CERTIFICATE OF COMPLIANCE

Certificate Number	UL-CA-2146042-1
Report Reference	E470034-20211129
Date	21-Apr-2022
Issued to:	Ke Yu Dian Yuan (HongKong) International Ltd Rm D 10th Fl Tower A Billion Ctr 1 Wang Kwong Rd Kowloon Bay Hong Kong
This is to certify that representative samples of	QQJQ7 - Power Supplies for Use with Audio/Video, Information and Communication Technology Equipment Certified for Canada See Addendum Page for Product Designation(s). Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	CSA C22.2 NO. 62368-1-14, 2nd Ed., Issue Date: 2014-12-01
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2146042-1
Report Reference E470034-20211129
Date 21-Apr-2022

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
KA12H-xxxyyyyDE, xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V, yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A	AC/DC ADAPTER
KA12H-xxxyyyyUS, xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V, yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A	AC/DC ADAPTER
KA12H-xxxyyyyUSH, xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V, yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A	AC/DC ADAPTER

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number	UL-US-2154728-1
Report Reference	E470034-20211129
Date	21-Apr-2022

Issued to:

Ke Yu Dian Yuan (HongKong) International Ltd
Rm D 10th Fl
Tower A Billion Ctr
1 Wang Kwong Rd Kowloon Bay
Hong Kong

This is to certify that representative samples of

QQJQ - Power Supplies for Use with Audio/Video, Information and Communication Technology Equipment

See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 62368-1, 2nd Ed., Issue Date: 2014-12-01

Additional Information: See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

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Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-2154728-1
Report Reference E470034-20211129
Date 21-Apr-2022

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
KA12H-xxxyyyyDE, xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V, yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A	AC/DC ADAPTER
KA12H-xxxyyyyUS, xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V, yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A	AC/DC ADAPTER
KA12H-xxxyyyyUSH, xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V, yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A	AC/DC ADAPTER

Bruce Mahrenholz, Director North American Certification Program

UL LLC

UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 2nd Ed, 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1-14, 2nd Ed, Issued: 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Listing
CCN:	QQJQ, QQJQ7 (Power Supplies for Use in Audio/Video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	AC/DC ADAPTER
Model:	KA12H-xxxyyyyUS, KA12H-xxxyyyyUSH, KA12H-xxxyyyyDE (xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V; yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A)
Rating:	Input: 100-240VAC, 50/60Hz, 0.4A Max Output: See enclosure ID 07-04 for details.
Applicant Name and Address:	KE YU DIAN YUAN (HONGKONG) INTERNATIONAL LTD RM D 10TH FL, TOWER A BILLION CTR, 1 WANG KWONG RD, KOWLOON BAY HONG KONG

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 Agreement. Only those products which properly bear the UL Mark are considered 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:	Syycl Chen / Project Handler	Reviewed By:	Zhenzhen Zhang (T) / Bobby Liu / 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 direct plug in AC/DC ADAPTER. used for audio/video, information and communication technology equipment. All electronic components are mounted on PWB and housed in a thermoplastic enclosure. The enclosure is secured by ultrasonic weld.

Model Differences

See enclosure ID 07-04 for details.

Test Item Particulars

Classification of use by	Ordinary person Children likely to be present
Supply Connection	AC Mains
Supply % Tolerance	+10%/-10%
Supply Connection – Type	pluggable equipment type A - direct plug-in
Considered current rating of protective device as part of building or equipment installation	20 A; building;
Equipment mobility	direct plug-in
Over voltage category (OVC)	OVC II
Class of equipment	Class II
Access location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified maximum operating ambient (°C)	40
IP protection class	IPX0
Power Systems	TN
Altitude during operation (m)	5000 m
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	Max. 0.08

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 40°C
- The product is intended for use on the following power systems : TN
- Considered current rating of protective device as part of the building installation (A) : 20
- Mains supply tolerance (%) or absolute mains supply values : +10%/-10%
- The equipment disconnect device is considered to be : Plug
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS) : Output
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- The product was investigated to the following additional standard : The blade configuration had been evaluated and found compliant with Standard for Wiring Devices-Dimensional Specifications, ANSI/NEMA WD 6. (2) Direct Plug-in Equipment comply with UL1310 mechanical assembly requirements.
- The clearance distances have been evaluated according to table 17 of UL62368-1 with a multiplication factor of 1.48 throughout this report.

Additional Information

Revision for project 4790338476:
- add a new models name KA12H-xxxyyyyDE for alternative detachable plug with alternative mylar sheet and add photos, dimension of enclosure, mylar sheet for new models accordingly.

Additional Standards

The product fulfills the requirements of: N/A

Markings and Instructions

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee's or Recognized companys name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Fuses – replaceable by skilled person	(component ID:__F1__), Ratings (2A or 3ohm), "Ratings (T2AL/250V) or 3R/1W", and (symbol of required characteristics) located on or adjacent to fuse or fuseholder or in service manual.
Class II Equipment without Functional Earth	Symbol for Class II construction  (IEC 60417-5172)
LPS (Optional)	L.P.S, LPS or Limit Power Source
Equipment rating marking – ratings	Input Ratings (voltage, frequency/dc, current/power), Output Ratings (voltage, frequency/dc, current/power) and polarity

Special Instructions to UL Representative

[X] For transformer test - When the tests are conducted at other location, inspect test record and specification sheet provided by the component manufacturer. Verify the specification sheet indicates 100% routine test specified in Production-Line Testing Requirements be conducted at the component manufacturer.

BD1.0	TABLE: Production-Line Testing Requirements					
BD1.1	**Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.**					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
All Models	Transformer	N/A	Primary to Secondary	4000Vpeak	4000Vdc	1s to 4s
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:**					
	N/A					
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
--	--	--	--	--	--

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
Enclosure & plug pin holder	SABIC INNOVATIVE PLASTICS B V	940(f1)	V-0, 120 degree C, min. 1.6 mm thickness	QMFZ2	UL, E45329	
Insulation sheet (for KA12H-xxxyyyyUS and KA12H-xxxyyyyDE)	SICHUAN LONGHUA FILM CO LTD	PP-(i)(j)	V-0, 100 degree C, min. 0.4mm thickness	QMFZ2	UL,E254551	
Input wire	DONGGUAN FENG PAI ELECTRICAL CO LTD	1007	Min. 24AWG, VW-1, min. 80 degree C, min. 300V	AVLV2	UL E503941	
(Alternative)	DONGGUAN FENG PAI ELECTRICAL CO LTD	1015	Min. 24AWG, VW-1, min. 80 degree C, min. 600V	AVLV2	UL E503941	
(Alternative)	Interchangeable	Interchangeable	Min. 24AWG, VW-1, min. 80 degree C, min. 300V	AVLV2	UL	
PCB	DONGGUAN YE JIU GUAN ELECTRONIC TECHNOLOGY CO LTD	YJG-1, YJG-2	V-0, 130 degree C	ZPMV2	UL,E363712	
(Alternative)	Interchangeable	Interchangeable	V-0, 130 degree C	ZPMV2	UL	
Fusible resistor (F1)	Shenzhen Great Electronics Co. Ltd.	RXF	3ohm, 1W	FPEW2	UL E301541	
(Alternative)	Dongguan Hongda Electronic Technology Co., Ltd.	RXF series	3ohm, 1W	FPEW2	UL E359590	

(Alternative)	Shenzhen Lanbao Anke ElectronicsCO., LTD	RXF 21	3ohm, 1W	FPEW2	UL E482793	
(Alternative)	Shenzhen Yuzhouxin Electronic Co Ltd	XRF-1W	3ohm, 1W	FPEW2	UL E488162	
(Alternative)	JIEYANG MADEFORCE ELECTRONIC CO LTD	RX21-1W	3ohm, 1W	FPEW2	UL E358222	
Heat shrinkable tube (used for fusible resistor)	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR, RSFR-H	Min. 300V, 125°C, VW-1	YDPU2	UL E203950	
(Alternative)	Interchangeable	Interchangeable	Min. 300V, 125°C, VW-1	YDPU2	UL	
Material for output connector	FOSHAN NANHAI POLMA ENGINEERING PLASTICS CO LTD	FG-3330	V-0	QMFZ2	UL	
Strain relief	FOSHAN NANHAI POLMA ENGINEERING PLASTICS CO LTD	FG-3330	V-0	QMFZ2	UL	
Current Fuse (F1) (replace fusible resistor)	Shenzhen Lanson Electronics Co. Ltd.	3K	T2AL, 250V	JDYX2	UL E221465	
(Alternative)	Shenzhen Lanson Electronics Co. Ltd.	3N - Serie(s)	T2AL, 250V	JDYX2	UL E221465	
(Alternative)	Dongguan Hongda Electronic Technology Co., Ltd.	31 TD	T2AL, 250V	JDYX2	UL E318938	

(Alternative)	Dongguan Hongda Electronic Technology Co., Ltd.	31TC	T2AL, 250V	JDYX2	UL E318938	
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	3T	T2AL, 250V	JDYX2	UL E249609	
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	4T	T2AL, 250V	JDYX2	UL E249609	
Varistor (VR1) (Optional)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	10D471K, 14D471K,	Min. 300VAC, min. 85 degree C, V-0 coating	VZCA2	UL E330837	
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	10D511K, 14D511K	Min. 320VAC, 125 degree C, V-0 coating	VZCA2	UL E330837	
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	10D561K, 14D561K	Min. 350VAC, 125 degree C, V-0 coating	VZCA2	UL E330837	
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	10D681K, 14D681K	Min. 420VAC, 125 degree C, V-0 coating	VZCA2	UL E330837	
(Alternative)	Xiangtai Electronics (Shenzhen) Co., Ltd.	MYD-10K471, MYD-14K471,	Min. 300VAC, 85 degree C, V-0 coating	VZCA2	UL E472470	
(Alternative)	Xiangtai Electronics (Shenzhen) Co., Ltd.	MYD-10K511, MYD-14K511	Min. 325VAC, 85 degree C, V-0 coating	VZCA2	UL E472470	
(Alternative)	Xiangtai Electronics (Shenzhen) Co., Ltd.	MYD-10K561, MYD-14K561,	Min. 360VAC, 85 degree C, V-0 coating	VZCA2	UL E472470	

(Alternative)	Xiangtai Electronics (Shenzhen) Co., Ltd.	MYD-10K681, MYD-14K681	Min. 425VAC, 85 degree C, V-0 coating	VZCA2	UL E472470	
(Alternative)	DONGGUAN CITY DAFU ELECTRONICS CO LTD	10D471K, 14D471K	Min. 300VAC, 125 degree C, V-0 coating	VZCA2	UL E502211	
(Alternative)	DONGGUAN CITY DAFU ELECTRONICS CO LTD	10D511K, 14D511K	Min. 320VAC, 125 degree C, V-0 coating	VZCA2	UL E502211	
(Alternative)	DONGGUAN CITY DAFU ELECTRONICS CO LTD	10D561K, 14D561K	Min. 350VAC, 125 degree C, V-0 coating	VZCA2	UL E502211	
(Alternative)	DONGGUAN CITY DAFU ELECTRONICS CO LTD	10D681K, 14D681K	Min. 420VAC, 125 degree C, V-0 coating	VZCA2	UL E502211	
(Alternative)	Shenzhen Haotian Electronic Co., Ltd.	HTE-10D471K, HTE-14D471K	Min. 300VAC, 130 degree C, V-0 coating	VZCA2	UL E509500	
(Alternative)	Shenzhen Haotian Electronic Co., Ltd.	HTE-10D511K, HTE-14D511K	Min. 320VAC, 130 degree C, V-0 coating	VZCA2	UL E509500	
(Alternative)	Shenzhen Haotian Electronic Co., Ltd.	HTE-10D561K, HTE-14D561K	Min. 350VAC, 130 degree C, V-0 coating	VZCA2	UL E509500	
(Alternative)	Shenzhen Haotian Electronic Co., Ltd.	HTE-10D681K, HTE-14D681K	Min. 420VAC, 130 degree C, V-0 coating	VZCA2	UL E509500	
(Alternative)	Hongzhi Enterprises Ltd.	HEL10D471K,	Min. 300VAC, 105 degree C, V-0 coating	VZCA2	UL E324904	

		HEL14D471K				
(Alternative)	Hongzhi Enterprises Ltd.	HEL10D511K, HEL14D511K	Min. 320VAC, 105 degree C, V-0 coating	VZCA2	UL E324904	
(Alternative)	Hongzhi Enterprises Ltd.	HEL10D561K, HEL14D561K	Min. 350VAC, 105 degree C, V-0 coating	VZCA2	UL E324904	
(Alternative)	Hongzhi Enterprises Ltd.	HEL10D681K, HEL14D681K	Min. 420VAC, 105 degree C, V-0 coating	VZCA2	UL E324904	
(Alternative)	Shenzhen Weidy IndustrialDevelopment Co., Ltd.	WZV10D471KG, WZV14D471KG	Min. 300VAC, min. 85 degree C, V-0 coating	VZCA2	UL E490998	
(Alternative)	Shenzhen Weidy IndustrialDevelopment Co., Ltd.	WZV10D511KG, WZV14D511KG	Min. 320VAC, min. 85 degree C, V-0 coating	VZCA2	UL E490998	
(Alternative)	Shenzhen Weidy IndustrialDevelopment Co., Ltd.	WZV10D561KG, WZV14D561KG	Min. 350VAC, min. 85 degree C, V-0 coating	VZCA2	UL E490998	
(Alternative)	Shenzhen Weidy IndustrialDevelopment Co., Ltd.	WZV10D681KG, WZV14D681KG	Min. 420VAC, min. 85 degree C, V-0 coating	VZCA2	UL E490998	
(Alternative)	Success Electronics Co., Ltd.	SVR10D471K, SVR14D471K	Min. 300VAC, min. 85 degree C, V-0 coating	VZCA2	UL E330256	
(Alternative)	Success Electronics Co., Ltd.	SVR10D511K, SVR14D511K	Min. 320VAC, min. 85 degree C, V-0 coating	VZCA2	UL E330256	
(Alternative)	Success Electronics Co., Ltd.	SVR10D561K, SVR14D561K	Min. 350VAC, min. 85 degree C, V-0 coating	VZCA2	UL E330256	
(Alternative)	Success Electronics Co., Ltd.	SVR10D681K, SVR14D681K	Min. 420VAC, min. 85 degree C, V-0 coating	VZCA2	UL E330256	

Y-capacitor (CY1)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E208107	
(Alternative)	Xiangtai Electronics (Shenzhen) Co., Ltd.	YOB, YOE, YOF	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E319473	
(Alternative)	Shenzhen Haotian Electronic Co., Ltd.	HT	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E326483	
(Alternative)	Haohua Electronic Co.,	CT7	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E233106	
(Alternative)	Shenzhen Song Te Electronics Co., Ltd.	CT7	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E302622	
(Alternative)	Dongguan WeiqingElectronic Co., Ltd.	WD series	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E466405	
(Alternative)	GCE (Dongguan) Electronics Co., Ltd	GY1 series	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E464834	
(Alternative)	Success Electronics Co., Ltd.	SE	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E114280	
(Alternative)	Shenzhen Weidy IndustrialDevelopment Co., Ltd.	WYD	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E334332	
(Alternative)	DONGGUAN CITY DAFU ELECTRONICS CO LTD	CT7 Y1	Max. 2200pF, min. 250VAC, 125 degree C, Y1 type	FOWX2	UL E465278	

Output wire	Interchangeable	Interchangeable	Min. 26AWG, VW-1, min. 80 degree C, min. 300V	AVLV2	UL E503941	
Transformer (T1)	XSFT ELECTRONICS CO., LTD	KA12H-5V (For rated output 4.7-7.0VDC); KA12H-12V (For rated output 9.0-15.0VDC);KA12H-24V (For rated output 18.0-27.0VDC)	Class B	--	--	
- Insulation system	XSFT ELECTRONIC CO LTD	XSHT-B	Class 130°C (B) electrical insulation system (Table I)	OBJY2	UL E347785	
- Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150 degree C. min. 0.7mm thickness, phenolic.	QMFZ2	UL E41429	
- Magnet wire (Primary winding)	HUIZHOU ZHAOXINYUAN ELECTRONICS TECHNOLOGY CO LTD	UEW/130@	130 degree C	OBMW2	UL E344738	
(Alternative)	HENG YA ELECTRIC (DONGGUAN) LTD	TYPU-130(UEW/QA-B)	130 degree C	OBMW2	UL E197768	
- Triple Insulation wire (Secondary winding)	Furukawa Electric Co., Ltd.	TEX-E	Reinforced insulation, 130 degree C	OBJT2	UL E206440	
- Insulation tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (b)(g), PZ* (b)	130 degree C	OANZ2	UL E165111	

- Tubing	GREAT HOLDING INDUSTRIAL CO LTD	TFT	Min. 300V, min. 200 degree C, VW-1	YDPU2	UL E156256	
(Alternative)	GREAT HOLDING INDUSTRIAL CO LTD	TFS	Min. 600V, min. 200 degree C, VW-1	YDPU2	UL E156256	
- Varnish	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD	ET-90(a), T-1168(a), T-4260(a)	Min. 130 degree C	OBOR2	UL E228349	
(Alternative)	HUI ZHOU QIANG DA ELECTRONICS INDUSTRY CO LTD	DA-700-*	Min. 130 degree C	OBOR2	UL E347463	
Glue for fixing components	Interchangeable	Interchangeable	Min. V-2	QMFZ2	UL	
Plastic part not mounted on PCB	Interchangeable	Interchangeable	V-2 or better	QMFZ2	UL	
(Alternative)	--	--	Less than 4g	--	--	
Bridge rectifier (BG1)	--	--	Min. 2.0A, Min. 600V	--	--	
IC (U1)	--	--	Min.2A, Min.650V	--	--	
Electric capacitor (EC1, EC2)	--	--	Max. 8.2-15uF, min. 400V, 105°C	--	--	
Current limiting resistor(R9, R10)	--	--	Each min. 0.5ohm, min.1/4W	--	--	
Label	Interchangeable	Interchangeable	Minimum 80 degree C.	PGDQ2 or PGJI2	UL	
(Alternative)	--	--	Molded, laser carved or silk screen print on enclosure	--	--	

Choke (LEM1) (optional)	SHENZHEN HANGJIN ELECTRONICS CO., LTD	EE8.3	130°C	-	Test in appliance	
- Bobbin	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C. Min. 0.75mm thickness, phenolic.	QMFZ2	UL	
- Magnet wire	Interchangeable	Interchangeable	130°C	OBMW2	UL	
Choke (L1, L2)	Interchangeable	Interchangeable	130°C	--	Test in appliance	
Input blade	--	--	Copper or Copper Alloy, non-polarized (NEMA 1-15P configuration). Integrally melded onto Plug Holder, perimeter of face section from which Blade projection minimum 5.1 mm from any point on either blade. See enclosure ID 07-03 for details.	--	Test in appliance	

Enclosures

Type	Supplement Id	Description
Photographs	03-01	Overall view- 1 (for KA12H-xxxyyyyUSH)
Photographs	03-02	Overall view- 2 (for KA12H-xxxyyyyUSH)
Photographs	03-03	Internal view- 1 (for KA12H-xxxyyyyUSH)
Photographs	03-04	Internal view- 2 (for KA12H-xxxyyyyUSH)
Photographs	03-05	Overall view- 1 (for KA12H-xxxyyyyUS)
Photographs	03-06	Overall view- 2 (for KA12H-xxxyyyyUS)
Photographs	03-07	Internal view- 1 (for KA12H-xxxyyyyUS)
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Photographs	03-10	Components of PCB view (for PCB layout Type A)
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Photographs	03-12	Components of PCB view (for PCB layout Type B)
Photographs	03-13	Trace side of PCB view (for PCB layout Type B)
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Diagrams	04-01	T1 spec (for KA12H-5V)
Diagrams	04-02	T1 spec (for KA12H-12V)
Diagrams	04-03	T1 spec (for KA12H-24V)
Diagrams	04-04	LEM1 spec
Diagrams	04-05	L1 spec
Diagrams	04-06	L2 spec.
Schematics + PWB	05-01	PCB layout (Type A)
Schematics + PWB	05-02	PCB layout (Type B)
Miscellaneous	07-01	Enclosure dimension drawing (for models KA12H-xxxyyyyUS) (unit: mm)
Miscellaneous	07-02	Mylar sheet dimension drawing (unit:mm) (for models KA12H-xxxyyyyUS)
Miscellaneous	07-03	Input blade
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Miscellaneous	07-05	Dimension of Strain relief (unit: mm)
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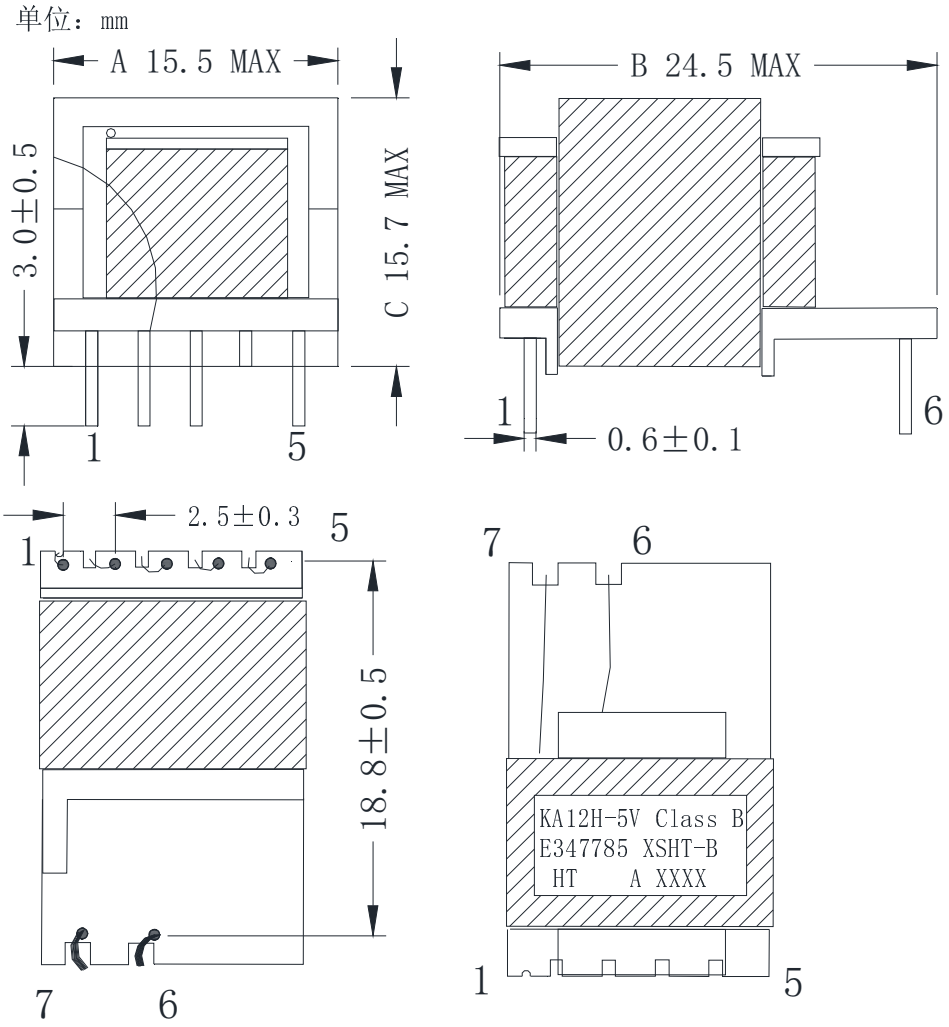
Miscellaneous	07-07	Enclosure dimension drawing (for models KA12H-xxxyyyyUSH) (unit: mm)
Miscellaneous	07-08	Enclosure dimension drawing (for models KA12H-xxxyyyyDE) (unit: mm)
Miscellaneous	07-09	Mylar sheet dimension (unit: mm) (for models KA12H-xxxyyyyDE)

