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-A6293-DescriptionUL
Figure-20-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-A9314R
Rating:	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.

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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 outdoor or indoor use, wall or ceiling use with mounting brackets.

It is commercial equipment supplied by UL listed 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 Outdoor: minimum 50
IP protection class	IP 66, 67
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)	4.40

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
- The outdoor equipment was evaluated for use in an ambient range of : -50 °C to 55 °C

Additional Information

4792097206
- Maximum Normal Load: Continuous operation (IR LED on, Fan operating, Angle motor on) (Optional features: Heater on)

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, current)
Outdoor enclosure type	Rainproof
Equipment for use in location where children are not likely to be present	"This equipment is not suitable for use in locations where children are likely to be present" (Instruction) or equivalent "Cet équipement ne convient pas à une utilisation dans des lieux pouvant accueillir des enfants" (Instruction) ou équivalent
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 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.bt 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
Enclosure (Camera cover dome) (Plastic)	MITSUBISHI ENGINEERING-PLASTICS CORP	S-2000V+(f1)	Min. 2.5 mm thickness, rated Min. V-2, RTI min 115 deg. C.	QMFZ2	UL (E41179)	
Enclosure Top (Plastic)	LOTTE CHEMICAL CORPORATION	QC-1220UR(f1)	Min. 2.5 mm thickness, rated Min. V-2, RTI min 125 deg. C	QMFZ2	UL (E115797)	
Between Top enclosure and Bottom enclosure (Plastic)	LOTTE CHEMICAL CORPORATION	UH-1068(f1)	Min. 1.8 mm thickness, rated Min. V-0, RTI min 130 deg. C	QMFZ2	UL (E115797)	
Enclosure Bottom (Metal)	Interchangeable	Interchangeable	Aluminum, Min. 2.5 mm thickness.	-	Tested in equipment	
Internal Metal	Interchangeable	Interchangeable	Aluminum, Min. 2.2 mm thickness.	-	Tested in equipment	
Internal Plastic part 1	LOTTE CHEMICAL CORPORATION	HN-1068(f1)	Min. 2.0 mm thickness, rated Min. V-0, RTI min 130 deg. C.	QMFZ2	UL (E115797)	
Internal Plastic part 2	SABIC INNOVATIVE PLASTICS US L L C	D2000	Min. 2.0 mm thickness, rated Min. HB, RTI min 80 deg. C	QMFZ2	UL (E121562)	
Internal Plastic part 3	KOREA ENGINEERING PLASTICS CO LTD	FT2020	Min. 2.0 mm thickness, rated Min. HB, RTI min 50 deg. C	QMFZ2	UL (E120354)	
Line Filter (L5)	TNC CO.，LTD	CV425090SKA	9.0 mH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Opto-coupler (LS2)	LITE-ON Technology Corporation	LTV-217	Isolation Voltage: 3750. Max. Operation Temperature:110 deg. C	FPQU2	UL (E113898)	

Opto-coupler (LS2) - Alternate	COSMO ELECTRONICS CORP	KPC357NT	Isolation Voltage:3750 Vac, Max. Operation Temperature: 115 deg. C	FPQU2	UL (E169586)	
Transformer(T2)	SAMWHA TECOM Co.,Ltd.	STEFD25D-24V	18 uH,130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Heatsink (HS1, HS2)	Interchangeable	Aluminum	Approx. 97.51 mm by 96.27 mm by 14.1 mm, Min. 3.0 mm thickness, secured on PCB by soldering	-	Tested in equipment	
DC Fan 1	SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD	HA40101V4-1(Y) (type: HA40101V4-1000U-A99)	12 Vdc, 0.028 A, 5000 RPM (N/15000+K/2400 = 0.3510 < 1, N=5000, K=42.4128)	GPWV2	UL (E77551)	
DC Fan 2	DONGGUAN PROTECHNIC ELECTRIC CO LTD	MG(a)2512H(e)-(f)08(type: MGA2512HB-O10)	12 Vdc, 0.07 A, 9500 RPM (N/15000+K/2400 = 0.6451 < 1, N=9500, K=28.1493)	GPWV2	UL (E187236)	
Tilt Motor (Stepping motor)	SHINANO KENSHI	STP-42D0032	Rated 24 Vdc, 0.7 A Hybrid stepping type.	-	Tested in equipment	
Pan Motor (Stepping motor)	SHINANO KENSHI	STP-43D2212	Rated 24 Vdc, 1.0 A Hybrid stepping type.	-	Tested in equipment	
Lens Module (Zoom/Focus/Iris/IR Change Stepping Motor)	UNION OPTECH CO.,LTD	T5215-E	Iris: Rated 5.0±0.3 V Zoom: Rated 5.0±0.3 V, Focus: Rated 5.0±0.3 V IR Change : Rated 5.0±0.3 V	-	Tested in equipment	
Rechargeable battery (BAT1)	SEIKO INSTRUMENTS INC MICRO-ENERGY DIV	MS421R	Lithium, Rechargeable, Max ChargingVoltage, 3.4 V dc, Max Charging current: 300 mA	BBCV2	UL (MH15628)	

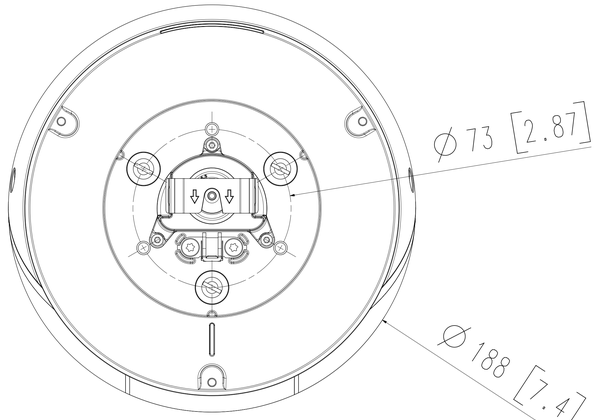
Lithium Battery Protection Circuit	Interchangeable	Interchangeable	Diode (D6, 80 V, 150 mA) and Resistor (R61, 3.3Kohm) in series	-	Tested in equipment	
Heater (R1 to R24) (24ea)	Interchangeable	Interchangeable	10 ohm, Total 9.6W	-	Tested in equipment	
LED (LED Right board, LED (LD1, LD2, LD3, LD4), Left board (LD1, LD2, LD3, LD4) (Total 8ea)	OSRAM	SFH4715AS	VF=Max. 3.5 V, IF=Max. 1.5A	-	Tested in equipment	
Gasket - Dome cover	Y&K TECH CO., LTD	191122	Max Service Temp. 115 deg. C	JMLU2	UL (MH64644)	
Gasket- Pan	Y&K TECH CO., LTD	O-VMQ-50-BK	Gasket Test was conducted under E158873-A6034	-	Tested in equipment	
Gasket - body	Y&K TECH CO., LTD	191125	Gasket Test was conducted under MH64644	JMLU2	UL (MH64644)	
Gasket - top	Y&K TECH CO., LTD	191122	Gasket Test was conducted under MH64644	JMLU2	UL (MH64644)	
Gasket - side	Y&K TECH CO., LTD	191122	Gasket Test was conducted under MH64644	JMLU2	UL (MH64644)	
Thermal Pad	KOMOTECH CO LTD	KGP-1(a)	Min. 2.0 mm thickness, rated V-0, 150 deg. C	QMFZ2	UL (E245303)	
Thermal Pad - Alternate	ATEX CO LTD	ATP-20	Min. 1.2 mm thickness, rated V-0, 150 deg. C	QMFZ2	UL (E513170)	
PWB	HANNSTAR BOARD CORP	MV-4	Min. V-0, 130 deg. C	ZPMV2	UL (E89382)	
PWB -Alternate	Interchangeable	Interchangeable	Min. V-0, 130 deg. C	ZPMV2	UL	
FWB	Interchangeable	Interchangeable	Min. V-0	ZPXK2, ZPMV2	-	

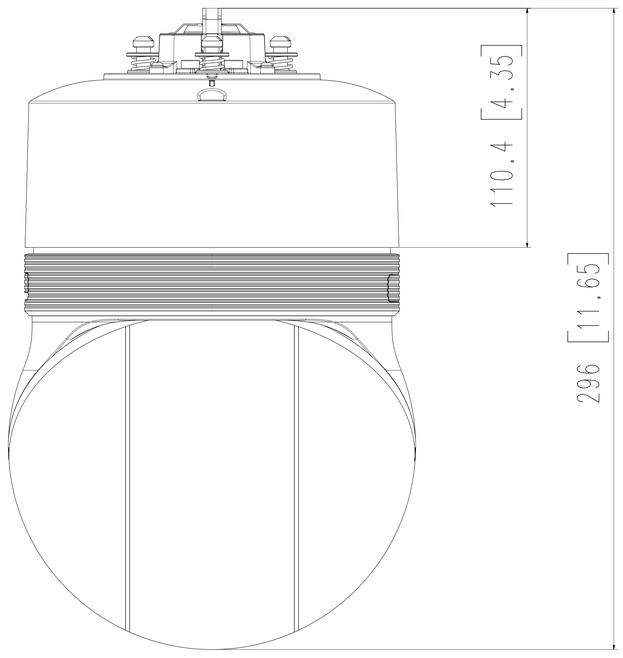
Outdoor Label	Interchangeable	Interchangeable	Suitable for use on each type of surface to which applied, rated for maximum and minimum surface temperature specified, or Min. -50 deg. C to Max. 55 deg. C if not specified.	PGDQ2 or PGJI2	UL	

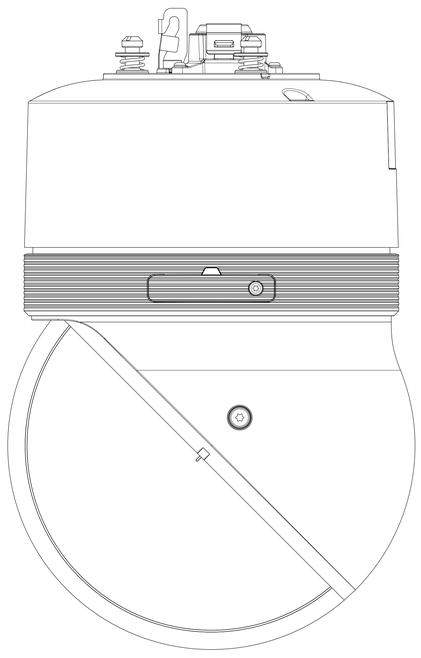
Enclosures

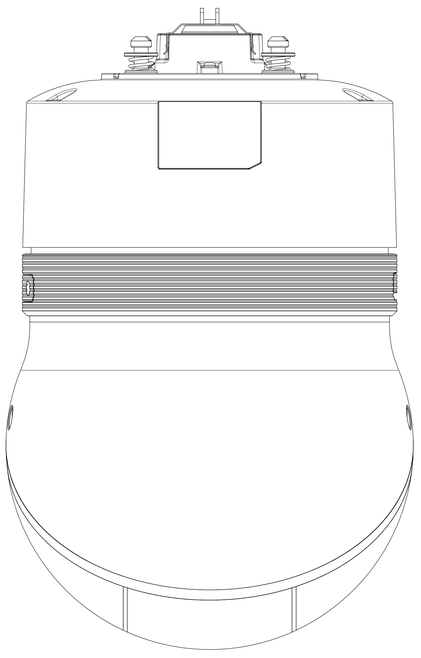
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Photographs	03-01	External View - 1
Photographs	03-02	External View - 2
Photographs	03-04	Internal View - 1
Photographs	03-05	Internal View - 2
Photographs	03-06	Internal View - 3
Photographs	03-07	Lens Module
Photographs	03-08	IR LED
Photographs	03-09	IR Control Board
Photographs	03-10	Heater Board
Photographs	03-11	Drive Board
Photographs	03-12	Network Board - Top
Photographs	03-13	Network Board - Bottom
Photographs	03-14	DC Fan - 1
Photographs	03-15	DC Fan - 2
Diagrams	04-01	Enclosure Diagram
Diagrams	04-02	Heatsink Diagram
Manuals	06-01	Manual
Miscellaneous	07-01	Transformer (T2) Specification
Miscellaneous	07-02	Line Filter (L5) Specifiation
Miscellaneous	07-03	Label

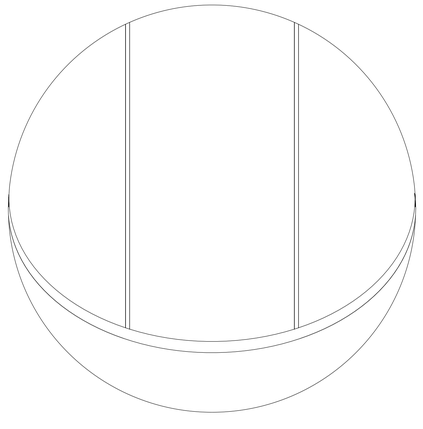
The following Page(s) are related to Diagrams-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.











