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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 4790707390

For your convenience, the below describes the related updates:

E158873-volX13-Index
E158873-20230409-CertificateofCompliance
E158873-A6154-DescriptionUL
Figure-17-Total
E158873-A6154-TestRecordUL

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Times change, Trust Remains™

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Product Type	Model/Type Reference	Report Reference #	Status
NETWORK VIDEO RECORDER	XRN-6410B4, XRN-3210B4	E158873-A6027-UL	
NETWORK VIDEO RECORDER	PRN-6410B4, PRN-3210B4, XRP-4210B4, PRN-6400B4, PRN-3200B4	E158873-A6028-UL	
NETWORK VIDEO RECORDER	XRN-6410DB4	E158873-A6029-UL	
NETWORK VIDEO RECORDER	PRN-6410DB4, XRP-4310DB4, PRN-6400DB4	E158873-A6030-UL	
NETWORK CAMERA	PNM-9002VQ	E158873-A6031-UL	
NETWORK CAMERA	XNF-9010RV, XNF-9010RVM, XNF-9010RS	E158873-A6032-UL	
NETWORK CAMERA	PNM-9000QB	E158873-A6033-UL	
NETWORK CAMERA	XNP-9300RW, XNP-8300RW, XNP-6400RW	E158873-A6034-UL	
NETWORK CAMERA	TNV-8010C, TNV-8011C	E158873-A6035-UL	
OUTDOOR NETWORK CAMERA	PNM-8082VT	E158873-A6036-UL	
THERMAL CAMERA	TNM-3620TDY	E158873-A6037-UL	
DIGITAL VIDEO RECORDER	HRX-1621* (* is Blank or N or P : P=PAL, N=NTSC)	E158873-A6038-UL	
NETWORK CAMERA	PNM-9022V	E158873-A6039-UL	
NETWORK CAMERA	PNM-9322VQP	E158873-A6040-UL	
DIGITAL VIDEO RECORDER	HRX-821* (* is Blank or N or P : P=PAL, N=NTSC)	E158873-A6041-UL	
NETWORK I/O BOX	SPM-4210	E158873-A6042-UL	
NETWORK VIDEO RECORDER	XRN-2011*, XRN-2010*, XRN-3010*, XRN-1610*, XRN-2010P/DM, XRN-3010P/DM, XRN-3010A, XRN-2011A, XRN-2010A, XRN-1610A (* is blank or N or P: N=NTSC, P=PAL)	E158873-A6043-UL	
PUBLIC VIEW MONITOR	SMT-2730PV	E158873-A6044-UL	
PUBLIC VIEW MONITOR	SMT-3230PV	E158873-A6045-UL	
CAMERA HOUSING	SHB-9000H	E158873-A6046-UL	
PUBLIC VIEW MONITOR	SMT-1030PV	E158873-A6047-UL	
NETWORK CAMERA	XNP-9250R, XNP-8250R, XNP-6400R	E158873-A6049-UL	
NETWORK CAMERA	XNP-9250, XNP-8250, XNP-6400	E158873-A6050-UL	
NETWORK CAMERA	ONO-9081R	E158873-A6051-UL	
NETWORK CAMERA	ONV-9081R	E158873-A6052-UL	
NETWORK VIDEO RECORDER	XRN-1620B2	E158873-A6053-UL	

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NETWORK VIDEO RECORDER	XRN-820S	E158873-A6055-UL	
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NETWORK CAMERA	TNF-9010	E158873-A6057-UL	
NETWORK VIDEO RECORDER	PRN-3210B2, PRN-1610B2, XRN-6410RB2, XRN-3210RB2, XRN-6410B2, XRN-3210B2, PRN-3200B2, PRN-3205B2, PRN-1600B2, PRN-1605B2	E158873-A6058-UL	
NETWORK CAMERA	PNB-A6001	E158873-A6059-UL	
NETWORK CAMERA	PND-A6081RV, PND-A6081RF	E158873-A6060-UL	
NETWORK CAMERA	PNO-A6081R	E158873-A6061-UL	
LENS MODULE	SLA-T2480*, SLA-T2480V*, SLA-T4680*, SLA-T4680V*, SLA-T4680D, SLA-T4680DW, SLA-T4680DS, SLA-T2415, SLA-T2815B, SLA-T2480A, SLA-T2480VA, SLA-T4680A, SLA-T4680VA (* is blank or N or P: N = NTSC, P=PAL)	E158873-A6062-UL	
NETWORK CAMERA	PNV-A6081R	E158873-A6063-UL	
NETWORK CAMERA	XNB-6001*, XNB-H6240A, XNB-H6242A	E158873-A6064-UL	
NETWORK THERMAL CAMERA	TNO-3030T, TNO-3020T, TNO-3010T, TNO-3040T, TNO-3050T	E158873-A6067-UL	
NETWORK CAMERA	QNP-6320, QNP-6250, QNP-6251	E158873-A6068-UL	
NETWORK CAMERA	QNP-6320H, QNP-6250H, QNP-6251H	E158873-A6069-UL	
NETWORK CAMERA	XNV-C9083R, XNV-C8083R, XNV-C7083R, XNV-C6083R, XNV-C6083	E158873-A6070-UL	
NETWORK CAMERA	TID-600R	E158873-A6071-UL	
DIGITAL VIDEO RECORDER	HRX-1632, HRX-835	E158873-A6072-UL	
LED MONITOR	SMT-4343	E158873-A6073-UL	
NETWORK CAMERA	TNO-7180R, TNO-7180RLP	E158873-A6075-UL	
NETWORK CAMERA	XND-C9083RV, XND-C8083RV, XND-C7083RV, XND-C6083RV	E158873-A6076-UL	
NETWORK CAMERA	PNM-9031RV	E158873-A6077-UL	
NETWORK CAMERA	QNO-7082R	E158873-A6078-UL	
NETWORK CAMERA	QND-7082R	E158873-A6080-UL	
NETWORK CAMERA	QNV-7082R	E158873-A6081-UL	
NETWORK CAMERA	XNO-C9083R, XNO-C8083R, XNO-C7083R, XNO-C6083R	E158873-A6082-UL	
NETWORK CAMERA	XNV-9083R, XNV-8083R, XNV-8093R, XNV-6083R	E158873-A6083-UL	
NETWORK CAMERA	XND-9083RV, XND-8083RV, XND-8093RV, XND-6083RV	E158873-A6084-UL	
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NETWORK CAMERA	XNB-9003, XNB-8003, XNB-6003	E158873-A6089-UL	
NETWORK CAMERA	XNO-9083R, XNO-8083R, XNO-6083R	E158873-A6091-UL	
NETWORK CAMERA	QNV-7012R, QNV-7022R, QNV-7032R	E158873-A6092-UL	
NETWORK CAMERA	QND-7012R, QND-7022R, QND-7032R	E158873-A6093-UL	
NETWORK CAMERA	QNP-6320R, QNP-6250R	E158873-A6094-UL	
NETWORK CAMERA	XNV-6123R	E158873-A6100-UL	
NETWORK CAMERA	XNO-6123R	E158873-A6101-UL	
NETWORK CAMERA	LNO-6072R	E158873-A6102-UL	
NETWORK CAMERA	LVN-6012R, LVN-6022R, LVN-6032R, ANV-L6012R	E158873-A6103-UL	
NETWORK CAMERA	LVN-6072R	E158873-A6104-UL	
NETWORK CAMERA	LND-6012R, LND-6022R, LND-6032R	E158873-A6105-UL	
NETWORK CAMERA	LND-6072R	E158873-A6106-UL	
NETWORK CAMERA	LNO-6012R, LNO-6022R, LNO-6032R, ANO-L6012R, ANO-L6022R	E158873-A6107-UL	
NETWORK CAMERA	ANO-L7022R, ANO-L7012R	E158873-A6108-UL	
NETWORK CAMERA	TNV-7010RC, TNV-7011RC	E158873-A6109-UL	
NETWORK CAMERA	ANV-L7012R	E158873-A6110-UL	
NETWORK CAMERA	XNZ-6320A	E158873-A6111-UL	
NETWORK CAMERA	QNP-6320HS	E158873-A6112-UL	
NETWORK CAMERA	PNM-A9083RVD, PNM-A7083RVD, PNM-C12083RVD, PNM-C7083RVD	E158873-A6113-UL	
NETWORK VIDEO RECORDER	ARN-1610S	E158873-A6114-UL	
NETWORK CAMERA	XNZ-L6320A	E158873-A6115-UL	
NETWORK VIDEO RECORDER	QRN-1630S, XRN-815S	E158873-A6116-UL	
NETWORK CAMERA	ANO-L7082R, ANO-L6082R	E158873-A6117-UL	
THERMAL NETWORK CAMERA	TNM-C4940TD, TNM-C4950TD, TNM-C4960TD	E158873-A6118-UL	
NETWORK CAMERA	ANE-L7012R, ANE-L6012R	E158873-A6119-UL	
NETWORK CAMERA	PNM-12082RVD, PNM-7082RVD	E158873-A6120-UL	
NETWORK CAMERA	ANV-L7082R, ANV-L6082R	E158873-A6121-UL	
DIGITAL VIDEO RECORDER	HRX-1635	E158873-A6122-UL	
DIGITAL VIDEO RECORDER	HRX-835A	E158873-A6123-UL	
NETWORK CAMERA	XNF-9013RV	E158873-A6124-UL	
NETWORK VIDEO ENCODER	SPE-1630	E158873-A6125-UL	
NETWORK VIDEO RECORDER	QRN-430S, ARN-410S	E158873-A6126-UL	
NETWORK VIDEO RECORDER	XRN-420S	E158873-A6127-UL	

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NETWORK VIDEO RECORDER	QRN-830S	E158873-A6128-UL	
NETWORK VIDEO RECORDER	ARN-810S	E158873-A6129-UL	
NETWORK CAMERA	XNV-9083RZ, XNV-8083RZ, XNV-6083RZ	E158873-A6130-UL	
DIGITAL VIDEO RECORDER	HRX-434	E158873-A6131-UL	
NETWORK CAMERA	XNV-8083Z, XNV-6083Z	E158873-A6132-UL	
NETWORK VIDEO ENCODER	SPE-420	E158873-A6133-UL	
NETWORK CAMERA	XNB-6002	E158873-A6134-UL	
DIGITAL VIDEO RECORDER	HRX-435	E158873-A6135-UL	
DIGITAL VIDEO RECORDER	HRX-1634	E158873-A6136-UL	
VIDEO DECODER	SPD-152	E158873-A6137-UL	
NETWORK CAMERA	PNM-C9022RV	E158873-A6138-UL	
PENDANT SPEAKER	SPA-P100W, SPA-P100B	E158873-A6139-UL	
SECURITY LED MONITOR	SMT-2212	E158873-A6140-UL	
DIGITAL VIDEO RECORDER	ARD-1610	E158873-A6142-UL	
DIGITAL VIDEO RECORDER	ARD-810, ARD-410	E158873-A6144-UL	
NETWORK CAMERA	PNV-A6081R-E2T, PNV-A6081R-E1T	E158873-A6150-UL	
USB JOYSTICK CONTROLLER	SPC-2001	E158873-A6151-UL	
NETWORK CAMERA	MGC-D8080LI, MGC-D8080	E158873-A6153-UL	
NETWORK CAMERA	QNO-C9083R, QNO-C8083R	E158873-A6154-UL	
NETWORK CAMERA	QNV-C9083R, QNV-C8083R	E158873-A6155-UL	

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2313238-0
Report Reference E158873-20230409
Date 10-Apr-2023

Issued to: Hanwha Vision Co Ltd
6, Pangyo-ro 319beon-gil, Bundang-gu Seongnam-si,
Gyeonggi-do 13488
Republic of Korea

This is to certify that representative samples of AZOT7 - Audio/Video, Information and Communication Technology Equipment Certified for Canada
See Addendum Page for Product Designation(s).

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

Standard(s) for Safety: CSA C22.2 No. 62368-1:19, 3rd Ed., Issue Date: 2019-12-13, Revision Date: 2021-10-22

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

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

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

Look for the UL Certification Mark on the product.


