



GRAND-DUCHÉ DE LUXEMBOURG

Ministère du Développement durable
et des Infrastructures
Département 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*72/245*2009/19*12699*00

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Sandweiler, le 10 juillet 2012

Certificat de réception CE par type EC Type-Approval Certificate

Communication concernant: ⁽¹⁾
Communication concerning the:

- la réception par type
type-approval
- l'extension de la réception par type
extension of type approval
- le refus de la réception par type
refusal of type approval
- le retrait de la réception par type
withdrawal of type approval

d'un type de composant / entité technique ⁽¹⁾ en vertu de la directive 72/245/CEE telle que modifiée en dernier lieu par la directive 2009/19/CE.

of a type of component / separate technical unit with regard to Directive 72/245/EEC, as last amended by Directive 2009/19/EC.

Numéro de réception par type:
Type-approval number:

e13*72/245*2009/19*12699*00

Raison(s) de l'extension:
Reason(s) for extension:

Not applicable

Marque de réception CE à apposer sur le SEEE: e13 03 12699
EC type-approval mark to be affixed on ESA:

Section I Section I

0.1. Marque (raison sociale du constructeur):
Make (trade name of manufacturer):

Lintech Enterprises Limited

0.2. Type:
Type:

LM-070S

Description(s) commerciale(s) générale(s):
General commercial description(s):

Car rearview system

Version(s)/Variante(s):
Version(s)/Variant(s):

LC-028A, LC-018D, LC-018A, LC-018C, LC-007A,
LC-009ABC, LC-015DB, LC-012W, LM-070Series,
LM-7502, LM-7504Q, LM-090S, LM-090Q

- 0.3. Moyens d'identification du type, s'il est indiqué sur le composant / entité technique:**^(1, 2)
Means of identification of type, if marked on the component / ~~separate technical unit~~: See item 0.7.
- 0.3.1. Emplacement de ce marquage:**
Location of that marking: See item 0.7.
- 0.5. Nom et adresse du constructeur:**
Name and address of manufacturer: Lintech Enterprises Limited
5th Floor, Building H, Shunchengji, Dalang Street,
Bao'an District, Shenzhen City,
Guangdong Province,
China
- Nom et adresse du représentant autorisé éventuel:**
Name and address of authorized representative, if any: Not applicable
- 0.7. Dans le cas de composants et d'entités techniques, emplacement et méthode d'apposition de la marque de réception CE:**
In the case of components and separate technical units, location and method of affixing of the EC approval-mark: Printed label durable fixed on housing of ESA
- 0.8. Adresse de l'atelier/ des ateliers de montage:**
Address(es) of assembly plant(s): Lintech Enterprises Limited
Dalang Street, Bao'an District, Shenzhen City,
Langkou Communities Along the Base H,
2nd Floor, Industrial Zone,
Northwest of Separate Body,
China

¹ **Biffer les mentions inutiles**

Delete where not applicable

² **Si les moyens d'identification du type contiennent des caractères n'intéressant pas la description des types de composants ou d'entités techniques couverts par la présente fiche de réception, on peut les indiquer dans la documentation au moyen du symbole "?" (par exemple: ABC??123??).**

If the means of identification of type contains characters not relevant to describe the vehicle, component or separate technical unit types covered by this type-approval certificate, such characters shall be represented in the documentation by the symbol "?" (e.g. ABC??123??).

Section II

Section II

1. **Informations complémentaires
(le cas échéant):**
Additional information (where applicable): See appendix
2. **Autorité déléguée:**
Assigned authority: *Société Nationale de Certification et d'Homologation
L-5230 Sandweiler*

**Service technique responsable de la
réalisation des essais:**
Technical service responsible for carrying out the tests: Société Nationale de Certification et d'Homologation
11, rue de Luxembourg
L-5230 Sandweiler
3. **Date du rapport d'essai:**
Date of test report: 04.07.2012
4. **Numéro du rapport d'essai:**
Number of test report: 35407ALM
5. **Remarques (le cas échéant):**
Remarks (if any): Not applicable
6. **Lieu:**
Place: Sandweiler
7. **Date:**
Date: 10 juillet 2012
8. **Signature:**
Signature:

Pour le Département des Transports



A handwritten signature in black ink, appearing to read "M. Feltes".

Marco FELTES
Inspecteur Principal 1^{er} en rang

Pour la SNCH



A handwritten signature in black ink, appearing to read "C. Liesch".

Claude LIESCH
Directeur



9. **Le dossier de réception déposé auprès de l'administration qui a délivré la réception est disponible sur demande.**

The type-approval file deposited at the Administrative Service having delivered the type-approval, may be obtained on request.

See index to type-approval report

Appendice

Appendix

au certificat de réception CE par type n° e13*72/245*2009/19*12699*00

to EC type-approval certificate n° e13*72/245*2009/19*12699*00

concernant la réception par type d'un sous-ensemble électrique/électronique, conformément à la directive 72/245/CEE, telle que modifiée en dernier lieu par la directive 2009/19/CE de la Commission.

concerning the type-approval of an electric/electronic sub-assembly with regard to Directive 72/245/EEC, as last amended by Directive 2009/19/EC.

- | | | |
|---------------|--|---|
| 1. | Informations complémentaires:
Additional information: | |
| 1.1. | Tension nominale du système électrique:
Electrical system rated voltage: | 12 V DC |
| | Masse:
Ground: | Negative |
| 1.2. | Ce SEEE peut être utilisé sur n'importe quel type de véhicule avec les restrictions suivantes:
This ESA can be used on any vehicle type with the following restrictions: | Not applicable |
| 1.2.1. | Conditions d'installation, le cas échéant:
Installation conditions, if any: | Not applicable |
| 1.3. | Ce SEEE peut seulement être utilisé sur les types de véhicules suivants:
This ESA can only be used on the following vehicle types: | Not applicable |
| 1.3.1. | Conditions d'installation, le cas échéant:
Installation conditions, if any: | Not applicable |
| 1.4. | Méthode(s) spécifique(s) d'essai utilisée(s) et gammes de fréquences couvertes pour déterminer l'immunité (indiquer quelle méthode figurant à l'annexe IX a été utilisée):
The specific test method(s) used and the frequency ranges covered to determine immunity were:
(please specify precise method used from Annex IX) | Not applicable |
| 1.5. | Laboratoire accrédité à la norme ISO 17025 et reconnu par l'autorité de réception (aux fins de la présente directive) responsable de l'exécution des essais:
Laboratory accredited to ISO 17025 and recognized by the Approval Authority (for the purpose of this Directive) responsible for carrying out the test: | SGS-TÜV SAARLAND FORSTER GmbH
Saarbrücker Strasse 1
D-66706 Perl-Sinz |
| 5. | Observations:
Remarks: | None |



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L-5201 Sandweiler



Référence: e13*72/245*2009/19*12699*00

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Sandweiler, le 10 juillet 2012

Index du dossier de réception

Index to type-approval report

Numéro de réception: e13*72/245*2009/19*12699*00
Approval number:

Révision: 00
Revision:

Marque de fabrique ou de commerce: Lintech Enterprises Limited
Trade name or mark:

Type: LM-070S
Type:

1. **Procès-verbal d'essai:** N° 35407ALM
Test report:
 - Compilation: Page 1;
 - Information sheet: Attachment 1 - Page 2 & 3;
 - Test report: Attachment 2 - Page 4 to 14.
2. **Dossier du constructeur:** Attachment 3
Report of the manufacturer:
 - Content: Refer to compilation in technical report
3. **Autres documents annexés:** Not applicable
Other documents annexed:
4. **Date de délivrance de la réception initiale:** 10.07.2012
Date of issue of initial type approval:
5. **Date de la dernière délivrance de pages révisées:** Not applicable
Date of last issue of revised pages:
6. **Date de la dernière délivrance d'une fiche de réception révisée:** Not applicable
Date of last extension:

Kompilation Nr.: 35407ALM

Kompilation

page 1

Composition of the Attachments

Attachment 1 Information sheet

page 2 to 3

Attachment 2 Test Report No.: 35407ALM

page 4 to 14

Attachment 3 Report of the manufacturer

page 15 to 24

-Information Documents,
-Photo of ESA,

page 15 to 23;
page 24



Attachment 1

Technical information about the ESA type according to annex III B of the Communication concerning EEC-type approval

SECTION I

- | | | |
|---------------|--|---|
| 0.1. | Make (trade name of manufacturer): | Lintech Enterprises Limited |
| 0.2. | Type/
Brand name
General commercial description(s):

Version(s)/Variant(s): | LM-070S
n. a.
Car rearview system

LC-028A,LC-018D,LC-018A,LC-018C,
LC-007A,LC-009ABC,LC-015DB,LC-012W,
LM-070Series,LM-7502,LM-7504Q,
LM-090S,LM-090Q |
| | <u>Brand name—</u> | n. a. |
| 0.3. | Means of identification of type, if marked
on the vehicle / component /
separate technical unit: | Laser printed label |
| 0.3.1. | Location of that marking: | fixed durable on housing of ESA |
| 0.5. | Name and address of manufacturer: | Lintech Enterprises Limited
5 th Floor, Building H, Shunchengji, Dalang Street,
Baoan District, Shenzhen City, Guangdong
Province, China |
| | Representant | n.a. |
| 0.7. | In the case of components and
separate technical units, location
and method of affixing of the EC approval-mark: | printed label, fixed durable on housing of ESA |
| 0.8. | Address(es) of assembly plant(s) | Lintech Enterprises Limited
Dalang Street, Baoan District, Shenzhen City
Langkou Communities Along the Base H,
2 nd Floor, Industrial Zone, Northwest of Separate
Body, P.C.:518109, China |

SECTION II

- | | | |
|-----------|--|--------------|
| 1. | Additional information (where applicable): | see appendix |
| 2. | Date of test report: | 04.07.2012 |
| 3. | Remarks (if any): | n.a. |

APPENDIX

- | | | |
|--------|---|---|
| 1. | Additional information: | see appendix |
| 1.1. | Electrical system rated voltage [V]: | 12VDC |
| | <i>Ground:</i> | <i>negative</i> |
| 1.2. | This ESA can be used on any vehicle type with the following restrictions: | n.a. |
| 1.2.1. | Installation conditions, if any: | n.a. |
| 1.3. | This ESA can only be used on the following vehicle types: | n.a. |
| 1.3.1. | Installation conditions, if any: | n.a. |
| 1.4. | The specific test method(s) used and the frequency ranges covered to determine immunity were:
(please specify precise method used from I,pt.8.3. Annex IX) | n.a.,no immunity-related functions acc.annex |
| 1.5. | Laboratory accredited to ISO 17025 and recognized by the Approval Authority (for the purpose of this Directive) responsible for carrying out the test: | SGS-TÜV Saarland Forster GmbH
Saarbrücker Strasse 1
66706 Perl-Sinz |
| 5. | Remarks: | n.a. |

INDEX DU DOSSIER DE RECEPTION

- | | | |
|----|-----------------------------|---|
| 1. | Test report: | Kompilation 35407ALM, page 1
Attachment 1, Information sheet, page 2 to 3
Attachment 2, 35407ALM page 4 to 14 |
| 2. | Report of the manufacturer: | Attachment 3, pages 15 to 24
-Information Documents, page 15 to 23;
-Photo of ESA, page 24 |
| 3. | Other documents annexed: | n.a. |

Attachment 2

Test report #.: 35407ALM

**EMC Tests on electronic parts in vehicles according
council directive 2004/104EC from 14.10.2004, amended at
directive 2006/28/EC, 2006/96/EC, 2009/19/EC and adapting
of directive 72/245/EEC**

0. General declaration:

- 0.1. Model name:** Car rearview system
- 0.2. Type/ Brand name(s):** LM-070S/ /
Version's/ Brand name(s): LC-028A,LC-018D,LC-018A,LC-018C,LC-007A,
LC-009ABC,LC-015DB,LC-012W,LM-070Series,
LM-7502,LM-7504Q,LM-090S,LM-090Q
- 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 address of manufacturer:** Lintech Enterprises Limited
5th Floor, Building H, Shunchengji, Dalang
Street, Baoan District, Shenzhen City,
Guangdong Province, China
- 0.5. Number of description map:** 001
date and change: 04.07.2012

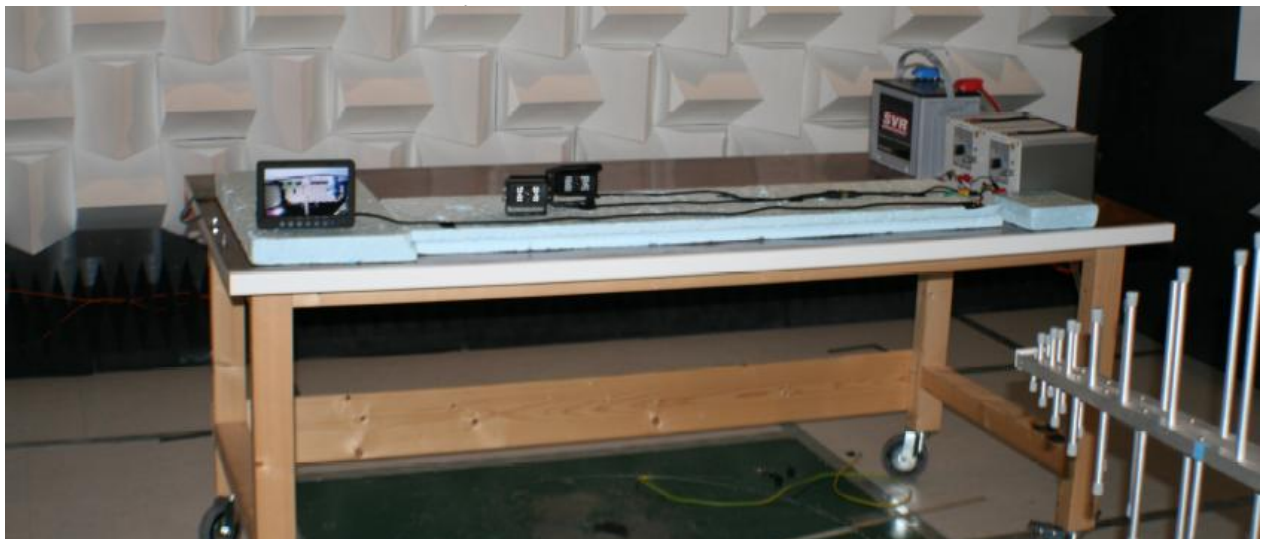
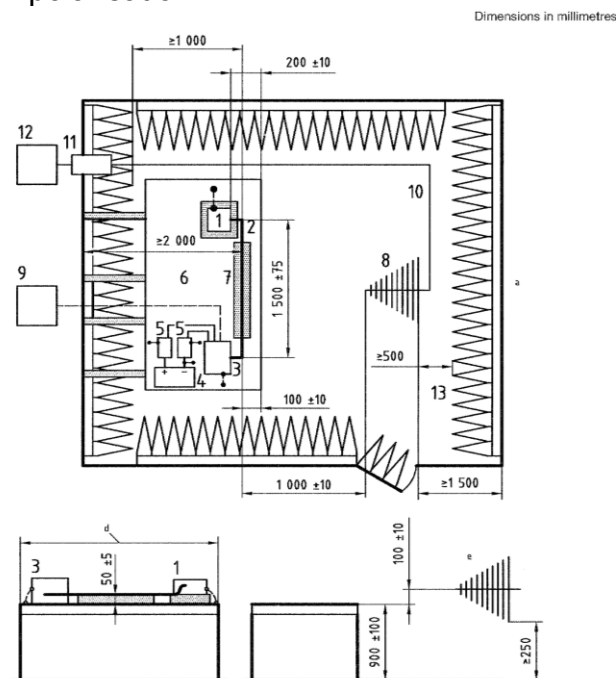
1. Details to equipment under test:

- 1.1. Representative EUT:** tested model LM-070S
1.2. Description of EUT: Car rearview system

2. Test protocol:

2.1. Measurements radiated broadband electromagnetic emissions (Annex VII)

2.1.1.1. Details to test: Power supply of E.U.T. with car battery and were measured and observed 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.. Ground plane were connected to earth ground system. E.U.B. were isolated with 50mm isolation from ground Plane. Ground plane is a copper plate with dimension of $2 \times 1.5\text{m}$ (l x w). Operation mode was with original cables during tests, works in simulation- mode and with worst case parameter in horizontal and vertical polarisation.



