

---

# EMC Test Report

---

Report No.: AGC16631250101EE01

**PRODUCT DESIGNATION** : Car Amplifiers  
**BRAND NAME** : N/A  
**MODEL NAME** : AMP500.4  
**APPLICANT** : AVS(NINGBO) INDUSTRIAL CO.,LTD.  
**DATE OF ISSUE** : Jan. 23, 2025  
**STANDARD(S)** : EN 50498:2010  
**REPORT VERSION** : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: <http://www.agccert.com/>



**Report Revise Record**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jan. 23, 2025	Valid	Initial release

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the “Dedicated Testing/Inspection Stamp” is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: <http://www.agccert.com/>

## TABLE OF CONTENTS

<b>1. GENERAL INFORMATION.....</b>	<b>4</b>
<b>2. PRODUCT INFORMATION .....</b>	<b>5</b>
2.1 PRODUCT TECHNICAL DESCRIPTION .....	5
2.2 EQUIPMENT USED IN TESTED SYSTEM.....	5
2.3 TEST MODE DESCRIPTION.....	6
2.4 OBSERVATION METHOD FOR IMMUNITY TEST .....	6
2.5 CLASSIFICATION OF FUNCTIONAL STATUS.....	6
<b>3. TEST ENVIRONMENT.....</b>	<b>7</b>
3.1 ADDRESS OF THE TEST LABORATORY .....	7
3.2 TEST FACILITY .....	7
3.3 MEASUREMENT UNCERTAINTY .....	8
3.4 LIST OF EQUIPMENTS USED .....	8
<b>4. TEST ITEMS AND THE RESULTS .....</b>	<b>9</b>
<b>5. RADIATED EMISSION TEST .....</b>	<b>10</b>
5.1 DESCRIPTION OF THE TEST LOCATION .....	10
5.2 TEST SPECIFICATION.....	10
5.3 PHOTO DOCUMENTATION OF THE TEST SET-UP.....	10
5.4 TEST RESULT .....	11
<b>6. TRANSIENT EMISSION TEST .....</b>	<b>15</b>
6.1 TEST LIMIT .....	15
6.2 DESCRIPTION OF THE TEST LOCATION .....	15
6.3 PHOTO DOCUMENTATION OF THE TEST SET-UP.....	15
6.4 TEST SPECIFICATION.....	15
6.5 TEST RESULT .....	16
<b>7. TRANSIENT IMMUNITY TEST .....</b>	<b>17</b>
7.1 DESCRIPTION OF THE TEST LOCATION .....	17
7.2 TEST SPECIFICATION.....	17
7.3 PHOTO DOCUMENTATION OF THE TEST SET-UP.....	18
7.4 TEST RESULT .....	19
7.5 CLASSIFICATION OF FUNCTIONAL STATUS.....	19
<b>APPENDIX I: PHOTOGRAPHS OF TEST EUT.....</b>	<b>20</b>

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the “Dedicated Testing/Inspection Stamp” is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15 days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

## 1. GENERAL INFORMATION

<b>Applicant</b>	AVS(NINGBO) INDUSTRIAL CO.,LTD.
<b>Address</b>	7TH BUILDING, NO.59 CHANUG FU ROAD, XIAO GANG INDUSTRIAL ZONE, NINGBO 315800, CHINA
<b>Manufacturer</b>	AVS(NINGBO) INDUSTRIAL CO.,LTD.
<b>Address</b>	7TH BUILDING, NO.59 CHANUG FU ROAD, XIAO GANG INDUSTRIAL ZONE, NINGBO 315800, CHINA
<b>Factory</b>	AVS(NINGBO) INDUSTRIAL CO.,LTD.
<b>Address</b>	7TH BUILDING, NO.59 CHANUG FU ROAD, XIAO GANG INDUSTRIAL ZONE, NINGBO 315800, CHINA
<b>Product Designation</b>	Car Amplifiers
<b>Brand Name</b>	N/A
<b>Test Model</b>	AMP500.4
<b>Series Model</b>	N/A
<b>Difference Description</b>	N/A
<b>Date of receipt of test item</b>	Jan. 14, 2025
<b>Date of test</b>	Jan. 14, 2025 to Jan. 23, 2025
<b>Deviation</b>	None
<b>Test Result</b>	Pass
<b>Report Template</b>	AGCTR-ER-CE-ECEV1.0

Prepared By



Jack Gui  
(Project Engineer)

Jan. 23, 2025

Reviewed By



Calvin Liu  
(Reviewer)

Jan. 23, 2025

Approved By



Angela Li  
(Authorized Officer)

Jan. 23, 2025

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd

Attestation of Global Compliance(Shenzhen)Std &amp; Tech Co., Ltd

Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/

## 2. PRODUCT INFORMATION

### 2.1 PRODUCT TECHNICAL DESCRIPTION

<b>Housing Type</b>	Plastic and metal
<b>Hardware Version</b>	N/A
<b>Software Version</b>	N/A
<b>EUT Input Rating</b>	DC12V

I/O Port Information (☒ Applicable ☐ Not Applicable)

I/O Port of EUT			
I/O Port Type	Number	Cable Description	Tested With
DC power	1	2.7 unshielded	1

### 2.2 EQUIPMENT USED IN TESTED SYSTEM

The Following Peripheral Devices And Interface Cables Were Connected During The Measurement:

☒ Test Accessories Come From The Laboratory

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
Digital multimeter	FLUKE	15B+	--	--	--
Cement resistance	--	--	--	--	--
Battery	--	--	--	--	--
Phone	Xiaomi	MI10	--	--	--

☐ Test Accessories Come From The Manufacturer

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
--	--	--	--	--	--

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

## 2.3 TEST MODE DESCRIPTION

TEST MODE	
Mode 1	Normal operation mode

## 2.4 OBSERVATION METHOD FOR IMMUNITY TEST

Method	Description of The Monitoring Methods
Visual	By observing the phenomena of digital multimeter

## 2.5 CLASSIFICATION OF FUNCTIONAL STATUS

EN 50498:2010	
<b>Criteria A:</b>	All functions of a device/system perform as designed during and after exposure to disturbance.
<b>Criteria B:</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.
<b>Criteria C:</b>	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.
<b>Criteria D:</b>	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.
<b>Criteria E:</b>	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.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

### 3. TEST ENVIRONMENT

#### 3.1 ADDRESS OF THE TEST LABORATORY

Laboratory Name: Attestation of Global Compliance (Shenzhen) Co., Ltd

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

#### 3.2 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

**CNAS-Lab Code: L5488**

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: <http://www.agccert.com/>

### 3.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Radiated Emission-ALSE Method	$\pm 4.0\text{dB}$

### 3.4 LIST OF EQUIPMENTS USED

#### TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment Name	Manufacturer	Model	S/N	Cal. Date	Cal. Due
V-Network	R&S	ESH3-Z6	N/A	2024/05/24	2025/05/23
V-Network	R&S	ESH3-Z6	N/A	2024/05/24	2025/05/23
Biconical Antenna	ETS-Lindgren	3104C	8907-4069	2024/03/28	2025/03/27
Log Periodic Dipole Antenna	Rohde&Schwarz	HL223	N/A	2024/03/28	2025/03/27

#### TEST EQUIPMENT OF TRANSIENT EMISSION

Equipment Name	Manufacturer	Model	S/N	Cal. Date	Cal. Due
V-Network	R&S	ESH3-Z6	N/A	2024/05/24	2025/05/23
Vehicle Transient Conduction Test Device	3c-Test	VTE 743T1	N/A	2024/05/15	2025/05/14
Electronic Switch	Schaffner	NSG417	N/A	2024/03/28	2025/03/27

#### TEST EQUIPMENT OF TRANSIENT IMMUNITY TEST

Equipment Name	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Automotive transient simulator	NOISEKEN	ISS-7610	ISS0930327	2024/03/28	2025/03/27
Automotive transient simulator	NOISEKEN	ISS-7630	ISS0930329	2024/03/28	2025/03/27
Automotive transient simulator	NOISEKEN	ISS-7690	ISS0930330	2024/03/28	2025/03/27
Automotive transient simulator	NOISEKEN	ISS-7650	ISS0930326	2024/03/28	2025/03/27

Note: The equipment check before test.



