



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 ^{2/} Concerning ^{2/}	Il rilascio dell'omologazione <i>Approval granted</i> 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Approval withdrawn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 ⁽²⁾ with regard to Regulation no. 10.06

Omologazione N. <i>Approval No.</i>	E57*10R06/02*0544	Estensione N. <i>Extension No.</i>	00
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Marchio di omologazione <i>Approval mark</i>	<i>See information document No. SOCZ-005 2.5inch Grant-00</i>
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1. Make (trade name of manufacturer):

2. Type and general commercial description(s):

Type: SOCZ-005 2.5inch Grant
Commercial description: Bi led projector lens

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

Letters and digits

3.1 Location of that marking:

Laser on the housing

4. Category of vehicle:

M, N, O

5. Name and address of manufacturer: Auto Gamma Sp. z o.o.
ul. Ciepłownicza 54
31-574 Kraków
Polska
6. In the case of components and separate technical units, location and method of affixing of the approval mark: Laser on the housing
7. Address(es) of assembly plant(s): Auto Gamma Sp. z o.o.
ul. Ciepłownicza 54
31-574 Kraków
Polska
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: 22/12/2023
11. No. of test report: ATS-SM-IR-10-09285
12. Remarks (if any): See appendix below
13. Place: DOGANA – Repubblica di San Marino
14. Date: 28/12/2023
15. Signature:



Ing. Marco CONTI
Direttore Generale
General Director

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

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

**Appendix to type-approval communication form No. E57*10R06/02*0544*00
concerning the type-approval of an ~~electrical~~/electronic sub-assembly
under Regulation No. 10**

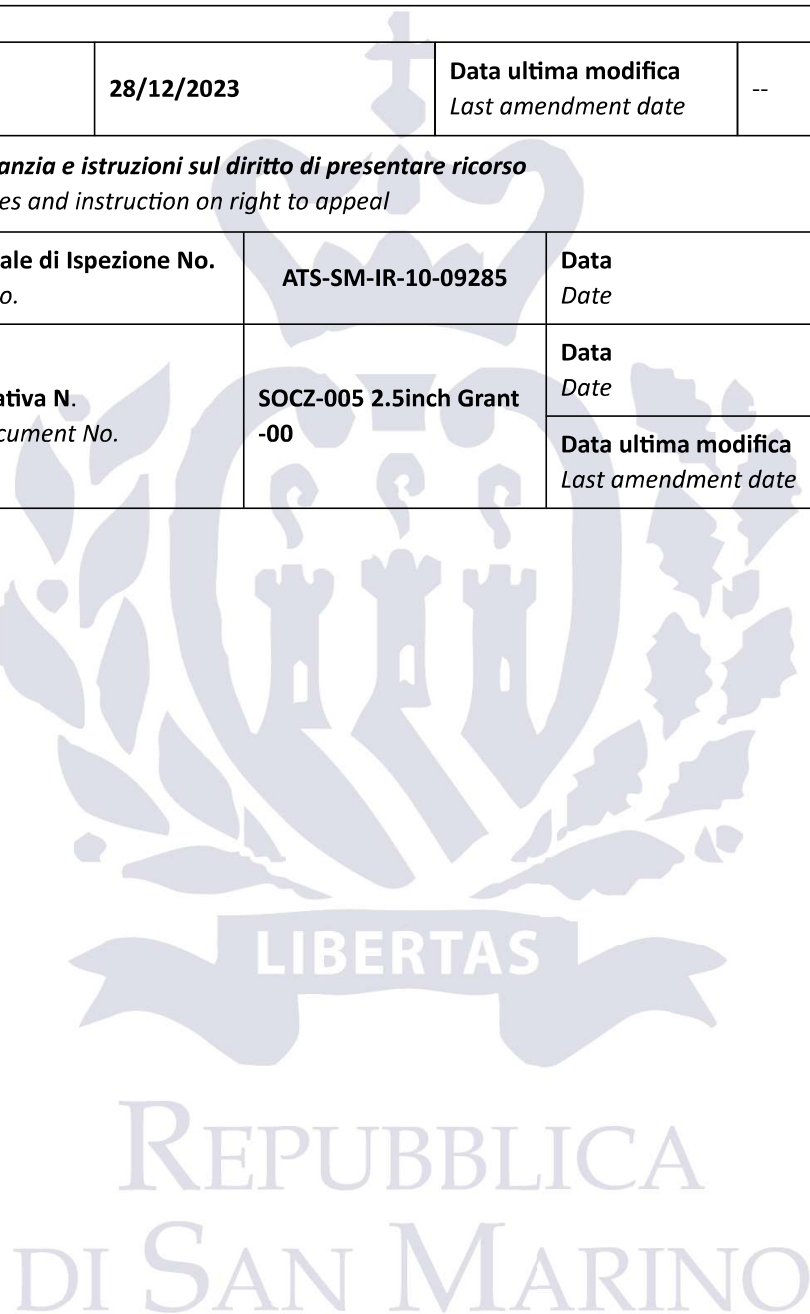
1. Additional information:

