Thank you for giving UL the opportunity to partner with you.
Please note, Follow-Up Procedure Revisions or Report Revisions do not include Authorization Pages, Indices, Section General, and/or Appendices unless revisions were required or requested.

Should you have any questions, after reviewing the material, or need to report any inaccuracies, please reach out to your UL representative or find UL contact details for your local Customer Service Department at https://www.ul.com/about/locations.

Please find attached the related material on Project

For your convenience, the below describes the related updates:

E158873-A6290-DescriptionUL
Figure-28-Total

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Times change, Trust Remains™

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:	Listing
CCN:	AZOT, AZOT7 (Audio/video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	NETWORK CAMERA
Model:	XNP-A6374RH
Rating:	24 Vac, 50/60 Hz, 4.3 A or PoE (55 Vdc), 0.93 A
Applicant Name and Address:	HANWHA VISION CO LTD 6, PANGYO-RO 319BEON-GIL, BUNDANG-GU SEONGNAM-SI GYEONGGI-DO 13488 KOREA

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.

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Prepared By: Lawrence Lee / Project Handler Reviewed By: ManSoo Huh / Reviewer

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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

NETWORK CAMERA is designed for indoor use, wall or ceiling use with mounting brackets.

It is commercial equipment supplied by UL listed AC or PoE (Power over Ethernet) input and installed by service personnel.

Model Differences

N/A

Test Item Particulars

Product group	end product
Classification of use by	Ordinary person
Supply Connection	not mains connected: ES1
Supply tolerance	None
Supply connection – type	Not directly connected to the mains
Considered current rating of protective device	N/A
Equipment mobility	wall/ceiling-mounted
Over voltage category (OVC)	OVC I
Class of equipment	Class III
Special installation location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified Tma (°C)	55
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)	6.98

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 55 °C
- The product is intended for use on the following power systems : No direct connection
- Considered current rating of protective device as part of the building installation (A) : N/A
- Mains supply tolerance (%) or absolute mains supply : No direct connection
- The Risk Group of a lamp or lamp system (including LEDs) is : Exempt
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual

Additional Information

4792097219
- Maximum Normal Load: Continuous operation. (Operate the camera through networked equipment with IR LED on, heater OFF)
Optional features: Heater ON/OFF

1. Mecha Heater
OFF Condition: The heater shall turn OFF when the temperature exceeds 7 °C.
ON Condition: The heater shall turn ON when the temperature falls below 5 °C.

2. Body Heater
OFF Condition: The heater shall turn OFF when the temperature exceeds 20 °C.
ON Condition: The heater shall turn ON when the temperature falls below 10 °C.

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 Company's name, Trade Name, File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	Input Ratings (voltage, frequency, current)
Hard Copy	A. IMPORTANT or ATTENTION or similar wording B. Please check 'Manuals' from out website, before connecting to the supply. C. Company website URL (https://www.~~) or QR cord.
(Website) Manual - 1	This product is intended to be supplied by a UL Listed Power Supply Unit marked "Class 2" or "LPS" or "PS2" and rated from 24 Vac, 50/60 Hz, 4.3 A or PoE (55 Vdc), 0.93 A.

(Website) Manual - 2	The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3.at shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL 60950-1 or PS2 as defined in UL 62368-1.
SCC requirement	If the signal words DANGER, WARNING, and CAUTION are included, a French manual is provided.
Special Instructions to UL Representative N/A	

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
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 model					
BD1.3	**Electric Strength Test Exemptions – This test is not required for the following models:**					
	All model					
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.**					
	All model					

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

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
Top case cover head front, rear (Plastic)	SAMYANG EP HUNGARY CO LTD	3500G-(Z) (TYPE: 3500G-20)	Min. 3.0 mm thickness, rated Min. V-0, 125 deg. C	QMFZ2	UL (E366374)	
Side case cover head (Plastic)	LOTTE CHEMICAL CORPORATION	HN-1068(f1)	Min. 2.8 mm thickness, rated Min. V-0, 130 deg. C	QMFZ2	UL (E115797)	
Side case cover inside head (Plastic)	SAMYANG EP HUNGARY CO LTD	3500G-(Z) (TYPE: 3500G-20)	Min. 3.0 mm thickness, rated Min. V-0, 125 deg. C	QMFZ2	UL (E366374)	
Middle, Bottom case cover (Plastic)	SABIC INNOVATIVE PLASTICS US L L C	EXL9334U(f1)	Min. 3.0 mm thickness, rated Min. V-0, 80 deg. C	QMFZ2	UL (E121562)	
Transparent LED case (Plastic)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	L-1225Z(#1)(f1) (Type : L1225ZL)	Min. 1.7 mm thickness, rated Min. V-2, 115 deg. C	QMFZ2	UL (E244324)	
Metal enclosure (Housing)	Interchangeable	Interchangeable	Aluminium, Min. 3.0 mm thickness, see enclosure for dimension.	-	Tested in equipment	
Window cover (Glass)	Interchangeable	Interchangeable	Glass, Min. 0.7 mm thickness	-	Tested in equipment	
Transformer(T1)	DONG HEUNG ELECTRONICS CO., LTD.	SNP-6320RH-T1	130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Transformer(T1) - Alternate	DONG IN SYSTEM CO., LTD.	SNP-6320RH-T1	130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Line Filter (LF1)	TNC CO., LTD	CH970020	2.0 mH, 120 deg. C, See enclosure for more detail.	-	Tested in equipment	

Line Filter (LF2)	TNC CO., LTD	CV620180SH	18.0 mH, 120 deg. C, See enclosure for more detail.	-	Tested in equipment	
Line Filter (CT1)	DONG HEUNG ELECTRONICS CO., LTD.	SNP-6320RH-CT1	4.0 mH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Line Filter (CT1) - Alternate	DONG IN SYSTEM CO., LTD.	SNP-6320RH-CT1	4.0 mH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Line Filter (L32)	DONG HEUNG ELECTRONICS CO LTD	SNP-6320RH-L32	25.0 uH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Line Filter (L32) – Alternate	DONG IN SYSTEM CO LTD	SNP-6320RH-L32	25.0 uH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Line Filter (NL1)	TNC CO., LTD	CV36045USA2	450 uH, 105 deg. C, See enclosure for more detail.	-	Tested in equipment	
Fuse (F1)	ORISEL CO LTD	OS5	250 V, 6.3 A	JDYX2	UL (E126056)	
Fuse (F2)	COOPER BUSSMANN LLC	SS-5	250 V, 4 A	JDYX2	UL (E19180)	
Opto-coupler (PC1, PC2)	LITE-ON Technology Corporation	LTV-817 (Type: LTV-817M-BN)	Isolation Voltage: 5 300. Max. Operation Temperature: 110 deg. C	FPQU2	UL (E113898)	
Opto-coupler (PC1, PC2) - Alternate	RENESAS ELECTRONICS CORPORATION	PS2561-1	Isolation Voltage: 5 000. Max. Operation Temperature: 100 deg. C	FPQU2	UL (E72422)	
Opto-coupler (PC3)	LITE-ON Technology Corporation	LTV-356T(%)(c) (TYPE : LTV-356T-BN)	Isolation Voltage: 3 750. Max. Operation Temperature: 110 deg. C	FPQU2	UL (E113898)	

Relay (RLY1)	FCL COMPONENTS LIMITED	B3 or B4, with or without prefix FTR-, followed by C, G, or S, followed by A or B, followed by 1.5 through 024, followed by M, P, Z or Z1, maybe followed by 01 through 99. (Type: FTR-B4GA003Z-B05)	3Vdc 1A @ 30VDC / 0.5A @ 125VAC	NRNT2	UL (E63615)	
Pan / Tilt Motor (Stepping type)	SHINANO KENSHI CO LTD	STH-42C2010GA	12 Vdc, 1.0 A, Hybrid stepping type	-	Tested in equipment	
Lens module motor (Focus)	TOKYO MICRO INC.	10S-150L99	5.0 Vdc	-	Tested in equipment	
Lens module motor (DN)	TOKYO MICRO INC.	6S-333L99	5.0 Vdc	-	Tested in equipment	
Lens module motor (IRIS)	NEW ASIA OPTICAL INDUSTRY CO., LTD.	YL-1	4.0 Vdc	-	Tested in equipment	
Lens module motor (Zoom)	TOKYO MICRO INC.	10S-179L28	5.0 Vdc	-	Tested in equipment	
Rechargeable battery (BAT1)	SEIKO INSTRUMENTS INC MICRO-ENERGY DIV	MS421R	Lithium, Rechargeable, Max Charging voltage: 3.4 Vdc, Max Charging current: 300 mA	BBCV2	UL (MH15628)	
Lithium Battery Protection Circuit (BAT1)	Interchangeable	Interchangeable	Diode (D107, 80 V, 100 mA) and Resistor (R424, 3.3 kohm) in series	-	Tested in equipment	
DC Fan (near Power Board)	MinebeaMitsumi Inc.	1604KL-04W-B5Y (Type: 1604KL-04W-B50)	12 Vdc, 0.1 A	GPWV2	UL (E89936)	

DC Fan (near Camera)	MinebeaMitsumi Inc.	BM4515-04W-B5X (Type: BM4515-04W-B50)	12 Vdc, 0.25 A	GPWV2	UL (E89936)	
DC Fan (near IR LED) (Total 2 ea)	MinebeaMitsumi Inc.	1204KL-04W (Type: 1204KL-04W-B39)	12 Vdc, 0.09 A	GPWV2	UL (E89936)	
Body Heater (near power board)	JEIL ELECTRONICS CO LTD	RH30190	24 Vac, 30 W	-	Tested in equipment	
Mecha Heater (near Camera)	JEIL ELECTRONICS CO LTD	RH1015	12 Vdc, 10 W	-	Tested in equipment	
Heatsink	Interchangeable	Interchangeable	Aluminum (Silver) Approx. overall size of ϕ 69.85 mm, Min. 1.2 mm thickness, , See enclosure for more detail.	-	Tested in equipment	
Thermal pad	KOMOTECH	KGP-1(a)	Min. 1.0 mm thickness, rated V-0, 150 deg. C	QMFZ2	UL (E245303)	
Thermal Pad - Alternate	Interchangeable	Interchangeable	Min. 1.0 mm thickness, rated V-0, 150 deg. C	QMFZ2	UL	
PWB	HANNSTAR BOARD CORP	ML-4	Min. V-0, 130 deg. c	ZPMV2	UL (E89382)	
PWB - Alternate	Interchangeable	Interchangeable	Min. V-0, 130 deg. c	ZPMV2	UL	
Label	Interchangeable	Interchangeable	Suitable for use on each type of surface to which applied, rated for maximum surface temperature specified, or 55 deg. C if not specified.	PGDQ2 or PGJI2	UL	
LED (LD1, LD2) (Total 2ea)	OSRAM	SFH 4715AS	VF =Max. 4.7 V, IF=Max.3 A	-	Tested in equipment	

Enclosures

Type	Supplement Id	Description
Photographs	03-01	External View - 1
Photographs	03-02	External View - 2
Photographs	03-03	Interanl View
Photographs	03-04	IR LED Board
Photographs	03-05	Lens Module
Photographs	03-06	IR Control Board - Top
Photographs	03-07	IR Control Board - Bottom
Photographs	03-08	Network Board - Top
Photographs	03-09	Network Board - Bottom
Photographs	03-10	Interface Board - Top
Photographs	03-11	Interface Board - Bottom
Photographs	03-12	Power Board - Top
Photographs	03-13	Power Board - Bottom
Photographs	03-14	PoE Board
Photographs	03-15	Body Heater (near power board)
Photographs	03-16	Mecha Heater (near Camera)
Photographs	03-17	DC Fan (near Camera)
Manuals	06-01	Manual
Miscellaneous	07-01	Transformer (T1) Specification (DONG HEUNG ELECTRONICS CO., LTD)
Miscellaneous	07-02	Transformer (T1) Specification (DONG - IN SYSTEM CO.,LTD.)
Miscellaneous	07-03	Line Filter (LF1) Specification
Miscellaneous	07-04	Line Filter (LF2) Specifiation
Miscellaneous	07-05	Line Filter (CT1) Specification (DONGHEUNG ELECTRONICS CO., LTD.)
Miscellaneous	07-06	Line Filter (CT1) Specification (DONG IN SYSTEM CO.,LTD.)
Miscellaneous	07-07	Line Filter (L32) Specification (DONG HEUNG ELECTRONICS CO., LTD.)
Miscellaneous	07-08	Line Filter (L32) Specification (DONG - IN SYSTEM CO.,LTD.)
Miscellaneous	07-09	Line Filter (NL1) Specifiation
Miscellaneous	07-10	Label

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

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean the contaminated area on the product surface with a soft, dry cloth or a damp cloth.
   (Do not use a detergent or cosmetic products that contain alcohol, solvents or surfactants or oil constituents as they may deform or cause damage to the product.)
7. Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/ accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lighting storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This Product is intended to be supplied by a UL Listed Power Supply Unit marked "Class 2" or "LPS" or PS2" and rated from 24 Vac (50/60 Hz), 4.3 A or PoE(55 Vdc), 0.93 A.
16. This product is intended to be supplied by isolation power.
17. If you use excessive force when installing the product, the camera may be damaged and malfunction.
    If you forcibly install the product using non-compliant tools, the product may be damaged.
18. Do not install the product in a place where chemical substances or oil mist exists or may be generated. As edible oils such as soybean oil may damage or warp the product, do not install the product in the kitchen or near the kitchen table.
    This may cause damage to the product.
19. When installing the product, be careful not to allow the surface of the product to be stained with chemical substance.
    Some chemical solvents such as cleaner or adhesives may cause serious damage to the product's surface.
20. If you install/disassemble the product in a manner that has not been recommended, the production functions/ performance may not be guaranteed.
    Install the product by referring to "Installation & connection" in the user manual.
21. Installing or using the product in water can cause serious damage to the product.
22. If your product works normal, the degree of preset precision is ±0.2˚. In the case of reboot due to outage, firmware upgrade, etc., its tolerance might have to be adjusted after checking for any changes in Preset setup.
23. The operating temperature of the XNP-A6374RH product is -50°C to +55°C when using an AC power adapter, and -40°C to +55°C when using PoE power.

WARNING

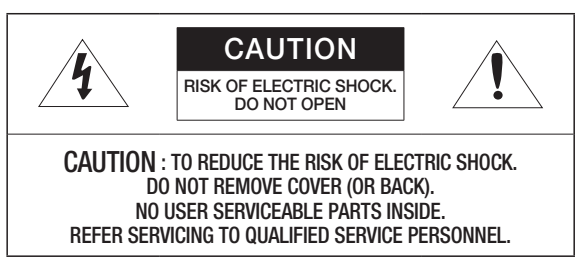
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENNINGS ON THE EQUIPMENT.

Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

To prevent injury, this apparatus must be securely attached to the Wall/ceiling in accordance with the installation instructions.

Pan/Tilt/Zoom motors and slip ring are warrantied for one year under continuous operation.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Class I construction

An apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

Battery

Batteries(battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

The battery cannot be replaced.

Prohibition of battery abuse

- Do not install and use the wrong type of battery.
- Do not leave the battery in a mechanically crush or cut it because it can explode.
- Do not leave the battery in a high temperature environment.
- Do not leave the battery in a low-pressure environment.

Disconnection Device

Disconnect the main plug from the apparatus, if it's defected. And please call a repair man in your location.

When used outside of the U.S., it may be used HAR code with fittings of an approved agency is employed.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

ATTENTION

IL Y A RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT.
METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS.

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

The CVBS out terminal of the product is intended for initial setup only and should not be used for any other purpose.

Please use the input power with just one camera and other devices must not be connected.

When a new product box is opened (or during the initial use of the product), moisture might build up on the glass of the camera. The built-up moisture disappears naturally within a few hours after powered on.

This equipment is not suitable for use in locations where children are likely to be present.

The ITE is to be connected only to PoE networks without routing to the outside plant.

The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3at shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1 or PS2 as defined in UL62368-1.

Unit is intended for installation in a Network Environment 0 as defined in IEC TR 62102. As such, associated Ethernet wiring shall be limited to inside the building.

Please read the following recommended safety precautions carefully.

- Do not place this apparatus on an uneven surface.
- Do not install on a surface where it is exposed to direct sunlight, near heating equipment or heavy cold area.
- Do not place this apparatus near conductive material.
- Do not attempt to service this apparatus yourself.
- Do not place a glass of water on the product.
- Do not install near any magnetic sources.
- Do not block any ventilation openings.
- Do not place heavy items on the product.
- Please wear protective gloves when installing/removing the camera.
  The high temperature of the product surface may cause a burn.

User's Manual is a guidance book for how to use the products.

The meaning of the symbols are shown below.

- Reference : In case of providing information for helping of product's usages
- Notice : If there's any possibility to occur any damages for the goods and human caused by not following the instruction

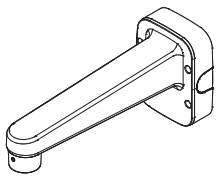
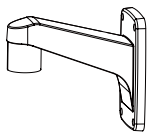
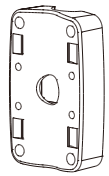
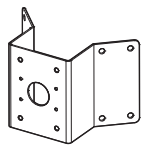
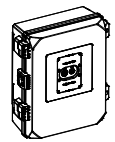
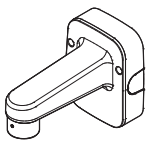
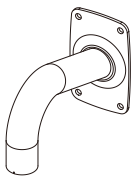
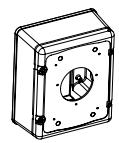
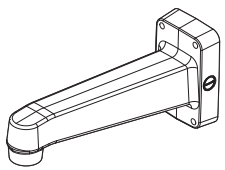
※ Please read this manual for the safety before using of goods and keep it in the safe place.

We do not guarantee the quality of third-party products (e.g. lenses, accessories) that you separately purchase.

In particular installation environments, there might be interference in radio communications. When interference of electromagnetic waves occurs between the product and radio communication device, it is recommended to keep a certain distance between the two or change the direction of the receiving antenna.

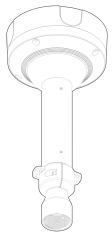
OPTIONAL ACCESSORIES FOR INSTALLATION

You can purchase appropriate optional accessories available.

