




**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**


	Concernente <sup>2/</sup> Concerning <sup>2/</sup>	<b>Il rilascio dell'omologazione</b> <b>Approval granted</b> L'estensione dell'omologazione <i>Approval extended</i> Il rifiuto dell'omologazione <i>Approval refused</i> La revoca dell'omologazione <i>Approval withdrawn</i> La cessazione definitiva della produzione <i>Production definitively discontinued</i>
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of a type of electrical/electronic sub-assembly <sup>(2)</sup> with regard to Regulation no. 10.

<b>Omologazione N.</b> <i>Approval No.</i>	<b>E57*10R06/01*0150</b>	<b>Estensione N.</b> <i>Extension No.</i>	<b>00</b>
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<b>Marchio di omologazione</b> <i>Approval mark</i>	 <b>10R – 060150</b>
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1. Make (trade name of manufacturer): CISBO
2. Type and general commercial description(s): Type: C6F  
General commercial description:  
Blind spot detection system
3. Means of identification of type, if marked on the vehicle/component/separate technical unit <sup>(2)</sup>  
See Manufacturer's Information Document  
No. C6F-00 of 11/08/2021
- 3.1 Location of that marking:  
On the enclosure  
See Manufacturer's Information Document  
No. C6F-00 of 11/08/2021

4. Category of vehicle: See Manufacturer's Information Document  
No. NR500-P4G of 06/05/2021
5. Name and address of manufacturer: **SHENZHEN CISBO TECHNOLOGY CO., LTD**  
6F, Building3, Lijincheng industry Park, Gongye East Road,  
Longhua, Longhua New District, Shenzhen, P.R. China. 518000
6. In the case of components and separate technical units, location and method of affixing of the approval mark: On the enclosure  
See Manufacturer's Information Document  
No. C6F-00 of 11/08/2021
7. Address(es) of assembly plant(s): 6F, Building3, Lijincheng industry Park, Gongye East Road,  
Longhua, Longhua New District, Shenzhen, P.R. China. 518000
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: 31/08/2021
11. No. of test report: ATS-SM-IR-10-03113
12. Remarks (if any): See appendix below
13. Place: Dogana – Repubblica di San Marino
14. Date: 01/09/2021
15. Signature: 
16. The index to the information package lodged with the Approval Authority, which may be obtained on request, is attached.
17. Reasons for extension: Not Applicable



Ing. Marco CONTI  
Direttore Generale  
General Director

(2) *Strike out what does not apply.*

**Appendix to type-approval communication form No. E57\*10R06/01\*0150\*00  
concerning the type-approval of an ~~electrical~~/electronic sub-assembly  
under Regulation No. 10**

1. Additional information:

- 1.1. Electrical system rated voltage: 12V DC. ~~pos~~/neg ground<sup>(2)</sup>
- 1.2. This ESA can be used on any vehicle type with the following restrictions: See Manufacturer's Information Document No. C6F-00 of 11/08/2021
- 1.2.1. Installation conditions, if any: See Manufacturer's Information Document No. C6F-00 of 11/08/2021
- 1.3. This ESA can be used only on the following vehicle type: See Manufacturer's Information Document No. C6F-00 of 11/08/2021
- 1.3.1. Installation conditions, if any: See Manufacturer's Information Document No. C6F-00 of 11/08/2021
- 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 inspection Report No. ATS-SM-10-03113
- 1.5. Laboratory accredited to ISO 17025 and recognised by the Approval Authority responsible for carrying out the tests: Guangzhou Shuntai Quality Technical Service Co, Ltd.
2. Remarks: None

(2) *Strike out what does not apply.*

LIBERTAS  
REPUBBLICA  
DI SAN MARINO

<b>Allegato</b> <i>Enclosure</i>			
<b>Al certificato di omologazione ECE N.</b> <i>To ECE approval certificate No.</i>		<b>E57*10R06/01*0150*00</b>	
<b>Indice del fascicolo di omologazione</b> <i>Index to the information package</i>			
<b>Data</b> <i>Date of issue</i>	<b>01/09/2021</b>	<b>Data ultima modifica</b> <i>Last amendment date</i>	--
1.	<b>Clausole di garanzia e istruzioni sul diritto di presentare ricorso</b> <i>Collateral clauses and instruction on right to appeal</i>		
2.	<b>Rapporto(i) Finale di Ispezione N.</b> <i>Inspection report(s) No.</i>	<b>ATS-SM-IR-10-03113</b>	<b>Data</b> <i>Date</i> <b>31/08/2021</b>
3.	<b>Scheda informativa N.</b> <i>Information document No.</i>	<b>C6F-00</b>	<b>Data</b> <i>Date</i> <b>11/08/2021</b>
			<b>Data ultima modifica</b> <i>Last amendment date</i> --



## 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 dell'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 all'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.

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### **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-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