3	XNP-A9314R	'26.01.24
2	XNP-C7310R	'23.10.17
1	XNP-C9310R	
No.	MODEL NAME	DATE
Unit:mm[inch]	SCALE:1/1	Hanwha Vision

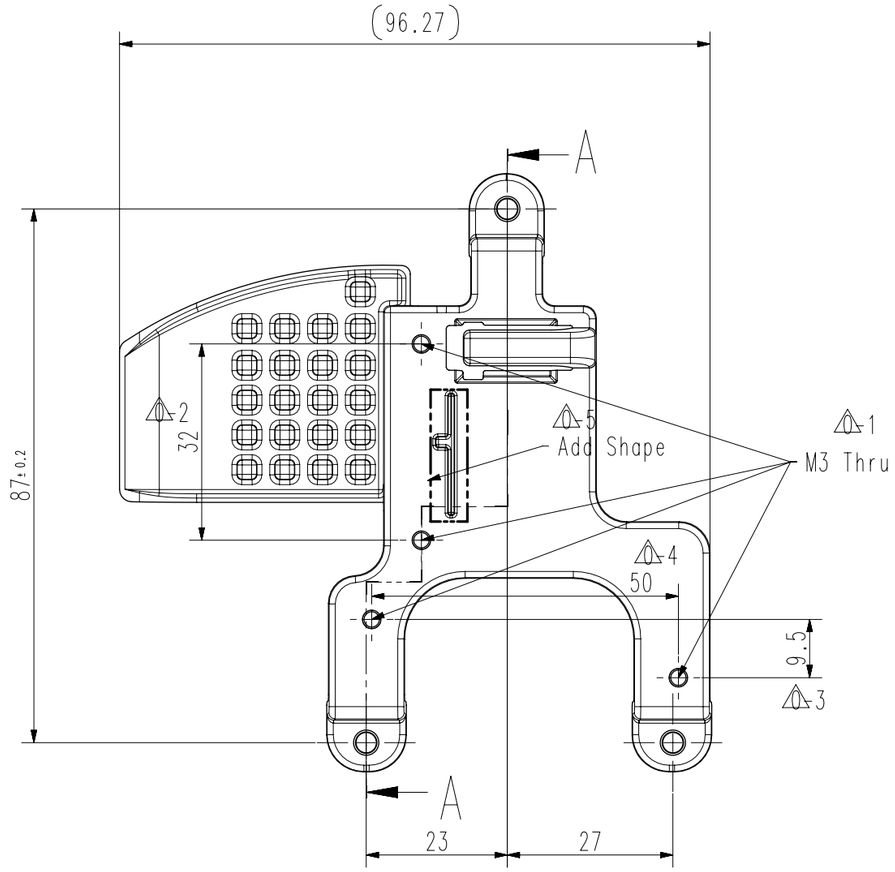
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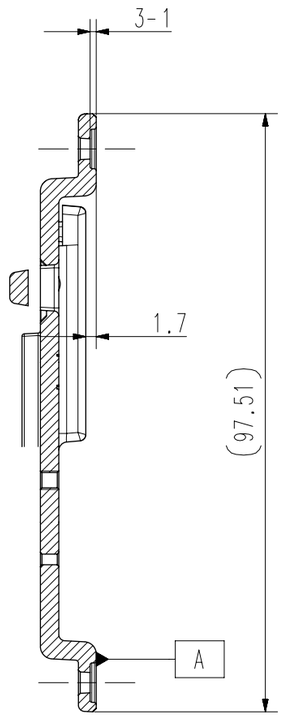
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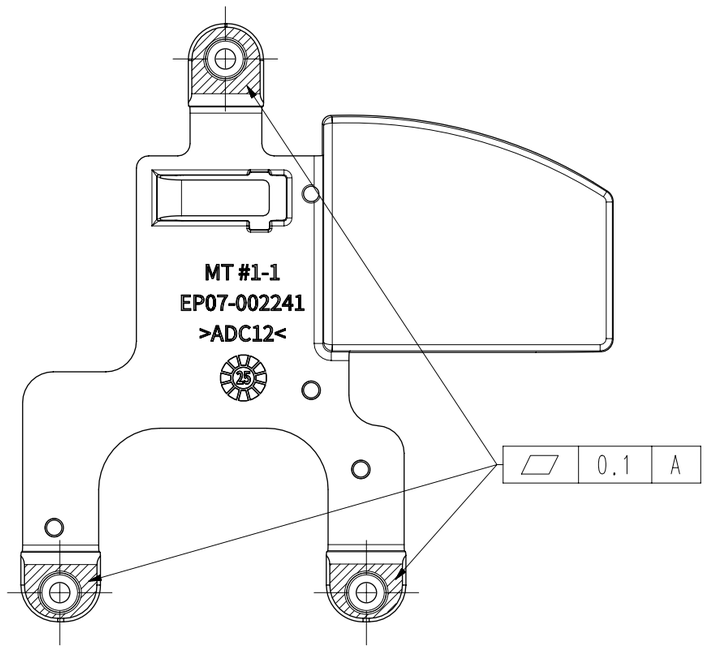
This parts should not contain any substances which are specified in AH60-0033K

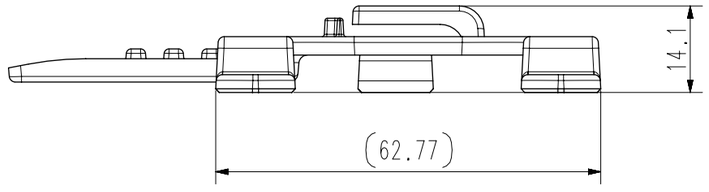
NO	PART NAME	CODE NO.	MATERIAL	Q'TY	REMARK
1	SINK-HEAT-TILT-XNP-A9314R	EP07-002241A	Check note	1	-



SECTION A-A







NOTE:Die-Casting

1. Material and Basic wall thickness : ADC12, t3.0

2. Gate, P/L, Ejector Pin location must be handled with HVC designer.
3. Ejector pin stain must be less than 0.3 depth (⊑), no flash is allowed.
4. Undescribed edge round must be less than R0.5, undescribed corners must be less than R0.3.
5. No Deformation, Air bubble, Shrinkage is allowed.
6. Every Flash on P/L must be less than 0.1.
7. Undescribed draft angles must be less than 0.5° .
8. * marks (Key dimensions) must be carefully handled.
9. Surface cutting level of Gate and Over-Flow must be equivalent with other surface cutting level.
10. Part Name, Code Number, Mold Number, Material, Model Name must be carved on the inner side of the part.
 - Location and Specs. must be handled with HTW designer.
11. External look and printing specification must follow separately distributed Design Specification data.
 - Including Surface cutting, Chromate, Sanding, Spray, Silk Print specifications.
12. Reliability must satisfy HVC standards.
13. Delivery packing specifications must be discussed separately.
14. All other issues must be handled with HVC designer.

STANDARD TOLERANCE

DIV	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5
0-16	±0.05	±0.1	±0.1	±0.2	±0.3
16-63	±0.05	±0.1	±0.2	±0.3	±0.4
63-250	±0.1	±0.2	±0.3	±0.4	±0.4
250-1000	±0.2	±0.3	±0.4	±0.5	±0.6

Process	Casting→Cutting→Sanding→Machining/Tapping →Degrease→Chromate

Hanwha Vision APPROVAL 25.10.21 Hanwha Vision

A3

CHANGE

△1~5 Add Shape and Screw Point for Heat dispsation (26.01.07 DW.KIM)

UNIT	mm	DESIGN	CHECK	APPROVAL	PART NAME	SINK-HEAT-TILT-XNP-A9314R
SCALE	1/1	DW.KIM	BH LEE	YS CHOI	MODEL NAME	XNP-A9314R
		25.10.02	25.10.02	25.10.02	CODE NO.	EP07-002241A

Hanwha Vision

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 PoE(55V ⎓), 0.93A.
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 ±0.05˚. 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 product is -50°C to +55°C (-58°F ~ +131°F).
24. The heater turns on when the product's internal temperature is 15°C(64.4°F) or lower, and turns off when it is 18°C(53.6°F) or higher.

WARNING

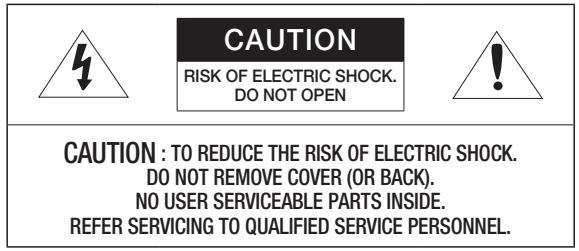
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENNINGS ON THE EQUIPMENT.

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.

CAUTION

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.

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

Remove the protective sheet on the front of the lens after the installation work is completed.

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 802.3bt 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.
- When connecting the PoE injector to the external Internet, use either one of network cable port (LAN) or fiber optic port (SFP) but not both.

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

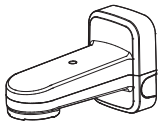
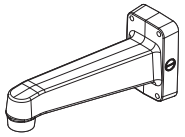
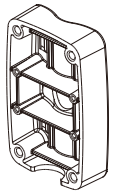
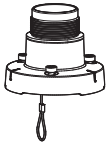
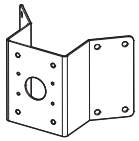
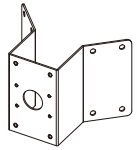
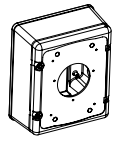
※ Please read this manual for the safety before using of goods and keep it in the safe place.

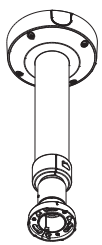
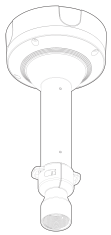
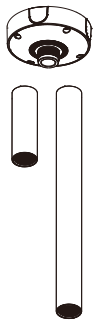
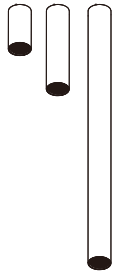
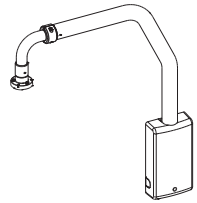
We do not guarantee the quality of third-party products (e.g. lenses, accessories) that you separately purchase.

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 & Pole Mount		Hanging Mount	Corner Mount	Cabinet
 SBP-156WMW (Outdoor Wall&Pole Mount) * Direct assembly: SBP-156HMW not necessary  SBP-390WMW2 (Wall Mount) * SBP-156HMW required for installation * SBP-300PMW2 required for pole installation	 SBP-300PMW2 (Pole Mount)	 SBP-156HMW	 SBP-156KMW  SBP-300KMW1 * Only compatible when SBP-390WMW2 is used	 SBP-300NBW

Ceiling Mount		Parapet Mount
Assembly	Individual Parts	
 SBP-156CMW (Telescopic)  SBP-300CMTS (Ball Head) * SBP-156HMW required for installation  SBP-300CMW1 SBP-900CMW * SBP-156HMW required for installation  SBP-150CMI SBP-300CMI * SBP-156HMW required for installation	 SBP-180CMB  SBP-180CMS (Ball Head)  SBP-140CMB  SBP-150CMP SBP-300CMP SBP-900CMP  SBP-C15P	 SBP-156LMW (Telescopic)

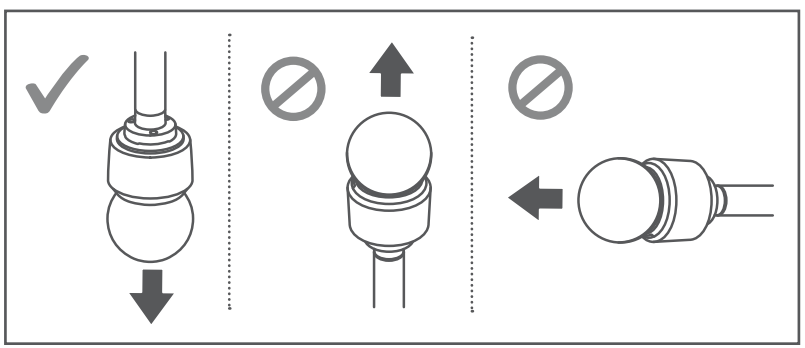
INSTALLATION

- 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

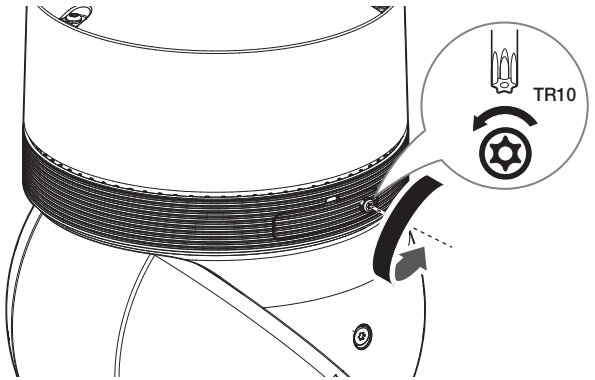
Ensure you read out the following instructions before installing the camera:

- 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.



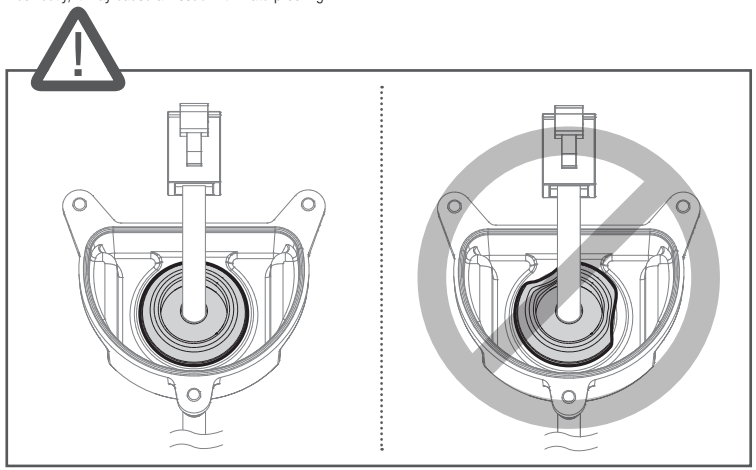
Inserting a Micro SD card

1. Unfasten the screw on the micro SD card slot cover by turning it counterclockwise using a Torx screwdriver.

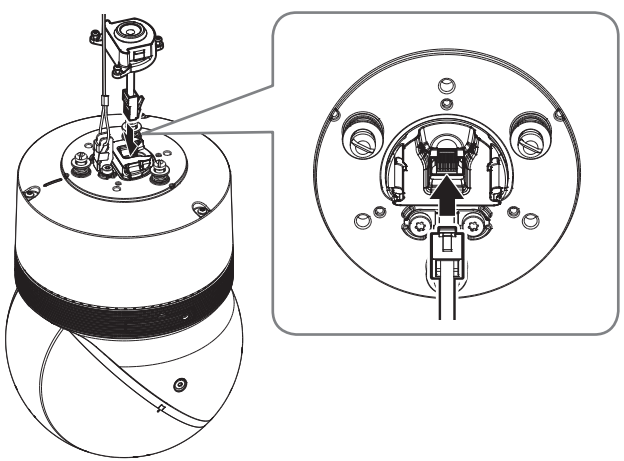


- Disconnect the power cable from the camera before inserting the Micro SD card.
- When it rains or the humidity is high, insertion or ejection of a Micro SD card is not recommended.
- When installing/removing the Micro SD card, make sure you put the product body on a flat ground before working on it in order to prevent accidents due to loss or drop of any parts.
- Do not remove the screws.

