Repubblica di San Marino

Autorità per l'Omologazione

Republic of San Marino

Authority for Homologation

Via Consiglio dei Sessanta, 99
47891 Dogana - Repubblica di San Marino

Comunicazione
Communication

E57	Concernente [2/] *Concerning [2/]*	**Il rilascio dell'omologazione** ***Approval granted*** ~~L'estensione dell'omologazione~~ ~~*Approval extended*~~ ~~Il rifiuto dell'omologazione~~ ~~*Approval refused*~~ ~~La revoca dell'omologazione~~ ~~*Approval withdrawn*~~ ~~La cessazione definitiva della produzione~~ ~~*Production definitively discontinued*~~

of a type of ~~electrical/~~ electronic sub-assembly [(2)] with regard to regulation no. 10.06

Omologazione N. ***Approval No.***	**E57*149R00/06*1187**	**Estensione N.** ***Extension No.***	**00**

Marchio di omologazione ***Approval mark***	E57 **149R - 001187**

1. Make (trade name of manufacturer): LOBOO

2. Type and general commercial description(s): L16, High&Low Beam Auxiliary Light

2.1. Variants: L16T, L16Pro, L16S, L16Q, L16K

3. Means of identification of type, if marked on the ~~vehicle~~/component~~/separate technical unit~~ [(2)]

3.1. Location of that marking: On the housing

4. Category of vehicle: L, M, N, O

5.	Name and address of manufacturer:	Shenzhen LOBOO Motor Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen
6.	In the case of components and separate technical units, location and method of affixing of the approval mark:	N/A
7.	Address(es) of assembly plant(s):	Shenzhen Moxingtianxia Automobile & Motorcycle Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen, Guangdong, China
8.	Additional information (where applicable):	See appendix below
9.	Technical service responsible for carrying out the tests:	**AUTOMOTIVE TECHNICAL SERVICE S.r.l.** Via Consiglio dei Sessanta, 99 47891 – DOGANA Repubblica di San Marino
10.	Date of test report:	05/06/2024
11.	No. of test report:	ATS-SM-IR-149-0168
12.	Any remarks:	See appendix below
13.	Place:	DOGANA – Repubblica di San Marino
14.	Date:	19/06/2024
15.	Signature:	

AUTORITÀ PER L'OMOLOGAZIONE ★ Repubblica di San Marino ★ E57

Ing. Marco CONTI
Direttore Generale
General Director

16. The list of documents deposited with the Type Approval Authority which has granted approval is annexed to this communication and may be obtained on request

17. Reason for extension: Not Applicable

(1) Strike out what does not apply.

APPENDIX

to type-approval communication form No. E57*149R00/06*1187*00
concerning the type-approval of an ~~electrical~~/electronic sub-assembly under Regulation No. 10.06

1. Additional information:

1.1. Electrical system rated voltage:	12V DC, ~~pos.~~ / neg. ground[1]
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. Vehicle equipped with 24 GHz short-range radar equipment:	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 Annex 9):	See Test Report No. ATS-SM-IR-149-0168
1.5. Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests:	**Dach Science and Technology (Guangzhou) Co., Ltd. (DACH)**

2. Remarks:

(1) Strike out what does not apply.

Allegato *Enclosure*				
Al certificato di omologazione ECE N. *To ECE approval certificate No.*		**E57*149R00/06*1187*00**		
Indice del fascicolo di omologazione *Index to the information package*				
Data *Date of issue*	**19/06/2024**		**Data ultima modifica** *Last amendment date*	--
1.	**Clausole di garanzia e istruzioni sul diritto di presentare ricorso** *Collateral clauses and instruction on right to appeal*			
2.	**Rapporto(i) Finale di Ispezione N.** *Inspection report(s) No.*	**ATS-SM-IR-149-0168**	**Data** *Date*	**05/06/2024**
3.	**Scheda informativa N.** *Information document No.*	**L16-00**	**Data** *Date*	**04/06/2024**
			Data ultima modifica *Last amendment date*	--

E57*149R00/06*1187*00

Clausole di garanzia e istruzioni sul diritto di presentare ricorso

Clausole di garanzia

La produzione in serie deve essere esattamente conforme ai documenti di omologazione. Le variazioni di produzione in serie sono consentite solo con il consenso espresso del **Autorità per l'Omologazione**.

Le variazioni del nome della società, l'indirizzo e lo stabilimento di produzione, nonché una delle parti che hanno l'autorità alla consegna o eventuali rappresentanti nominati al momento del rilascio dell'omologazione, devono essere immediatamente comunicate al **Autorità per l'Omologazione**. La violazione di queste regole può portare al ritiro dell'omologazione ed inoltre può essere legalmente perseguita.

L'omologazione decade se viene restituita o ritirata o se il tipo omologato non è più conforme ai requisiti di legge. La revoca può essere fatta se non esistono più i requisiti richiesti per il rilascio e la continuazione dell'omologazione, se il titolare dell'omologazione viola gli obblighi dettati dall'omologazione, anche nel caso in cui gli obblighi derivino dalle condizioni assegnate all'interno dell'omologazione, o se è accertato che il tipo approvato non è conforme ai requisiti di sicurezza del traffico e di tutela dell'ambiente.

L'**Autorità per l'Omologazione** può verificare la corretta applicazione della delega conferita rilasciata nella presente omologazione, in qualsiasi momento. In particolare, questo include la verifica della produzione, che sia conforme, nonché le misure di controllo di conformità della produzione. Per questo, possono essere presi dei campioni dalla produzione. I dipendenti o rappresentanti dell'**Autorità per l'Omologazione** possono avere accesso senza ostacoli agli impianti di produzione e stoccaggio.

La delega conferita contenuta nella presente omologazione non è trasferibile. I diritti del marchio di terzi non sono interessati da questa omologazione.

Istruzione su diritto di ricorso

Questa omologazione è appellabile entro un mese dalla notifica. Il ricorso deve essere presentato per iscritto o come una domanda inviata all' **Autorità per l'Omologazione** - Via Consiglio dei Sessanta, 99 - 47891 Dogana - Repubblica di San Marino.

********** **********

Collateral clauses and instruction on right to appeal

Collateral clauses

*The individual production of serial fabrication must be in exact accordance with the approval documents. Changes in the individual production are only allowed with express consent of the **Authority for Homologation**.*

*Changes in the name of the company, the address and the manufacturing plant as well as one of the parties given the authority to delivery or authorized representative named when the approval was granted is to be immediately disclosed to the **Authority for Homologation**. Breach of this regulation can lead to recall of the approval and moreover can be legally prosecuted.*

The approval expires if it is returned or withdrawn or if the type approved no longer complies with the legal requirements. The revocation can be made if the demanded requirements for issuance and the continuance of the approval no longer exist, if the holder of the approval violates the duties involved in the approval, also to the extent that they result from the assigned conditions to this approval, or if it is determined that the approved type does not comply with the requirements of traffic safety or environmental protection.

*The **Authority for Homologation** may check the proper exercise of the conferred authority taken from this approval at any time. In particular this means the compliant production as well as the measures for conformity of production. For this purpose samples can be taken or have taken. The employees or the representatives of the **Authority for Homologation** may get unhindered access to the production and storage facilities.*

The conferred authority contained with issuance of this approval is not transferable. Trade mark rights of third parties are not affected with this approval.

Instruction on right to appeal

*This approval can be appealed within one month after notification. The appeal is to be filed in writing or as a transcript at the **Authority for Homologation** - Via Consiglio dei Sessanta, 99 - 47891 Dogana - Repubblica di San Marino.*

Inspection Report No.:	ATS-SM-IR-149-0168
Of:	05.06.2024
Type:	L16
Manufacturer:	Shenzhen LOBOO Motor Accessories Co., Ltd.