Deborah Jennings-Conner, VP Regulatory Services
UL LLC



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CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2313238-0
Report Reference E158873-20230409
Date 10-Apr-2023

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

Model	Category Description
QNO-C8083R	NETWORK CAMERA
QNO-C9083R	NETWORK CAMERA


Deborah Jennings-Conner, VP Regulatory Services

UL LLC



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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-2315152-0
Report Reference E158873-20230409
Date 10-Apr-2023

Issued to: Hanwha Vision Co Ltd
6, Pangyo-ro 319beon-gil, Bundang-gu Seongnam-si,
Gyeonggi-do 13488
Republic of Korea

This is to certify that representative samples of AZOT - Audio/Video, Information and Communication Technology Equipment
See Addendum Page for Product Designation(s).

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


Standard(s) for Safety: UL 62368-1, 3rd Ed., Issue Date: 2019-12-13, Revision Date: 2021-10-22

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

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

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

Look for the UL Certification Mark on the product.


Deborah Jennings-Conner, VP Regulatory Services

UL LLC



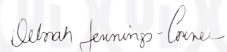
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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-2315152-0
Report Reference E158873-20230409
Date 10-Apr-2023

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

Model	Category Description
QNO-C8083R	NETWORK CAMERA
QNO-C9083R	NETWORK CAMERA


Deborah Jennings-Conner, VP Regulatory Services

UL LLC



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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:	QNO-C9083R, QNO-C8083R
Rating:	PoE (48 Vdc), 0.25 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: SeoHwan Kim / Project Handler Reviewed By: SungIl Kim / Reviewer

Supporting Documentation

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

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

B. Generic Inspection Instructions -

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

Product Description

NETWORK CAMERA has been designed for indoor use and integrated a hole for mount.

It is a commercial equipment supplied from UL Listed PoE (Power over Ethernet) and installed by service person.

Model Differences

QNO-C9083R is basic model.

QNO-C8083R is identical to basic model except model designation and resolution Specification.

QNO-C9083R

Resolution Specification: 4K

QNO-C8083R

Resolution Specification: 5M

Test Item Particulars

Product group	end product
Classification of use by	Instructed person
Supply Connection	not mains connected: ES1
Supply tolerance	None
Supply connection – type	PoE (Power over Ethernet-48Vdc)
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)	0.93
Technical Considerations <ul style="list-style-type: none"> <input type="checkbox"/> The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 55°C <input type="checkbox"/> The product is intended for use on the following power systems : No direct connection <input type="checkbox"/> Considered current rating of protective device as part of the building installation (A) : N/A <input type="checkbox"/> Mains supply tolerance (%) or absolute mains supply : No direct connection <input type="checkbox"/> The Risk Group of a lamp or lamp system (including LEDs) is : RG 1 <input type="checkbox"/> The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual 	
Additional Information 4790707390 - Continuous operation (IR LED on), Optional features: USB (0.5A)	
Additional Standards The product fulfills the requirements of: N/A	
Markings and Instructions	
Clause Title	Marking or Instruction Details
Optical radiation from lamps - Hazard-related risk group marking of equipment:	"WARNING - IR emitted from this product." for Risk Group 1. "MISE EN GARDE - IR émis par ce produit." for Risk Group 1.
Retinal thermal hazard, weak visual stimulus 780-1400 nm	Text on equipment is black on a yellow background. Reproduction in user manual is not required to be in color.
Optical radiation from lamps - Explanation of marking information and guidance on control measures:	"Do not stare at operating lamp." for Risk Group 1. "Ne pas regarder fixement la lampe." for Risk Group 1.
Retinal thermal hazard, weak visual stimulus 780-1400 nm	
Equipment identification marking – Manufacturer identification	Listee's or Recognized Company's name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	Input Ratings (voltage, frequency/dc, current/power)
Installation Manual	These servicing instructions are for use by qualified service personnel only.

Hard Copy	A. IMPORTANT or ATTENTION or similar wording.B. Please check 'Manuals' from our website, before connecting to the supply.C. Company website URL (https://www.~~) or QR code.
(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 (48 Vdc), 0.25 A
(Website) Manual - 2	The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3.af 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.
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 models					
BD1.3	Electric Strength Test Exemptions – This test is not required for the following models:					
	All models					
BD1.4	Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test.					
	All models					

BE1.0	Sample and Test Specifics for Follow-Up Tests at UL				
Model	Component	Material	Test	Sample (s)	Test Specifics
-	-	-	-	-	-

4.1.2	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
Enclosure – Window frame (Plastic)	LOTTE CHEMICAL CORPORATION	HN-1068(+)(f1)	Min. 1.5 mm thickness, rated Min. V-0, 130 deg. C.	QMFZ2	UL (E115797)	
Enclosure – Window lens (Plastic)	CHI MEI CORPORATION	PC-6715VT(f1)(a)	Min. 1.5 mm thickness, rated Min. V-0, 115 deg. C.	QMFZ2	UL (E56070)	
Enclosure – Window IR-LED (Plastic)	LOTTE CHEMICAL CORPORATION	QC-122(+)(f1)	Min. 1.6 mm thickness, rated Min. V-2, 125 deg. C.	QMFZ2	UL (E115797)	
Internal Plastic Part Materials	LOTTE CHEMICAL CORPORATION	HN-1068(+)(f1)	Min. 1.5 mm thickness, rated Min. V-0, 130 deg. C.	QMFZ2	UL (E115797)	
Enclosure – Body (Metal)	Interchangeable	Interchangeable	Aluminium, Min. 2.0mm thickness.	-	-	
Enclosure – Bracket (Metal)	Interchangeable	Interchangeable	Aluminium, Min. 2.0mm thickness.	-	-	
Transformer(T1)	SHENZHEN GROUP-TEK ELECTRONICS TECHNOLOGY CO. , LTD	PDT25239SR	130 deg.C, see enclosures for dimension	-	-	
Opto-coupler (LS201)	LITE-ON Technology Corporation	LTV-356T(%)(c)	Isolation Voltage: 3 750 Max. Operation Temperature: 110 deg.C	FPQU2	UL (E113898)	
Lithium Battery (BAT1)	SEIKO INSTRUMENTS INC MICRO- ENERGY DIV	ML414H	Lithium (Coin), Rechargeable, Max. Charging Voltage: 3.4	BBCV2	UL (MH15628)	

			Vdc, Max. Charging Current: 300 mAh			
Rechargeable coin battery protect circuit (D1)	Interchangeable	Interchangeable	80 V, 300 mA	-	-	
Stepping Motor(Zoom, Focus , motor)	DongGuan YuTong Optical Technology CO., Ltd	ELE-6023-E	Operation Voltage DC 4.2-5V, Max pulse rate 300-800 pps	-	-	
Stepping Motor(IRCUT)	DongGuan YuTong Optical Technology CO., Ltd	IR0109	Operation Voltage DC 3.5-6.0V Max	-	-	
Stepping Motor(IRIS motor)	DongGuan YuTong Optical Technology CO., Ltd	IRIS0139	Operation Voltage DC 3.5-5.25V Max	-	-	
USB protect IC (U13)	Texas Instruments Incorporated	TPD3S014	Rated 4.5-5.5 Vdc, 0.5 A, Current limit: 1.05 A	QVGS2	UL (E169910)	
IR LED (2 EA- LD3, LD4)	CYBRIGHT	XB-IR3838EU-I	Vf=2.3 Vdc(max), Angle:(180 °)	-	-	
Thermal Pad	ATEKS CO LTD	ATP-20	Min. 0.2 mm thickness, rated V-0, 105 deg. C	QMFZ2	UL (E513170)	
Connectors and Receptacles (Secondary circuits)	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of plastic rated Min. V-2	ECBT2	UL	
Internal Wiring (Secondary)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; Min. 30 V, 80 deg.C	AVLV2	UL	
Internal wiring	Interchangeable	Interchangeable	Low voltage, rated minimum 80 deg. C, 30 V, marked VW-1	AVLV2	UL	
FPWB	KHELTEC CO LTD	18 (ASP 1)	Min V-0, 105 deg. C.	ZPKX2	UL (E359685)	
FPWB (Alternate)	Interchangeable	Interchangeable	Min V-0, 105 deg. C.	ZPKX2	UL	