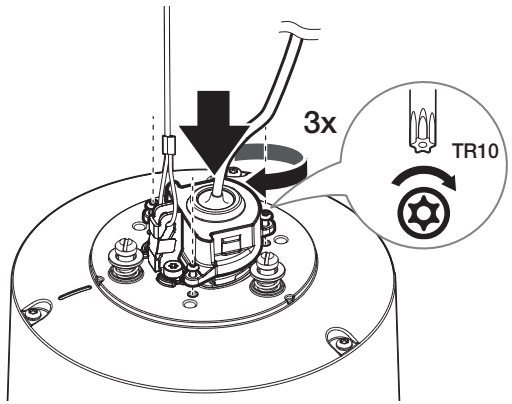
- Make sure the cable bushing is also properly fitted on the inner surfaces of the bushing cover. If the cable bushing is inserted incorrectly, it may cause an issue with waterproofing.



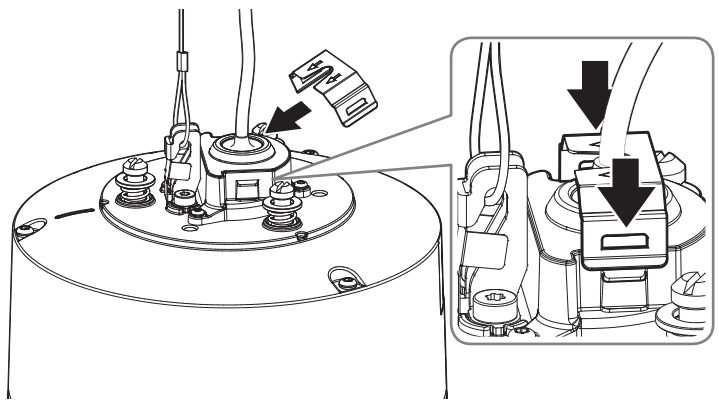
8. Connect the network cable to the network port.



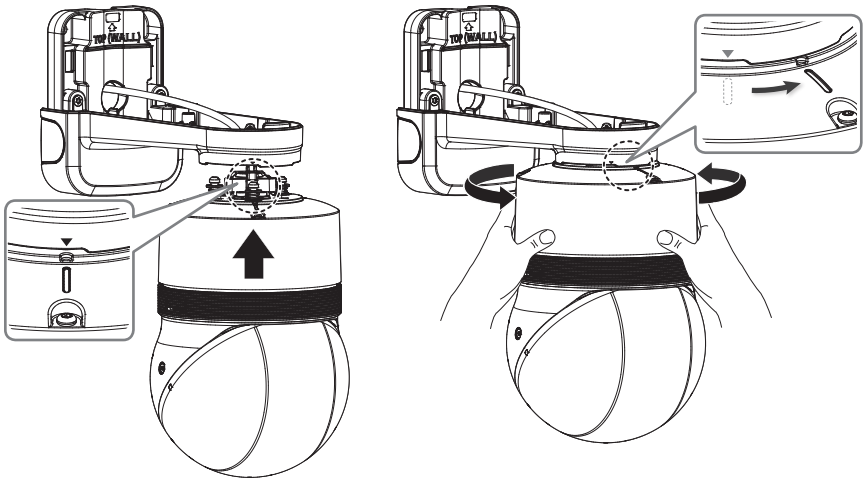
9. Attach the bushing cover to the installation surface using the Torx screwdriver.



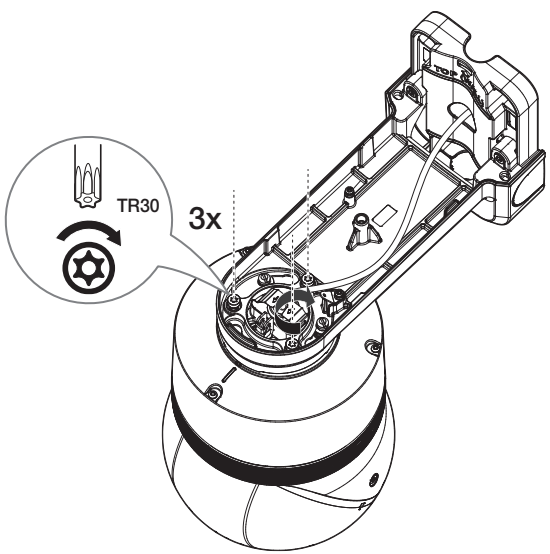
10. Install the bushing clip.
Let the arrow mark on the clip point in the direction of the safety wire hook, and click each side into place one at a time.



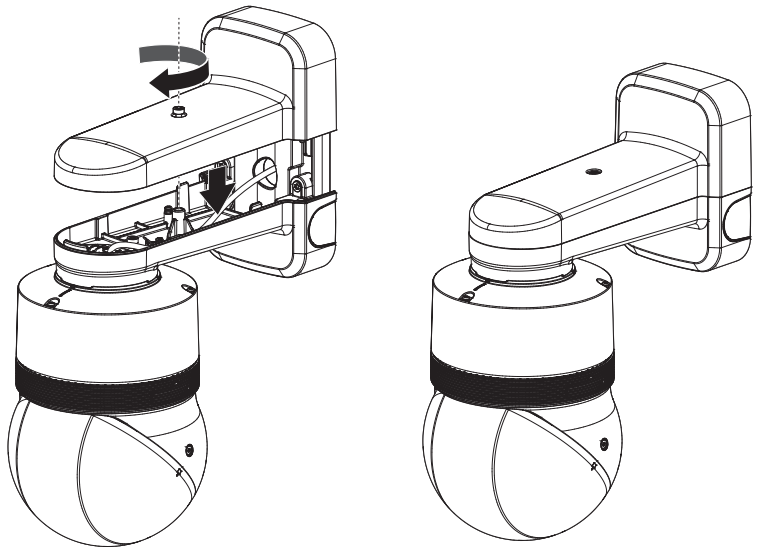
11. After aligning the installation direction guides of the camera and wall & pole mount, push the main cover upward and turn it counterclockwise until it is secured.



12. Tightly fasten the 3 mounting screws on the inside of the Wall & Pole Mount.

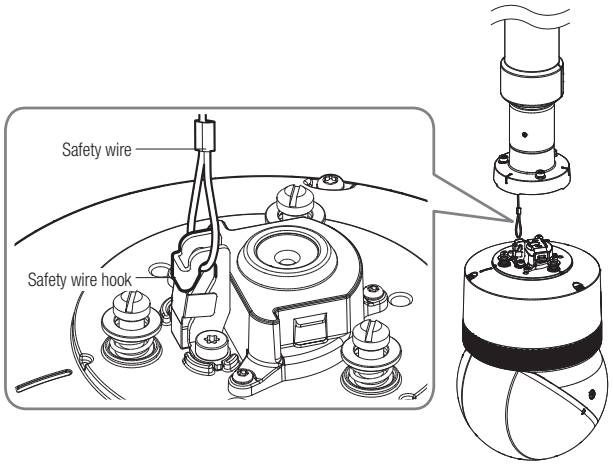


13. Join the top cover of the wall & pole mount.

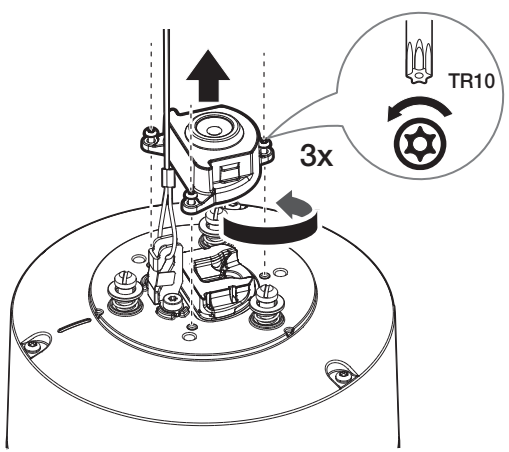


Installing using ceiling or parapet mount

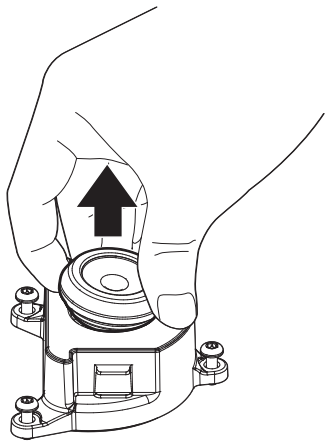
1. Hang the safety wire of the mount on the safety wire hook of the product.



2. Remove the bushing cover from the installation surface using the Torx screwdriver.

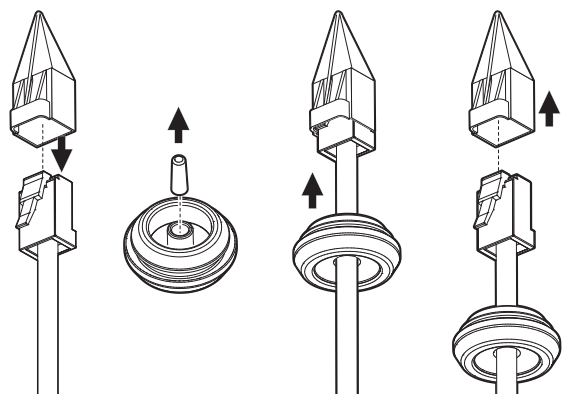


3. Remove the cable bushing from the bushing cover.



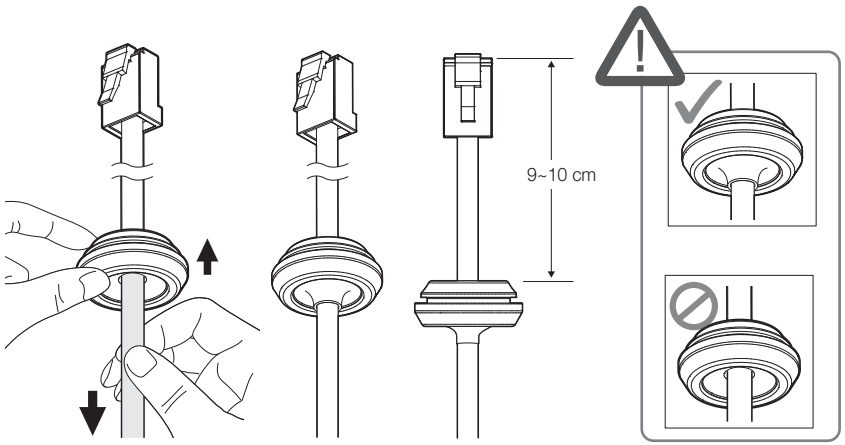
4. Pull off the extruded part of the removed cable bushing.

5. Use the cap installer to route the network cable through the cable bushing.

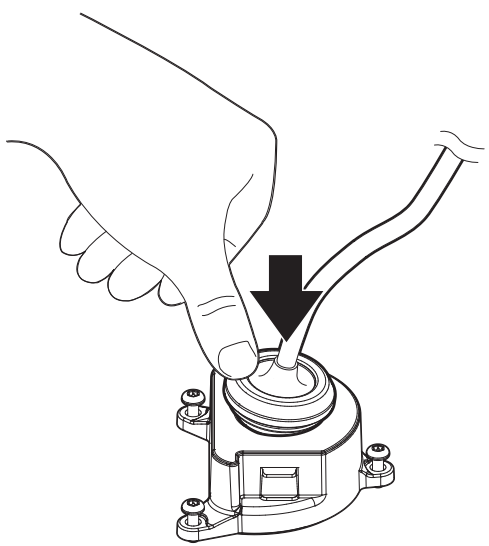


- If the cable bushing is torn, use the extra cable bushing provided.

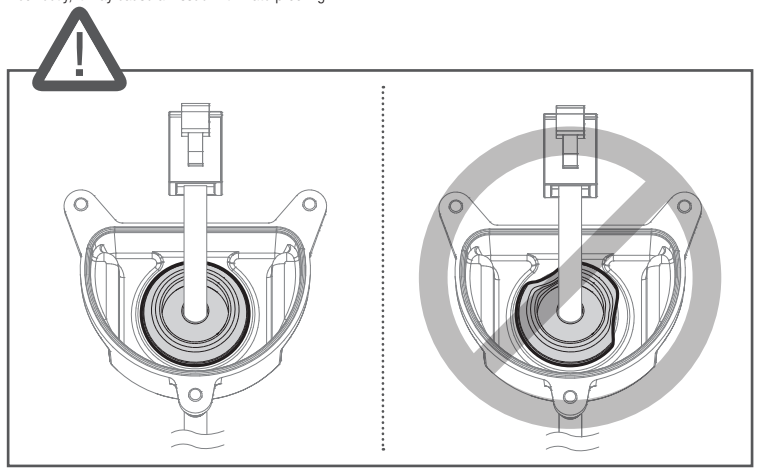
6. For waterproof protection, pull down the cable below the cable bushing as shown in the figure below.