Inspection Report

No. ATS-SM-IR-149-0168

Inspection concerning ~~vehicles~~ / components with regard to:

Uniform provisions concerning the approval of road illumination devices (lamps) and systems for power-driven vehicles:

- **Headlamps**
- ~~**Adaptive front-lighting systems**~~
- ~~**Front fog lamps**~~
- ~~**Cornering lamps**~~

(strike out what does not apply)

performed according to

ECE Regulation No. 149

as last amended by

00 series of amendments

of the Economic Commission for Europe

Approval status	
	Number of approval
ECE	**E57*149R00/06*1187**

0. General information

0.1.	Make (trade name of manufacturer):	LOBOO
0.2.	Type:	L16
0.2.1.	Variant(s):	L16T, L16Pro, L16S, L16Q, L16K
0.3.	Name and address of manufacturer:	Shenzhen LOBOO Motor Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen
0.3.1	Name and address of manufacturer's authorized representative:	N/A
0.3.2.	Production plant(s) address(es):	Shenzhen Moxingtianxia Automobile & Motorcycle Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen, Guangdong, China
0.4.	No. of the information document:	L16-00 Date: 04/06/2024
0.5.	Position of the approval mark:	On the housing
0.6	Vehicle category(ies) (or, if not applicable, vehicle categories which the component(s) is (are) suitable for):	L, N, O

1. Test conditions

1.1.	Test sample:	Two samples of type: L16 Marking: Sample No. 1, Sample No. 2
1.1.1.	Technical data from the manufacturer:	Testing laboratory does not bear any responsibility for possibly incorrect values provided by the manufacturer and for test results found out based on these values.
1.2.	Test procedures used:	According to UN Regulations No. 149.00
1.3.	Measuring and test equipment:	Full automatic photometric test system for automobile lamps EVERFINE PHOTO-E-INFO CO., LTD. Type GO-HD5
1.4.	Worst case evaluation:	Single case – no variant. This paragraph is required by the Type Approval Authority.
1.5.	Test track or site:	Dach Science and Technology (Guangzhou) Co., Ltd. (DACH)

2. Test results

2.1. Headlamp (Passing beam) – UN Regulation No. 149.00

2.1.1. Intensity of light emitted

2.1.1.1. Sample No. 1, test voltage 13.5V

No.	Point of the measurement	Limits [cd]	Measured values [cd]	
			1 min.	After stability
1	(3.5R - 0.86D)	2000～13750	2609.582	2651.672
2	(H - 0.86D)	2450 MIN	3009.518	3058.059
3	(3.5L - 0.86D)	2000～13750	3060.510	3109.873
4	(1.5L - 0.5U)	900 MAX	289.854	294.529
5	(1.5R - 0.5U)	900 MAX	192.969	196.081
6	(15R - 2D)	550 MIN	4921.212	5000.586
7	(15L - 2D)	550 MIN	4723.672	4827.128
8	(20L - 4D)	150 MIN	4569.269	4642.967
9	(20R - 4D)	150 MIN	456.727	464.094
10	(H - V)	1700 MAX	545.113	553.905
11	Line 1	1350 MIN	4837.020	4915.036
12	(8L - 4U)	700 MAX	156.975	159.507
13	(H - 4U)	700 MAX	154.575	157.068
14	(8R - 4U)	700 MAX	145.177	147.519
15	(4L - 2U)	900 MAX	186.770	189.782
16	(H - 2U)	900 MAX	172.672	175.457
17	(4R - 2U)	900 MAX	552.411	561.321
18	(8L - V)	50 MIN	644.297	654.689
19	(8R - V)	50 MIN	503.127	532.754
20	(4L - V)	100～900	610.302	620.146
21	(4R - V)	100～900	609.183	614.298
22	Zone 1	900 MAX	611.502	621.365
23	Zone 2	700 MAX	161.774	164.383
			Complies	

2.1.1.2. Sample No. 2, test voltage 13.5V

No.	Point of the measurement	Limits [cd]	Measured values [cd]	
			1 min.	After stability
1	(3.5R - 0.86D)	2000～13750	3513.438	3833.017
2	(H - 0.86D)	2450 MIN	4576.268	4992.522
3	(3.5L - 0.86D)	2000～13750	4891.217	5336.118
4	(1.5L - 0.5U)	900 MAX	620.801	677.269
5	(1.5R - 0.5U)	900 MAX	461.326	503.288
6	(15R - 2D)	550 MIN	10611.300	11576.495
7	(15L - 2D)	550 MIN	10284.318	11038.395
8	(20L - 4D)	150 MIN	10650.290	11619.031
9	(20R - 4D)	150 MIN	1095.725	1195.391
10	(H - V)	1700 MAX	822.168	896.952
11	Line 1	1350 MIN	10083.810	11001.025
12	(8L - 4U)	700 MAX	376.940	411.226
13	(H - 4U)	700 MAX	371.141	404.900
14	(8R - 4U)	700 MAX	347.644	379.265
15	(4L - 2U)	900 MAX	444.529	484.963
16	(H - 2U)	900 MAX	415.733	453.548
17	(4R - 2U)	900 MAX	1321.588	1441.799
18	(8L - V)	50 MIN	868.161	947.128
19	(8R - V)	50 MIN	872.183	928.384
20	(4L - V)	100～900	804.566	877.749
21	(4R - V)	100～900	815.638	847.027
22	Zone 1	900 MAX	806.066	879.385
23	Zone 2	700 MAX	394.137	429.987
			Complies	

2.1.2. Colour – White

	Measured values			Limits
	Sample	x	y	W12 green boundary: y = 0.150 + 0.640 x W23 yellowish green boundary: y = 0.440 W34 yellow boundary: x = 0.500 W45 reddish purple boundary: y = 0.382 W56 purple boundary: y = 0.050 + 0.750 x W61 blue boundary: x = 0.310
After 1 minute	No. 1	0.3139	0.3201	Complies
	No. 2	0.3227	0.3193	Complies
After stability	No. 1	0.3205	0.3199	Complies
	No. 2	0.3228	0.3245	Complies

2.1.3. Headlamp (Driving beam) – UN Regulation No. 149.00

2.1.4. Intensity of light emitted

2.1.5. Sample No. 1, test voltage 13.5V

No.	Point of the measurement	Limits [cd]	Measured values [cd]	
			1 min.	After stability
1	H - V	20000 MIN	26695.730	27235.640
2	2.5R - H	10000 MIN	25745.880	26266.580
3	2.5L - H	10000 MIN	25955.850	26480.796
4	5R - H	3500 MIN	25595.900	26113.566
5	5L - H	3500 MIN	26425.770	26960.220
6	9R - H	2000 MIN	16417.370	16749.404
7	9L - H	2000 MIN	8012.717	8174.771
8	12R - H	600 MIN	646.896	659.979
9	12L - H	600 MIN	633.299	646.107
10	H - 2U	1000 MIN	21346.580	21778.306
11	MAXIMUM	25000～215000	30332.630	30946.095
			Complies	

2.1.5.1. Sample No. 2, test voltage 13.5V

No.	Point of the measurement	Limits [cd]	Measured values [cd]	
			1 min.	After stability
1	H - V	20000 MIN	45012.790	46952.480
2	2.5R - H	10000 MIN	43583.020	45461.098
3	2.5L - H	10000 MIN	44232.920	46139.004
4	5R - H	3500 MIN	43543.030	45419.385
5	5L - H	3500 MIN	44772.830	46702.180
6	9R - H	2000 MIN	29615.260	30891.440
7	9L - H	2000 MIN	12784.950	13335.879
8	12R - H	600 MIN	1230.803	1283.841
9	12L - H	600 MIN	730.183	761.648
10	H - 2U	1000 MIN	21126.620	22037.008
11	MAXIMUM	25000～215000	51293.950	53504.308
			Complies	

2.1.6. Colour – White

	Measured values			Limits
	Sample	x	y	W12 green boundary: y = 0.150 + 0.640 x W23 yellowish green boundary: y = 0.440 W34 yellow boundary: x = 0.500 W45 reddish purple boundary: y = 0.382 W56 purple boundary: y = 0.050 + 0.750 x W61 blue boundary: x = 0.310
After 1 minute	No. 1	0.3258	0.3274	Complies
	No. 2	0.3205	0.3195	Complies
After stability	No. 1	0.3208	0.3236	Complies
	No. 2	0.3214	0.3249	Complies

2.2. Test record of different traffic condition (after stability), sample No. 1 and No. 2, test voltage 13.5V

No.	Point of the measurement	X [º]	Y [º]	Limits [cd]		Measured values [cd]	
				Min.	Max.	Sample No. 1	Sample No. 2
1	0.86D-1.72L	-1.72	-0.86	2500.00	-	7106.53	7203.17
2	0.57U-3.43R	3.43	0.57	-	880.00	312.48	307.86

2.3. Test record of the photometric measurement in different positions, sample No. 1 and No. 2, test voltage 13.5V

2.3.1. Passing beam (+2°)

No.	Point of the measurement	X [º]	Y [º]	Limits [cd]		Measured values [cd]	
				Min.	Max.	Sample No. 1	Sample No. 2
1	B50L	-3.43	0.57	-	350.00	216.79	232.48
2	75R	1.15	-0.57	10100.00	-	8014.76	8106.29

2.3.2. Passing beam (-2°)

No.	Point of the measurement	X [º]	Y [º]	Limits [cd]		Measured values [cd]	
				Min.	Max.	Sample No. 1	Sample No. 2
1	B50L	-3.43	0.57	-	350.00	214.18	218.66
2	75R	1.15	-0.57	10100.00	-	8192.43	8374.53