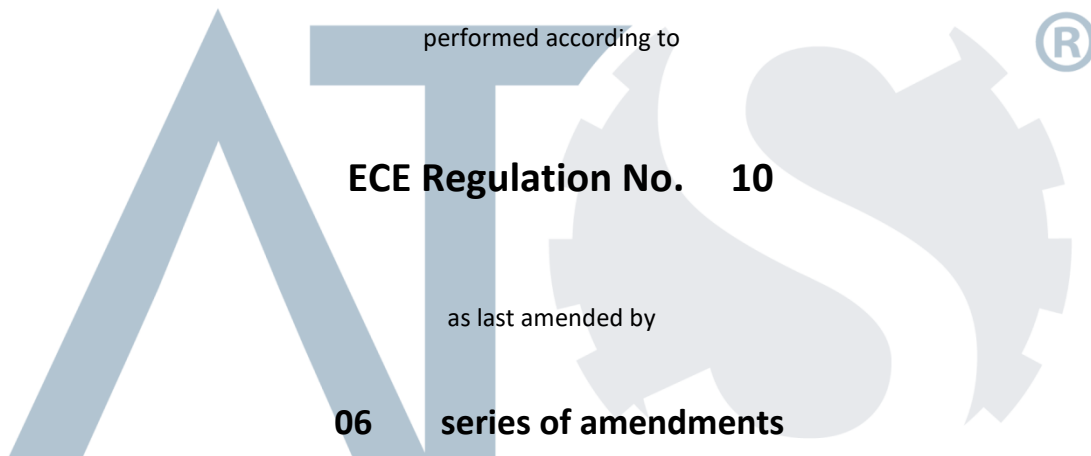
## Inspection Report

**No. ATS-SM-IR-10-03113**

**Rel. 00**

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

### Electromagnetic Compatibility (EMC) for M, N, O, L vehicle categories



of the Economic Commission for Europe

Approval status	
ECE	Number of approval
	<b>E57*10R06/01*0150*00</b>

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

**0. General information**

0.1. Make (trade name of manufacturer): CISBO

0.2. Type: C6F

0.2.1. Variants: C3,C5,C51,C52,C53,C55,C57,C58,C6,C612,C613,C615,C617,C63,C65,C67,C68,C8,C9,C91,C93,C95,C96,C97,C98,C6H,C6K,C6S,C6M,C6P,C6R,C6X,C6-LPB,C6-LPBC

0.3. Name and address of manufacturer: **SHENZHEN CISBO TECHNOLOGY CO., LTD**  
6F, Building3, Lijincheng industry Park, Gongye East Road, Longhua, Longhua New District, Shenzhen, P.R. China. 518000

0.3.1. Name and address of manufacturer's authorized representative: N/A

0.3.2. Production plant(s) address(es): 6F, Building3, Lijincheng industry Park, Gongye East Road, Longhua, Longhua New District, Shenzhen, P.R. China. 518000

0.4. Name and address of Applicant: **SHENZHEN CISBO TECHNOLOGY CO., LTD**  
6F, Building3, Lijincheng industry Park, Gongye East Road, Longhua, Longhua New District, Shenzhen, P.R. China. 518000

0.5. No. of the information document: C6F-00 Date: 2021/08/11

0.6. Position of the approval mark: On the shell

0.7. Vehicle category: --

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

**1. Test Condition**

- 1.1. Test sample: The model of test report is according to customer's requirements.  
EUT work normally, the EUT properly.
- 1.2. Test procedures used: ECE R10
- 1.3. Specimen submitted to test on: C6F
- 1.4. Place of test: Guangzhou Shuntai Quality Technical Service Co, Ltd.
- 1.5. Date of test: 2021/08/04





2. Test records

2.1. Equipment for measuring and testing: The test facilities / measurement equipment used were in testing compliance with the test requirements.

2.2. Conformity with the technical sheet and attached drawings: SI / YES  NO / NO  NR / NA

2.3 Test results

2.3.1 Broadband electromagnetic interference generated by ESAs

2.3.1.1 Method of measurement: Measured by the method described in Annex 7 of ECE Regulation No. 10.

2.3.1.2 Results: Conform / ~~Not Conform~~ (Test data see Appendix 2)

2.3.2. Narrowband electromagnetic interference generated by ESAs

2.3.2.1. Method of measurement: Measured by the method described in Annex 8 of ECE Regulation No. 10.

2.3.2.2. Results: Conform / ~~Not Conform~~ (Test data see Appendix 2)

2.3.3 Immunity of ESAs to electromagnetic radiation:

2.3.3.1. Method of measurement: Measured by the method described in Annex 9 of ECE Regulation No. 10.

2.3.3.2. Performance criteria: ECE Regulation No. 10.

2.3.3.3. Results: Conform / ~~Not Conform~~ (Test data see Appendix 2)

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

2.3.4. Immunity of ESAs to transient disturbances

2.3.4.1. Method of measurement: Measured by the method described in Annex 10 of ECE Regulation No. 10.

2.3.4.2. Results: Conform / ~~Not Conform~~  
(Test data see Appendix 2)

2.3.5. Emission of transient conducted disturbances generated by ESAs

2.3.5.1. Method of measurement: Measured by the method described in Annex 10 of ECE Regulation No. 10.

2.3.5.2. Results: Conform / ~~Not Conform~~  
(Test data see Annex 2)

3. **Remark concerning tested object(s)** All versions of the samples as stated in the information document are covered with the tested version(s) and test object(s) respectively.

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

## 5. Other information

Place of inspection: GUANGZHOU SHUNTAI QUALITY TECHNICAL SERVICE CO., LTD.

Date of inspection: 04/08/2021

	Senior Inspector	Junior Inspector (if applicable)
Technical service representative:	Cheryl Deng	N/A

Manufacturer's representative: N/A

Remarks: None

### 5.1 Appendix

1. List of modifications
2. Test Data
3. Sample Photo(s)
4. List of main test equipment

### 5.2 Enclosures

Information Folder

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

## 6. Statement of conformity

The information document as given in paragraph 0.5 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 (see paragraph 1).

The tests were carried out in accordance with the relevant requirements of EN ISO/IEC 17025 and EN ISO/IEC 17020 / R10-06 ECE/UN.

The inspection report comprises pages 1 to 17.