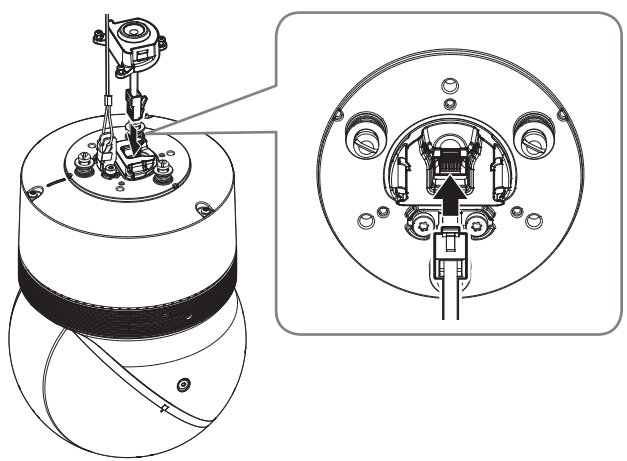
7. Insert the cable bushing, threaded with the network cable, into the hole on the bushing cover. When plugging it in, press the whole bushing area evenly so that it is properly plugged in.



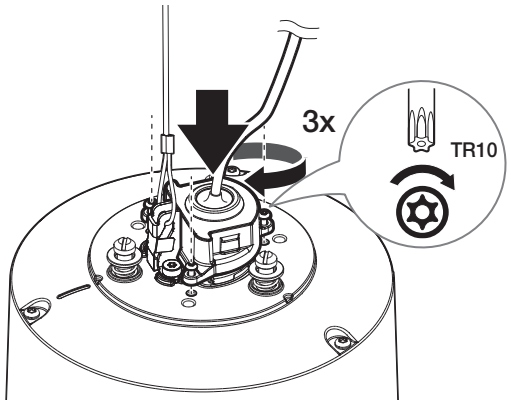
- Make sure the cable bushing is also properly fitted on the inner surfaces of the bushing cover. If the cable bushing is inserted incorrectly, it may cause an issue with waterproofing.



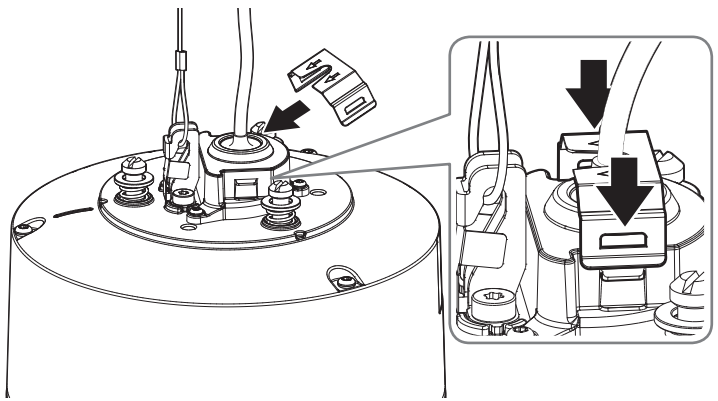
8. Connect the network cable to the network port.



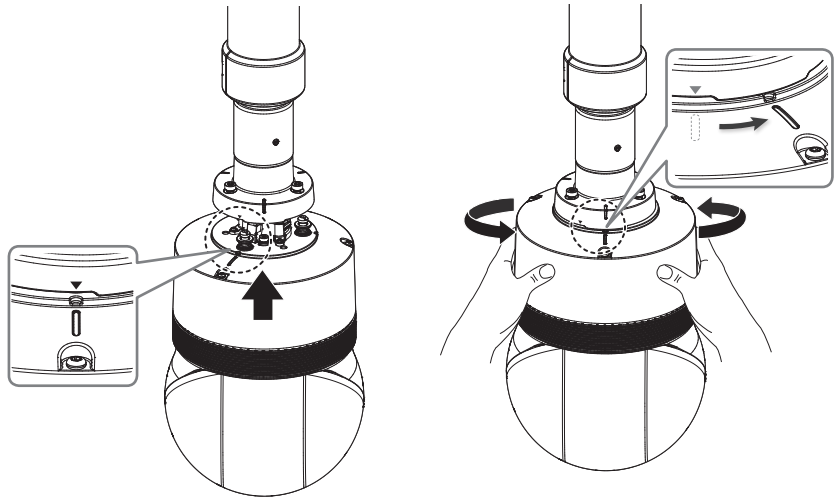
9. Attach the bushing cover to the installation surface using the Torx screwdriver.



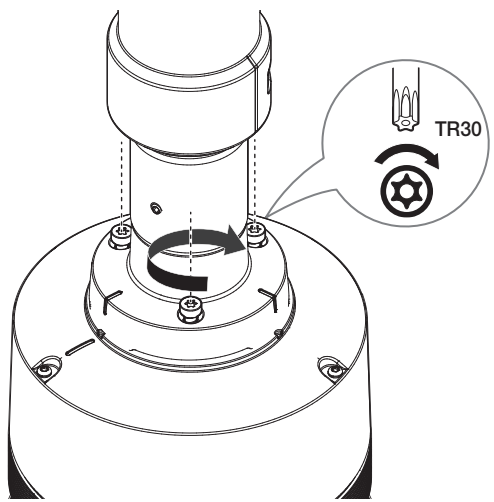
10. Install the bushing clip.
Let the arrow mark on the clip point in the direction of the safety wire hook, and click each side into place one at a time.



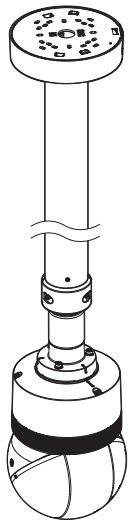
11. After aligning the installation direction guides of the hanging mount, push the main cover upward and turn it counterclockwise until it is secured.



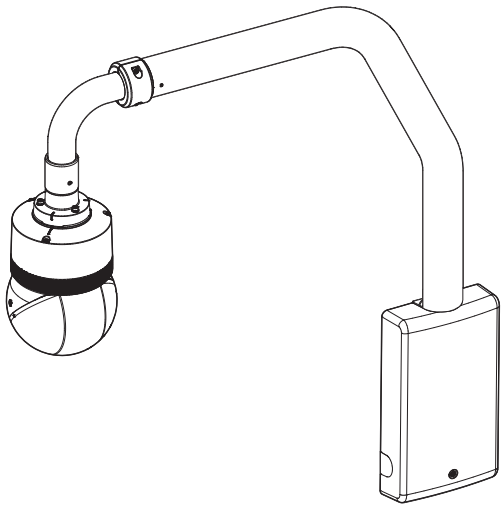
12. Tightly fasten the 3 mounting screws on the top side of the mount.



▪ **Joined with official product mounts (ceiling/parapet)**



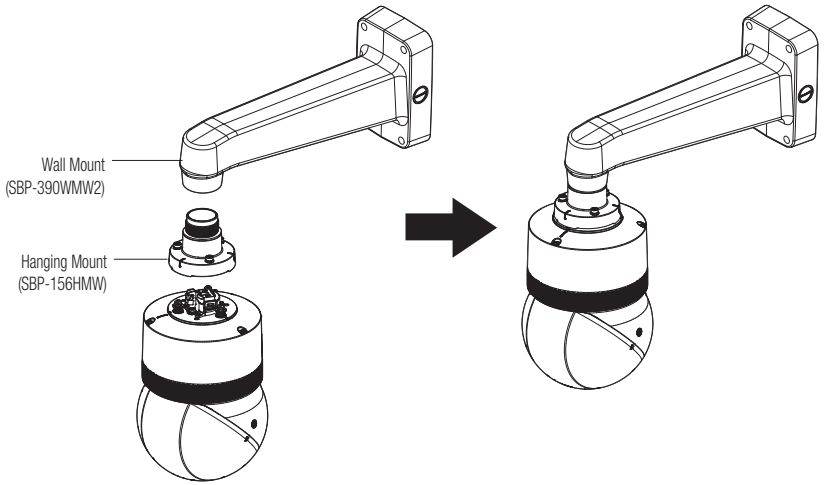
Ceiling Mount
(SBP-156CMW)

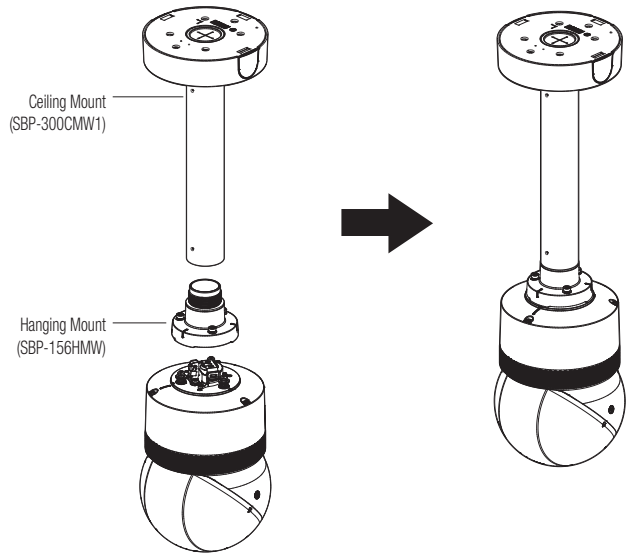


Parapet Mount
(SBP-156LMW)

▪ **Joined with mounts other than official product mounts**

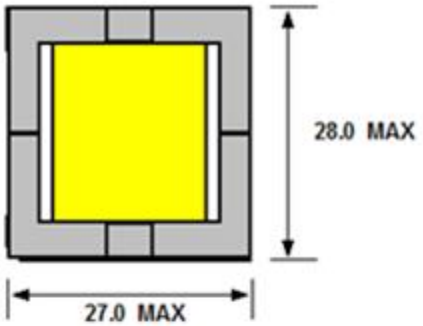
If you use hanging mount, you can install the camera onto any mount other than the official product mount.





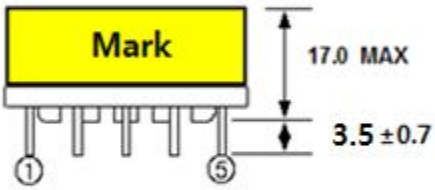
The following Page(s) are related to Miscellaneous-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

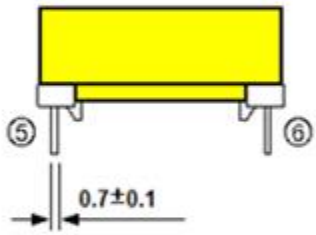
1. Dimension. [mm]

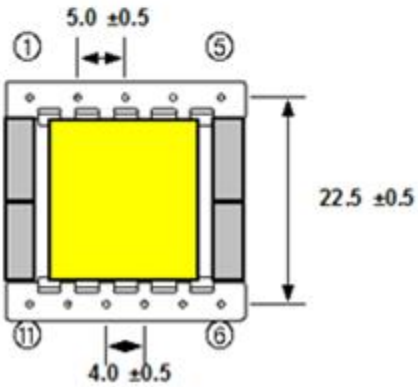


MARKING SPEC.	
YEAR	WEEK
2020Y→20 2021Y→21 2022Y→22 . .	1W →01 2W →02 3W →03 . .

EX) 180
●22 52
PRODUCT WEEK
PRODUCT YEAR





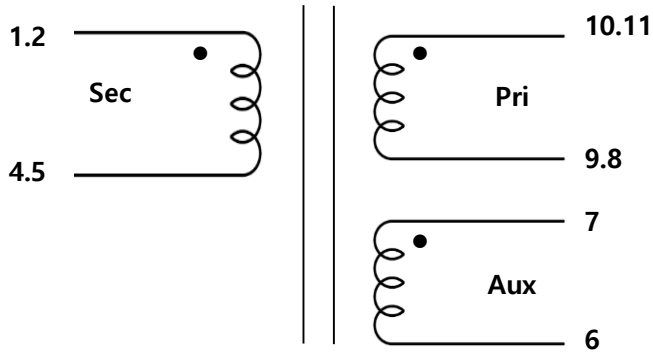


- Removed Pin No. :
- The pin length not including solder ball

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA VISION
H.S Shin	J.H Lee	Y.S Kim	S.H Lee	N/A	mm	Item	TRANSFORMER
				THIRD ANGLE PROJECT		Part No.	EP23-001053 (STEFD25D-24V)
R & D Center						STDN	-

2. Winding Schematic. [Top-View]

● Mark is winding start.



3. Winding Information.

W	Barrier		Terminal		Winding			Insulation Tape	
	Pri.	Sec.	S	F	Wire	Ts	Method	Tape	Ts
W1	-	-	10,11	9,8	1UEW 0.3x4	10	Solenoid	P.E Tape(y) 0.025t/16.5mm	2
W2	-	-	1,2	4,5	1UEW 0.3x8	10	Solenoid	P.E Tape(y) 0.025t/16.5mm	2
W3	-	-	10,11	9,8	1UEW 0.3x4	10	Solenoid	P.E Tape(y) 0.025t/16.5mm	2
W4	-	-	7	⑥	1UEW 0.25	6	Space	P.E Tape(y) 0.025t/16.5mm	2
Core Round Tape : P.E Tape(y) 0.025t/8.0mm, 3Ts									

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA VISION
H.S Shin	J.H Lee	Y.S Kim	S.H Lee	N/A	mm	Item	TRANSFORMER
				THIRD ANGLE PROJECT		Part No.	EP23-001053 (STEFD25D-24V)
R & D Center						STDN	-

4. Electrical Characteristics

No.	Item	Terminal	Spec	Remarks
1	Inductance	10.11 – 9.8	18uH ±15% (@Idc=0A)	HP-4263A, 4284A, LCR meter or eqv. at 100KHz, 1.0Vrms.
2	Leakage Inductance	10.11 – 9.8	1.0uH Max. (Secondary all short)	
3	D.C Resistance	10.11 – 9.8	18mΩ Max.	HIOKI3220, mΩ HI tester or eqv.
		1.2 – 4.5	18mΩ Max.	
4	Hi-pot Test (C.C=10mA)	Pri. – Sec.	DC 0.5KV for 2-3 Sec.	TOS-8750, Withstanding Voltage or eqv.