The following Page(s) are related to Diagrams-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

SPECIFICATION FOR APPROVAL

CUSTOMER	科宇	CUS.NO.	130110040407	CUE.REV	A
XSFT NO.	H041-0144A	XSFT REV	A	DATE	2021/09/13

MECHANICAL DIMENSION ：



NOTES

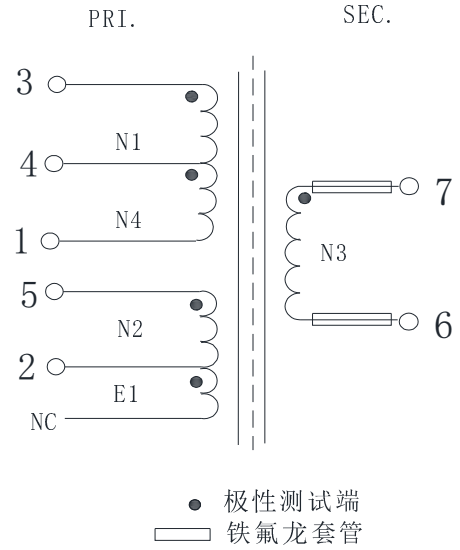
1. EE13 5+2 骨架，PIN4 剪去 2/3。
2. PIN2脚需用镀锡引线接磁芯面，磁芯用10mm胶带包3TS固定。
3. 产品须真空含浸。
4. 标签贴法如图所示。

核准	审核	制作
汤申平	李飞	丁秋霞

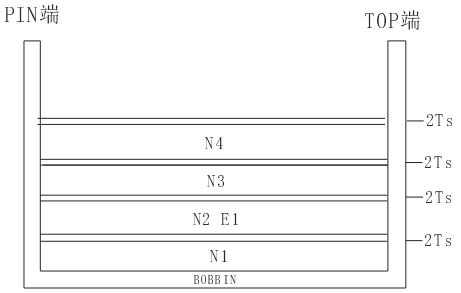
SPECIFICATION FOR APPROVAL

CUSTOMER	科宇	CUS.NO.	130110040407	CUE.REV	A
XSFT NO.	H041-0144A	XSFT REV	A	DATE	2021/09/13

SCHEMATIC DRAWING:



WINDING ORDER:



WINDING	START	FINISH	WIRE/COPPER(mm)	TURN(TS)	TAPE	REMARK	TUBE	
							起始	结尾
N1	3	4	Φ0.21mm*1P 2UEW	61TS	2TS	密绕二层	/	/
N2	5	2	Φ0.21mm*1P 2UEW	14TS	2TS	同层并绕	/	/
E1	2	NC	Φ0.21mm*1P 2UEW				/	/
N3	7	6	Φ0.4mm*2P TEX-E	5TS	2TS	密绕一层	18#*37	18#*15
N4	4	1	Φ0.21mm*1P 2UEW	22TS	2TS	密绕一层		

NOTE:

1. PIN朝机台顺绕。
2. **PIN7进线套管需加长到初级边PIN1脚处**。
3. PIN2留引线接磁芯。

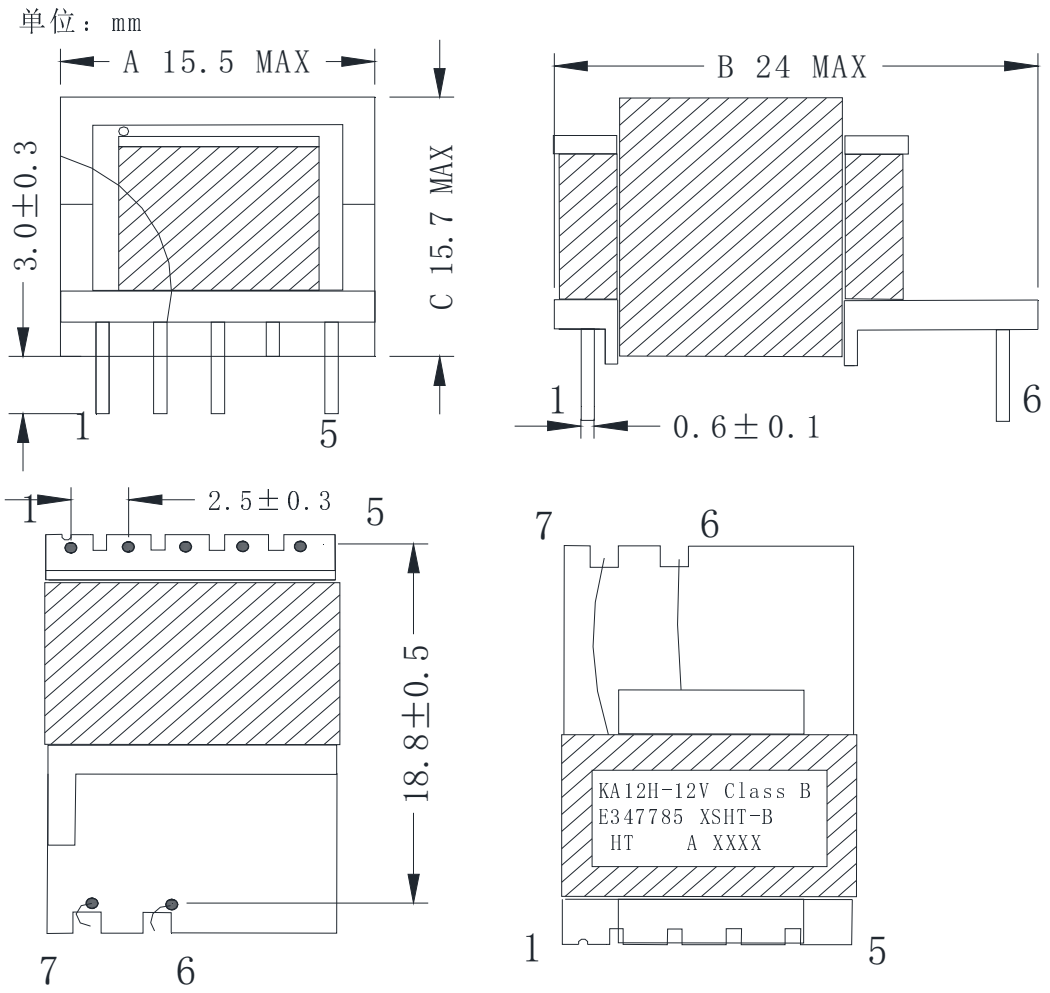
核准	审核	制作
汤申平	李飞	丁秋霞

The following Page(s) are related to Diagrams-02. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

SPECIFICATION FOR APPROVAL

CUSTOMER	科宇	CUS.NO.	130110040408	CUE.REV	A
XSFT NO.	H041-0145A	XSFT REV	A	DATE	2021/09/14

MECHANICAL DIMENSION ：



NOTES

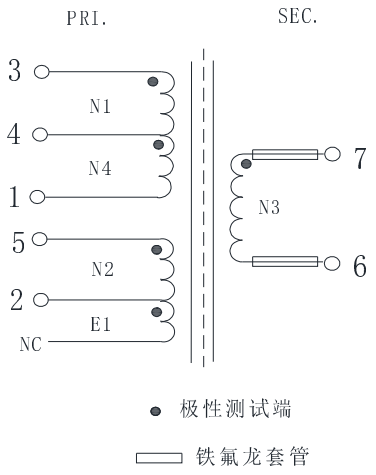
1. EE13 5+2 骨架，PIN4 剪去 2/3。
2. PIN2需引线镀锡接触磁芯面，磁芯用10mm胶带包3TS固定。
3. 产品须真空含浸。
4. 标签贴法如图所示。

核准	审核	制作
汤申平	李飞	丁秋霞

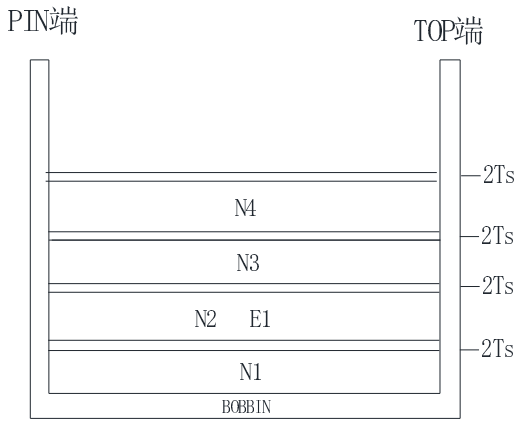
SPECIFICATION FOR APPROVAL

CUSTOMER	科宇	CUS.NO.	130110040408	CUE.REV	A
XSFT NO.	H041-0145A	XSFT REV	A	DATE	2021/09/14

SCHEMATIC DRAWING:



WINDING ORDER:



WINDING	START	FINISH	WIRE/COPPER(mm)	TURN(TS)	TAPE	REMARK	TUBE	
							起始	结尾
N1	3	4	Φ0.21mm*1P 2UEW	61TS	2TS	密绕二层	/	/
N2	5	2	Φ0.21mm*1P 2UEW	14TS	2TS	同层并绕	/	/
E1	2	NC	Φ0.21mm*1P 2UEW				/	/
N3	7	6	Φ0.4mm*1P TEX-E	10TS	2TS	密绕一层	23#*37	23#*15
N4	4	1	Φ0.21mm*1P 2UEW	22TS	2TS	密绕一层		

NOTE:

1. PIN朝机台顺绕。
2. **PIN7进线套管需加长到初级边PIN1脚处**。
3. PIN2脚引线接磁芯。

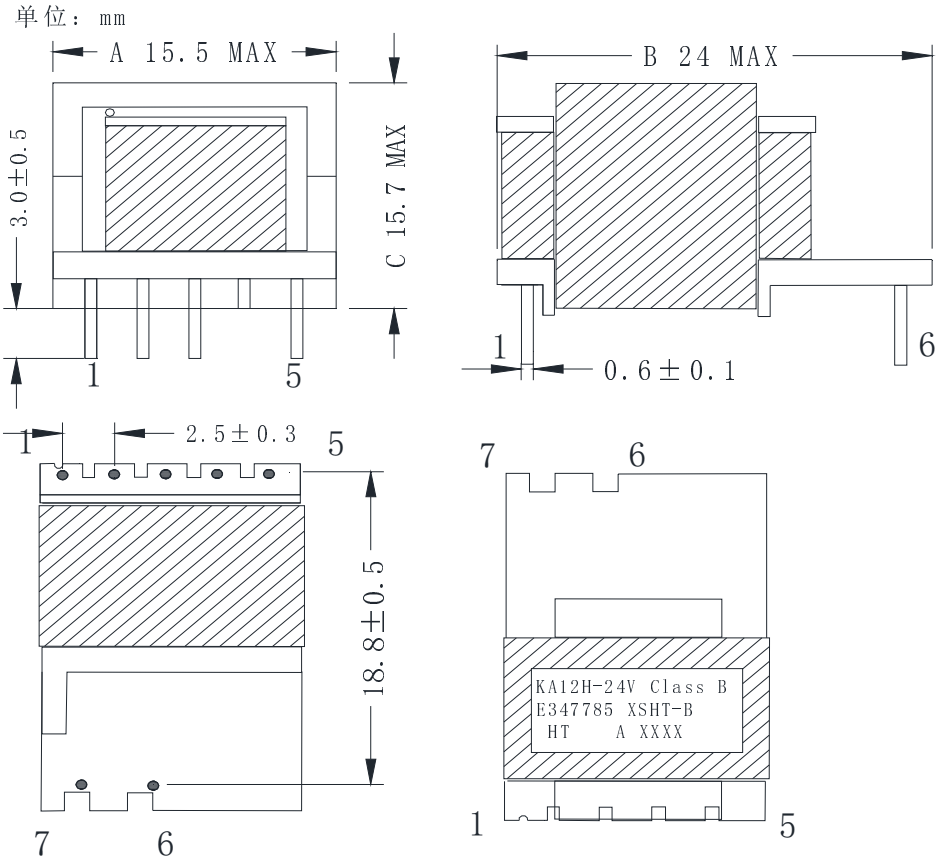
核准	审核	制作
汤申平	李飞	丁秋霞

The following Page(s) are related to Diagrams-03. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

SPECIFICATION FOR APPROVAL

CUSTOMER	科宇	CUS.NO.	130110040409	CUE.REV	D
XSFT NO.	H041-0146A	XSFT REV	B	DATE	2021/8/200

MECHANICAL DIMENSION ：



NOTES

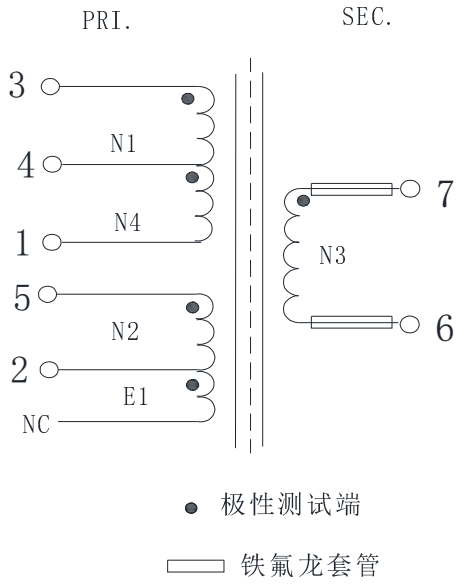
1. EE13 5+2 骨架，PIN4 剪去 2/3。
2. PIN2需引线接触磁芯侧面,磁芯用10mm胶带包3TS固定。
3. 产品须真空含浸。
4. 标签贴法如图所示。

核准	审核	制作
汤申平	李飞	丁秋霞

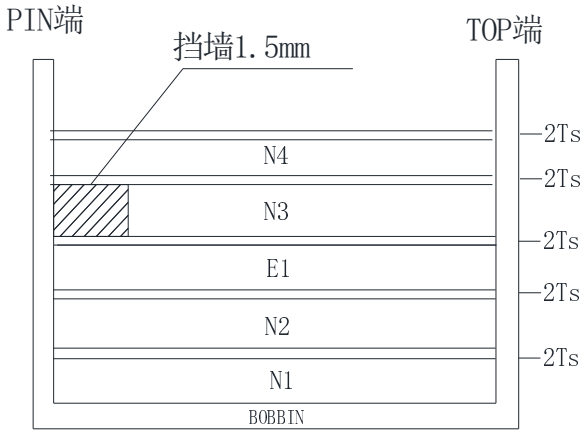
SPECIFICATION FOR APPROVAL

CUSTOMER	科宇	CUS.NO.	130110040409	CUE.REV	D
XSFT NO.	H041-0146A	XSFT REV	B	DATE	2021/09/27

SCHEMATIC DRAWING:



WINDING ORDER:



WINDING	START	FINISH	WIRE/COPPER(mm)	TURN(TS)	TAPE	REMARK	TUBE	
							起始	结尾
N1	3	4	Φ0.21mm*1P 2UEW	61TS	2TS	密绕二层	/	/
N2	5	2	Φ0.21mm*2P 2UEW	14TS	2TS	密绕一层	/	/
E1	2	NC	Φ0.21mm*2P 2UEW	5TS	2TS	疏绕一层	/	/
N3	7	6	Φ0.25mm*1P TEX-E	19TS	2TS	密绕二层	24#*11	24#*14
N1	4	1	Φ0.21mm*1P 2UEW	22TS	2TS	疏绕一层		

NOTE:

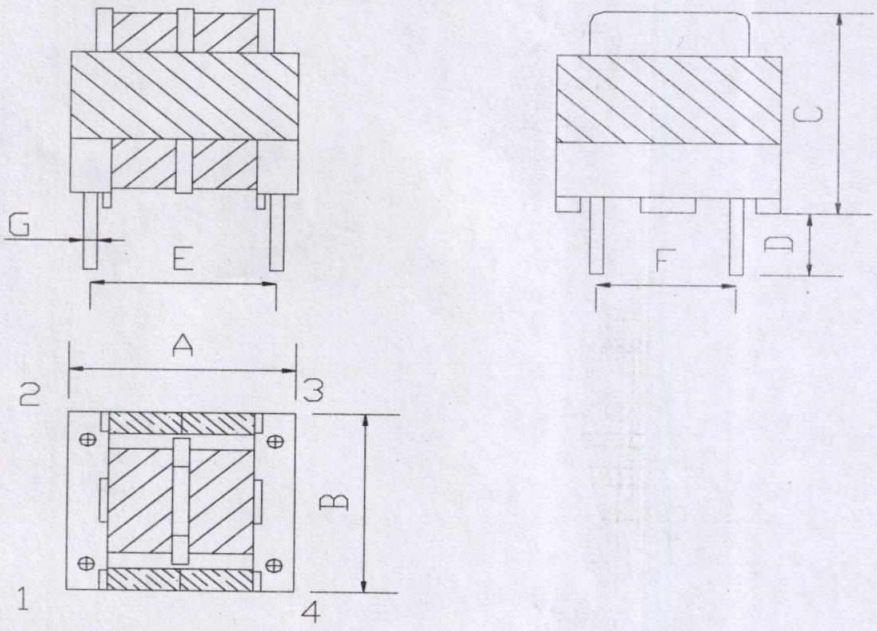
1. PIN朝内顺绕。
2. N3绕线前在PIN端加挡墙1.5mmREF挡墙2TS。

核准	审核	制作
汤申平	李飞	丁秋霞

The following Page(s) are related to Diagrams-04. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

东莞市航进电子科技有限公司					
客 户 CUSTOMER	科宇	产品规格 DESCRIPTION	EE8.3-20MH	日 期 DATE	2020/7/14
客户料号 MATERIAL	130109100059	产品编号 PART NO.	HJ-L1896	版 本 REV	A

一、外观图（单位：mm）/DIMENSION



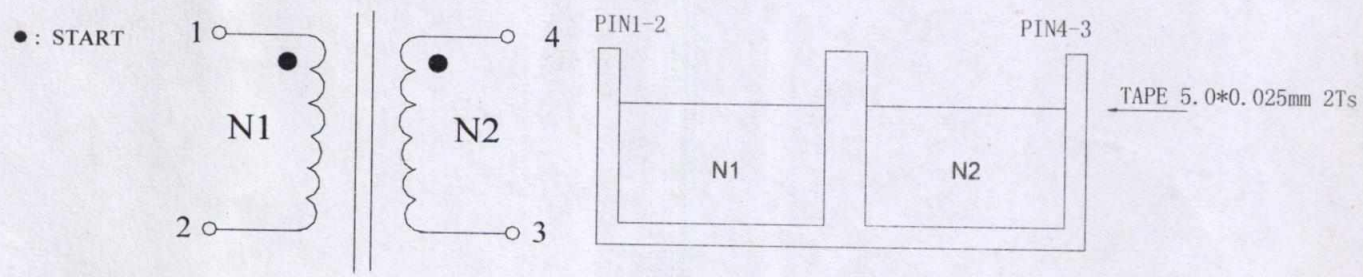
A	10.0MAX
B	10.0MAX
C	9.5MAX
D	3.0±0.3
E	6.8±0.3
F	5±0.3
G	0.5

注：
1. 线包包淡黄胶带2TS，磁芯包淡黄胶带3TS.
2. 成品浸油。
3. 成品侧面需标识EE8.3-20mH字样

二、绕线表：

序号 NO.	起头 START	收尾 FINISH	圈数 TURNS	漆包线 WIRE	挡墙、胶带圈数规格 MARGIN、TAPE TURNS			绕制方式 WINDING CONDITION
					/	/	胶带 TAPE	
N1	1	2	82TS±3 TS REF	2UEWΦ0.15*1P	/	/	2TS	密绕
N2	4	3	82TS±3 TS REF	2UEWΦ0.15*1P	/	/	2TS	密绕

