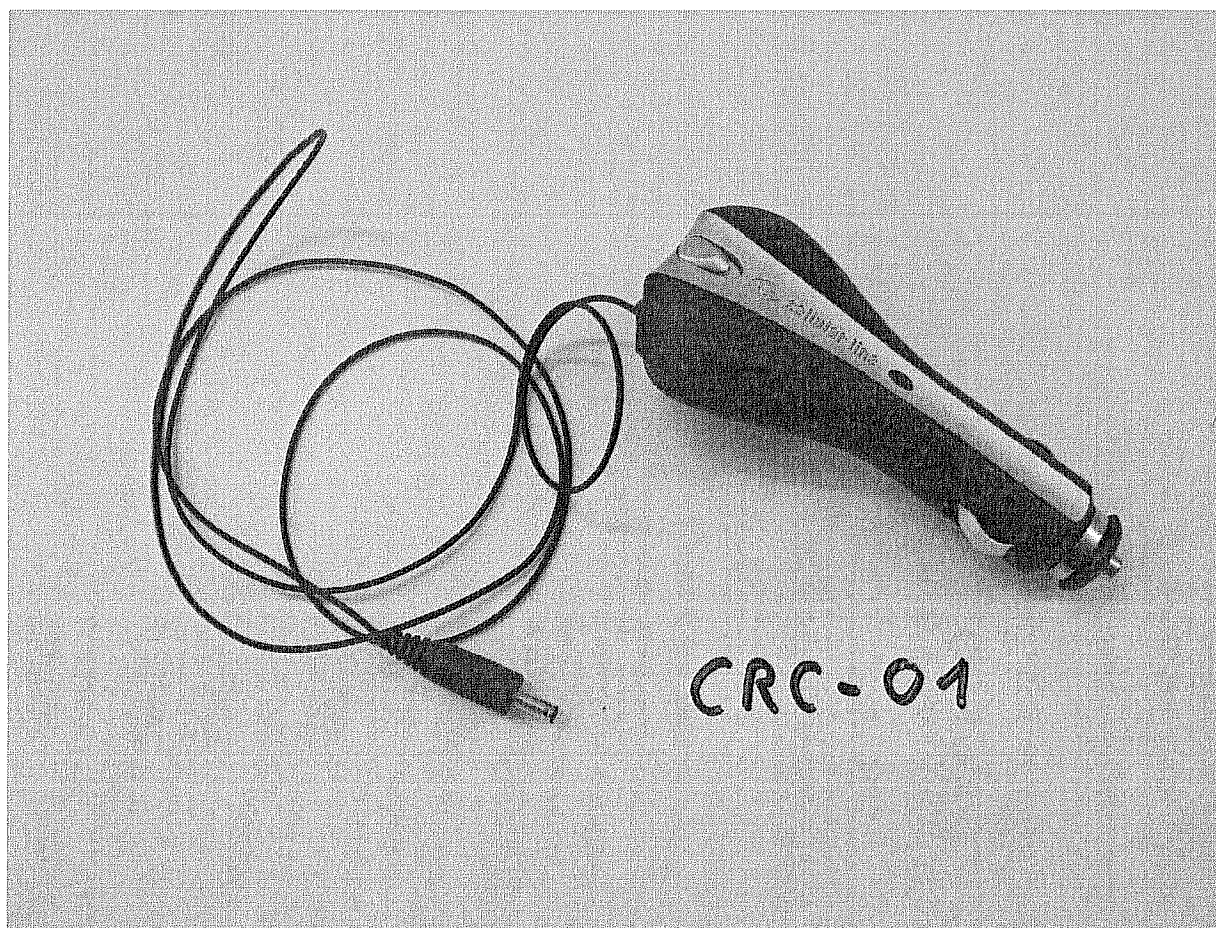
2.7 The indicator should keep lighting while rating utility power is available.

2.8 Fuse: Must survive reverse voltage.

2.9 CABLE 及 CONNECTOR

2.10 CABLE:  $\Phi 1.3$  PU shielding, 1.0m long, 2 core, with SR

Photo E.S.A.,Housing



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