■Operating Temperature

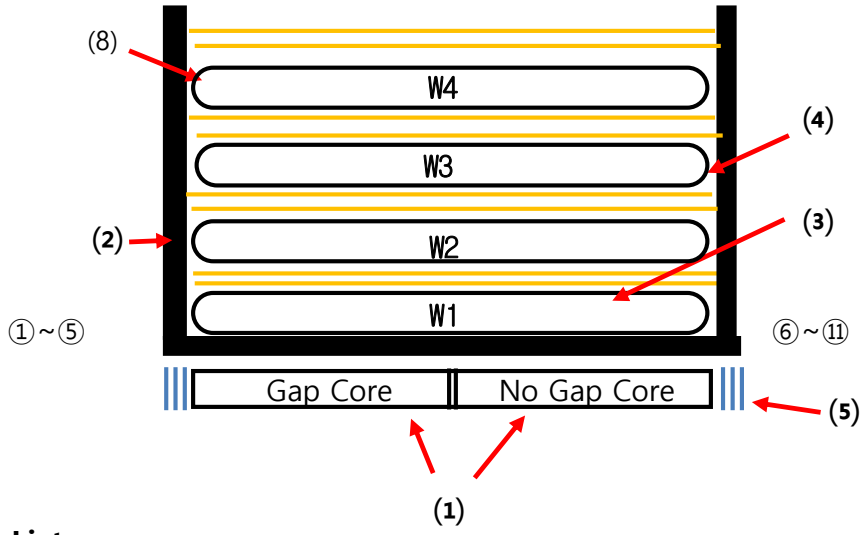
-40℃ to +105℃ (Including self-temperature rise)

■Storage Temperature

* -40℃ ~ 105℃

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA VISION
H.S Shin	J.H Lee	Y.S Kim	S.H Lee	N/A	mm	Item	TRANSFORMER
				THIRD ANGLE PROJECT		Part No.	EP23-001053 (STEFD25D-24V)
R & D Center						STDN	-

6. Structure Figure



7. Material List.

No.	Parts Name	Material	Dimension & Type	UL File No.
1	CORE	PL13 HE6 HPP44	EFD2525	-
2	BOBBIN	Phenolic (PF2736,T375HF)	EFD2525 11P	E61040 E59481
3	WIRE	COPPER	1UEW 0.25Φ, 0.3Φ	E228267 E210918
4	INSULATION TAPE	POLYESTER TAPE	0.025t/16.5mm(Yellow) 0.025t/8.0mm(Yellow)	E105147 E56086
5	CORE ROUND TAPE	POLYESTER TAPE		
6	SOLDER	SN98CU2 LF-120	BAR	-
7	VARNISH	Epoxy	DVB-2085	E93947

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA VISION
H.S Shin	J.H Lee	Y.S Kim	S.H Lee	N/A	mm	Item	TRANSFORMER
				THIRD ANGLE PROJECT		Part No.	EP23-001053 (STEFD25D-24V)
R & D Center						STDN	-

The following Page(s) are related to Miscellaneous-02. 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	2.5A			
3	INDUCTANCE	START-FINISH	16KHz	9.0mH	+50%, -30%	HP-4194A 1V (25℃±2℃)
4	TEMPERATURE RISE	AT RATED CURRENT	55℃ MAX			
5	DC RESISTANCE	START-FINISH	108.0 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 LINE	DC 500V, 300MΩ MIN.			TOS-7200

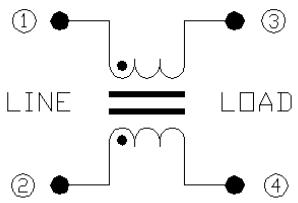
3. OPERATING TEMPERATURE RANGE

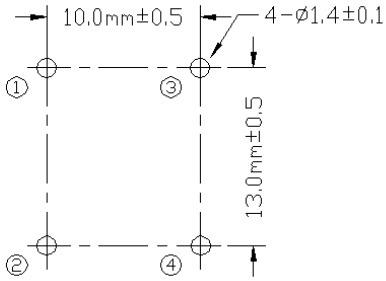
-40℃ TO +130℃ INCLUDING TEMPERATURE RISE.

4. KEEP TEMPERATURE RANGE

-40℃ ~ +130℃.

5. CIRCUIT DIAGRAM



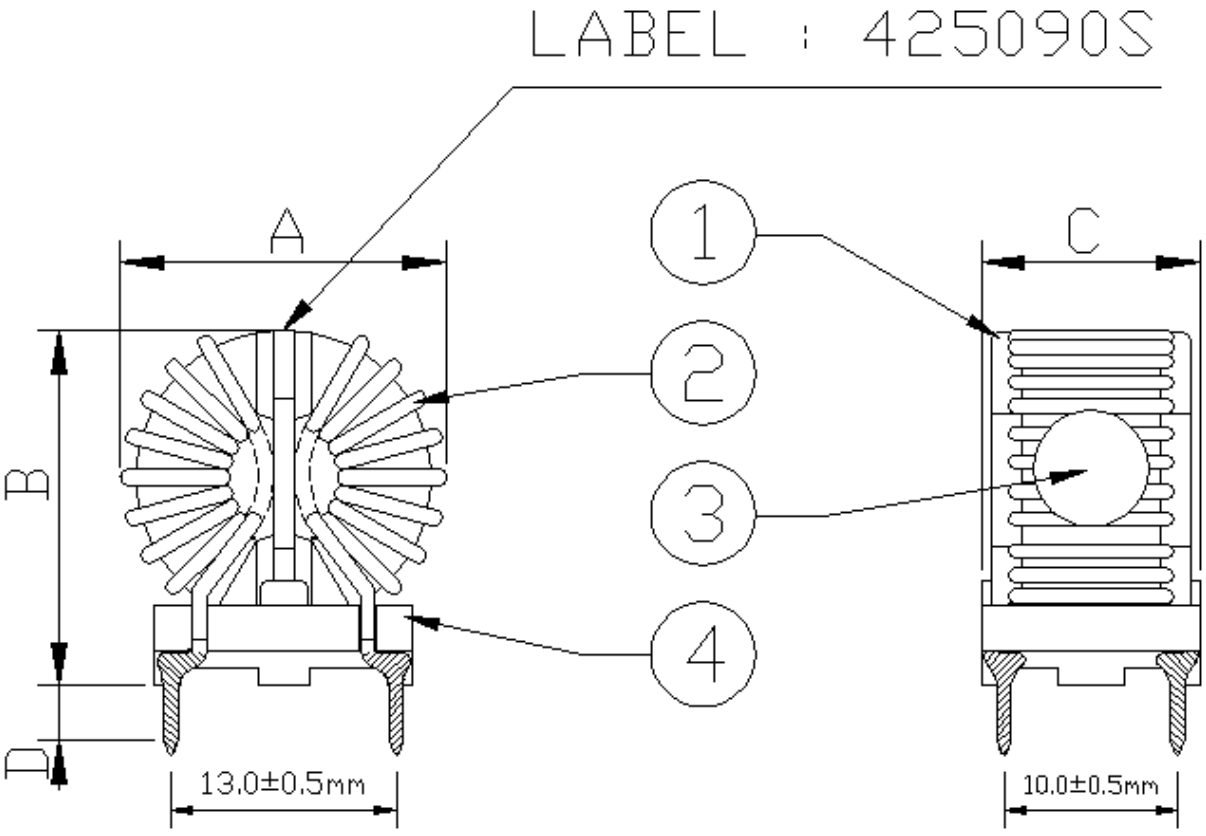


Minimum PCB Piercing HOLE

6. WINDING SPECIFICATION

NO	TERMINAL		WIRE	TURNS	WINDING METHOD	UNBALANCE SPECIFICATION
	START	FINISH				
L1	1	3	UEW 0.50Φ	32±2Ts	HANDMADE	BETWEEN L1 AND L2 (0.29mH MAX)
L2	2	4				

7. SHAPE AND DIMENSION



DIMENSION	A	B	C	D
	18.0mm MAX	19.5mm MAX	15.0mm MAX	Not include solder fillet 4.0±1.0mm

8. MATERIAL LIST

No.	NAME	SPECIFICATION	MANUFACTURER	REMARK
1	Core Cover	PBT 4130-104XV	CHANG CHUN PLASTICS CO LTD	E59481
		PBT LUPOX GP2156F(#)	LG CHEM LTD	E67171
		PBT 1500GN-(k)	SAMYANG CORPORATION	E121254
2	Enamel Wire	UEW	ZHEJIANG HONGBO TECHNOLOGY CO LTD	E221719
		UEW	SIAM PACIFIC ELECTRIC WIRE & CABLE CO.,LTD	E142108
		UEW	NINGBO JINTIAN NEW MATERIAL CO LTD	E227047
3	Ferrite Core	M10K T14X8X7 BH10 T14X8X7	SUZHOU TIANMING MAGENETIC TECHNOLOGY CO.,LTD BAICI ELECTRONIC	
4	Coil Base	Phenolic (PF 2736(a)(b)) UL 94 V-0 Class	Bakelite GmbH	E61040
		Phenolic (T375HF) UL 94 V-0 Class	CHANG CHUN PLASTICS CO LTD	E59481

9. MARKING

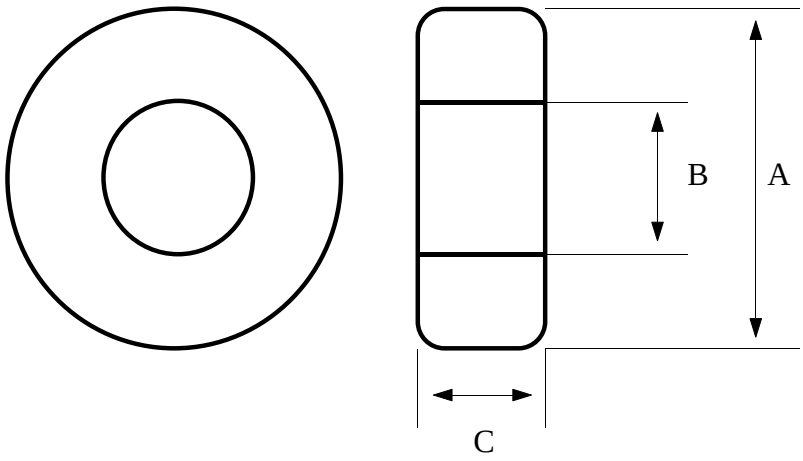
MODEL	LABEL	COLOR
CV425090SKA	425090S	black letters on Transparent

15. FERRITE CORE SPECIFICATION

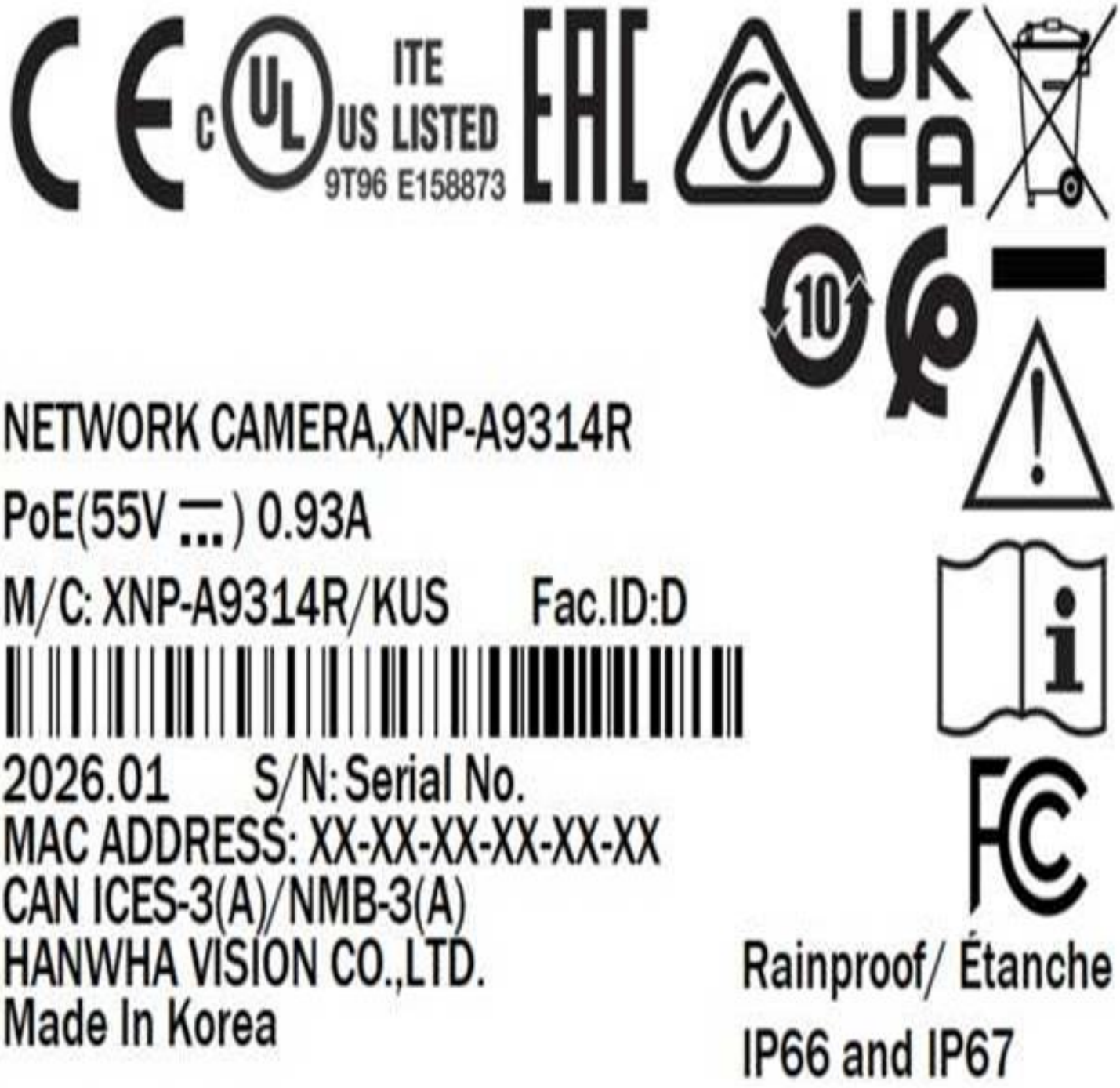
- **Characteristics**

Symbol	Unit	M10K T14X8X7	BH10 T14X8X7
μi	-	10,000±30%	10,000±30%
Bms	mT	410	410
Hcms	A/m	7.0	7.0
Brms	mT	140	140
Tc	℃	>130	>130
TANδ /μiac	$*10^{-6}$	<10.0	<10.0
αμr	$*10^{-6}$ /℃	0~1.5	0~1.5
ρ	Ω.m	0.15	0.15
d	g/㎤	4.9	4.9

