

File E533636

Vol X1

Authorization Page 1

Issued: 2023-05-29 Revised: 2023-05-29

FOLLOW-UP SERVICE PROCEDURE (TYPE R)

AUDIO/VIDEO, INFORMATION AND COMMUNICATION TECHNOLOGY EQUIPMENT - COMPONENT (AZOT2, AZOT8)

Manufacturer:	SEE ADDENDUM FOR MANUFACTURER LOCATIONS
Applicant:	3160067 (Party Site) LIZ Electronics (Nantong) Co.,Ltd. High-Tech Industrial Development Zone No. 789 Kangfu Road Nantong JIANGSU 226231 CN
Recognized Company:	3160067 (Party Site) SAME AS APPLICANT

Use of the Mark

This Follow-Up Service Procedure authorizes the above Manufacturer(s) to use the marking specified by UL LLC, or any authorized licensee of UL LLC, including the UL Contracting Party, only on products when constructed, tested and found to be in compliance with the requirements of this Follow-Up Service Procedure and in accordance with the terms of the applicable service agreement with UL Contracting Party. The UL Contracting Party for Follow-Up Services is listed in the addendum to this Follow-Up Service Procedure ("UL Contracting Party"). UL Contracting Party and UL LLC are referred to jointly herein as "UL."

It is the responsibility of the Applicant, Manufacturer(s), and Recognized Company to make sure that only the products meeting the aforementioned requirements bear the authorized Marks of UL LLC, or any authorized licensee of UL LLC.

Additional Responsibilities

Additional responsibilities, duties and requirements for the Applicant and Manufacturers are defined under Additional Resources at the following website: https://www.ul.com/fus. Manufacturers without Internet access may obtain the current version of these documents from their local UL customer service representative or UL field representative. For assistance, or to obtain a paper copy of these documents or the Follow-Up Service Terms referenced below, please contact UL's Customer Service at https://www.ul.com/aboutul/locations/, select a location and enter your request, or call the number listed for that location.

Acceptance of Follow-Up Services

The Applicant and the specified Manufacturer(s) and any Recognized Company in this Follow-Up Service Procedure must agree to receive Follow-Up Services from UL Contracting Party. If your applicable service agreement is a Global Services Agreement ("GSA"), the Applicant, the specified Manufacturer(s), and any Recognized Company will be bound to a Service Agreement for Follow-Up Services upon the earliest by any Subscriber of a) use of the prescribed UL Mark, b) acceptance of the factory inspection, or c) payment of the Follow-Up Service fees. The Service Agreement incorporates such GSA, this Follow-Up Service Procedure and the Follow-Up Service Terms which can be accessed by clicking the following link: https://www.ul.com/resources/contracts/follow-up-service-terms. In all other events, Follow-Up Services will be governed by and incorporate the terms of your applicable service agreement and this Follow-Up Service Procedure.

Use and Ownership of the Follow-Up Service Procedure

This Follow-Up Service Procedure, and any subsequent revisions, is the property of UL and is not transferable. This Follow-Up Service Procedure contains confidential information for use only by the Applicant, the specified Manufacturer(s), and representatives of UL and is not Generated 2023-05-31 or any other purpose. It is provided to the Subscribers with the understanding that it is not to be copied, either wholly or in part unless specifically allowed, and that it will be returned to UL, upon request.

Definition of Terms

Capitalized terms used but not defined herein have the meanings set forth in the GSA and the applicable Service Terms or any other applicable UL service agreement.

No Third Party Liability

UL shall not incur any obligation or liability for any loss, expense or damages, including incidental, consequential or punitive damages arising out of or in connection with the use or reliance upon this Follow-Up Service Procedure to anyone other than the above Manufacturer(s) as provided in the agreement between UL LLC or an authorized licensee of UL LLC, including UL Contracting Party, and the Manufacturer(s).

Certification Body

UL LLC has signed below solely in its capacity as the certification body to indicate that this Follow-Up Service Procedure fulfills the requirements for certification documentation issued by the certification body. The certification body's accreditation status for the applicable certification scheme and identification of the accreditation body can be found at https://www.ul.com/resources/accreditation.

31.0155-

Deborah Jennings-Conner VP Regulatory Services UL LLC

LOCATION

3160067 (Party Site) LIZ Electronics (Nantong) Co., Ltd. High-Tech Industrial Development Zone No. 789 Kangfu Road Nantong JIANGSU 226231 CN Factory ID: None UL Contracting Party for above site is: UL GmbH

CPH CPH C

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Product Type	Model/Type Reference	Report Reference #	<u>Status</u>
High Voltage Thick Film	CV1206XXXXXXX(The first one	E533636-A6001-UL	
Chip Resistors	"X" could be "F" or "J" or "G", the		
	second one "X" could be "3", the		
	third four "X" consist of "0" to		
	"9"or blank, which represents		
	the resistance from 100k to		
	100M, the last one "X" could be		
	"G" or "V" or "S", non-safety		
	related.)		