- 1.1. Electrical system rated voltage: DC 12V ~~pos./neg.~~ ground⁽²⁾
- 1.2. This ESA can be used on any vehicle type with the following restrictions: No restriction
- 1.2.1. Installation conditions, if any: No restriction
- 1.3. This ESA can be used only on the following vehicle type: No restriction
- 1.3.1. Installation conditions, if any: No restriction
- 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): Measured by bulk current injection (20 MHz – 400 MHz) and in the anechoic chamber (400 MHz -2 GHz) as described in annex 9 of ECE-Regulation No. 10.
- 1.5. Laboratory accredited to ISO 17025 and recognised by the Approval Authority responsible for carrying out the tests: Zhejiang Huachen Inspection and Testing Co., Ltd. Building 23, No.1336, Hangfu Road, Chongfu Town, Tongxiang City, Jiaxing City, Zhejiang Province, China
- 2. Remarks:** None

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

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REPUBBLICA
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Allegato <i>Enclosure</i>			
Al certificato di omologazione ECE N. <i>To ECE approval certificate No.</i>		E57*10R06/02*0544*00	
Indice del fascicolo di omologazione <i>Index to the information package</i>			
Data <i>Date of issue</i>	28/12/2023	Data ultima modifica <i>Last amendment date</i>	--
1.	Clausole di garanzia e istruzioni sul diritto di presentare ricorso <i>Collateral clauses and instruction on right to appeal</i>		
2.	Rapporto(i) Finale di Ispezione No. <i>Test report(s) No.</i>	ATS-SM-IR-10-09285	Data <i>Date</i> 22/12/2023
3.	Scheda informativa N. <i>Information document No.</i>	SOCZ-005 2.5inch Grant -00	Data <i>Date</i> 19/12/2023
			Data ultima modifica <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 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 **Auto Gamma Sp. z o.o.** **ione** 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.: AT5-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

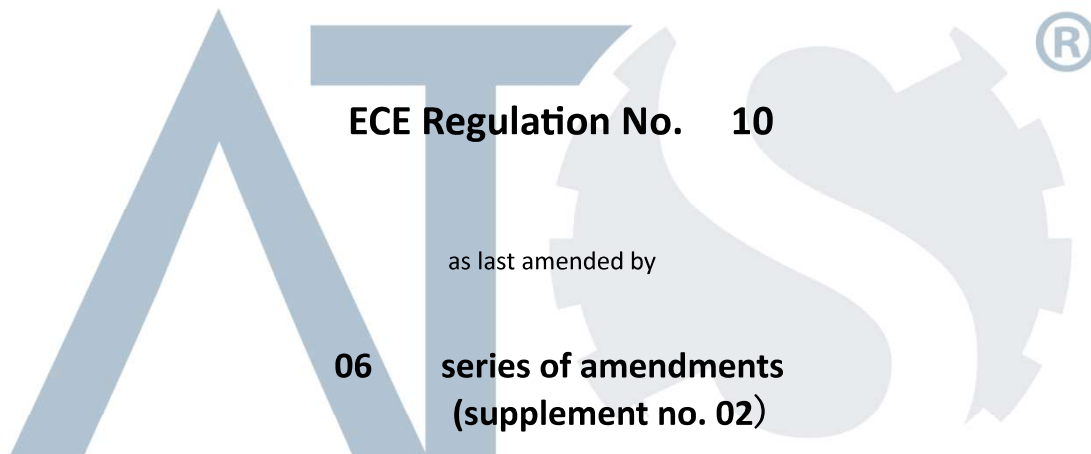
Inspection Report

No. AT5-SM-IR-10-09285

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

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

performed according to



of the Economic Commission for Europe

Approval status	
Number of approval	
ECE	E57*10R06/02*0544*00

Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

0. General information

0.1. Make (trade name of manufacturer):



0.2. Type: SOCZ-005 2.5inch Grant

0.2.1. Variants: N/A

0.3. Name and address of manufacturer: Auto Gamma Sp. z o.o.
ul. Ciepłownicza 54
31-574 Kraków
Polska

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

0.3.2. Production plant(s) address(es): Auto Gamma Sp. z o.o.
ul. Ciepłownicza 54
31-574 Kraków
Polska

0.4. No. of the information document: SOCZ-005 2.5inch Grant Date: 19/12/2023
-00

0.5. Position of the approval mark: Laser on the housing

0.6 Vehicle category: M, N, O

Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

1. Test Condition

- 1.1. Test sample: The model of test report is according to customer's requirements.
Performance criterion A: During and after the test, EUT work normally, the EUT properly.
- 1.2. Test procedures used: According to ECE Regulation No. 10.06
- 1.3. Specimen submitted to test on: 18/12/2023
- 1.4. Place of test: Auto Gamma Sp. z o.o.
ul. Ciepłownicza 54
31-574 Kraków
Polska
- 1.5. Date of test: 20/12/2023



Inspection Report No.: AT5-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

2. Test records

2.1. Equipment for measuring and testing: The test equipment used were in testing compliance with the test requirements.
List of main equipment see Appendix 4.