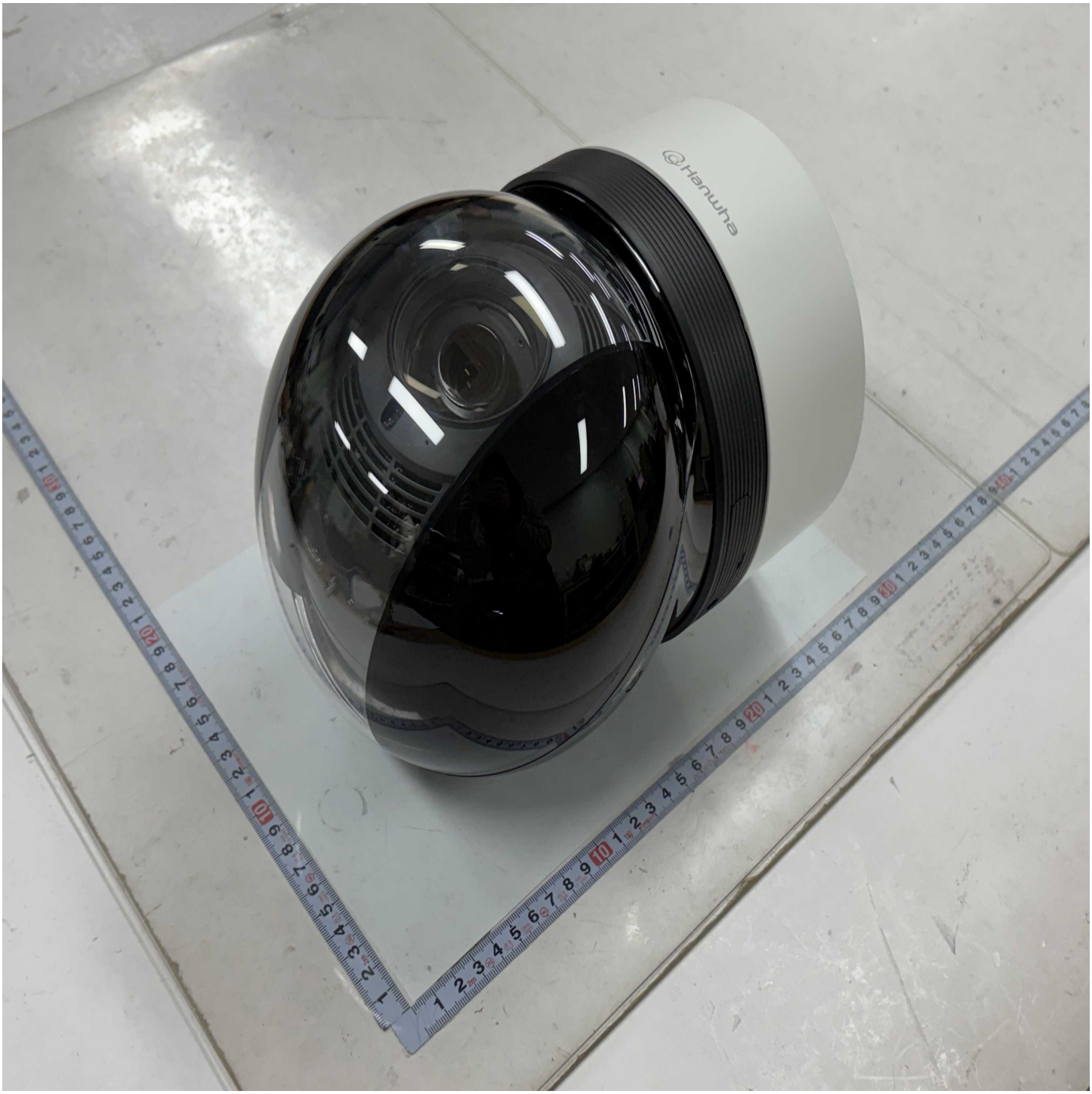
- **Dimension**



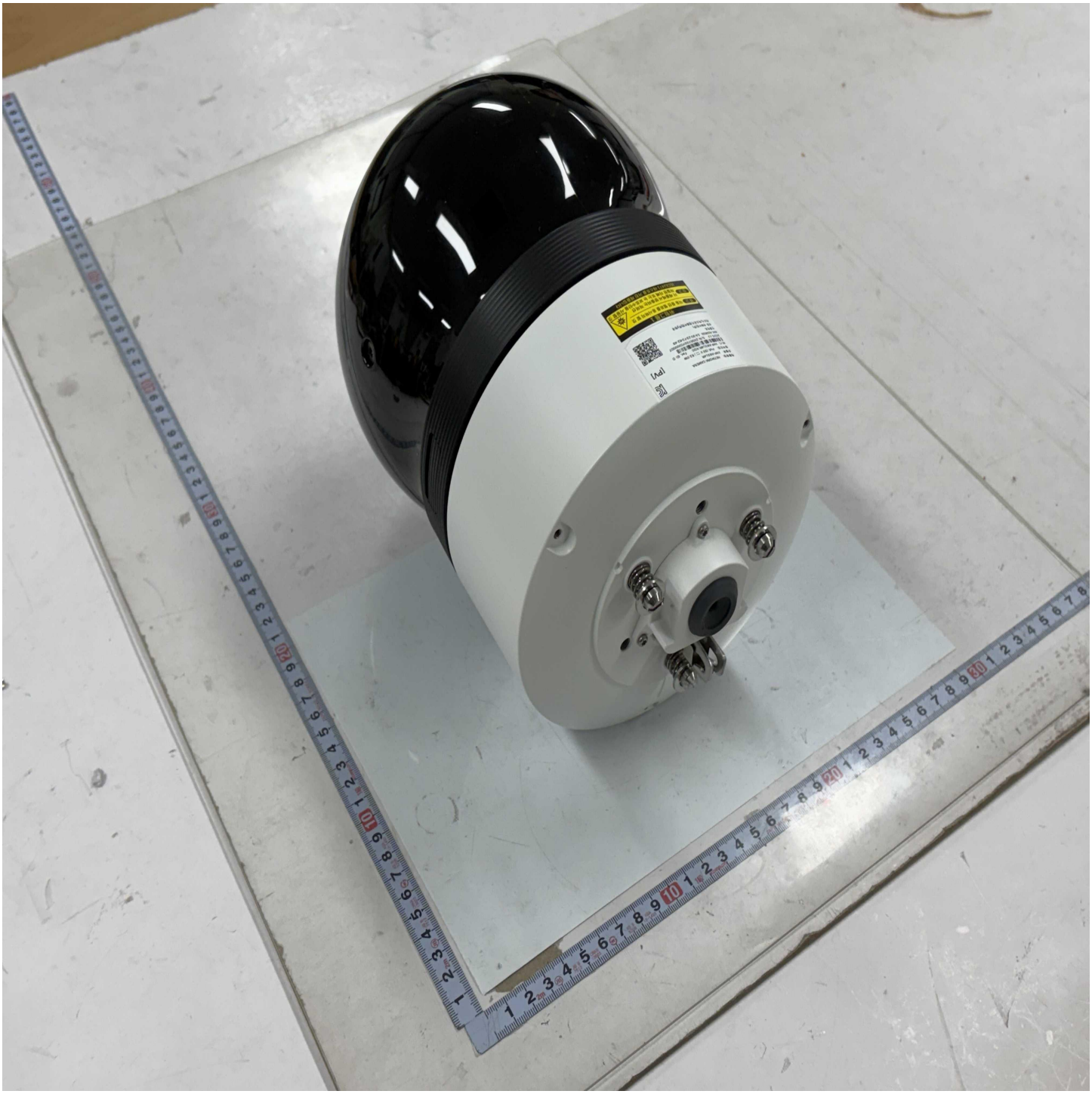
A: 14.0 +0.1 −0.25 **B: 8.0 ±0.30** **C: 7.0 ±0.3**


ITE
c UL US LISTED
9T96 E158873
UK CA
NETWORK CAMERA,XNP-A9314R
PoE(55V ⎓) 0.93A
M/C: XNP-A9314R/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
Rainproof/ Étanche
IP66 and IP67