2.3.3. Driving beam (+2°)

No.	Point of the measurement	X [º]	Y [º]	Limits [cd]		Measured values [cd]	
				Min.	Max.	Sample No. 1	Sample No. 2
1	I_{max}	-	-	40500.00	215000.00	81273.86	81482.72
2	HV	0	0	0.8 Imax	-	84782.37	84392.29

2.3.4. Driving beam (-2°)

No.	Point of the measurement	X [º]	Y [º]	Limits [cd]		Measured values [cd]	
				Min.	Max.	Sample No. 1	Sample No. 2
1	I_{max}	-	-	40500.00	215000.00	81723.16	80937.42
2	HV	0	0	0.8 Imax	-	83793.63	79847.98

2.5. Tests for stability of photometric performance of headlamps in operation – Annex 7 of UN R149.00

2.5.1. Test for stability of photometric performance - Sample No. 1

No.	Point of the measurement		X [º]	Y [º]	Limit change	Measured values [cd]		
					Δ ± 10%	Clean – prior to test	Clean – after 12 hours	Dirty – after 1 hour
1	Passing beam	HV	0	0	7.07%	514.37	538.72	574.83
2		B50L*	3.43	0.57	15.80cd	212.25	227.48	243.27
3		25L	-9.00	-1.72	2.79%	6215.86	6203.65	6117.32
4		50R	1.15	-0.86	1.81%	7613.60	7157.84	6984.61
5	Driving beam	$I_{max.}$	-	-	0.50%	7086.62	7721.44	7183.46

*The value measured at Point B50L shall not exceed the photometric value measured prior to the test by more than 170cd.

2.5.2. Test for change in vertical position of the cut-off line under influence of heat

No.	Measurement values		
	Change	Limits	Conclusion
1	0.16 mrad	~~Upwards < 1.0 mrad~~ Downwards < 2.0 mrad	Complies

2.5.3. Tests for lamps incorporating lenses of plastic material – Annex 8 of UN R149.00

2.8.3.1.	Test report for plastic material of the lens attached to the manufacturer's information document.

2.5.4. Test of the complete headlamp – resistance to mechanical deterioration of the lens surface

2.5.4.1. Sample No. 1

No.	Point of the measurement	X [°]	Y [°]	Limits [cd]		Measured values [cd]
				Minimum	Maximum	
1	HV	0	0	-	812.50	618.23
2	B50L	-3.43	0.57	-	455.00	247.86
3	75R	1.15	-0.57	9090.00	-	30143.58

2.5.5 Test of the complete headlamp – test of adherence of coatings

2.5.5.1.	Sample No. 2	No appreciable impairment of the gridded area – complies

2.6. Test record of LED modules

2.6.1. Test voltage 13.5V

2.6.1.1. Red Content

	Limit	Measured	Conclusion
Passing beam	$K_{red} \geq 0.05$	0.0816	Complies
Driving beam	$K_{red} \geq 0.05$	0.0879	Complies

2.6.1.2. UV-radiation

	Limit	Measured	Conclusion
Passing beam	$K_{UV} \leq 10^{-5}$ W/lm	5.16×10^{-6}	Complies
Driving beam	$K_{UV} \leq 10^{-5}$ W/lm	5.53×10^{-6}	Complies

2.6.1.3. Objective Luminous Flux

	Limit		Measured	Conclusion
	Minimum	Maximum		
Passing beam	1000 lm	---	1412.23 lm	Complies
Driving beam	---	---	2536.37 lm	Complies

3. Statement of conformity

The information document as given in paragraph 0.4 and the type described there are in compliance with the test specification mentioned above.

With regard to the required level of performance to be achieved, the tested items were representative for the type to be approved.

The tests were carried out in accordance with the relevant requirements of EN ISO/IEC 17025 and EN ISO/IEC 17020 / R149-00 ECE/UN.

The inspection Report comprises pages 1 to 12.

It shall not be reproduced except in full, without written approval of the laboratory.

Dogana, Repubblica di San Marino, 05.06.2024

Number of project and protocol	***Originality Check*** (*) **ATS-SM-PR-0168**	**Automotive Technical Service S.r.l.** ***Inspector*** (Nancy Deng) **Automotive Technical Service S.r.l.** ***Deputy Technical Director*** (Ing. Bogdan Domnescu)	AUTOMOTIVE TECHNICAL SERVICE S.r.l. · 47891 RSM · Via Consiglio dei Sessanta, 99 · ATS Technical Service RSMAO-01

(*) To check the originality of documents, scan the QR Code or connect to the site https://www.ats-srl.org/originality-control-atp-adr-tyapp/ and follow the instruction in it.

Appendix 1

List of modifications **~~Applicable~~ / Not Applicable** **Appendix 1**

More details for application of: **Date :**

Correction of : -

Modification of : -

Addition of : -

Deletion of : -

Shenzhen LOBOO Motor Accessories Co., Ltd.
301, No. 30-10 Laiyin Road, Xinsheng
Community, Longgang Street, Longgang
District, Shenzhen

June 04, 2024

Dear Sirs,

We would like to apply for the type approval according to ECE.

Function	**ECE approval number**
Head lamp	E57*149R00/06*XXXXX*00

Trade name or mark	:	LOBOO
Manufacturer's name for type of device	:	L16
Name and address of manufacturer	:	Shenzhen LOBOO Motor Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen

We confirm that the above mentioned application has not been submitted to any other EC member state nor has any other member state granted a corresponding approval.

Sincerely

Shenzhen LOBOO Motor Accessories Co., Ltd.

Information folder No. :	L16-00
First application date :	June 04, 2024

1. Specification data

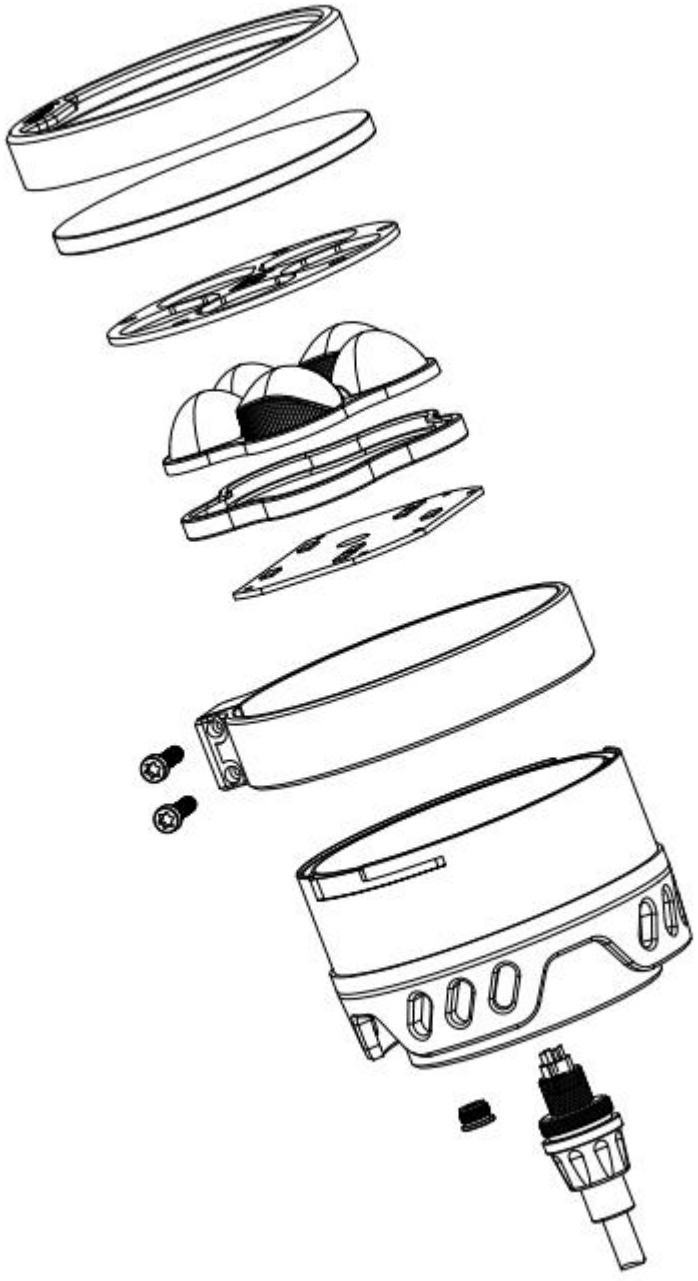
Type		L16	
Function		Head lamp	
Color		White / Yellow	
Rated	Voltage	12V	
	Wattage	Low beam mode	High and low beam mode
		168W	190W
Application Regulation ECE		R149.00 Class B RHT	
Location of marking	Number and category of light source	5*LEDs	
		Non-replaceable light source	
	Trade mark		
		Marked on housing	
	Approval mark	Marked on housing	
	Variant(s)	L16T, L16Pro, L16S, L16Q, L16K	