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 bulk current injection (20 MHz ~ 400 MHz) and in the anechoic chamber (400 MHz ~ 2 GHz) as described in annex 9 of ECE Regulation No. 10.

2.3.3.2. Performance criteria: No degradation of function by testing with 60 mA (bulk current injection) and 30 V/m (anechoic chamber).

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

Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

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.

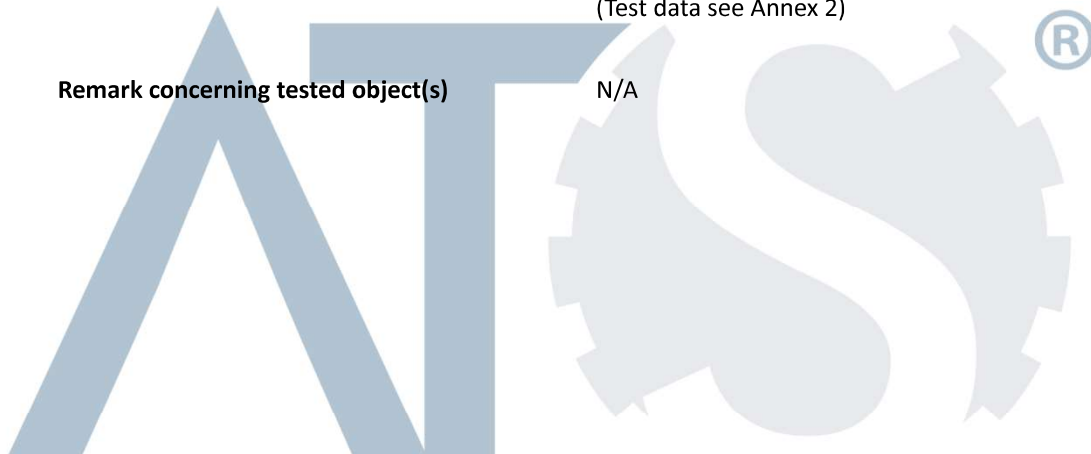
2.3.4.2. Results: Conform / ~~Not Conform~~
(Test data see Appendix 2)

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) N/A



Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

4. Other information

Place of inspection:

Auto Gamma Sp. z o.o.
ul. Ciepłownicza 54
31-574 Kraków
Polska

Date of inspection:

20/12/2023

Technical service representative:

Senior Inspector

Ms. Yi Shujuan

**Junior Inspector
(if applicable)**

N/A

Manufacturer's representative:

N/A

Remarks:

None

4.1 Appendix

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

4.2 Enclosures

Information Folder

Inspection Report No.: AT5-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

5. 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.




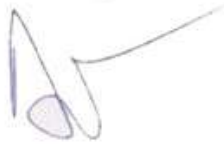
With regard to the required level of performance to be achieved, the tested items were representative for the type to be approved (see paragraph 1).

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 15

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

Dogana, Repubblica di San Marino, 22/12/2023

Number of project and protocol	Originality Check (*)	Automotive Technical Service S.r.l. Inspector	
	 ATS-SM-PR-09285	 (Ms. Yi Shujuan)	
		 (Eng. Bogdan Nicolae Domnescu)	

(*) 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-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

Appendix 1

List of modifications

Applicable/ Not Applicable

Appendix 1

More details for application of

Date :

Correction of : -

Modification of : -

Addition of : -

Deletion of : -



Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

Appendix 2

Test data

Appendix 2

1 Test object(s)

1.1. Commercial description: Bi led projector lens

1.2. Type: SOCZ-005 2.5inch Grant

1.2.1. Variants: N/A

1.3. Technical data of the tested ESA type

1.3.1. Electrical system rated voltage: DC 12V neg. ground

1.3.2. This ESA can be used on any vehicle type with the following restrictions: No restrictions

1.3.3. Installation conditions: No restrictions

1.3.4. This ESA can be used on the following vehicle types: No restrictions

1.3.5. Installation conditions: No restrictions

Test data

Appendix 2

Test results (12V DC)