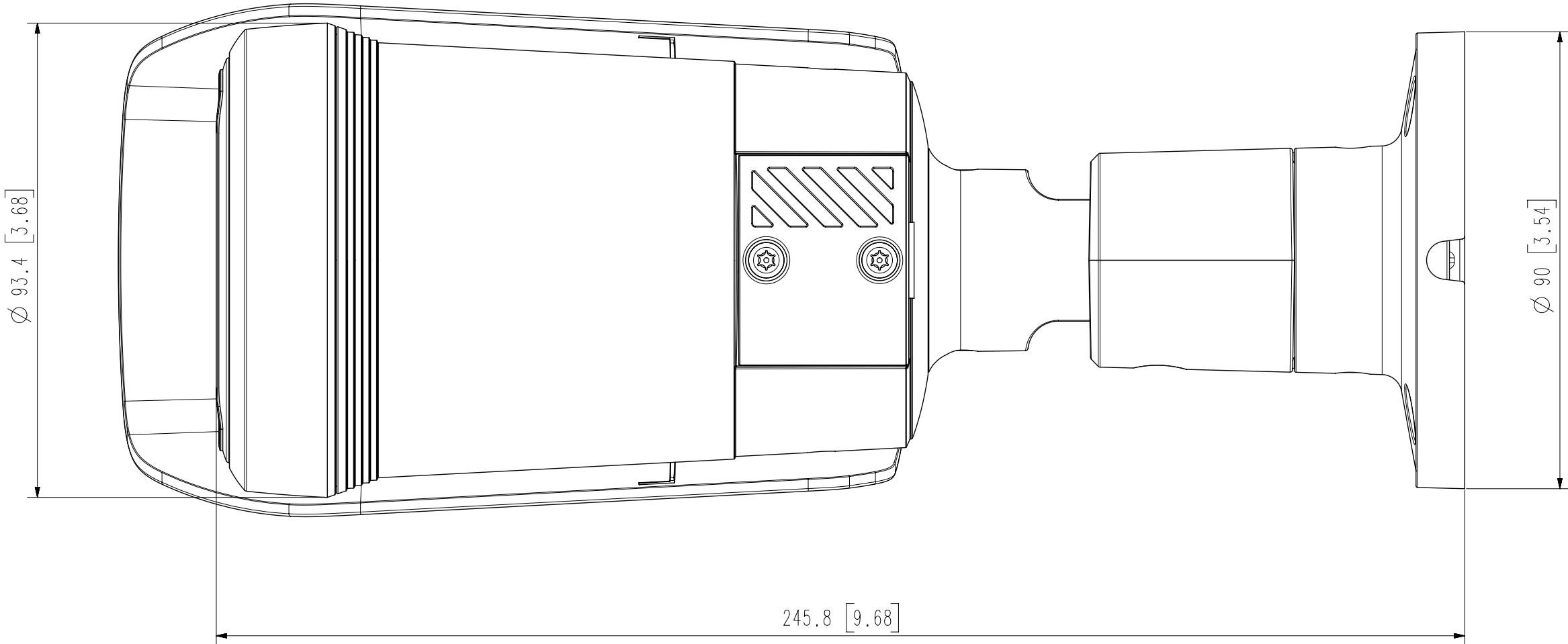
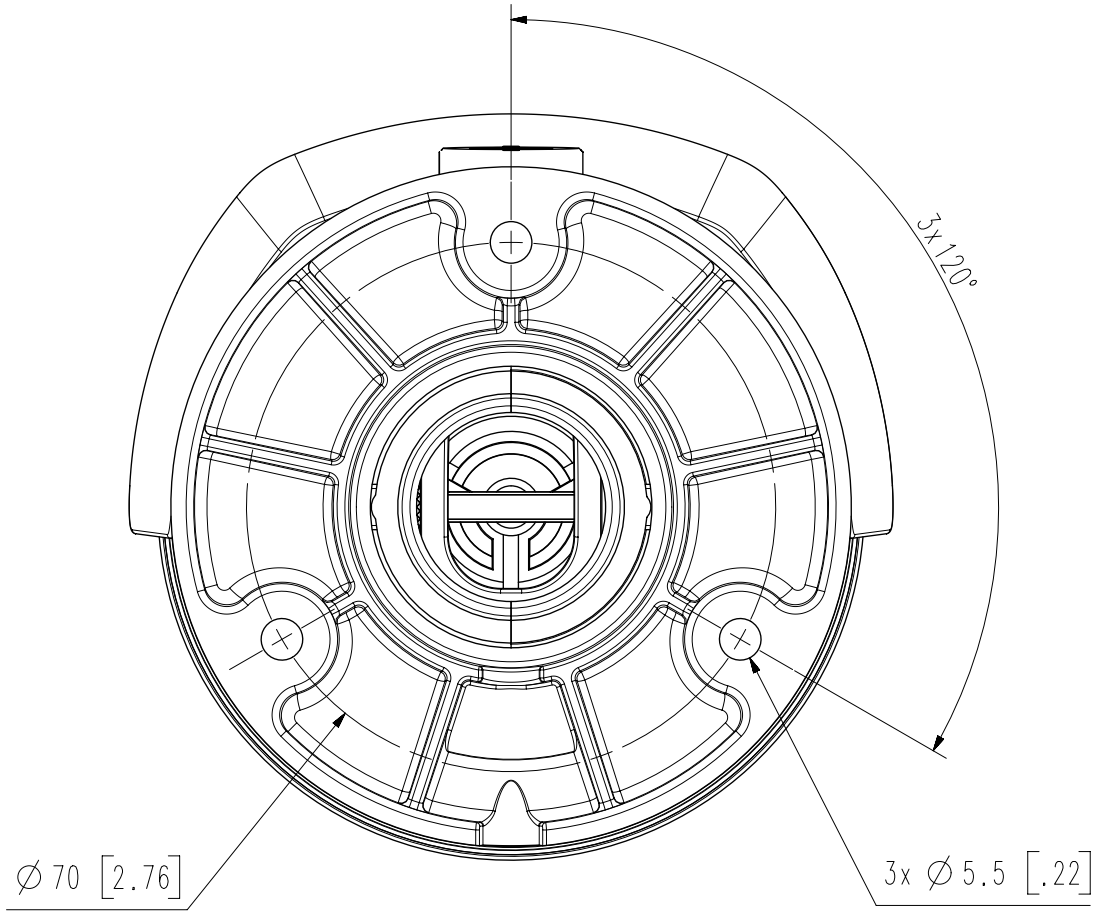
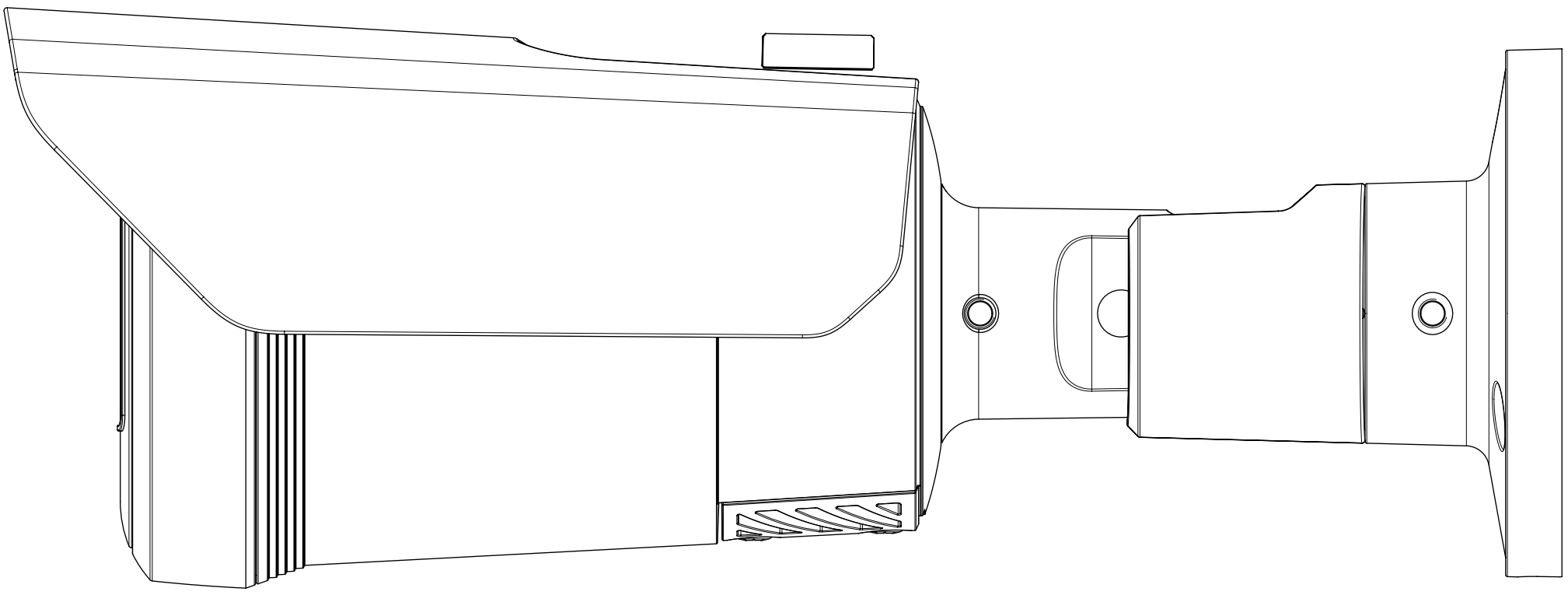
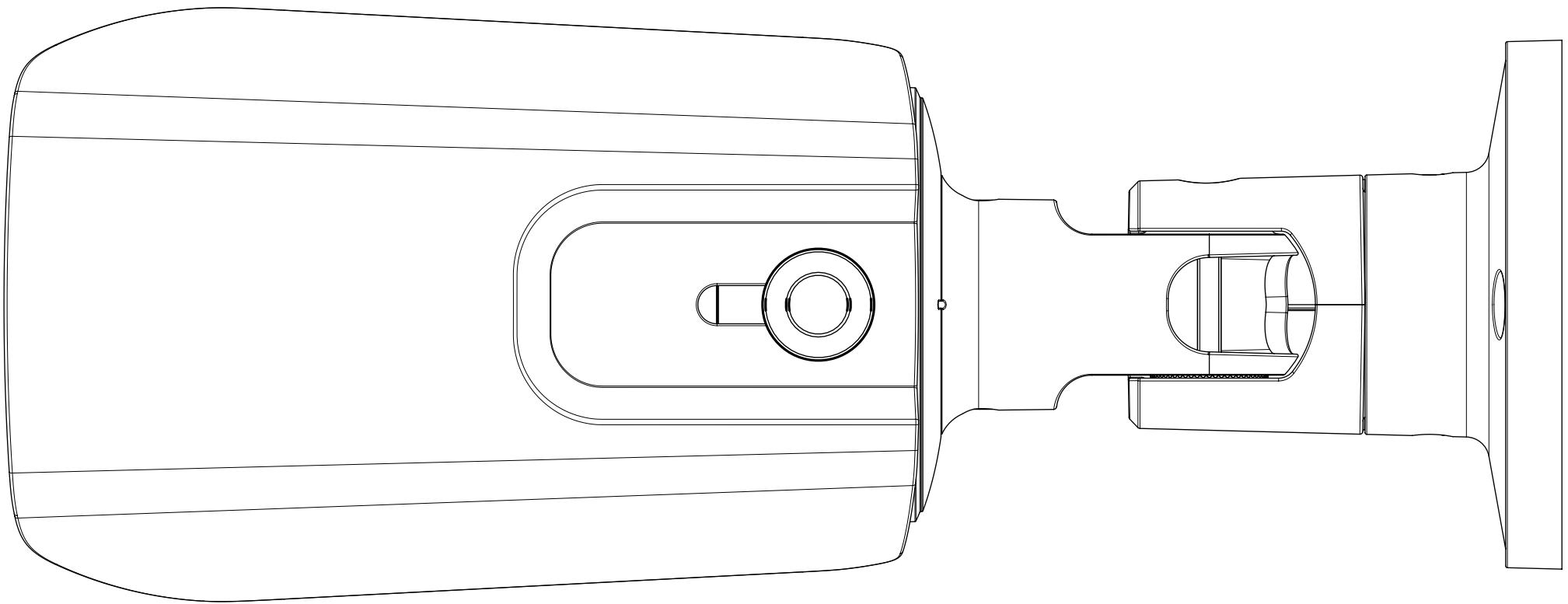
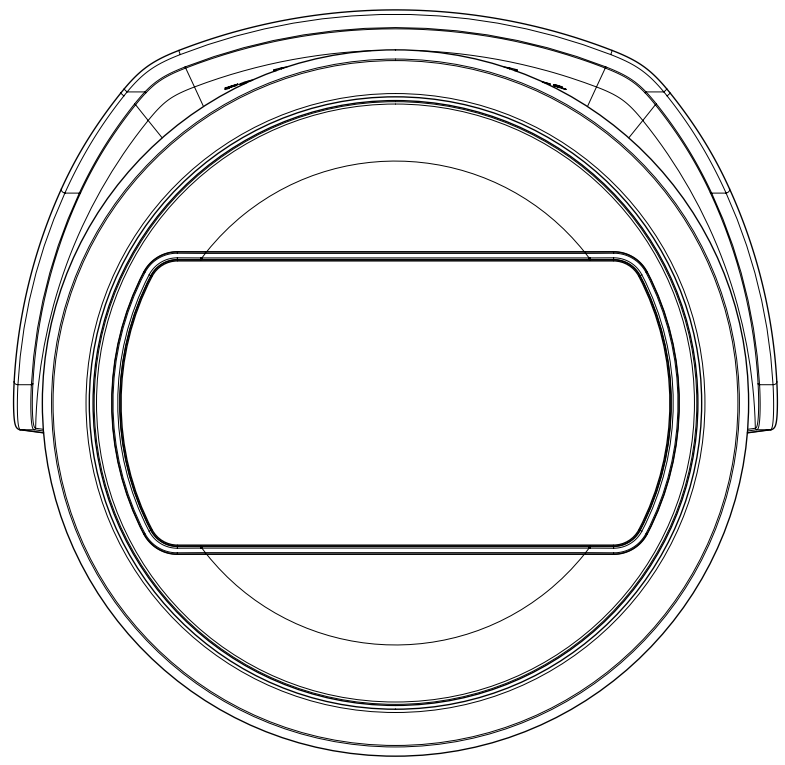
PWB	HANNSTAR BOARD CORP	MV-4	Min. V-0, 130 deg. C.	ZPMV2	UL (E89382)	
PWB (Alternate)	Interchangeable	Interchangeable	Min. V-0, 130 deg. C	ZPMV2	UL	
Label	Interchangeable	Interchangeable	Min. 55 deg.C if max. surface temperature not specified.	PGJ12	UL	

Enclosures


Type	Supplement Id	Description
Photographs	03-01	Over view - 1
Photographs	03-02	Over view - 2
Photographs	03-03	Internal view
Photographs	03-04	IR LED board - top
Photographs	03-05	IR LED board - bot
Photographs	03-06	Lens board
Photographs	03-07	Lens view
Photographs	03-08	Network board - top
Photographs	03-09	Network board - bot
Photographs	03-10	Power board - top
Photographs	03-11	Power board - bot
Diagrams	04-01	Diagram
Manuals	06-01	Manual
Miscellaneous	07-04	Transformar Specification
Miscellaneous	07-05	Label-Risk Group1
Miscellaneous	07-06	Label_QNO-C9083R
Miscellaneous	07-07	Label_QNO-C8083R

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

NO	PART NAME	CODE NO.	MATERIAL	Q'TY	REMARK
1	ASSY-FINAL	086400	Check note	1	-



A1
CHANGE

STANDARD TOLERANCE					UNIT	mm	DESIGN	CHECK	APPROVAL	PART NAME	ASSY-FINAL	
DIV	h1/3	h1/2	h1/1	h1/0			Jin.J.M	Park.M.H	Choi.Y.S			
0-16	-0.04	-0.04	-0.04	-0.04	SCALE	1 / 1	23.02.02	23.02.02	23.02.02	MODEL NAME	QNO-C9083R	
16-63	-0.05	-0.05	-0.05	-0.05								
63-250	-0.1	-0.1	-0.1	-0.1								
250-1000	-0.2	-0.2	-0.2	-0.2	 Hanwha Techwin						CODE NO.	086400

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

NETWORK CAMERA

User Manual

QNV-C9083R/QNV-C8083R
QNO-C9083R/QNO-C8083R



Network Camera

User Manual

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Trademark

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Disclaimer

Hanuwa Vision makes the best to verify the integrity and correctness of the contents in this document, but no formal guarantee shall be provided. Use of this document and the subsequent results shall be entirely on the user's own responsibility. Hanuwa Vision reserves the right to change the contents of this document without prior notice.