三、电原理图/CIRCUIT DIAGRAM



APPROVER:宋建平	CHECK: 宋丽霞	ADMIT:Tony

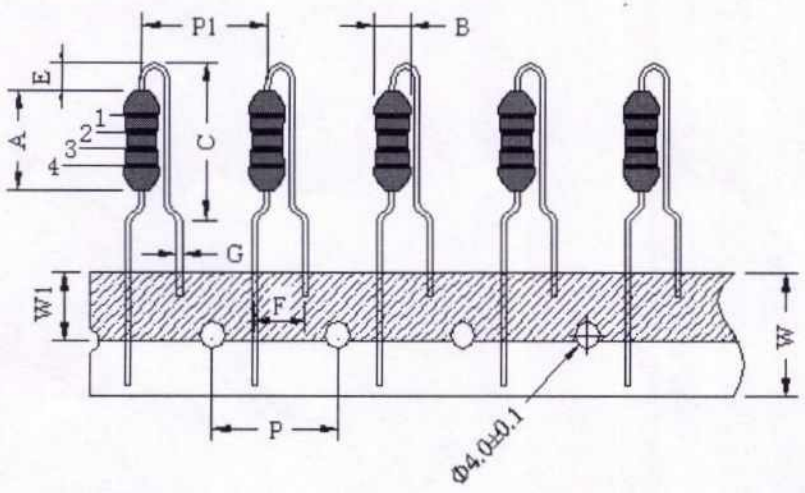
The following Page(s) are related to Diagrams-05. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

揭阳市美得福电子有限公司

MADEFORCE ELECTRONICS CO., LTD

客户 CUSTOMER	深圳科宇电子有限公司	客户料号 MATERIAL NO.		版本 REV	1/0
品名 MODEL NO.	色环电感	美得福料号 OUR PART NO.	AL0510-331K 立式编带	日期 DATE	2017/5/19

1、结构尺寸图(单位: mm) /DIMENSION

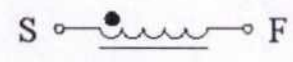


A	10.5 Max
B	5.0 Max
C	13.5 Max
E	3.0 Max
F	5.0±0.5
G	0.6±0.1
W	18±0.5
W1	8±1
P	12.7±0.5
P1	12.7±0.5
1.橙 2.橙 3.棕 4.银	

2、ELECTRIC CHARACTERISTIC(电气特性)

MEAS. ITEM 测试项目	SPEC 电性范围	TEST FREQ 测试条件	TEST STRUMENTS 测试仪器	TYP. 参考值
电感量(L)	330uH±10%	1KHZ 0.25V	TH2818	
直流电阻(DCR)	3.0Ω Max	At 25℃	TH2515	
额定电流(IDC)	160mA Max	1KHZ/0.25V	VR116+VR7210	
Q值	30min	0.796MHz	TH9481	

3、SCHEMATIC(原理图)



4、PACKING(包装)

1.编带装，每盒2500PCS

2.每箱12500PCS

5、MATERAL LIST(材料清单)

No 序号	Material name 物料名称	SPEC. 规格描述	Rating Temp. 居里温度	Vendor 供应商	UL File 认证号
1	CORE 磁芯	H37 DRWW4*6-1940 OR EQUIVALENT	180℃	禾溢兴	N/A
2	WIRE WINDING 漆包线	2UEW Ø0.1*178Ts 参考圈数	155℃	金雁	E238500
3	EPOXY RESIN 面漆	DGT-1(green)	/	富信	N/A
4	EPOXY RESIN 接脚树脂	FK661	/	骐富	N/A
5	PIN 引脚	Φ0.60mm CP线	/	百瑞杰	N/A
6	SOLDER 无铅锡	Sn:99.3% Cu:0.7%	/	天铖锡业	N/A

The following Page(s) are related to Diagrams-06. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

KEYU

深圳市科宇电源科技有限公司

深圳市科宇电源科技有限公司
2018-09-28
受控文件正本

部 品 承 认 书

部品编号/版本：1301090805 / A

部品规格/名称：2.2uH >400mA 0805 ±20% / 贴片电感

供 应 商：深圳市碧绿天科技有限公司

制造商/品牌：深圳市碧绿天科技有限公司

适 用 制 品：KA1508

文件编号：_____ 承认日期：2018.09.21

(1) 承认样品的特性\尺寸\材料\工艺\模具\制造厂商必须和量产品一致.

(2) 特性\尺寸\材料\工艺\模具\制造厂商,变更时须事前申请,经科宇承认以后,才可以纳入.

(3) 经由代理商的商品,须要原工厂认印,工厂授权书,若代理商可以保证时,工厂认印可以不要,但要有原厂授权书,但发生损失时,代理商须全额补偿.

(4) 违反上记, 发生损失时,全额补偿由业者负担.

判断结果：☑合格 ☐不合格 ☐修正承认 ☐改进缺点后重新送样认可

承认	安规	审核	批准
2018.9.25	/	2018.9.26	2018.9.27

深圳市科宇电源科技有限公司 研发部专用章

表单编号：KY-RD-F050A

有代理证.

深圳市科宇电源有限公司

承认器件检测报告

产品名称	贴片电感		供应商	碧绿天		
物料规格	2.2uH >400mA 0805 ±20%		物料料号	1301090805		
序号	检测项目	参考/标准数据	检测数据(3PCS)			检测结果
1	外观检验	参照承认书	OK	OK	OK	☑Pass ☐Fail
2	尺寸检验	2.0±0.2	2.0	2.0	2.0	☑Pass ☐Fail
		0.8±0.2	0.85	0.85	0.85	☑Pass ☐Fail
		0.3±0.2	0.30	0.30	0.30	☑Pass ☐Fail
						☐Pass ☐Fail
						☐Pass ☐Fail
3	感量检验	2.2uH±±20%.	2.18uH	2.16uH	2.15uH	☑Pass ☐Fail
	[redacted]	/	/	/	/	☐Pass ☐Fail
4	装机测试	与旧机对比	[illegible]	OK	OK	☑Pass ☐Fail
5	纹波	与旧机对比	98mV	96mV	OK	☑Pass ☐Fail
6	Rohs报告	无/有	有			☐Pass ☐Fail
7						
8						
9						
					测试人	

深圳市碧绿天科技有限公司

SHENZHEN GREENSKY TECH CO.,LTD

产品承认书

Product For Approval

客　户：　深圳市科宇电源科技有限公司
CUSTOMER

品　名：　贴片电感（振华富）
PART NAME

规格：　0805/2.2UH/400mA 20%
SPEC

原厂料号：　CI2012B2R2K
PRODUCT P/N

客户料号：　13010908005
CUSTOMER P/N

日期：　2018.08.11
SIGNATURE&DATE

CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

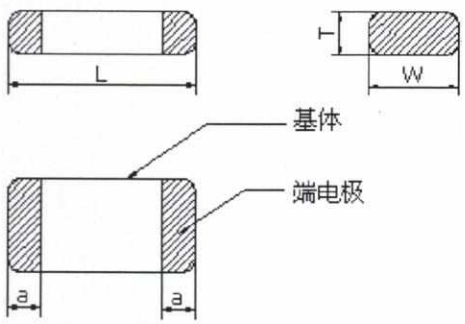
深圳振华富电子有限公司

SHENZHEN ZHENHUA FERRITE & CERAMIC ELECTRONICS CO., LTD

CI Series Specification

1 Scope: This specification applies to MULTILAYER CHIP FERRITE BEADS

2 Shape And Dimensions



Type	Dimensions in mm			
	L	W	T	a_1 ,a_2
CI1608	1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20
CI2012	2.00±0.20	1.25±0.20	0.80±0.20 1.25±0.20	0.4±0.20
CI3216	3.20±0.20	1.60±0.20	0.80±0.20 1.10±0.30 1.60±0.30	0.50±0.30

3 Part Numbering: Product Identification

CI	1608	C	100	K	T	(f)
①	②	③	④	⑤	⑥	⑦

（1） Product symbol 系列代号：

（2） Dimensions 尺寸： Length 长（L）×Width 宽（W）

（3） Material code 材料代号：

（4） Inductance 电感量： 100：10uH；2R7：2.7μH； R27：0.27μH

（5） Tolerance 允许偏差： J—±5% K—±10% M—±20%

（6） Packing style 包装方式： B：Bulk 散装； T：Tape and reel 载带盘装

（7） Leadfree productors 无铅产品：据客户要求

4 Test Equipment

☐ HP4287A PACKED RF LCR METER；

☐ HP4338B MILLIOHM METER；

☐ CHEN HUA 502BC OHM METER；

☐ E4991A RF IMPEDANCANALYZER。

地址：深圳市宝安区龙华镇清湖和平东路振华(龙华)工业园 A 栋 4 层

ADD: 4F,Bld.A,Zhenhua(Longhua)ProductionCenter,Qinghu,Rd,Heping,E., Longhua Town,Bao'an District Shenzhen

Tel: 0755-28159282 28159369 Fax: 0755-28159885 Zip: 518109 E-mail: szzhfrt@21cn.com

5 Rating

Operating Temperature（使用温度）：　–40℃~+125℃

Storage Temperature（储存温度）：　40℃max. 70% RH max.

6 Test Data For Preproduction Samples

铁氧体叠层片式电感器电性能

CI1608型

产品类型	电感量 (μH)	Q 值 min	L、Q 测定频率（MHz）	自谐频率（MHz）	直流电阻 (Ω)max	额定电流（mA）
CI1608A56N□	0.056	15	50	300	0.30	50
CI1608A68N□	0.068	10	50	250	0.30	50
CI1608A82N□	0.082	10	50	245	0.30	50
CI1608AR10□	0.1	15	25	240	0.50	50
CI1608AR12□	0.12	15	25	205	0.50	50
CI1608AR15□	0.15	15	25	180	0.60	50
CI1608AR18□	0.18	15	25	165	0.60	50
CI1608AR22□	0.22	15	25	150	0.80	50
CI1608AR27□	0.27	15	25	136	0.80	50
CI1608AR33□	0.33	15	25	125	0.85	35
CI1608AR39□	0.39	15	25	110	1.00	35
CI1608AR47□	0.47	15	25	105	1.35	35
CI1608AR56□	0.56	15	25	95	1.55	35
CI1608AR68□	0.68	15	25	80	1.70	35
CI1608AR82□	0.82	15	25	75	2.10	35
CI1608B1R0□	1.0	35	10	70	0.60	25
CI1608B1R2□	1.2	35	10	60	0.80	25
CI1608B1R5□	1.5	35	10	55	0.80	25
CI1608B1R8□	1.8	35	10	50	0.95	25
CI1608B2R2□	2.2	35	10	45	1.15	15

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ADD: 4F,Bld.A,Zhenhua(Longhua)ProductionCenter,Qinghu,Rd,Heping,E., Longhua Town,Bao'an District Shenzhen
Tel: 0755-28159282 28159369 Fax: 0755-28159885 Zip: 518109 E-mail: szzhfrt@21cn.com

CI1608B2R7□	2.7	35	10	40	1.35	15
CI1608B3R3□	3.3	35	10	38	1.55	15
CI1608B3R9□	3.9	35	10	36	1.70	15
CI1608B4R7□	4.7	35	10	33	2.10	15
CI1608C5R6□	5.6	35	4	22	1.55	5
CI1608C6R8□	6.8	35	4	20	1.70	5
CI1608C8R2□	8.2	35	4	18	2.10	5
CI1608C100□	10	35	2	17	2.55	5
CI1608C120□	12	35	2	15	2.75	5
CI1608D150□	15	20	1	14	1.70	1

□ :表示电感量偏差代号为J、K 或者 M。J：±5%；K：±10%；M：±20%

CI2012型

产品类型	电感量 (μH)	Q 值 min	L、Q 测定频率 （MHz）	自谐频率 （MHz）	直流电阻 (Ω)max	额定电流 （mA）
CI2012A47N□	0.047	15	50	320	0.2	300
CI2012A56N□	0.056	20	50	300	0.2	300
CI2012A68N□	0.068	15	50	280	0.2	300
CI2012A82N□	0.082	15	50	255	0.2	300
CI2012AR10□	0.10	20	25	235	0.3	250
CI2012AR12□	0.12	20	25	220	0.3	250
CI2012AR15□	0.15	20	25	200	0.4	250
CI2012AR18□	0.18	20	25	185	0.4	250
CI2012AR22□	0.22	20	25	170	0.5	250
CI2012AR27□	0.27	20	25	150	0.5	250
CI2012AR33□	0.33	20	25	145	0.55	250
CI2012AR39□	0.39	25	25	135	0.65	200
CI2012AR47□	0.47	25	25	125	0.65	200
CI2012AR56□	0.56	25	25	115	0.75	150
CI2012AR68□	0.68	25	25	105	0.8	150

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CI2012AR82□	0.82	25	25	100	1.0	150
CI2012B1R0□	1.0	45	10	75	0.4	50
CI2012B1R2□	1.2	45	10	65	0.5	50
CI2012B1R5□	1.5	45	10	60	0.5	50
CI2012B1R8□	1.8	45	10	55	0.6	50
CI2012B2R2□	2.2	45	10	50	0.65	30
CI2012B2R7□	2.7	45	10	45	0.75	30
CI2012B3R3□	3.3	45	10	41	0.8	30
CI2012B3R9□	3.9	45	10	38	0.9	30
CI2012B4R7□	4.7	45	10	35	1.0	30
CI2012C5R6□	5.6	50	4	32	0.9	15
CI2012C6R8□	6.8	50	4	29	1.0	15
CI2012C8R2□	8.2	50	4	26	1.1	15
CI2012C100□	10	50	2	24	1.15	15
CI2012C120□	12	50	2	22	1.25	15
CI2012D150□	15	30	1	19	0.8	5
CI2012D180□	18	30	1	18	0.9	5
CI2012D220□	22	30	1	16	1.1	5

□：表示电感量偏差代号为J、K或者M。J：±5%；K：±10%；M：±20%.

CI3216型

产品类型	电感量 (μH)	Q值 min	L、Q测定频率 （MHz）	自谐频率 （MHz）	直流电阻 (Ω)max	额定电流 （mA）
CI3216A47N□	0.047	20	50	320	0.15	300
CI3216A68N□	0.068	20	50	280	0.25	300
CI3216A82N□	0.082	20	50	255	0.25	250
CI3216AR10□	0.10	20	25	235	0.25	250
CI3216AR18□	0.18	20	25	185	0.40	250

地址：深圳市宝安区龙华镇清湖和平东路振华(龙华)工业园A栋4层
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Tel: 0755-28159282 28159369 Fax: 0755-28159885 Zip: 518109 E-mail: szzhfrt@21cn.com

CI3216AR22□	0.22	20	25	170	0.40	250
CI3216AR27□	0.27	20	25	150	0.50	250
CI3216AR33□	0.33	20	25	145	0.60	250
CI3216AR47□	0.47	25	25	125	0.60	200
CI3216AR56□	0.56	25	25	112	0.70	150
CI3216AR82□	0.82	25	25	100	0.90	150
CI3216B1R0□	1.0	45	10	75	0.40	100
CI3216B1R2□	1.2	45	10	65	0.50	100
CI3216B1R5□	1.5	45	10	60	0.50	50
CI3216B1R8□	1.8	45	10	55	0.50	50
CI3216B2R2□	2.2	45	10	50	0.60	50
CI3216B2R7□	2.7	45	10	45	0.60	50
CI3216B3R3□	3.3	45	10	41	0.70	50
CI3216B3R9□	3.9	45	10	38	0.80	50
CI3216B4R7□	4.7	45	10	35	0.90	50
CI3216C5R6□	5.6	50	4	32	0.70	25
CI3216C6R8□	6.8	50	4	29	0.80	25
CI3216C8R2□	8.2	50	4	26	0.90	25
CI3216C100□	10	50	2	24	1.00	25
CI3216C120□	12	50	2	22	1.05	15
CI3216D150□	15	35	1	19	0.70	5
CI3216D180□	18	35	1	18	0.70	5
CI3216D220□	22	35	1	16	0.90	5

□：表示电感量偏差代号为J、K或者M。J：±5%；K：±10%；M：±20%.

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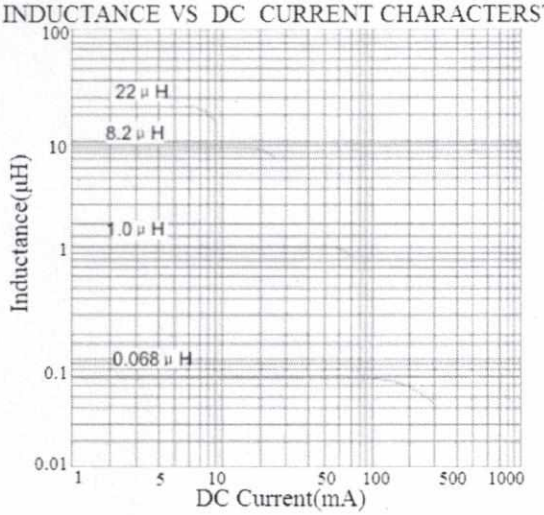
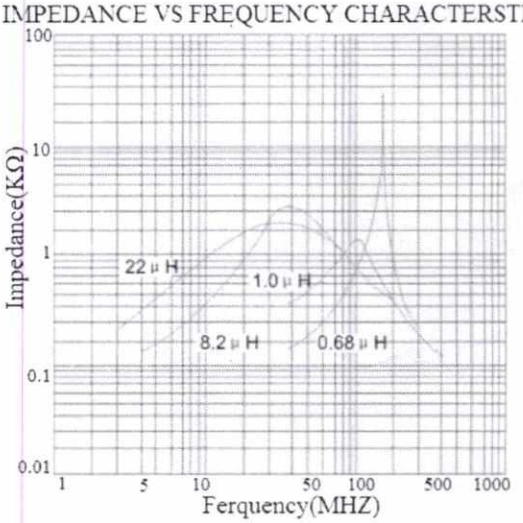
7 Detail electrical characteristics

CI1608 TYPE

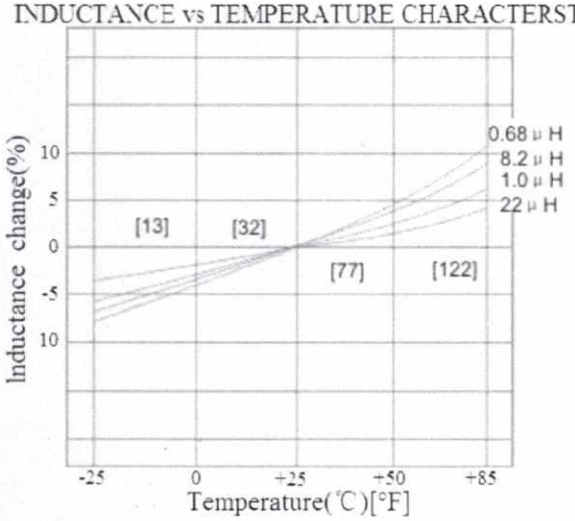
INDUCTANCE VS DC CURRENT CHARACTERSTICS



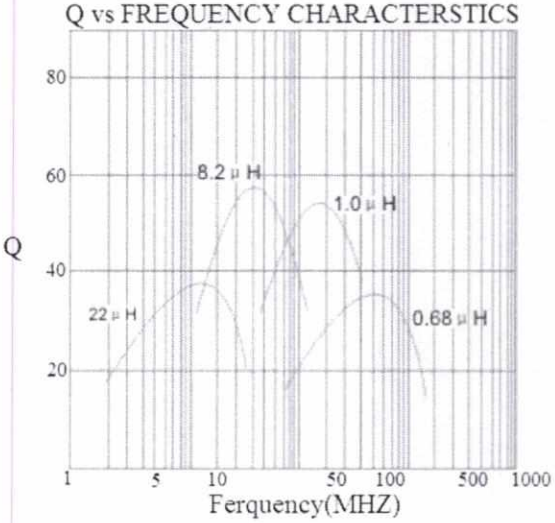
IMPEDANCE VS FREQUENCY CHARACTERSTICS



INDUCTANCE vs TEMPERATURE CHARACTERSTICS



Q vs FREQUENCY CHARACTERSTICS



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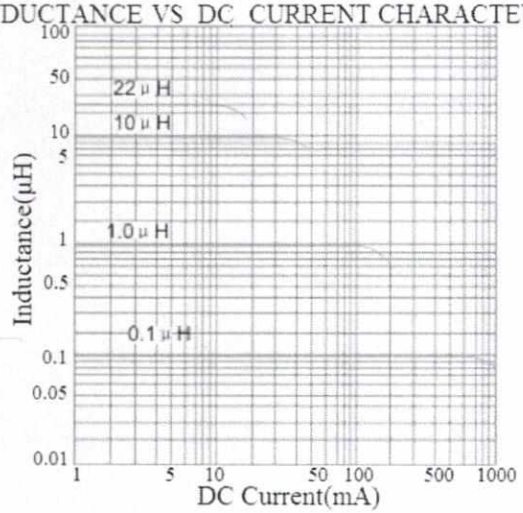
CI2012 TYPE