Wall Mount and Pole Mount			Corner Mount	Cabinet
 SBP-350WMW (Wall & Pole Mount)	 SBP-300WMW1 (Wall Mount) * SBP-300PMW1 required for pole installation	 SBP-300PMW1 (Pole Mount)	 SBP-156KMW	 SBP-150NBW
 SBP-200WMW (Wall & Pole Mount)	 SBP-300WMW (Wall Mount) * SBP-300PMW1 required for pole installation			 SBP-300NBW
	 SBP-390WMW2 (Wall Mount) * SBP-300PMW1 required for pole installation			

Ceiling Mount

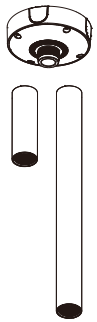
Assembly



SBP-300CMTS
(Ball Head)



SBP-300CMTW



SBP-300CMW1
SBP-900CMW



SBP-150CMI
SBP-300CMI

Individual Parts



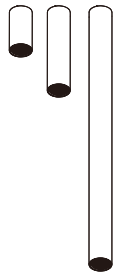
SBP-180CMB



SBP-180CMS
(Ball Head)



SBP-140CMB



SBP-150CMP
SBP-300CMP
SBP-900CMP



SBP-C15P



SBP-C15H

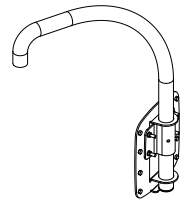


SBP-C15NP

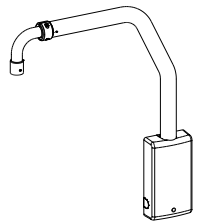


SBP-C35H

Parapet Mount



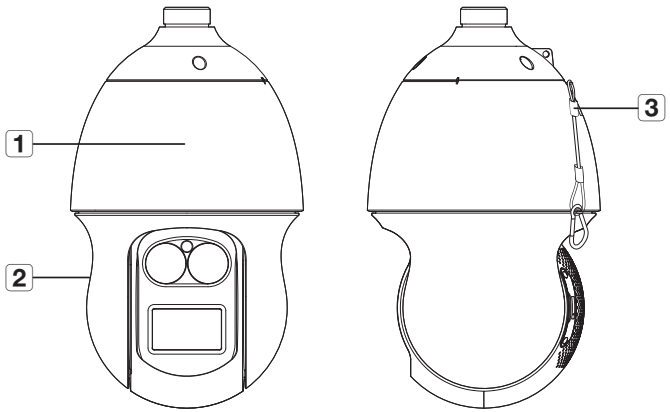
SBP-300LMW



SBP-156LMW1

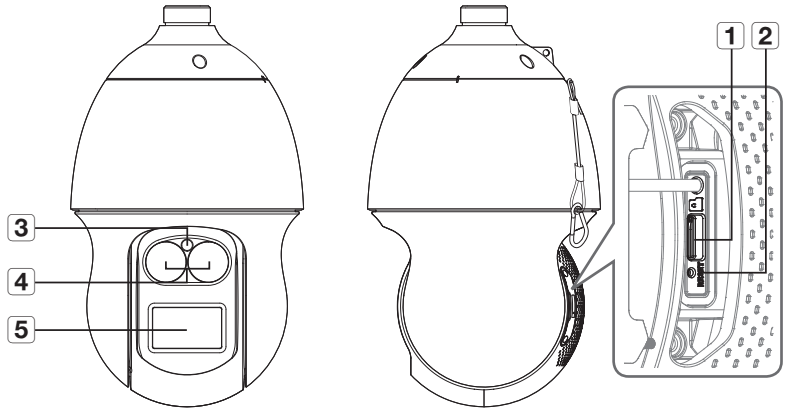
AT A GLANCE

Appearance



Item	Description
1 Main unit	Protects the internal PTZ mechanism from the direct sunlight, rain or external impact.
2 Shield cover	Shield cover for the lens and unit protection.
3 Safety Cable	The cable prevents the product from dropping during installation.

Inside



Item	Description
1 Micro SD memory Card Compartment	Compartment for the Micro SD memory card. Refer to <**Inserting/Removing a Micro SD memory Card**> for the Micro SD memory card insertion position. (page 11)
2 Reset Button	The button restores all camera settings to the factory default. Press and hold for about 5 seconds to reboot the system. If you reset the camera, the network settings will be adjusted so that DHCP can be enabled. If there is no DHCP server in the network, you must run the Device Manager program to change the basic network settings such as IP address, Subnet mask, Gateway, etc., before you can connect to the network.
3 Illumination Sensor	Detects incoming light to control the IR LED.
4 IR LED	These infrared LED's are controlled by the illumination sensor.
5 Lens	Lens for the camera.

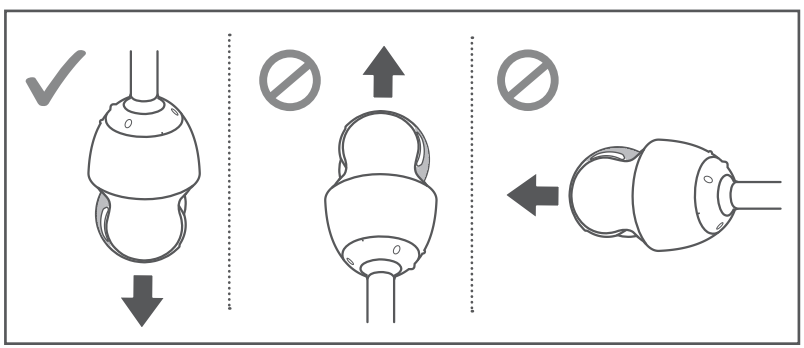
INSTALLATION

- The camera jack connected to the external cable is not waterproof. You are recommended to install this product below the edge of eaves to prevent the cable from being externally exposed.

Precautions before installation

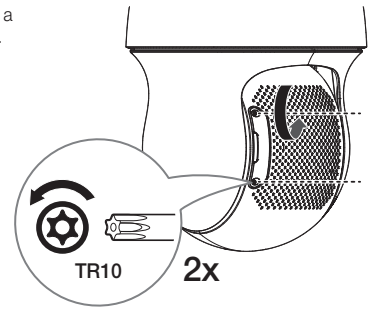
Ensure you read out the following instructions before installing the camera:

- Select an installation site that can hold at least 5 times the camera's weight.
- Stuck-in or peeled-off cables can cause damage to the product or a fire.
- For safety purposes, keep anyone else away from the installation site. And put aside personal belongings from the site, just in case.
- If the product is installed with excessive force, it may cause damage to the camera due to malfunction. Forcing assembly using non-compliant tools may damage the product.

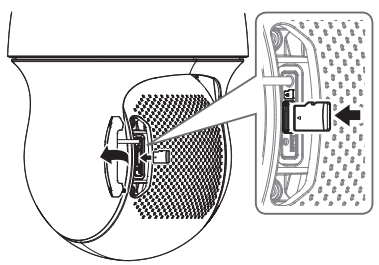


Inserting the Micro SD memory card

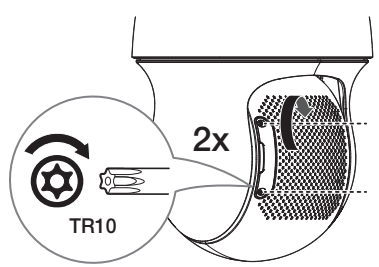
1. Remove the screw from the micro SD card slot cover with a Torx wrench or another tool, and then pull the cover aside.



2. Insert a Micro SD card in the arrow direction shown in the figure.



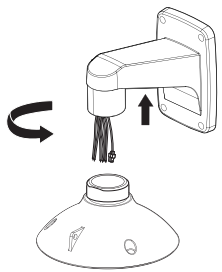
3. Place the micro SD card slot cover, and then tighten the screw to assemble it.



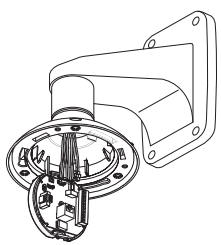
Attaching to the unbundled adapter

Choose and purchase a necessary one of the following options (unbundled) that is suitable to the installation site or for your convenience.
See “Optional Accessories for Installation” for separately sold products. (Page 7)

1. Pass the cables externally exposed through a mount through the installation base.
2. Turn the installation base in the direction of the arrow to join it to the mount.

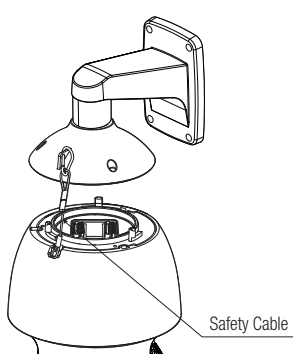


3. As shown in the picture below, gently press and lift up the handle of the hinged door on the bottom of the installation base. Please refer to the “**Camera Wiring Interface Board**” on page 15, connect the wires.

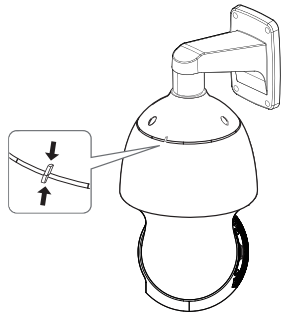


- Do not connect the camera to a power outlet until the installation is complete. Supplying power while the installation is in progress may cause fire or damage the product.
- For smooth joining with the PTZ camera, please be careful with the shape and form.
  (After joining the camera, the cable might be tangled as the I/F PCB rotates.)

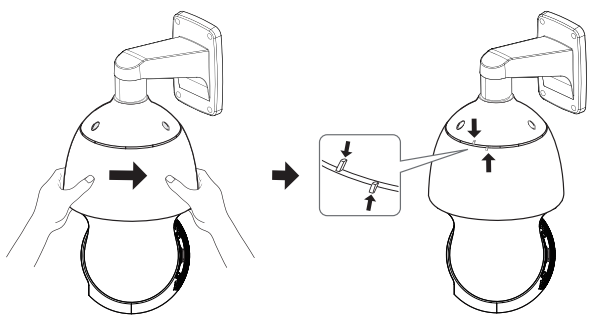
4. After fastening the I/F PCB to the body, install the safety wire of the camera body to the installation base.



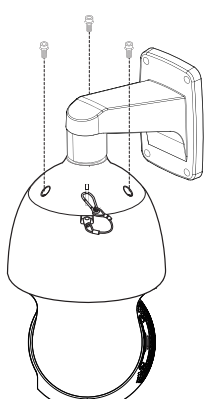
5. Join the installation base and the camera body by matching the Installation direction guides.



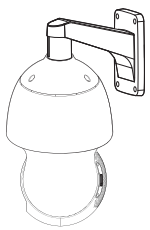
6. Turn the camera in the direction of the arrow so that the installation direction guides at the top and bottom are placed as shown below.



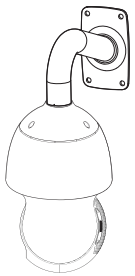
7. Secure the installation base and camera using a hex wrench or similar tool.



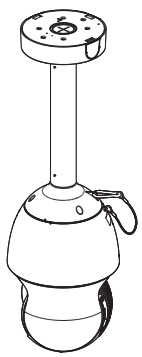
- **Mount Joint**



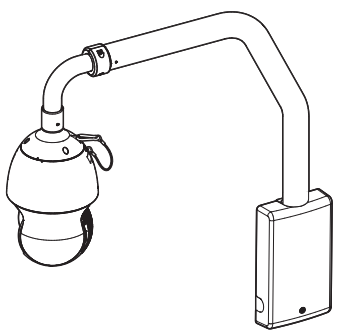
Wall mount (SBP-300WMW1)



Wall mount (SBP-300WMW)



Ceiling Mount (SBP-300CMW1)

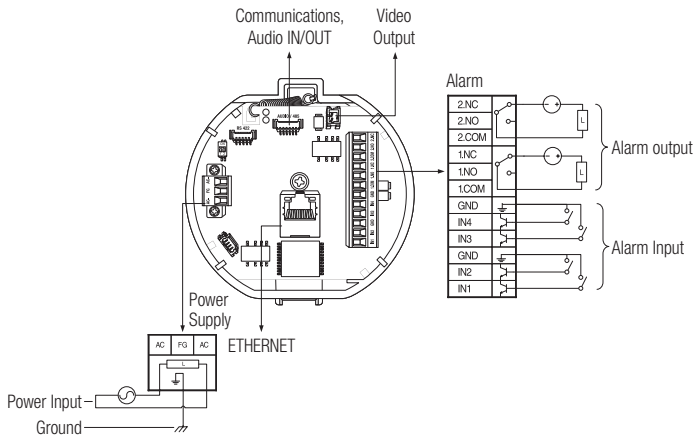


Parapet Mount (SBP-156LMW1)

CONNECTING WITH OTHER DEVICE

Camera Wiring Interface Board

For the camera wiring, please refer to the picture below.



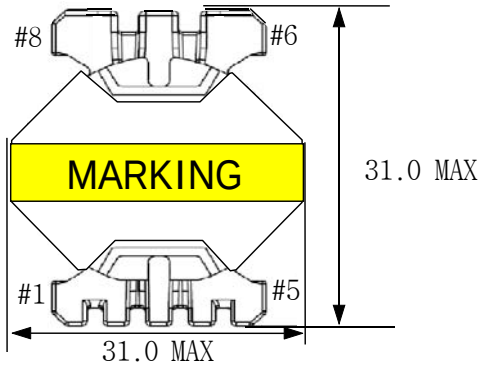
- Select Normal Open in the setup menu.
  - The sensor input is activated during a short for contact type, or when it is at “Low” level for the active type.
- Select Normal Close from the Setup menu.
  - The sensor input is activated when open for the contact type or when in high impedance state (open collector) for the active type.
- The maximum capacity of the alarm output terminal is 30V DC/2A, 125V AC/0.5A and 250V AC/0.25A.
- When connecting alarm input and output cables, be sure to connect one cable to each terminal respectively.
- To connect products over the camera’s capacity, please use an additional relay device.
- If power and GND cables are connected inappropriately to the NC/NO or COM port, a fire or breakdown of equipment may occur.

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

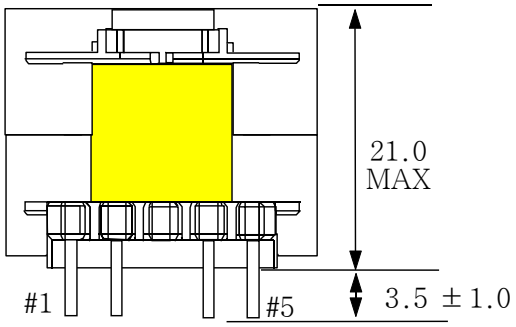
CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	1 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-T1
CODE NO.	MSS10-404C	DESCRIPTION	RM10

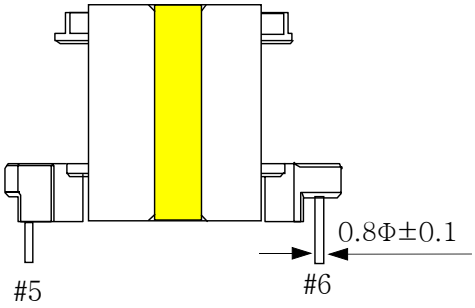
1. APPEARANCE & DIMENSION (UNIT:mm)



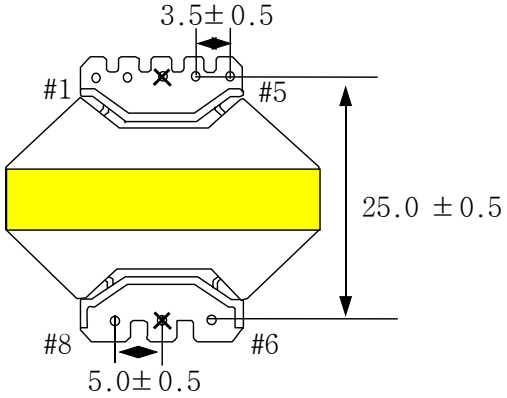
<< TOP VIEW >>



<< FRONT VIEW >>



<< SIDE VIEW >>



<< BOTTOM VIEW >>

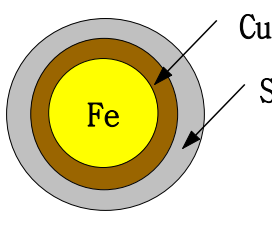
* MARKING (BLACK)

SNP-6320RH-T1 ← MODEL NO.

DH 0000 DHB-001 ← CLASS B

- PRODUCTION LINE
- WEEK
- YEAR
- PRODUCTION MAKER

※ PRODUCTION LINE
1. A : CHUN AN
2. B : BAZHOU
3. Y : YANTAI



※ PIN LENGTH: BEFORE SOLDERING

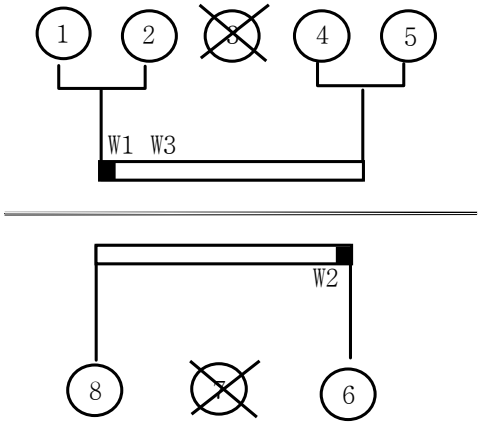
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DONG HEUNG ELECTRONICS CO., LTD.

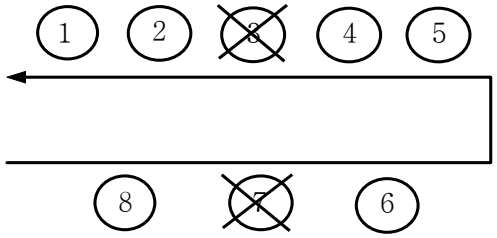
CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	2 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-T1
CODE NO.	MSS10-404C	DESCRIPTION	RM10

2. WINDING SPECIFICATION



■* START MARK.



WINDING	BOTTOM VIEW	C.C.W
REMOVED PIN	#3,7	
CUT PIN		
N.C PIN		
TUBE		

3. WINDING SPECIFICATION

NO	TERMINAL		WIRE	TURNS	WINDING METHOD	INSULATION			BARRIER	
	S	F				MATERIAL	T/W	TS	TOP	BOTTOM
W1	1,2	4,5	USTC 0.1ØX30#X2	12 T	SOLENOID	POLYESTER TAPE	0.025/10.5	2		
W2	6	8	USTC 0.1ØX40	10 T	SOLENOID	POLYESTER TAPE	0.025/10.5	2		
W3	1,2	4,5	USTC 0.1ØX30#X2	12 T	SOLENOID	POLYESTER TAPE	0.025/10.5(Y)	2		
* CORE FIX TAPE (YELLOW)						POLYESTER TAPE	0.025/7.0	3		

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
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DONG HEUNG ELECTRONICS CO., LTD.

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	4 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-T1
CODE NO.	MSS10-404C	DESCRIPTION	RM10

6. TEST SPECIFICATION AT 25℃

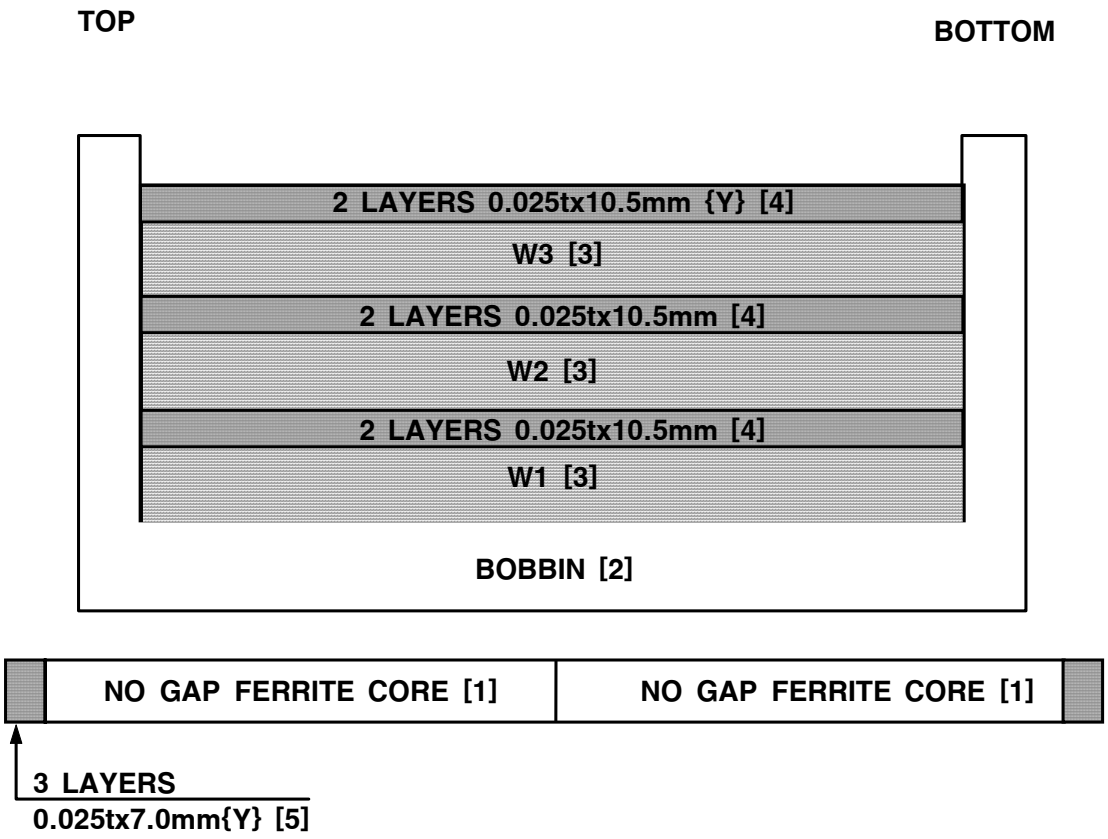
NO.	ITEM	TERMINAL	SPECIFICATION	REMARKS
1	INDUCTANCE	1,2 - 4,5	400 uH MIN	HP-4284A at 1KHz, 1Vrms
2	DC RESISTANCE	1,2 - 4,5	0.05 [Ω] MAX	WHEATSTONE BRIDGE YEW TYPE 2755 HIOKI TYPE RM3544
3	WITHSTANDING VOLTAGE	COIL - CORE	AC 1.50KV, 1 MINUTE	KIKUSUI : TOS-9200 (1MINUTE CURRENT 5mA)
4	INSULATION RESISTANCE	COIL - CORE	100MΩ MIN at DC 500V	KIKUSUI : TOS-9200
5	IMPULSE TEST (SURGE TEST)	AC 1.5KV / 3PULSE		

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
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4						

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	5 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-T1
CODE NO.	MSS10-404C	DESCRIPTION	RM10

7. INTERNAL CONSTRUCTION



* **WINDING**
* **P.S TAPE**

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

DONG HEUNG ELECTRONICS CO., LTD.

