

TEST REPORT

 CTK Co., Ltd. The Prime Leader of Global Regulatory Certification	CTK Co., Ltd. (Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, KOREA, REPUBLIC OF Tel: +82-31-339-9970 Fax: +82-31-624-9501	Report No.: CTK-2019-04006 Page(1) / (20) Pages	
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1. Applicant

- Name: Hanwha Techwin Co., Ltd.
- Address: Hanwha Techwin R&D center, 6 Pangyo-ro 319Beon-gil,
Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
- Date of Receipt: 2019-09-04

2. Manufacturer

- Name: HANWHA TECHWIN (TIANJIN) CO.,LTD.
- Address: No.11 Weiliu Rd, Micro-Electronic Industrial
Park, TEDA, Tianjin, 300385, People's Republic of China

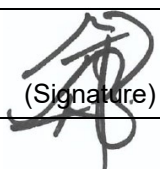
3. **Test sample / Model**: NETWORK CAMERA / PNM-9084QZ

4. **Date(s) of test**: 2019-09-12 to 2019-09-19

5. **Test Standard (Method) used**: NEMA 250-2014
Enclosures for Electrical Equipment (1000 Volts Maximum)

6. **Results**: Pass

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
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Approval	Tested by: WonHyeon Choi  (Signature)	Technical Manager: YenHwang Jung  (Signature)
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2019-10-22

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**CTK Co., Ltd.**(Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-si,
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Test item description..... : NETWORK CAMERA**Trade Mark**..... : **WISENET****Manufacturer** : No.11 Weiliu Rd, Micro-Electronic Industrial
Park, TEDA, Tianjin, 300385, People's Republic of China**Model/Type reference** : PNM-9084QZ**Ratings** : Electrical :
PNM-9084QZ - PoE(55 Vdc), 0.6A
PNM-9084RQZ - PoE(55Vdc), 42W / PoE(55Vdc), 0.77A
PNM-9085RQZ - PoE(55Vdc), 45W / PoE(55Vdc), 0.82A

Dimension : Ø 251 mm by 788.14 mm

List of Attachments (including a total number of pages in each attachment):

Attachment 1: 12-14 pages (Construction Diagram including installation method)

Attachment 2: 15-17 pages (Parts List)

Attachment 3: 18-20 pages (photographs)

Summary of testing:**Tests performed (name of test and test clause):****Clause 5.7(Hose Down Test)****Testing location:**

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Gyeonggi-do KOREA, REPUBLIC OF**Copy of marking plate: The artwork above may be only a draft.**

NETWORK CAMERA

MODEL: PNM-9084QZ

PoE (55V ~) 0.6A

M/C: PNM-9084QZ/KUS

Fac. ID: D



제조년월 S/N:[제조번호]

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

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

HANWHA TECHWIN CO.,LTD.

MADE IN KOREA



기기명칭: NETWORK CAMERA

모델명: PNM-9084RQZ

정격전압: DC 12V ~ 38W

PoE (55V ~) 42W

M/C: PNM-9084RQZ/KDO



제조년월 S/N:[제조번호]

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

인증번호: R-R-StW-PNM9084RQZ

상호: 한화테크윈(주)

제조사/제조국가:한화테크윈(주)/한국



NETWORK CAMERA

MODEL: PNM-9084RQZ

DC 12V ~ 3.2A

PoE(55V ~) 0.77A

M/C: PNM-9084RQZ/KUS Fac. ID: D



DATE S/N: Serial No.

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

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

HANWHA TECHWIN CO.,LTD.

MADE IN KOREA



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기기명칭: NETWORK CAMERA 모델명: PNM-9085RQZ 정격전압: DC 12V --- 42W PoE (55V ---) 45W M/C: PNM-9085RQZ/KDO 제조년월 S/N: [제조번호] MAC ADDRESS: XX-XX-XX-XX-XX-XX 인증번호: R-R-StW-PNM9085RQZ 상호: 한화테크윈(주) 제조사/제조국가: 한화테크윈(주)/한국	       NETWORK CAMERA MODEL: PNM-9085RQZ DC 12V --- 3.5A PoE(55V ---) 0.82A M/C: PNM-9085RQZ/KUS Fac. ID: D DATE S/N: Serial No. MAC ADDRESS: XX-XX-XX-XX-XX-XX CAN ICES-3(A)/NMB-3(A) HANWHA TECHWIN CO.,LTD. MADE IN KOREA  
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Test item particulars : NETWORK CAMERA
Classification of installation and use : Outdoor(Watertight/Corrosion Resistant)
Possible test case verdicts: - test case does not apply to the test object..... : N/A - test object does meet the requirement : P (Pass) - test object does not meet the requirement..... : F (Fail) - test case does not evaluated to the test object : N/E

General remarks: "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator. Clause numbers between brackets refer to clauses in NEMA 250-2014
Name and address of factory (ies): 1. HANWHA TECHWIN (TIANJIN) CO.,LTD. No.11 Weiliu Rd, Micro-Electronic Industrial Park, TEDA, Tianjin, 300385, People's Republic of China 2. D-TECH CO.,LTD. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, Korea (Suwon Industrial Complex) 3. HANWHA TECHWIN SECURITY VIETNAM CO.,LTD Lot O-2, Que Vo Industrial Zone extended area, Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam



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General product information:

Applied NEMA Rating : 4X

PNM-9084QZ is basic model which was tested.