#### 4. TEST ITEMS AND THE RESULTS

Description of Test Item	Standard	Results
Radiated Emission	EN 50498:2010	Pass
Transient Emission	EN 50498:2010	Pass
Transient Immunity	EN 50498:2010	Pass

Note:

1. Each test item follows test standard and with no deviation.
2. "Pass" represents "result meets the requirement"; "Fail" represents "result doesn't meet the requirement";
3. "N/A or —" represents "result doesn't judge".

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: <http://www.agccert.com/>

## 5. RADIATED EMISSION TEST

### 5.1 DESCRIPTION OF THE TEST LOCATION

Test location: Semi-anechoic Chamber

Test distance: 1 meter

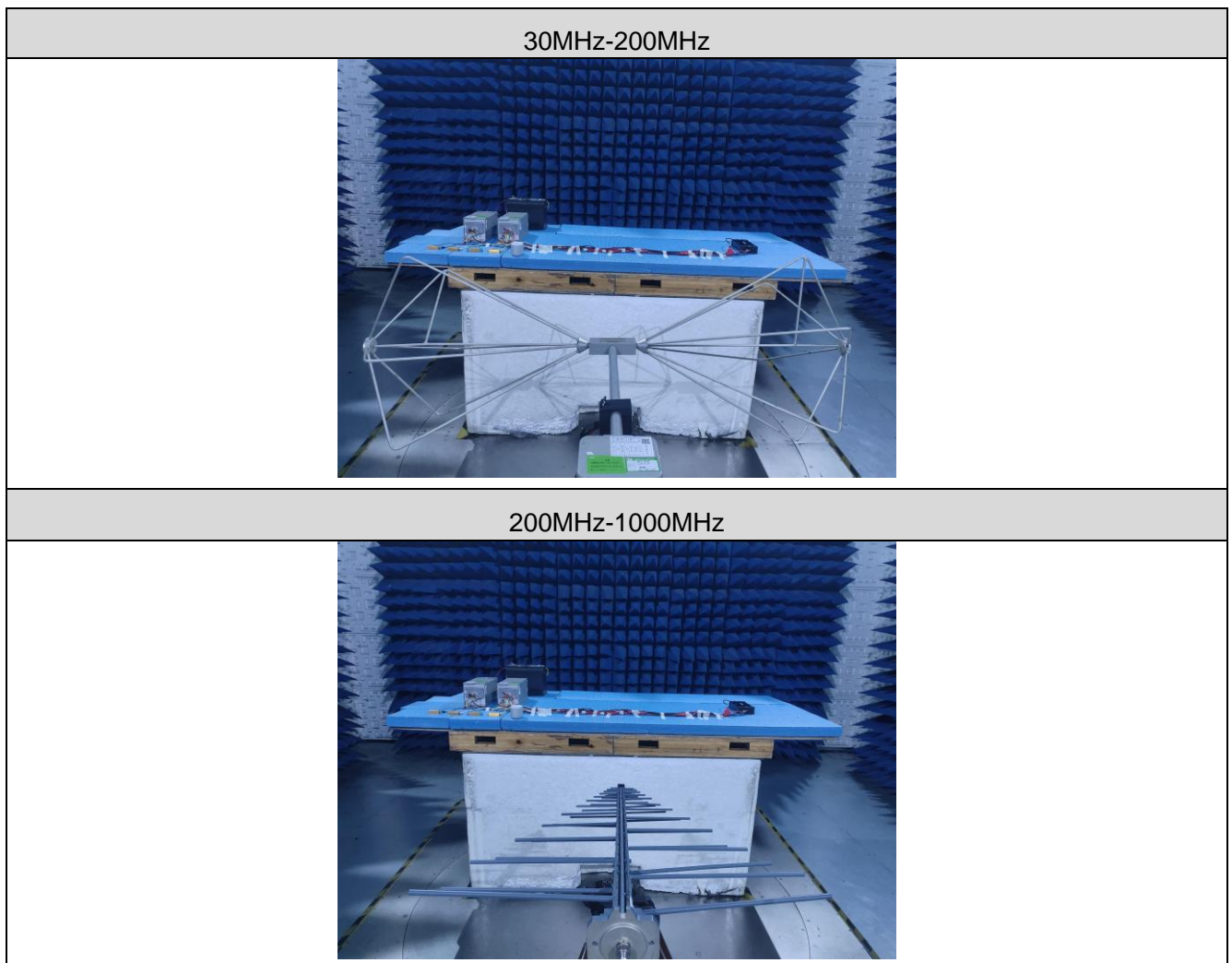
### 5.2 TEST SPECIFICATION

Frequency range: 30MHz – 1000MHz

The test was carried out in the following operation mode(s):

- DC 12V

### 5.3 PHOTO DOCUMENTATION OF THE TEST SET-UP



Note:

The ESA was placed in a height of 5 cm, isolated to the ground plane. There was no connection to the ground plane. The ESA has to be installed isolated from the vehicle ground.

Cables which are longer than 2m have been bundled to a length of 2 m.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the “Dedicated Testing/Inspection Stamp” is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).

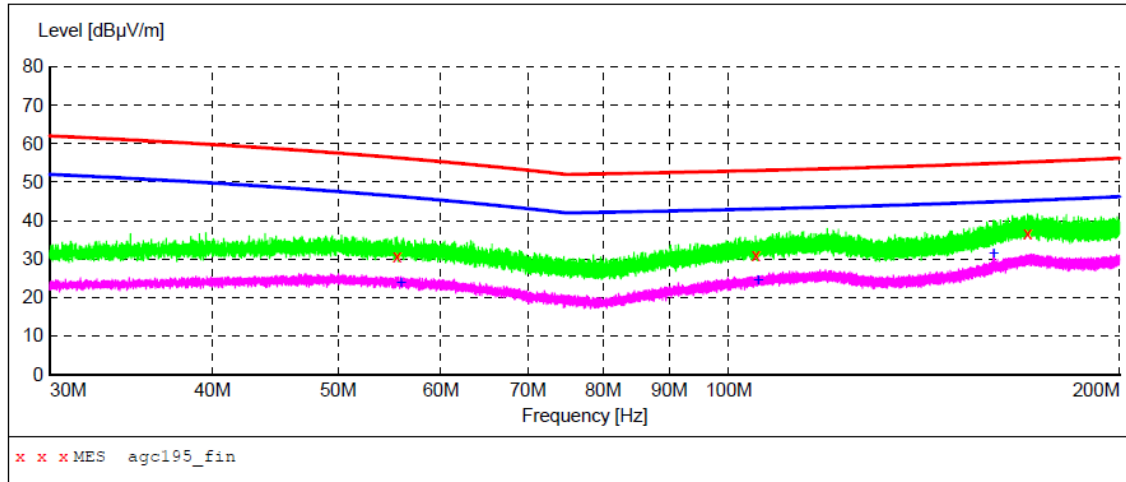
Attestation of Global Compliance(Shenzhen)Co., Ltd

Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

Tel: +86-755 2523 4088 E-mail: [agc@agccert.com](mailto:agc@agccert.com) Web: <http://www.agccert.com/>

#### 5.4 TEST RESULT

EUT Name:	Car Amplifiers	Sample Number:	250121369
Test Voltage:	DC 12V	Model(s):	AMP500.4
Antenna Polarisation:	Horizontal	Frequency Range:	30MHz–200MHz
Temperature:	19.4° C	Humidity:	41.1 %
Worst Mode:	Mode 1	Test Result:	Pass



#### MEASUREMENT RESULT: "agc195\_fin"

2025/1/17 15:59

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Detector
55.490000	30.70	13.3	56.3	25.6	QP
104.870000	31.10	14.1	53.0	21.9	QP
169.925000	36.80	19.7	55.2	18.4	QP

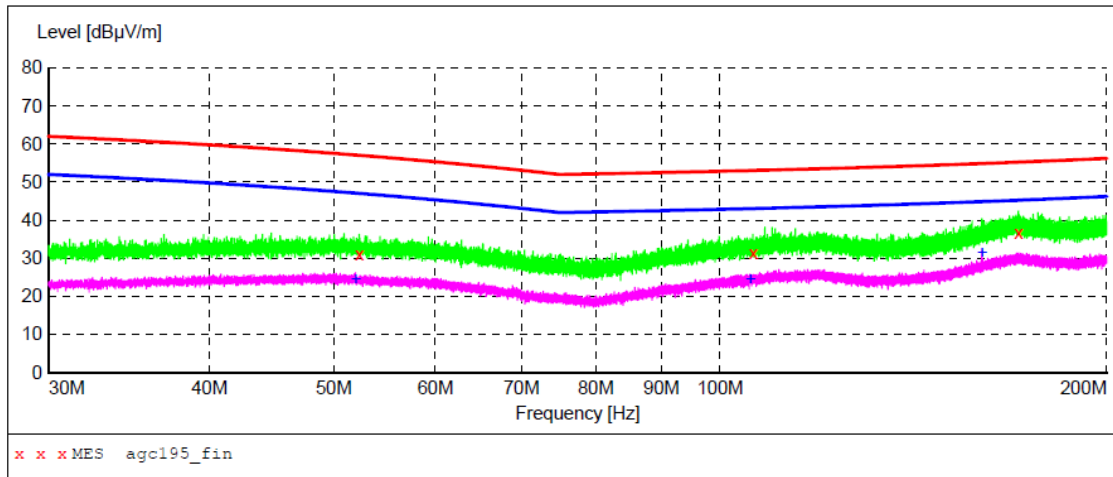
#### MEASUREMENT RESULT: "agc195\_fin2"

2025/1/17 15:59

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Detector
55.900000	23.80	13.3	46.2	22.4	AV
105.285000	24.30	14.2	43.0	18.7	AV
159.985000	31.30	17.5	44.9	13.6	AV

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

<b>EUT Name:</b>	Car Amplifiers	<b>Sample Number:</b>	250121369
<b>Test Voltage:</b>	DC 12V	<b>Model(s):</b>	AMP500.4
<b>Antenna Polarisation:</b>	Vertical	<b>Frequency Range:</b>	30MHz–200MHz
<b>Temperature:</b>	19.4° C	<b>Humidity:</b>	41.1 %
<b>Worst Mode</b>	Mode 1	<b>Test Result:</b>	Pass



### MEASUREMENT RESULT: "agc195\_fin"

2025/1/17 16:01

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Detector
52.345000	31.20	13.8	57.0	25.8	QP
106.055000	31.30	14.3	53.1	21.8	QP
170.770000	36.80	19.7	55.2	18.4	QP

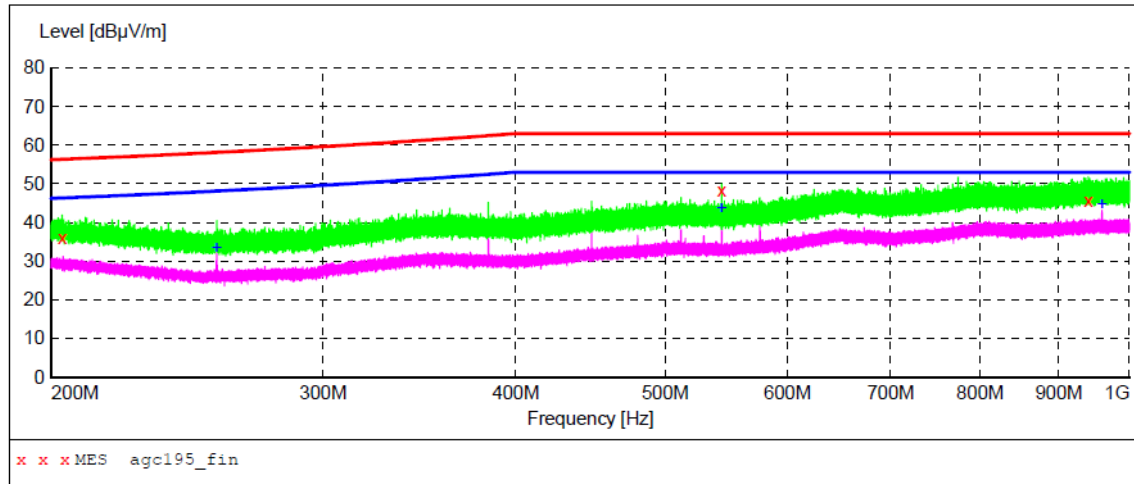
### MEASUREMENT RESULT: "agc195\_fin2"

2025/1/17 16:01

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Detector
51.990000	24.40	13.8	47.1	22.7	AV
105.545000	24.40	14.2	43.0	18.6	AV
160.000000	31.50	17.5	44.9	13.4	AV

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

<b>EUT Name:</b>	Car Amplifiers	<b>Sample Number:</b>	250121369
<b>Test Voltage:</b>	DC 12V	<b>Model(s):</b>	AMP500.4
<b>Antenna Polarisation:</b>	Horizontal	<b>Frequency Range:</b>	200MHz-1GHz
<b>Temperature:</b>	19.4° C	<b>Humidity:</b>	41.1 %
<b>Worst Mode</b>	Mode 1	<b>Test Result:</b>	Pass



### MEASUREMENT RESULT: "agc195\_fin"

2025/1/17 16:07

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Detector
203.255000	36.10	19.2	56.3	20.2	QP
544.000000	48.20	22.1	63.0	14.8	QP
940.225000	45.80	27.8	63.0	17.2	QP