INDUCTANCE VS DC CURRENT CHARACTERSTICS



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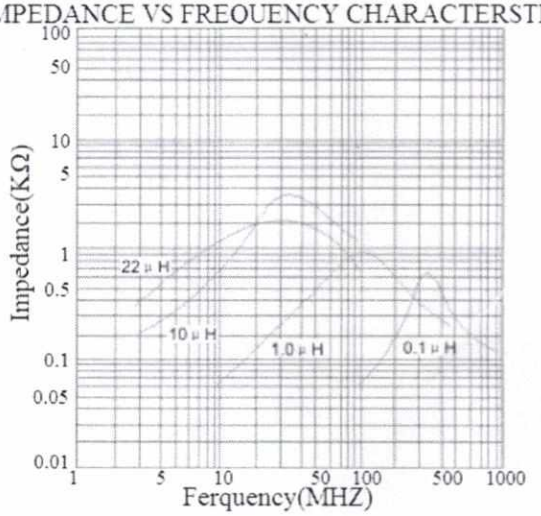
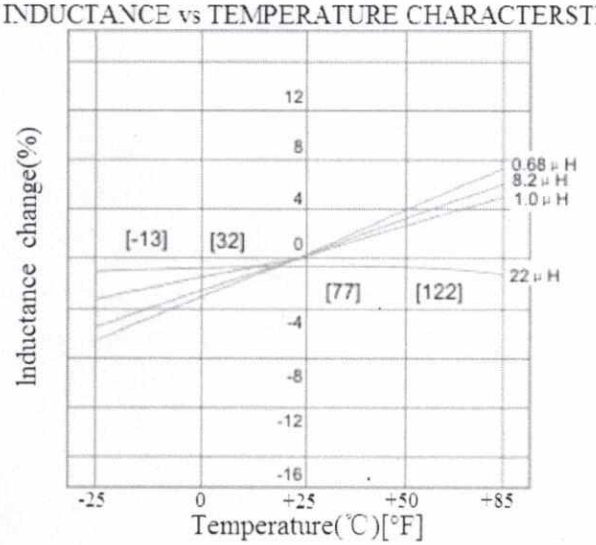
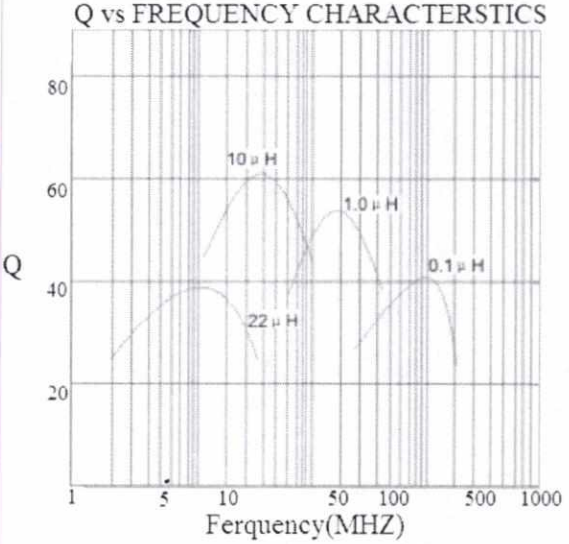


INDUCTANCE vs TEMPERATURE CHARACTERSTICS



Q vs FREQUENCY CHARACTERSTICS



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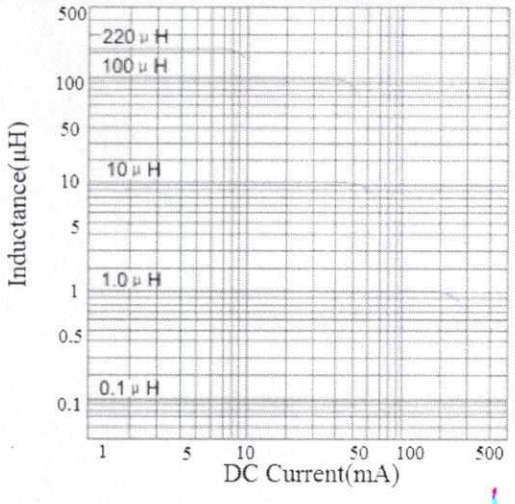
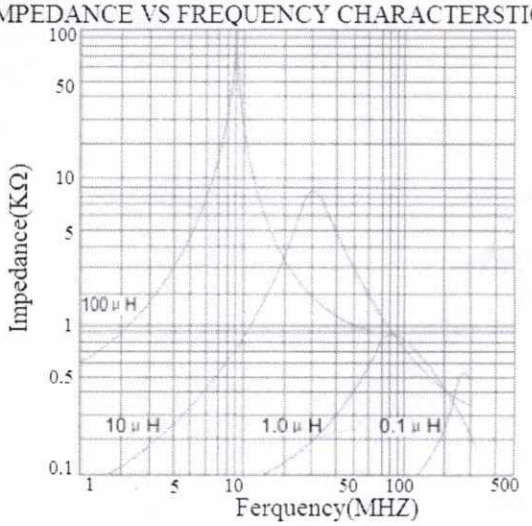
深圳振华富电子有限公司
SHENZHEN ZHENHUA FERRITE & CERAMIC ELECTRONICS CO., LTD

CI3216 TYPE

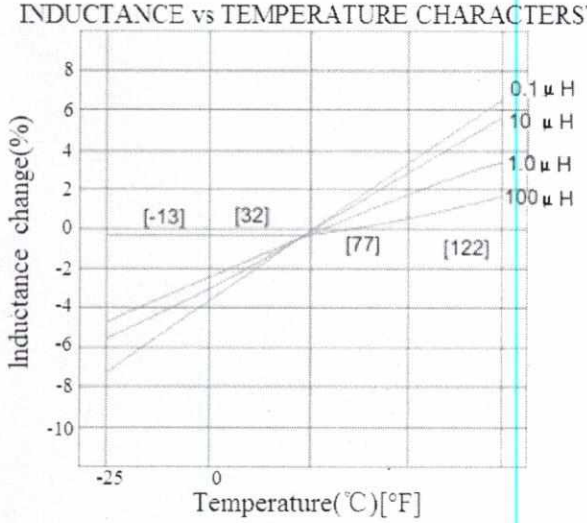
INDUCTANCE VS DC CURRENT CHARACTERSTICS



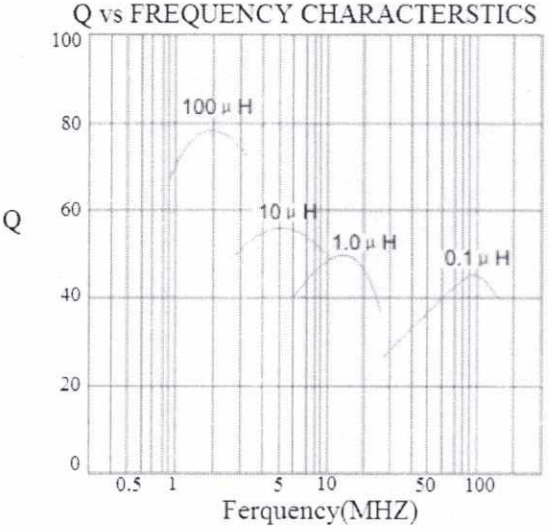
IMPEDANCE VS FREQUENCY CHARACTERSTICS



INDUCTANCE vs TEMPERATURE CHARACTERSTICS



Q vs FREQUENCY CHARACTERSTICS



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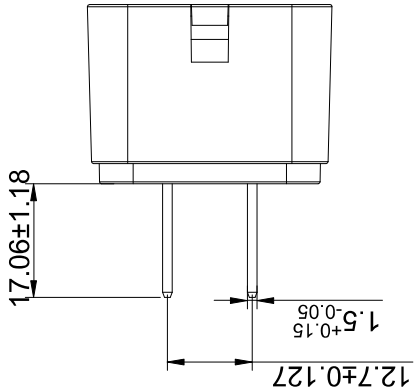
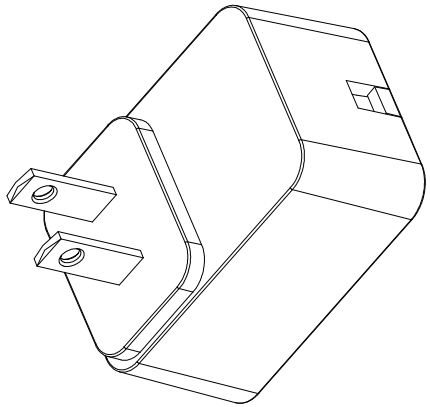
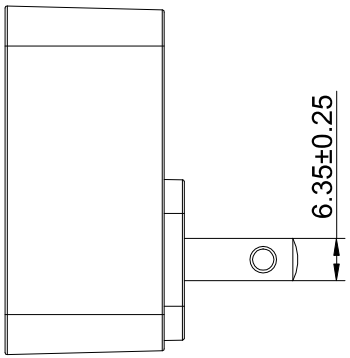
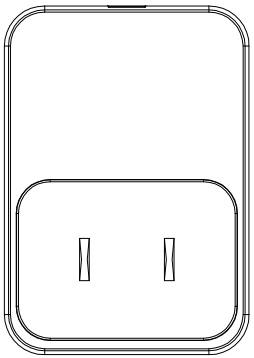
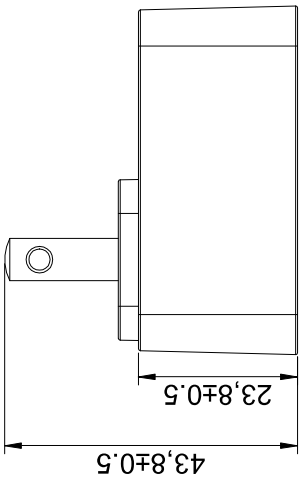
The following Page(s) are related to Miscellaneous-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

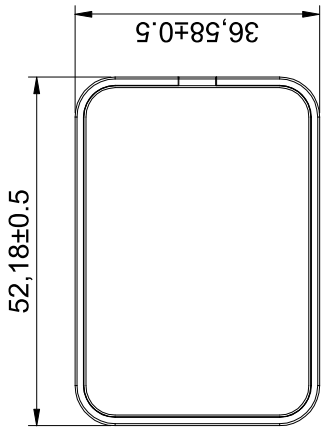


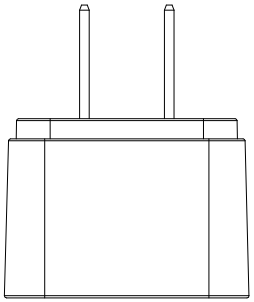










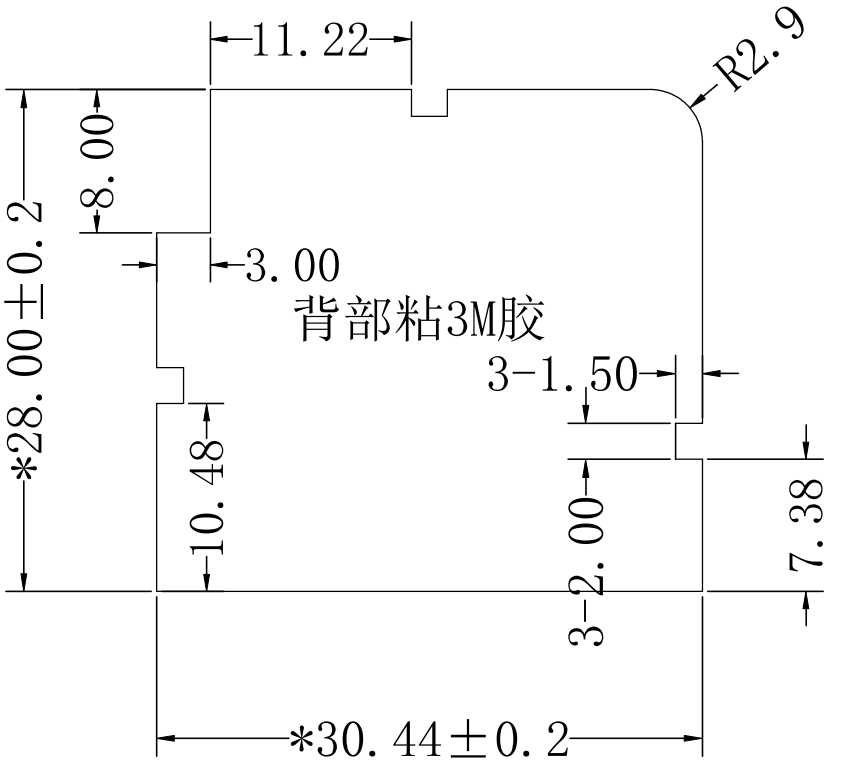


外壳材质/ shell materia：
PC 耐温：120℃/ temperature resistance 120℃

KEYU	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD.		
linear dimension 0＜L≤10 ±0.10 10＜L≤30 ±0.15 30＜L≤100 ±0.20 100＜L ±0.30	Angle ±0.3°	Product Name: KA12H	Fiant:
		Applicable Model：	Confirm:
		Part Material：	Check:
unit：mm		Process Treatment：	Approval:
PCS： /	Edition:A	Part Number：	
		Drawing Number：	

The following Page(s) are related to Miscellaneous-02. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

版次	更改说明	设计	审核	日期
A	首版发行			20210810
B	右侧缺口上移2.5mm			20210910

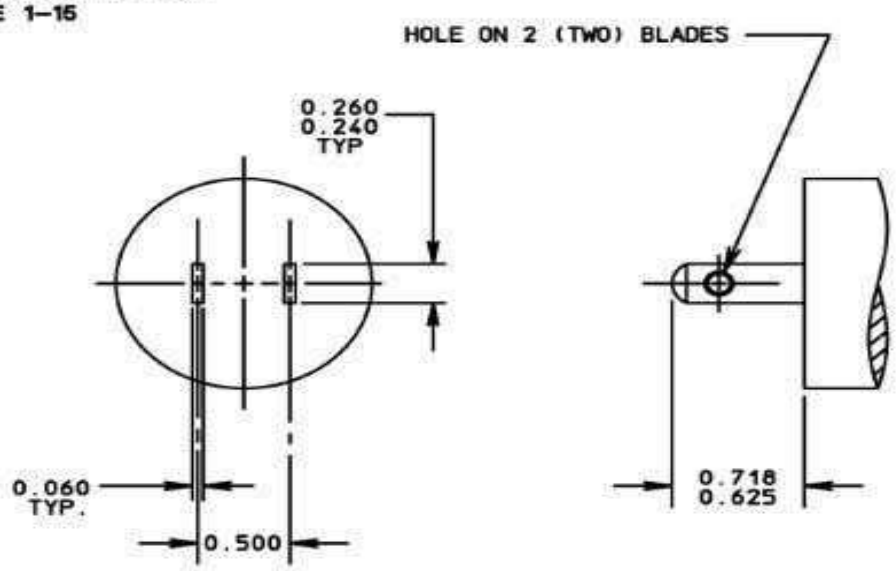


说明:

1. 材质:FR-700,厚度:0.43±0.05mm;
2. 安规要求:UL94V-0;
3. 颜色:黑色.
4. 材质须符合ROHS环保要求

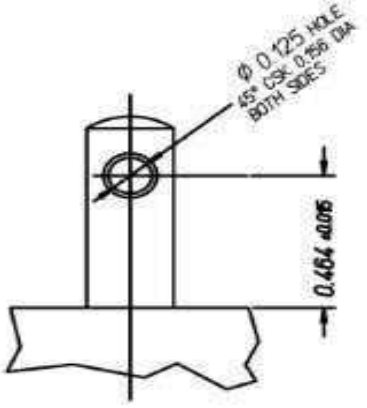
未注公差		KEYU 深圳市科宇电源科技有限公司		
线性尺寸 L <L≤10 ±0.10 <L≤30 ±0.15 30<L≤100 ±0.20 100<L ±0.30	角度 ±0.3°	产品名称: 麦拉片	作成	
		适用机种: KA12H	确认	
		零件材质: 无	审核	
单位: mm	比例: 1:1	工艺处理: 无	批准	
数量: /	版本: B	物料编号: 1306010098		图幅 A4
受控编号		第 1 张 共 1 张	图纸编号:	

NON–POLARIZED PLUG
FIGURE 1–15



FLAT BLADE HOLE LOCATIONS

Unit: inch



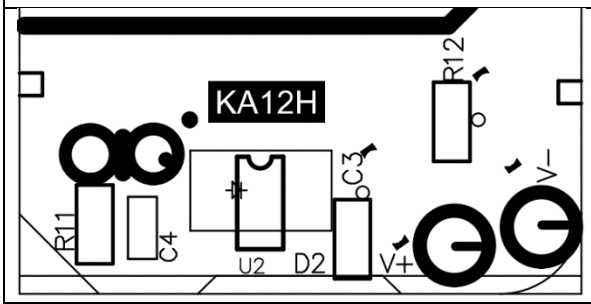
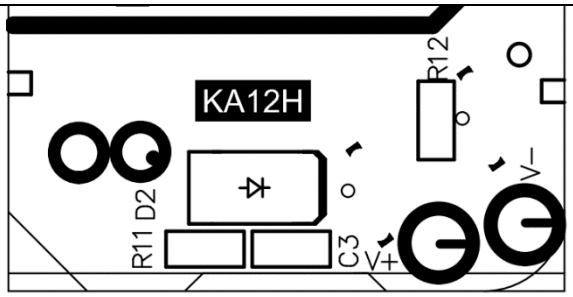
NOTES:

1- HOLE IN FLAT BLADE IS OPTIONAL, AND IT IS INTENDED FOR MANUFACTURING PURPOSES ONLY. HOWEVER IF USED IT MUST BE LOCATED AS PER DIMENSIONS SHOWN ABOVE.

The following Page(s) are related to Miscellaneous-04. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

Model Differences:

1. All models in KA12H-xxxyyyyUS series are identical to each other except for the model name, output ratings, plug type, PCB layout type (see below), some secondary components, and transformer secondary winding.

Used for 4.5VDC to 7.0VDC output voltage	Used for 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC output voltage
Secondary PCB layout: Type A(D2 or U2 or U2+C4)	Secondary PCB layout: Type B(D2)
	

2. Model list:

Model	Rated input	Rated output voltage (VDC)	Rated output current (A)	Max. Rated output power (W)	Transformer (T1) type
KA12H-xxxyyyyUS, KA12H-xxxyyyyUSH, KA12H-xxxyyyyDE	100-240V~, 50/60Hz, 0.4A Max.	4.5-7.0	0.10-2.00	10.0	KA12H-5V
		9.0-15.0	0.10-1.00	12.0	KA12H-12V
		18.0-27.0	0.10-0.60	12.15	KA12H-24V
xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC, in step of 0.1V; yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A					

3. Due to the similarities between models, the following models were selected for electrical and mechanical tests in order to represent the whole series:
- KA12H-2700450US (For electrical tests);
- KA12H-1201000US (For electrical tests);
- KA12H-0502000US, KA12H-0502000USH (For electrical tests).
- KA12H-2700450US, KA12H-2700450USH, KA12H-2700450KR, KA12H-2700450KRH, KA12H-2700450CN, KA12H-2700450CNH, KA12H-2700450EU, KA12H-2700450EUH (For mechanical tests)

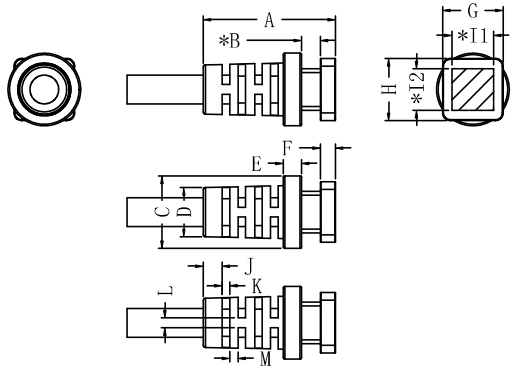
4. The models KA12H-xxxyyyyUSH series are identical to the models KA12H-xxxyyyyUS except for the enclosure type, mylar sheet and model name.
- models KA12H-xxxyyyyUSH series are vertical type enclosure without mylar sheet;
- models KA12H-xxxyyyyUS series are horizontal type enclosure with mylar sheet.

5. The models KA12H-xxxyyyyDE series are identical to the models KA12H-xxxyyyyUS except for the enclosure size, mylar sheet size, model name and plug type.
- models KA12H-xxxyyyyUS series are provided with integral plug;
- models KA12H-xxxyyyyDE series are provided with detachable plug.

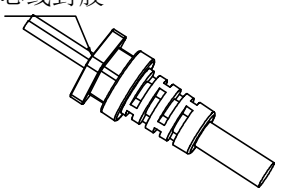
6. The models KA12H-xxxyyyyDE series are identical to the models KA12H-xxxyyyyUSH except for the enclosure type, mylar sheet, model name and plug type.
- models KA12H-xxxyyyyUSH series are vertical type enclosure with integral plug;
- models KA12H-xxxyyyyDE series are horizontal type with detachable plug and mylar sheet.