Basic Model	PNM-9084QZ
Series model	PNM-9084RQZ, PNM-9085RQZ

Model differences:

PNM-9084QZ

Use of the same external shape and materials (case, finishing material, PCB, cable, etc.), differences in electronic parts inside the product.

Type 4X

Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts; to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt and windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water); that provides an increased level of protection against corrosion; and that will be undamaged by the external formation of ice on the enclosure.

Table 2-1
Comparison of Specific Applications of Enclosures for Indoor Nonhazardous
(Unclassified) Locations

Provides a Degree of Protection against the Following Conditions	Type of Enclosure									
	1	2	4	4X	5	6	6P	12	12K	13
Access to hazardous parts	X	X	X	X	X	X	X	X	X	X
Ingress of solid foreign objects (falling dirt)	X	X	X	X	X	X	X	X	X	X
Ingress of water (dripping and light splashing)	...	X	X	X	X	X	X	X	X	X
Ingress of solid foreign objects (circulating dust, lint, fibers, and flyings **)	...	...	X	X	...	X	X	X	X	X
Ingress of solid foreign objects (settling airborne dust, lint, fibers, and flyings **)	...	...	X	X	X	X	X	X	X	X
Ingress of water (hosedown and splashing water)	...	...	X	X	...	X	X	...	...	...
Oil and coolant seepage	...	...	...	...	...	...	...	X	X	X
Oil or coolant spraying and splashing	...	...	...	...	...	...	...	...	...	X
Corrosive agents	...	...	...	X	...	...	X	...	...	...
Ingress of water (occasional temporary submersion)	...	...	...	...	...	X	X	...	...	...
Ingress of water (occasional prolonged submersion)	...	...	...	...	...	...	X	...	...	...

** These fibers and flyings are not considered Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or flyings see the *National Electrical Code®*, Article 500.5(D).

Table 2-2
Comparison of Specific Applications of Enclosures for Indoor & Outdoor Nonhazardous
(Unclassified) Locations

Provides a Degree of Protection Against the Following Conditions	Type of Enclosure									
	3	3X	3R	3RX	3S	3SX	4	4X	6	6P
Access to hazardous parts	X	X	X	X	X	X	X	X	X	X
Ingress of solid foreign objects (falling dirt)	X	X	X	X	X	X	X	X	X	X
Ingress of water (dripping and light splashing)	X	X	X	X	X	X	X	X	X	X
Ingress of water (rain, snow, and sleet **)	X	X	X	X	X	X	X	X	X	X
Sleet ***	...	...	...	...	X	X	...	...	...	...
Ingress of solid foreign objects (windblown dust, lint, fibers, and flyings****)	X	X	...	...	X	X	X	X	X	X
Ingress of water (hosedown and splashing water)	...	...	...	...	...	...	X	X	X	X
Corrosive agents	...	X	...	X	...	X	...	X	...	X
Ingress of water (occasional temporary submersion)	...	...	...	...	...	...	...	...	X	X
Ingress of water (occasional prolonged submersion)	...	...	...	...	...	...	...	...	...	X

** External operating mechanisms are not required to be operable when the enclosure is ice covered.

*** External operating mechanisms are operable when the enclosure is ice covered. See subsection 5.6.

**** These fibers and flyings are not considered Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or flyings see the *National Electrical Code®*, Article 500.5(D).

Table 5-1A
Degrees of Protection Against Access to Hazardous Parts

Enclosure Type	Test Conditions	Degree of Protection		Corresponding IP First Characteristic Numeral
		Brief Description	Definition	
4X	5.7	Protected against access to hazardous parts with a wire	An access probe of 1.0 mm shall not penetrate	6

Table 5-1B
Degrees of Protection Against Solid Foreign Objects

Enclosure Type	Test Conditions	Degree of Protection		Corresponding IP First Characteristic Numeral
		Brief Description	Definition	
4X	<u>Non-vented</u> 5.7	Windblown dust protected	No ingress of dust	6
	<u>Vented</u> 5.5.1 Dust Blast Method			



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Table 5-1C
Degrees of Protection against Water