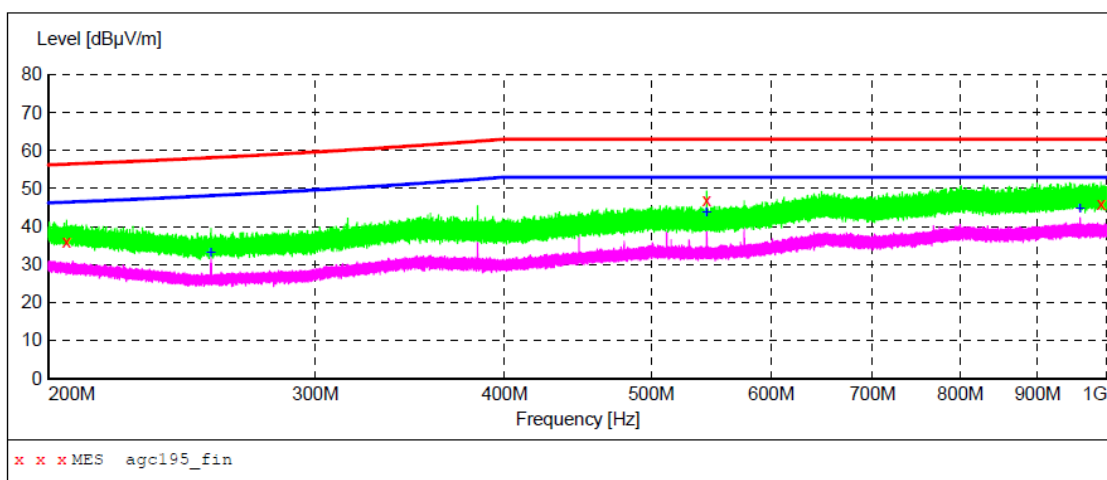
### MEASUREMENT RESULT: "agc195\_fin2"

2025/1/17 16:07

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Detector
256.000000	33.50	16.0	48.1	14.6	AV
544.015000	43.60	22.1	53.0	9.4	AV
960.000000	44.80	27.9	53.0	8.2	AV

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

<b>EUT Name:</b>	Car Amplifiers	<b>Sample Number:</b>	250121369
<b>Test Voltage:</b>	DC 12V	<b>Model(s):</b>	AMP500.4
<b>Antenna Polarisation:</b>	Vertical	<b>Frequency Range:</b>	200MHz-1GHz
<b>Temperature:</b>	19.4° C	<b>Humidity:</b>	41.1 %
<b>Worst Mode</b>	Mode 1	<b>Test Result:</b>	Pass



### MEASUREMENT RESULT: "agc195\_fin"

2025/1/17 16:11

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Detector
205.505000	35.90	19.1	56.4	20.5	QP
544.035000	47.00	22.1	63.0	16.0	QP
990.795000	45.90	27.9	63.0	17.1	QP

### MEASUREMENT RESULT: "agc195\_fin2"

2025/1/17 16:11

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Detector
256.010000	33.10	16.0	48.1	15.0	AV
544.015000	43.50	22.1	53.0	9.5	AV
960.005000	44.70	27.9	53.0	8.3	AV

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd

Attestation of Global Compliance(Shenzhen)Std &amp; Tech Co., Ltd

Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/



## 6. TRANSIENT EMISSION TEST

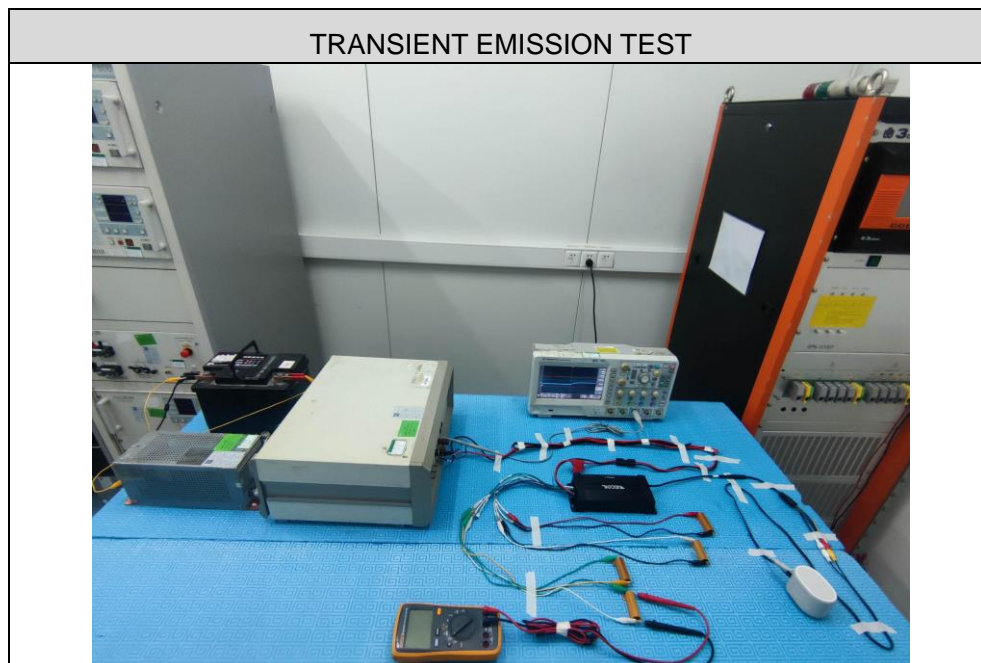
### 6.1 TEST LIMIT

Suggested limits for the classification of 12V equipment	
Positive	+ 75 V
Negative	- 100 V

### 6.2 DESCRIPTION OF THE TEST LOCATION

Test location: Shielded room

### 6.3 PHOTO DOCUMENTATION OF THE TEST SET-UP



### 6.4 TEST SPECIFICATION

The test was carried out in the following operation mode(s):