1. Broadband / narrowband electromagnetic interference generated by ESAs

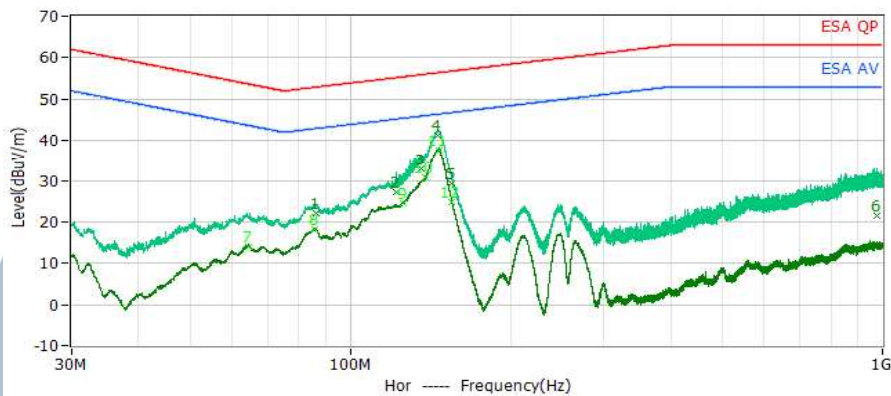
Radiated broadband electromagnetic Emissions : as shown in table 1

Radiated narrow band electromagnetic Emissions : as shown in table 2

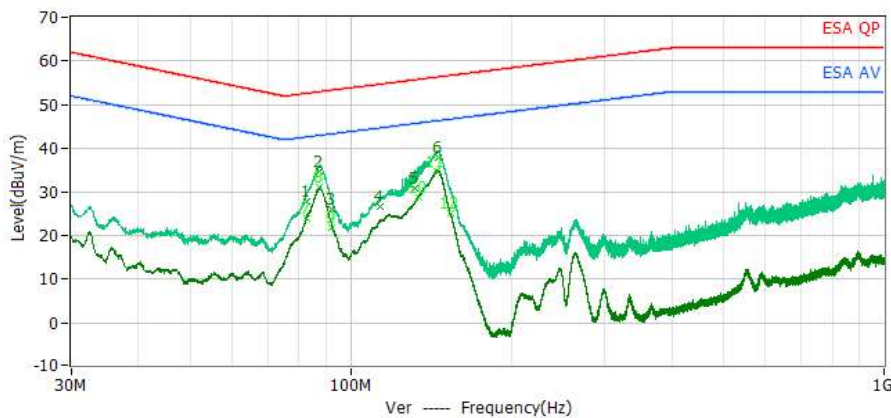
Antenna position : horizontal and vertical

Rated voltage : DC 12 V

Horizontal Polarity Test Result Diagram (Broadband and Narrow band)



Vertical Polarity Test Result Diagram (Broadband and Narrow band)



Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

Test data

Appendix 2

Maximum broadband QP value (Horizontal Polarity):

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Margin (dB)	Limit (dB/m)
86.150MHz	22.04	100.0	H	-30.87	52.91
122.050MHz	27.16	100.0	H	-28.04	55.20
135.950MHz	32.79	100.0	H	-23.12	55.91
146.150MHz	41.11	100.0	H	-15.27	56.38
154.950MHz	29.20	100.0	H	-27.57	56.77
977.400MHz	21.39	100.0	H	-41.61	63.00

Maximum broadband QP value (Vertical Polarity):

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Margin (dB)	Limit (dB/m)
82.600MHz	27.69	100.0	V	-24.94	52.63
87.650MHz	34.75	100.0	V	-18.27	53.02
92.300MHz	25.89	100.0	V	-27.47	53.36
113.350MHz	26.56	100.0	V	-28.15	54.71
131.850MHz	30.73	100.0	V	-24.98	55.71
145.750MHz	38.01	100.0	V	-18.36	56.37

Maximum narrowband AV value (Horizontal Polarity):

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Margin (dB)	Limit (dB/m)
64.600MHz	14.03	100.0	H	-29.60	43.63
85.800MHz	18.18	100.0	H	-24.70	42.88
125.550MHz	24.32	100.0	H	-21.07	45.39
138.750MHz	30.73	100.0	H	-15.31	46.04
146.650MHz	37.75	100.0	H	-8.66	46.41
155.150MHz	24.72	100.0	H	-22.06	46.78

Maximum narrowband AV value (Vertical Polarity):

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Margin (dB)	Limit (dB/m)
82.650MHz	23.92	100.0	V	-18.72	42.64
87.550MHz	30.92	100.0	V	-12.10	43.02
92.400MHz	21.90	100.0	V	-21.47	43.37
134.000MHz	28.63	100.0	V	-17.18	45.81
145.650MHz	34.67	100.0	V	-11.69	46.36
153.700MHz	25.02	100.0	V	-21.69	46.71

Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

Test data

Appendix 2

2. Immunity of ESAs to electromagnetic radiation

Test method : ISO 11452-4 3rd edition: 2011
Bulk current injection testing method (from 20 MHz to 400MHz)

ISO 11452-2 2nd edition: 2004
Free field testing method (from 400 MHz to 2000MHz)