The following Page(s) are related to Miscellaneous-05. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

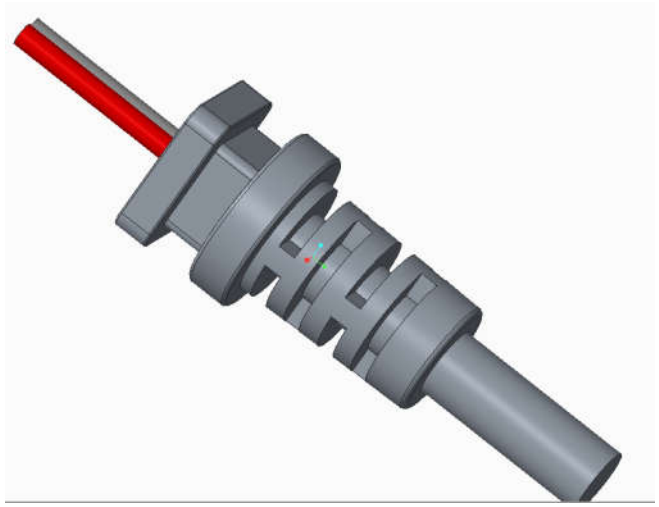
常规SR5.5*5.5



尾部芯线封胶



注：带“*”为重点管控尺寸



尺寸管控及检验 （OK：√ NG：× ）厂商开模严格按3D图纸

序号	厂商开模尺寸	来料管控尺寸	C1	C2	C3	C4	C5	C6	C7	C8
A	17.5	17.5±0.3								
*B	2.5	$2.5^{+0.1}_{-0.15}$								
C	∅9.6	∅9.6±0.3								
D	∅6.5	∅6.5±0.3								
E	2.4	2.4±0.2								
F	2.0	2.0±0.2								
G	8.0	8.0±0.2								
H	8.2	8.2±0.2								
*I1	5.5	5.5±0.15								
*I2	5.5	5.5±0.15								
J	2.5	2.5±0.2								
K	1.0	1.0±0.2								
L	1.3	1.3±0.2								
M	1.1	1.1±0.2								

正常适用范围

线型 \ 线号	16#	18#	20#	22#	24#	26#					
2464	×	×	√	√	√	√					
2468	×	√	√	√	√	√					
1185	×	√	√	√	√	√					

科宇模号:KYSR-001

作成	确认	审核	批准
蓝文兴			

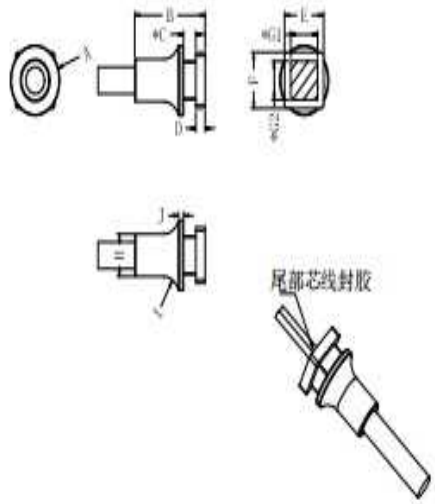
制作时间：2020.08.14

文件名称：常规SR5.5*5.5

图幅	比例	单位	版本
A4	1:1	MM	1.0

仿苹果SR5.5*5.5

尺寸管控及检验 (OK: √ NG: ×) 厂商开模严格按3D图纸



注：带“*”为重点管控尺寸

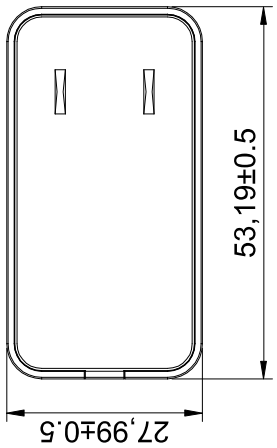
正常适用范围

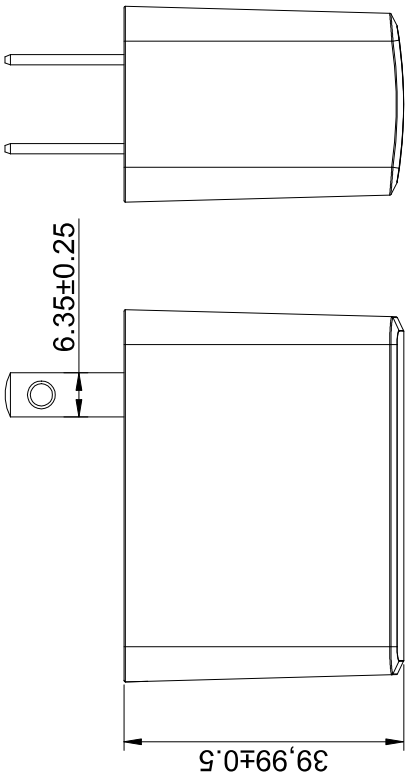
线号 / 线型	16#	18#	20#	22#	24#	26#
2464	X	X	√	√	√	√
2468	X	√	√	√	√	√
1185	X	√	√	√	√	√

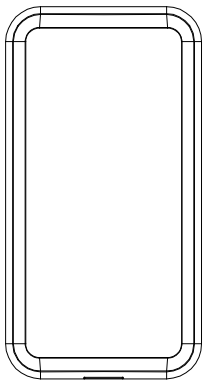
序号	厂商开模尺寸	来料管控尺寸	C1	C2	C3	C4	C5	C6	C7	C8
A	Ø10	Ø10±0.2								
B	14.4	14.4±0.3								
*C	2.5	$2.5^{+0.1}_{-0.15}$								
D	1.9	1.9±0.2								
E	8.0	8.0±0.2								
F	8.0	8.0±0.2								
*G1	5.5	5.5±0.15								
*G2	5.5	5.5±0.15								
H	Ø6	Ø6±0.2								
I	R3.4	R3.4±0.2								
J	1.1	1.1±0.2								

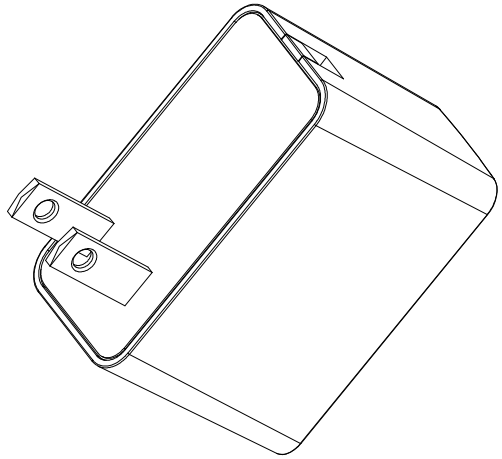
科宇模号:KYSR-004			制作时间	文件名称
			2020.08.18	仿苹果SR5.5*5.5
作成	确认	审核	批准	图幅 / 比例 / 单位 / 版本
蓝文兴				A4 / 1:1 / MM / 1.0

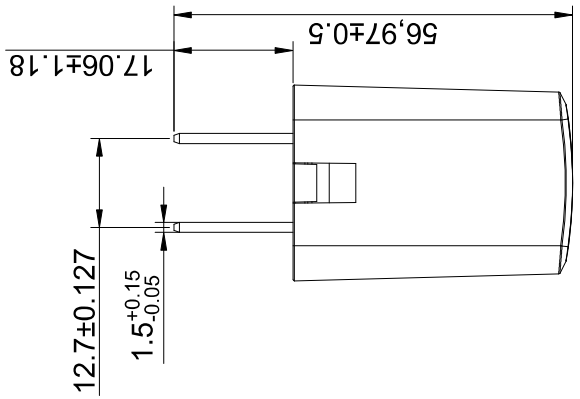
The following Page(s) are related to Miscellaneous-07. The next supplement, if applicable, will be identified with a new Supplement Page Heading.







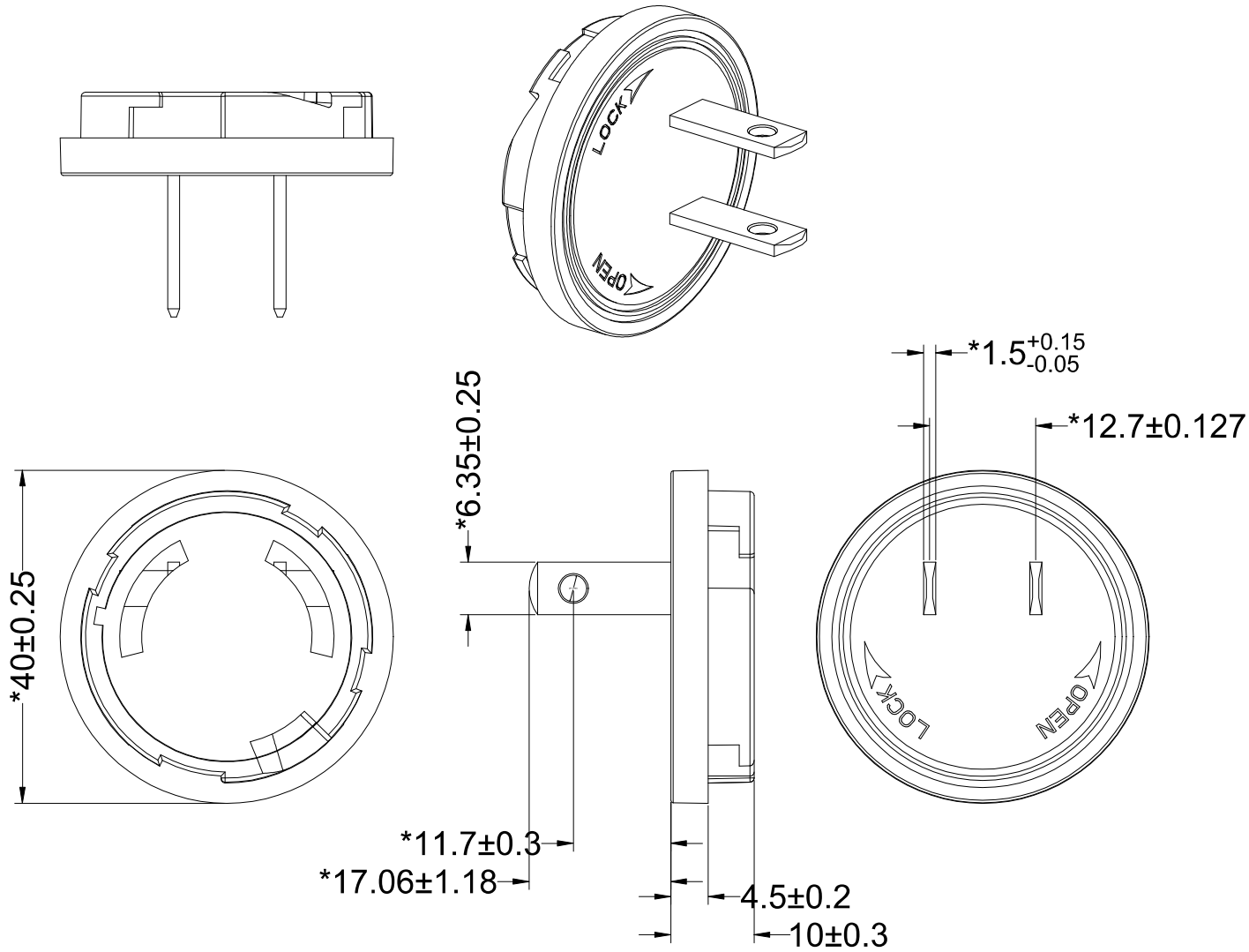




外壳材质/ shell materia：
PC 耐温：120℃/ temperature resistance 120℃

KEYU	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD.		
linear dimension 0＜L≤10 ±0.10 10＜L≤30 ±0.15 30＜L≤100 ±0.20 100＜L ±0.30	Angle ±0.3°	Product Name: KA12H(立式)	Fiant:
		Applicable Model：	Confirm:
		Part Material：	Check:
unit：mm		Process Treatment：	Approval:
PCS： /	Edition:A	Part Number：	
		Drawing Number：	

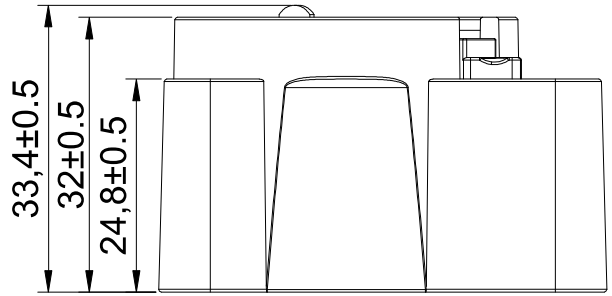
The following Page(s) are related to Miscellaneous-08. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

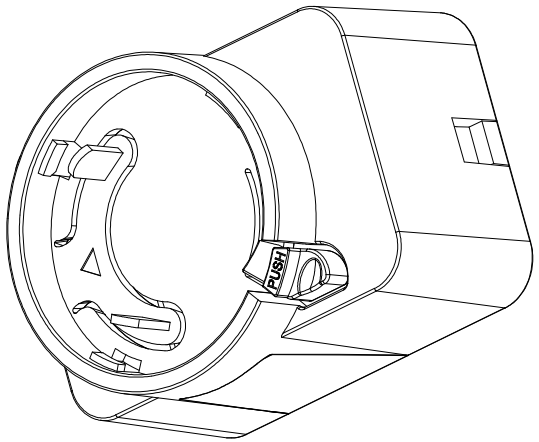


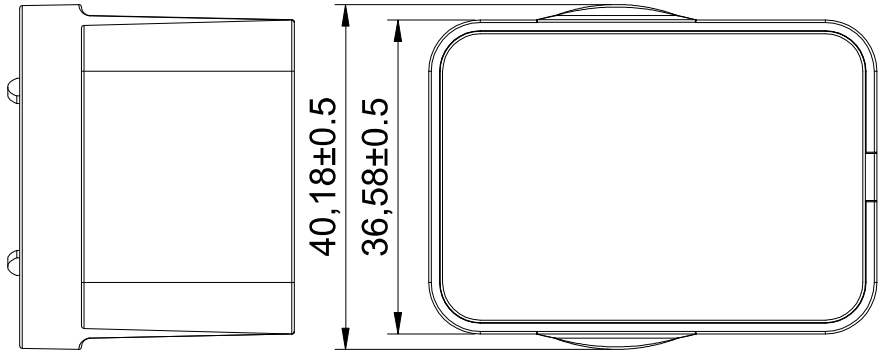
外壳材质/ shell materia：

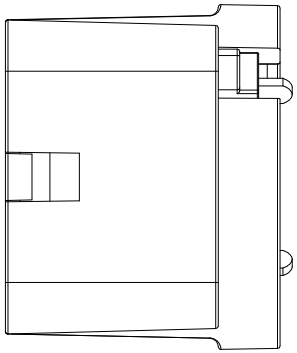
PC 耐温：120℃/ temperature resistance 120℃

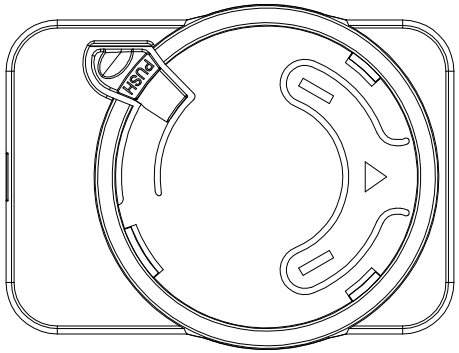
KEYU	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD.		
linear dimension 0＜L≤10 ±0.10 10＜L≤30 ±0.15 30＜L≤100 ±0.20 100＜L ±0.30	Angle ±0.3°	Product Name: 美规转换头	Fiant:
		Applicable Model：	Confirm:
		Part Material：	Check:
unit：mm		Process Treatment：	Approval:
PCS： /	Edition:A	Part Number：	
		Drawing Number：	

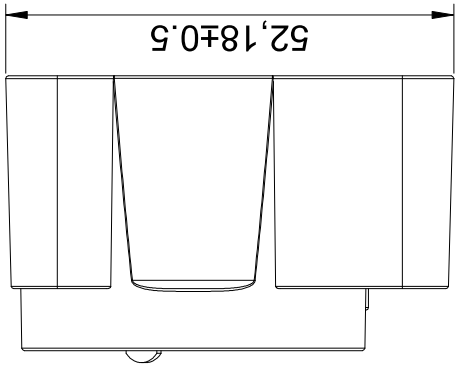












外壳材质/ shell materia：
PC 耐温：120℃/ temperature resistance 120℃

KEYU	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD.		
linear dimension 0＜L≤10 ±0.10 10＜L≤30 ±0.15 30＜L≤100 ±0.20 100＜L ±0.30	Angle ±0.3°	Product Name: KA12H	Fiant:
		Applicable Model：	Confirm:
		Part Material：	Check:
unit：mm		Process Treatment：	Approval:
PCS： /	Edition:A	Part Number：	
		Drawing Number：	

The following Page(s) are related to Miscellaneous-09. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

版次	更改说明	设计	审核	日期
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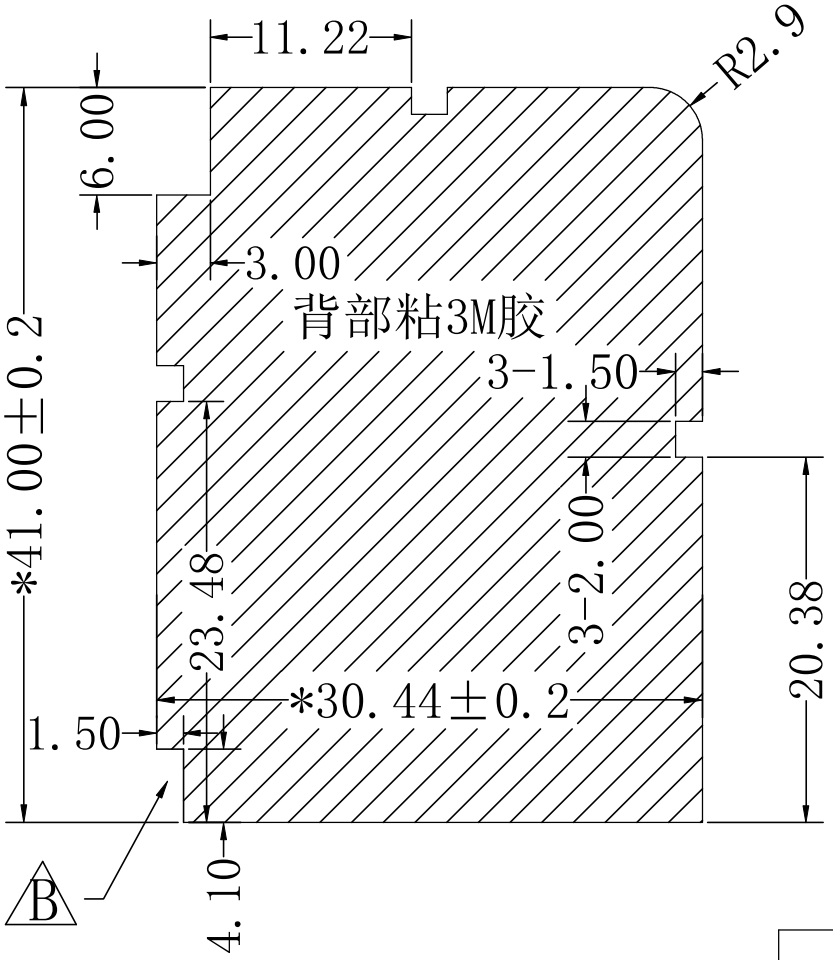
B	左下角增加缺口			20220228



说明:

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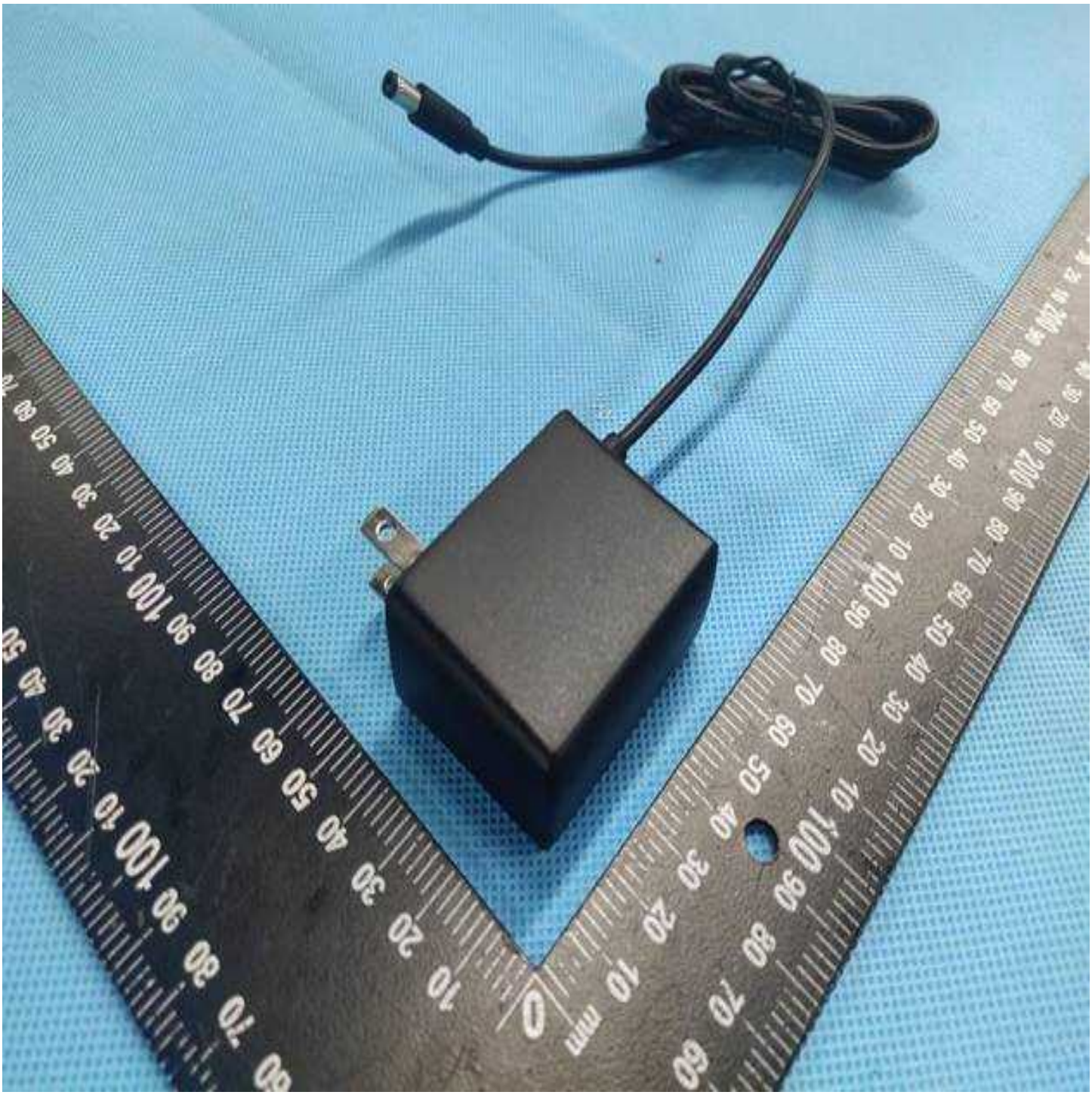
2. 安规要求:UL94V-0;
3. 颜色:黑色.
4. 材质须符合ROHS环保要求