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	6 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-T1
CODE NO.	MSS10-404C	DESCRIPTION	RM10

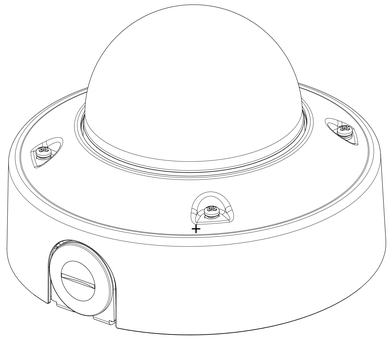
8. MATERIAL LIST

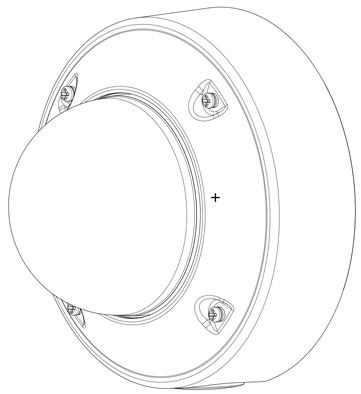
NO	I T E M	MATERIALS & DIMENSIONS	MANUFACTURER	REMARK
1	CORE	RM 10 PL-7,KP-4,DMR40, K2.3P,NH2B,JF4,KP4,TY40 or Equiv.	SAM HWA ELECTRONICS CO., LTD. ZAOZHUNG KINGTECH ELECTRONICS CO.,LTD. ZHEJING DONGYANG DMEGC MAGNETIC CO.,LTD ZHEJIANG LINAN HE SHUN MAGNETIC FLUX ELECTRONIC CO.,LTD. ZHEJIANG HAINING LIANFENG MAGNET INDUSTRY CO., LTD. WUXI SPINEL MAGNETICS CO.,LTD. SHANGHAI KANGSHUN MAGNETIC COMPONENT CO., LTD. Guangzhou Tongyang Electronics Co., Ltd or Equiv.	
2	BOBBIN	RM10 [8P] PHENOL (94V-0)	SUMITOMO BAKELITE CO., LTD. HITACHI CHEMICAL CO LTD	E41429 E42926
3	COPPER WIRE	USTC 0.10Øx30# USTC 0.10Øx40#	DONG YANG ELECTRONICS IND CO.,LTD. SHANDONG PENGTAI STOCK CO., LTD. ZHEJIANG XIANDENG ELECTRICAL APPLIANCES CO., LTD JIANGSU DARTONG M&E CO.,LTD HANGZHOU WEIFENG ELECTRONIC CO LTD	E102761 E166187 E218270 E237377 E229341
4	INSULATION TAPE	POLYESTER TAPE 0.025t x 10.5mm 0.025t x 10.5mm {YELLOW}	DUCK SUNG HITECH CO., LTD. JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD. METAL LINE CO., LTD.	E105147 E165111 E162848
5	CORE FIXING TAPE	POLYESTER TAP 0.025t x 7.0mm {YELLOW}		
6	IMPREGNATION	EPOXY	HITACHI CHEMICAL CO., LTD. KYOCERA CHEMICAL CORP SE KYE CHEMICAL CO LTD NOROO PAINT & COATINGS CO LTD	E72979 E83702 E257443 E93947
7	SOLDER BAR	SN98CU2-B20	SAMWOO METAL CO., LTD. YUNNAN TIN CO.,LTD. ASIA GENERAL ELECTRONICS CO.,LTD	
8	INK	JP-K12,K33 BON MARQUE MS-6853	HITACHI INDUSTORIAL EQUIPMENT CO.,LTD T&K TOKA CO.,LTD SHANGHAI LEADJET INKJET PRINTER TECHNIQUE CO., LTD.	
9	FLUX	SV-PBF-304 FC-113	KOKI SANEI KOREA CO.,LTD TAMURA KAKEN CORPORATION	

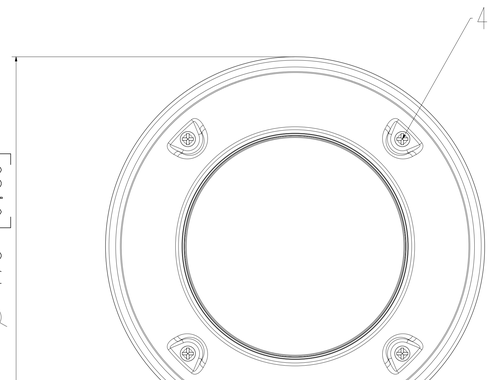
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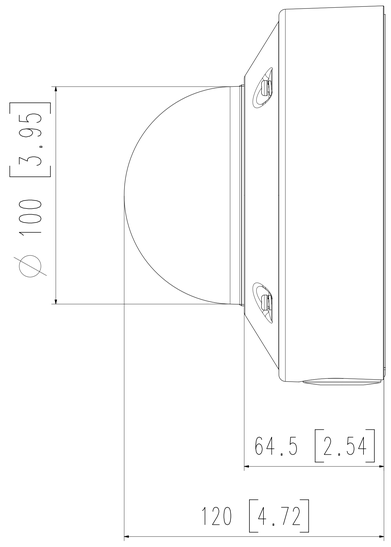
DONG HEUNG ELECTRONICS CO., LTD.

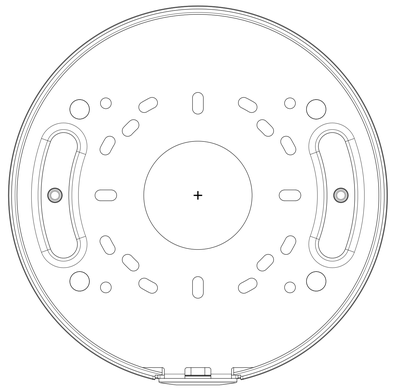
The following Page(s) are related to Miscellaneous-02. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

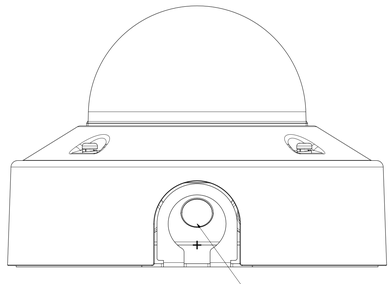




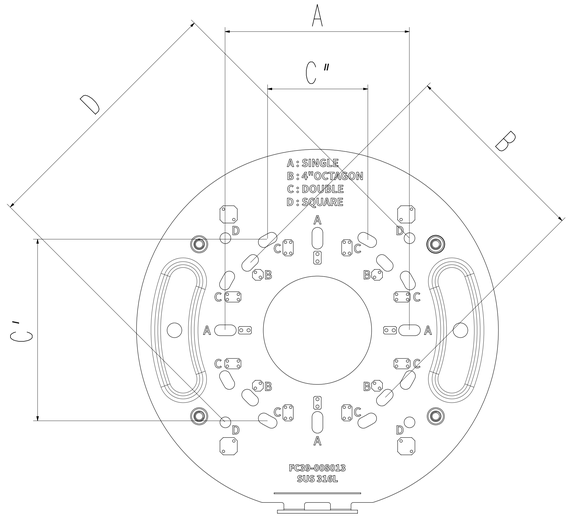








STANDARD GANG		
A	SINGLE	83.5 [3.29]
B	4"OCTAGON	88.0 [3.46]
C	DOUBLE	83.5 [3.29] X 46.0 [1.81]
D	SQUARE	120.4 [4.74]



3	MODEL2	
2	MODEL1	XNV-A9084RS
1	BASIC MODEL	'25.11.05
No.	MODEL NAME	XNV-A8084RS
Unit:mm[inch]	SCALE:1/1	Hanwha Vision

A0

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

2. ELECTRICAL CHARACTERISTIC

NO	ITEM	TERMINAL	SPECIFICATION			REMARKS
1	RATED VOLTAGE	LINE TO LINE	AC 250V			
2	RATED CURRENT	START-FINISH	7.0A			
3	INDUCTANCE	START-FINISH	16KHz	2.0mH	+50%,-30%	HP-4194A 1V (25℃±2℃)
4	TEMPERATURE RISE	AT RATED CURRENT	45℃ MAX			
5	DC RESISTANCE	START-FINISH	21.0 mΩ MAX			HIOKI 3540 (25℃±2℃)
6	WITHSTANDING VOLTAGE	LINE TO LINE	AC 1,500V 1 MINUTE.			TOS-5101 CUT OFF CURRENT (5mA)
7	INSULATION RESISTANCE	LINE TO COVER	DC 500V, 300MΩ MIN.			TOS-8850

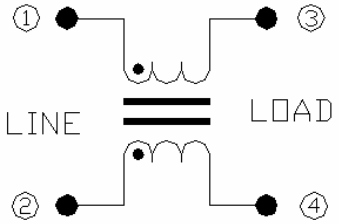
3. OPERATING TEMPERATURE RANGE

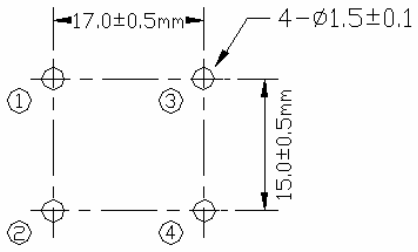
-30℃ TO +120℃ INCLUDING TEMPERATURE RISE.

4. KEEP TEMPERATURE RANGE

-30℃ ~ +60℃.

5. CIRCUIT DIAGRAM



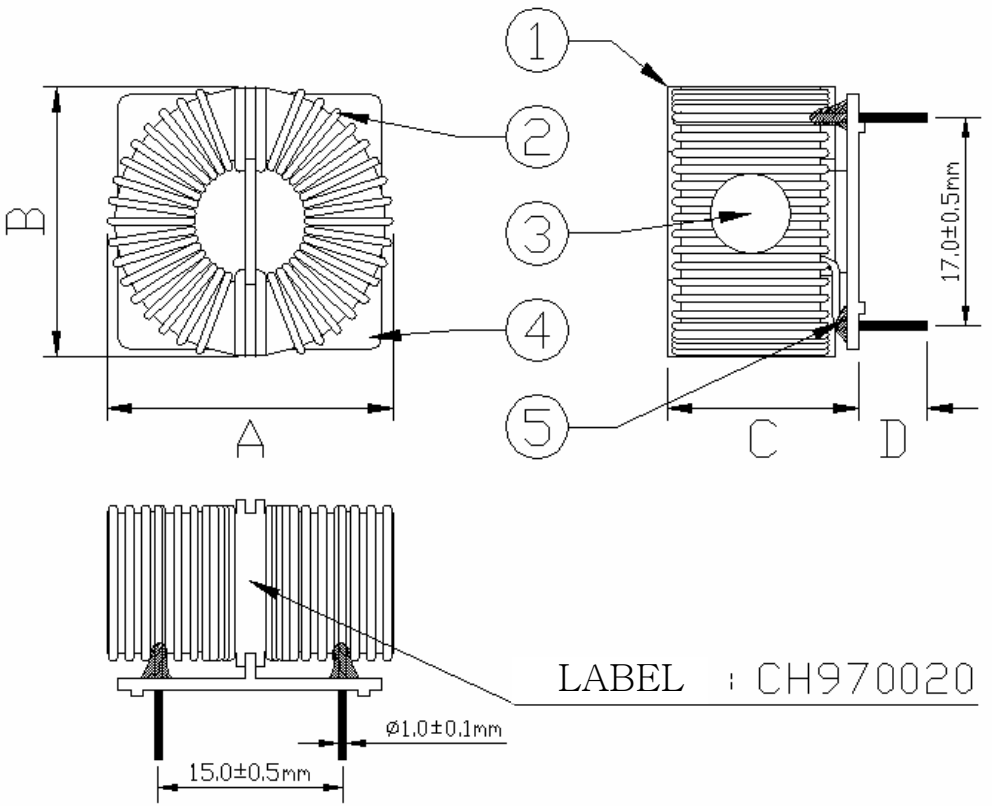


Minimum PCB piercing plan

6. WINDING SPECIFICATION

NO	TERMINAL		WIRE	TURNS	WINDING METHOD	UNBALANCE SPECIFICATION
	START	FINISH				
L1	1	3	UEW 1.0Φ	19 ±1Ts	HANDMADE	BETWEEN L1 AND L2 (0.11mH MAX)
L2	2	4				

7. SHAPE AND DIMENSION



DIMENSION	A	B	C	D
	26.0mm MAX	24.0mm MAX	21.0mm MAX	4.0±1.0mm

8. MATERIAL LIST

No.	NAME	SPECIFICATION		MANUFACTURER	COLOR	REMARK
1	Core Cover	PBT LUPOX GP-2156F		LG Chemical Ltd	WHITE	E67171
		PBT 1500GN-30		SAMYANG Corporation	WHITE	E121254
		NYLON A 50H1(r3)(f2)		SOLVAY ENGINEERING PLASTICS GBU	WHITE	E44716
2	Enamel Wire	UEW 1.0Φ / 19 ±1Ts	UEW	Hwa Il Electronics Co.,Ltd	YELLOW	E140246
			UEW	SHANDONG PENGTAI STOCK CO LTD Equal.	YELLOW	E166187
3	Ferrite Core	MA070 R-19-13-11 R7K TR19X13X11		JFE Ferrite Corp LAIWU CHAINWELL ELECTRONIC&MATERIAL CO.,LTD Equal.	BLACK	
4	Coil Base	PBT LUPOX GP-2306F		LG Chemical Ltd	WHITE	E67171
		PBT 1500GN-30		SAMYANG Corporation	WHITE	E232365
5	Epoxy	EPOXY RESIN	NA-010	ND Chemical	WHITE	
			EA610A / EA610B	Chem Tech	WHITE	

9. MARKING

MODEL	LABEL	COLOR
CH970020	CH970020	red letter on Transparent

13. RELIABILITY TEST

ITEM	TEST CONDITION	SPEC
HUMIDITY RESISTANCE	40℃ 95%, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃±2℃)	L : Initial value ± 20%
HEAT RESISTANCE	105℃±2℃, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃±2℃)	L : Initial value ± 20%
COLD RESISTANCE	-25℃, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃±2℃)	L : Initial value ± 20%
TEMPERATURE CYCLE	-45℃ 30min → 105℃ 30min, 100 CYCLE Measure after leave more than 24Hr, normal temperature(25℃±2℃)	L : Initial value ± 20%

14. ENDURANCE TEST

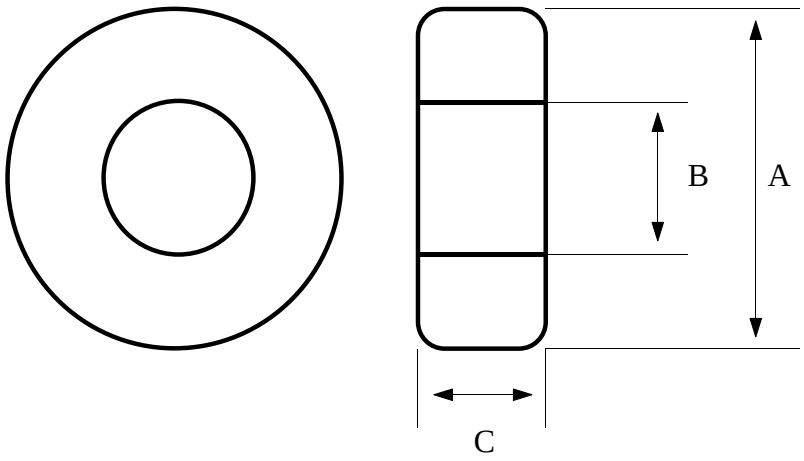
ITEM	TEST CONDITION	SPEC
SOLDERING ADHESION	SOLDER POT ℃ : 245 +0, -5℃ SOLDERING HR : 3 ± 0.5 SEC	More than 95%
SOLDERING HEAT RESISTANCE	SOLDERING ℃ : 260 +5, -0℃ SOLDERING HR : 10 ± 0.5 SEC	L : Initial value ± 20%

15. FERRITE CORE SPECIFICATION

- **Characteristics**

Symbol	Unit	MA070 R-19/13/11	R7K TR19X13X11
μi	-	7000±30%	7000±25%
Bms	mT	440	420
Hcms	A/m	3.4	10.0
Brms	mT	93	110
Tc	℃	>130	>130
TANδ /μiac	$*10^{-6}$	<1.4	<6.5
αμr	$*10^{-6}$ /℃	-0.5~2.0	0~1.5
ρ	Ω.m	0.3	0.5
d	g/㎤	4.95	4.9

- **Dimension**



A: 19.0 ±0.4 **B: 13.0 ±0.3** **C: 11.0 ±0.2**

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

2. ELECTRICAL CHARACTERISTIC

NO	ITEM	TERMINAL	SPECIFICATION			REMARKS
1	RATED VOLTAGE	LINE TO LINE	AC 300V			
2	RATED CURRENT	START-FINISH	2.0A			
3	INDUCTANCE	START-FINISH	16KHz	18.0mH	+50%,-30%	HP-4194A 1V (25℃±2℃)
4	TEMPERATURE RISE	AT RATED CURRENT	55℃ MAX			
5	DC RESISTANCE	START-FINISH	163.0 mΩ MAX			HIOKI 3540 (25℃±2℃)
6	WITHSTANDING VOLTAGE	LINE TO LINE	AC 1,500V 1 MINUTE.			TOS-5101 CUT OFF CURRENT (5mA)
7	INSULATION RESISTANCE	LINE TO COVER	DC 500V, 300MΩ MIN.			TOS-8850

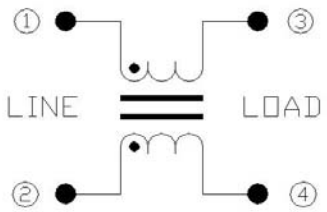
3. OPERATING TEMPERATURE

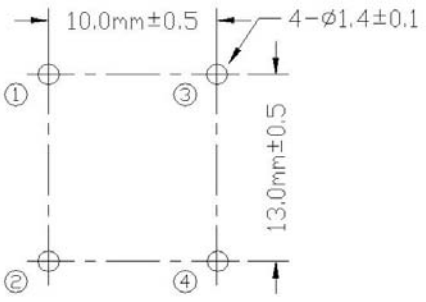
-40℃ TO +120℃ INCLUDING TEMPERATURE RISE.