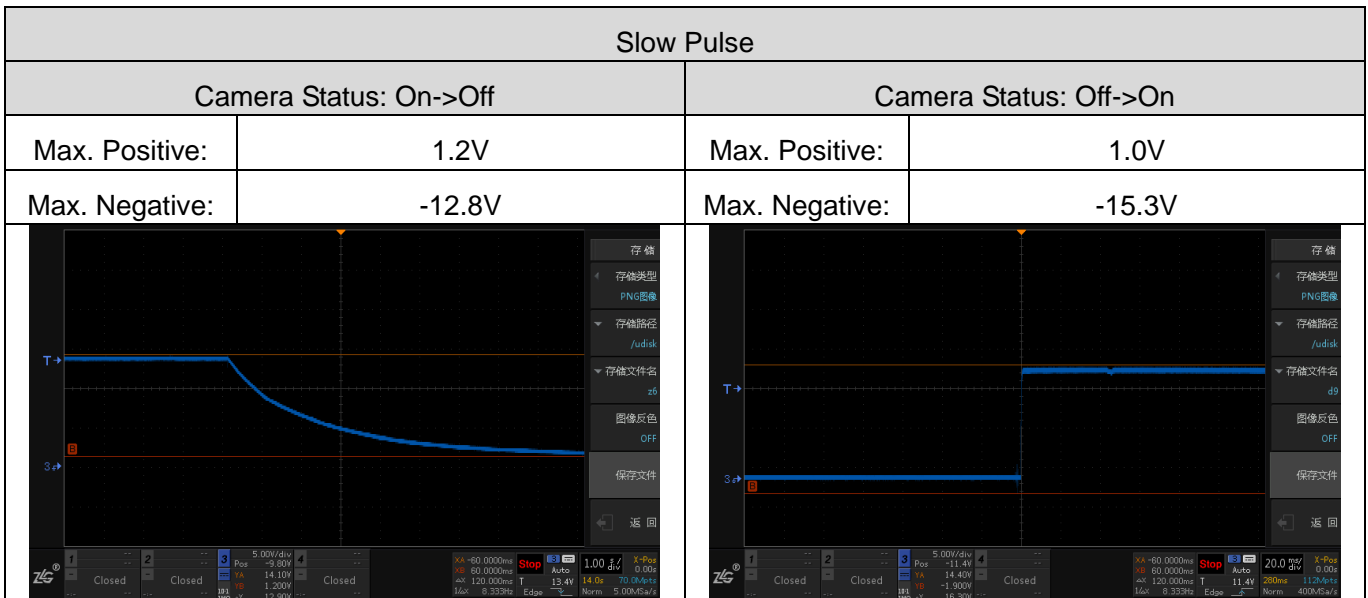
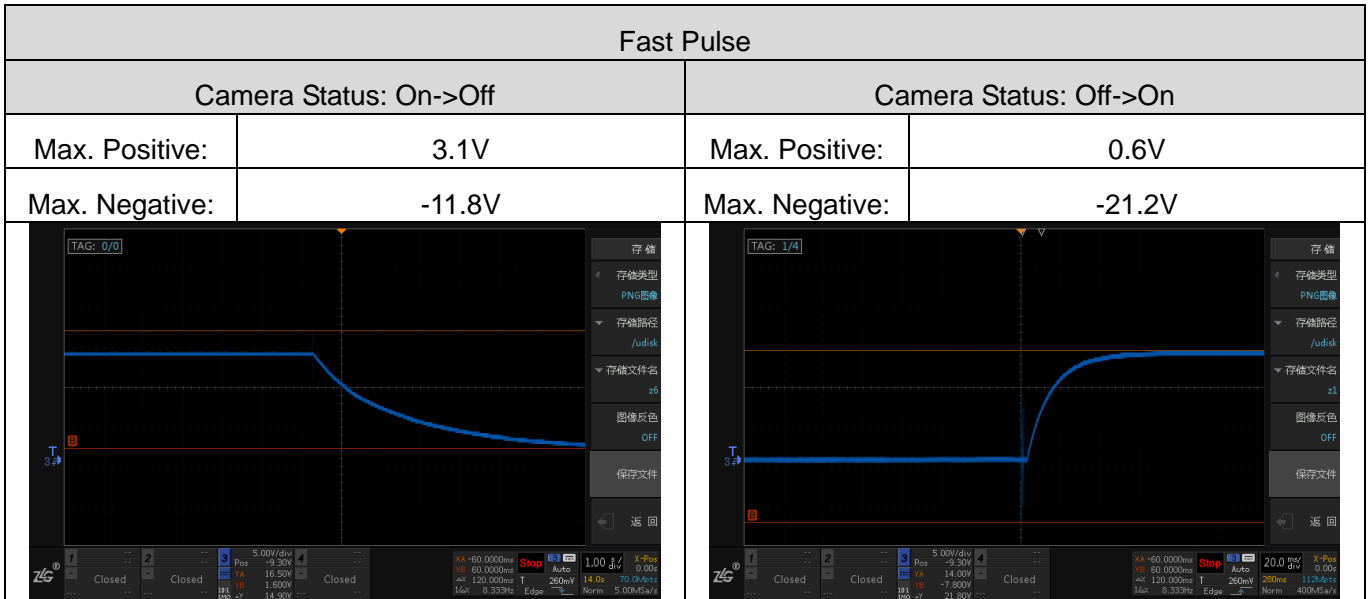
-Nominal 12V system for  $DC13.5 \pm 0.5V$

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: <http://www.agccert.com/>

## 6.5 TEST RESULT

Product Name:	Car Amplifiers	Sample Number:	250121369
Test Model:	AMP500.4	Supply Voltage:	DC 13.4V
Temperature:	22.4° C	Humidity:	51.8 %
Worst Mode	Mode 1	Test Result:	Pass



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.



## 7. TRANSIENT IMMUNITY TEST

### 7.1 DESCRIPTION OF THE TEST LOCATION

Test location: Shielded room

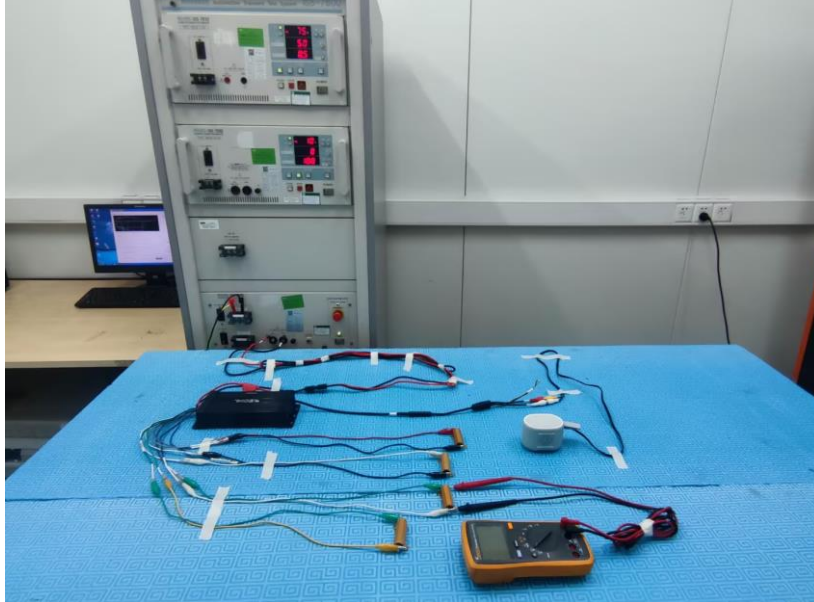
### 7.2 TEST SPECIFICATION

Pulse 1:	Test level:	-75V
	Number of pulses:	5000
Pulse 2a:	Test level:	+37V
	Number of pulses:	5000
Pulse 2b:	Test level:	+10V
	Number of pulses:	10
Pulse 3a:	Test level:	-112V
	Coupling duration:	1 h
Pulse 3b:	Test level:	+75V
	Coupling duration:	1 h
Pulse 4:	Test level:	-6V
	Number of pulses:	1

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

### 7.3 PHOTO DOCUMENTATION OF THE TEST SET-UP

#### TRANSIENT IMMUNITY TEST



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the “Dedicated Testing/Inspection Stamp” is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).

Attestation of Global Compliance(Shenzhen)Co., Ltd

Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

Tel: +86-755 2523 4088 E-mail: [agc@agccert.com](mailto:agc@agccert.com) Web: <http://www.agccert.com/>

## 7.4 TEST RESULT

Product Name:	Car Amplifiers	Sample Number:	250121369
Test Model:	AMP500.4	Supply Voltage:	DC 13.4V
Temperature:	22.4° C	Humidity:	51.8 %
Test Mode	Mode 1	Test Result:	Pass

Test Pulse	Test Voltage	Number of Pulses/ Duration	Required Status	Functional Status
1	-75 V	5000	D	C <sup>2</sup>
2a	+37 V	5000	D	A <sup>1</sup>
2b	+10 V	10	D	C <sup>2</sup>
3a	-112 V	1 h	D	A <sup>1</sup>
3b	+75 V	1 h	D	A <sup>1</sup>
4	-6 V	1	D	C <sup>2</sup>

Remark:

1. During test and after test, the EUT works normal.
2. During the test, the DUT sounds intermittently. After the test, the sample automatically returned to the functional state before the test

## 7.5 CLASSIFICATION OF FUNCTIONAL STATUS

<b>Criteria A:</b>	All functions of a device/system perform as designed during and after exposure to disturbance.
<b>Criteria B:</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.
<b>Criteria C:</b>	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.
<b>Criteria D:</b>	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.
<b>Criteria E:</b>	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.