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

Dogana, Repubblica di San Marino, 31/08/2021

<i>Number of Project and Protocol</i>	<i>Originality Check (*)</i>	<b>Automotive Technical Service S.r.l.</b> <i>Inspector</i>	
	 ATS-SM-PR-03113	 _____ (Cheryl Deng)	

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

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

## Appendix 1

List of modifications

Applicable/ Not Applicable

Appendix 1

N/A

More details for application of

Date :

Correction of : -

Modification of : -

Addition of : -

Deletion of : -



Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

## Appendix 2

### Test data

### Appendix 2

#### 1 Test object(s)

- |        |   |   |
|--------|---|---|
| 1.1.   | Commercial description:   | Blind spot detection system   |
| 1.2.   | Type:   | C6F   |
| 1.2.1. | Variants:   | C3,C5,C51,C52,C53,C55,C57,C58,C6,C612,C613,C615,C617,C63,C65,C67,C68,C8,C9,C91,C93,C95,C96,C97,C98,C6H,C6K,C6S,C6M,C6P,C6R,C6X,C6-LPB,C6-LPBC |
| 1.3.   | Technical data of the tested ESA type                                     | See the Information Folder  |
| 1.3.1. | Electrical system rated voltage:  | 12V   |
| 1.3.2. | This ESA can be used on any vehicle type with the following restrictions: | N/A   |
| 1.3.3. | Installation conditions:  | ---   |
| 1.3.4. | This ESA can be used on the following vehicle types:                      | ---   |
| 1.3.5. | Installation conditions   | ---   |

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

**Test data**

**Appendix 2**

**Test results 1 (12V DC)**

**1. Broadband / narrowband electromagnetic interference generated by ESAs**

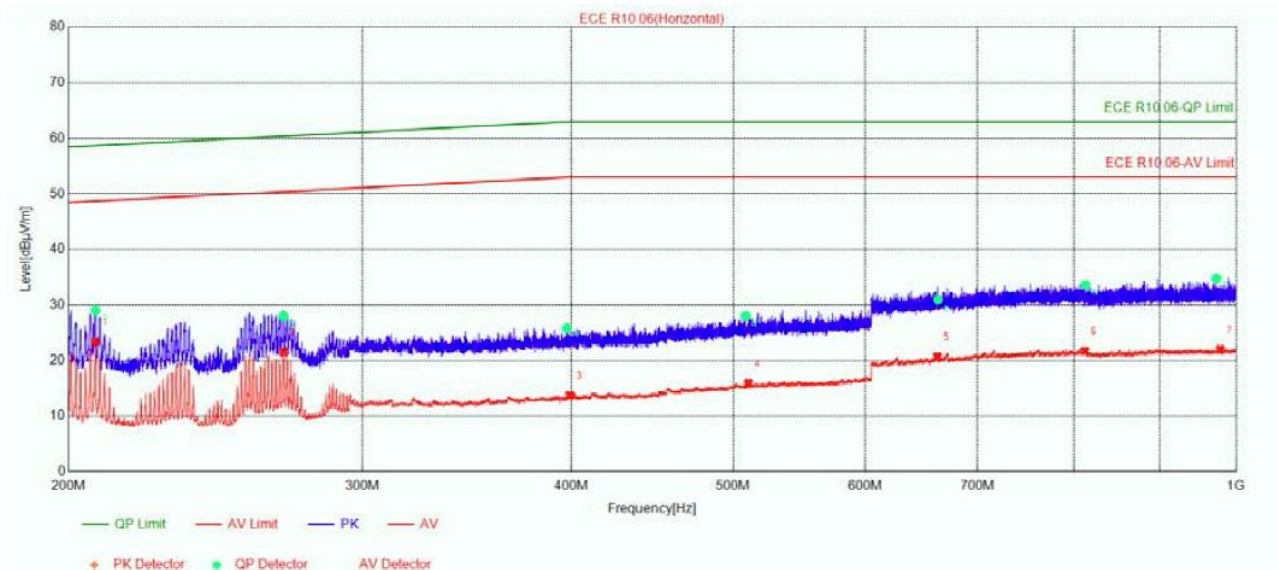
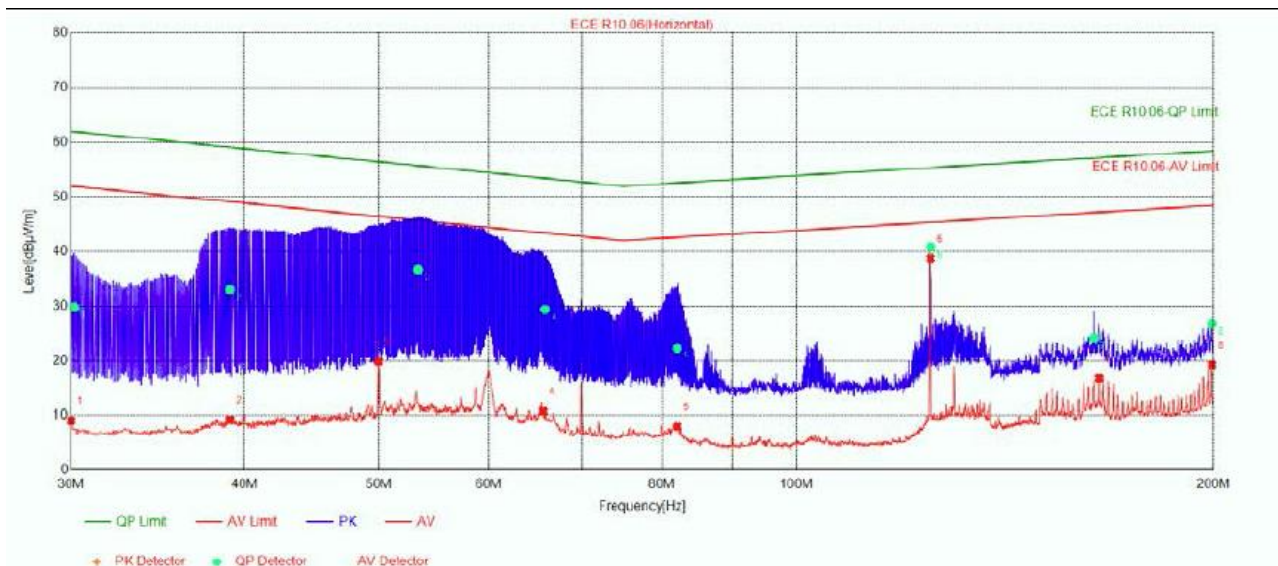
Radiated broadband electromagnetic Emissions : as shown in table 1-4