Enclosure Type	Test Conditions	Degree of Protection		Corresponding IP Second Characteristic Numeral
		Brief Description	Definition	
4X	5.7	Protected against hose directed water	Water projected against the enclosure in any direction shall not enter	6 No Ingress Allowed*

Table 5-1D
Additional Protection

Enclosure Type	Test Conditions	Additional Protection		Corresponding IP Second Characteristic Numeral
		Brief Description	Definition	
4X	5.6 5.9 5.10	Special corrosion protection and undamaged by the external formation of ice	Enclosure provides increased corrosion protection and is not damaged by ice that forms on the outside	None

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3	CONSTRUCTION	
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3.1	General		P
3.2	Units of Measurement		P
3.3	Materials-General	Enclosures are made of metal or polymeric materials	P
3.4	Materials-Polymeric	More than 650 mm ² (1 in ²) in area Polymeric Materials used is declared as Min. V-0 (See the attachment 2)	N/E
3.5	Corrosion Protection	Stainless steel and/or aluminium are declared as the materials used (See the attachment 2)	N/E
3.6	Openings	No openings in Product	N/A
3.7	Mounting	No Mounting (See the attachment 1)	N/A
3.8	Conduit Connection	No conduit connection (See the attachment 1)	N/A
3.9	Hubs and Fittings	No Hubs and Fittings	N/A
3.10	Knockouts	No Knockouts	N/A
3.11	External Operating Mechanisms	No External Operating Mechanisms	N/A
3.12	Access to Interior	Needs tool to open unit	P
3.13	Closing Hardware	No closing Hardware	N/A
3.14	Gaskets	Gaskets made of a silicone Sponge Rubber (no Elastomeric or Thermoplastic used) (See clause 5.14 and the attachment 2)	P
3.15	Observation Windows	No Observation Window	N/A

4	MARKING	
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4.1	Type Designations	"Type 4X" Marking is declared to be on the product before on the market	P
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4.2	Supplemental Markings	Supplemental Marking (watertight/ corrosion resistant) is declared to be used when it is on the market. The required marking shall be added on the product)	P
4.3	Location of Markings	See the Attachment 3	P
4.4	Enclosure Orientation	No Particular Mounting Orientation	N/A
4.5	Conduit Hubs and Closure Plates	No Conduit Hubs and Closure Plates	N/A
4.6	Equipment Openings	No Openings on Unit	N/A
4.7	Drainage Openings	No Drain Openings	N/A

5	DESIGN TESTS	
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5.1	General	See Table 5-1A to 5-1D and 5.1.5 in the General product information	P
5.2	Tests For Protection Against Access to Hazardous Parts	Rated 4X	N/A
5.3	Tests for Protection Against Ingress of Water (Dripping and Light Splashing)	Rated 4X	N/A
5.4	Tests for Protection Against Ingress of Water (Rain)	Rated 4X	N/A
5.5	Tests for Protection Against Ingress of Solid Foreign Objects (Setting Airborne Dust, Lint, Fibers, And Flings)	Non vented (See clause 5.7)	N/A
5.6	External Icing Test	No external cavities to trap water when mounted in the normal position.	N/A
5.7	Tests for Protection Against Ingress of Water (Hosedown)	No entry of water See the test information	P
5.8	Indoor Corrosion Protection (Rust-Resistance Test (24-Hour Salt Spray Test))	See clause 3.5	N/E
5.9	Outdoor Corrosion Protection	See clause 3.5	N/E
5.10	Corrosion Protection-Type 3X, 3RX, 3SX, 4X Or 6P Enclosures	See clause 3.5	N/E
5.11	Test for Protection Against Ingress of Water (Temporary Submersion)	Rated 4X	N/A
5.12	Test for Protection Against Ingress of Water (Prolonged Submersion)	Rated 4X	N/A
5.13	Oil Exclusion Test	Rated 4X	N/A

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5.14	GASKET MATERIAL TESTS	The product itself(including gaskets) was conditioned at 70 °C for 168 hrs according to 5.14.3(Alternate Evaluation) before performing relevant required tests.	P
5.15	Test for Sharpness of Edges	No sharp edges	P

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Test Information

	Hose Down Test : Clause 5.7	P
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Description of Test

The enclosure and its external mechanisms were subjected to a stream of water from a hose that has a 25.4 mm (1 in) inside diameter nozzle and delivers at least 240 L (65 gal) per minute.

The nozzle was held from 3.0 to 3.5 m (10 to 12 feet) from the enclosure, and the spray of water was directed at all points of potential water entry such as seams, joints, external operating mechanisms, and such. The nozzle was moved along each test point one time at a uniform rate of 6 mm/sec(1/4 in/sec).