2.1.2. Test results: passed, broadband emissions

2.2. Measurements radiated narrowband electromagnetic emissions (Annex VIII)

2.2.1. Details to tests: see pt.2.1.1

2.2.2. Test results: passed, narrowband emissions

SGS-TÜV Saarland Forster GmbH

01.03.2012

Test Report

EUT Information

EUT Name:	Car Rearview System
Type:	LM-070S
Manufacturer:	Lintech Enterprises Limited
S/N:	---
HW.-Rev.	---
SW.-Rev.	---
Operating cond.:	Operate with 2 Cameras
Operator:	Stefan Turnsek, B. Eng.
Test spec.:	Veh. Dir.
Test Side:	SAC1
Supply:	DC12V
Polarisation:	Vertical/Horizontal
Project No.:	35407_01032012_EE1200681
Comment:	

EMI Auto Test Template: Automotive Components

Hardware Setup:	Automotive Components
Measurement Type:	Open-Area-Test-Site
Frequency Range:	30 MHz - 1 GHz
Graphics Level Range:	0 dBµV/m - 80 dBµV/m

Preview Measurements:	
Scan Test Template:	Automotive Field Strength Prescan

Data Reduction:	
Limit Line #1:	Automotive Components BB QP
Limit Line #2:	Automotive Components NB AV
Peak Search:	6 dB , Maximum Results: 30
Subrange Maxima:	30 Subranges , Maxima per Subrange: 1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
After Data Reduction:	Interactive data reduction

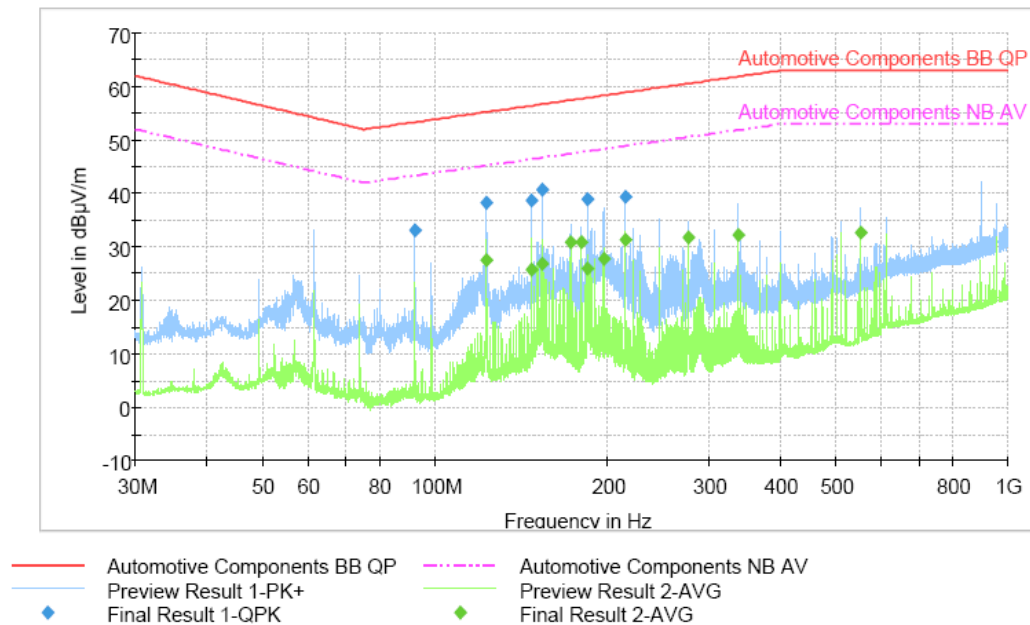
Final Measurements:	
Template for Single Meas.:	Automotive Field Strength Final

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK; AVG	120 kHz	1 s	20 dB

Receiver:	[ESU 26]
-----------	----------

Report Settings:	
Report Template:	AutomotiveTest Report

Automotive Components



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
92.160000	33.2	H	9.8	20.2	53.4	
122.880000	38.2	V	12.5	17.0	55.2	
147.480000	38.7	H	13.8	17.8	56.4	
153.600000	40.7	V	14.1	16.0	56.7	
184.360000	39.0	H	11.6	18.9	57.9	
215.040000	39.4	V	10.8	19.5	58.9	

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
122.880000	27.6	V	12.5	17.6	45.2	
147.480000	25.7	H	13.8	20.7	46.4	
153.560000	26.8	V	14.1	19.9	46.7	
172.040000	30.8	V	13.1	16.6	47.5	
179.920000	31.0	H	12.0	16.8	47.7	
184.320000	26.0	V	11.6	21.9	47.9	
196.600000	27.7	V	10.8	20.6	48.3	
215.040000	31.3	V	10.8	17.7	48.9	
276.480000	31.7	V	13.5	18.8	50.6	
337.920000	32.2	V	15.3	19.6	51.9	
552.960000	32.6	H	20.3	20.4	53.0	

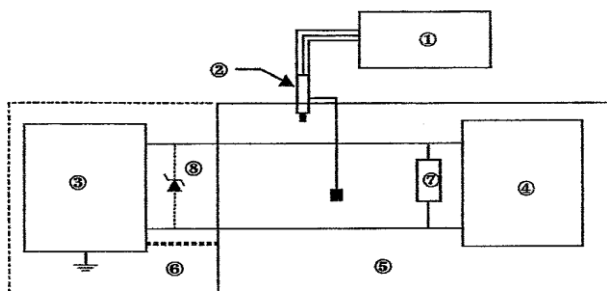
2.3. Tests to immunity against radiated electromagnetic fields (annex IX)

2.3.1. **Test methods:** n. a., no immunity-related functions acc. annex I, pt.8.3.

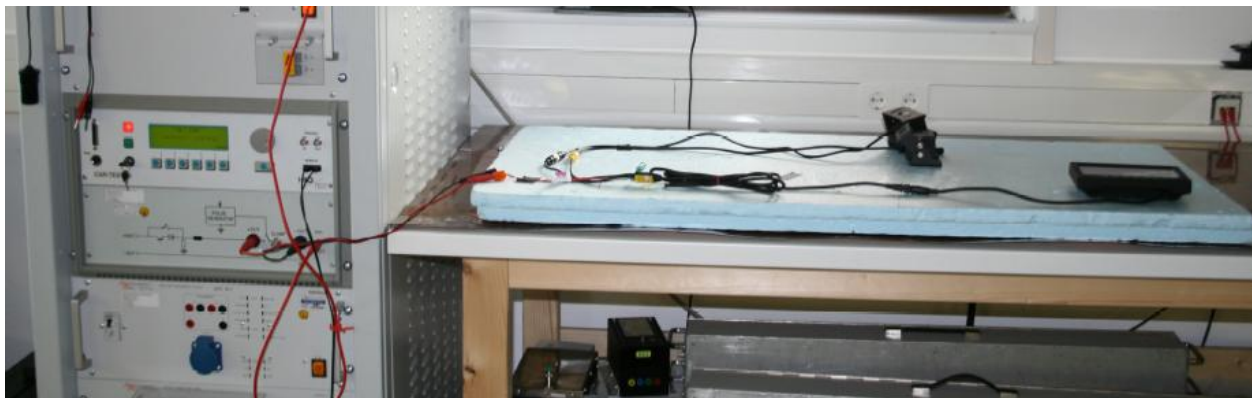
2.4. Tests to immunity against transients disturbances

2.4.1. **Test methods:** tests were performed acc.ISO 7637-2 2nd edition 2004 as described in Annex X with required test levels given in table 1 of Annex I.