Radiated narrow band electromagnetic Emissions : as shown in table 1-4

Antenna position : horizontal and vertical

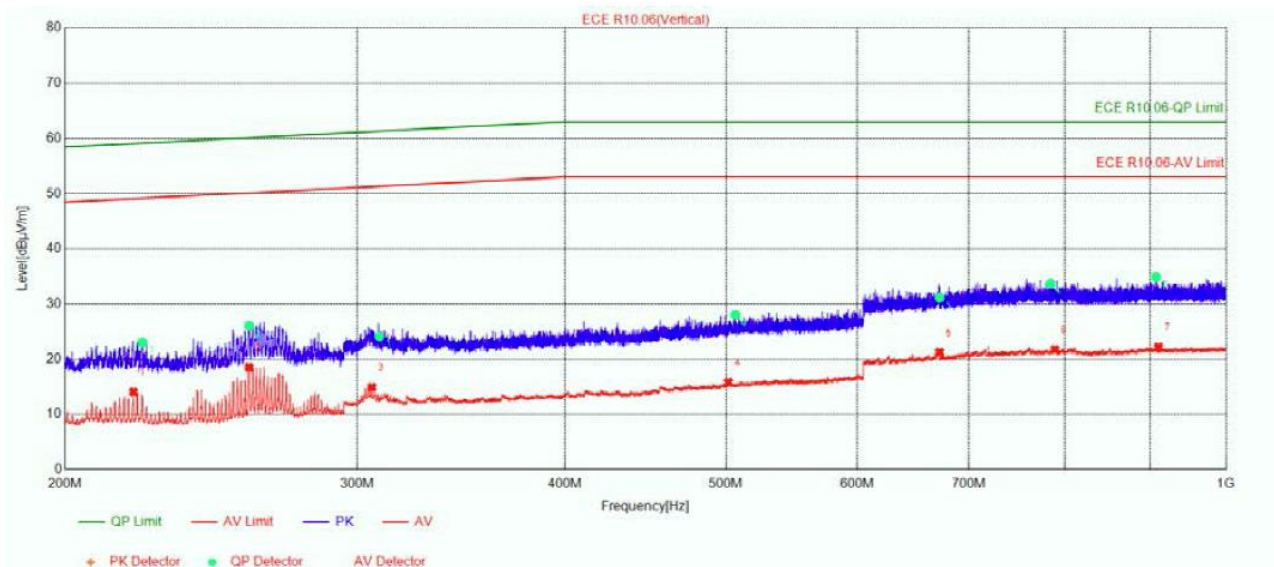
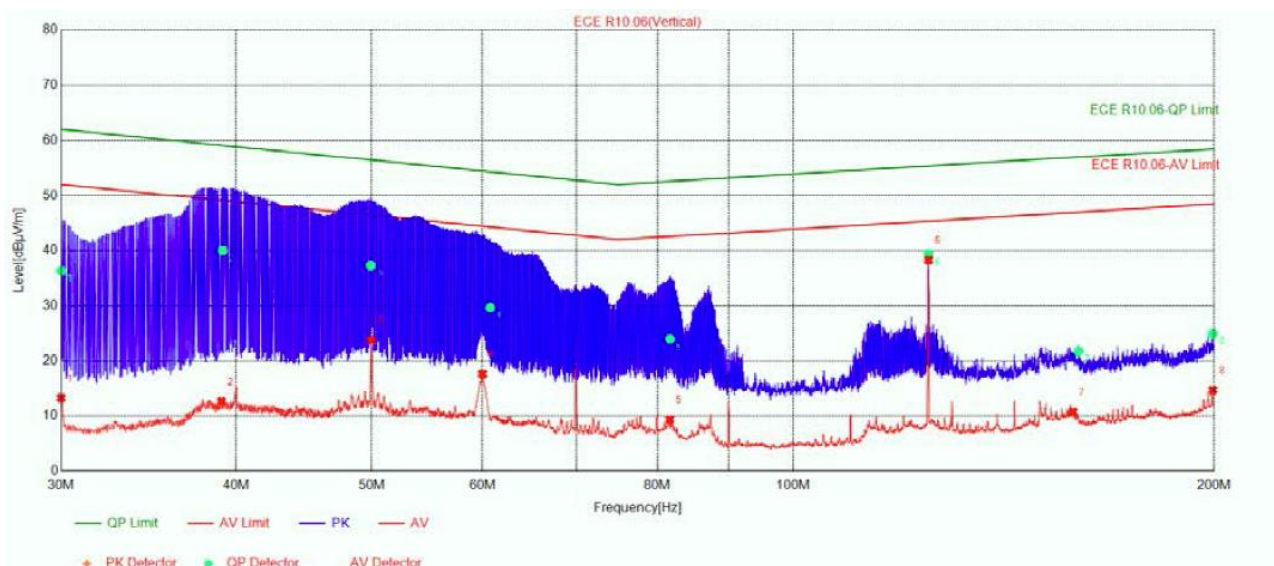
Rated voltage : DC 12V

### Horizontal Polarity Test Result Diagram (Broadband and Narrow band)





**Vertical Polarity Test Result Diagram (Broadband and Narrow band)**



The ESA is deemed to conform to the requirements in respect of this frequency band according to 6.5.2.2 and 6.6.2.2. of Regulation 10.06/ECE

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

## 2. Immunity of ESAs to electromagnetic radiation

Test method : ISO 11452-2:2004; ISO 11452-4:2005

Measurement result:

Frequency range (MHz)	Test level	Type of modulation	Test distance	Antenna position	Result
20-400	60mA	AM	150mm	/	Pass*
400 ~ 800	30V/m	AM	1000mm	Vertical	Pass*
800 ~ 2000	30V/m	PM	1000mm	Vertical	Pass*

Remark:

\* no degradation of performance of 'immunity-related functions.