Measurement result:

Frequency range (MHz)	Test level	Type of modulation	Test distance	Antenna position	Result
20~400	60mA	AM,80%	150mm	---	Pass*
400~800	30V/m	AM,80%	1m	Vertical	Pass*
800~2000	30V/m	PM,577us	1m	Vertical	Pass*

Remark:

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

3. Immunity of ESAs to transient disturbances

Test method : ISO 7637-2 2nd edition: 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	Result
1	-75V	5000 pulses	0.5s	C	C	Pass
2a	+37V	5000 pulses	0.2s	B	A	Pass
2b	+10V	10 pulses	0.5s	C	C	Pass
3a	-112V	1h	90ms	A	A	Pass
3b	+75V	1h	90ms	A	A	Pass
4	-6V	1 pulse	---	C	C	Pass

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-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

Test data

Appendix 2

2. Emission of transient conducted disturbances generated by ESAs

Test method ISO 7637-2 2nd edition: 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	+0.9 V	+1.8 V
Negative	-100V	-15.7 V	-21.0 V



Inspection Report No.: AT5-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

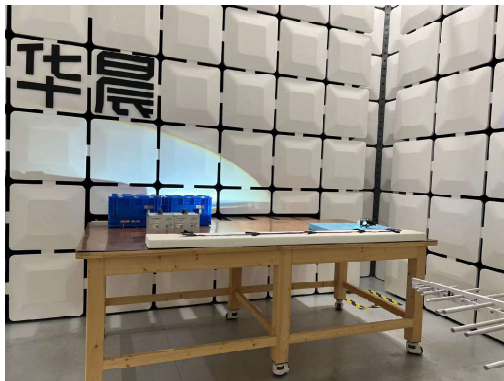
Manufacturer: Auto Gamma Sp. z o.o.

Appendix 3

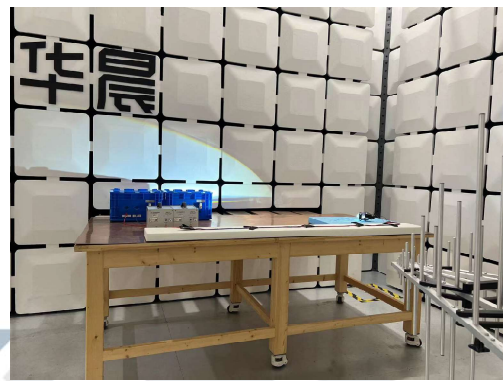
Sample photos

Appendix 3

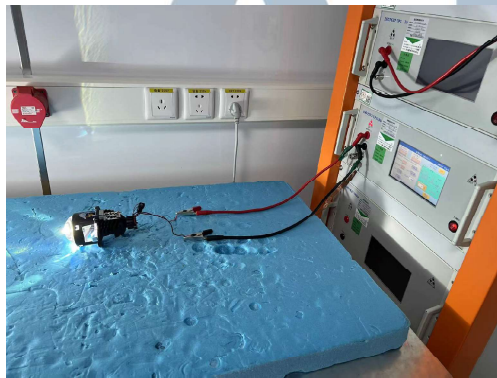
Radiated electromagnetic emissions



Immunity to electromagnetic radiation:



Immunity of ESAs to transient disturbances



Emission of transient conducted disturbances



Inspection Report No.: ATS-SM-IR-10-09285

Of: 22/12/2023



Type: SOCZ-005 2.5inch Grant

Manufacturer: Auto Gamma Sp. z o.o.

Appendix 4

List of main equipment

Appendix 4

No.	Name	Type	Serial No.	Valid Until
1	3 Meter semi-anechoic chamber	AC-3000	HC-EMC-001	2024.07.30
2	EMI receiver	ESR3	HC-EMC-007	2024.07.30
3	Artificial Network	NNBM 8124	HC-EMC-010	2024.07.30
4	Artificial Network	NNBM 8124	HC-EMC-011	2024.07.30
5	Log-periodic antenna	STLP9128DS	HC-EMC-013	---
6	power sensor	E9304A H18	HC-EMC-014	2024.07.30
7	power sensor	E9304A H18	HC-EMC-015	2024.07.30
8	Field probe	EP601	HC-EMC-017	2024.07.30
9	Signal Generator	DSG836	HC-EMC-025	2024.07.30
10	Current injection	F-120-6A	HC-EMC-026	2024.07.30
11	Power amplifier	NYPA 0140-100	HC-EMC-021	2024.07.30
12	Power amplifier	NYPA 0220-1500/100	HC-EMC-023	2024.07.30
13	Power amplifier	NYPA 0220-1500/100	HC-EMC-024	2024.07.30
14	Digital oscilloscope	DS6062	HC-EMC-031	2024.07.30
15	Pulse Generator	ISO7637-TP1,2a	HC-EMC-034	2024.07.30
16	Pulse Generator	ISO7637-TP3a,3b	HC-EMC-035	2024.07.30
17	Pulse Generator	PRM16750TG	HC-EMC-037	2024.07.30
18	Hybrid antenna	VULB 9163	HC-EMC-047	2024.02.03