2.4.1.1. **Details to test:** E.S.A were connected to car battery and observed with CCD camera during operations and tests.



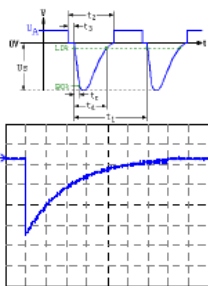
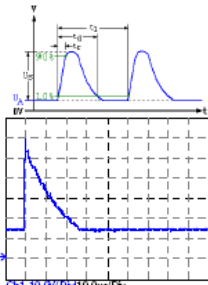
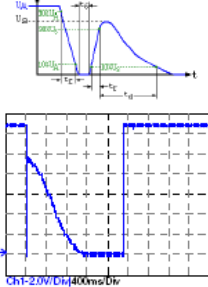
- 1 DSO, Tektronix, TDS 3052
- 2 Probe TDS
- 3 Car Tester, Spitzenberger & Spieß, PAS
- 4 E.S.A.
- 5 Ground Plane
- 6 Ground connection



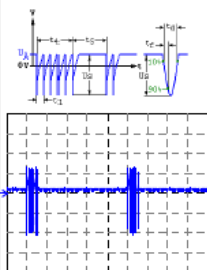
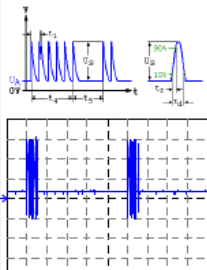
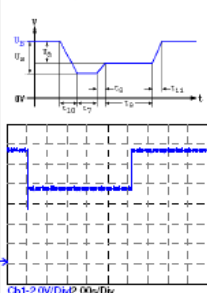
Company: SGS-TÜV Saarland Forster GmbH
Operator: S.E. Weber

Manufacturer: Lintech Enterprises Limited
Modelno.: LM-070S
Operating mode: all modes
Date of test: 01.03.2012

Nominal voltage: 12.00 Volt
Test voltage: 13.50 Volt
Shunt resistor Rs: no shunt
Executed test:
Test description:

Pulse	Us/Vs	Ri	Test parameters	Pulses / Time	Delay	Figure
ISO 7637-2 - Pulse 1	-75.0 V	10.00 Ohm	tr = 1.0us, td = 2.0ms, t1 = 1.0s, t2 = 200.0ms	5000 P.	0.0 s	
ISO 7637-2 - Pulse 2A	37.0 V	2.00 Ohm	td = 50.0us, t1 = 500.0ms	5000 P.	0.0 s	
ISO 7637-2 - Pulse 2B	10.0 V	0.00 Ohm	td = 1.0s	10 P.	60.0 s	

Spitzenberger & Spies
Viechtach

Pulse	Us/Vs	Ri	Test parameters	Pulses / Time	Delay	Figure
ISO 7637-2 - Pulse 3A	-112.0 V	50.00 Ohm	t1 = 100.0us, t4 = 10.0ms, t5 = 90.0ms	60.0 min	0.0 s	
ISO 7637-2 - Pulse 3B	75.0 V	50.00 Ohm	t1 = 100.0us, t4 = 10.0ms, t5 = 90.0ms	60.0 min	0.0 s	
ISO 7637-2 - Pulse 4	-6.0 V	0.00 Ohm	Ua = -4.0V, t7 = 30.0ms, t8 = 30.0ms, t9 = 10.0s, t10 = 5.0ms, t11 = 50.0ms	1 P.	60.0 s	

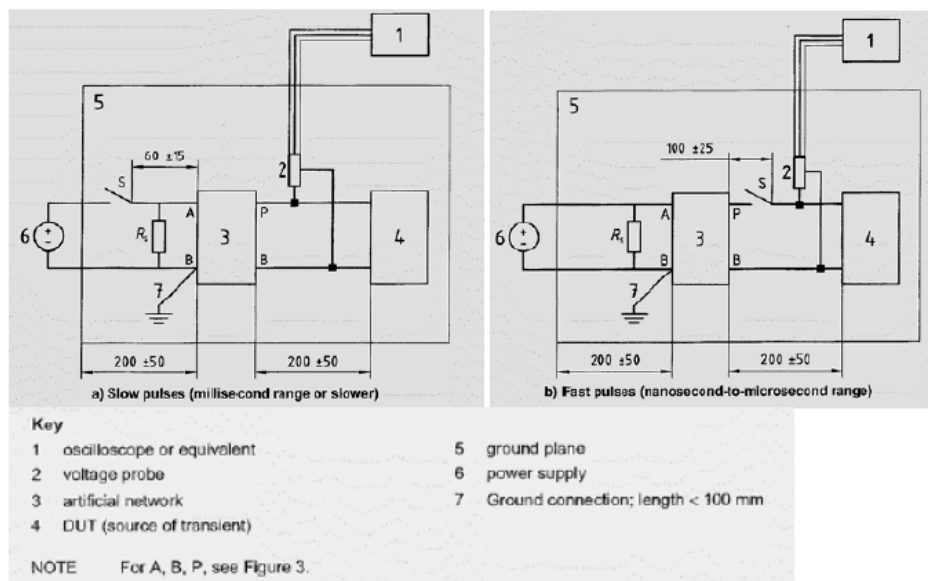
Comment:

2.4.1.2 Tests result: no degradation of any performance were registered during tests.

2.5. Tests to emissions of conducted disturbances

2.5.1. Test methods: tests were performed acc.ISO 7637-2 2nd edition 2004 as described in Annex X with required test levels given in table 2 of Annex I.

2.5.1.1. Details to test: E.S.A were connected to car battery and observed with CCD camera during operations and tests.



2.5.1.2 Tests result: passed conducted disturbances

Company: SGS-TÜV Saarland Forster GmbH
Operator: Dipl.-Ing. (FH) S.E. Weber

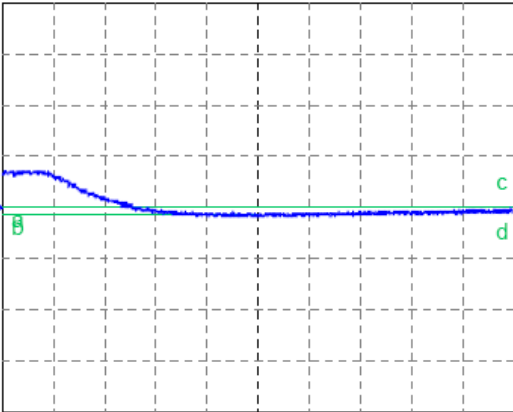
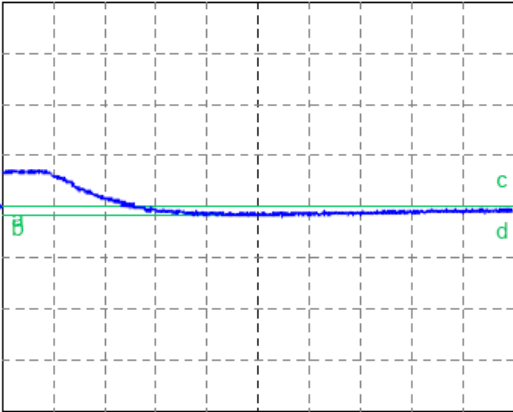
Manufacturer: Lintech Enterprises Limited
Modelno.: LM-070S
Operating mode: all modes
Date of test: 01.03.2012

Nominal voltage: 12.00 Volt
Test voltage: 13.50 Volt
Shunt resistor Rs: no shunt
Executed test: Voltage transient emission test
Test description: 10 transients, 3 sec switch off, 10 sec delay time between repetitions
Limits: +75V/-150V
Fast transients:

Transient	Amplitudes	Transient times	Figure
3 of 10 Max. pos. amplitude	Us1 = -1.7V Us2 = 2.2V	tr = 84.1us, td = 0.00us, tf = 0.00us, tr = 86.2us, td = 0.00us, tf = 0.00us, a = 0.23V, b = 2.11V, c = 5.62V, d = 0.62V	
2 of 10 Max. neg. amplitude	Us1 = -2.1V Us2 = 1.8V	tr = 50.5us, td = 0.00us, tf = 0.00us, tr = 0.00us, td = 0.00us, tf = 0.00us, a = 0.23V, b = 2.11V, c = 5.62V, d = 0.62V	

Comment:

Slow transients:

Transient	Amplitudes	Transient times	Figure
1 of 10 Max. pos. amplitude	Us1 = -17.1V Us2 = -13.2V	tr = 31.6us, td = 185.3us, tf = 153.6us, tr = 0.00us, td = 0.00us, tf = 0.00us, a = -0.39V, b = -3.52V	
4 of 10 Max. neg. amplitude	Us1 = -18.0V Us2 = -14.1V	tr = 73.9us, td = 0.00us, tf = 0.00us, tr = 0.00us, td = 0.00us, tf = 0.00us, a = -0.47V, b = -4.22V, c = -0.702V, d = -0.08V	

Comment:

Max pos.voltage transients: Umax= 2,2V
Max.neg.voltage transients: Umax=-18,0V

- 2.6 Date of tests:** 01.03.2012
- 2.7 Place of tests:** SGS-TÜV Saarland Forster GmbH
Saarbrücker Str. 1
66706 Perl- Sinz
- 2.8 Remarks:** all versions as stated in the test report are covered
with test object(s) respectively. No further tests were
necessary.
Tested model was LM-070S.

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.

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This report covers complete sheet 4-14.

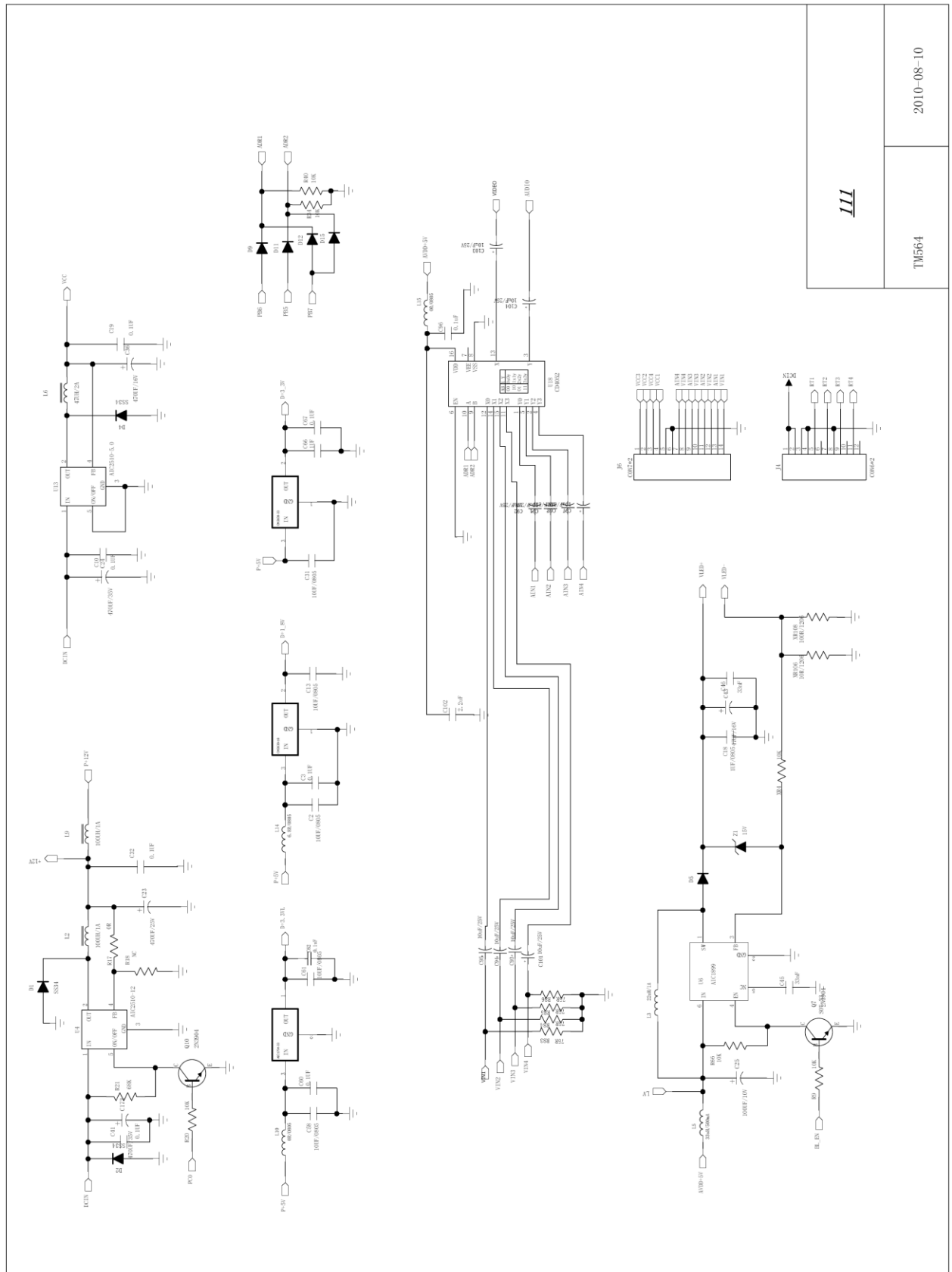
Perl , 04.07.2012
(Place) (date)

Karl-Heinz Forster
head of emc lab) (signature)



(stamp of test lab)

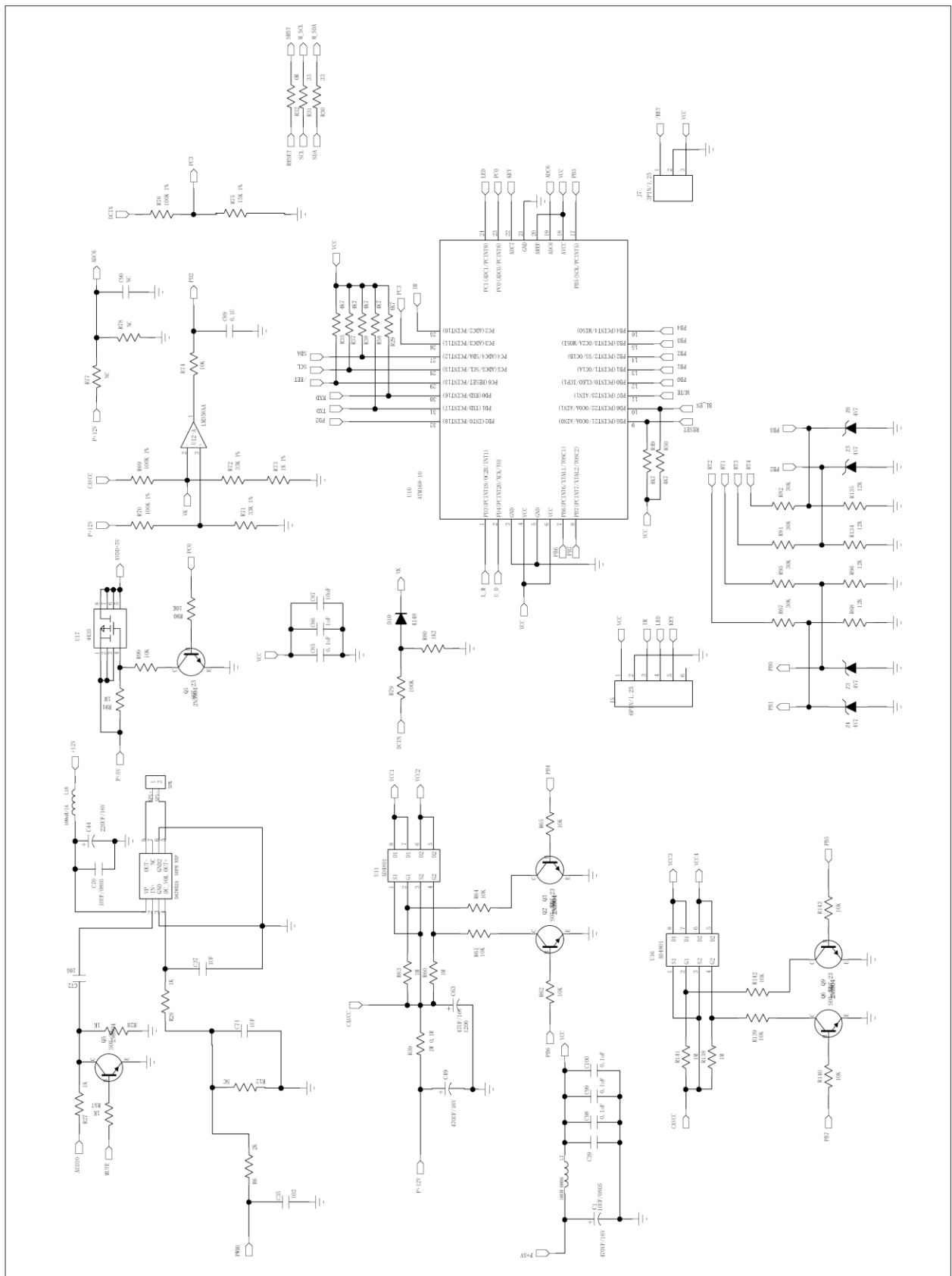
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A3			
Date	17-6-2012	Sheet	of
Drawn by	王作平 3811 SMO-3811 V3.0 PCB Schematic DWG3.0		