## 3. Immunity of ESAs to transient disturbances

Test method : ISO 7637-2 : 2004

Measurement result:

Test pulse	Test level	Number of pulse / test time	Burst cycle / pulse Repetition time	Required minimum function status*	Status of function true value (mode 1)	Result
1	III	5000 pulsos/ pulses	Ri=10Ω, td=2ms, tr=1μs, t1=1s, t2=200ms, t3<100μs	C	C	Pass
2a	III	5000 pulsos/ pulses	Ri=2Ω, td=0.06ms, tr=1μs, t1=5s	B	A	Pass
2b	III	10 pulsos/ pulses	Ri=0Ω, td=1s, t12=1ms, tr=1ms, t6=1ms	C	C	Pass
3a	III	1 h	Ri=50Ω, td=0.1μs, tf=5ns, t1=100μs, t4=10ms, t5=90ms	A	A	Pass
3b	III	1 h	Ri=50Ω, td=0.1μs, tr=5ns, t1=100μs, t4=10ms, t5=90ms	A	A	Pass
4	III	1 pulso/ pulse	Va=-2.5V, Ri=0Ω, t8<50ms, t9=10s, t10=5ms, t11=5ms to100ms	B	A	Pass

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

**Remark:**

\* Class A: all functions of a device/system perform as designed during and after exposure to disturbance.

Class B: all functions of a device/system perform as designed during exposure. However, one or more of them can go beyond specified tolerance. All functions return automatically to within normal limits after exposure is removed. Memory functions shall remain class A.

Class C: one or more functions of a device/system do not perform as designed during exposure but return automatically to normal operation after exposure is removed.

Class D: one or more functions of a device/system do not perform as designed during exposure and do not return to normal operation until exposure is removed and the device/system is reset by simple "operator/use" action.

Class E: one or more functions of a device/system do not perform as designed during and after exposure and cannot be returned to proper operation without repairing or replacing the device/system.

Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

**Test data**

**Appendix 2**

**4. Emission of transient conducted disturbances generated by ESAs**

Test method ISO 7637-2: 2004

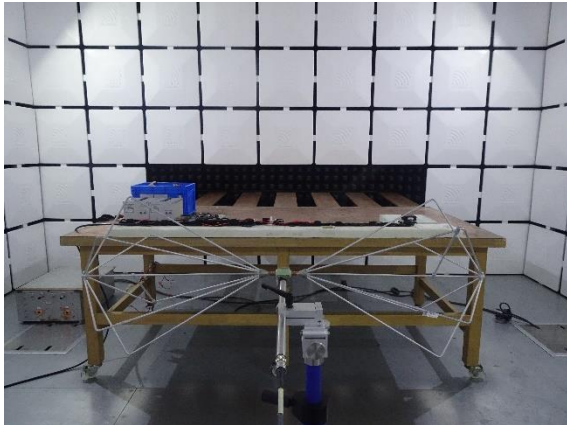
Polarity of pulse amplitude	Maximum allowed value for vehicles with 12V systems	Measured Pulse amplitude True Value(Fast)	Measured Pulse amplitude True Value(Slow)
Positive	+75V	602.5mV	362.5 mV
Negative	-100V	-605.0mV	-387.5mV

## Appendix 3

### Sample photos

### Appendix 3

Radiated electromagnetic emissions



Immunity to electromagnetic radiation:



Immunity of ESAs to transient disturbances



Emission of transient conducted disturbances



Inspection Report No.: ATS-SM-IR-10-03113

Of: 31/08/2021



Type: C6F

Manufacturer: SHENZHEN CISBO TECHNOLOGY CO., LTD

## Appendix 4

### List of main equipment

### Appendix 4

No.	Name	Type	Serial No.	Valid Until
1	Chamber1#	CT001566-1317	NEI-VE-E-001	2024/12/27
2	Test Receiver	N9038A	NEI-VE-E-013	2022/05/12
3	V-network	NNBM 8124	NEI-VE-E-018	2022/05/16
4	V-network	NNBM 8124	NEI-VE-E-019	2022/05/16
5	Biconical Antenna	VHBB 9124	NEI-VE-E-016	2023/05/04
6	Log Periodic Dipole antenna	3148B	NEI-VE-E-020	2023/05/04
7	Signal Generator	SMT 03	NEI-VE-E-160	2022/05/12
8	Power sensor	8482A	NEI-VE-E-229	2021/11/29
9	Power sensor	8482A	NEI-VE-E-230	2021/11/29
10	Power Meter	E4419B	NEI-VE-E-228	2021/11/29
11	Signal Generator	SMT 03	NEI-VE-E-160	2022/05/12
12	Power sensor	8482A	NEI-VE-E-229	2021/11/29
13	Digital oscilloscope	DPO 5054B	NEI-VE-E-297	2022/05/12
14	Vehicle transient conduction test device	VTE 743T1	NEI-VE-E-213	2021/11/29
15	Frequency-selector	SMB 100A	NEI-VE-E-005	2022/05/12
16	Signal Generator	7002-001	NEI-VE-E-299	2022/05/12
17	Horn Antenna	NNBM 8124-200	NEI-VE-E-024	2022/05/16
18	V-network	NNBM 8124-200	NEI-VE-E-102	2022/05/16
19	Voltage Drop Simulator	VDS 200	NEI-VE-E-032	2022/05/12
20	Pulse unit 1-12V BP	KES7711A	NEI-VE-E-181	2021/09/20

All the instruments have been calibrated and are in the period of validity.