Photographs-01 Page-1



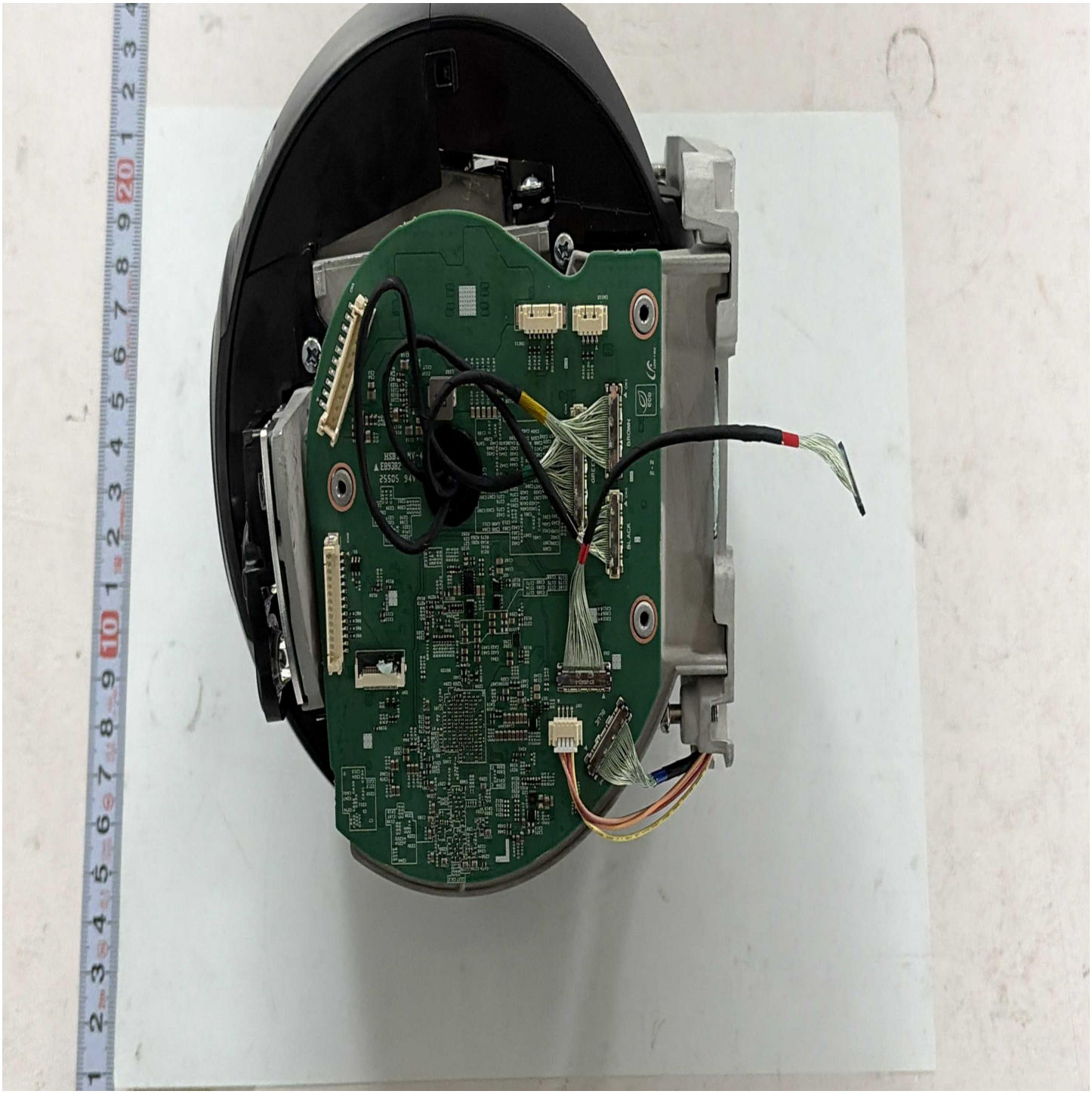
Photographs-02 Page-1



Photographs-04 Page-1

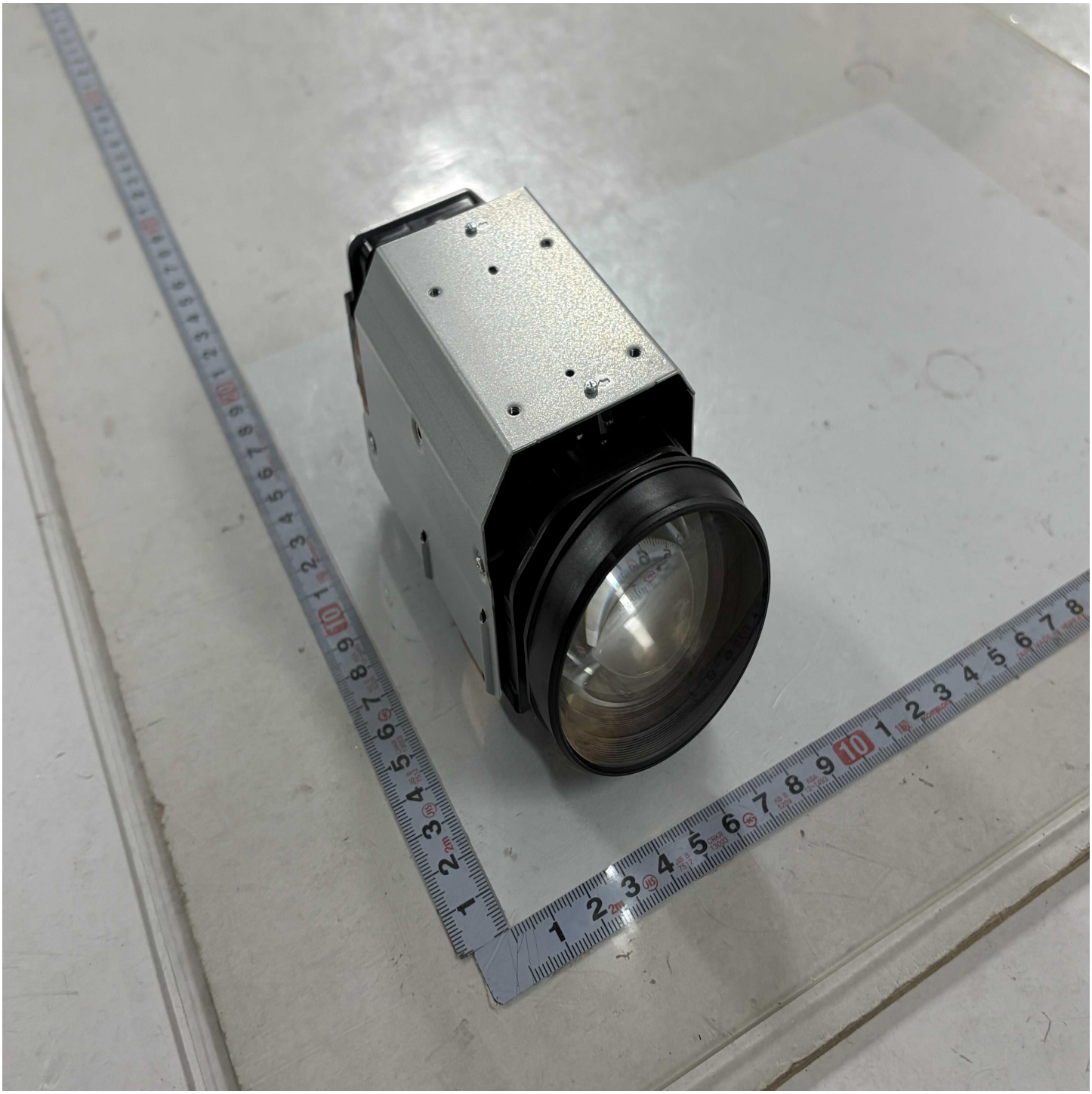


Photographs-05 Page-1



Photographs-06 Page-1

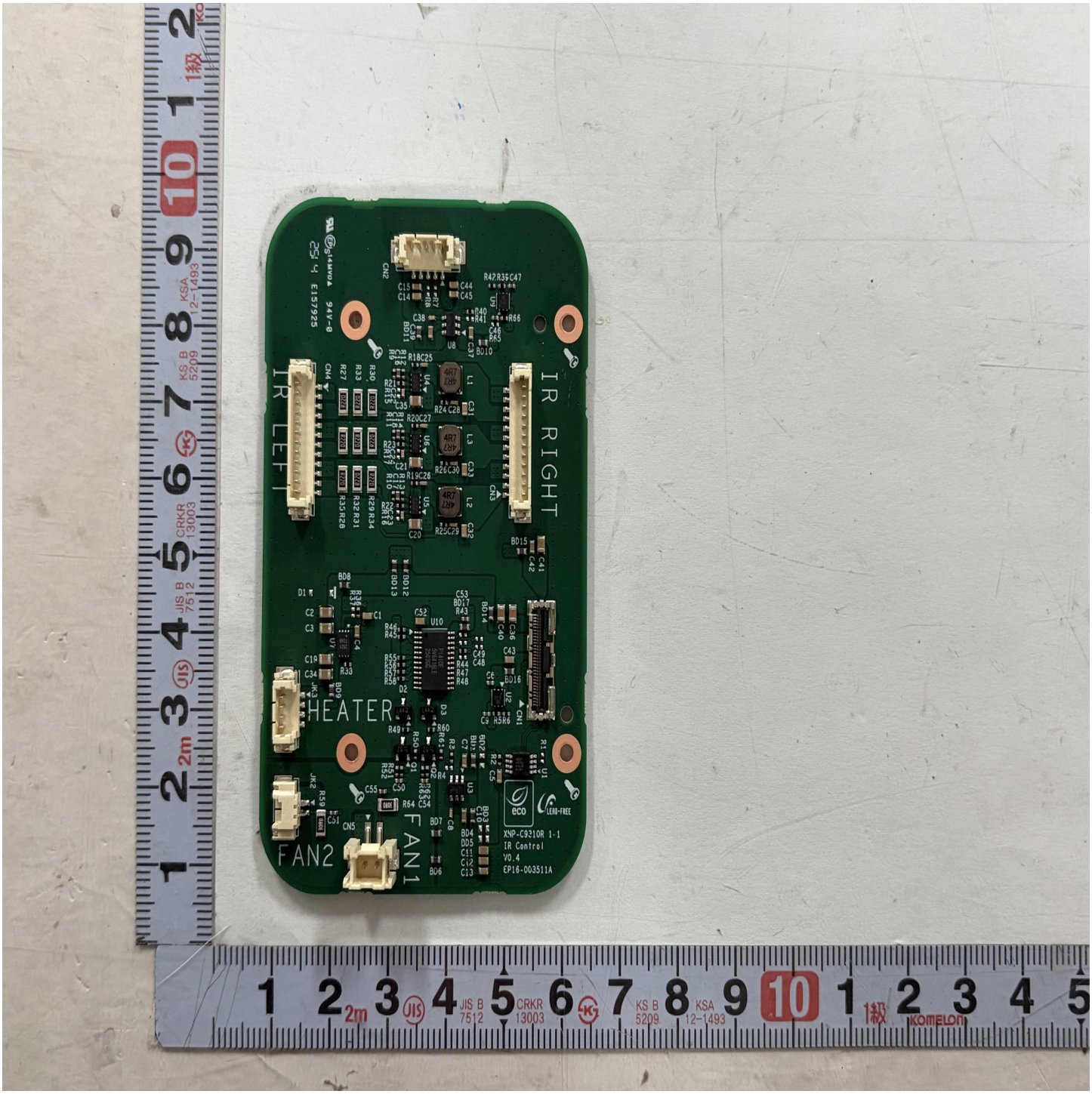




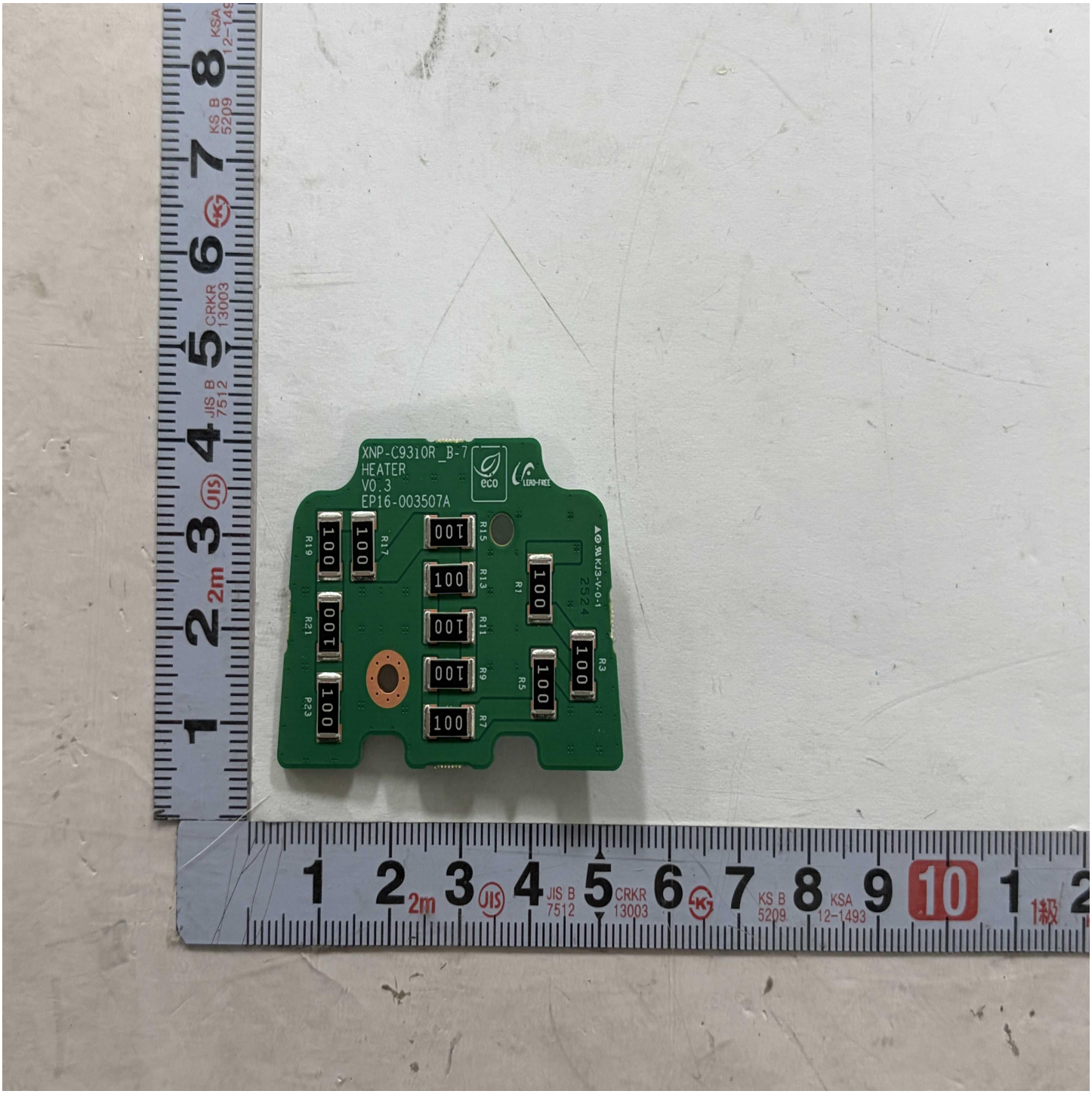
Photographs-08 Page-1



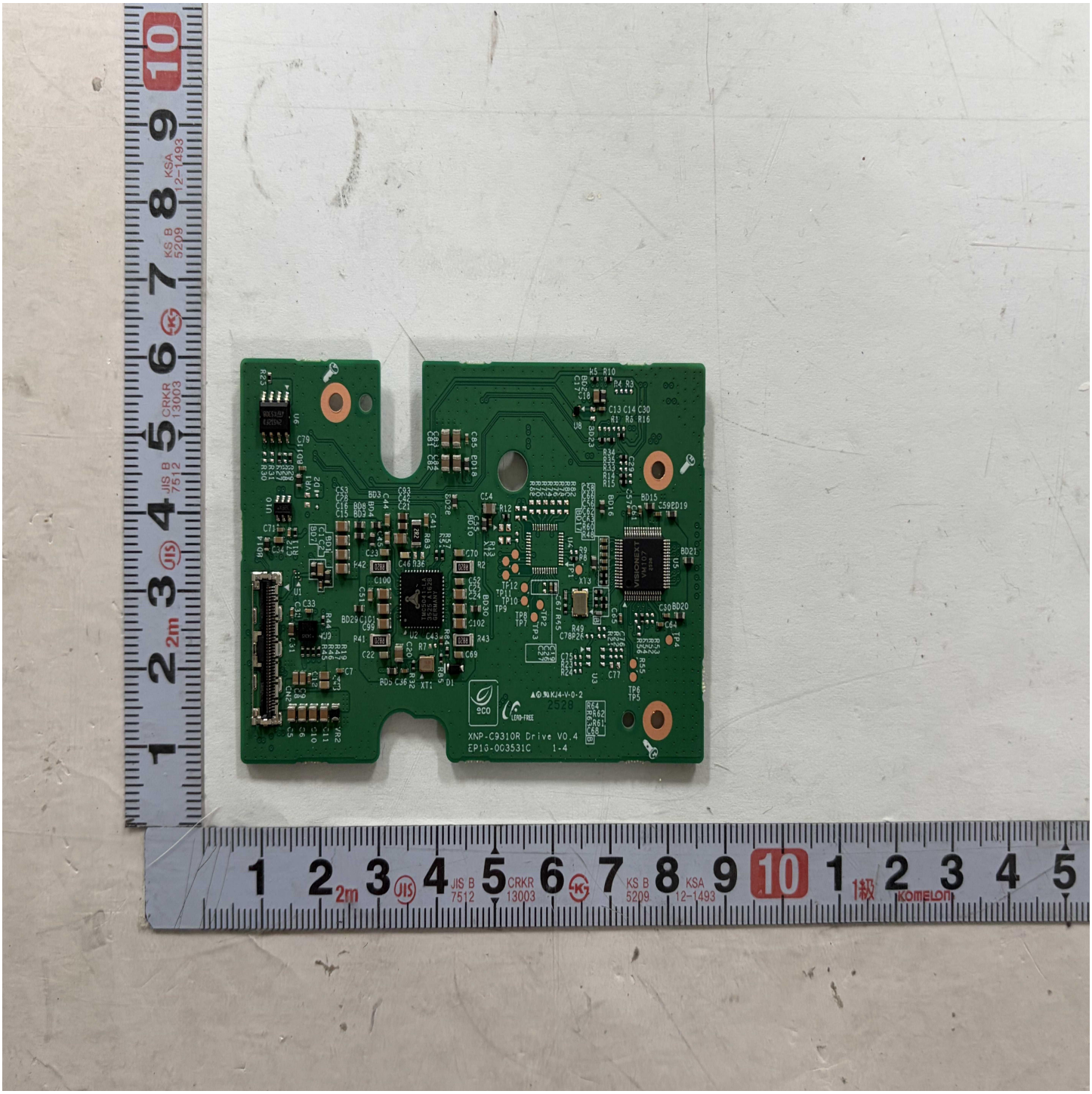