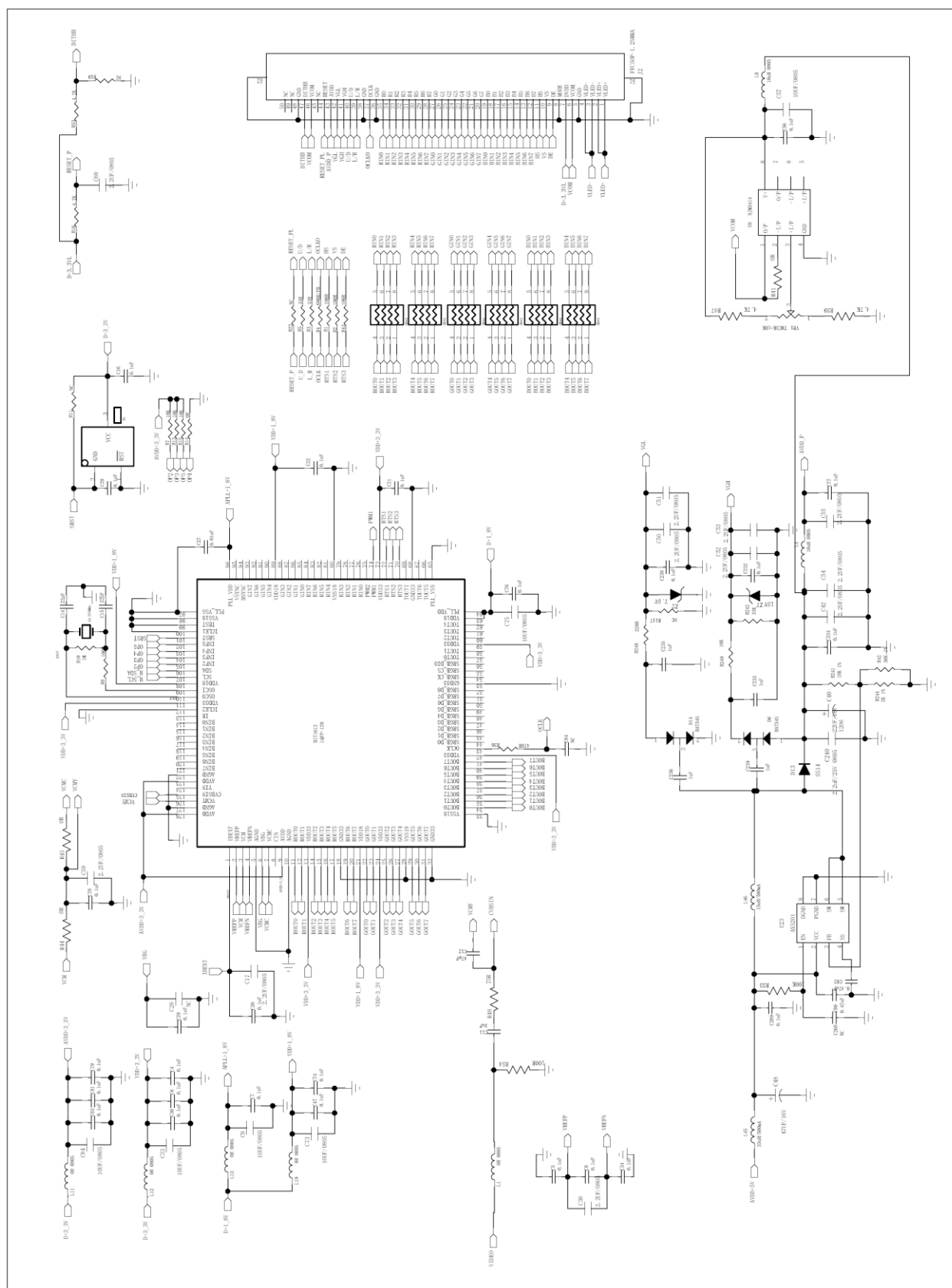


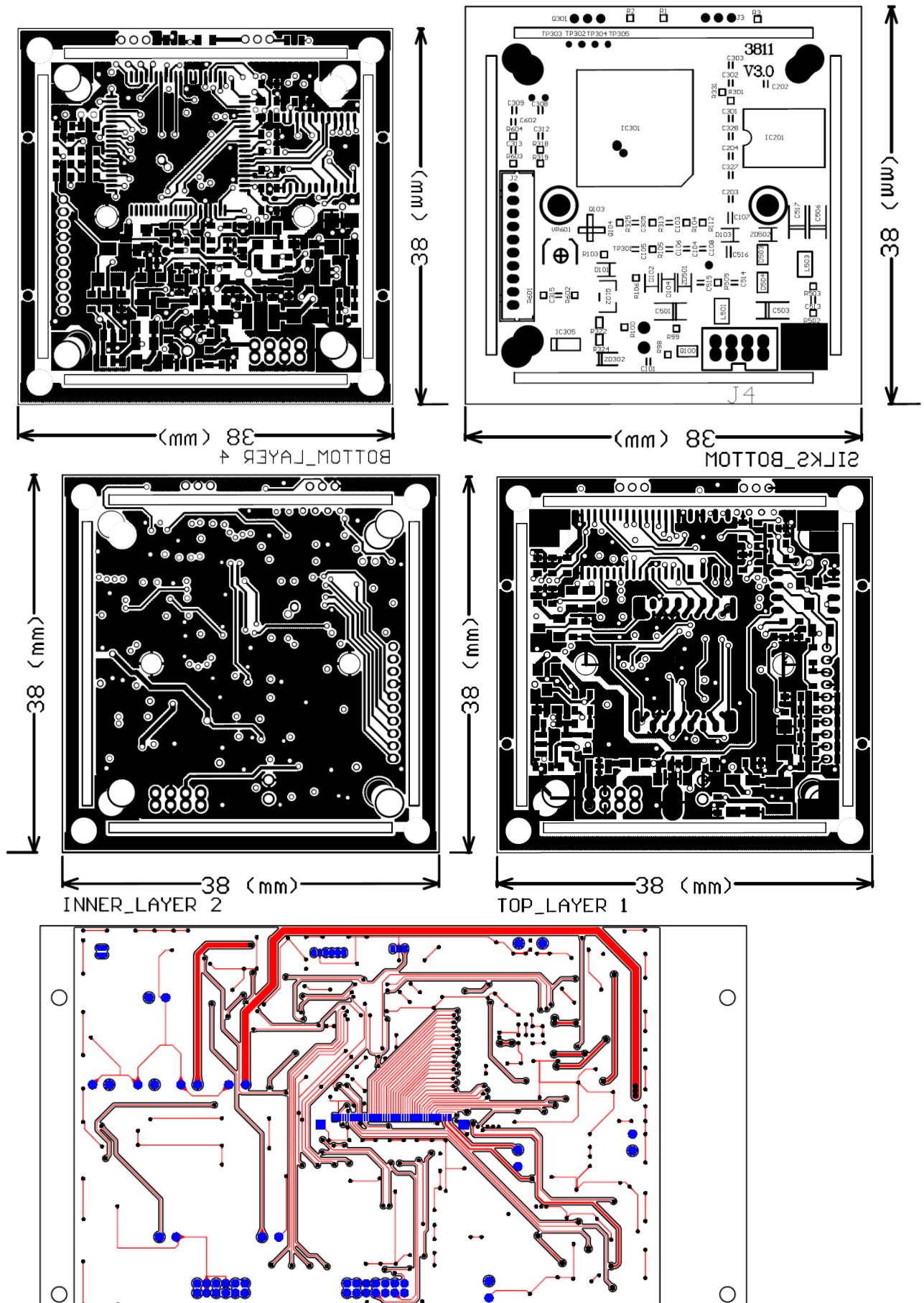
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