Auto Gamma Sp. z o.o.	Type: SOCZ-005 2.5inch Grant Information Document No.: SOCZ-005 2.5inch Grant-00
	Date: December 19, 2023
	Pages: 1 of 10

**APPLICATION FOR APPROVAL
PURSUANT TO THE ECE REGULATION No. 10.06**

**UNIFORM PROVISIONS CONCERNING THE APPROVAL
OF MOTOR VEHICLES WITH REGARD
TO ELECTROMAGNETIC COMPATIBILITY**

For: Auto Gamma Sp. z o.o.
Component: Electromagnetic Compatibility
Type: SOCZ-005 2.5inch Grant

Reason for extension: N/A
Total pages: 10
Signature of a responsible person: Yang Xiaoli
Place: Guangzhou City
Date: 19/12/2023



A handwritten signature in black ink, appearing to read "Yang Xiaoli".

Auto Gamma Sp. z o.o.	Type: SOCZ-005 2.5inch Grant Information Document No.: SOCZ-005 2.5inch Grant-00
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Confirmation

We hereby declare that the product of Auto Gamma Sp. z o.o. type SOCZ-005 2.5inch Grant submitted for the type approval


1. is compatible with the enclosed documentation

and

2. has been manufactured under condition of mass production.

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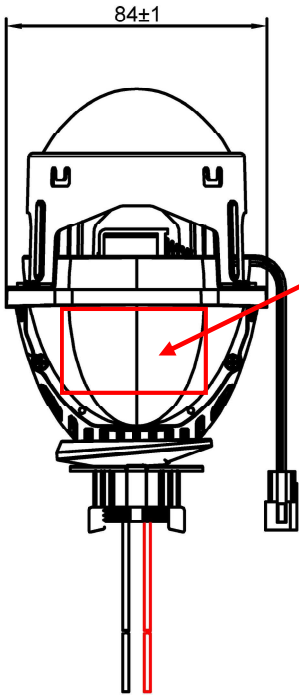
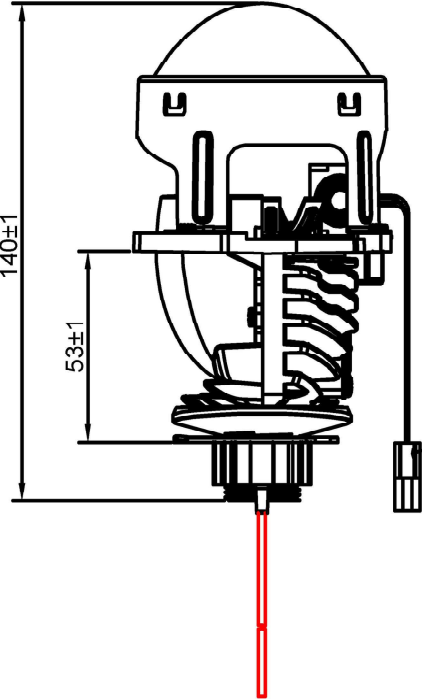
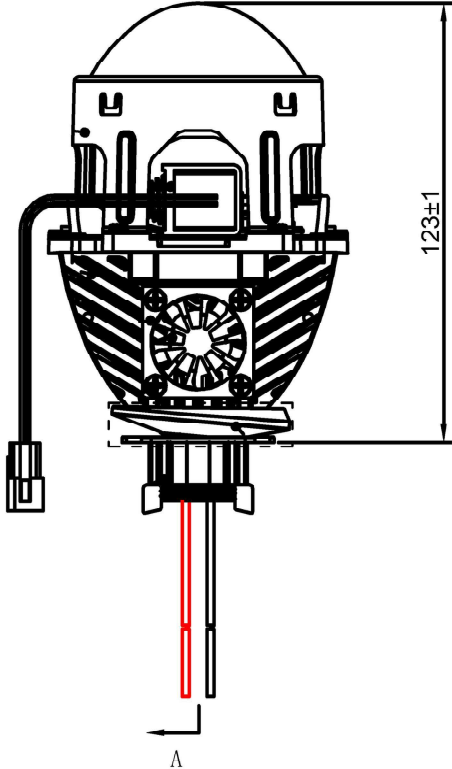
INFORMATION DOCUMENT FOR TYPE-APPROVAL OF AN ELECTRIC/ELECTRONIC SUB-ASSEMBLY WITH RESPECT TO ELECTROMAGNETIC COMPATIBILITY ACCORDING ANNEX 2B