4. KEEP TEMPERATURE RANGE

-40℃ TO +120℃

5. CIRCUIT DIAGRAM



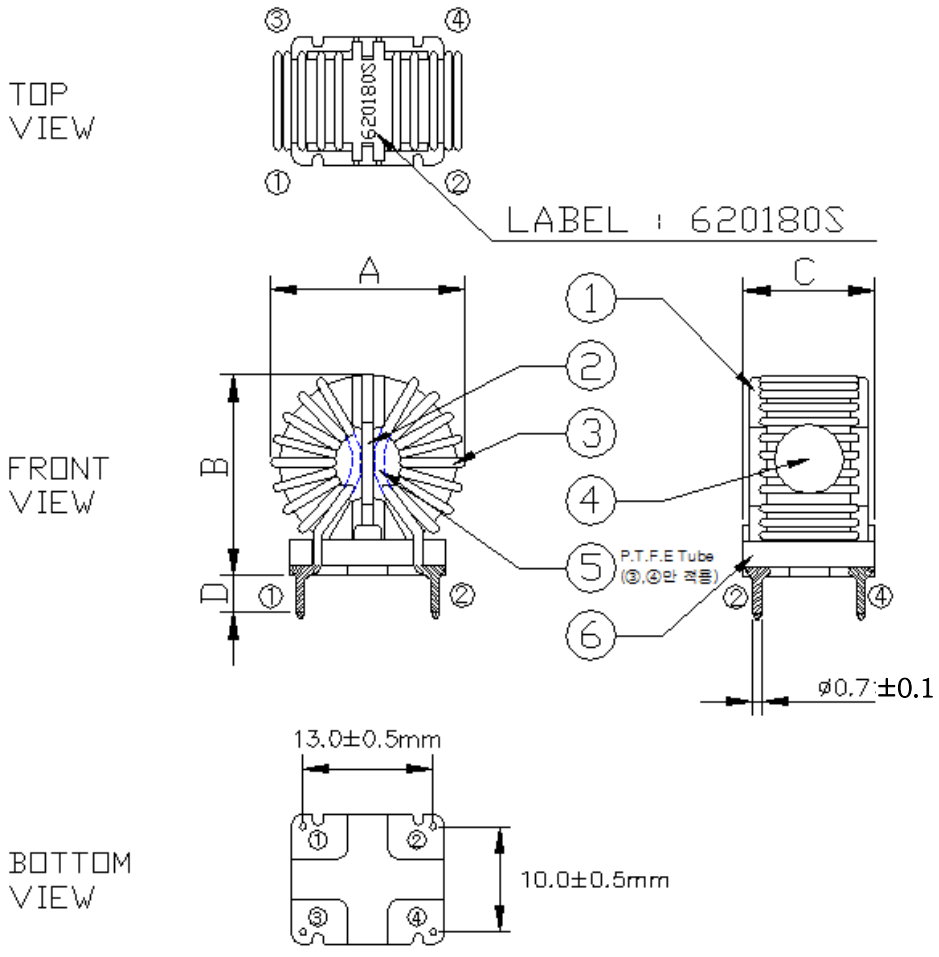


Minimum PCB Piercing HOLE

6. WINDING SPECIFICATION

NO	TERMINAL		WIRE	TURNS	WINDING METHOD	UNBALANCE SPECIFICATION
	START	FINISH				
L1	1	3	UEW 0.50Φ	53 ±3Ts	HANDMADE	BETWEEN L1 AND L2 (0.4mH MAX)
L2	2	4				

7. SHAPE AND DIMENSION



DIMENSION	A	B	C	D
	21.0mm MAX	22.0mm MAX	15.0mm MAX	Not include solder fillet 4.0±1.0mm

8. MATERIAL LIST

No.	NAME	SPECIFICATION		MANUFACTURER	COLOR	UL No.
1 / 2	Core Cover / Coil Separator	NYLON A 50H1(r3)(f2)		SOLVAY ENGINEERING PLASTICS GBU	WHITE	E44716
		PBT LUPOX GP-2156F(#)		LG CHEM LTD	WHITE	E67171
		PBT 4130		CHANG CHUN PLASTICS CO LTD	WHITE	E59481
3	Enamel Wire	UEW 0.50Φ / 53±3T	UEW	HWA IL ELECTRONICS CO.,LTD	YELLOW	E140246
			UEW	SHANDONG PENGTAI STOCK CO LTD	YELLOW	E166187
			UEW	SIAM PACIFIC ELECTRIC WIRE & CABLE CO.,LTD	YELLOW	E142108
4	Ferrite Core	MA100 R-16-10-7 HL10 H16X10X7		JFE Ferrite Corp Ruyuan Dongyangguang Magnetic Materials CO.,LTD	BLACK	
5	Insulation tube	P.T.F.E Tube (Teflon Tube) NOT HEAT-SHRINKABLE PTFE TUBING		SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO.,LTD	Transparent	E203950
6	Coil Base	Phenolic (PF 2736(a)(b)) UL 94 V-0 Class		Hexion GmbH	BLACK	E61040
		Phenolic (T375HF) UL 94 V-0 Class		CHANG CHUN PLASTICS CO LTD	BLACK	E59481

9. MARKING

MODEL	LABEL	COLOR
CV620180SH	620180S	black letters on transparent

13. RELIABILITY TEST

ITEM	TEST CONDITION	SPEC
HUMIDITY RESISTANCE	40℃±2℃, 95%, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%
HEAT RESISTANCE	105℃±2℃, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%
COLD RESISTANCE	-25℃±2℃, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%
TEMPERATURE CYCLE	-45℃±2℃ 30min → 105℃±2℃ 30min, 100 CYCLE Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%

14. ENDURANCE TEST

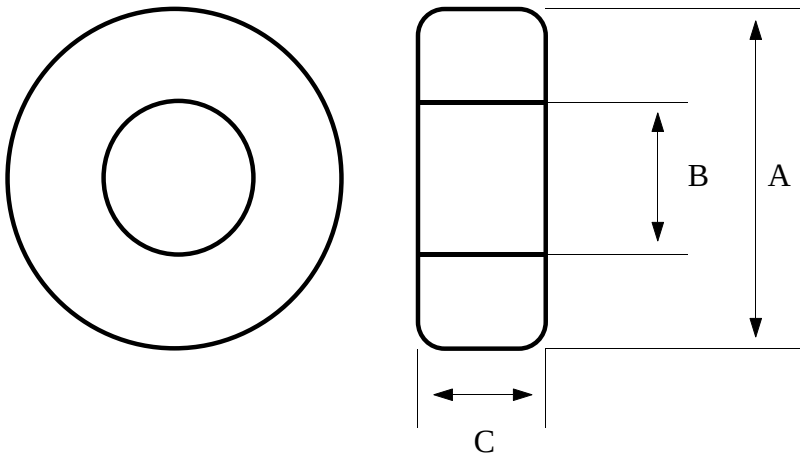
ITEM	TEST CONDITION	SPEC
SOLDERING ADHESION	SOLDER POT ℃ : 245 +0, -5℃ SOLDERING HR : 3 ± 0.5 SEC	More than 95%
SOLDERING HEAT RESISTANCE	SOLDERING ℃ : 260 +5, -0℃ SOLDERING HR : 10 ± 0.5 SEC	L : Initial value ± 20%

15. FERRITE CORE SPECIFICATION

- Characteristics

Symbol	Unit	MA100 R-16/10/7	HL10 H16X10X7
μi	-	10,000±30%	10,000±30%
Bms	mT	415	400
Hcms	A/m	3.0	7.2
Brms	mT	76	90
Tc	℃	>115	>130
TANδ /μiac	$*10^{-6}$	<1.9	<7.0
αμr	$*10^{-6}$ /℃	-0.5~2.0	-0.5~1.5
ρ	Ω.m	0.1	0.15
d	g/㎤	5.0	4.9

- Dimension



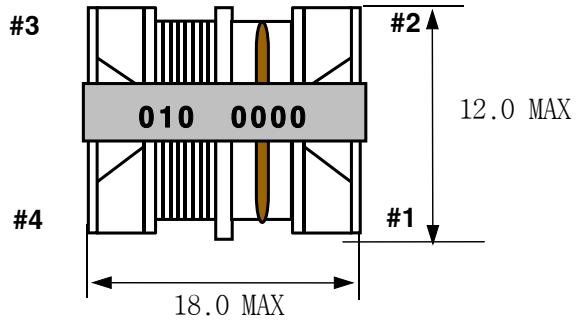
A: 16.0 ±0.35 **B: 10.0 ±0.3** **C: 7.0 ±0.3**

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

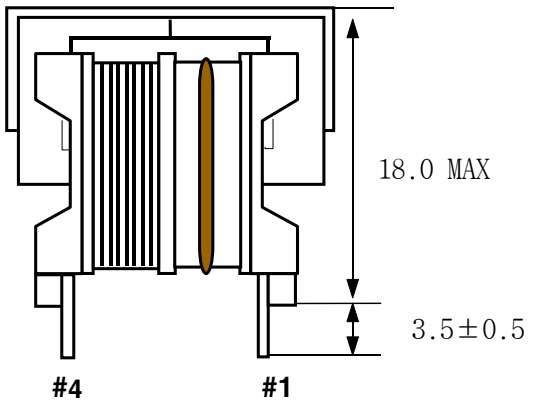
CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	1 OF 11
		DATE	2014. 10. 14
PART NAME	LINE FILTER	MODEL NAME	SNP-6320RH-CT1
CODE NO.	LFU10-0104R5	DESCRIPTION	UU 10x14

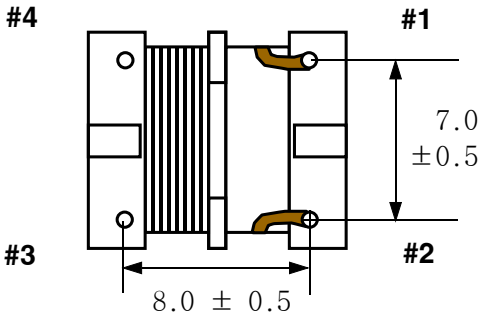
1. APPEARANCE & DIMENSION (UNIT:mm)



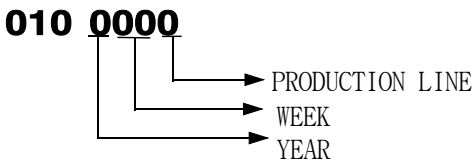
- TOP VIEW -



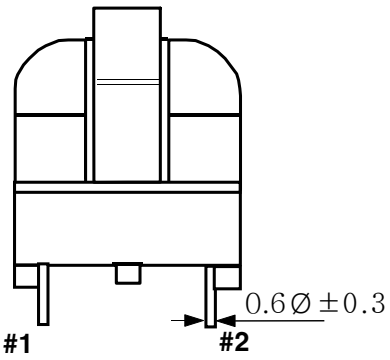
- SIDE VIEW -



※ MARKING (BLACK)

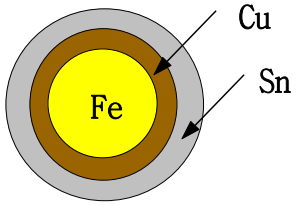


※ PRODUCTION LINE
A : CHUN AN
B : BAZHOU
Y : YANTAI



- FRONT VIEW -

*. PIN PLATING SPEC



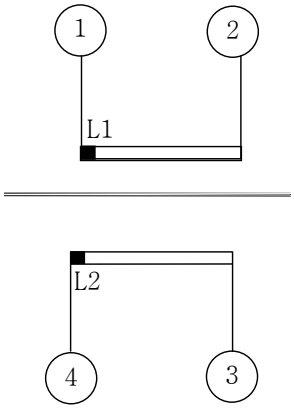
※ PIN LENGTH : BEFORE SOLDERING

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	2 OF 11
		DATE	2014. 10. 14
PART NAME	LINE FILTER	MODEL NAME	SNP-6320RH-CT1
CODE NO.	LFU10-0104R5	DESCRIPTION	UU 10x14

2. SCHEMATIC DIAGRAM





WINDING	BOTTOM VIEW	C.C.W
REMOVED PIN		
CUT PIN		
TUBE		

3. WINDING SPECIFICATION

WINDING ORDER	NAME	TERMINAL NO. (S - F)	W I R E	TURNS	WINDING METHOD
W1	L1	1 - 2	UEW 0.80Ø	1Ts	SOLENOID WINDING
W2	L2	4 - 3	UEW 0.25Ø	70Ts REF.	SOLENOID WINDING

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

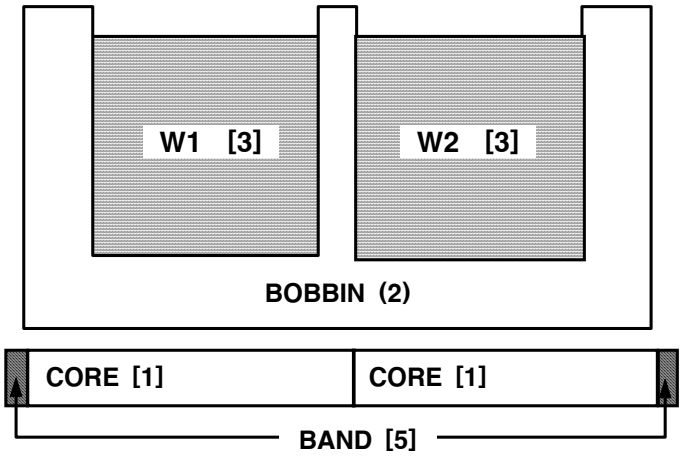
CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	4 OF 11
		DATE	2014. 10. 14
PART NAME	LINE FILTER	MODEL NAME	SNP-6320RH-CT1
CODE NO.	LFU10-0104R5	DESCRIPTION	UU 10x14

6. ELECTRICAL CHARACTERISTICS

NO.	CLOSURE	TERMINAL	ELECTRICAL CHARACTERISTICS	TOLERANCE	TEST CONDITION
1	INDUCTANCE	1 - 2 4 - 3	0.5 [uH] 4.0 [mH]	MIN MIN	HP-4284A at 1KHz, 1Vrms
2	DC RESISTANCE	1 - 2 4 - 3	3.0 [Ω] 1.0 [Ω]	MAX MAX	WHEATSTONE BRIDGE YEW TYPE 2755 HIOKI TYPE RM3544
3	LAYER SHORT	AC 1.5KV, 60 Hz			
4	WITHSTANDING VOLTAGE	AC 1.2KV, 1 MINUTE. 5mA (PRIMARY TO SECONDARY) AC 1.2KV, 1 MINUTE. 5mA (COIL TO CORE)			
5	INSULATION RESISTANCE	DC 500V, 100M OHM MIN. (COIL TO COIL, ANY COIL TO CORE)			

7. INTERNAL CONSTRUCTION



* WINDING

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	5 OF 11
		DATE	2014. 10. 14
PART NAME	LINE FILTER	MODEL NAME	SNP-6320RH-CT1
CODE NO.	LFU10-0104R5	DESCRIPTION	UU 10x14

8. INTERNAL CONSTRUCTION

NO	I T E M	MATERIALS & DIMENSIONS	MANUFACTURER	REMARK
1	C O R E	UU10x14mm SM-100,R10K,R12K,TS-10,A10 or Equiv.	SAM HWA ELECTRONICS CO., LTD. ZHEJING DONGYANG DMEGC MAGNETIC CO.,LTD ZIBO YANGGUANG ELECTRONICS CO., LTD TDG HOLDING CO., LTD. ACME CO.,LTD or Equiv.	
2	BOBBIN	UU 10 x 14mm [4P] PHENOL (94V - 0)	MOMENTIVE SPECIALTY CHEMICALS GMBH. SUMITOMO BAKELITE CO., LTD. CHANG CHUN PLASTICS CO LTD.	E61040 E41429 E59481
3	W I R E	UEW 0.25Ø UEW 0.80Ø	DONG YANG ELECTRONICS IND CO.,LTD. SHANDONG PENGTAI STOCK CO., LTD. ZHEJIANG XIANDENG ELECTRICAL APPLIANCES CO., LTD JIANGSU DARTONG M&E CO.,LTD HANGZHOU WEIFENG ELECTRONIC CO LTD	E102761 E166187 E218270 E237377 E229341
4	IMPREGNATION	SR-337A, SR-337B 319-5	SE KYE CHEMICAL CO., LTD. JIANG CITY DENGFENG ELETRICAL METERIAL CO., LTD.	E257443 E236421
5	B A N D	UU 10 x 14mm STRAINLESS STEEL	DAE HEUNG CO., LTD. BOO KYOUNG ELECTRONICS CO.,LTD. ZIBO YANGGUANG ELECTRONICS CO., LTD SUNG WOO BOBBIN CO., LTD. or Equiv.	

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

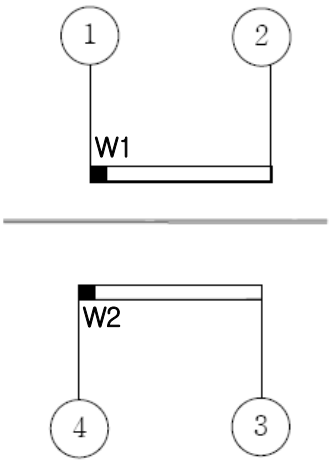
The following Page(s) are related to Miscellaneous-06. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

APPROVAL SHEET

DATE	2014. 11. 07
PAGE	OF

CUSTOMER	M S P		
PART NAME	LINE FILTER	MODEL NO.	
PART NO.	SNP-6320RH-CT1	DESCRIPTION	UU1014"V"4PIN

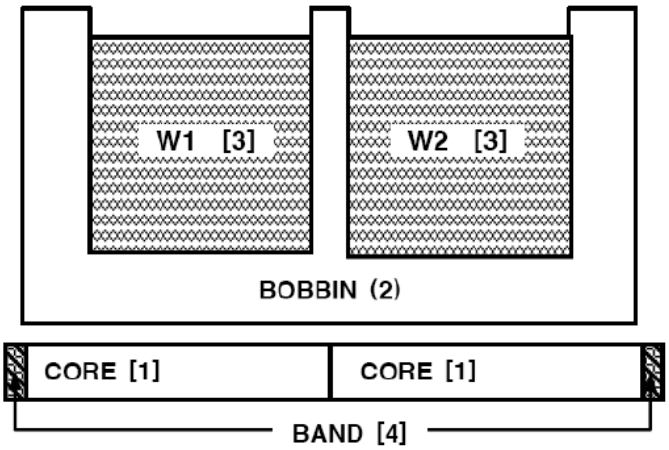
2. CONNECTION



3. WINDING SPECIFICATION

NO	TERMINAL		WIRE	Ts		WINDING METHOD	INSULATION	
	S	F					MATERIAL (t / mm)	Ts
W1	1	2	UEW 0.80Ø	1 TS				
W2	4	3	UEW 0.25Ø	70 TS (ref)				

4. CONSTRUCTION



DRAWN BY	CHECK BY	APPR. BY	REVISION		DATE
				Safety	

DIS DONG - IN SYSTEM CO.,LTD.

APPROVAL SHEET

DATE	2014. 11. 07
PAGE	OF

CUSTOMER	M S P		
PART NAME	LINE FILTER	MODEL NO.	
PART NO.	SNP-6320RH-CT1	DESCRIPTION	UU1014"V"4PIN

5. ELECTRICAL CHARACTERISTICS

NO	ITEM	TERMINAL	SPEC	REMARK
1	INDUCTANCE	1 - 2	0.5uH MIN	LCR METER AG 4304 HP-4274A at 1KHz 1V
		4 - 3	4.0 mH MIN	
2	DC RESISTANCE (20℃)	1 - 3 6 - 4	3.0 ohm MAX 1.0 ohm MAX	WHEATSTONE BRIDGE HIOKI 3540 (mΩ METER)
3	WITHSTANDING VOLTAGE	COIL - CORE	AC 1.5 KV RMS 1 SEC. CC=10mA	KIKUSUI TOS-5050 , TOS-8750
		COIL - COIL	AC 1.5 KV RMS 1 SEC. CC=10mA	
4	INSULATION RESISTANCE	COIL - COIL COIL - CORE	100 Mohm MIN at DC 500V	MEGOHM METER (SM-5E)

6. MATERIAL LIST

NO	ITEM	MATERIAL	MANUFACTURER	FILE NO.
1	CORE	SM-100 UU1014 R10K UU1014 P12K UU1014	SAM WHA CORPORATION. JI SHUN MAGNETIC CO.,LTD. NANTONG HUAXING MAGNETIC MATERIAL CO.,LTD	
2	BOBBIN	PHENOL 94V-0 UU1014 "V" TYPE 4PIN	SUMITOMO BAKELITE CO., LTD.	E41429
3	WIRE	POLYURETHANE ENAMELED COPPER WIRE 2UEW 0.80Ø 2UEW 0.25Ø	DONG YANG ELECTRONICS IND CO LTD.	E102761
4	PIN TERMINAL	SOLDER COATED COPPER	DAE-A LEAD CO.,LTD.	
5	VARNISH	SR-337A,B	SEKYE CHEMICAL CO.,LTD.	E257443
6	SOLDER	Sn99.3 / Cu0.7 or EQV.	ALPHA METALS CO.,LTD or EQV.	
7	MARKING	INK (BON MARQUE) or EQV.	ATL CO.,LTD or EQV.	