**Information document no. C6F-00 relating to EC type-approval of an electric/electronic subassembly with respect to electromagnetic compatibility (ECE Regulation 10 as last amended by 06 series of amendments)**

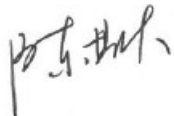
Type: C6F

Total number of pages: 8

Date: 11/08/2021

Responsible name: Hanyu Chen

Manufacturer's stamp:



SHENZHEN CISBO TECHNOLOGY CO., LTD

August 2021

## **INDEX**

- 2 Index
- 3 General
- 5 Drawings of the ESA
- 6 Electronic block diagram
- 7 List of components constituting the ESA



August 2021

## **GENERAL**

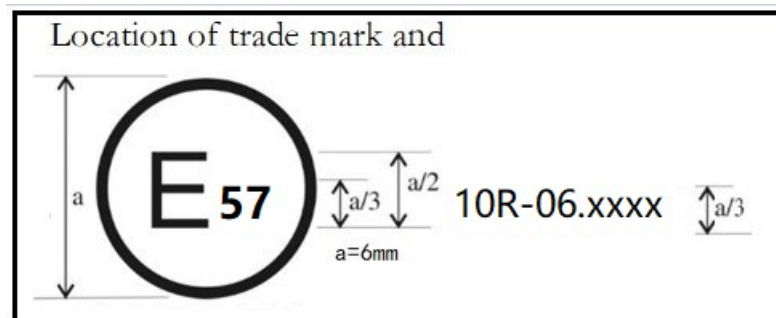
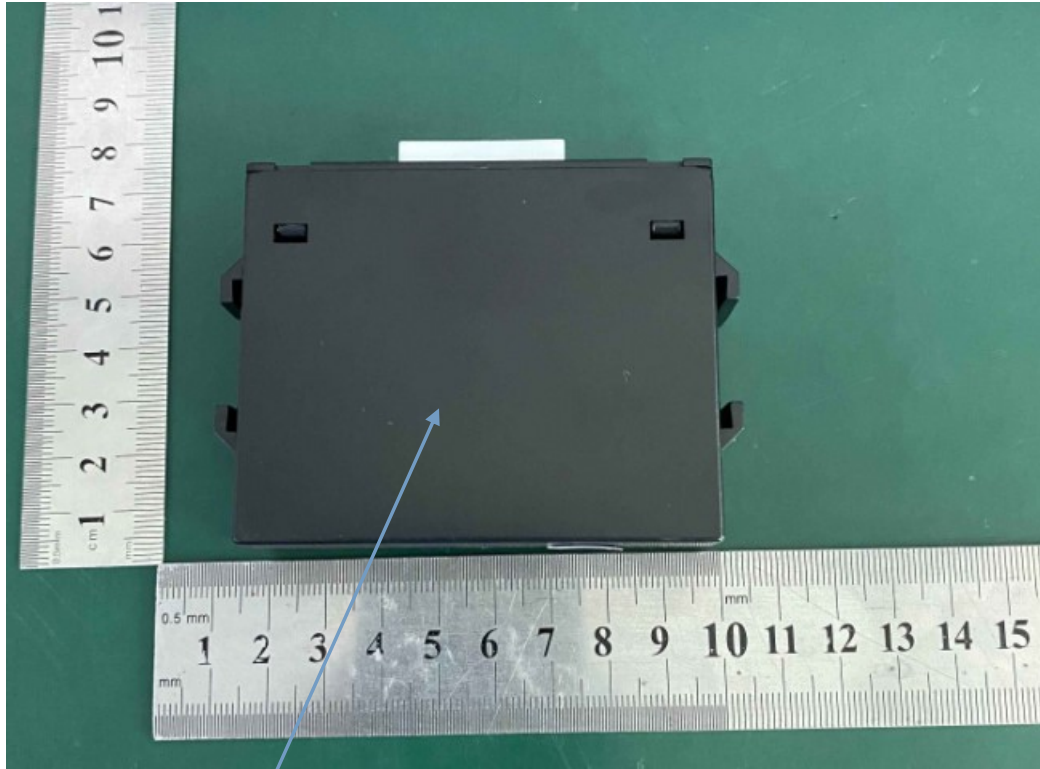
1. Make (trade name of manufacturer):  
**CISBO**
2. Type: **C6F**  
Variants: **C3,C5,C51,C52,C53,C55,C57,C58,C6,C612,C613,C615,C617,C63,  
C65,C67,C68,C8,C9,C91,C93,C95,C96,C97,C98,C6H,C6K,C6S,C6M,  
C6P,C6R,C6X,C6-LPB,C6-LPBC**  
  
**The above variants have the same electronic circuit design and the same component lists of each PCB, the difference among them is model name.**  
General commercial description(s):  
**Blind spot detection system**
3. Means of identification of type, if marked on the component/separate technical unit <sup>(a)</sup>:  
**Approval mark**
- 3.1 Location of that marking:  
**On the enclosure, See Drawings of the ESA**
4. Name and address of manufacturer:  
**SHENZHEN CISBO TECHNOLOGY CO., LTD  
6F, Building3, Lijincheng industry Park, Gongye East Road, Longhua,  
Longhua New District, Shenzhen, P.R. China. 518000**  
Name and address of authorised representative, if any:NA
5. In the case of components and separate technical units, location and method of affixing of the ECE approval mark:  
**On the enclosure. See Drawings of the ESA.**
6. Address(es) of assembly plant(s):  
**SHENZHEN CISBO TECHNOLOGY CO., LTD  
6F, Building3, Lijincheng industry Park, Gongye East Road, Longhua,  
Longhua New District, Shenzhen, P.R. China. 518000**
7. Name and address(es) of Applicant:  
**SHENZHEN CISBO TECHNOLOGY CO., LTD  
6F, Building3, Lijincheng industry Park, Gongye East Road, Longhua,  
Longhua New District, Shenzhen, P.R. China. 518000**
8. This ESA shall be approved as a component.
9. Any restrictions of use and conditions for fitting:  
**N/A**