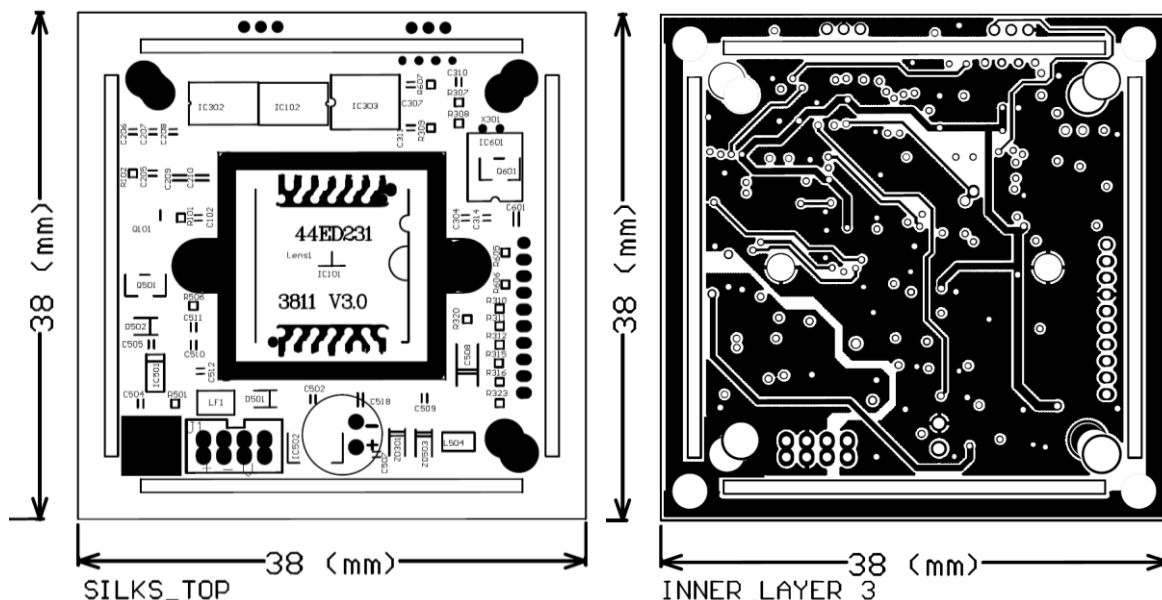
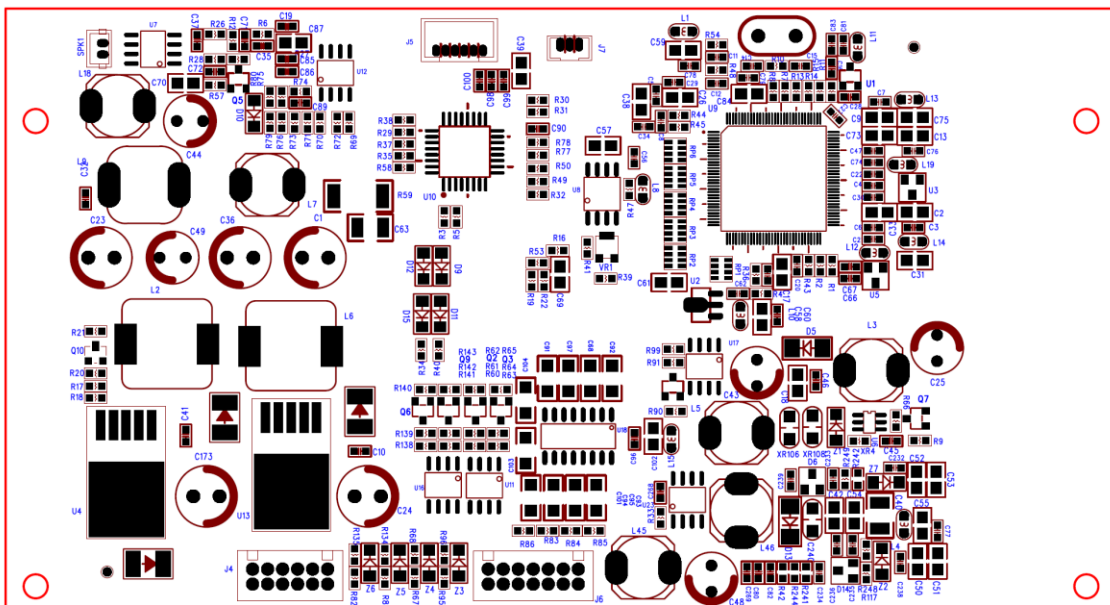
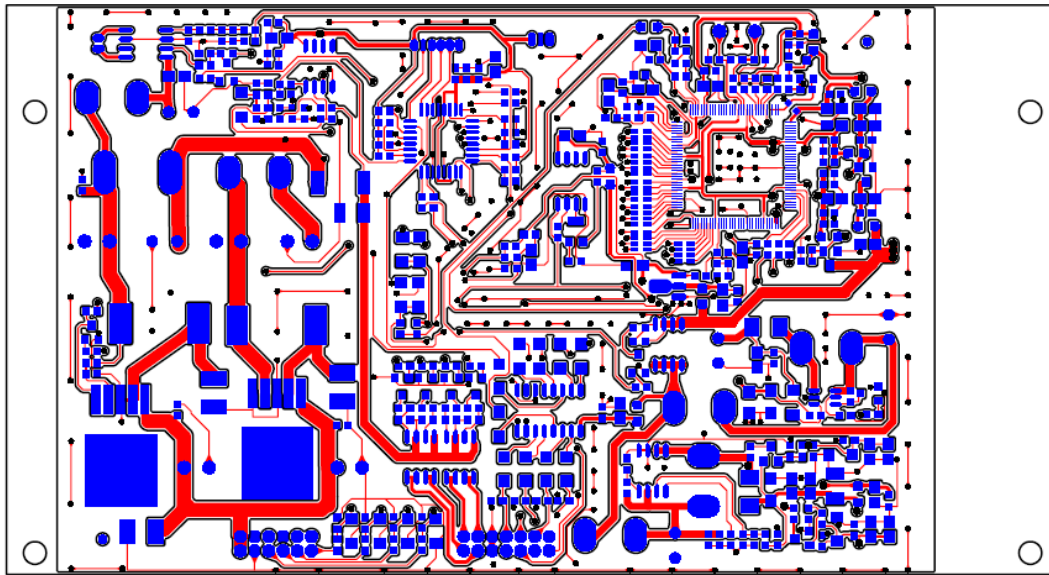
2010-08-10