1. Make (trade name of the manufacturer) : 
2. Type : SOCZ-005 2.5inch Grant
- 2.1. Variants (if applicable) : N/A
- 2.2. General commercial description(s) : Bi led projector lens
3. Means of identification of type if marked : Letters and digits
on the vehicle/component/STU
- 3.1. Location of that marking : Laser on the housing
4. Category of vehicle : M, N, O
5. Name and address of the manufacturer : Auto Gamma Sp. z o.o.
ul. Ciepłowinicza 54
31-574 Kraków
6. In the case of components and separate technical units, location and method of affixing of the approval mark : Laser on the housing
7. Address(es) of assembly plant(s) : Auto Gamma Sp. z o.o.
ul. Ciepłowinicza 54
31-574 Kraków
8. This ESA shall be approved as a : Component
9. Any restrictions of use and conditions for fitting : No restrictions
10. Electrical system rated voltage : DC 12V pos./neg. ground ⁽¹⁾
11. Charger: on board/external : N/A
12. Charging current: DC/AC : N/A
(number of phases/frequency)
13. Maximal nominal current (in each mode if necessary) : N/A
14. Nominal charging voltage : N/A
15. Basic ESA interface functions: ex. L1/L2/L3/N/PE/control pilot : N/A
16. Minimum Rsce value (see paragraph 7.11. of this Regulation) : N/A
17. Statement for model difference (if applicable) : N/A
18. Part No. : N/A

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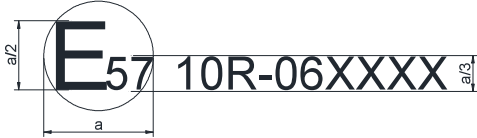
List of attachments:

<i>Label Drawing& Dimension Drawing</i>	<i>Drawing No. 1</i>
<i>Circuit Diagram</i>	<i>Drawing No. 2</i>
<i>PCB Layout</i>	<i>Drawing No. 3-4</i>
<i>Bill of materials</i>	<i>Consists of 1 page</i>