DRAWN BY	CHECK BY	APPR. BY	REVISION		DATE
				Safety	

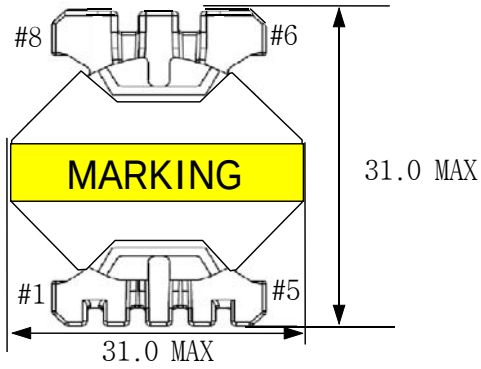
DIS DONG - IN SYSTEM CO.,LTD.

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

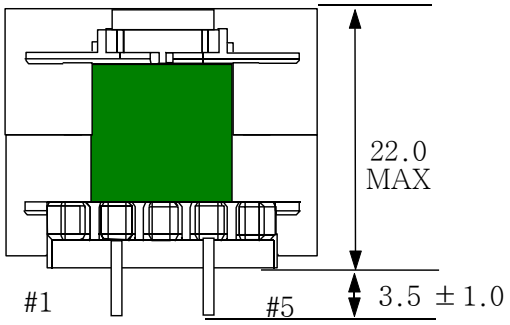
CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	1 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-L32
CODE NO.	MSS10-405C	DESCRIPTION	RM10

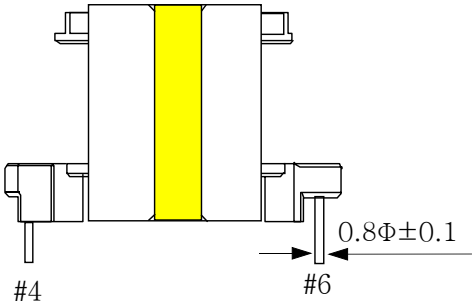
1. APPEARANCE & DIMENSION (UNIT:mm)



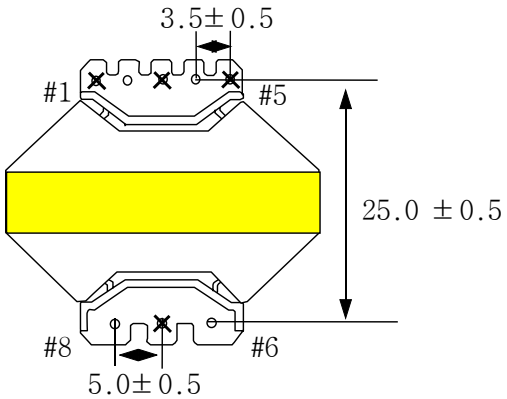
<< TOP VIEW >>



<< FRONT VIEW >>



<< SIDE VIEW >>



<< BOTTOM VIEW >>

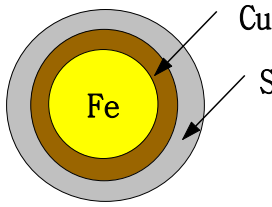
* MARKING (BLACK)

SNP-6320RH-L32 ← MODEL NO.

DH 0000 DHB-001 ← CLASS B

- PRODUCTION LINE
- WEEK
- YEAR
- PRODUCTION MAKER

※ PRODUCTION LINE
1. A : CHUN AN
2. B : BAZHOU
3. Y : YANTAI



※ PIN LENGTH: BEFORE SOLDERING

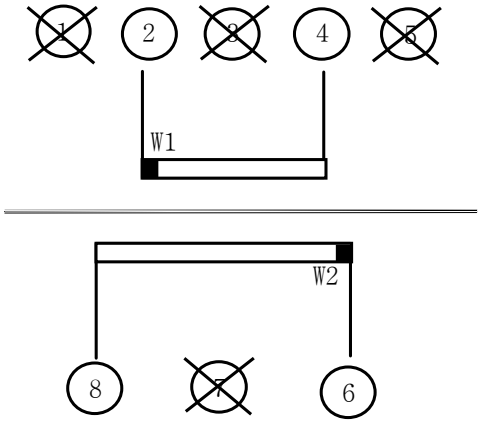
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2						
3						
4						

DONG HEUNG ELECTRONICS CO., LTD.

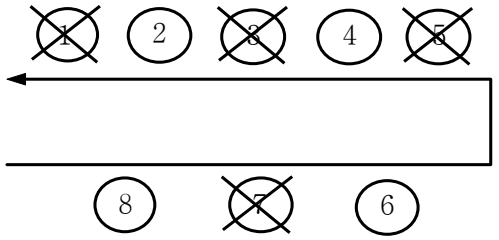
CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	2 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-L32
CODE NO.	MSS10-405C	DESCRIPTION	RM10

2. WINDING SPECIFICATION



■* START MARK.



WINDING	BOTTOM VIEW	C.C.W
REMOVED PIN	#1,3,5,7	
CUT PIN		
N.C PIN		
TUBE		

3. WINDING SPECIFICATION

NO	TERMINAL		WIRE	TURNS	WINDING METHOD	INSULATION			BARRIER	
	S	F				MATERIAL	T/W	TS	TOP	BOTTOM
W1	2	4	UEW 0.40Ø X2	11 T	SOLENOID	POLYESTER TAPE	0.025/10.5	3		
W2	6	8	USTC 0.1ØX50X2	14 T	SOLENOID	POLYESTER TAPE	0.025/10.5(G)	3		
* CORE FIX TAPE (YELLOW)						POLYESTER TAPE	0.025/7.0	3		

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

DONG HEUNG ELECTRONICS CO., LTD.

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	4 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-L32
CODE NO.	MSS10-405C	DESCRIPTION	RM10

6. TEST SPECIFICATION AT 25℃

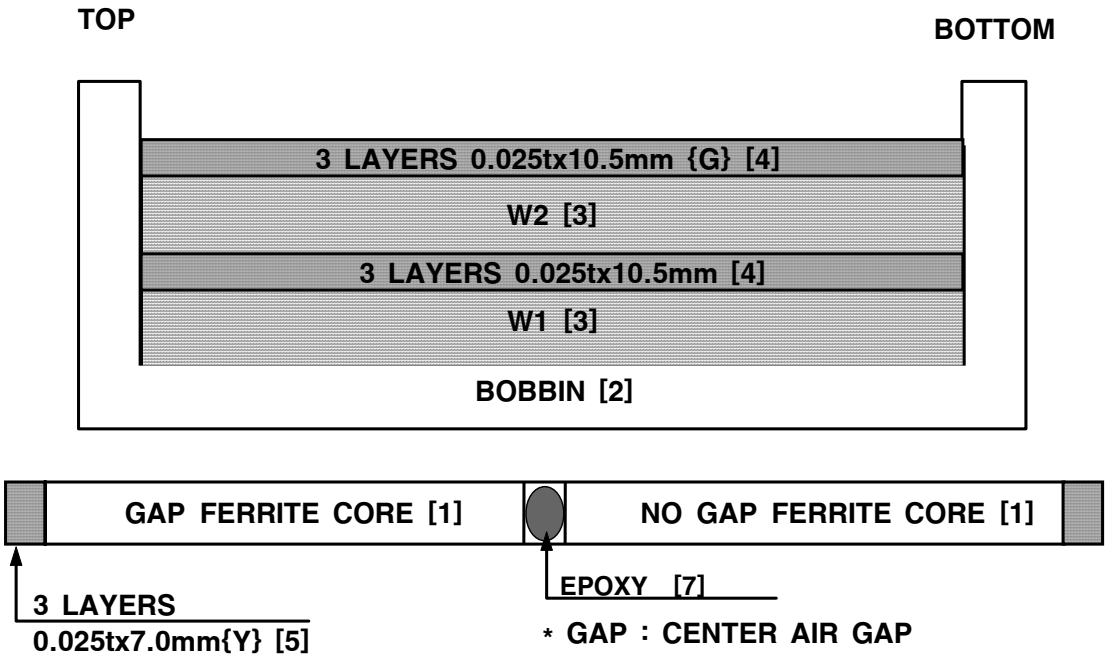
NO.	ITEM	TERMINAL	SPECIFICATION	REMARKS
1	INDUCTANCE	6 - 8	25.0 uH ± 12%	HP-4284A at 1KHz, 1Vrms
2	DC RESISTANCE	6 - 8	0.06 [Ω] MAX	WHEATSTONE BRIDGE YEW TYPE 2755 HIOKI TYPE RM3544
3	WITHSTANDING VOLTAGE	COIL - CORE	AC 1.50KV, 1 MINUTE	KIKUSUI : TOS-9200 (1MINUTE CURRENT 5mA)
4	INSULATION RESISTANCE	COIL - CORE	100MΩ MIN at DC 500V	KIKUSUI : TOS-9200
5	IMPULSE TEST (SURGE TEST)	AC 1.5KV / 3PULSE		

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	5 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-L32
CODE NO.	MSS10-405C	DESCRIPTION	RM10

7. INTERNAL CONSTRUCTION



* WINDING
* P.S TAPE

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
1						
2						
3						
4						

DONG HEUNG ELECTRONICS CO., LTD.

CUSTOMER : Manufacturing Solution Provide CO., Ltd.

SPECIFICATION		SHEET NO.	6 OF 16
		D A T E	2014. 10. 14.
PART NAME	TRANS	MODEL NAME	SNP-6320RH-L32
CODE NO.	MSS10-405C	DESCRIPTION	RM10

8. MATERIAL LIST

NO	I T E M	MATERIALS & DIMENSIONS	MANUFACTURER	REMARK
1	CORE	RM 10 PL-7,KP-4,DMR40, K2.3P,NH2B,JF4,KP4,TY40 or Equiv.	SAM HWA ELECTRONICS CO., LTD. ZAOZHUNG KINGTECH ELECTRONICS CO.,LTD. ZHEJING DONGYANG DMEGC MAGNETIC CO.,LTD ZHEJIANG LINAN HE SHUN MAGNETIC FLUX ELECTRONIC CO.,LTD. ZHEJIANG HAINING LIANFENG MAGNET INDUSTRY CO., LTD. WUXI SPINEL MAGNETICS CO.,LTD. SHANGHAI KANGSHUN MAGNETIC COMPONENT CO., LTD. Guangzhou Tongyang Electronics Co., Ltd or Equiv.	
2	BOBBIN	RM10 [8P] PHENOL (94V-0)	SUMITOMO BAKELITE CO., LTD. HITACHI CHEMICAL CO LTD	E41429 E42926
3	COPPER WIRE	UEW 0.40Ø USTC 0.10Øx50#	DONG YANG ELECTRONICS IND CO.,LTD. SHANDONG PENGTAI STOCK CO., LTD. ZHEJIANG XIANDENG ELECTRICAL APPLIANCES CO., LTD JIANGSU DARTONG M&E CO.,LTD HANGZHOU WEIFENG ELECTRONIC CO LTD	E102761 E166187 E218270 E237377 E229341
4	INSULATION TAPE	POLYESTER TAPE 0.025t x 10.5mm 0.025t x 10.5mm {GREEN}	DUCK SUNG HITECH CO., LTD. JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD. METAL LINE CO., LTD.	E105147 E165111 E162848
5	CORE FIXING TAPE	POLYESTER TAP 0.025t x 7.0mm {YELLOW}		
6	EPOXY	UNI-BOND #812 SK-015B H-907	GREENSTAR CO.,LTD. SE KYE CHEMICAL CO., LTD. DONG GUAN SHI PAI HUA CHUANG MATERIAL FTY.	
7	IMPREGNATION	EPOXY	HITACHI CHEMICAL CO., LTD. KYOCERA CHEMICAL CORP SE KYE CHEMICAL CO LTD NOROO PAINT & COATINGS CO LTD	E72979 E83702 E257443 E93947
8	SOLDER BAR	SN98CU2-B20	SAMWOO METAL CO., LTD. YUNNAN TIN CO.,LTD. ASIA GENERAL ELECTRONICS CO.,LTD	
9	INK	JP-K12,K33 BON MARQUE MS-6853	HITACHI INDUSTORIAL EQUIPMENT CO.,LTD T&K TOKA CO.,LTD SHANGHAI LEADJET INKJET PRINTER TECHNIQUE CO., LTD.	
10	FLUX	SV-PBF-304 FC-113	KOKI SANEI KOREA CO.,LTD TAMURA KAKEN CORPORATION	

NO	REVISION	DATE	CHECK	DRAWN	CHECKED	APPROVED
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4						

DONG HEUNG ELECTRONICS CO., LTD.

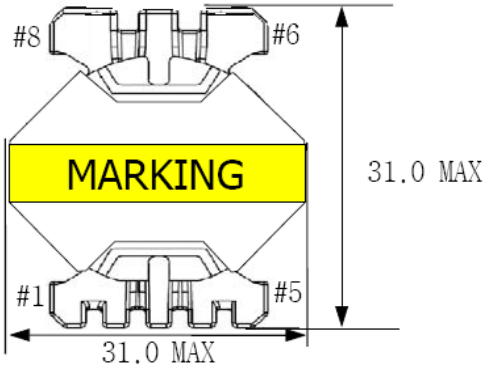
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APPROVAL SHEET

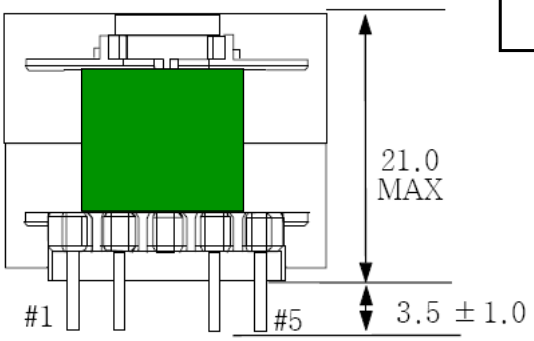
DATE	2014. 11. 07.
PAGE	OF

CUSTOMER	M S P		
PART NAME	SWITCHING TRANS	MODEL NO.	
PART NO.	SNP-6320RH-L32	DESCRIPTION	RM10 5+3P

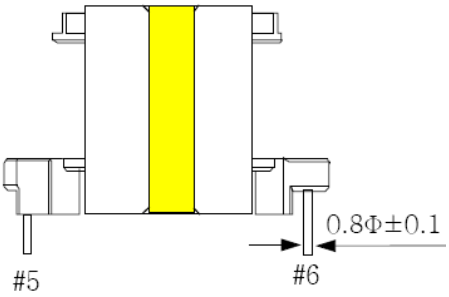
1. DIMENSIONS (UNIT:mm)



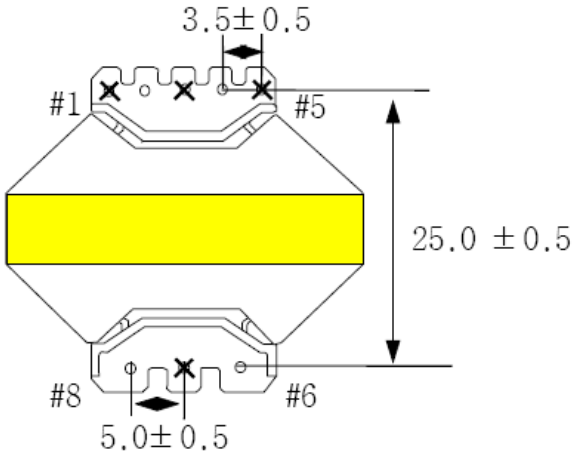
◎TOP VIEW◎



◎FRONT VIEW◎



◎SIDE VIEW◎



◎BOTTOM VIEW ◎

* MARKING *

PART NO → SNP-6320RH-L32 / DONGIN AA BB ← LOT NO

DIS-10B ← INSULATION SYSTEM

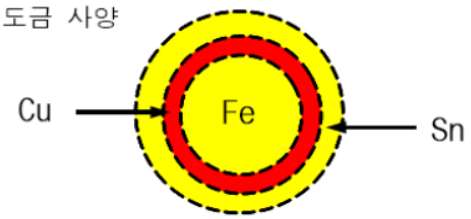
MONTH

YEAR

MAKER

MARKING	
PART NO.	SNP-6320RH-L32
(LOT NO)	AA : YEAR
	BB : MONTH
MAKER	DONG IN SYSTEM
DIS-10B	INSULATION SYSTEM

★. PIN 도금 사양



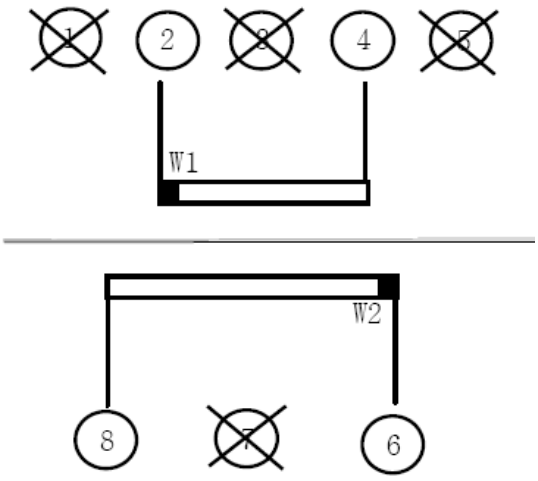
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				Safety	

APPROVAL SHEET

DATE	2014. 11. 07.
PAGE	OF

CUSTOMER	M S P		
PART NAME	SWITCHING TRANS	MODEL NO.	
PART NO.	SNP-6320RH-L32	DESCRIPTION	RM10 5+3P

2. CONNECTION (BOTTOM VIEW)



REMOVED PIN	#1,3,5,7
CUT PIN	#
N.C PIN	#
TEFLON TUBE	#
FLUX BAND	#6
DOT MARK	#START OF WINDING
* CORE CENTER BOND	

3. WINDING SPECIFICATION

NO	TERMINAL		WIRE	Ts	WINDING METHOD	INSULATION		BARRIER		
	S	F				MATERIAL (t / mm)	Ts	TOP	PIN	Ts
W1	2	4	UEW 0.40Ø X 2	11	SOLENOID	POLYESTER TAPE 0.025 / 10.5	2			
W2	6	8	USTC 0.10Ø X 50P X 2	14	SOLENOID	POLYESTER TAPE 0.025 / 10.5 (GREEN)	2			
CORE FIXING TAPE				POLYESTER TAPE 0.025 / 7.0 (YELLOW)			3			

DRAWN BY	CHECK BY	APPR. BY	REVISION		DATE
				Safety	

DIS DONG - IN SYSTEM CO.,LTD.