※ Design and specifications are subject to change without prior notice.

※ The initial administrator ID is “admin” and the password should be set when logging in for the first time.

Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.

Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

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 (48Vdc), 0.25A. (QNO-C9083R/QNO-C8083R/QNV-C9083R/QNV-C8083R)
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. Although a rapid change in temperature could cause frost inside the dome, there will be no problem with the video.
23. The operating temperature of the product is -40°C to +55°C (-40°F ~ +131°F)



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 OPENINGS 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.

CAUTION

	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

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.

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.

The Micro USB port of the product is provided for easier installation, and is not recommended for monitoring purposes.

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.

Do not arbitrarily loosen or tighten the gore valve.

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 802.3af 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.

WARNING

To Prevent damage which may caused by IR LED, don't stare at operating lamp.

For below models only.

QNV-C9083R/QNV-C8083R

QNO-C9083R/QNO-C8083R

Risk Group 1 (Groupe de Risque 1)

WARNING IR emitted from this product.
Do not stare at operating lamp.

MISE EN GARDE - IR émis par ce produit
Ne pas regarder fixement la lampe.

Product tested against IEC 62471

CONTENTS

OVERVIEW	3	Important Safety Instructions
	6	Recommended PC Specifications
	6	Recommended Micro SD/SDHC/SDXC Memory Card Specifications
	6	NAS recommended specs
	8	Optional Accessories for Installation
OUTDOOR VANDAL DOME CAMERA	10	What's Included
	10	At a Glance
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	18	Adjusting the monitoring direction for the camera
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WEB VIEWER	33	Connecting to the Camera
	34	Password setting
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	34	Camera Web Viewer Setup
APPENDIX	35	Troubleshooting

RECOMMENDED PC SPECIFICATIONS

- CPU : Intel(R) Core(TM) i7 3.4 GHz or higher
 - RAM : 8G or higher
 - Recommended browser: Chrome
 - Supported browsers: Chrome, Safari, Firefox, MS Edge(chromium based)
 - Supported OS : Windows, Mac, Linux, Android, iOS, Chrome
 - Verification environment
 - Windows 10: Google Chrome version 80 or later, Firefox version 72 or later, MS Edge version 83 or later
 - Mac 10.13/14: Safari version 11.0.1 or later
- ※ The video play performance of the web viewer depends on the performance of the user's CPU and GPU.

RECOMMENDED MICRO SD/SDHC/SDXC MEMORY CARD SPECIFICATIONS

- Recommended capacity : 16GB to 256GB (MLC type required)
- Recommended Manufacturers : SanDisk, Transcend
- Product Type : High endurance
- The compatibility varies depending on the card manufacturers and types.

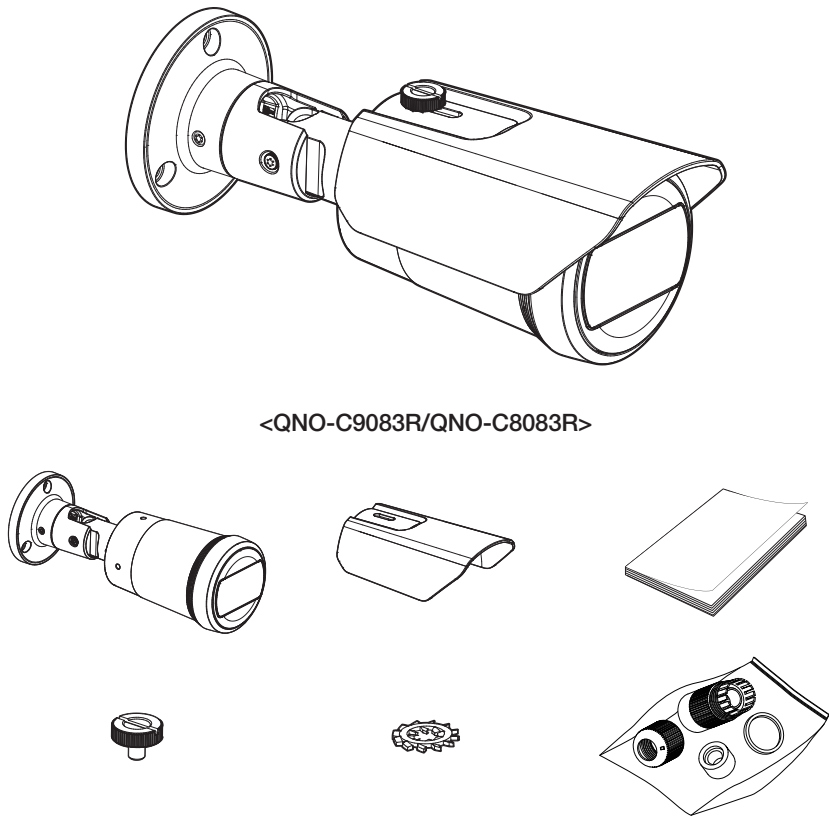
NAS RECOMMENDED SPECS

- Recommended capacity : 200GB or higher is recommended.
- For this camera, you are recommended to use a NAS with the following manufacturer's specs.
Recommended products : QNAP NAS, Synology NAS

indoor bullet camera

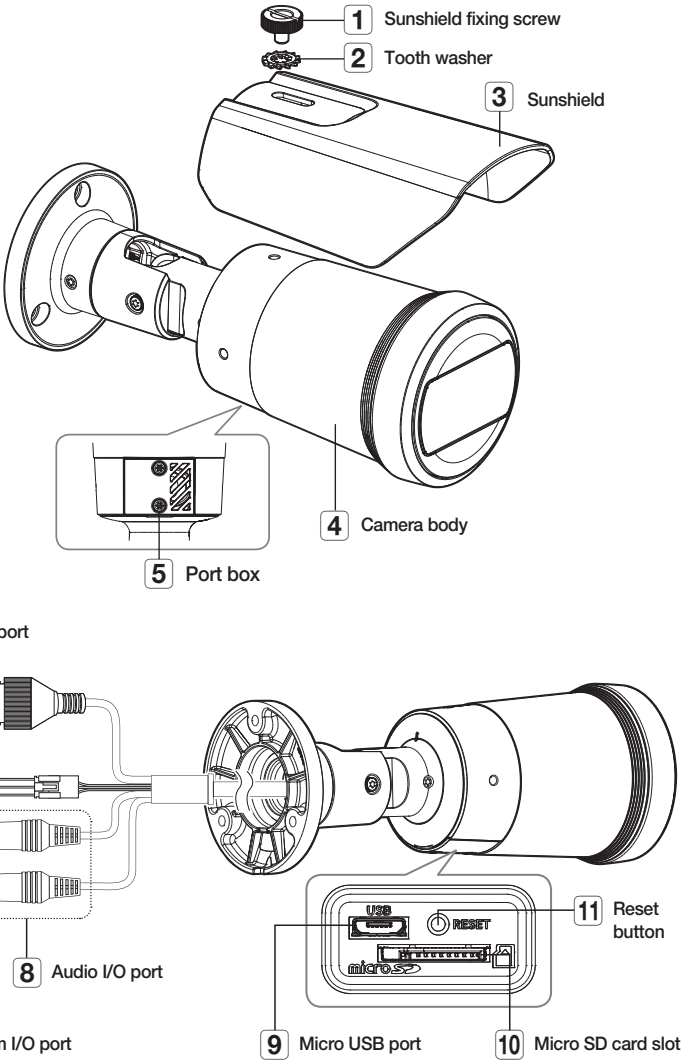
WHAT'S INCLUDED

As for each sales country, accessories are not the same.



■ Use installation screws of at least M4, L30 for the installation of this product.

AT A GLANCE



! ■ Wipe out a dirty surface of the lens softly with a lens tissue or cloth to which you have applied ethanol.

INSTALLATION



- This camera is waterproof and in compliance with the IP66 spec, but the jack connected to the external cable is not. You are recommended to install this product below the edge of eaves to prevent the cable from being externally exposed.

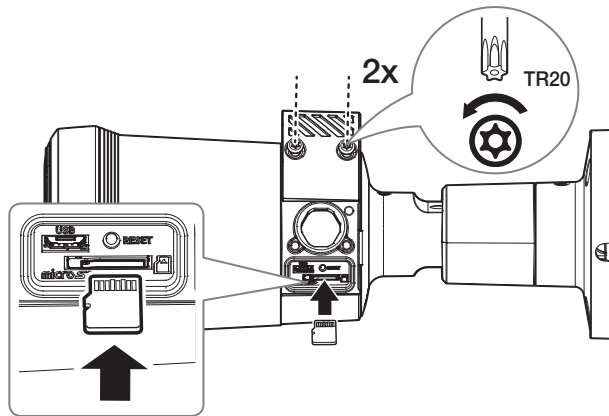
Precautions before installation

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.
- Do not use the sunshield hole for any purpose other than for connecting the sunshield.

Inserting a Micro SD card

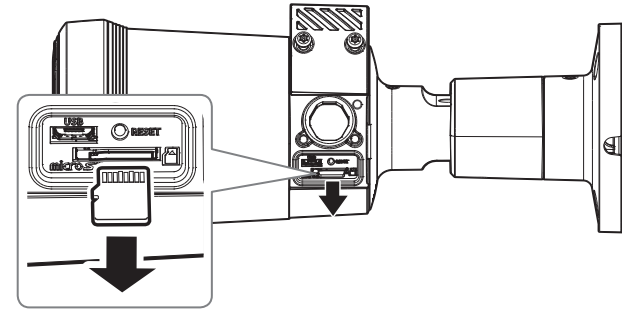
1. Turn the screws of the port box cover of the camera body counterclockwise to remove the cover.
2. Insert the micro SD card into the micro SD card slot in the direction of the arrows as shown in the picture.



- Before installing the camera, the Micro SD card should be inserted while the power source and the body are separated.
- Do not forcefully insert it in the reverse direction. It might damage your Micro SD card and your product.
- 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.
- Disassembly of the product cover should be finished within 5 minutes, or there will be the risk of internal dew condensation.

Removing a Micro SD card

Gently press down on the exposed end of the Micro SD card as shown in the diagram to eject the Micro SD card from the slot.

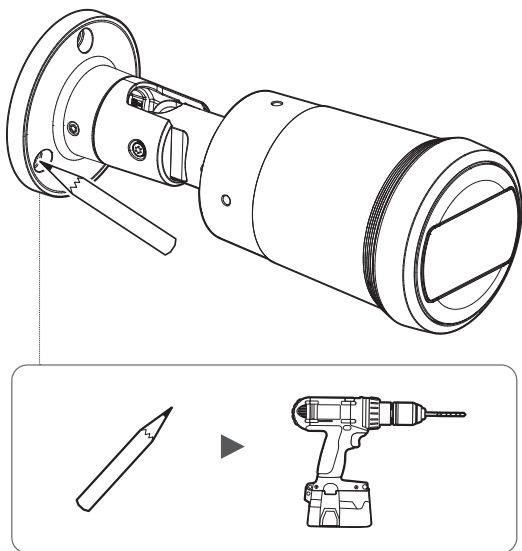


- Before removing the Micro SD card, in <Setup (⚙️)>-<Event>-<Storage>, set the device to <Off> and press the [Apply] button and turn the camera off.
- If you turn off the camera or remove the Micro SD card that contains data from the product, the data may be lost or damaged.
- When removing the port box cover, be careful not to lose the rubber gasket of the cover.