2. Construction and material

Construction	Material	Remark
Lens	Glass	Colour: Clear
Housing	Aluminum alloy	Colour: Black
Electrical Wiring	Copper covered with insulation	--

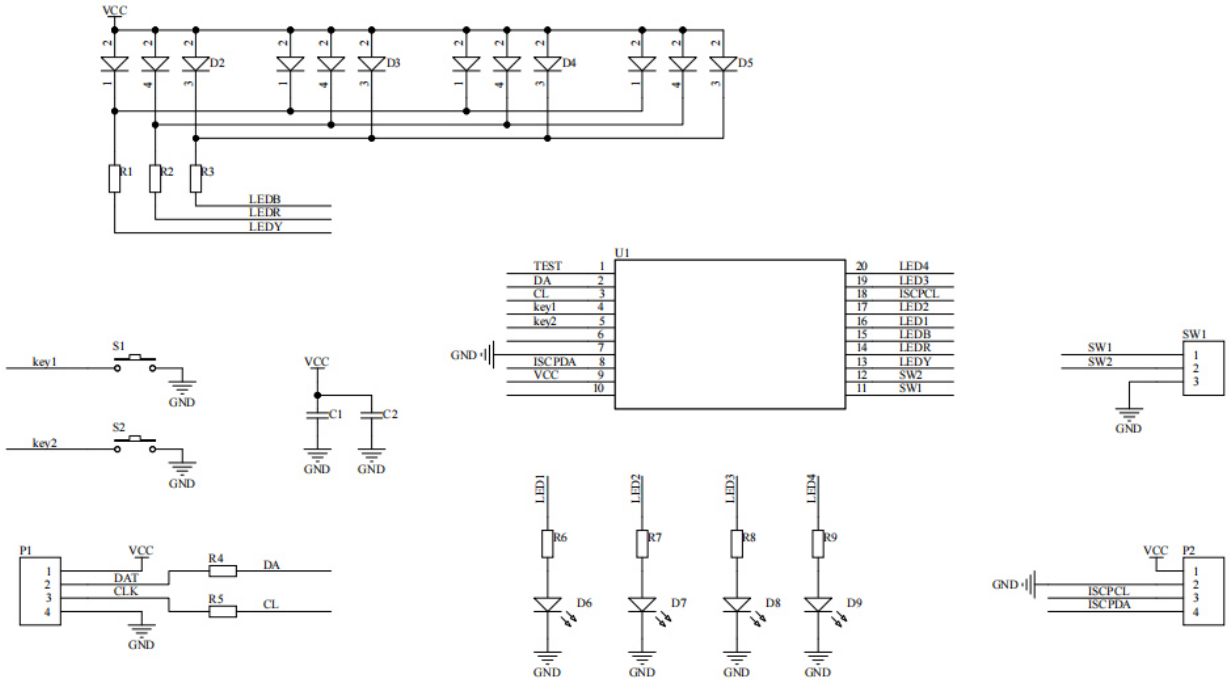
3. Name and address of manufacturer	:	Shenzhen LOBOO Motor Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen
4. Name and address of the assembly plant	:	Shenzhen Moxingtianxia Automobile&Motorcycle Accessories Co., Ltd. 301, No. 30-10 Laiyin Road, Xinsheng Community, Longgang Street, Longgang District, Shenzhen, Guangdong, China
5. Name and address of the manufacturer's representative	:	N/A