未注公差		KEYU 深圳市科宇电源科技有限公司		
线性尺寸 L <L≤10 ±0.10 <L≤30 ±0.15 30<L≤100 ±0.20 100<L ±0.30	角度 ±0.3°	产品名称: 麦拉片	作成	
		适用机种: KA12H主体	确认	
		零件材质: 无	审核	
单位: mm	比例: 1:1	工艺处理: 无	批准	
数量: /	版本: B	物料编号: 1306010108		图幅 A4
受控编号		第 1 张 共 1 张	图纸编号:	

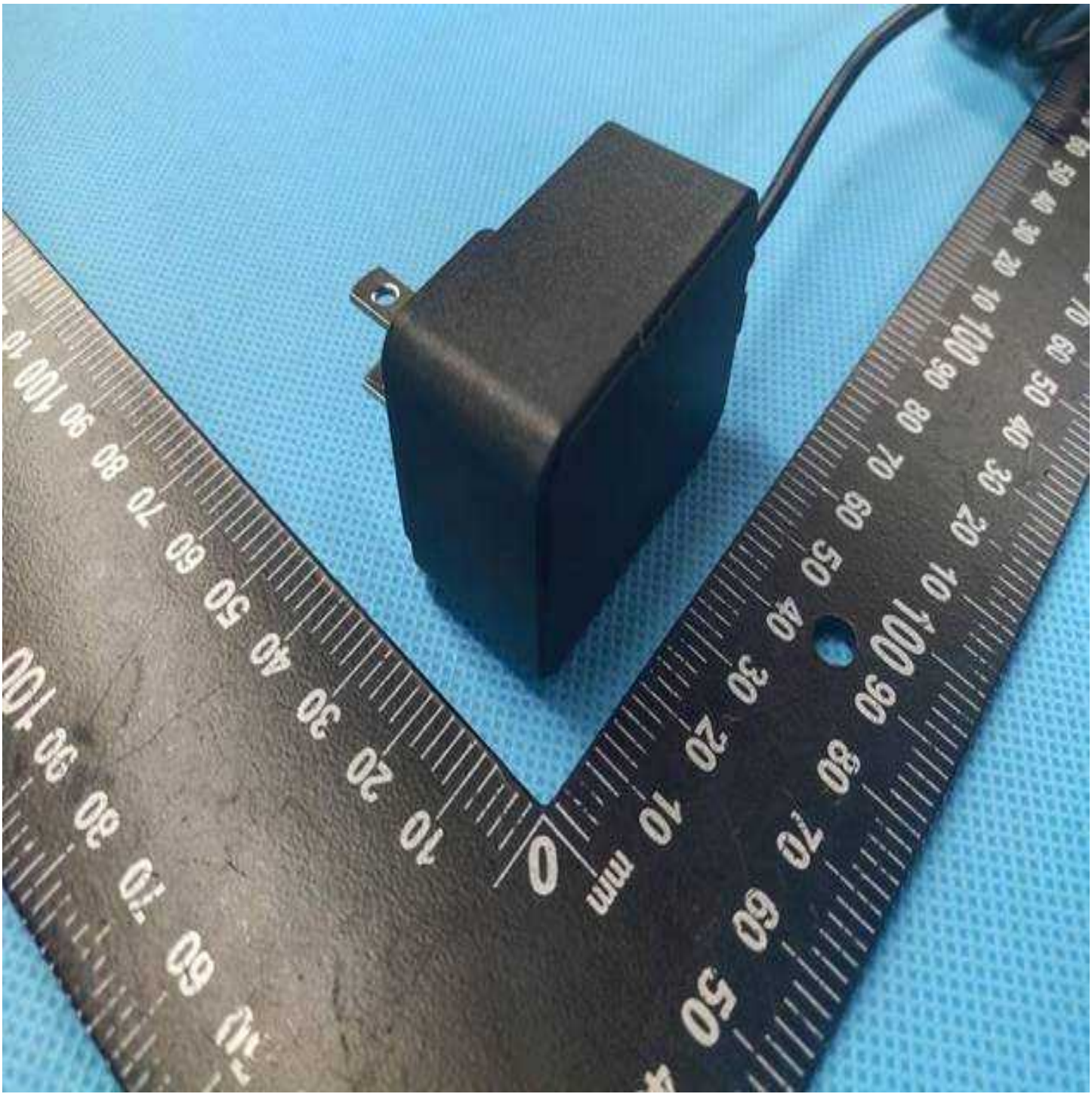
Photographs-01 Page-1



Photographs-03 Page-1

Photographs-04 Page-1


0
10
20
30
40
50
60
70
80
90
100
mm

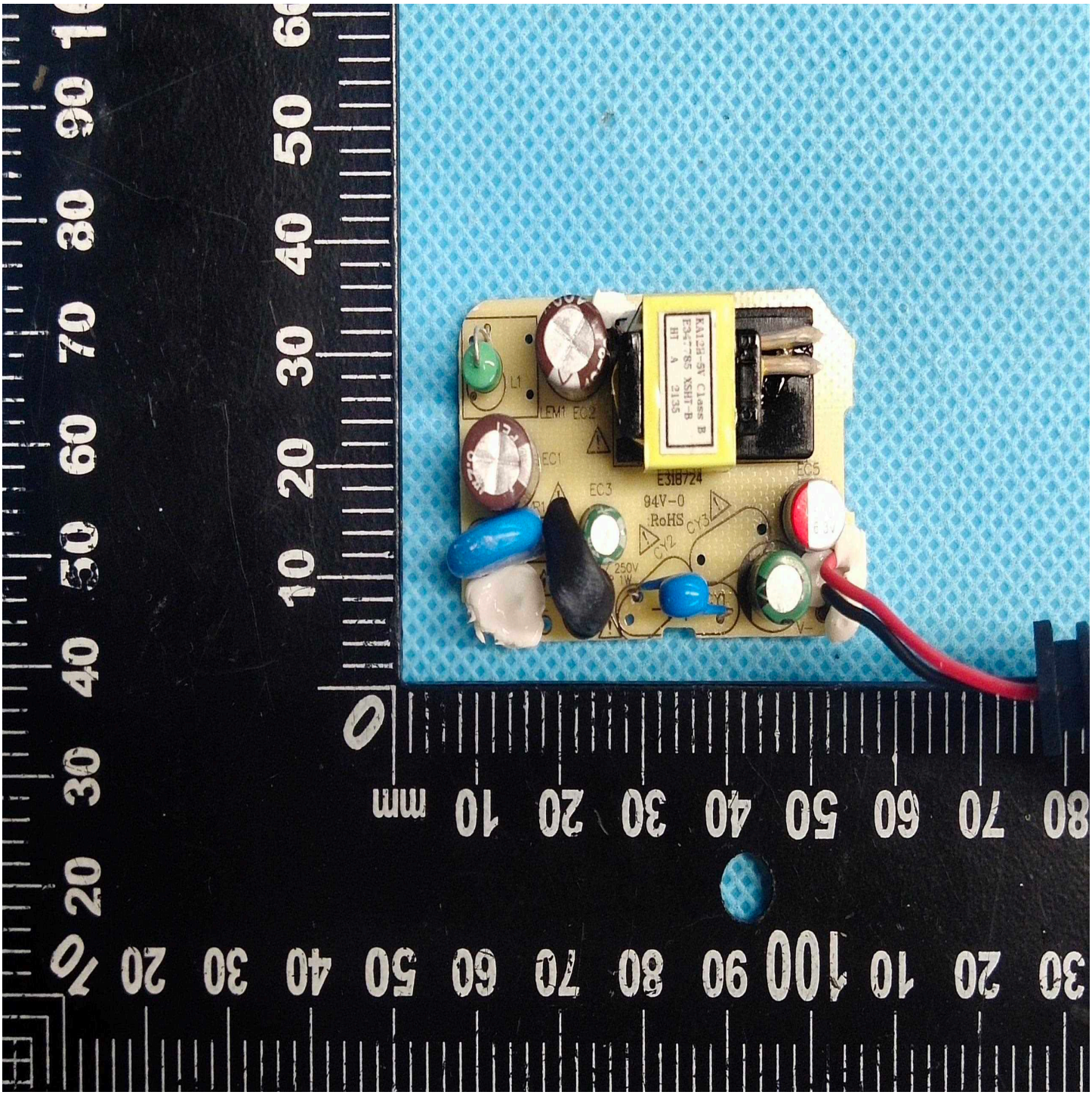

0
mm

Photographs-07 Page-1

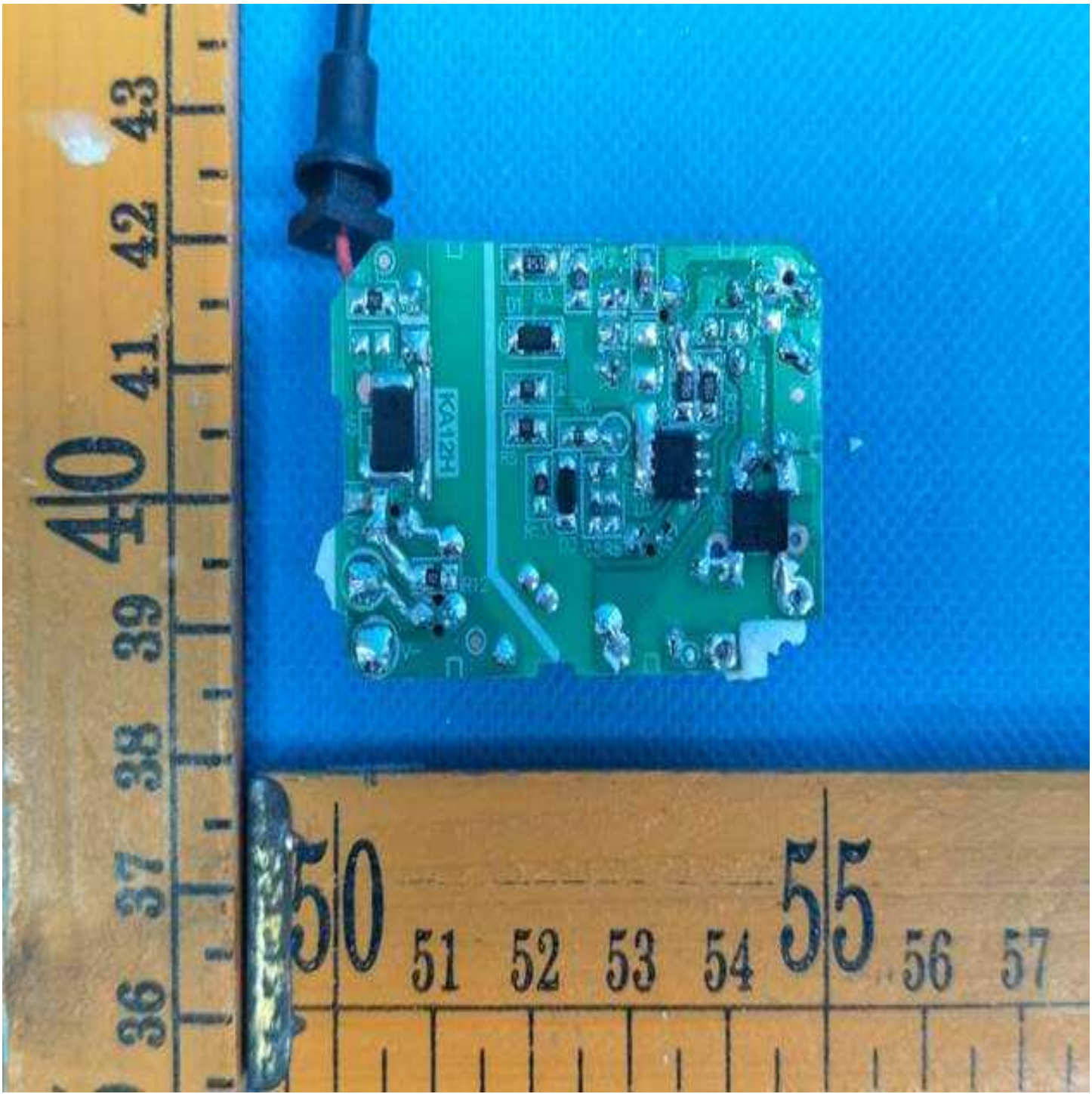
Photographs-08 Page-1


mm
0
10
20
30
40
50
60
70
80
90
100

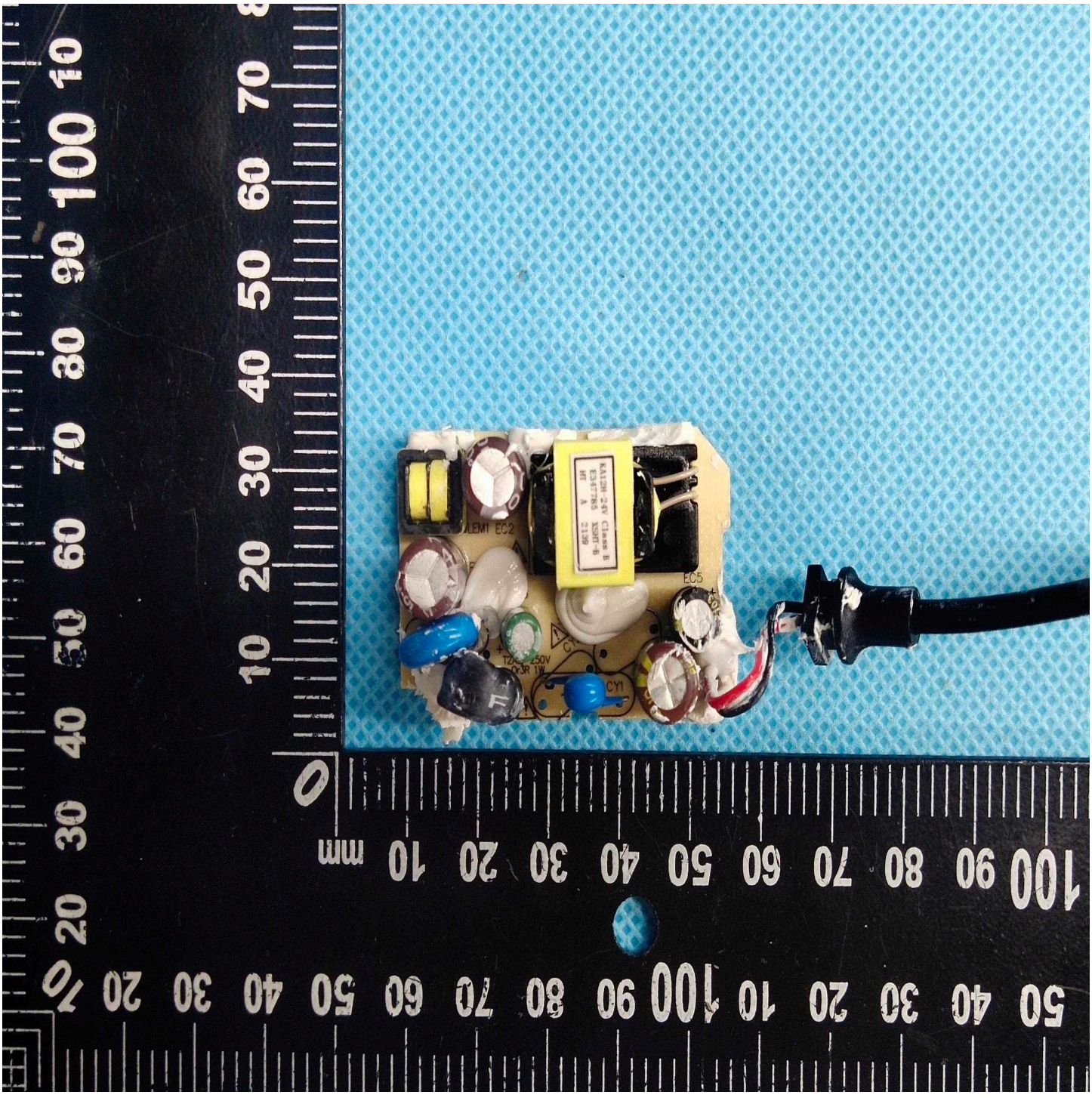
Photographs-10 Page-1



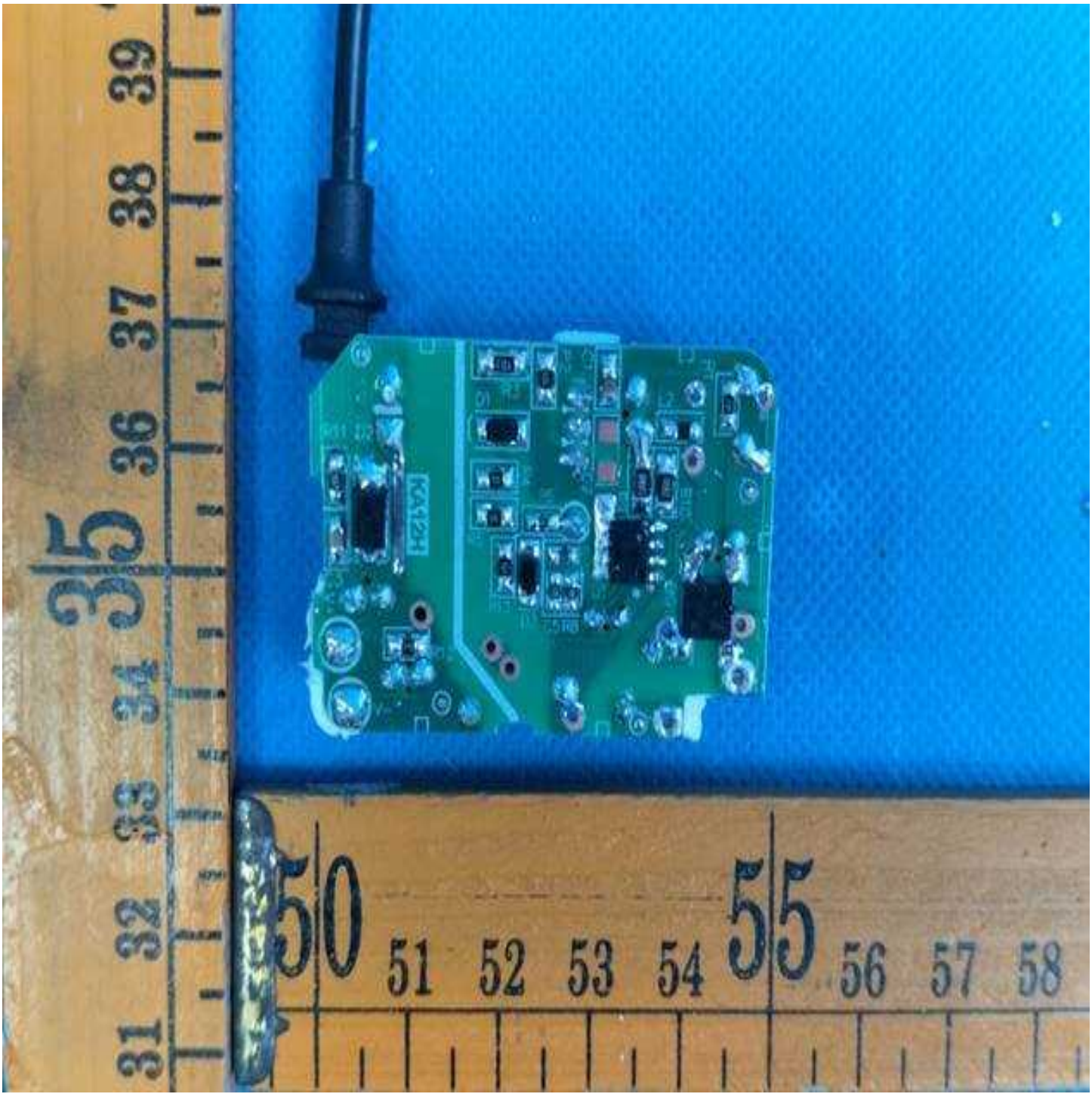
Photographs-11 Page-1

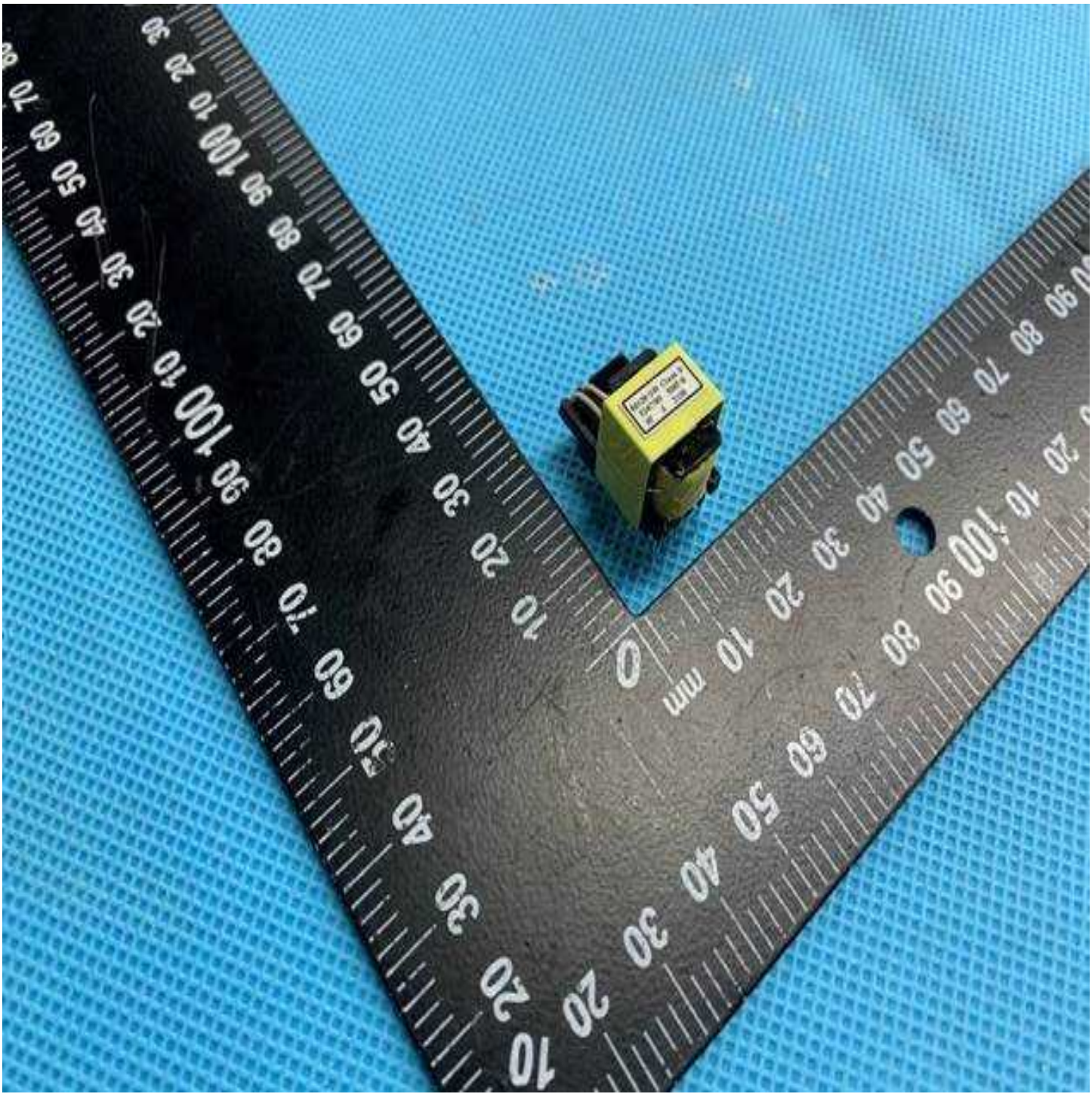


Photographs-12 Page-1

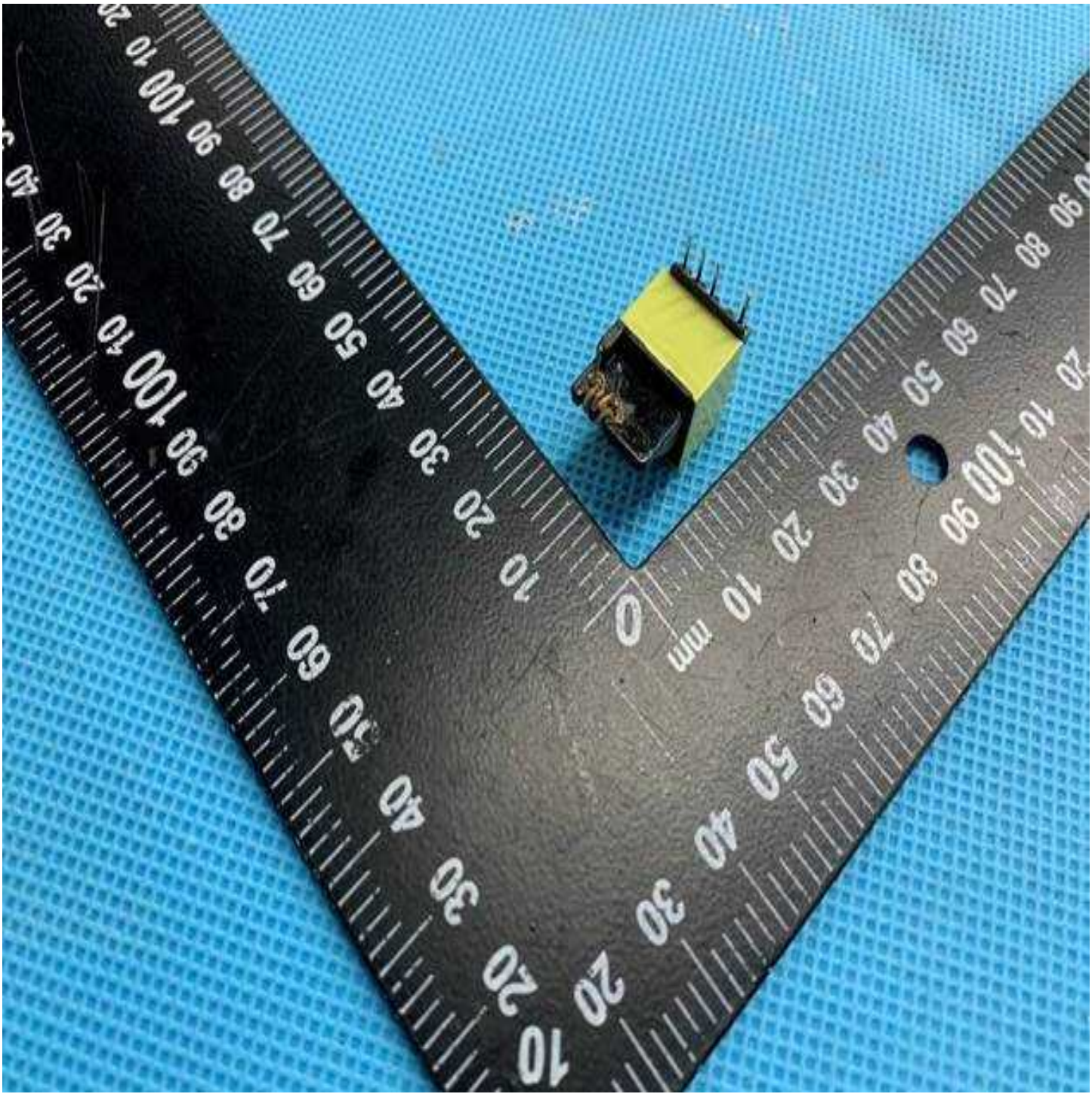


Photographs-13 Page-1

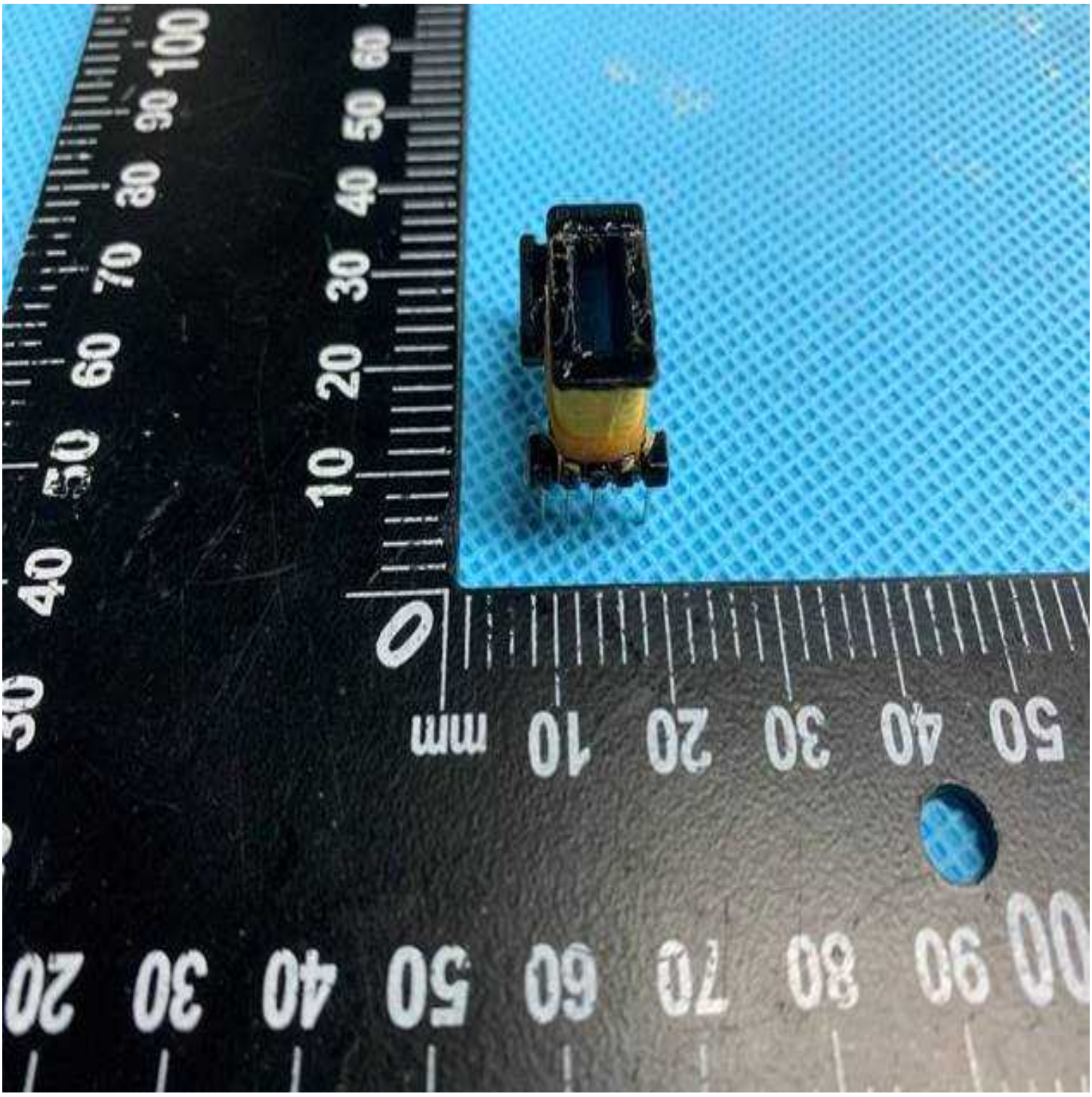


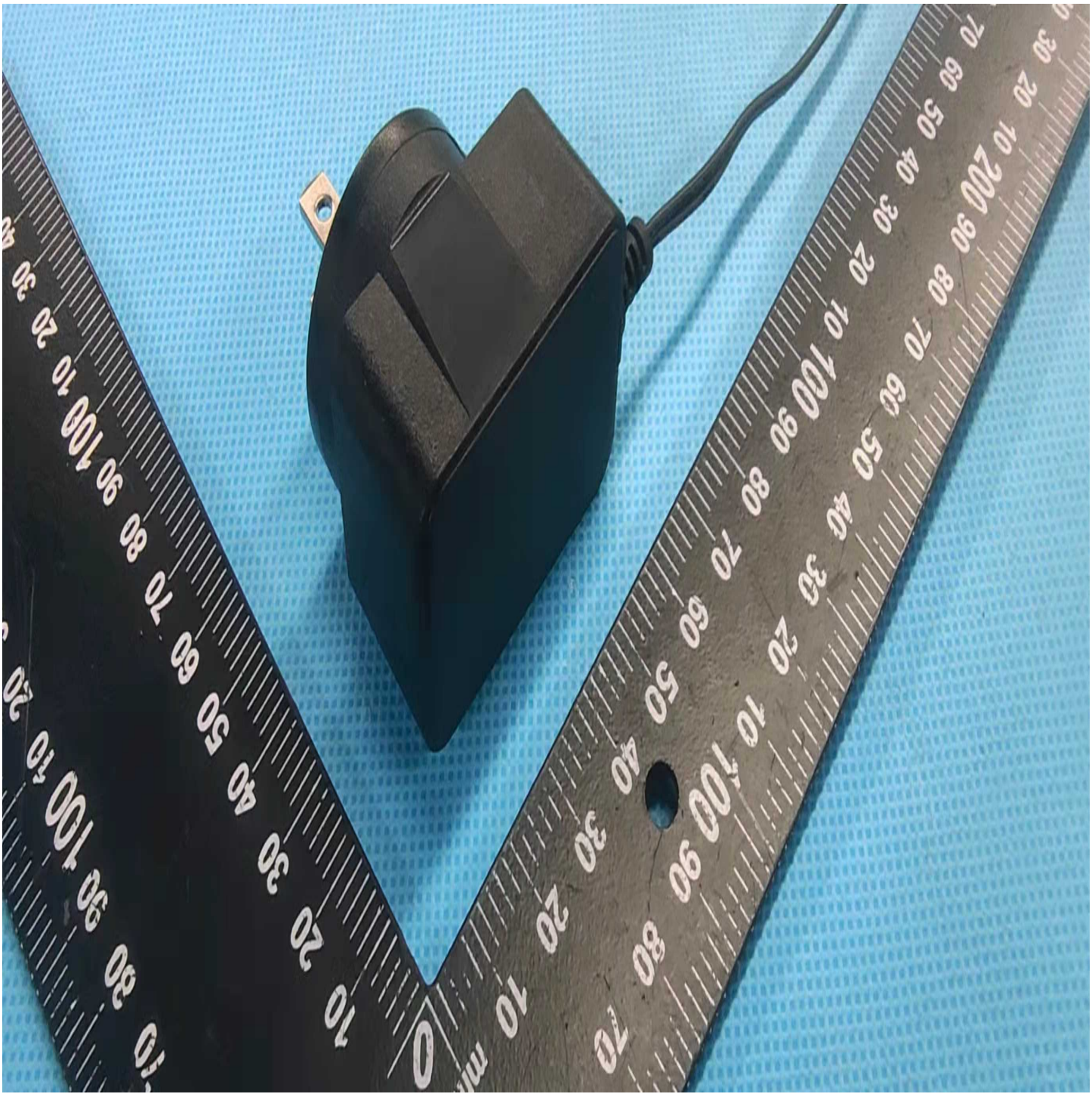

mm

Photographs-15 Page-1

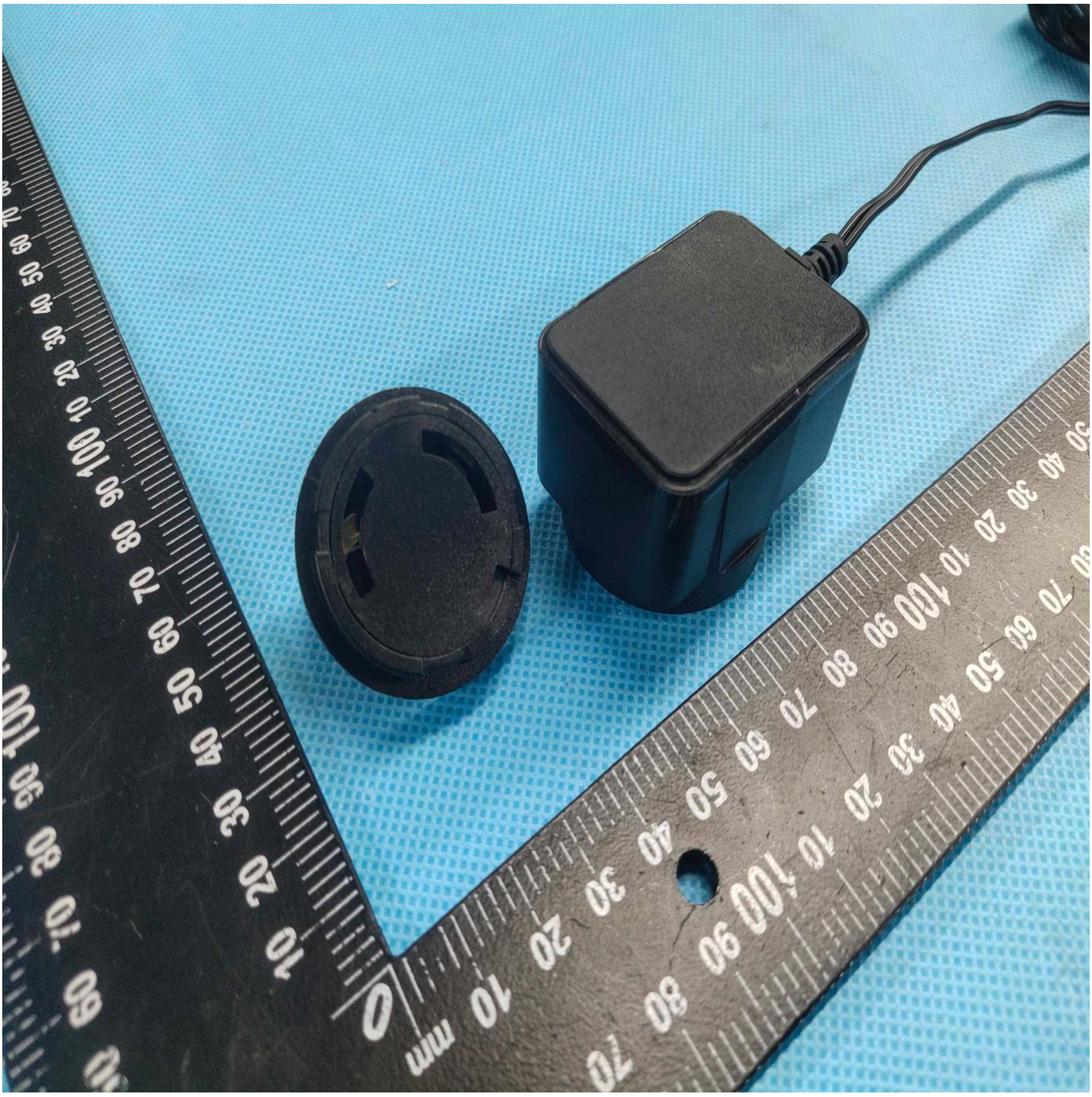


Photographs-16 Page-1



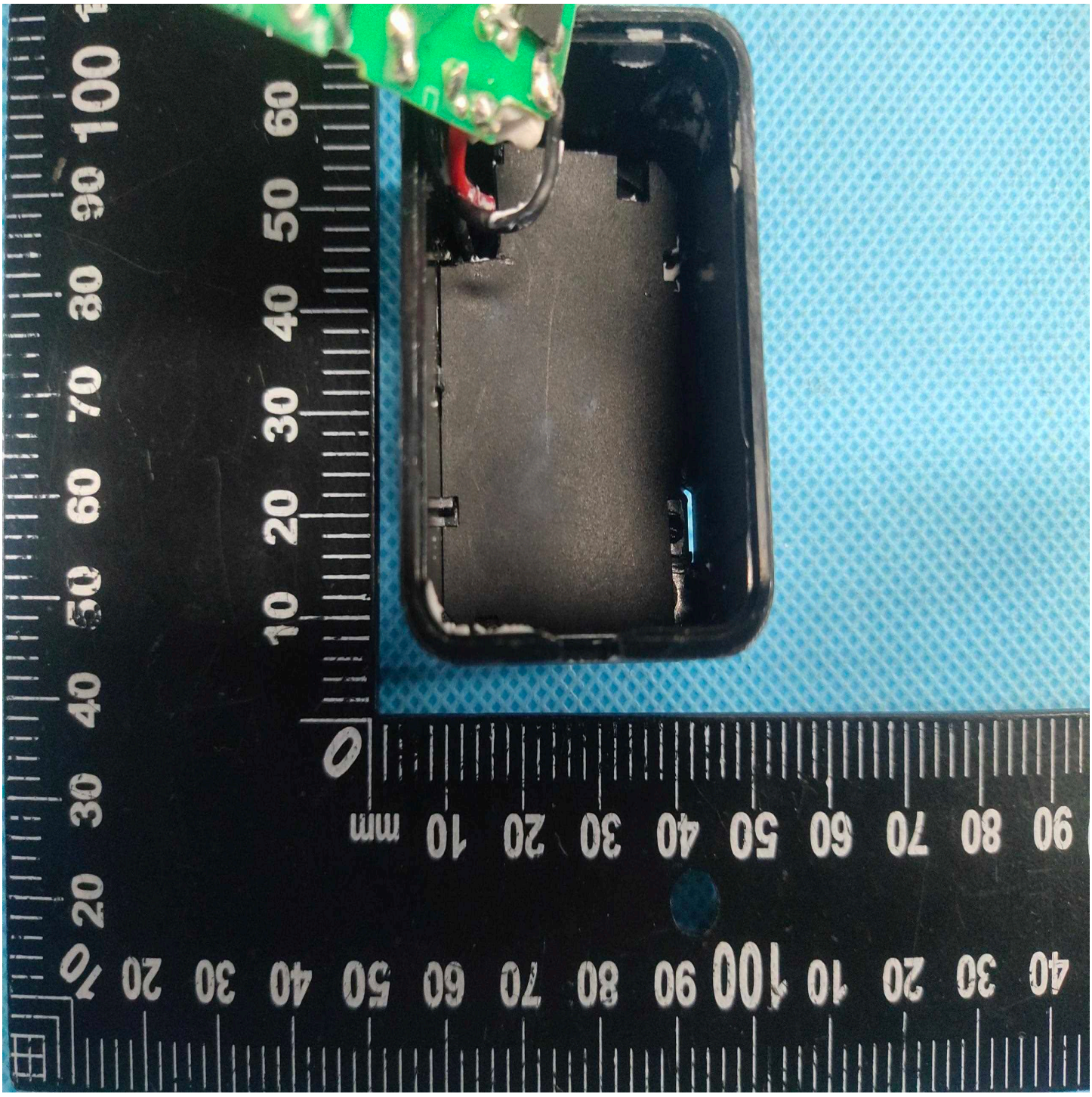


Photographs-19 Page-1

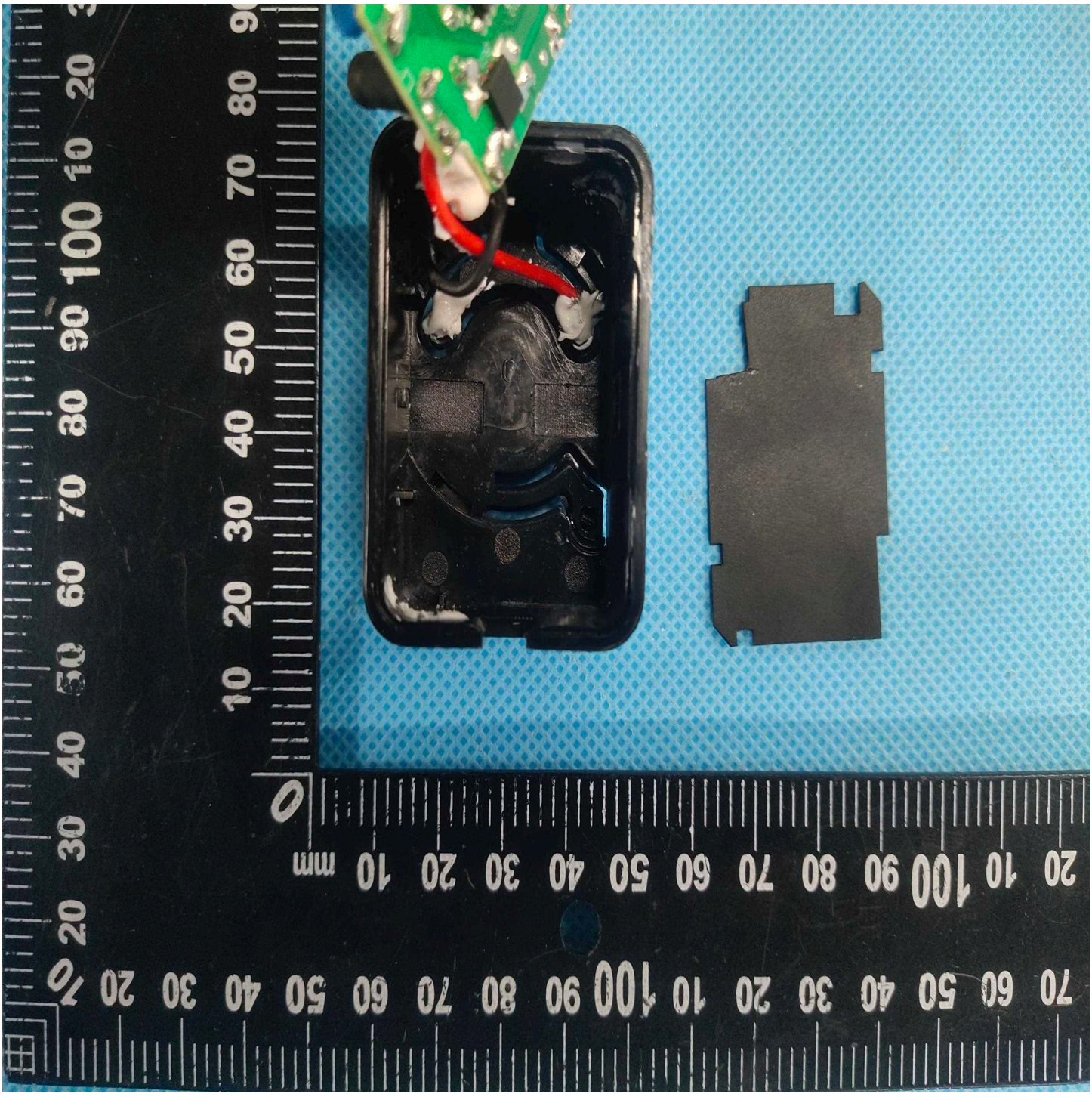


Photographs-20 Page-1

Photographs-21 Page-1



Photographs-22 Page-1



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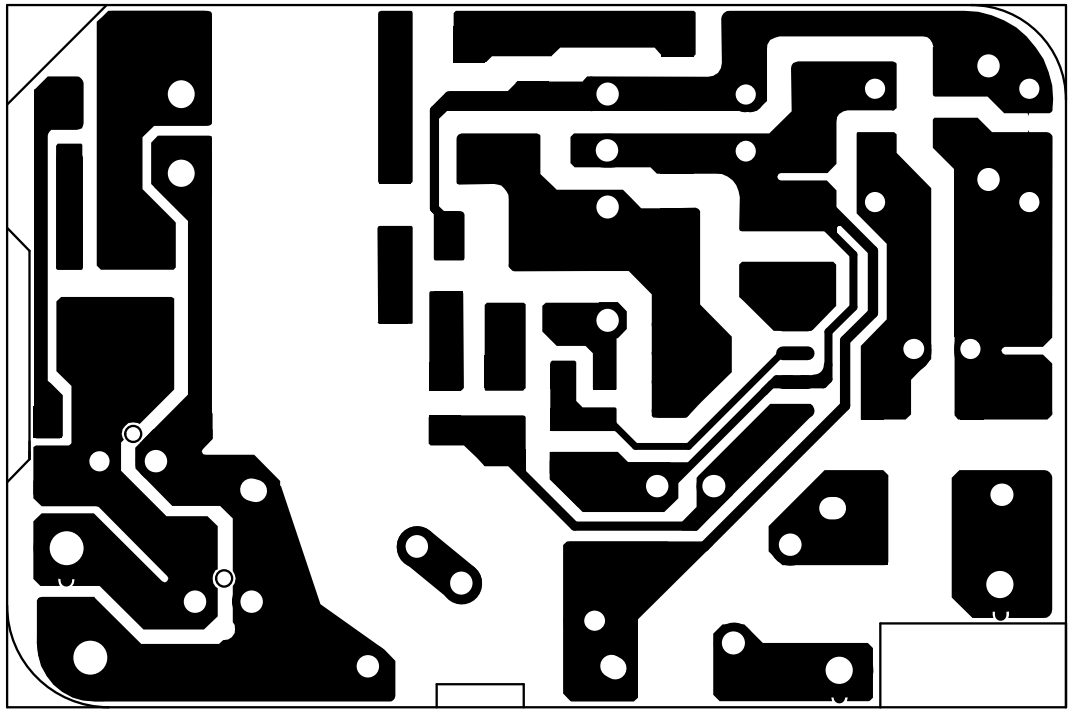
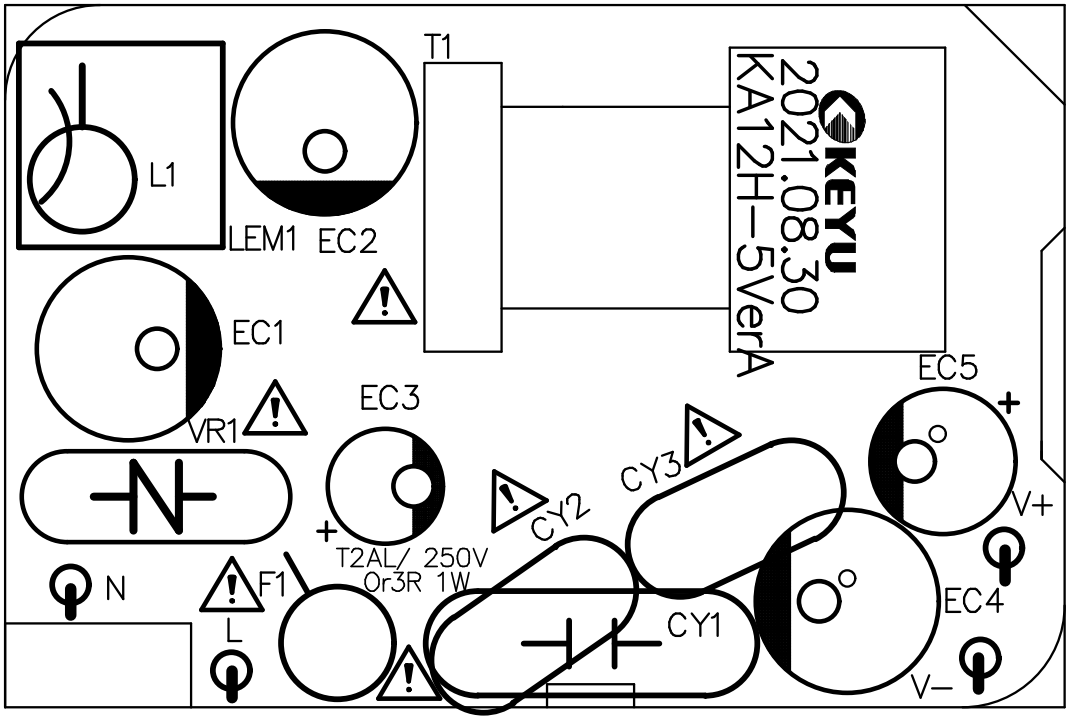
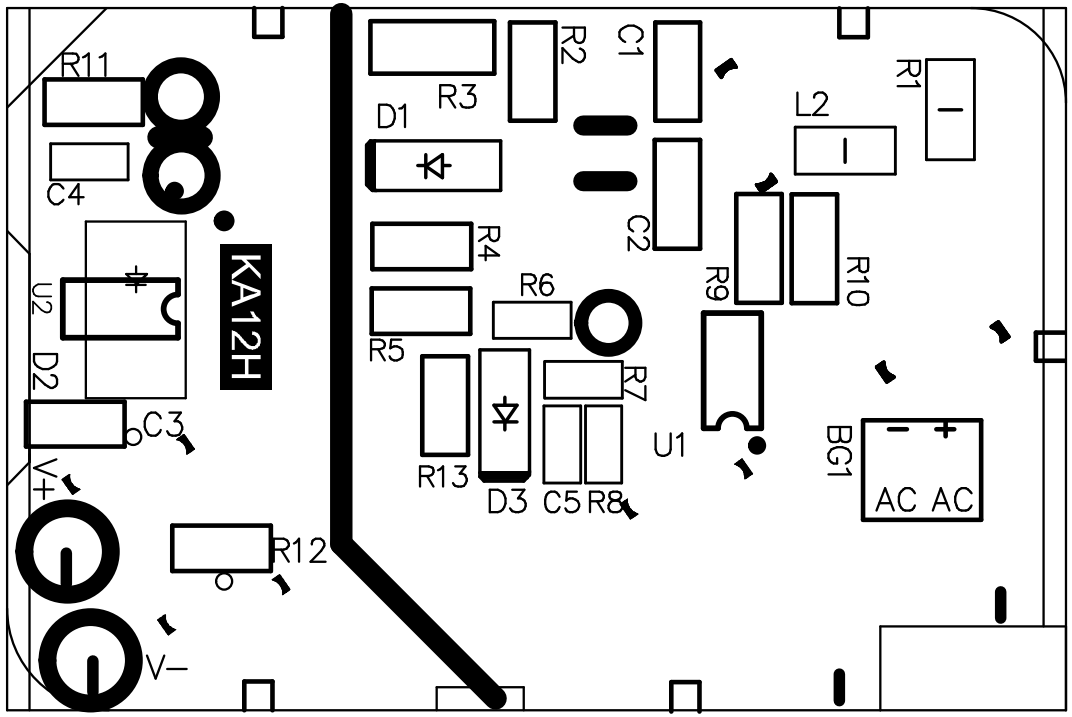



T1
L1
LEM1
EC2
EC1
VR1
EC3
EC5
V+
CY2
CY3
T2AL/ 250V
0r3R 1W
N
F1
L
CY1
EC4
V−
KEYU
2021.08.30
KA12H−5VerA


R11
C4
U2
D2
C3
V+
V–
R12
KA12H
R3
R2
C1
D1
R1
L2
C2
R4
R6
R9
R10
R5
R7
U1
R13
D3
C5
R8
BG1
AC AC

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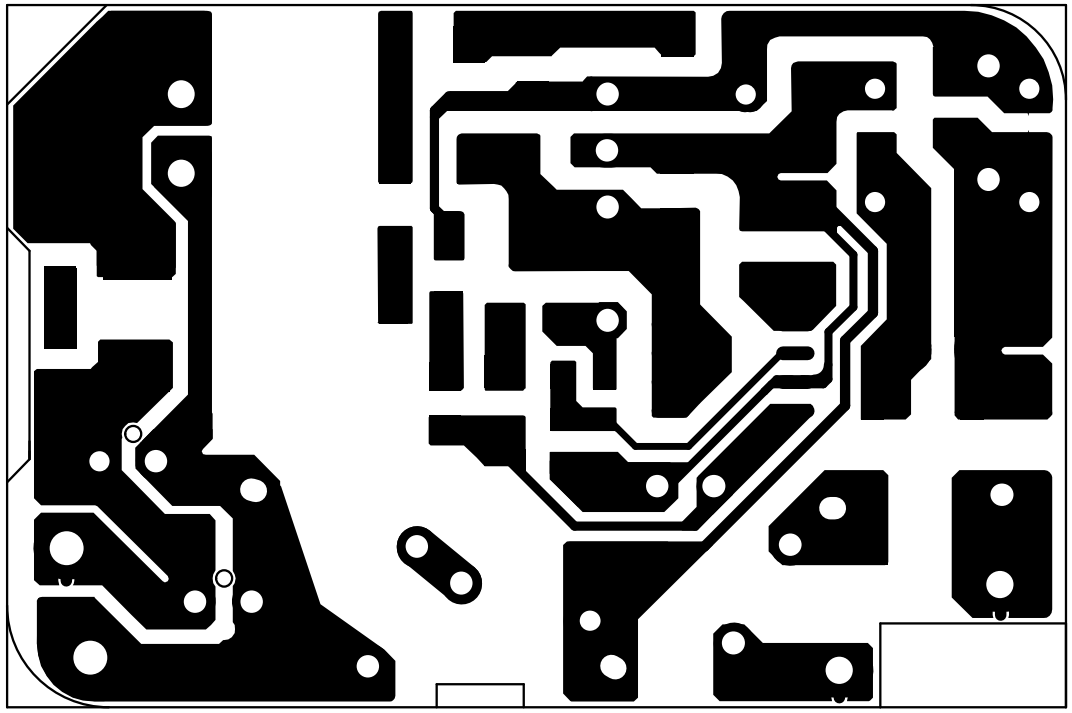
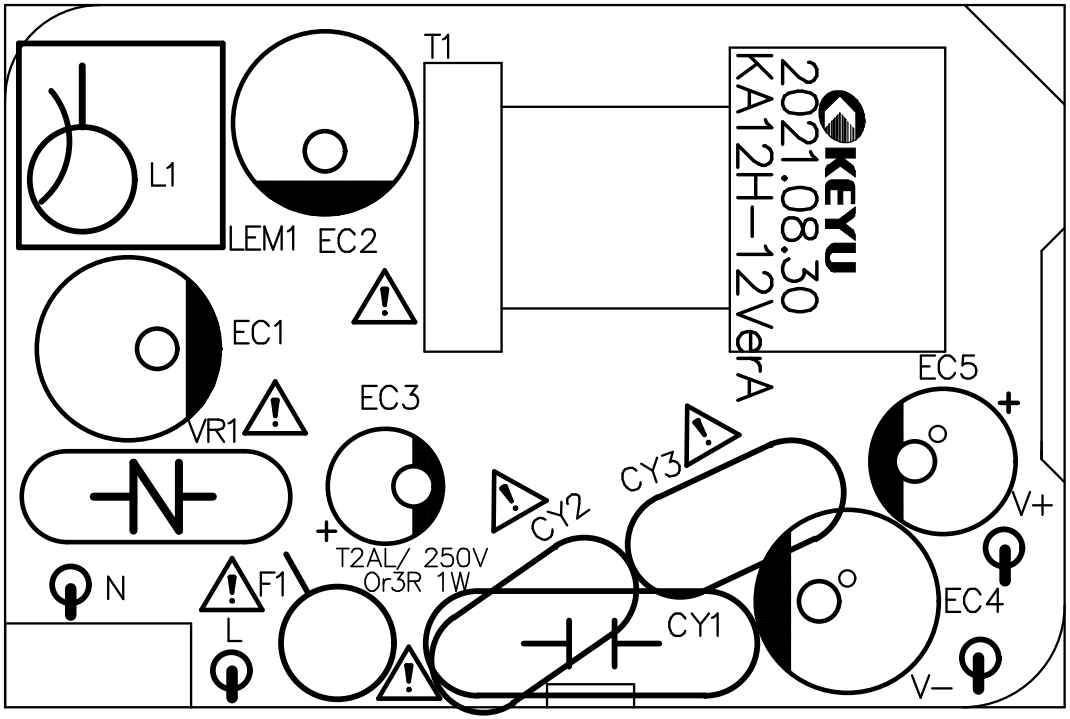
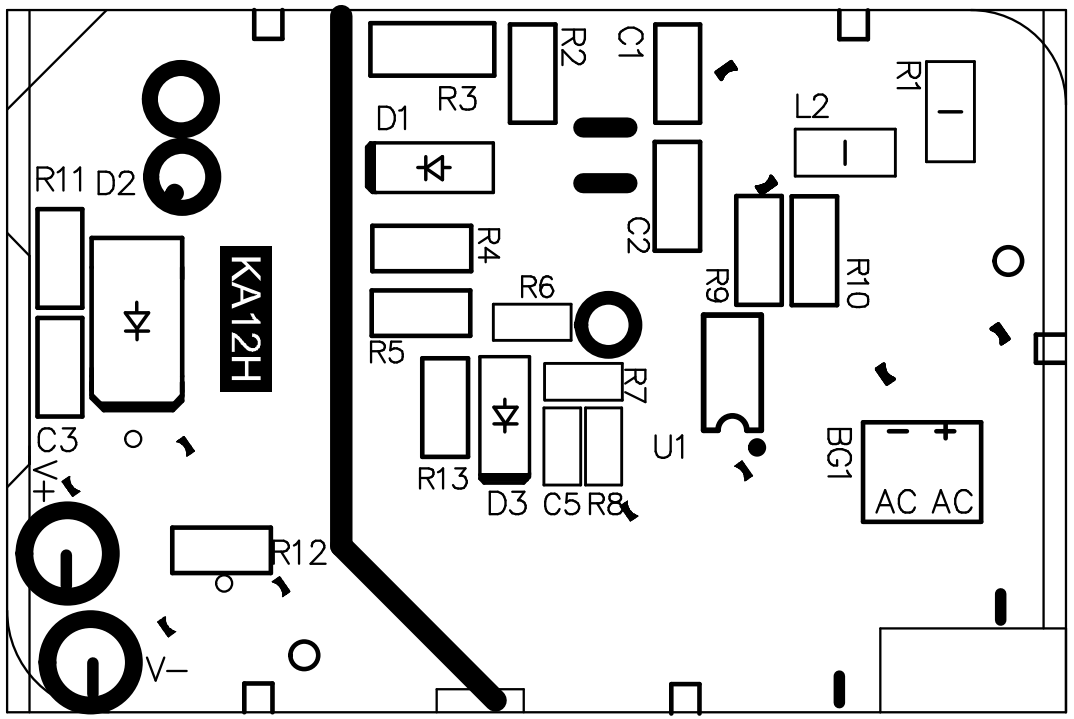



T1
L1
LEM1