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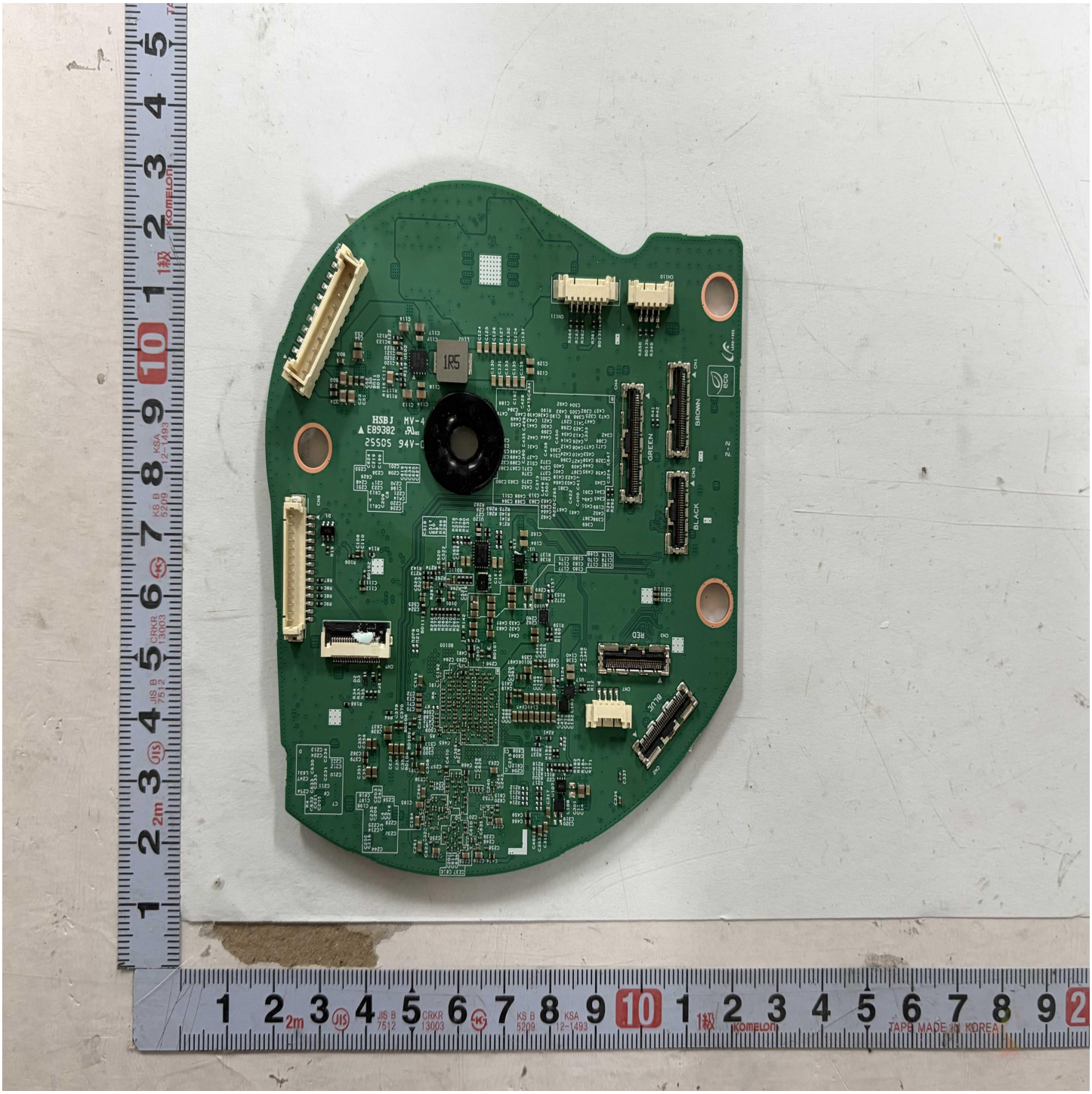
Photographs-10 Page-1



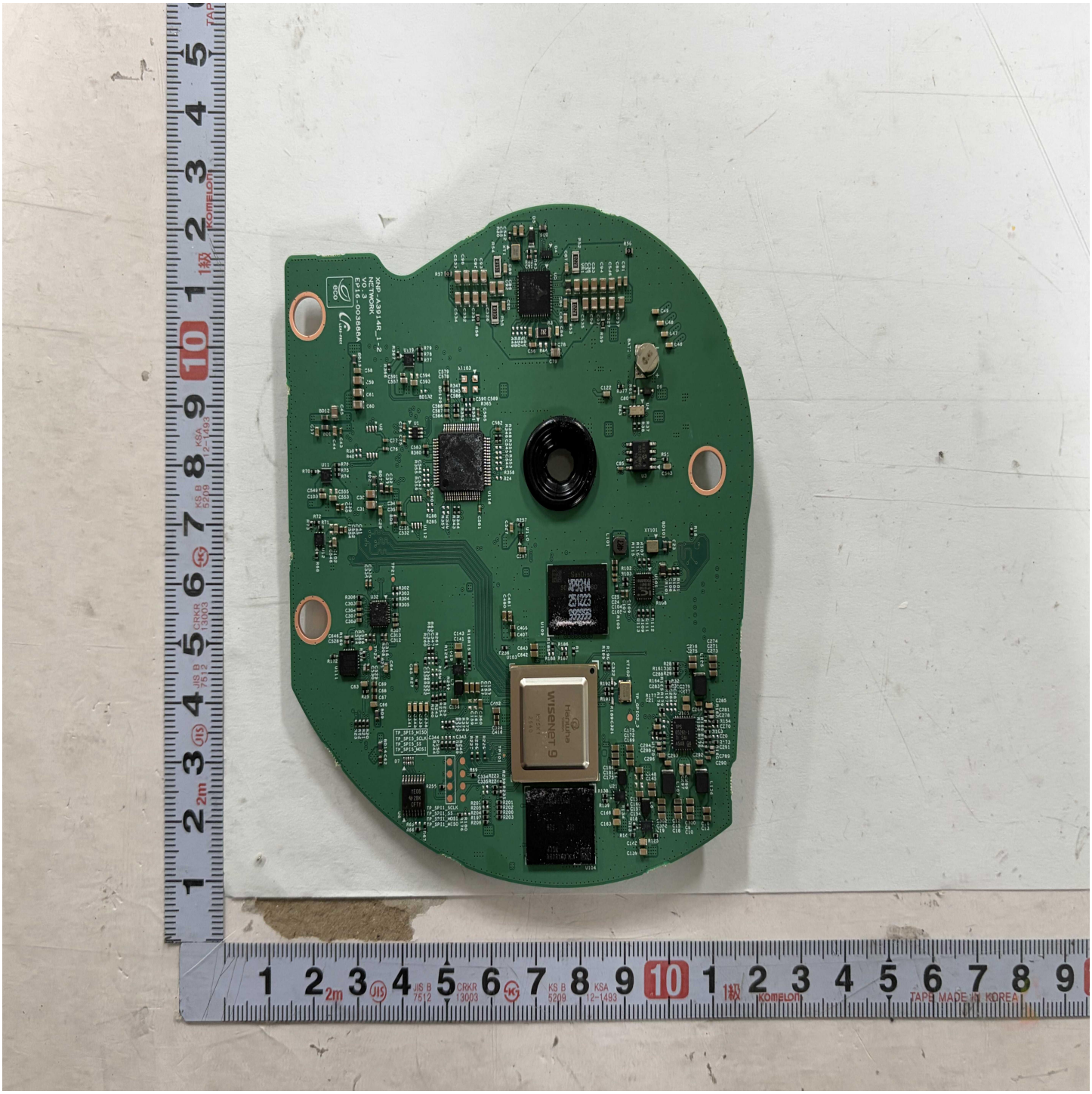
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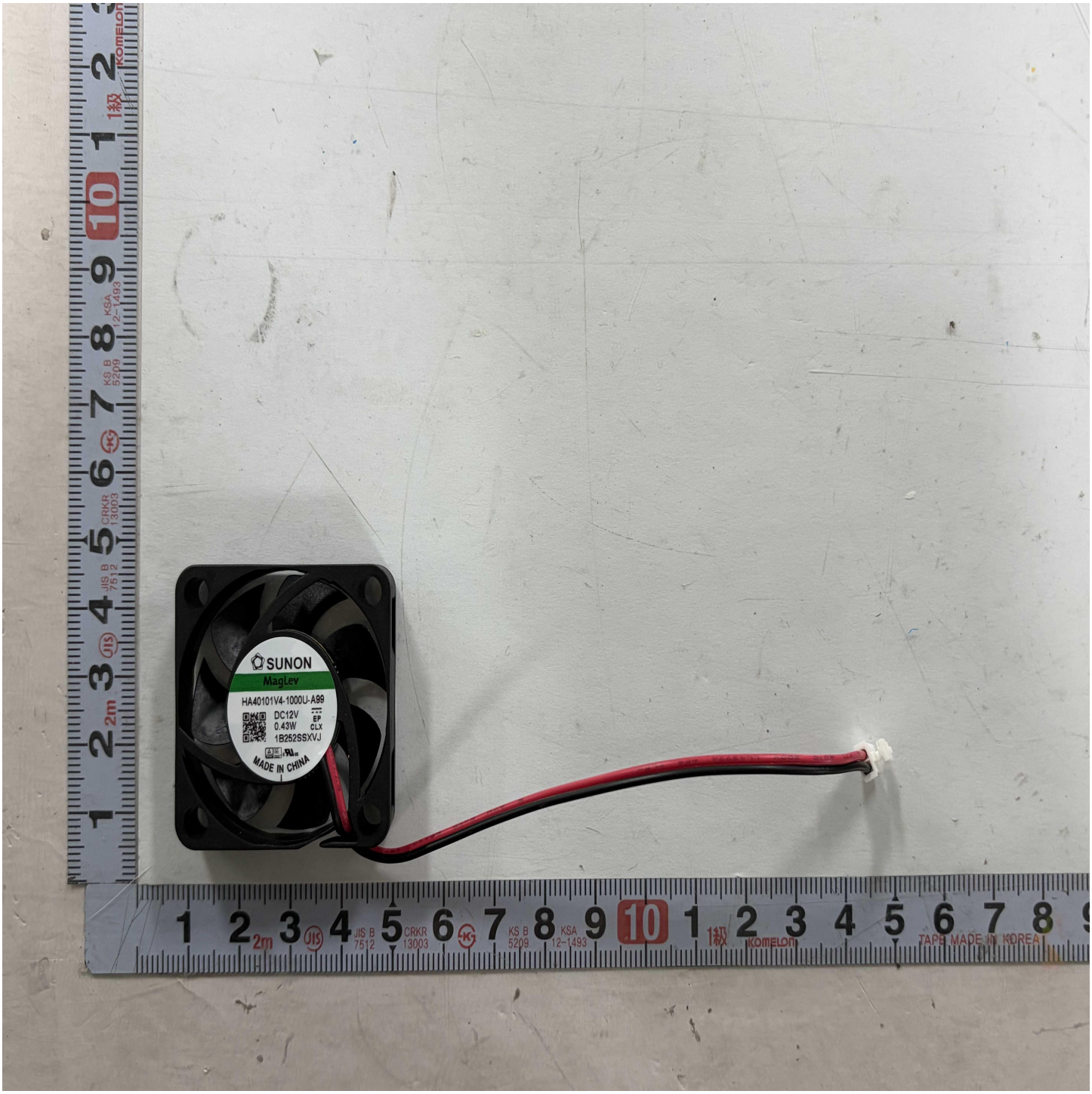
Photographs-12 Page-1



Photographs-13 Page-1



Photographs-14 Page-1



Photographs-15 Page-1