Information folder No. :	L16-00
First application date :	June 04, 2024



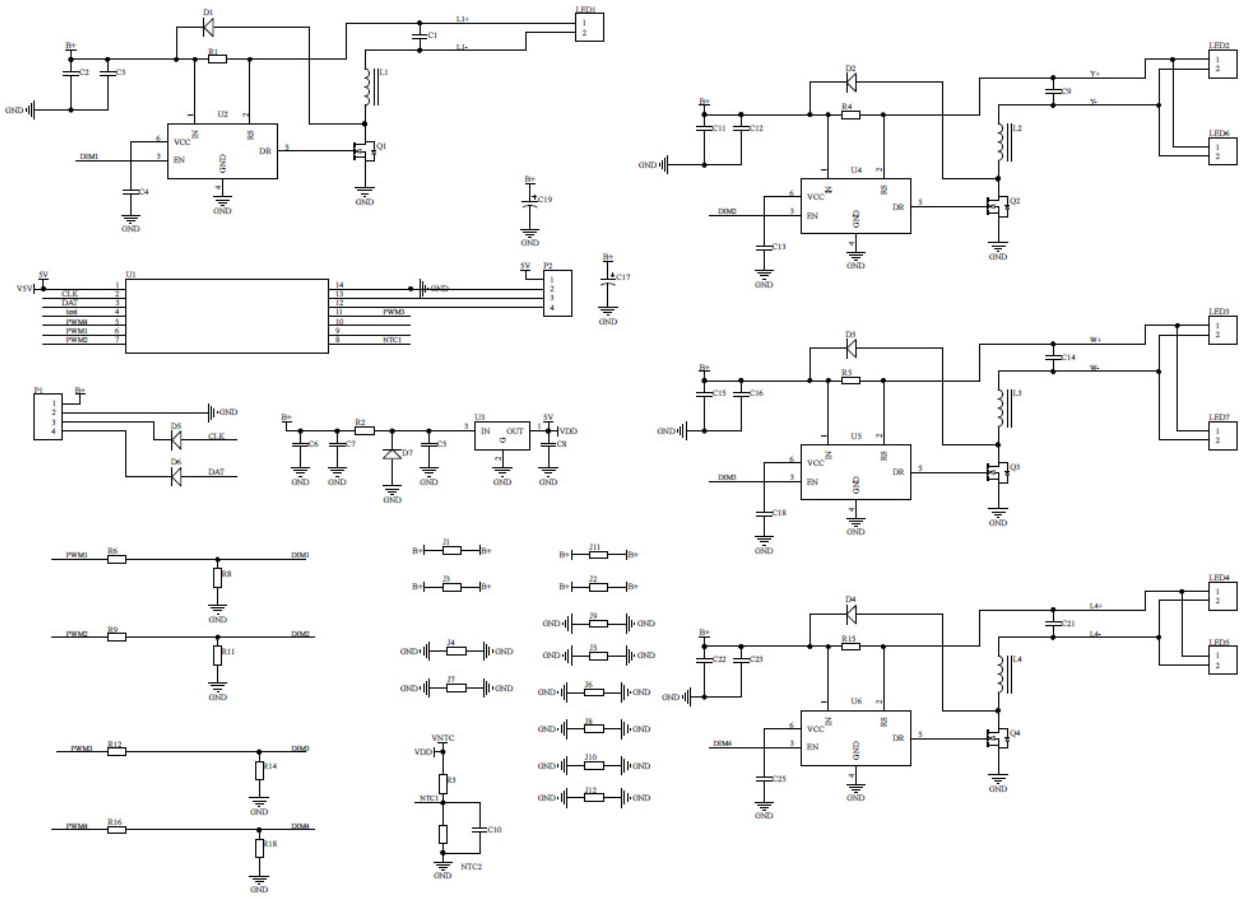
General assembly drawing

Information folder No. :	L16-00
First application date :	June 04, 2024



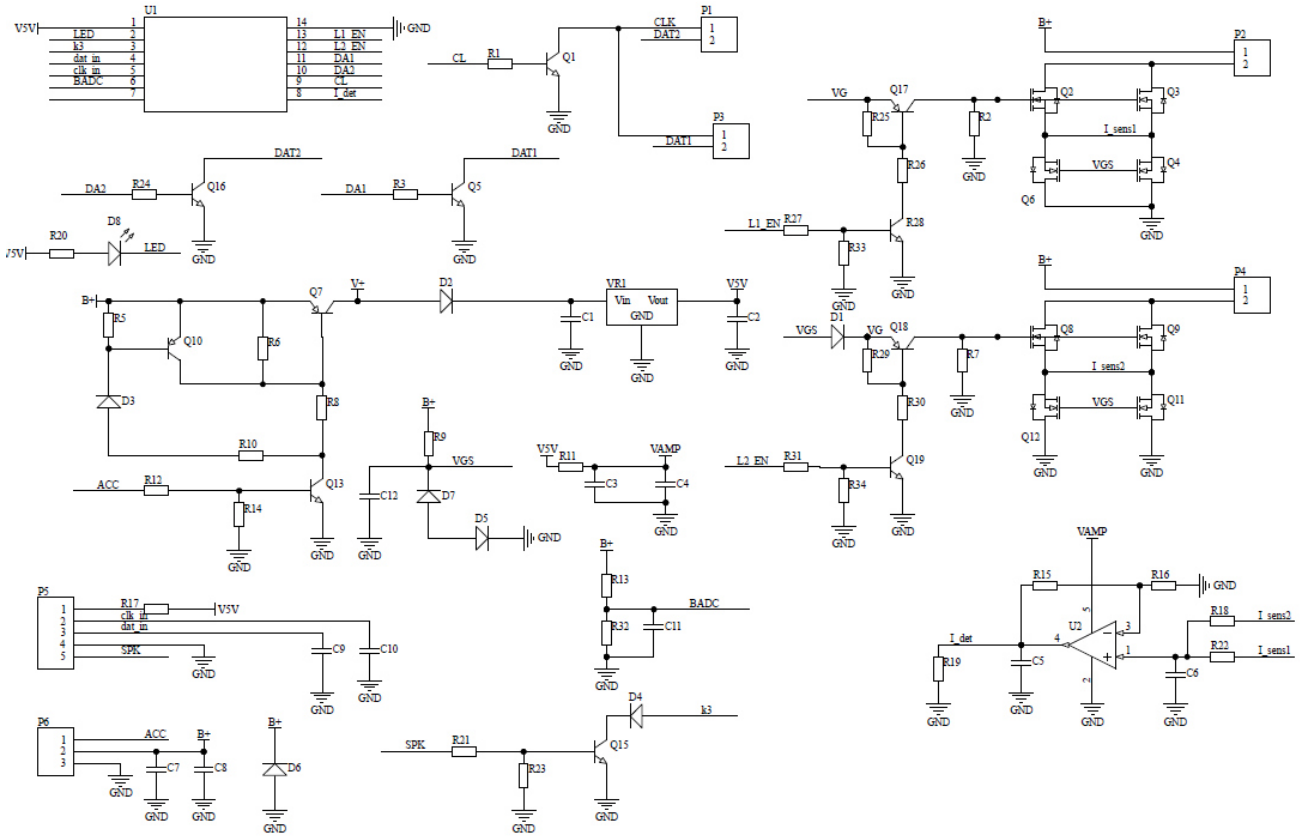
Key board Circuit diagram

Information folder No. :	L16-00
First application date :	June 04, 2024

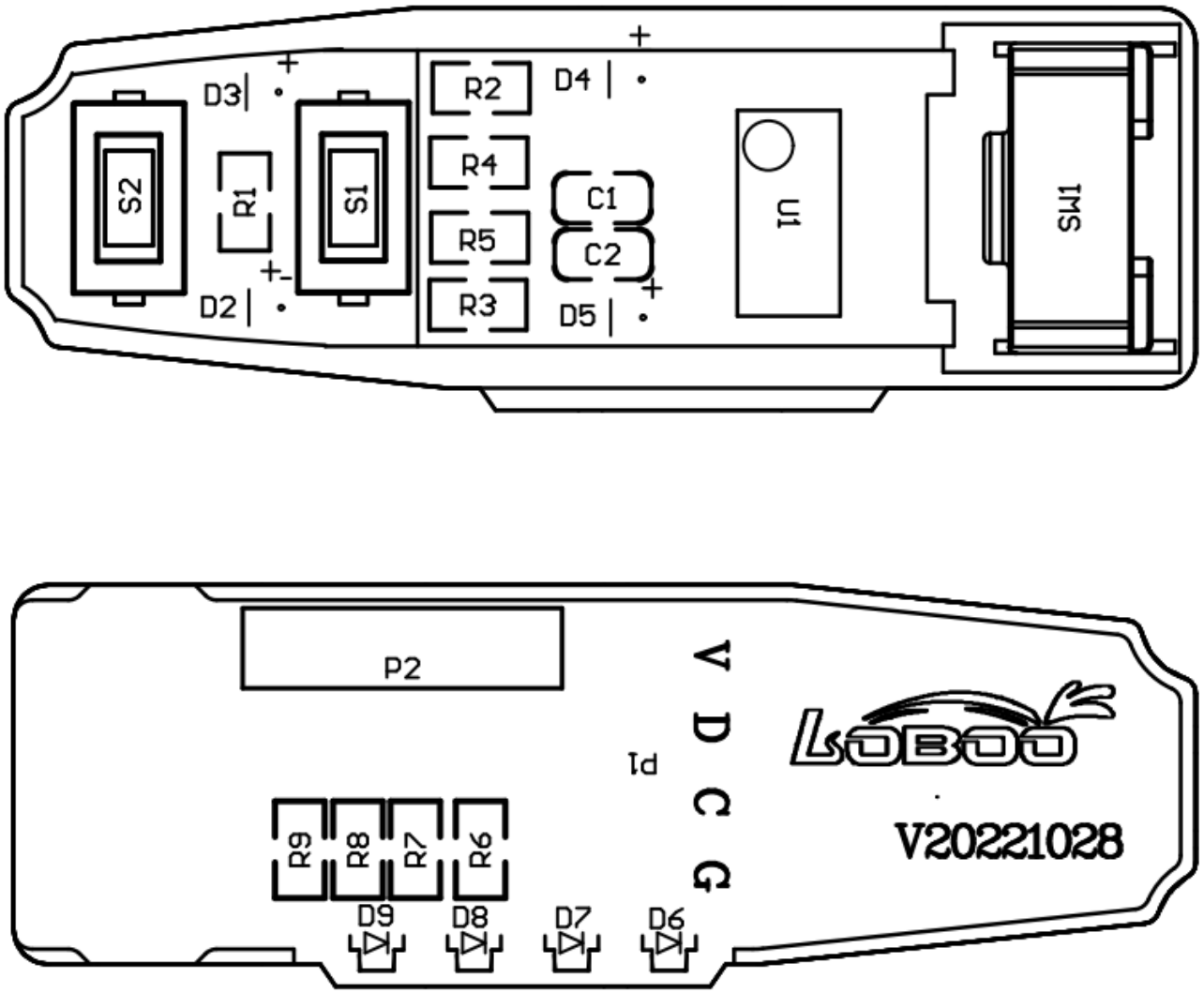


LED board Circuit diagram

Information folder No. :	L16-00
First application date :	June 04, 2024



Main board Circuit diagram



Key board Assembly Drawings

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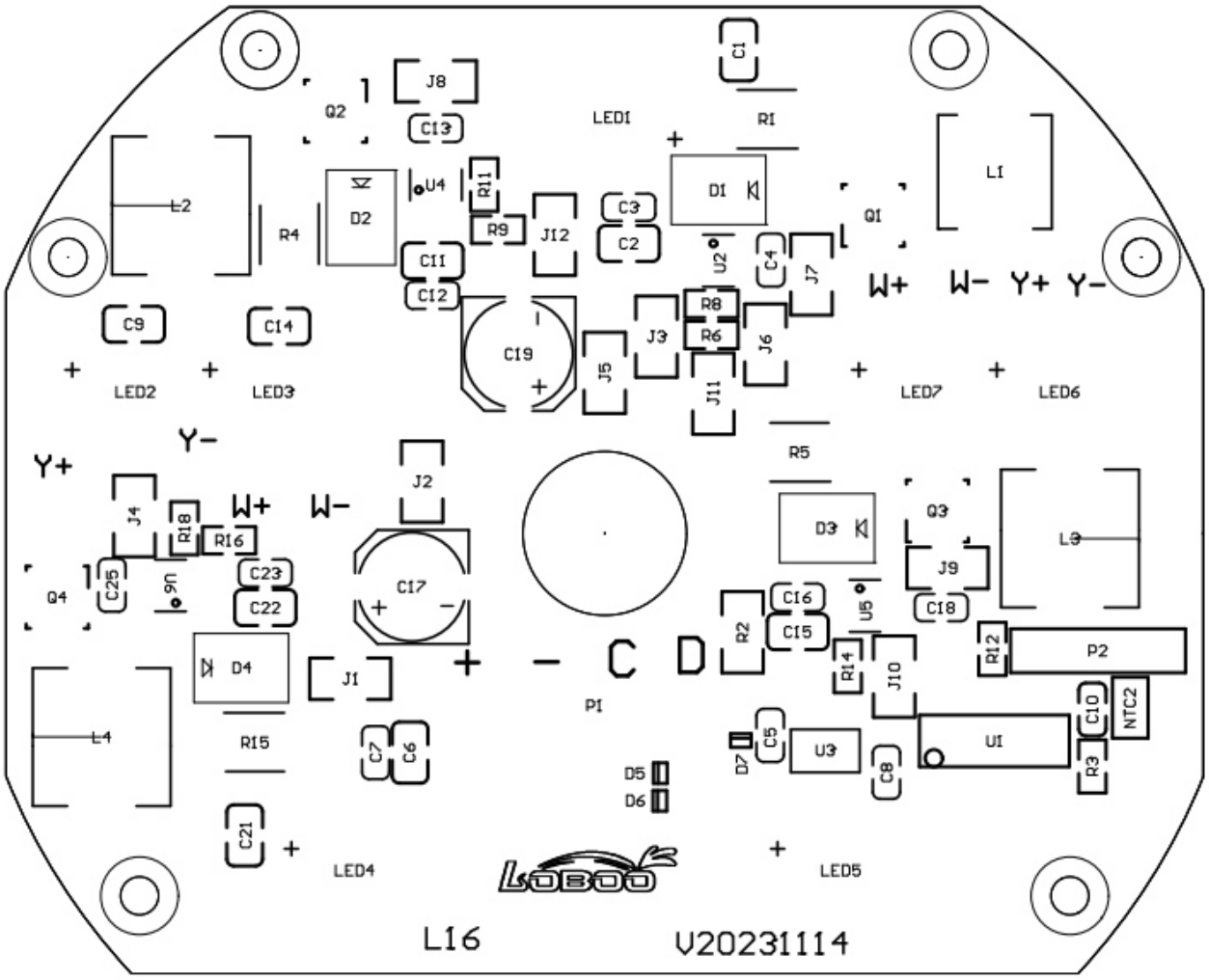