10. Electrical system rated voltage:  
**12V DC, Negative ground.**
11. Charger:  
**N/A**
12. Charging current:  
**N/A**
13. Maximal nominal current (in each mode if necessary) :  
**N/A**
14. Nominal charging voltage:  
**N/A**
15. Basic ESA interface functions:  
**N/A**
16. Minimum R<sub>sce</sub> value (see paragraph 7.11. of this Regulation):  
**N/A**

August 2021

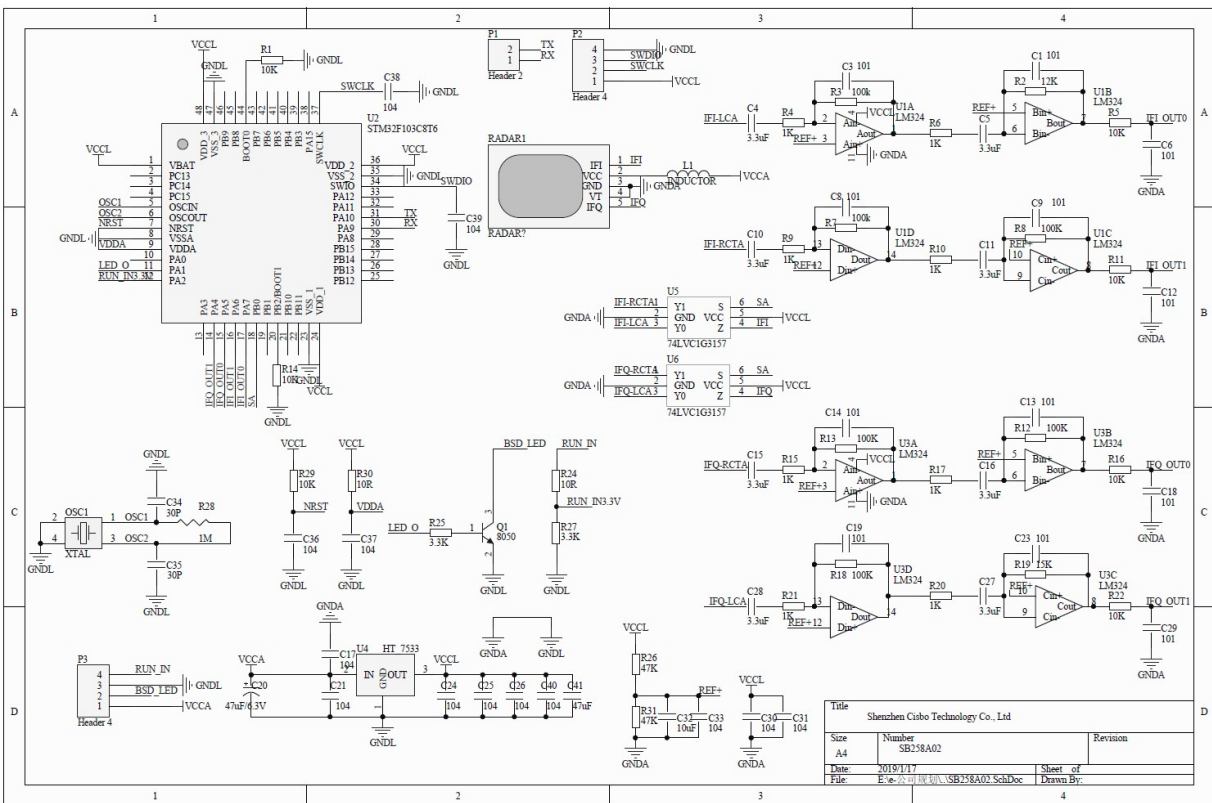
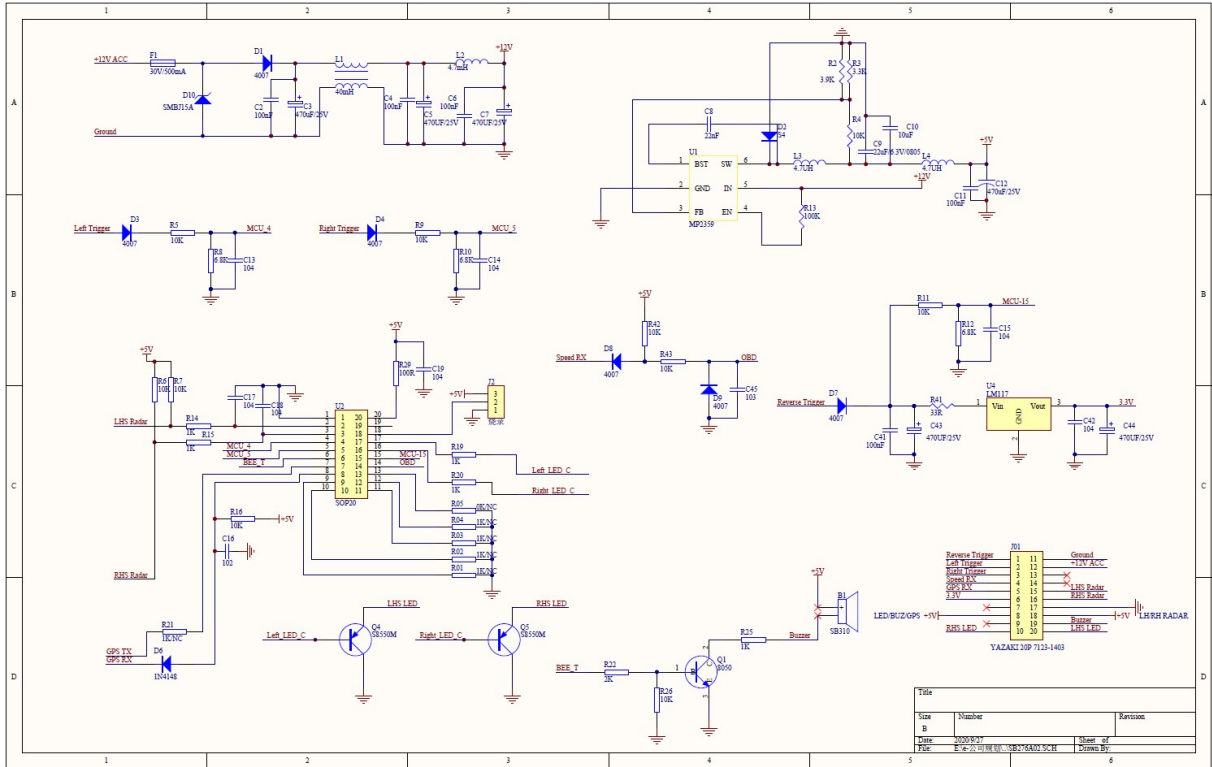
### Drawings of the ESA