APPROVAL SHEET		DATE	2014. 11. 07.
		PAGE	OF

CUSTOMER	M S P		
PART NAME	SWITCHING TRANS	MODEL NO.	
PART NO.	SNP-6320RH-L32	DESCRIPTION	RM10 5+3P

4. RELIABILITY TEST

ITEM	TEST CONDITION	SPEC	
HUMIDITY - RESISTANCE	TEMPERATURE:40±2℃, HUMIDITY:90~95%RH, TIME:96HR (UNDER THE CONDITION OF NORMAL TEMPERATURE MEASURING DATA AFTER LEAVING MORE THAN 60 MINUTES.)	INITIAL INDUCTANCE ±10%	LAYER SHORT DIELECTR STRENTH INSULATOR RESISTANCE
HEAT SHOCK - RESISTANCE	-25℃ 1HR → 85℃ 1HR : 10 CYCLES (UNDER THE CONDITION OF NORMAL TEMPERATURE MEASURING DATA AFTER KEEPING MORE THAN 60 MINUTES.)	INITIAL INDUCTANCE ±10%	LAYER SHORT DIELECTR STRENTH INSULATOR RESISTANCE
HEAT - RESISTANCE	TEMPERATURE:105±2℃, TIME:96HR (UNDER THE CONDITION OF NORMAL TEMPERATURE MEASURING DATA AFTER KEEPING MORE THAN 60 MINUTES.)	INITIAL INDUCTANCE ±10%	LAYER SHORT DIELECTR STRENTH INSULATOR RESISTANCE
COLD - RESISTANCE	TEMPERATURE:-25±2℃, TIME:96HR (UNDER THE CONDITION OF NORMAL TEMPERATURE MEASURING DATA AFTER LEAVING MORE THAN 60 MINUTES.)	INITIAL INDUCTANCE ±10%	LAYER SHORT DIELECTR STRENTH INSULATOR RESISTANCE

5. ENDURANCE TEST

ITEM	TEST CONDITION	SPEC
SOLDERABILITY	SOLDER POT ℃ : 280 ±5℃ SOLDERING HR : 2 ±0.5 SEC	MORE THAN 90%
SOLDERING HEAT RESISTANCE	SOLDERING ℃ : 260 ±5℃ SOLDERING HR : 10 ±1.0 SEC	MORE THAN 90%

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				Safety	

APPROVAL SHEET

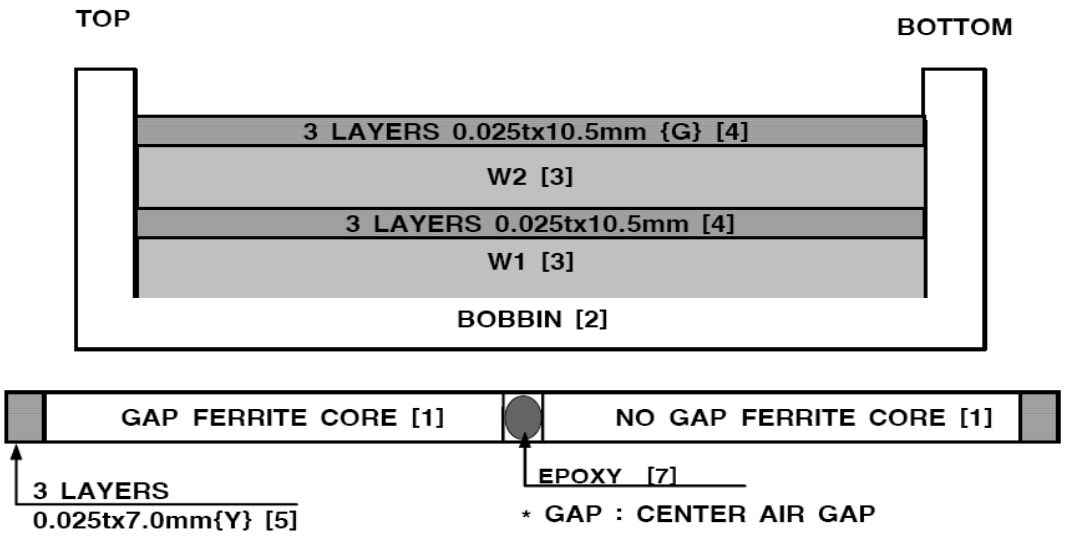
DATE	2014. 11. 07.
PAGE	OF

CUSTOMER	M S P		
PART NAME	SWITCHING TRANS	MODEL NO.	
PART NO.	SNP-6320RH-L32	DESCRIPTION	RM10 5+3P

6. ELECTRICAL CHARACTERISTICS

NO	ITEM	TERMINAL	SPECIFICATION	REMARKS
1	INDUCTANCE	6 - 8	25.0uH ± 12%	HP 4284A LCR-METER AT 1kHz 1V
2	DC RESISTANCE	6 - 8	0.06ohm MAX	HIOKI-3540 mΩ TESTER
3	WITHSTANDING VOLTAGE	P COIL - CORE	AC 1,5 KV RMS 10mA 60 SEC.	KIKUSUI TOS8850
4	INSULATION RESISTANCE	P COIL - S COIL	100Mohm MIN DC 500V	KIKUSUI TOS8850
5	SURGE TEST	PRI. - SEC.	AC 1.5 KV 1SEC.	

7. CONSTRUCTION



* WINDING
* P.S TAPE

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				Safety	

APPROVAL SHEET

DATE	2014. 11. 07.
PAGE	OF

CUSTOMER	M S P		
PART NAME	SWITCHING TRANS	MODEL NO.	
PART NO.	SNP-6320RH-L32	DESCRIPTION	RM10 5+3P

8. MATERIAL LIST

NO	ITEM	MATERIAL	MANUFACTURER	FILE NO.
1	CORE	PC-40 RM10 HX-4P RM10	JI SHUN MAGNETIC CO.,LTD. NANTONG HUAXING MAGNETIC MATERIAL CO.,LTD	
2	BOBBIN	PHENOL 94V-0 RM10 8PIN	SUMITOMO BAKELITE CO., LTD.	E41429
3	WIRE	POLYURETHANE ENAMELED COPPER WIRE UEW 0.40Ø USTC 0.10Ø X 50P	DONG YANG ELECTRONICS IND CO LTD.	E102761
4	INSULATION TAPE	POLYESTERS TAPE T = 0.025mm , T = 0.050mm W = 10.5mm(GREEN)	DUCK SUNG HITECH CO LTD.	E105147
5	CORE FIXING TAPE	POLYESTERS TAPE T = 0.025mm , W=7.0mm (YELLOW)		
6	PIN TERMINAL	SOLDER COATED COPPER	DAE-A LEAD CO.,LTD.	
7	ADHESIVE	SK-015B	SEKYE EPOXY RESIN CO., LTD.	
8	VARNISH	SR-337A,B	SEKYE CHEMICAL CO.,LTD.	E257443
9	SOLDER	Sn99.3 / Cu0.7 or EQV.	ALPHA METALS CO.,LTD or EQV.	
10	MARKING	INK (BON MARQUE) or EQV.	ATL CO.,LTD or EQV.	
11	FLUX	EF9301, DP-500K	ALPHA METALS CO.,LTD DUIYUAN TECH(HUIZHOU)CO.,LTD	

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				Safety	

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

2. ELECTRICAL CHARACTERISTIC

NO	ITEM	TERMINAL	SPECIFICATION			REMARKS
1	RATED VOLTAGE	LINE TO LINE	AC 300V			
2	RATED CURRENT	START-FINISH	7.5A			
3	INDUCTANCE	START-FINISH	160KHz	450uH	+50%,-30%	HP-4194A 1V (25℃±2℃)
4	TEMPERATURE RISE	AT RATED CURRENT	60℃ MAX			
5	DC RESISTANCE	START-FINISH	19.0 mΩ MAX			HIOKI 3540 (25℃±2℃)
6	WITHSTANDING VOLTAGE	LINE TO LINE	AC 1,500V 1 MINUTE			TOS-5101 CUT OFF CURRENT (5mA)

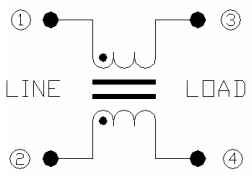
3. OPERATING TEMPERATURE RANGE

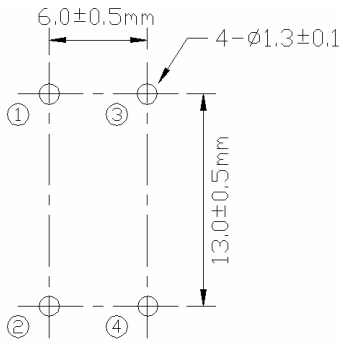
-30℃ TO +105℃ INCLUDING TEMPERATURE RISE.

4. KEEP TEMPERATURE RANGE

-30℃ ~ +60℃.

5. CIRCUIT DIAGRAM



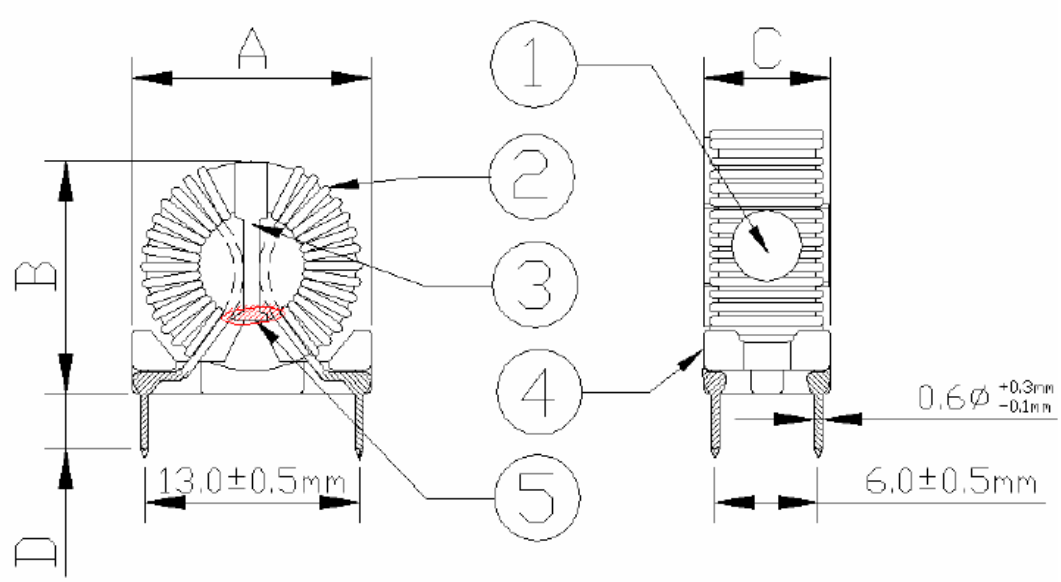


Minimum PCB Piercing HOLE

6. WINDING SPECIFICATION

NO	TERMINAL		WIRE	TURNS	WINDING METHOD	UNBALANCE SPECIFICATION
	START	FINISH				
L1	1	3	UEW 0.7Φ	9 ±1Ts	HANDMADE	BETWEEN L1 AND L2 (52.78uH MAX)
L2	2	4				

7. SHAPE AND DIMENSION



DIMENSION	A	B	C	D
	18.0mm MAX	18.5mm MAX	10.0mm MAX	Not include solder fillet 3.6±0.5mm

8. MATERIAL LIST

No.	NAME	SPECIFICATION		MANUFACTURER	COLOR	UL No.
1	Ferrite Core	MA100 R-13/7/5 R10KF TR13X7X5C		JFE Ferrite Corp LAIWU CHAINWELL ELECTRONIC&MATERIAL CO.,LTD Equal.	GRAY	
2	Enamel Wire	UEW 0.7Φ / 9±1Ts	UEW	Hwa Il Electronics Co.,Ltd	YELLOW	E140246
			UEW	SHANDONG PENGTAI STOCK CO LTD Equal.	YELLOW	E166187
3	Coil Separator	LCP L304T40		TORAY Industries INC	BLACK	E41797
		NYLON A 50H1(r3)(f2)		SOLVAY ENGINEERING PLASTICS GBU	BLACK	E44716
4	Coil Base	Phenolic (PF 2736(a)(b)) UL 94 V-0 Class		Hexion GmbH	BLACK	E61040
		Phenolic (T375HF) UL 94 V-0 Class		Chang chun Plastics LTD	BLACK	E59481
5	Epoxy	EPOXY RESIN	NA-010	ND Chemical	WHITE	
			EA610A / EA610B	Chem Tech	Transparent	

12. RELIABILITY TEST

ITEM	TEST CONDITION	SPEC
HUMIDITY RESISTANCE	40℃±2℃, 95%, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%
HEAT RESISTANCE	105℃±2℃, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%
COLD RESISTANCE	-25℃±2℃, 96Hr. Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%
TEMPERATURE CYCLE	-45℃ 30min → 105℃ 30min, 100 CYCLE Measure after leave more than 24Hr, normal temperature(25℃ ±2℃)	L : Initial value ± 20%

13. ENDURANCE TEST

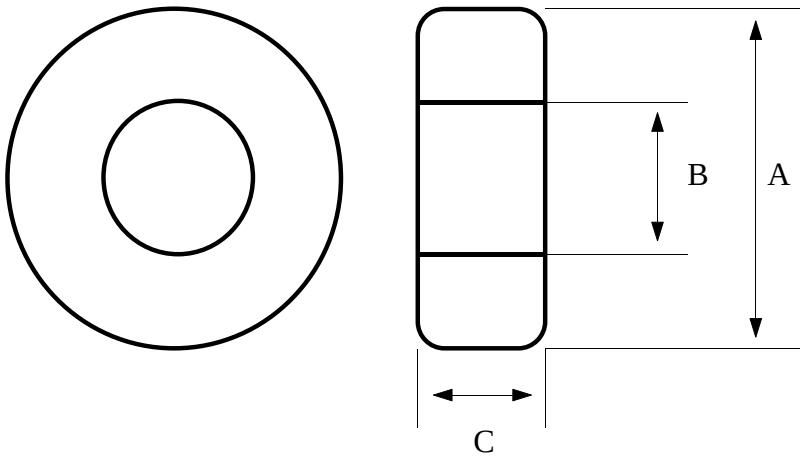
ITEM	TEST CONDITION	SPEC
SOLDERING ADHESION	SOLDER POT ℃ : 245 +0, -5℃ SOLDERING HR : 3 ± 0.5 SEC	More than 95%
SOLDERING HEAT RESISTANCE	SOLDERING ℃ : 260 +5, -0℃ SOLDERING HR : 10 ± 0.5 SEC	L : Initial value ± 20%

14. FERRITE CORE SPECIFICATION

- **Characteristics**

Symbol	Unit	MA100 R- 13/7/5	R10KF TR13X7X5C
μi	-	10,000±25%	10,000±30%
Bms	mT	415	390
Hcms	A/m	3.0	7.0
Brms	mT	76	100
Tc	℃	>115	>120
TANδ /μiac	$*10^{-6}$	<1.9	<7.0
αμr	$*10^{-6}$ /℃	-0.5~2.0	0~1.5
ρ	Ω.m	0.1	0.15
d	g/㎤	5.0	4.8

- **Dimension (before coating)**



A: 13.0 ±0.35 **B: 7.0 ±0.3** **C: 5.0 ±0.3**

NETWORK CAMERA,XNP-A6374RH
AC 24V~ 50/60Hz 4.3A
PoE(55V ⎓) 0.93A
M/C: XNP-A6374RH/KUS Fac.ID:D
2026.01 S/N: Serial No.
MAC ADDRESS: XX-XX-XX-XX-XX-XX
CAN ICES-3(A)/NMB-3(A)
HANWHA VISION CO.,LTD.
Made in Korea