LED board Assembly Drawings

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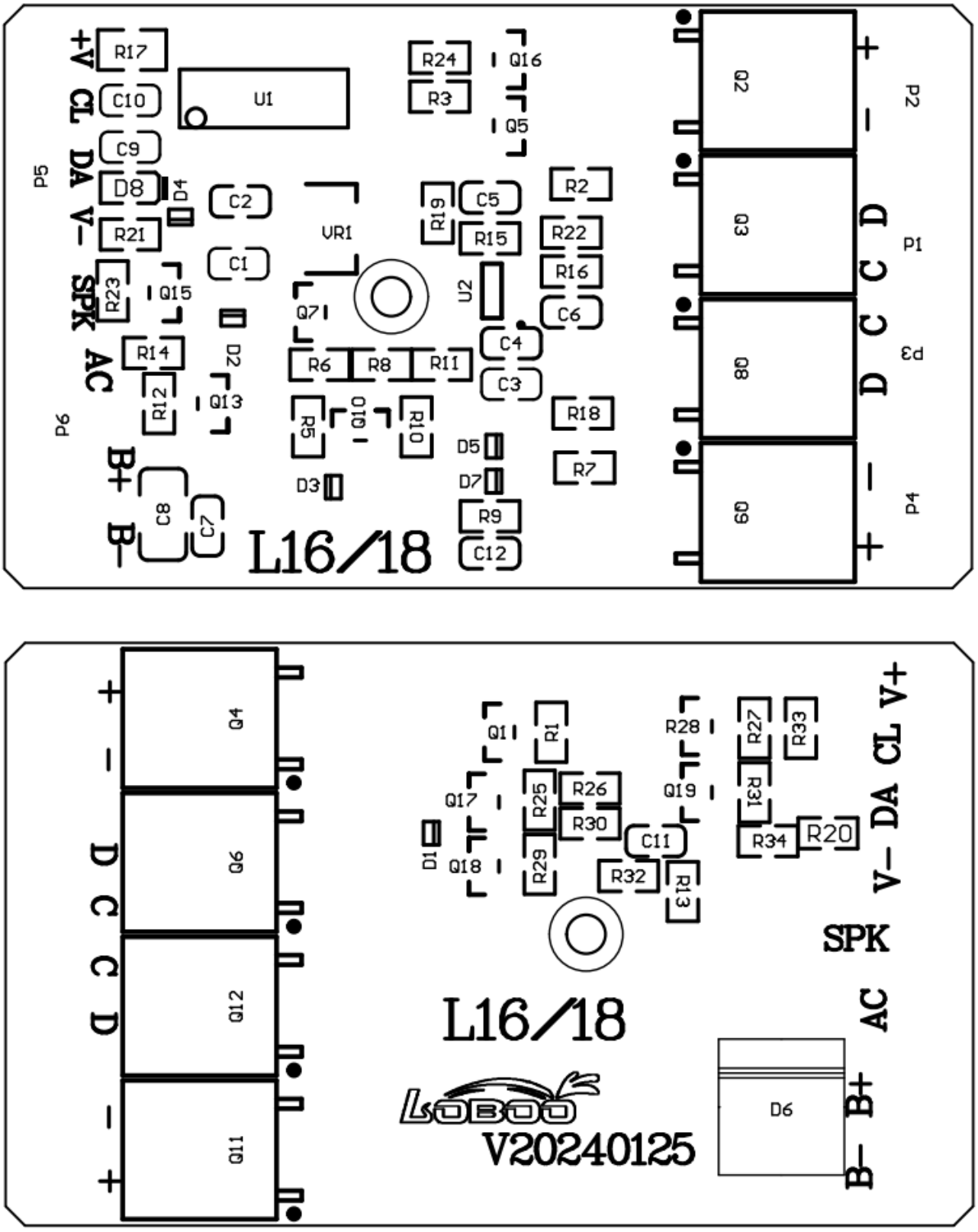
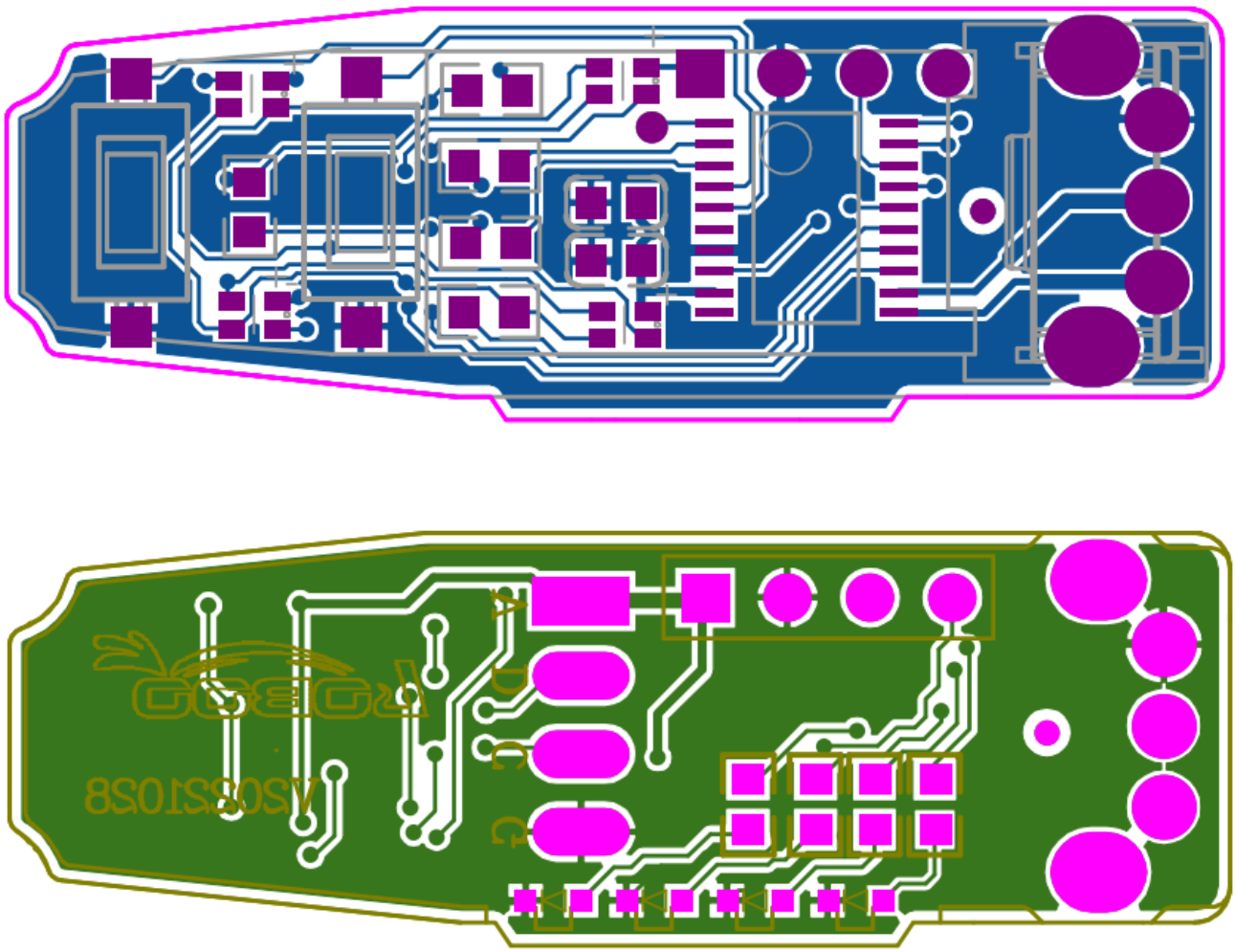
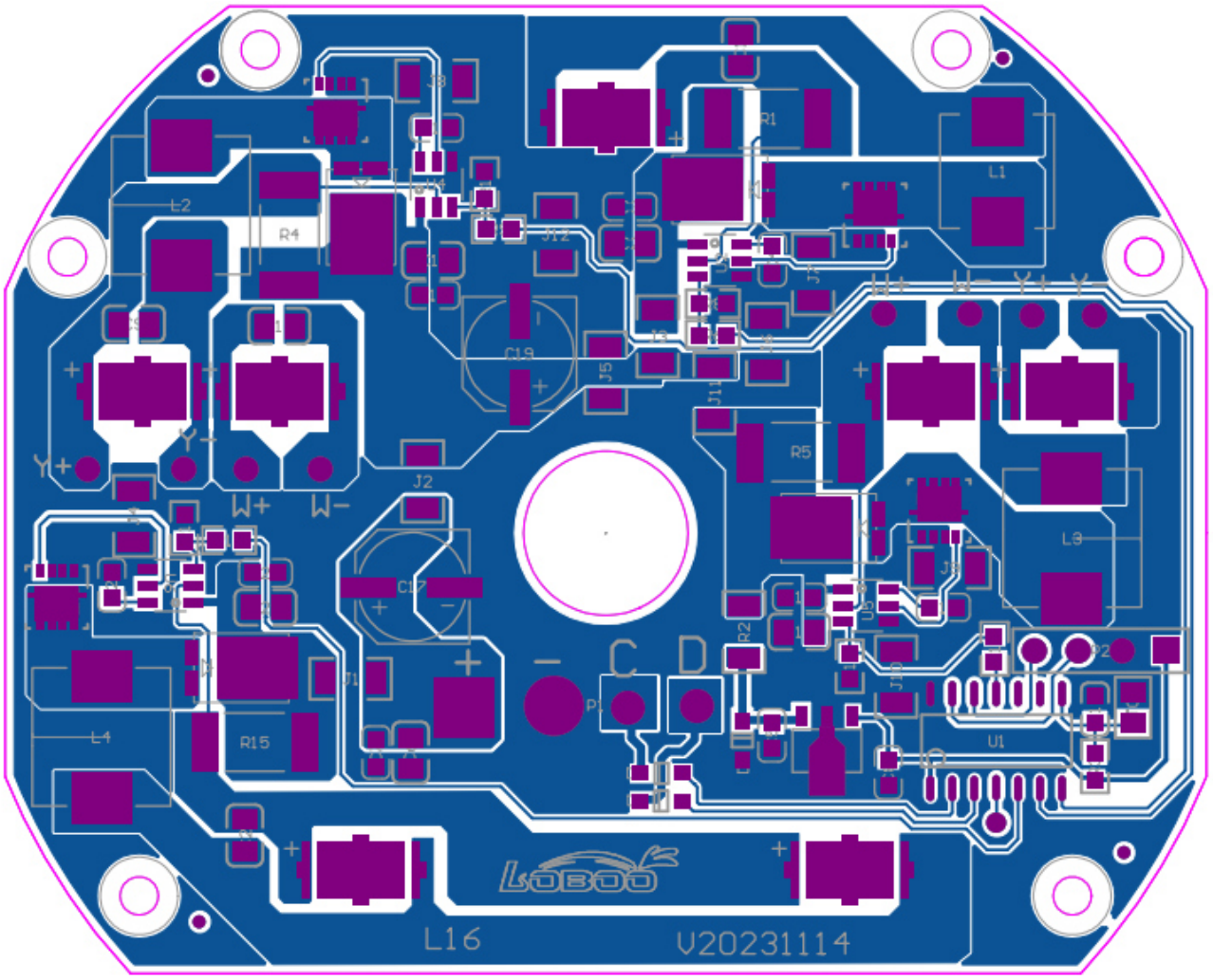