CP 155-23173910

UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements)		
Certification Type:	Component Recognition		
CCN:	AZOT2, AZOT8 (Audio/video, Information and Communication Technology Equip <mark>me</mark> nt)		
Complementary CCN:	N/A		
Product:	High Voltage Thick Film Chip Resistors		
Model:	CV1206XXXXXX(The first one "X" could be "F" or "J" or "G", the second one "X" could be "3", the third four "X" consist of "0" to "9" or blank, which represents the resistance from 100k to 100M, the last one "X" could be "G" or "V" or "S", non-safety related.)		
(Optional) 100Kohm ,1/2W 1Mohm,1/2W 100Mohm,1/2W			
Applicant Name and Address:	LIZ Electronics (Nantong) Co.,Ltd. High-Tech Industrial Development Zone No. 789 Kangfu Road Nantong Jiangsu Sheng 226231 CHINA		

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service under the indicated Test Procedure as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By:

Rhea Zhao / Project Handler

Reviewed By:

Jie Qian / Reviewer

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

- i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
- ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
- iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

The equipment under test (EUT) is a SMD type resistor series(CV1206), resistance from range 100kohm ,1Mohm, 100Mohm, tolerance: ±1%,±2%,±5%,1/2W.

Model Differences

See enclosure 06-01 for details.

Test Item Particulars	
Product group	built-in component
Classification of use by	Ordinary person
	Skilled person
Supply Connection	not mains connected:
	ES3
Supply tolerance	None
Supply connection – type	Factory wiring
Considered current rating of protective device	N/A
Equipment mobility	for building-in
Over voltage category (OVC)	OVC II
Class of equipment	Not Classified
Special installation location	restricted access area
Pollution degree (PD)	PD 2
Manufacturer's specified Tma (°C)	
IP protection class	IPX0
Power systems	not AC mains
Altitude during operation (m)	2000 m or less
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	<0.001

Technical Considerations

[□] The tests were conducted on single resistor of CV1206XXXXXX series. It should be evaluated when different environment of end product used.

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- □ The investigated Pollution Degree is : 2
- □ The following end-product enclosures are required : Electrical, Fire
- Models 100kohm ,1Mohm, 100Mohm,1/2W were tested and complied with clause G.10.3 (Resistor test) with Uc = 2.5 kVac.
- Models of 100kohm, 1/2W were tested and complied with clause G.10.6 (Overload test) with test volatage 336Vac.
 - Models of 1Mohm,1/2W were tested and complied with clause G.10.6 (Overload test) with test volatage 1062Vac.
 - Models of 100Mohm,1/2W were tested and complied with clause G.10.6 (Overload test) with test volatage 1200Vac.
- □ Manufacturer/trademark and model names are provided on smallest package.
 - When EUT installed in an end-product, consideration must be given to the following:
 a)To be determined according to end-product use.
 b)Clearance/creepage clearance and creepage distance for electric insulation are to be evaluated according to end-product use.
 c)Necessity of electrical enclosure is to be investigated according to end-product use.
- Additional tests may need to be considered when resistors are serving as safeguards between the mains and an external circuit consisting of a coaxial cable.

Additional Information

The EUT was tested and complied with clause G.10.2, G.10.3 and G.10.6 (Resistor application, Resistor test and Overload test).

Additional Standards

The product fulfills the requirements of: N/A

Markings and Instructions

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Clause Title	Marking or Instruction Details		
Equipment identification marking – Manufacturer identification	Listee's or Recognized Company's name, Trade Name, Trademark or File Number		
Equipment identification marking – model identification	Model Number		
Special Instructions to UL Representative			

Manufacturer/trademark and model names are provided on smallest package.

BD1.0	TABLE: Production-Line Testing Requirements					
BD1.1	Electric Strength	Test Special Const	tructions – Refe	r to Generic Ins	pection Ins	structions,
	Part AC for further information.					
Model	Component	Removable parts	Test probe	Test V rms	Test V	Test
			location		dc	Time, s
N/A	N/A	N/A	N/A	N/A	N/A	N/A
BD1.2	Earthing Continuity Test Exemptions – This test is not required for the following models:					
	All models					
BD1.3	Electric Strength Test Exemptions – This test is not required for the following models:					
	All models					
BD1.4	Electric Strength Test Component Exemptions – The following solid-state components					
	may be disconnected from the remainder of the circuitry during the performance of this					
	test.					
	N/A					

BE1.0	Sample and Test Specifics for Follow-Up Tests at UL				
Model	Component	Material	Test	Sample (s)	Test Specifics
N/A	N/A	N/A	N/A	N/A	N/A
			55-23-1-5		

Issue Date: 2023-05-30

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Report Reference #

E533636-A6001-UL

4.1.2	TABLE: List of critical components				Pass	
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
01. Ceramic substrate	Interchangeable	Interchangeable	Mainly consists of Al2O3			
02.Conductive layer	Interchangeable	Interchangeable	Mainly consists of Ag	-		
03.Side conductive layer	Interchangeable	Interchangeable	Mainly consists of NiCr	0		
04. Resistive layer	Interchangeable	Interchangeable	Mainly consists RuO2 and glass	-		
05.Inner Protective layer	Interchangeable	Interchangeable	Mainly consists glass			
06.Outer Protective layer	Interchangeable	Interchangeable	Mainly consists of Epoxy			
07.Marking	Interchangeable	Interchangeable	Mainly consists of Epoxy			
08. Ni plating layer	Interchangeable	Interchangeable	Mainly consists of Ni			
09. Sn plating layer	Interchangeable	Interchangeable	Mainly consists of Sn			

Enclosures

Туре	Supplement Id	Description
Photographs	03-01	Top View
Photographs	03-02	Bottom view
Diagrams	04-01	Dimensions
Manuals	06-01	Model designation



Manuals-01 Page-1

Part number :

1206 1/2W 1% 100K $\!\Omega$

CV1206F31003G



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Photographs-02 Page-1