Photographs-01 Page-1



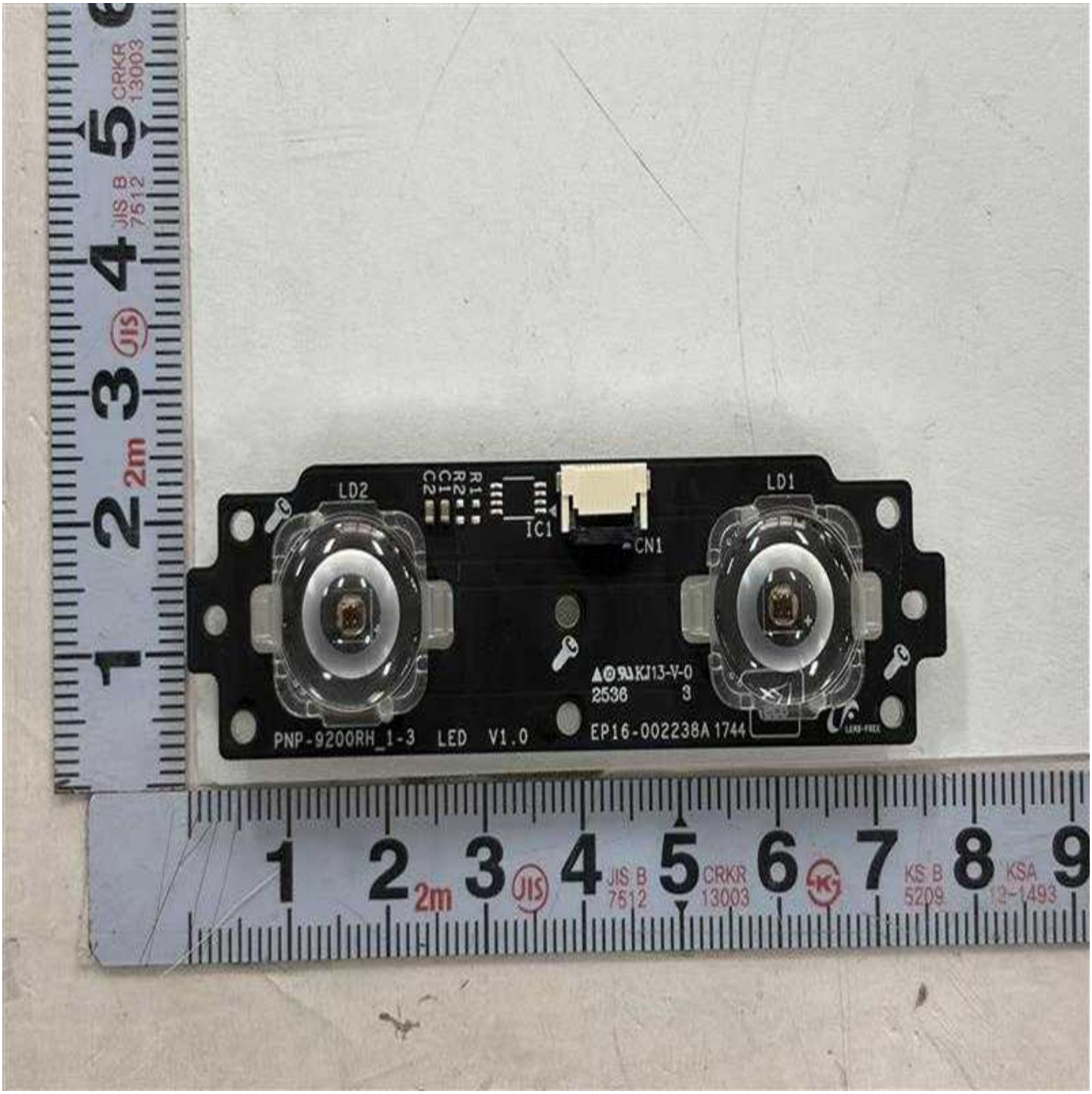
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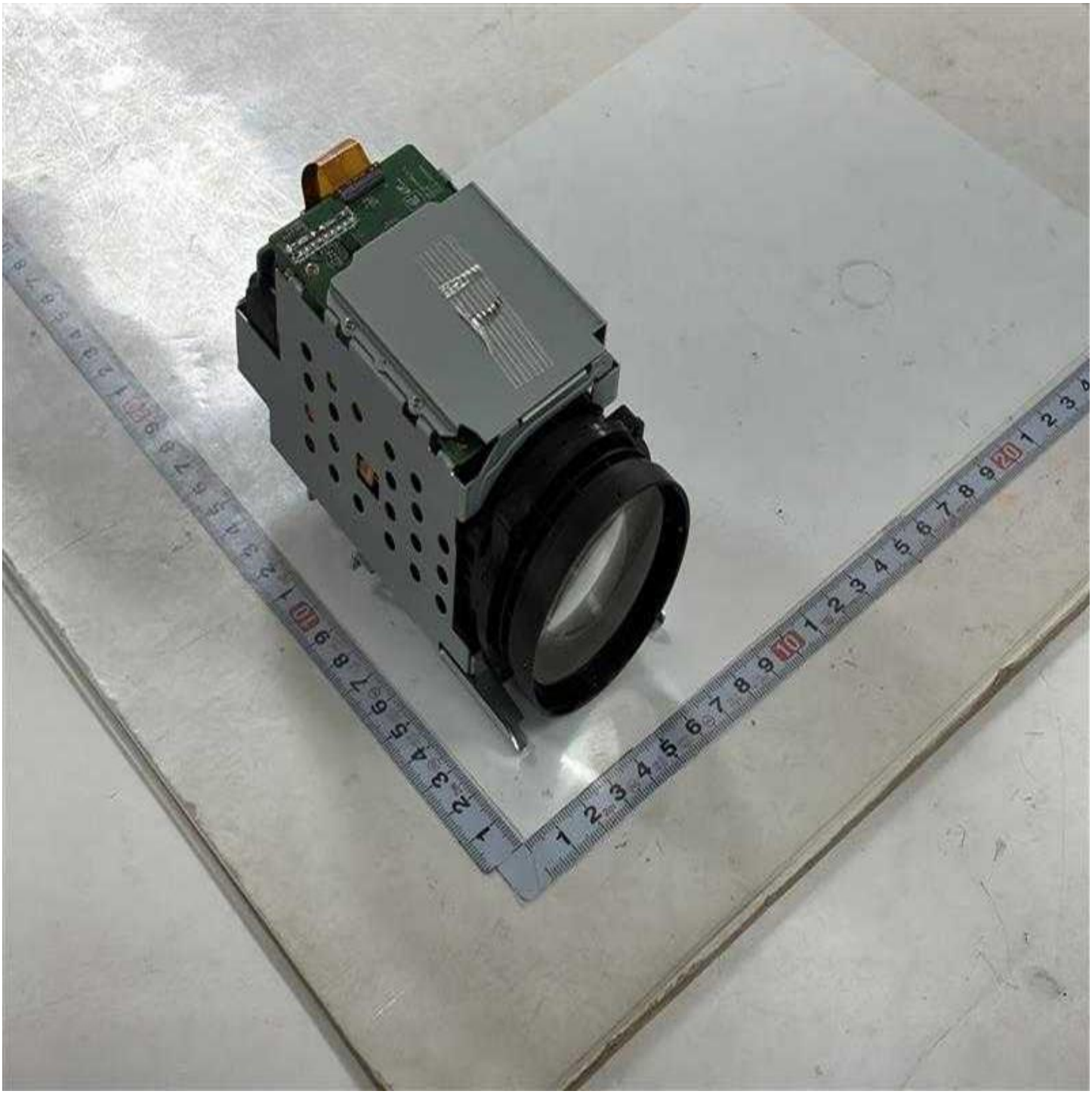
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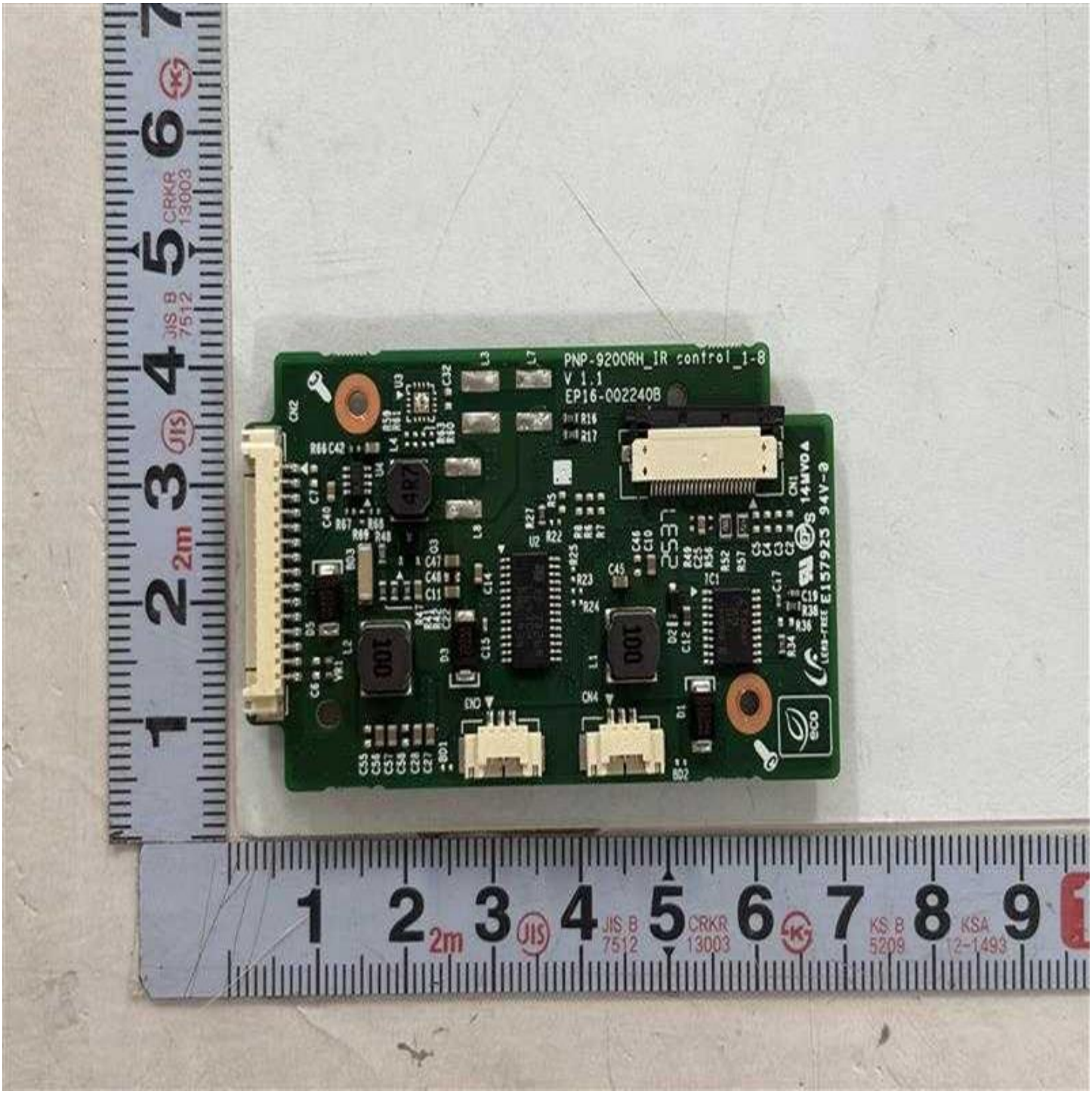
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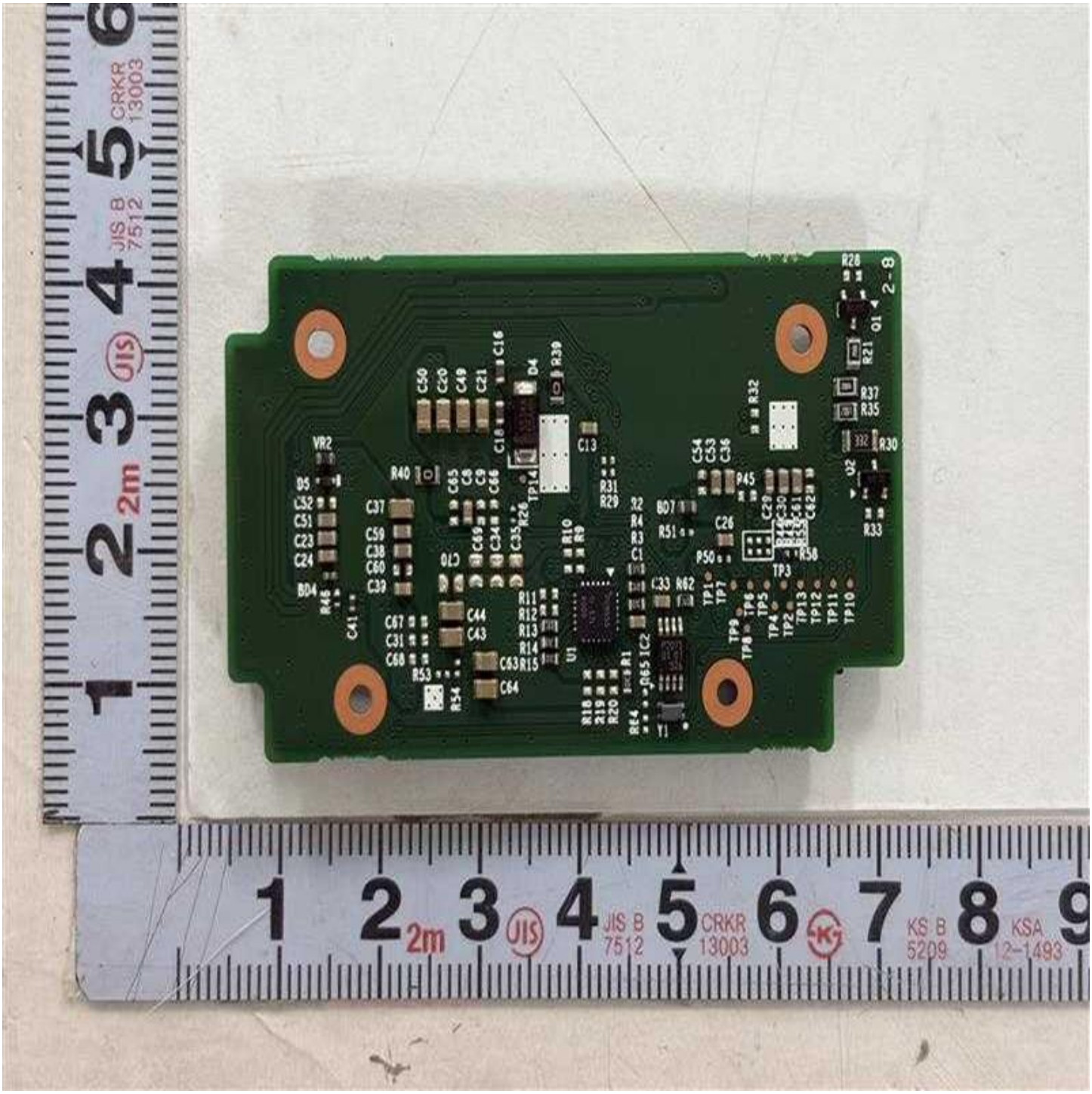
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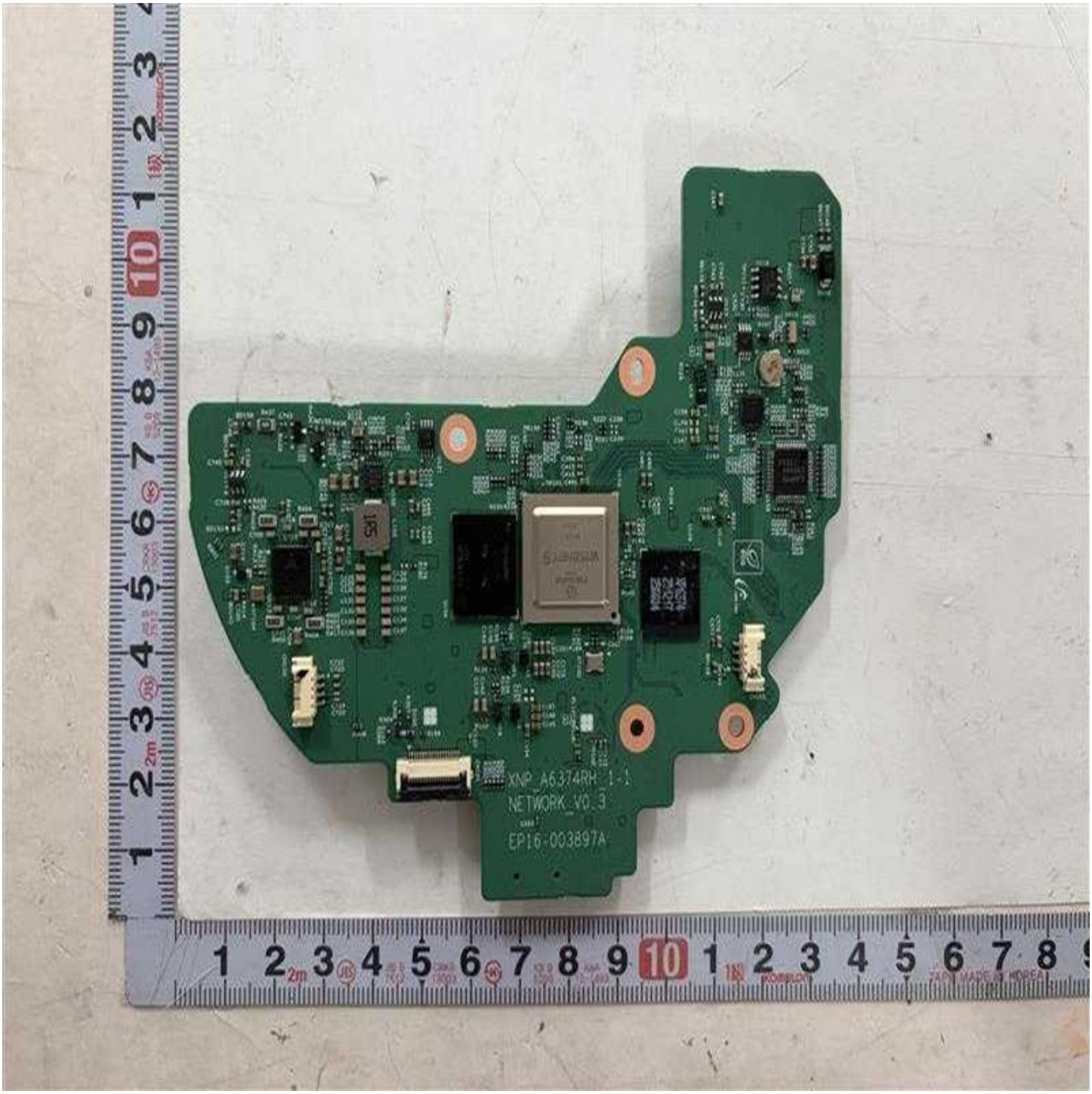
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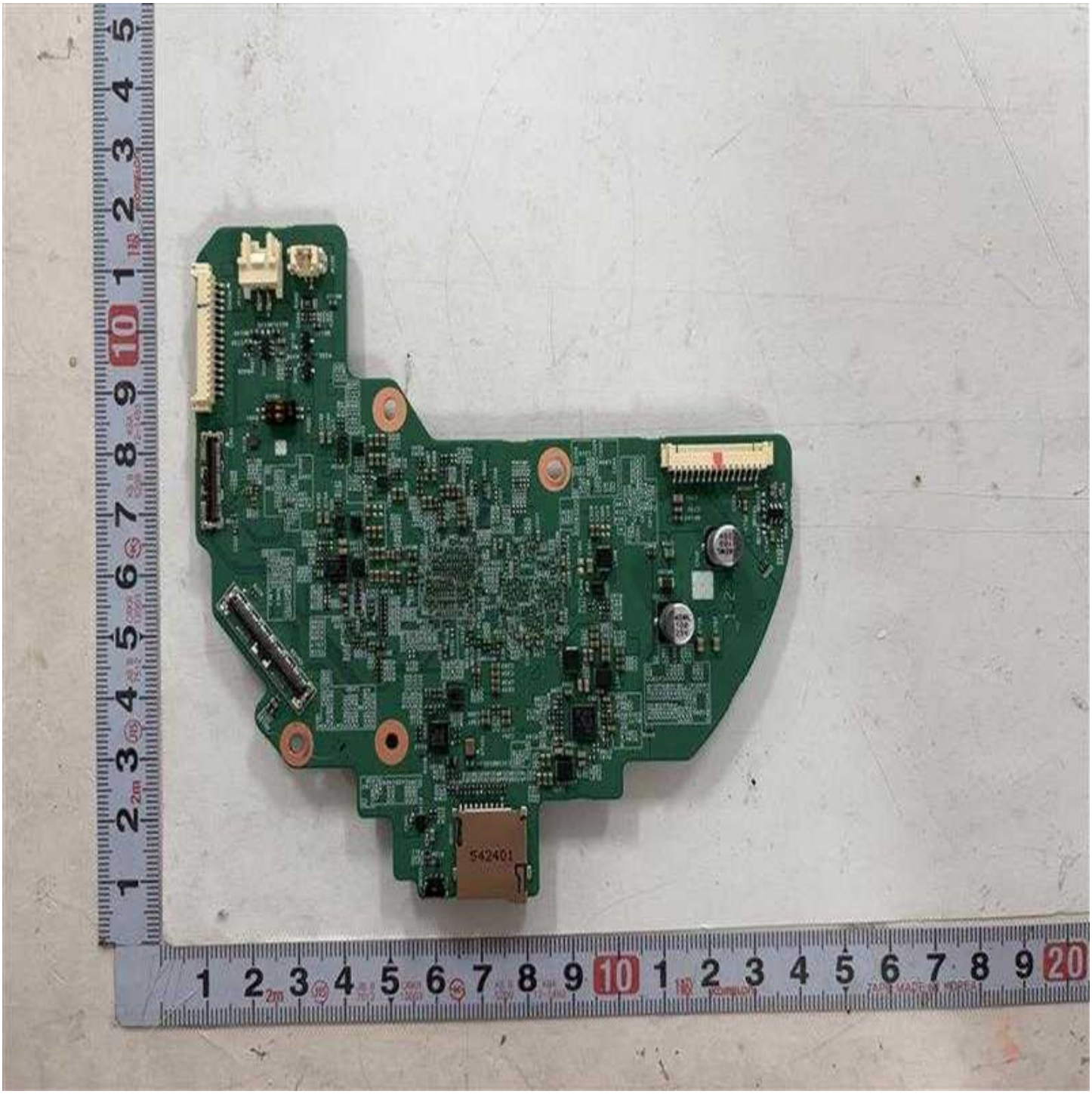
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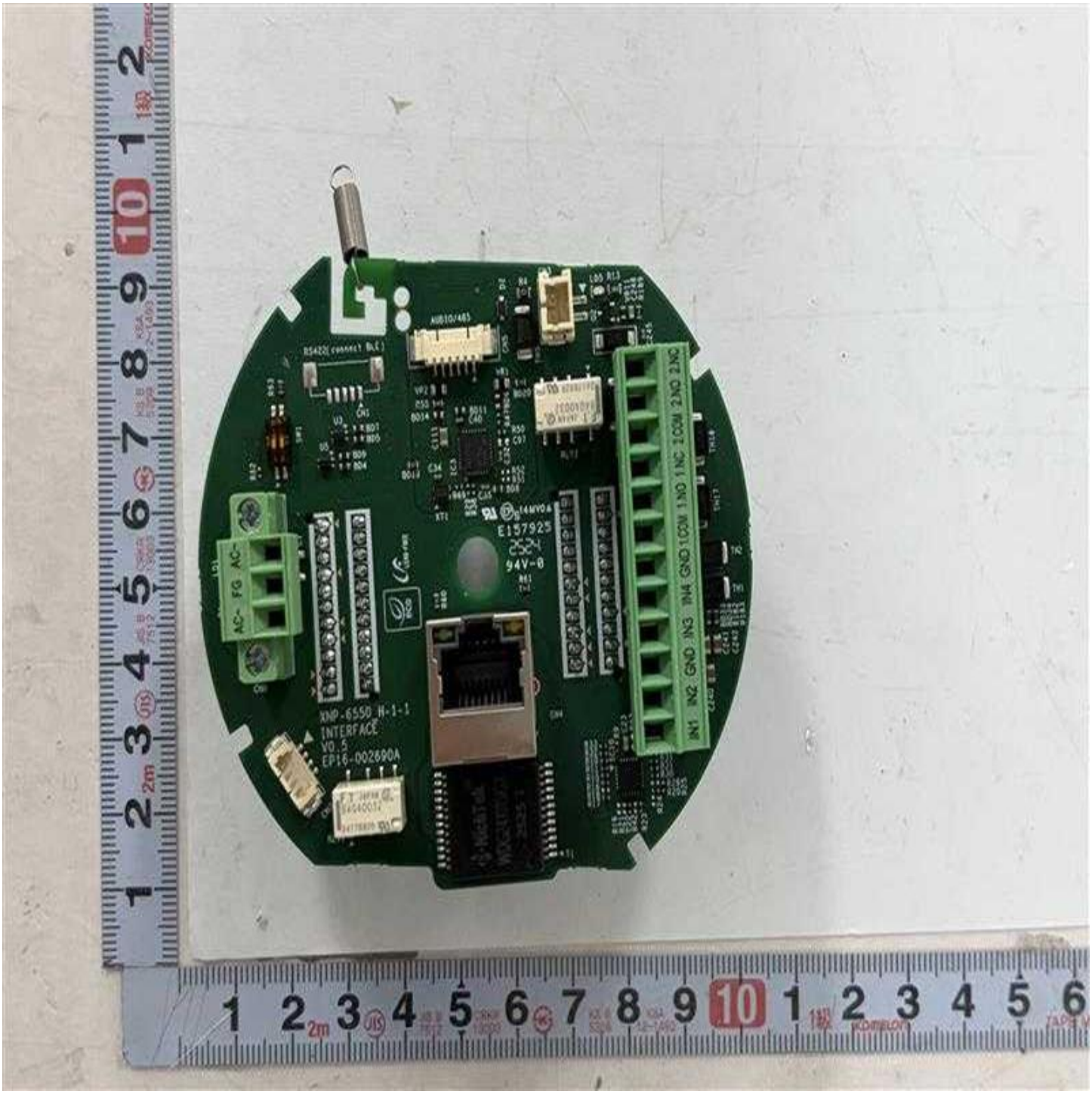