Main board Assembly Drawings



Key board PCB layout

Information folder No. :	L16-00
First application date :	June 04, 2024



LED board PCB layout

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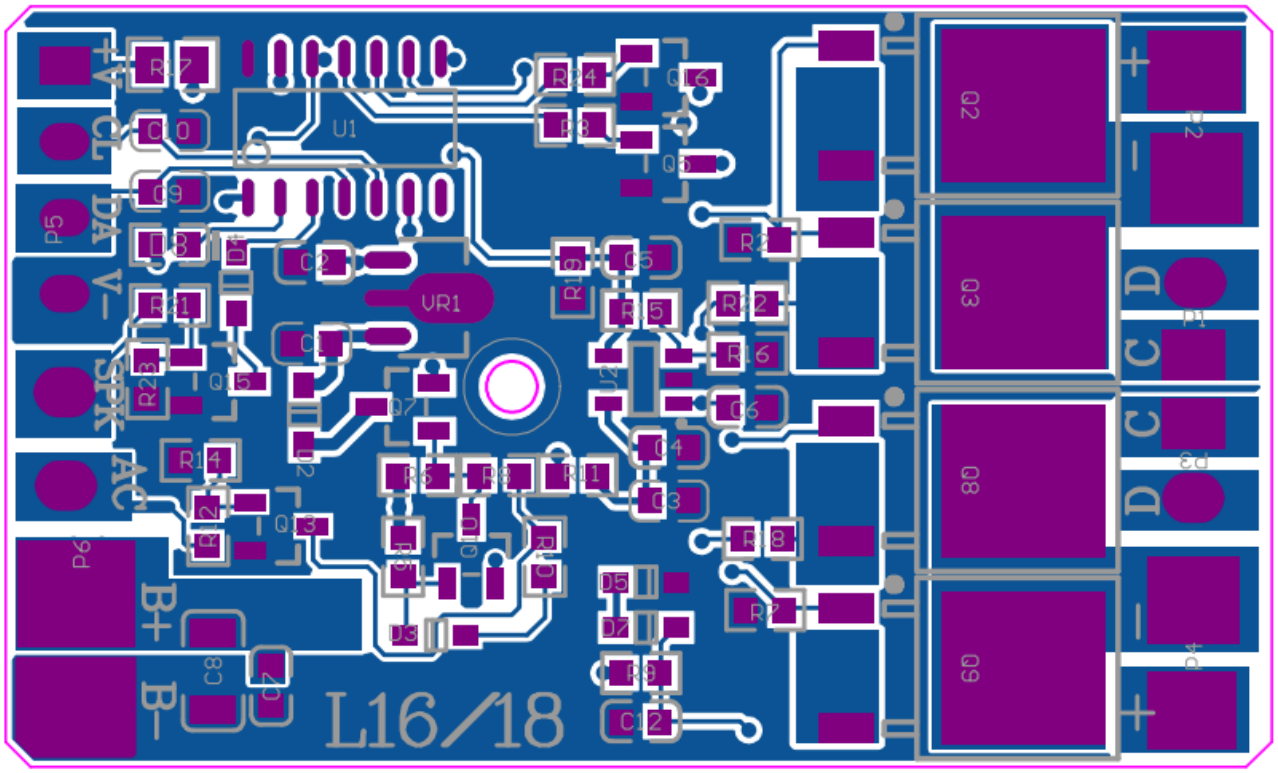