Approval mark
Trade mark
Type

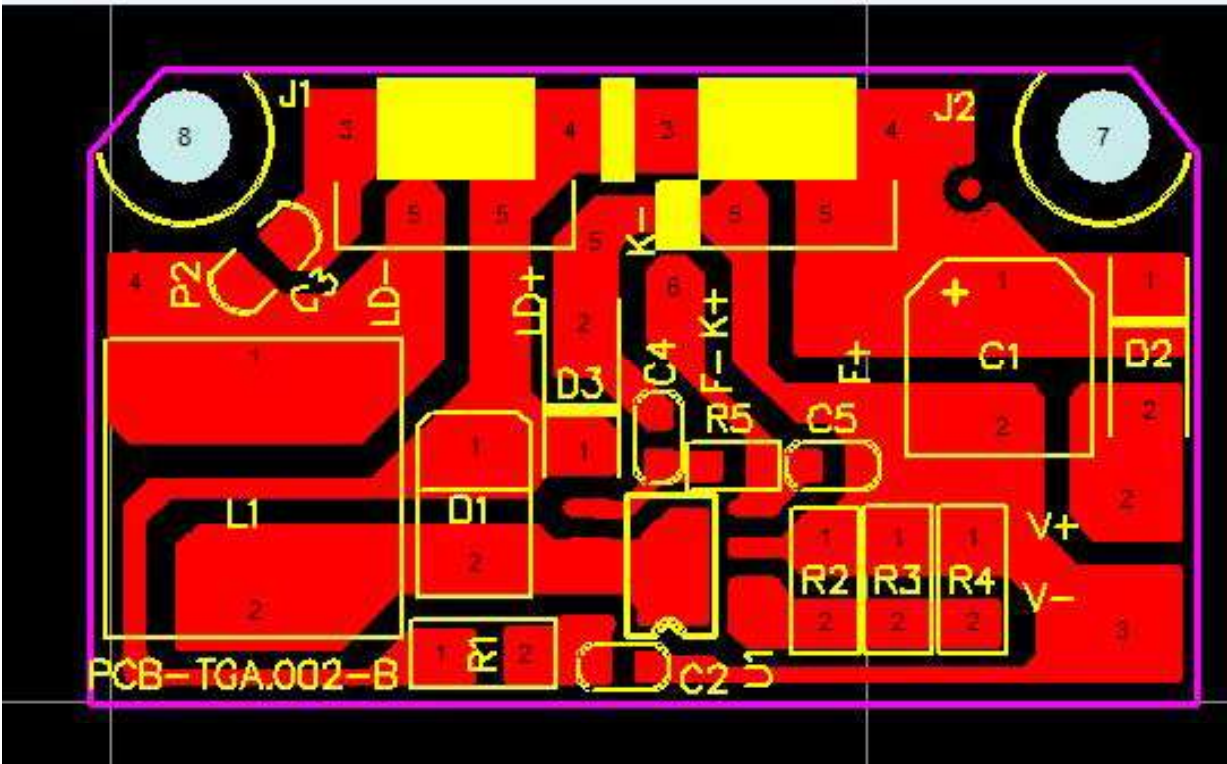
Approval mark



a=6mm min

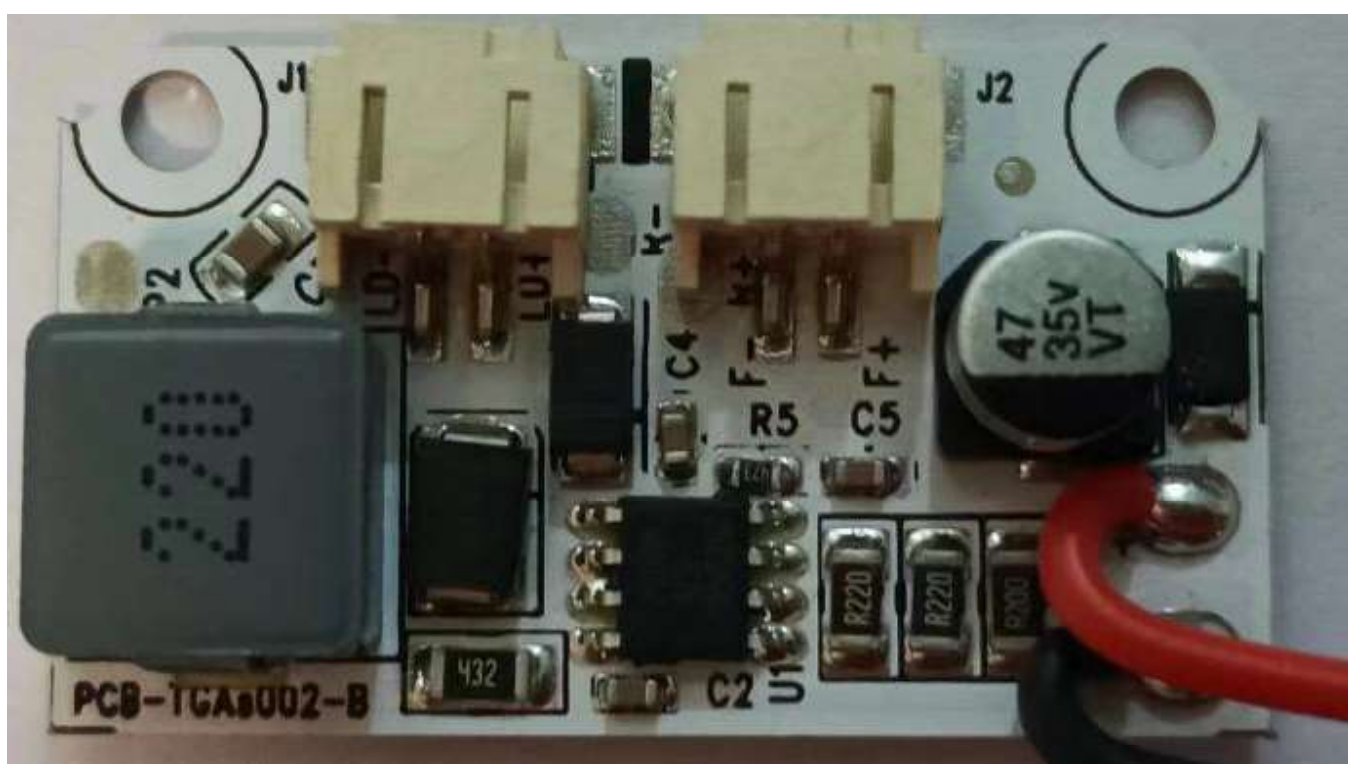
Drawing No. 1

Label Drawing & Dimension Drawing



Drawing No. 3

PCB Layout



Drawing No. 4

PCB Layout

Auto Gamma Sp. z o.o.

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Bill of Material

Item No.	Comment	Specification/Description	QTY (PC)	Position
1	SMD	SMD 47UF/35V VT 6.3*5.4	1	---
2	Chip inductor	22UH 1050 10*10 5mm	1	L1
3	Chip resistor	1206 4.3K	1	R1
4	Chip resistor	1206F 0.22R	2	R2, R3
5	Chip resistor	1206F 0.20R	1	R4
6	Chip resistor	0603 47K	1	R5
7	Patch diode	SS510 SMB	1	D1
8	Patch diode	SS510 SMA	1	D2
9	Patch TVS tube	CV SMAJ45A SMA	1	D3
10	Chip capacitor	0805 0.1UF 104/50V	3	C3, C4, C5
11	Chip capacitor	0603 1UF 105/50V	1	C2
12	IC	2506 SOP-8	1	U1
13	Patch terminal block	2P 2.0MM	2	J1, J2

⁽¹⁾ Strike out what does not apply.