EC2
EC1
VR1
EC3
EC5
V+
CY2
CY3
T2AL/ 250V
0r3R 1W
N
F1
L
CY1
EC4
V−
KEYU
2021.08.30
KA12H−12VerA


R11
D2
KA12H
C3
V+
V–
R12
R3
R2
C1
D1
L2
R1
C2
R4
R6
R9
R10
R5
R7
U1
R13
D3
C5
R8
BG1
AC AC

Test Record No. 1

The manufacturer submitted representative production samples of AC/DC ADAPTER, Model KA12H-xxxyyyyUS, KA12H-xxxyyyyUSH (xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V;yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A) for investigation.

All tests were considered not necessary based upon previous evaluation under CB Scheme. Test Certificate Ref. No. WTD21D09103012D, dated 2021-07-15, and Test Report Ref. No. DK-121372-UL, dated 2021-11-26, were issued by UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK.

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

The following tests were conducted:

Tests performed (name of test and test clause): None	**Testing location: None**
The following tests were waived: None	**Rationale for Waiving**

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description
Attachment	02-01	CRD

Test Record No. 2

-- The manufacturer requested to add alternative SR dimension for all models.

-- Per evaluation, no tests were deemed necessary.

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

The following tests were conducted:

Tests performed (name of test and test clause): None	**Testing location: None**
The following tests were waived: None	**Rationale for Waiving**

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description

Test Record No. 3