☒ PASS

☐ FAIL

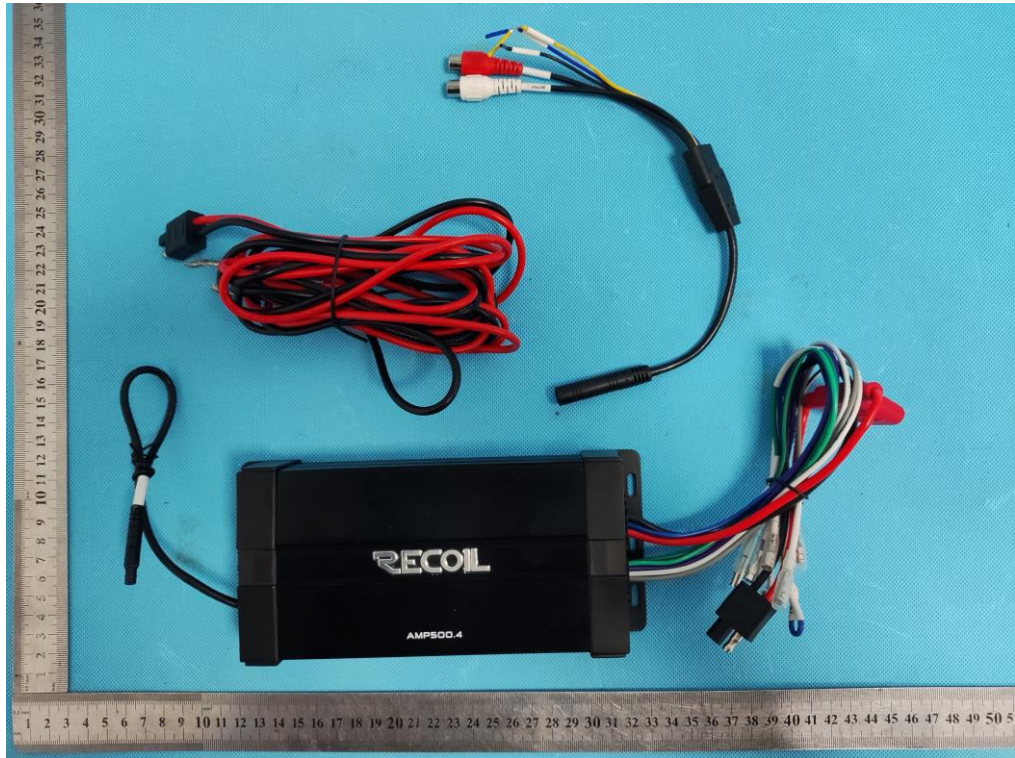
Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/