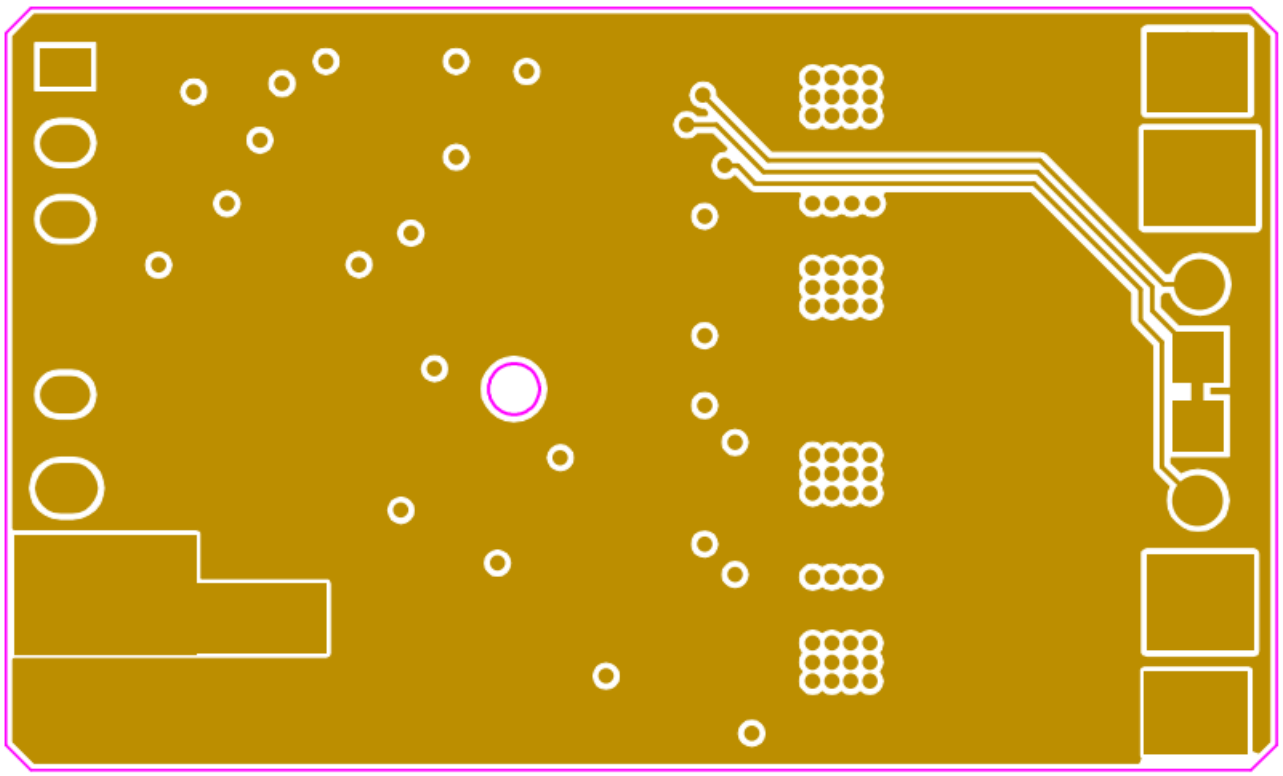

Main board PCB layout

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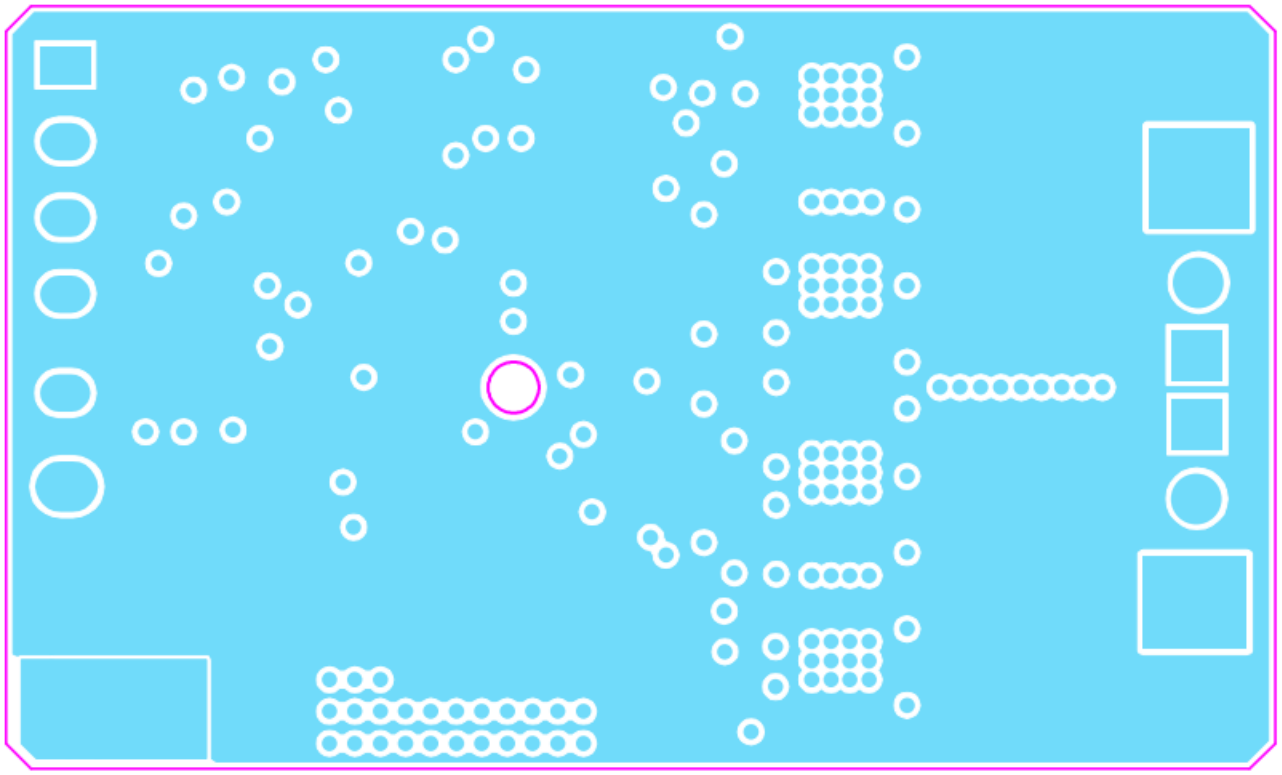

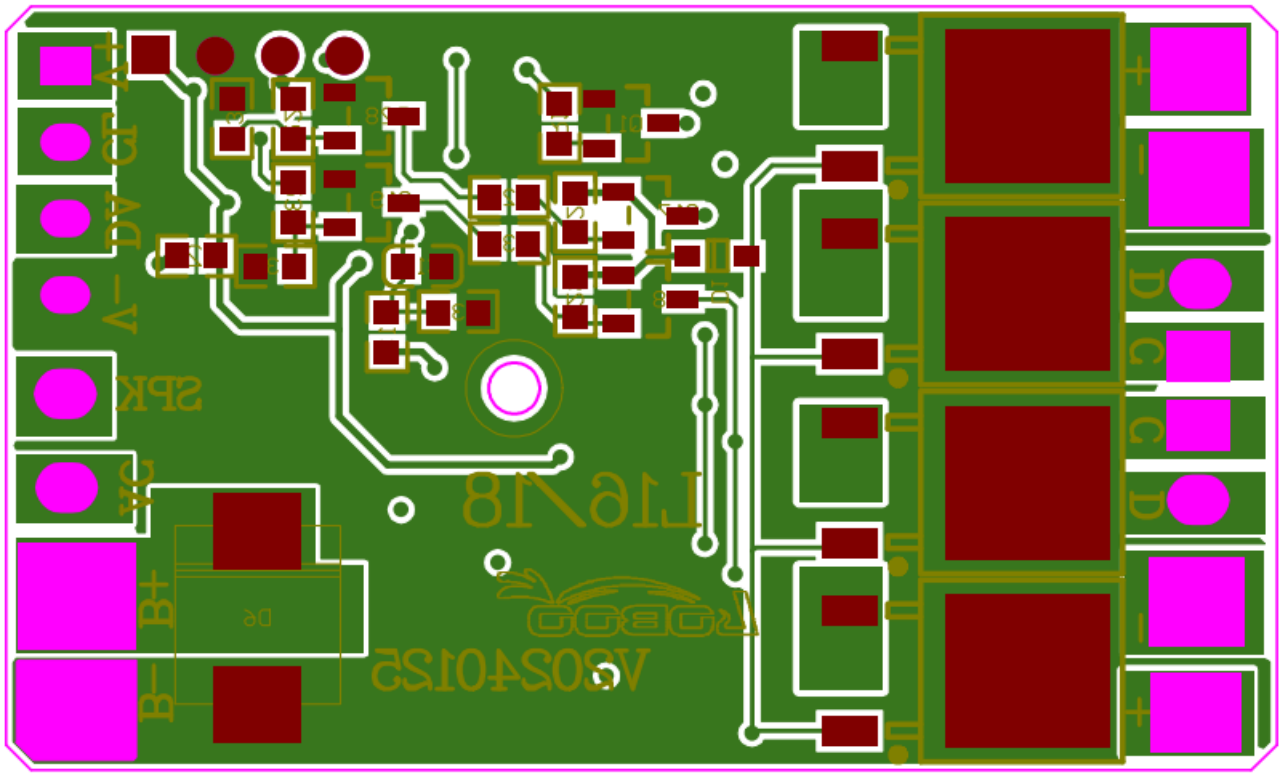

Main board PCB layout

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DUT Photos