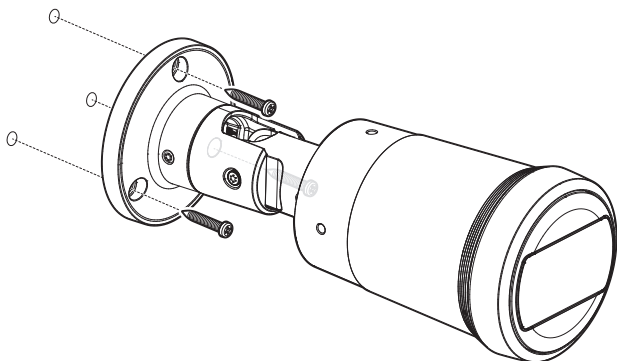
Installation

[Directly installing on wall/ceiling]

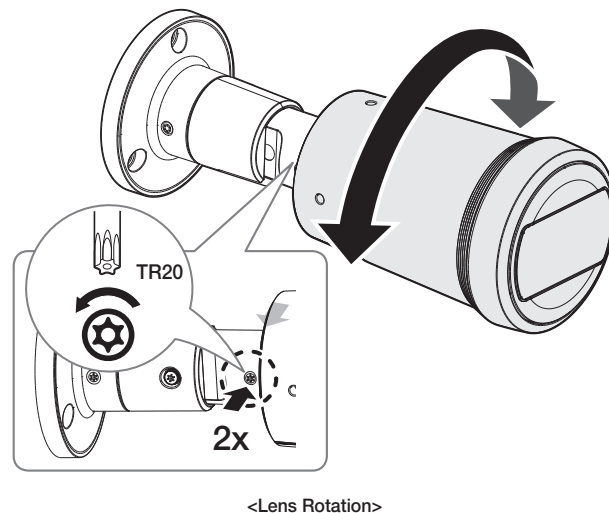
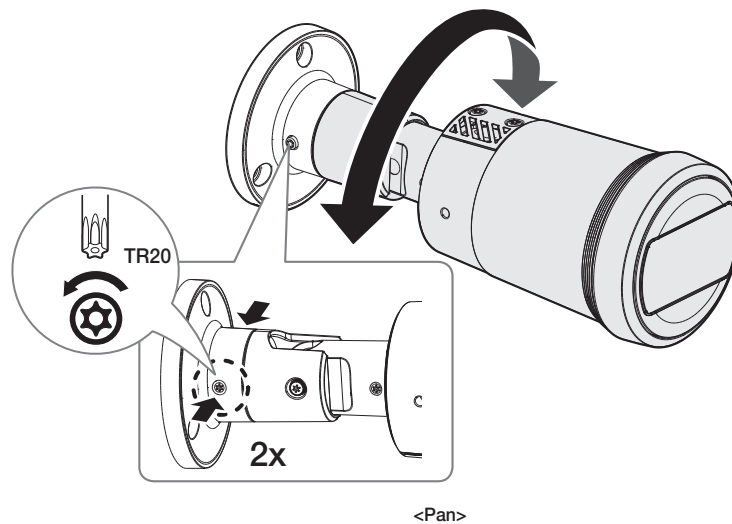
1. Place the camera on the desired location considering the direction to be monitored, mark the locations for the screw holes and cable holes, and then drill the holes.

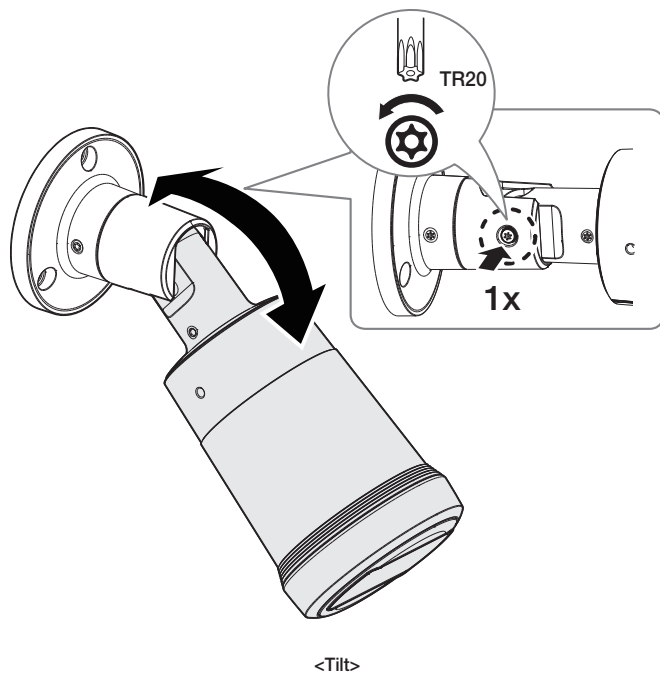


2. Connect the necessary cables from among the network, audio, and alarm cables to the ports of the camera.
3. Fix the Mount plate using appropriate screws.
 - It must be installed on the area (ceiling or wall) that can withstand 5 times the weight of the camera including the installation bracket.

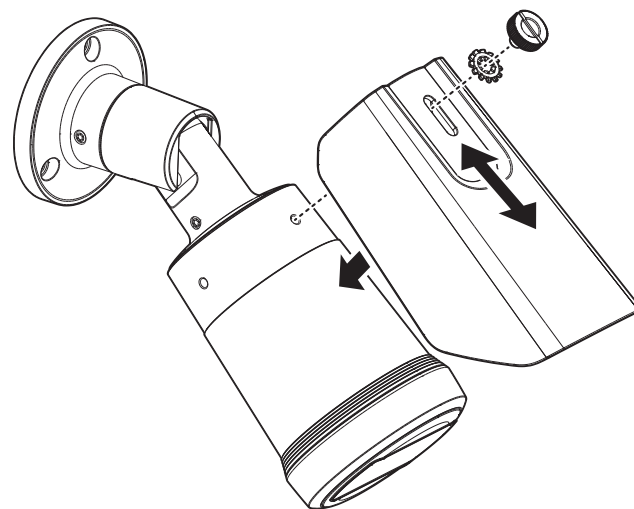


4. Loosen the fixing screws of each control part to adjust the monitoring direction of the camera.
 - Note that it is not necessary to loosen the screws completely.
 - Connect a monitoring device to the USB port and then monitor and adjust it.





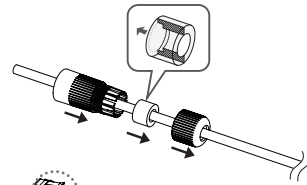
5. Use the sunshield mounting screws and tooth washers to join the sunshield to the camera body.



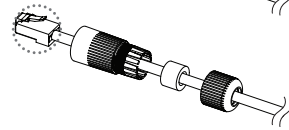
- When adjusting the camera monitoring direction, loosen the corresponding fixing screws, adjust the camera, and then tighten the screws. Forcibly adjusting the camera while the screws are fastened may cause scratches and malfunction.

How to connect the RJ45 waterproof cable to a LAN cable

1. Insert it through the arrow direction.

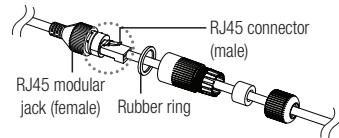


2. Connect the LAN connector (male) to the cable.

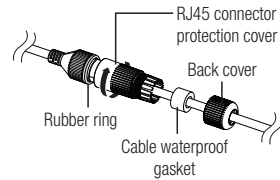


3. Connect the RJ45 modular jack (female) to the RJ45 connector (male).

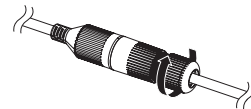
! Please, keep each of the parts separated.



4. Assemble by rotating the RJ45 modular jack (female) and the RJ45 protection cover clockwise (Follow the arrow).



5. Assemble by rotating RJ45 protection cover and back cover clockwise (Follow the arrow).
When the back cover is assembled, the cable waterproof gasket is tightly attached to the cable to make it waterproof.



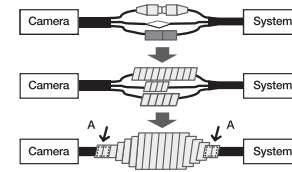
! You must fully assemble it to rotate the back cover up to the end of the screw thread of the RJ45 connector.

Outdoor installation

When you install it outside of the building, please waterproof it with waterproof butyl rubber tape (can be purchased in stores) so that water does not leak from the gap of the cable connected to the outside.

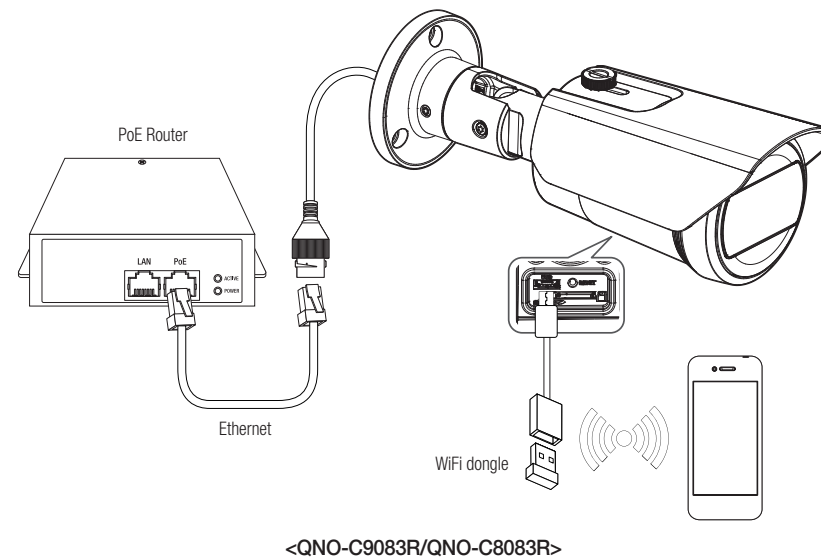
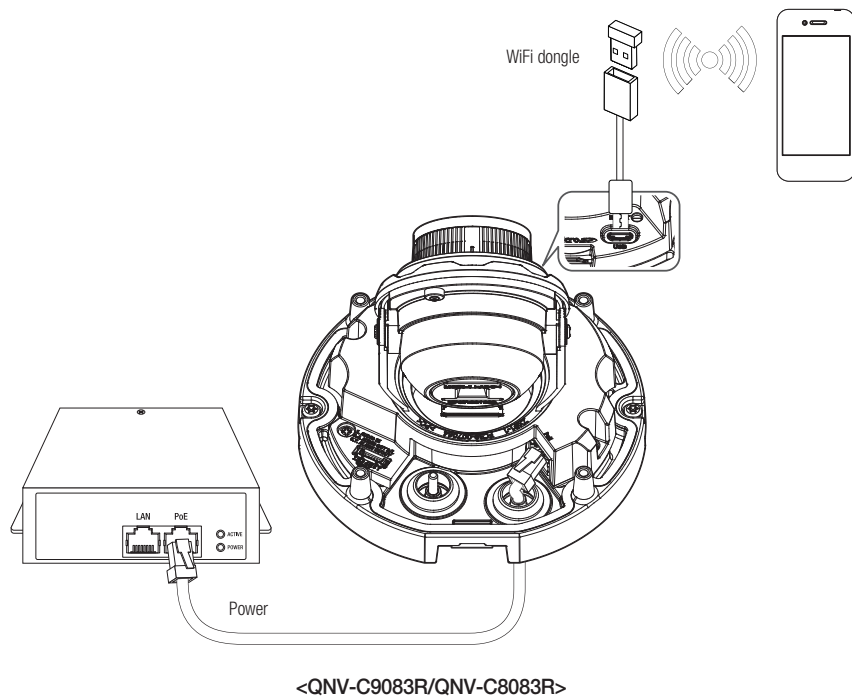
1. Connect network and alarm/audio cables, etc.

2. Wrap the black cable jacket (Area A) and the cable connection area with waterproof (butyl rubber) tape so that more than half of the butyl rubber tape is overlapped.