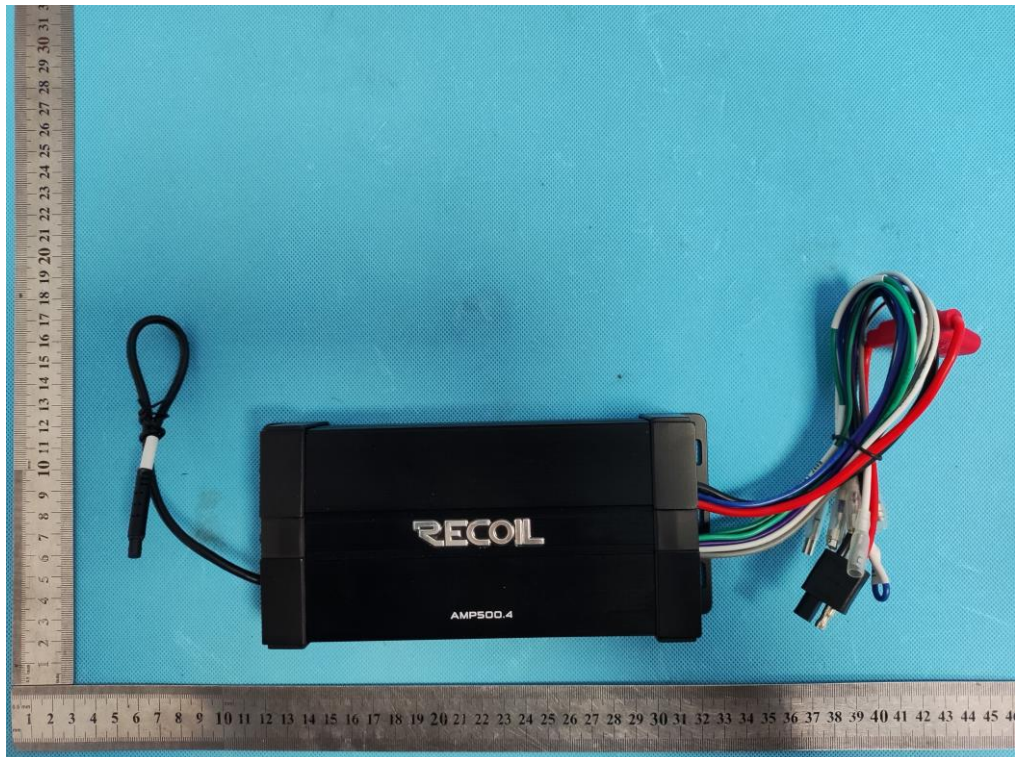


## APPENDIX I: PHOTOGRAPHS OF TEST EUT

All view of EUT



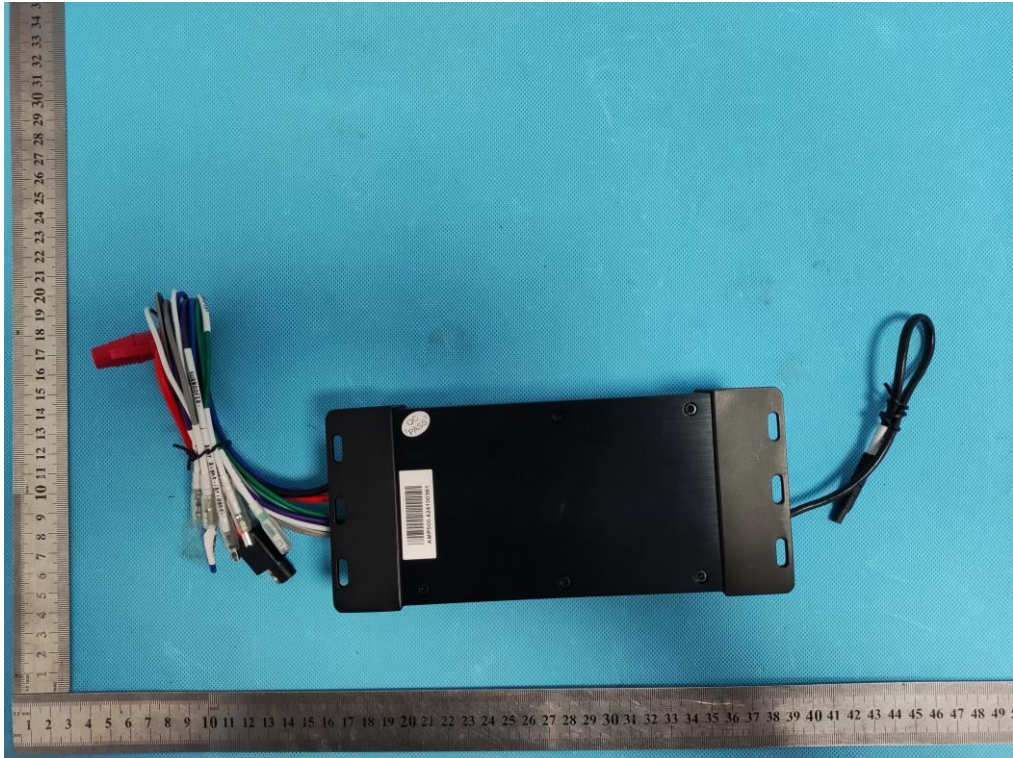
TOP VIEW OF EUT



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).



BOTTOM VIEW OF EUT

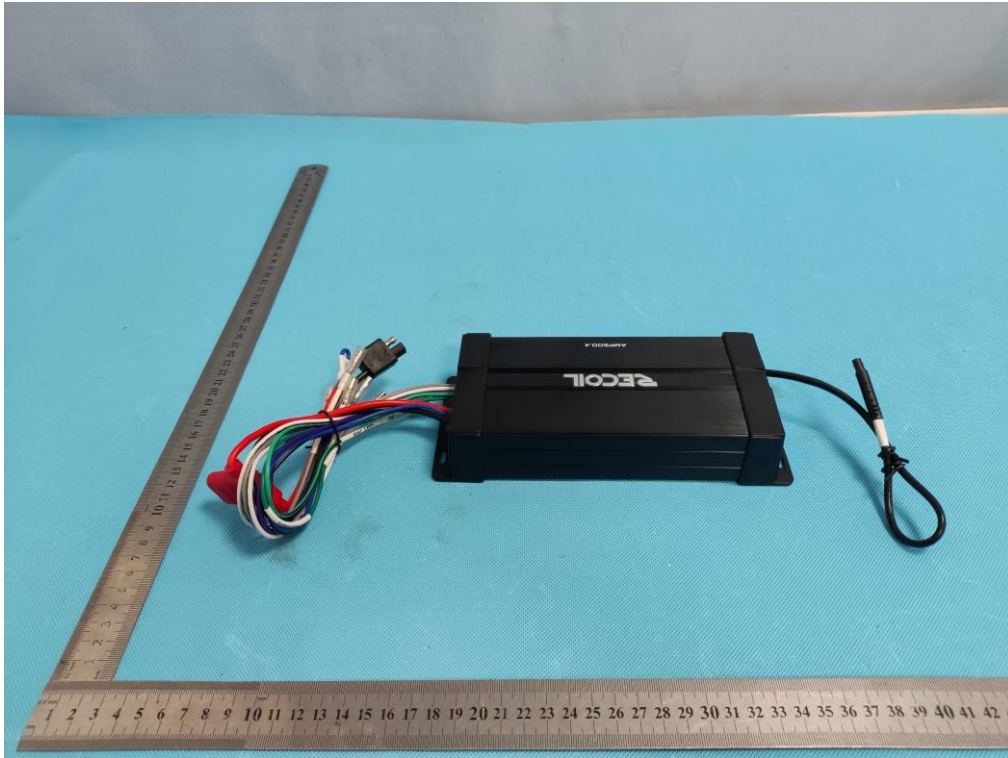


FRONT VIEW OF EUT

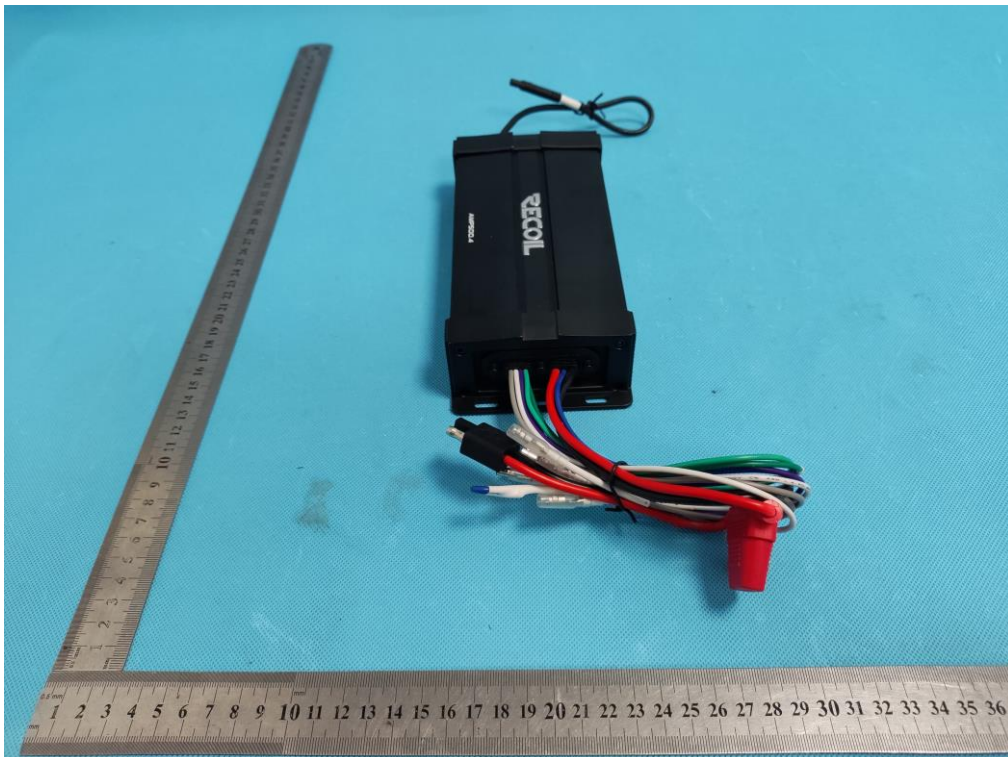


Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).