TM564









序号	规格	位置	用量
1	IC BIT1612 LQFP128	U9	1
2	1.25/5PIN	J5	1
3	贴片三极管 MMBT3904 SOT-23	Q1,2,3,5,6,7,9,10	8
4	3PIN/1.25	J7	1
5	AD4801 SO8	U11,U16	2
6	AIC1734-33PXA SOT-89	U2	1
7	AP1703C,NC	U1	1
8	烧录IC ATMEGA48V-10 TQFP 32A	U10	1
9	IC AIC1899 SOT26	U6	1
10	IC 4052	U18	1
11	IC AX5201-ADJ SO8	U23	1
12	贴片电容 2.2uF,25V,SMD 0805,±10%	C240	1
13	贴片积层电容 22uF,16V,±5%,SMD 1210	C40	1
14	22UF/16V 1210	C63	1
15	贴片电容 0.1uF,25V,±10%,SMD0603 104	C89	1
16	贴片电容 0.1uF,25V,±10%,SMD0603 104	C3 C10 C19 C32 C41 C60 C67	7
17	贴片电容 0.1uF,25V,±10%,SMD0603 104	C85 C98-100	4
18	贴片电容 1000pF,50V,±10%,SMD 0603 102	C35	1
19	贴片电容 0.1uF,25V,±10%,SMD0603 104	C72	1
20	贴片电容 10uF,10V,+80%-20%,SMD 0805	C2 C9 C13 C31 C33 C39 C57- 58 C61 C70 C73 C75 C84	13
21	贴片电容 10uF,10V,+80%-20%,SMD 0805	C65 C87 C91 C68	4
22	贴片电容 1uF,16V,+80%-20%,SMD 0603	C37 C66 C71	3
23	贴片电容 1uF,16V,+80%-20%,SMD 0603	C18	1
24	贴片电容 1uF,16V,+80%-20%,SMD 0603	C86	1
25	贴片电容 2.2uF,25V,SMD 0805,±10%	C17 C38 C42 C50-55 C59 C69	11
26	贴片电容 33nF,25V,±10%,SMD 0603	C45-46	2
27	CAP-CC05,NC,???	C26 C90	2
28	贴片电容 0.1uF,25V,±10%,SMD0603 104	C269	1
29	贴片电容 0.47uF,16V,±10%,SMD 0603	C80 C82	2
30	CAP_NP_1,NC	C268	1
31	IC CM2830ASIM23,SOT-23 1.8V	U3	1
32	IC CM2830ASIM23,SOT-23 3.3V	U5	1
33	CON12-2.54,CON6*2	J3	1
34	1.5*2P	SPK1	1
35	CRYSTALAA,24.576MHz	Y1	1

36	贴片电容 0.01uF,50V,±10%,SMD 0603	C27	1
37	贴片电容 0.1uF,25V,±10%,SMD0603 104	C4-8 C16 C20-22 C28-30 C34 C47 C56 C62 C74 C76-79 C81 C83 C232 C234 C238	26
38	贴片电容 1uF,16V,+80%-20%,SMD 0603	C11 C233 C235-236 C239	5
39	贴片电容 22p,25V,±10%,SMD 0603	C14-15	2
40	贴片电容 47p,25V,±10%,SMD 0603	C12	1
41	NC	C64,C88,C96,C102	4
42	贴片二极管 LL4148 SMD	D10	1
43	DIODE,SS34	D1-2 D4	3
44	贴片二极管 BAT54SA SOT-23	D6 D14	2
45	贴片稳压二极管 10V,0.5W	Z1	1
46	贴片稳压二极管 15V,0.5W	Z7	1
47	贴片稳压二极管 4.7V,0.5W	Z3-4-5-6	4
48	贴片稳压二极管 7.5V,0.5W	Z2	1
49	贴片稳压二极管 4148	D9,D11,D12,D15	4
50	EC,100UF/10V	C25	1
51	EC,220UF/16V	C44	1
52	EC,470UF/16V	C1 C36 C49	3
53	EC,470UF/25V	C23	1
54	EC,470UF/35V	C24 C173	2
55	EC,47UF/16V	C43 C48	2
56	FPC插座 50PIN 0.5MM 下接 掀盖式	J2	1
57	贴片功率电感(带屏蔽) 100uH 1A,SSB0904	L9,L18,L7,L5 ,L45	5
58	贴片功率电感(带屏蔽)SMD 220uH,2A 12*12*7	L6,L2	2
59	0R电阻 0805	L1 L11-13 L15 L19 L10	7
60	L,10uH 0805	L4 L8	2
61	贴片功率电感(带屏蔽)15uH/500mA,SSB3D28	L46	1
62	贴片功率电感(带屏蔽)22uH/1A,SSB0904	L3	1
63	L,6.8R/0805	L14	1
64	LM2596263,AIC2510-12	U4	1
65	LM2596263,AIC2510-5.0	U13	1
66	LM358 SO8	U12	1
67	4435 SO8	U17	1
68	IC NJM3414 SO8	U8	1
69	PR44,贴片磁珠排 600Ω,±10%,SMD 0603	RP1-6	6
70	贴片电阻 0Ω,±5%,SMD 0603	R14	1
71	贴片电阻 100Ω,±5%,SMD 0603	R1-2 R8 R43	4
72	贴片电阻 10K,±5%,SMD 0603	R7 R13 R15 R249	4
73	贴片电阻 1M,±5%,SMD 0603	R10	1
74	贴片电阻 220Ω,±5%,SMD 0603	R248	1

75	贴片电阻 33Ω,±5%,SMD 0603	R3 R5	2
76	贴片电阻 4.7K,±5%,SMD 0603	R16 R53	2
77	贴片电阻 470Ω,±5%,SMD 0603	R36	1
78	600R/FB 0603 ±10%, 贴片磁珠	R4	1
79	RD,NC	R11 R22 R83 R117	4
80	贴片电阻 18K,±1%,SMD 0603	R241	1
81	贴片电阻 2K,±1%,SMD 0603	R244	1
82	贴片电阻 33K,±5%,SMD 0603	R242	1
83	贴片电阻 36K,±5%,SMD 0603	R42	1
84	贴片电阻 0Ω,±5%,SMD 0603	R17 R32 R41 R44-45 XR1	6
85	贴片电阻 100K,±5%,SMD 0603	R33 R79	2
86	贴片电阻 100K,±5%,SMD 0603	R69-70 R76	3
87	贴片电阻 100Ω,±5%,SMD 0603	R84	1
88	贴片电阻 100Ω,±5%,SMD 1206	XR108	1
89	贴片电阻 10K,±5%,SMD 0603	R9 R20 R61-62 R64-66 R74 R90 R99 XR4	11
90	NC	R23-25 R46 R52 R54 R51 XR17 XR107	9
91	10K 0603	R34,R40	2
92	贴片电阻 12K,±5%,SMD 0603	R68 R96	2
93	贴片电阻 15K,±5%,SMD 0603	R75	1
94	贴片电阻 1K,±5%,SMD 0603	R26-28 R57	4
95	贴片电阻 1K,±5%,SMD 0603	R73	1
96	贴片电阻 1M,±5%,SMD 0603	R60 R63 R91	3
97	,1W 0.1R 2412	R59	1
98	贴片电阻 2K,±5%,SMD 0603	R6	1
99	贴片电阻 30K,±5%,SMD 0603	R67 R95	2
100	贴片电阻 33Ω,±5%,SMD 0603	R30-31 R55-56	4
101	贴片电阻 33K,±5%,SMD 0603	R71-72	2
102	贴片电阻 4.7K,±5%,SMD 0603	R39 R47	2
103	贴片电阻 4.7K,±5%,SMD 0603	R29 R35 R37-38 R49-50 R58 R80	8
104	贴片电阻 10Ω,±1%,SMD 1206	XR106	1
105	贴片电阻 68K,±5%,SMD 0603	R21	1
106	贴片电阻 75Ω,±5%,SMD 0603	R19 R48	2
107	RES-1/8W,NC	R12 R18 R77-78	4
108	快速恢复二极管 SS14,SMD	D5 D13	2
109	IC TDA7502A NXP 音频功放 SOP8	U7	1
110	贴片可调电阻 10K 3*3MM	VR1	1

Photo E.U.T.