! If the cable jacket is not waterproofed properly, then it can directly cause leakage. Make sure to protect the cable with a dense layer of taping.
Waterproof butyl tape is made of butyl rubber that can be stretched to twice its normal length.

CONNECTING WITH OTHER DEVICE



- The Micro USB port of the product is provided for easier installation, and is not recommended for monitoring purposes.



- The Micro USB port of the product is provided for easier installation, and is not recommended for monitoring purposes.



Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Hanwha Vision cares for the environment at all product manufacturing stages, and is taking measures to provide customers with more environmentally friendly products.

The Eco mark represents Hanwha Vision's devotion to creating environmentally friendly products, and indicates that the product satisfies the EU RoHS Directive.



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.



Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.




To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.



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



SPECIFICATION FOR APPROVAL

客户名称 CUSTOMER			
客户料号 MODEL NO			
产品名称 PART NAME	POWER TRANSFORMER		
产品型号 PART TYPE	PDT25239SR		
版 本 REV	X1		
签 名 SIGNATURE	制作: PREPARED BY	审核: CHECKED BY	批准: APPROVED BY
			
客户承认 CUSTOMER APPROVAL	承认印: SIGNET 签 名: SIGNATURE		

深圳市联泰兴电子科技有限公司

SHENZHEN GROUP-TEK ELECTRONICS TECHNOLOGY CO., LTD

地 址 : 深圳市宝安区石岩街道应人石工业区伟泰路 1 栋 2-5 楼

ADD: Floor 2-5, No.1 Block, WeiTai Rd. Ying Ren Shi Industry Park, Shi Yan Sub-District, Bao'An ShenZhen,China

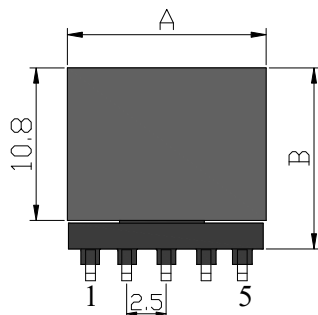
TEL: +86-755-29810619 29810976 FAX: +86-755-29810159

Http://www.group-tek.com

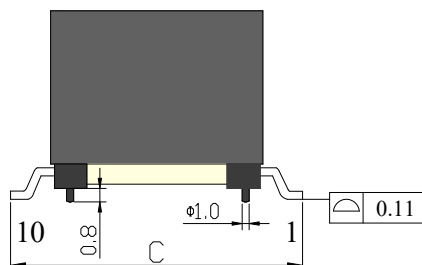
E-mail:sale1@group-tek.com

2. EXTERNAL DIMENSIONS: UNIT: mm

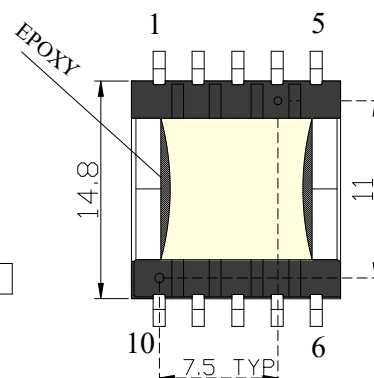
FRONT VIEW



TOP VIEW



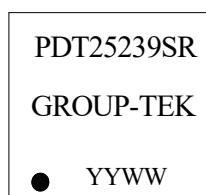
SIDE VIEW



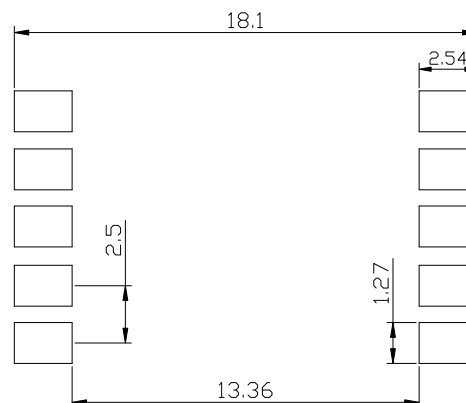
Unit: mm Tolerances:

A	B	C
Max	Max	Max
15.0	14.0	17.8

Marking information



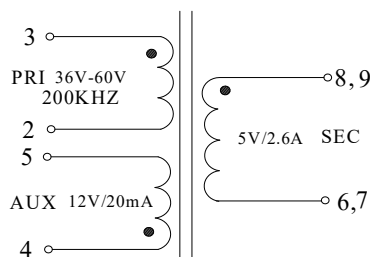
Suggested PCB Pad Layout



3. Electrical Characteristics :

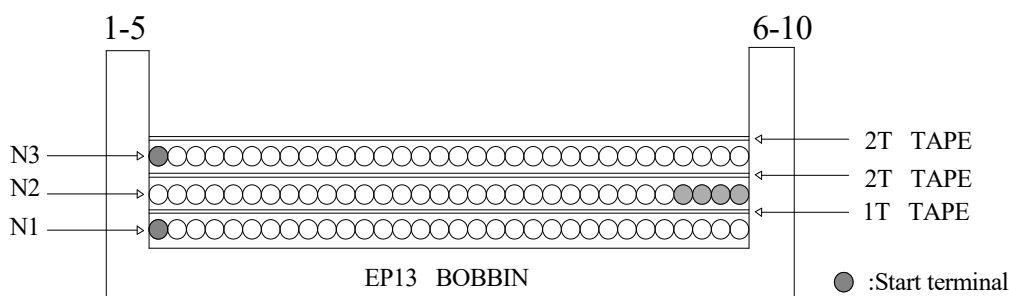
Specifications: at 25 degree C. Operating Temperature -40 to +125°C			
NO	ITEM	TEST CONDITION	SPECIFICATION
1	Inductance	(3-2) @25°C 100KHZ/1V	77uH ± 15%
		(4-5) @25°C 100KHZ/1V	29uH ± 20%
		(8,9-6,7) @25°C 100KHZ/1V	5.7uH ± 20%
2	Leakage Inductance	(3-2) @25°C 200KHZ/0.1V shorted other pins	1.0uH MAX
3	DCR	(3-2) @25°C	180mΩ MAX.
4		(8,9-6,7) @25°C	15mΩ MAX.
5		(4-5) @25°C	280mΩ MAX.
7	URNS RATIO	PRI (3-2) : SEC (8,9-6,7) : AUX (4-5)	22: 6: 13 ± 2%
8	HI-POT:	PRI TO SEC	1500V/AC/1mA 2Sec

5. Schematic:



NOTE: PIN8, 9&6, 7 must shorted on PCB

6. winding detail:



7. Winding Information:

WINDING SEQ.	ST-FN	WIRE/FOIL	TURNS	WRAP INSUL.	MARGIN TAPE	SLEEVE	NOTE
1	3--2	0.28mm2UEW	22TS	1T w8.0mm	N/A	N/A	1,2
2	8--6	4*0.3mm2UEW	6TS	2T w8.0mm	N/A	N/A	1,2
3	9--7						
4	4--5	0.28mm 2UEW	13TS	2T w8.0mm	N/A	N/A	1,2

NOTE :

1.Place the bobbin pin 1 left side of operator.

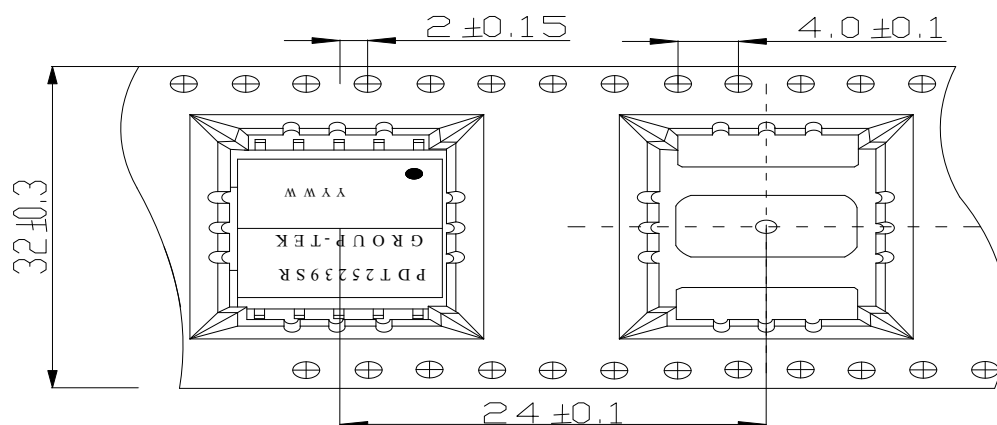
2.Clockwise and spaced winding

8. Material List:

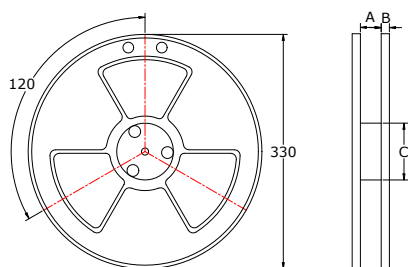
NO	ITEM	MATERIALS	SUPPLIERS/MANUFACTURERS	UL FILE NO.
1	BOBBIN	PHENOLIC T375J UL RATING: 94V-0	Chang Chun Plastics Co.,Ltd	E59481
2	CORE	E P13 TP44/PG242	High-tech Electronics Co.,Ltd /FENGHU	N/A
3	WIRE	POLYURETHANE ENAMELED TYPE NO: 2UEW THERMAL RATING:180°	Shing Shun Magnet wire(HuiZhou) Co.,Ltd	E255839
4	TAPE	ADHESIVE POLYESTER TAPE 1350FY-1(b)	Dongguan Jintai pro puced Co.,Ltd	E17385
5	SOLDER	SN/CU: 99.3/0.7	Gao Xin stannum industry Co.,Ltd	N/A
6	Glue	E-500(XX)	Dong Guan city eatto electronic material Co.,Ltd	E218090
7	INK	VIC-120	Shenzhenhuarui samwo group co.,Ltd	N/A

9. DIMENSION FOR CARRIER TAPE & REEL.

(UNIT 单位: mm)



Packaging -Cover tape



SPEC	8	12	16	24	32	44	56	72
DIM A ± 0.1	8.5	12.5	16.5	24.5	32.5	44.5	56.5	72.5
DIM B ± 0.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
DIM C ± 0.1	100	100	100	100	100	100	100	100

PACKING QUANTITY:

DESCRIPTION	QTY
PIECES PER REEL	150
PIECES PER POCKET	1
PIECES PER BOX	450
REEL PER BOX	3
GROSS WEIGHT PER BOX (KG)	TBD
NET WEIGHT PER BOX (KG)	TBD

Risk Group 1 (Groupe de Risque 1)

**WARNING IR emitted from this product.
Do not stare at operating lamp.**

**MISE EN GARDE - IR émis par ce produit
Ne pas regarder fixement la lampe.**

Product tested against IEC 62471



NETWORK CAMERA, QNO-C9083R

PoE(48V ) 0.25A

M/C: QNO-C9083R/KEX

Fac.ID:D



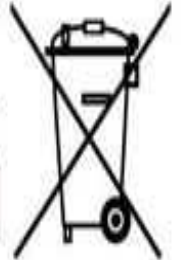
2023.02 S/N: Serial No.

MAC ADDRESS: XX-XX-XX-XX-XX-XX

CAN ICES-3(A)/NMB-3(A)

HANWHA VISION CO.,LTD.