BACK VIEW OF EUT



LEFT VIEW OF EUT



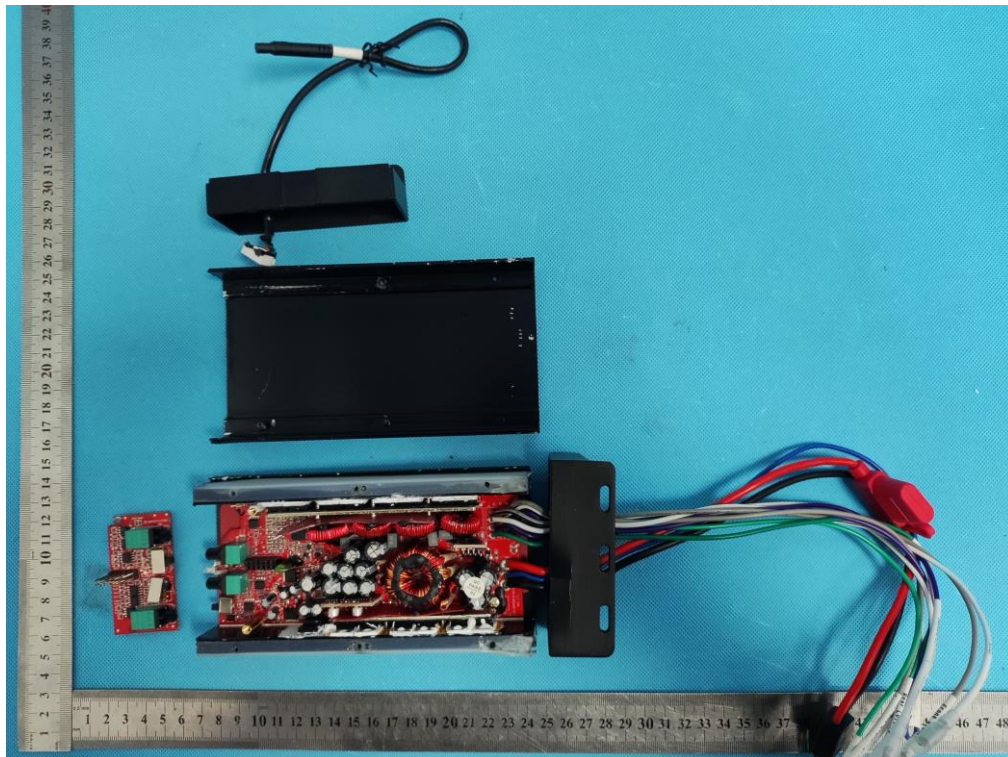
Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).



RIGHT VIEW OF EUT



OPEN VIEW OF EUT



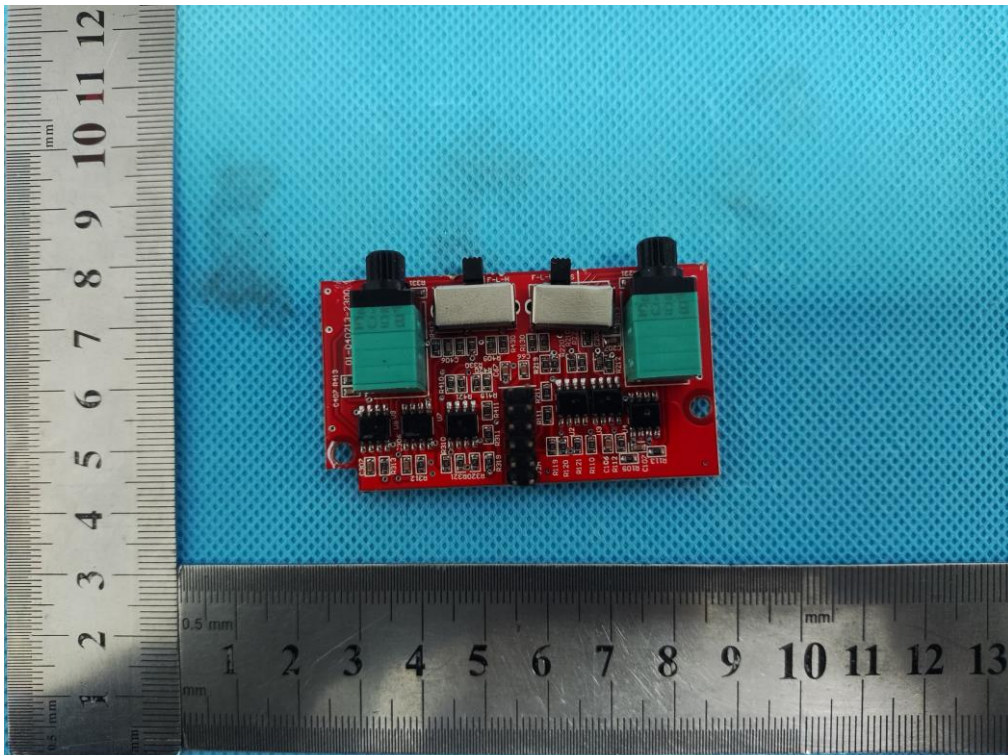
Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).



INTERNAL VIEW OF EUT (FIGURE 1)



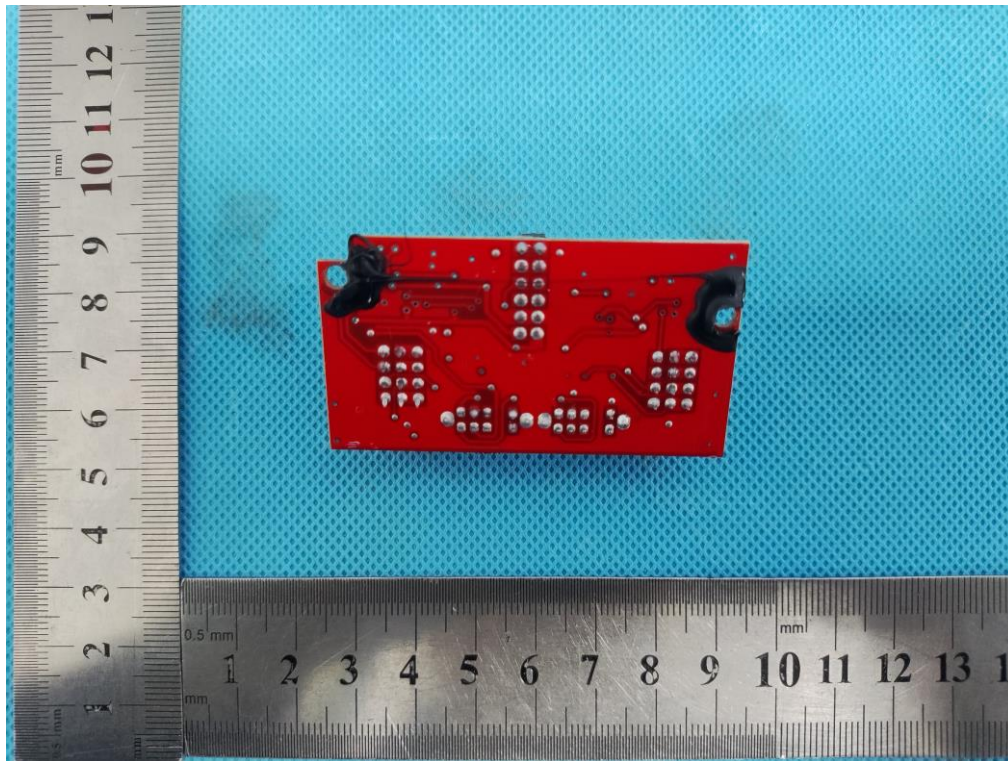
INTERNAL VIEW OF EUT (FIGURE 2)



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).



INTERNAL VIEW OF EUT (FIGURE 3)



----END OF REPORT----

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd  
Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd  
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: <http://www.agccert.com/>



## Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the “Company”) solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the “Clients”).
2. Any report issued by Company as a result of this application for testing services (the “Report”) shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the “Dedicated Testing/Inspection Stamp” is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15 days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by [agc01@agccert.com](mailto:agc01@agccert.com).

Attestation of Global Compliance(Shenzhen)Co., Ltd

Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

Tel: +86-755 2523 4088 E-mail: [agc@agccert.com](mailto:agc@agccert.com) Web: <http://www.agccert.com/>