Location of the ECE approval mark



August 2021

**Electronic block diagram**



August 2021

**List of components constituting the ESA**

No.	Name	Specification	Qty	Position
1	SB276A02-PCBA	SB276A02-PCBA	1	
2	resistor0603	100Ω±5%	1	R29
3	resistor0603	1K±1%	6	R14, R15, R19, R20, R25, R01
4	resistor0603	2K±5%	1	R22
5	resistor0603	3.3K±5%	1	R3
6	resistor0603	3.9K±5%	1	R2
7	resistor0603	6.8K±5%	3	R8, R10, R12
8	resistor0603	10K±1%	10	R4, R5, R6, R7, R9, R11, R16, R26, R42, R43
9	resistor0603	100K±1%	1	R13
10	resistor1206	33Ω±5%	1	R41
11	capacitor0603	25V-1nF±10% X7R	1	C16
12	capacitor0603	25V-10nF±10% X7R	1	C45
13	capacitor0603	25V-22nF±10% X7R	1	C8
14	capacitor0603	25V-100nF±10% X7R	12	C2, C4, C6, C11, C13, C14, C15, C17, C18, C19, C41, C42
15	capacitor0805	6.3V-10uF±10% X5R	1	C10
16	capacitor0805	6.3V-22uF±10% X5R	1	C9
17	Chip inductor 1206	25V-4.7UH±10%	2	L3, L4
18	Diode	1N4007(M7), SMA(DO-214AC)	6	D1, D3, D4, D7, D8, D9
19	Diode	B5817W(SJ), SOD-123	1	D2
20	Diode	LL4148, LL-34	1	D6
21	TVS Diode	SMBJ15A, SMB(DO-214AA)	1	D10
22	Fuse	1812, 500mA/30V, SMD OBD	1	F1
23	Triode	8550, SOT-23	2	Q4, Q5
24	Triode	8050, SOT-23	1	Q1
25	SMD IC	BM1117 3.3V, CYT8117T33	1	U4
26	SMD IC	TL2359, SOT23-6, 1.2A/24V/1.4MHZ	1	U1
27	SMD IC	FY304 SOP-20	1	U2
28	SB276A02 PCB	SB276A02	1	
29	Inductor	4.7mH, 8*10mm	1	L2
30	Inductor	T9*5*3C-20mH	1	L1
31	capacitor	470uF-25V	6	C3, C5, C7, C12, C43, C44

August 2021

32	20P connector	YAZAKI 7222-1403	1	J01
33	SB258A02-PCBA	SB258A02 PCBA	1	
34	resistor0603	1M±5%	1	R28
35	resistor0603	10 Ω ±5%	2	R24, R30
36	resistor0603	47K±5%	2	R26, R31
37	resistor0603	3.3K±5%	2	R25,R27
38	resistor0603	1K±1%	8	R4, R6, R9, R10, R15, R17, R20, R21
39	resistor0603	100K±1%	4	R3, R7, R13, R18
40	resistor0603	120K±1%	2	R8, R12
41	resistor0603	12K±1%	1	R2
42	resistor0603	13.3K±1%	1	R19
43	resistor0603	10K±1%	7	R1, R5, R11, R14, R16, R22, R29
44	capacitor0603	25V-3.3uF±10% X5R	8	C4, C5, C10,C11, C15, C16, C27, C28
45	capacitor0603	25V-100nF±10% X7R	10	C17, C24, C25, C26, C30, C31, C33, C36, C37, C40
46	capacitor0603	6.3V-10uF±20% X5R	1	C32
47	capacitor0603	50V-100pF±10% X7R	12	C1, C3, C6, C8, C9, C12, C13, C14, C18, C19, C23, C29
48	capacitor0603	50V-30pF±5% np0(C0G)	2	C34, C35
49	capacitor0805	25V-100nF±10% X7R	1	C21
50	capacitor1206	6.3V-47uF±20% X5R	1	C41
51	Capacitor	6.3V-220uF±20%	1	C20
52	Chip inductor 0805	25V-47UH±10%	1	L1
53	Triode	8050, SOT-23	1	Q1
54	SMD IC	LM324, SOP14, ST	2	U1, U3
55	SMD IC	STM32F103C8T6, LQFP48 OBD	1	U2
56	SMD IC	HT7533, (SOT-89)	1	U4
57	SMD Crystal	8MHZ/±10%PPM 10--20PF	1	OSC1
58	SMD IC	74LVC1G3157, SOT363	2	U5, U6
59	SB258A02 PCB	SB258A02 PCB	1	