MADE IN KOREA



NETWORK CAMERA, QNO-C8083R

PoE(48V ) 0.25A

M/C: QNO-C8083R/KEX

Fac.ID:D



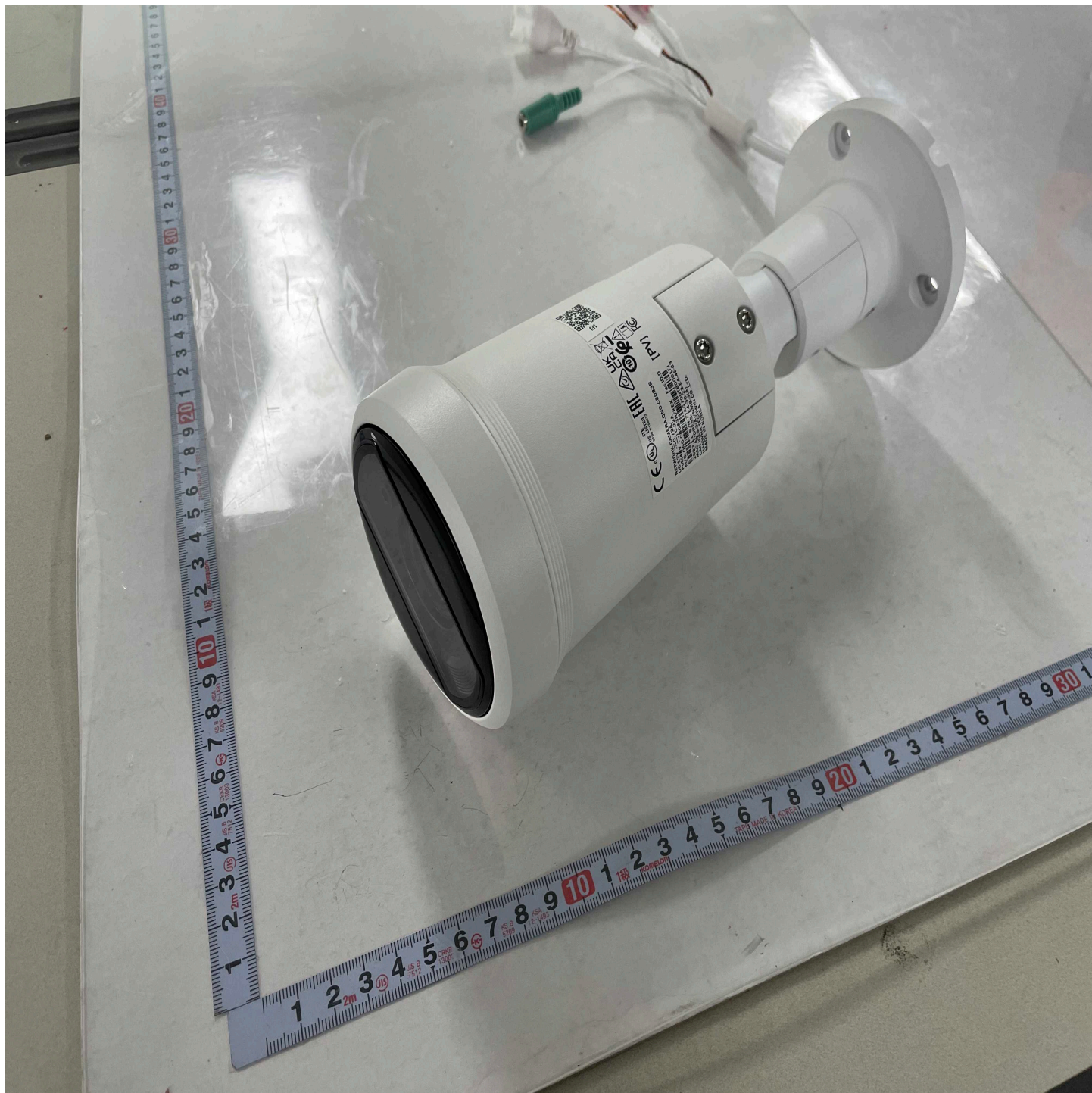
2023.02 S/N: Serial No.

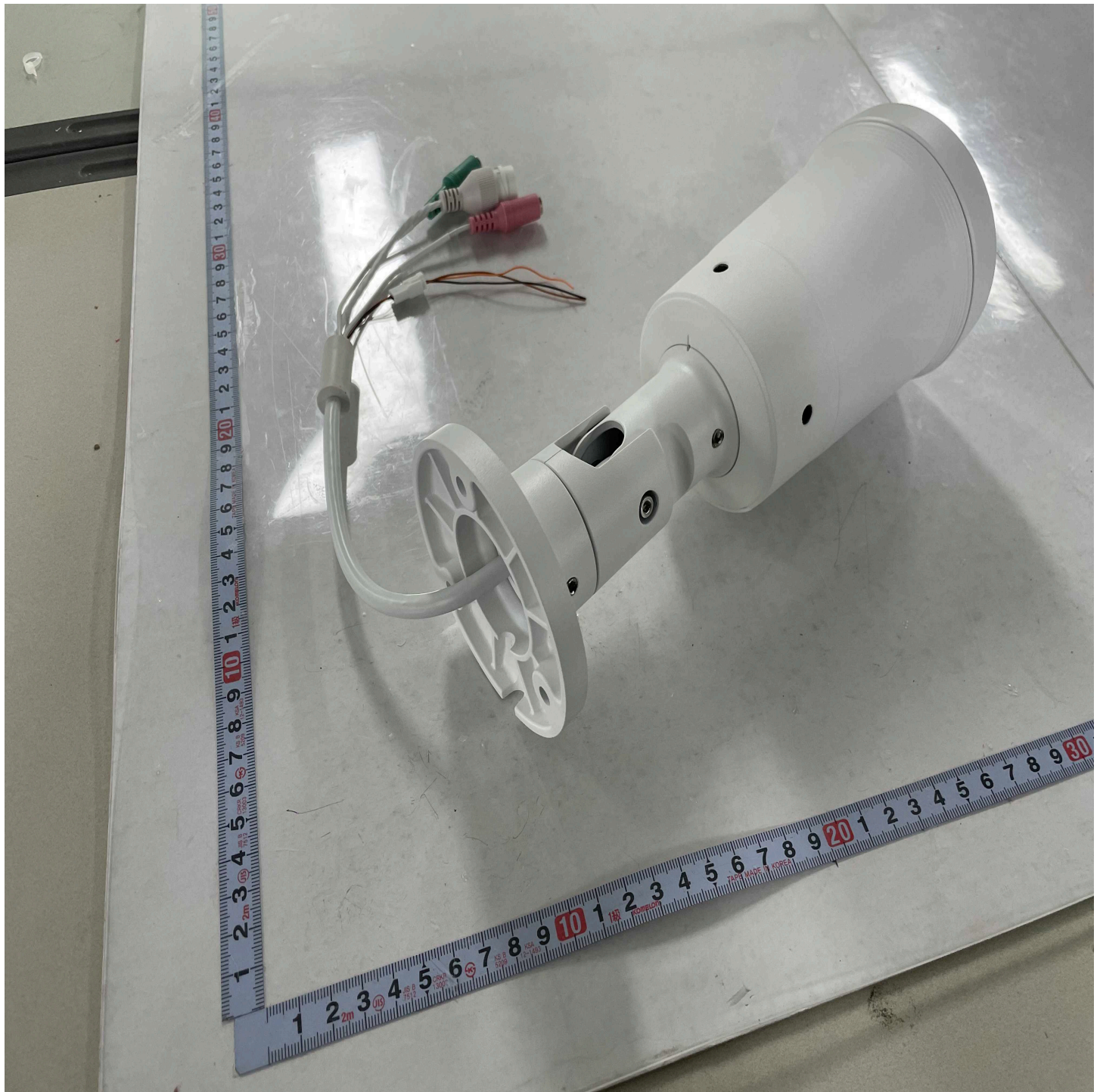
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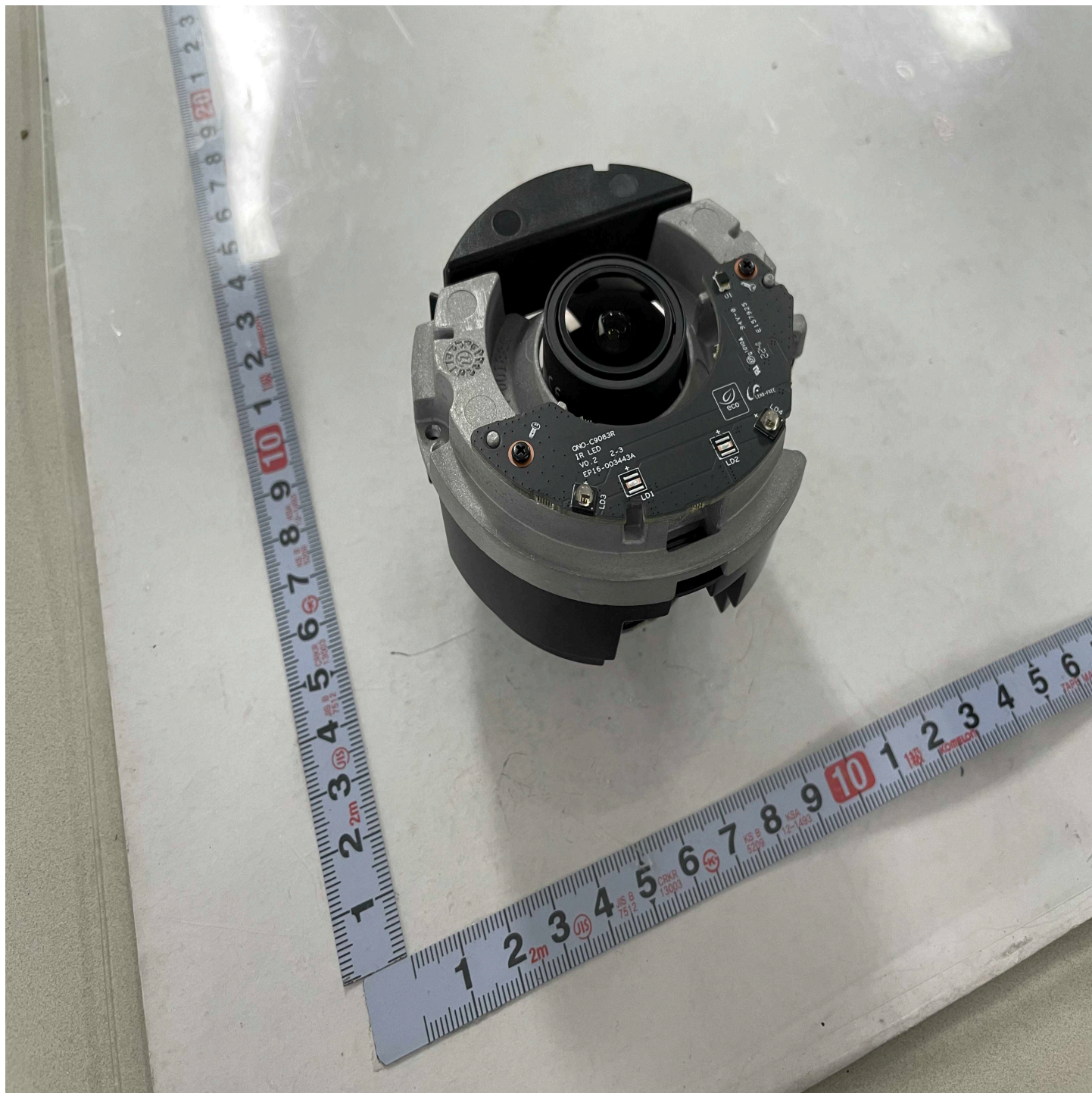
CAN ICES-3(A)/NMB-3(A)

HANWHA VISION CO.,LTD.