-- The manufacturer submitted representative production samples of AC/DC ADAPTER, models KA12H-xxxyyyyDE (xxx=045-070 or 090-150 or 180-270 stands for the rated output voltage from 4.5VDC to 7.0VDC or 9.0VDC to 15.0VDC or 18.0VDC to 27.0VDC , in step of 0.1V; yyyy=0100-2000 stands for the rated output current from 0.10A to 2.00A, in step of 0.01A) for investigation and test and request o add a new models name KA12H-xxxyyyyDE for alternative detachable plug and add photos, dimension of enclosure for new models accordingly.

-- Only limited tests were conducted during this change.

-- Unless otherwise indicated, all tests were conducted on model KA12H-0502000DE.

-- All tests were conducted at Waltek Testing Group Co., Ltd. Dongguan Branch under the remote WTDP program and witness by UL staff. See data sheet for more details.

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

The following tests were conducted:

Tests performed (name of test and test clause):	**Testing location:** None
STEADY FORCE TEST, 100 N (4.4.4.2, T.4)	
DROP TEST (4.4.4.3, T.7)	
STRESS RELIEF TEST (4.4.4.7, T.8)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: MOMENT TEST (4.7)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: WEIGHT AND MOMENT DETERMINATION (4.7, DVE)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: BLADE SECUREMENT TEST (4.7, DVE)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: SECURITY OF INPUT CONTACTS (4.7, DVE)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: RESISTANCE TO CRUSHING (4.7, DVE)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: ROD PRESSURE TEST (4.7, DVE)	
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS: INPUT BLADE ENDURANCE (RETRACTABLE BLADES) (4.7, DVE)	
STEADY FORCE TEST, 10 N (ANNEX T.2 , 5.4.2.6, 5.4.3.2, G.15.3.6)	
The following tests were waived:	**Rationale for Waiving**

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description
Attachment	02-01	CRD
Datasheet	02-02	Datasheet