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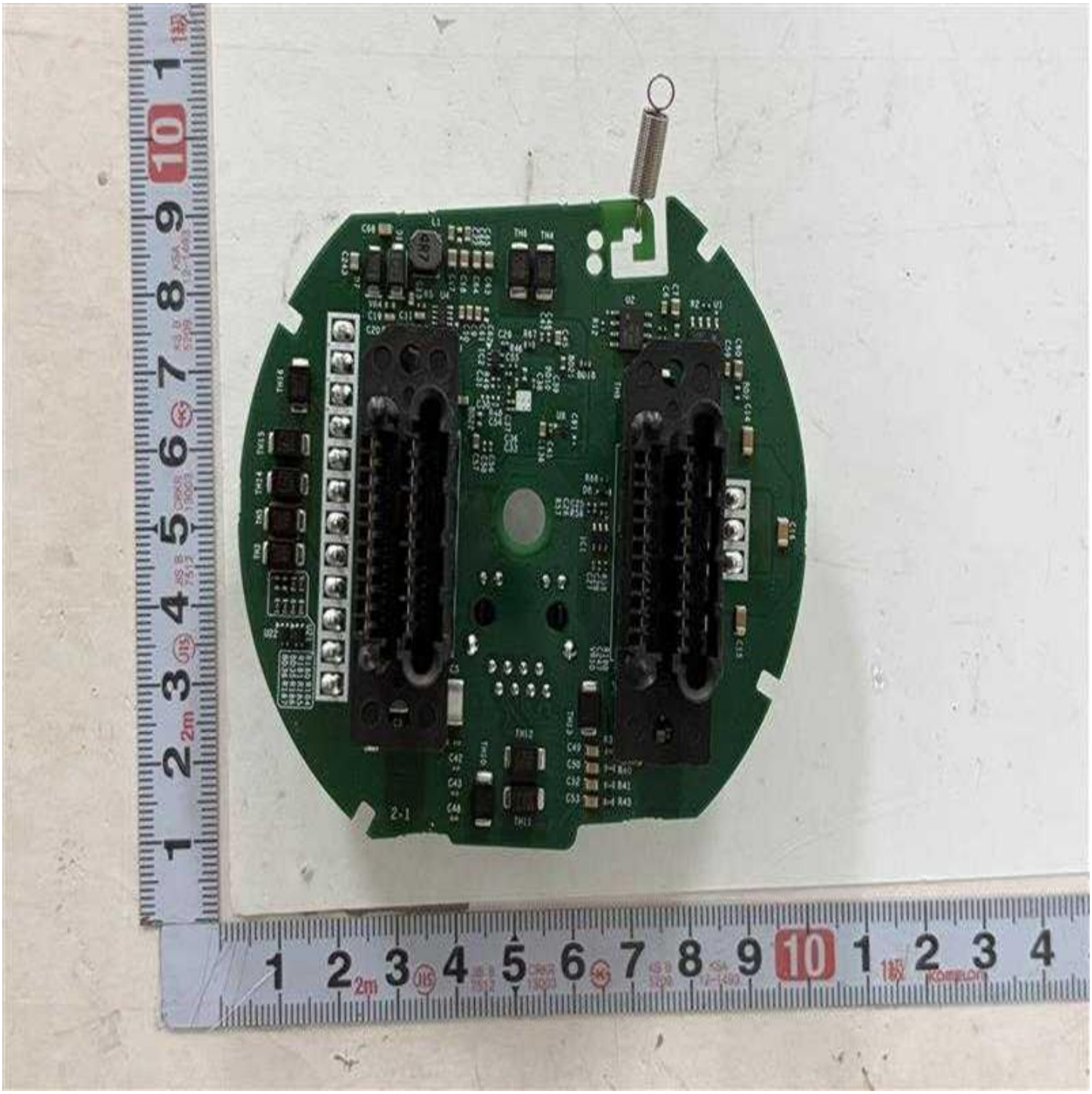
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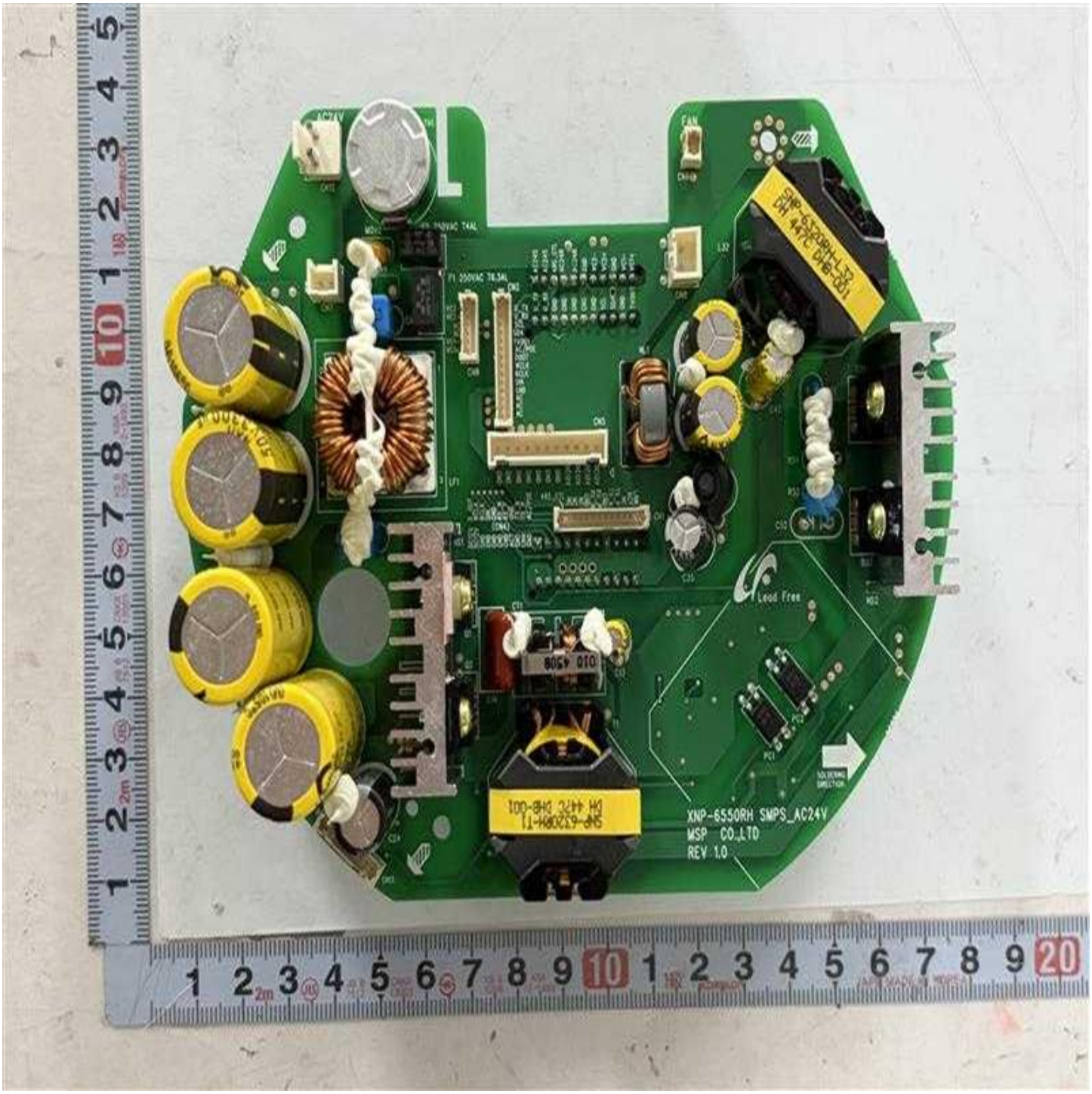
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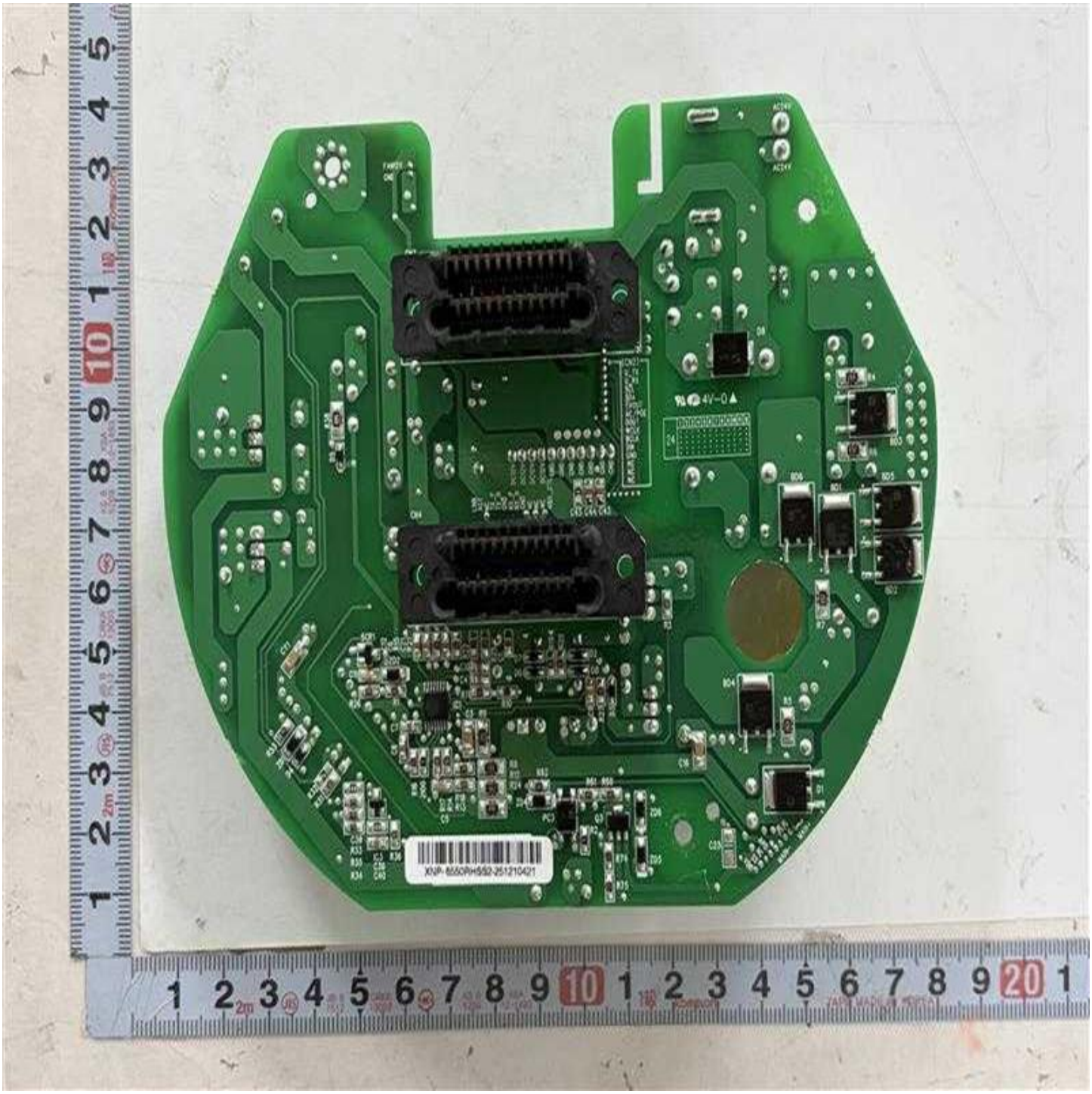
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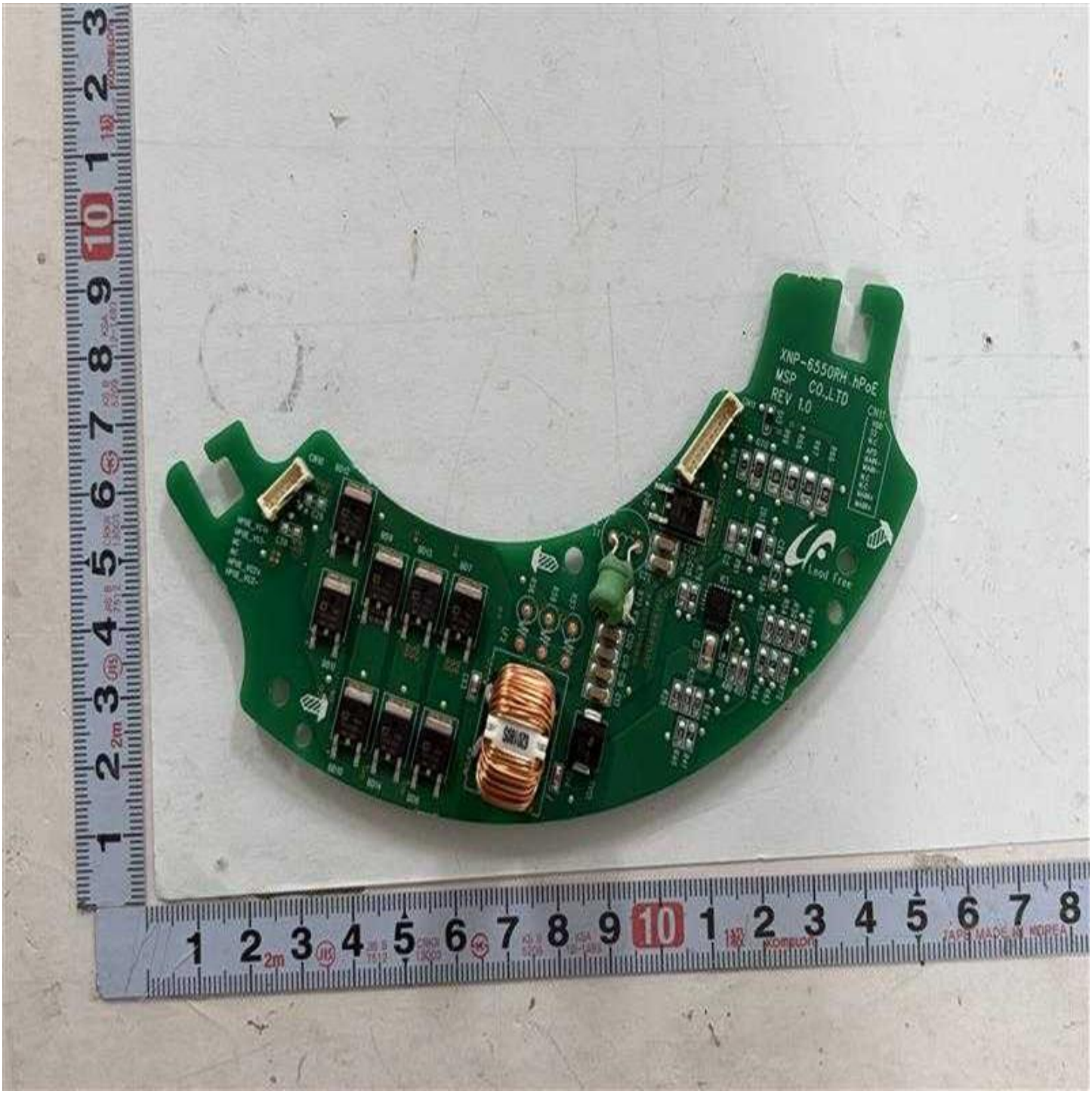
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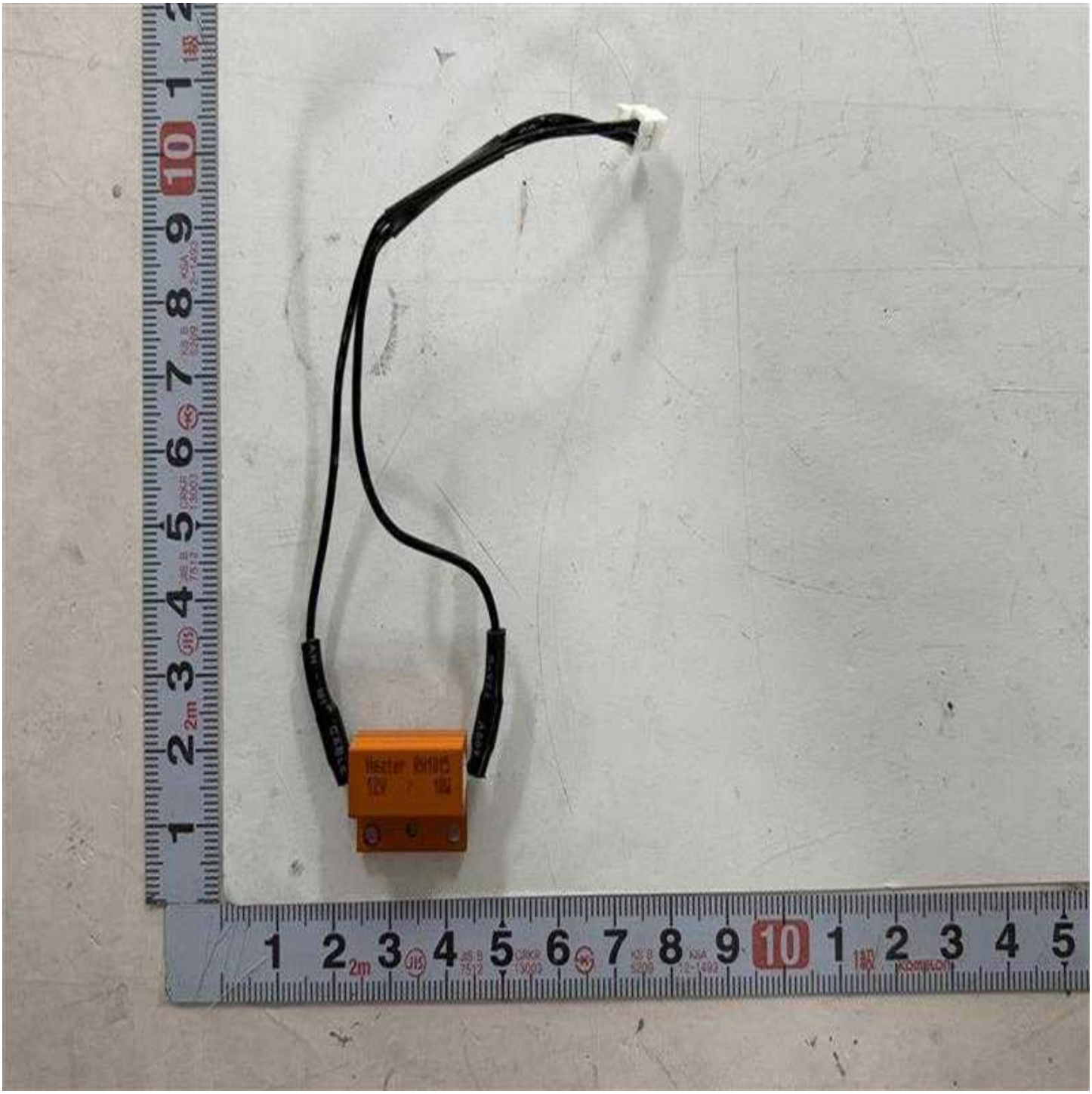
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Photographs-14 Page-1



Photographs-15 Page-1



Photographs-16 Page-1



Photographs-17 Page-1