MADE IN KOREA

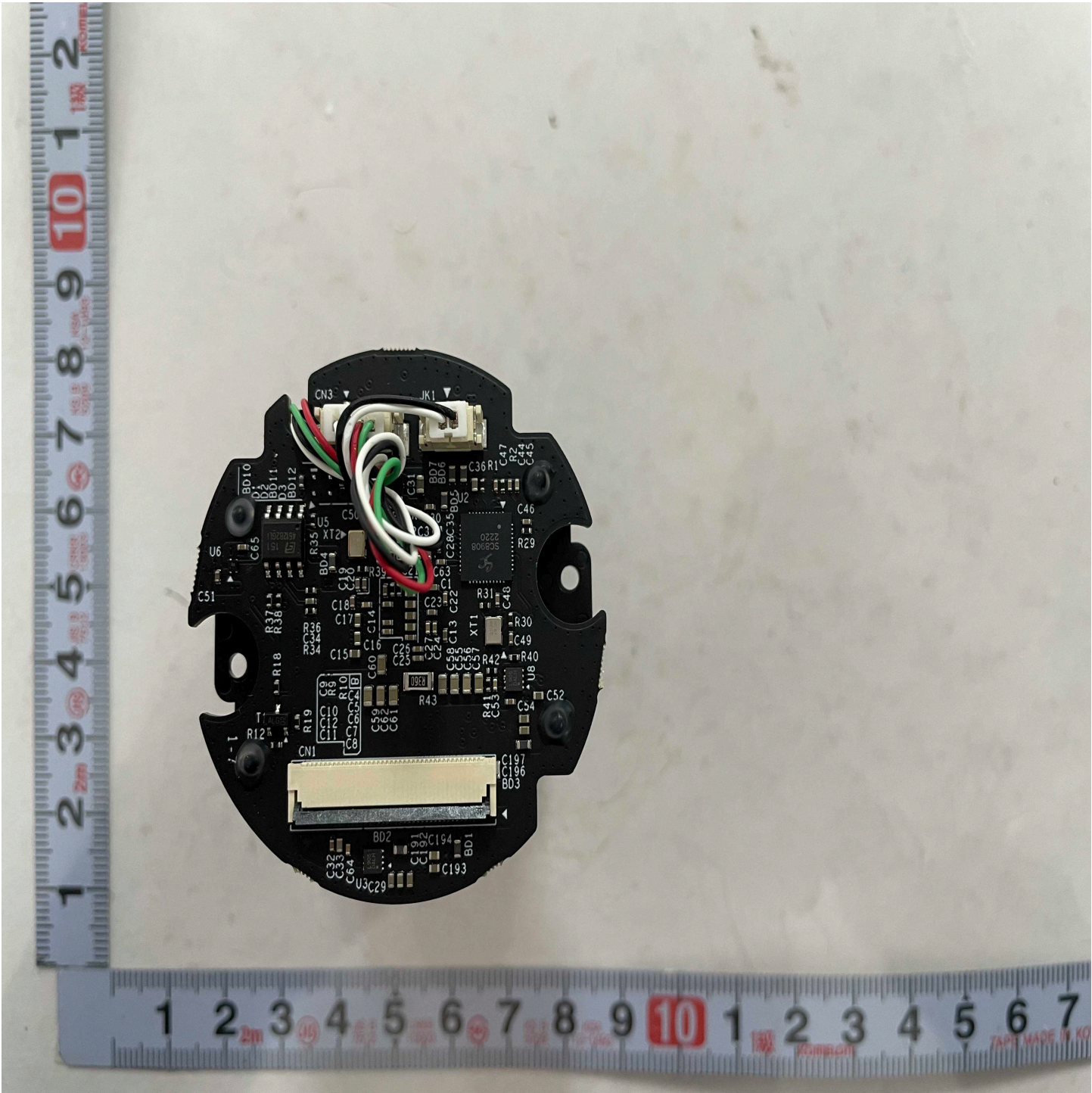


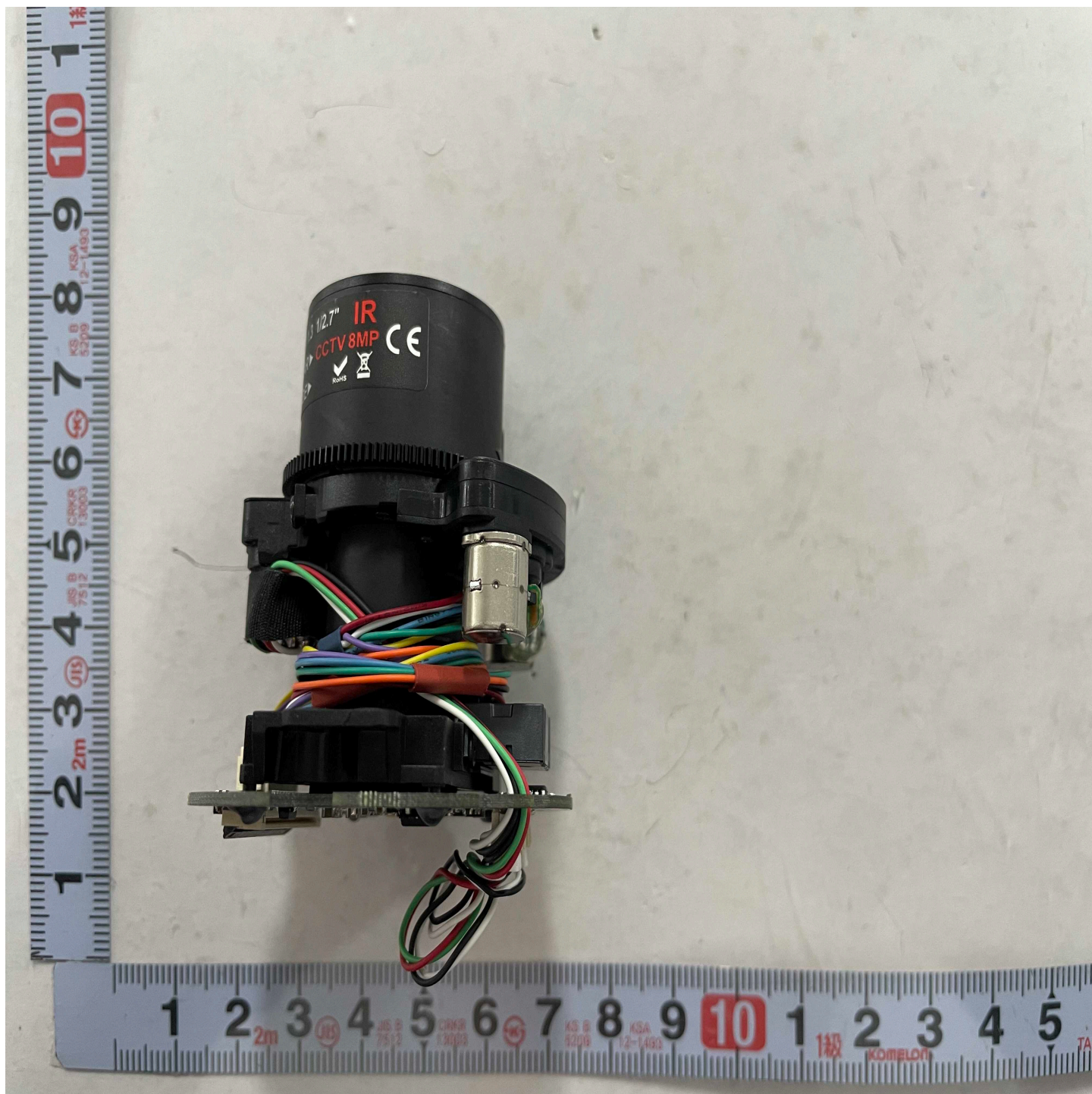


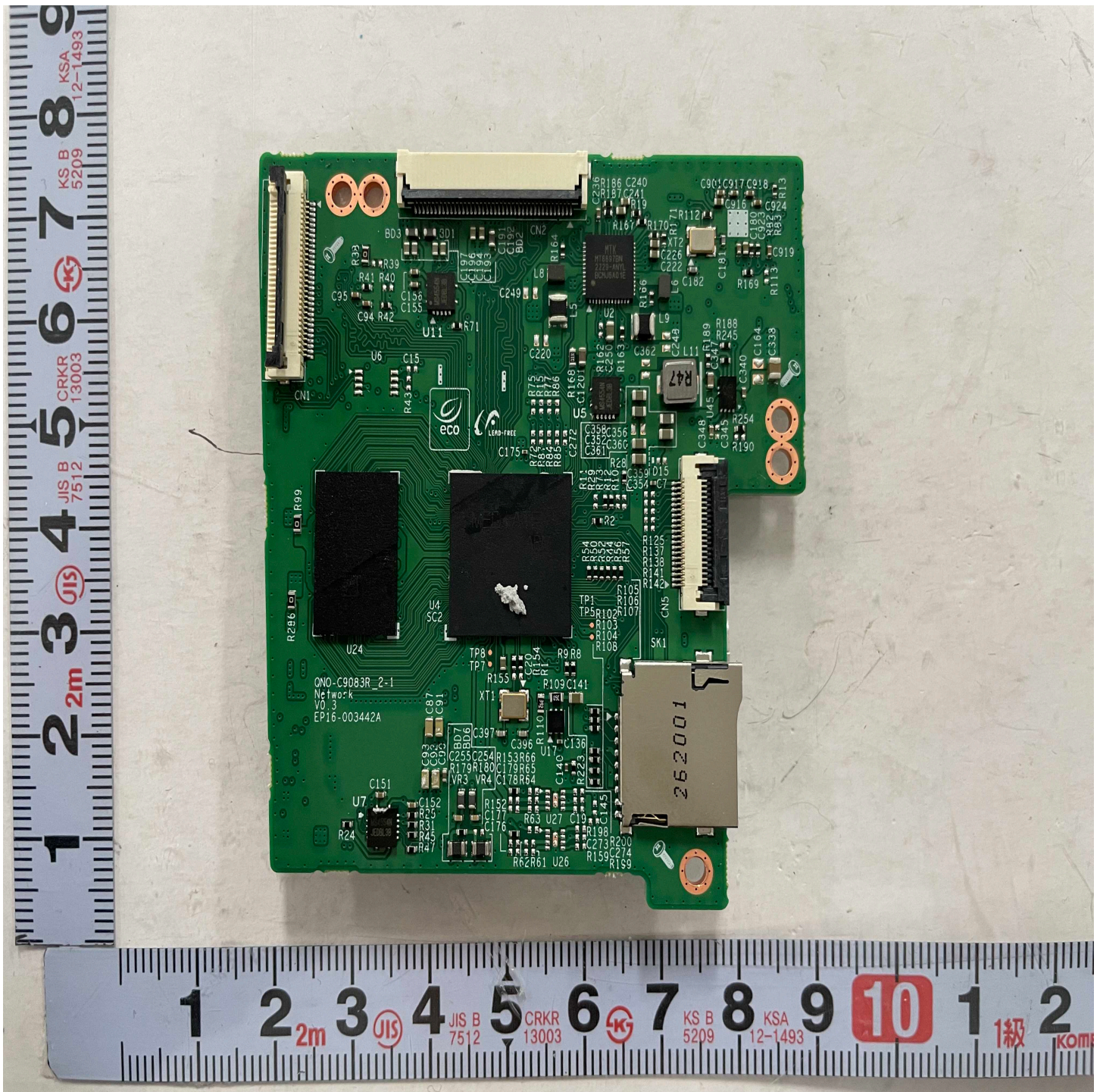












Test Record No. 1

1. Test result relate only to the items tested.
2. The manufacturer submitted representative production sample of NETWORK CAMERA, QNO-C9083R
3. Only the test listed were considered necessary.

The following tests were conducted:

Tests performed (name of test and test clause):	Testing location: CTK CO LTD 142, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, 17141, Korea WTDP
4.4.3.2, T.5 – STEADY FORCE TEST, 250 N	
4.4.3.4, T.6 - IMPACT TEST	
4.4.3.8, T.8 – STRESS RELIEF TEST	
5.4.1.8 – DETERMINATION OF WORKING VOLTAGE	
8.7 – WALL, CEILING, OR OTHER STRUCTURE MOUNTING TESTS	
B.2.5 – INPUT TEST: SINGLE PHASE	
B.2.6, 5.4.1.4, 6.3, 9.3, B.1.5 – NORMAL OPERATING CONDITIONS TEMPERATURE MEASUREMENT	
B.3 – SIMULATED ABNORMAL OPERATING CONDITIONS	
B.4 – SIMULATED SINGLE FAULT CONDITIONS	
M.3.2 – PROTECTION CIRCUITS FOR BATTERIES	
Q.1 – LIMITED POWER SOURCE	
The following tests were waived:	Rationale for Waiving

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

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

Type	Supplement Id	Description
Datasheet	02-01	Data sheet
Attachment	02-02	Dual language safety labeling CRD
Attachment	02-03	Dual Language Letter of Assurance (C-UL)