Sample Dimension = Ø 251 mm by 788.14 mm

Test Duration = 242.48 secs

Acceptance conditions:

The enclosure shall be considered to have met the requirements if at the conclusion of the test no water has entered the enclosure

Test Results

Sample No (Model)	Water Flow	Presence of water inside	Result
PNM-9084QZ	240 LPM	No	Pass

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List of test equipment used:

Instr. Code	Instrument Type	Range Used	Mfr./Model	Calibration Date	
				Last	Due
S3-IP18	25.4mm Nozzle	25.4 mm	CTK/S3-IP18	-	Checked by calliper below before using
S1-SW2	Stop Watch	0.01 s	CASIO/ NONE	2019-04-03	2021-04-03
S1-D09	Steel Measuring Tape	5 m	KOMELON/KMC-74N	2019-07-02	2021-07-02
S3-IP20	Water flow meter	250LPM	Nuri tech/Z-4007	2019-07-04	2020-07-04
S1-D01	DIGITAL VERNIER CALIPER	200 mm	MITUTOYO/200 mm	2019-04-03	2020-04-03



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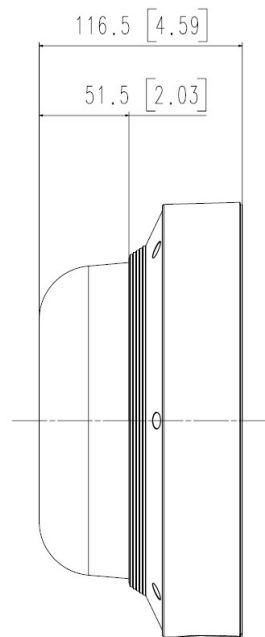
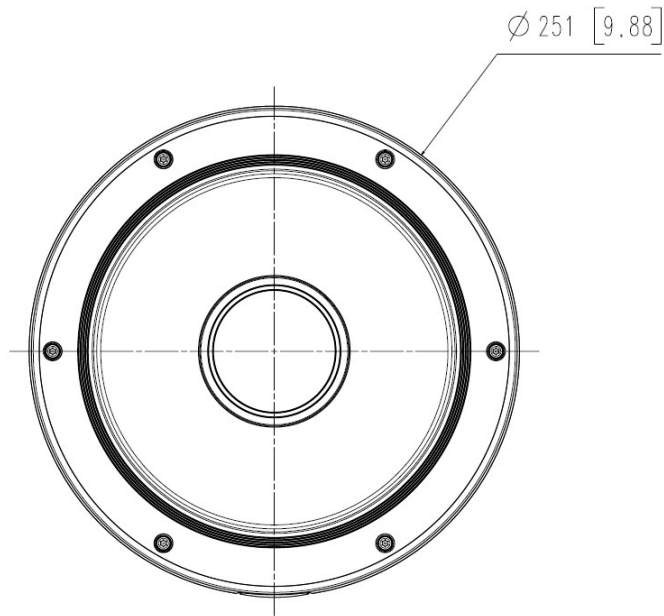
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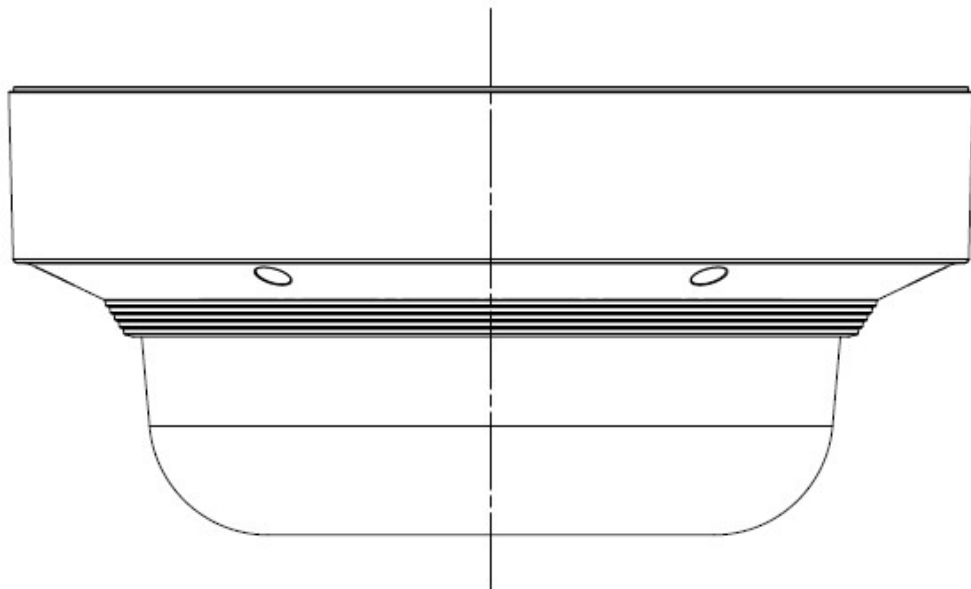
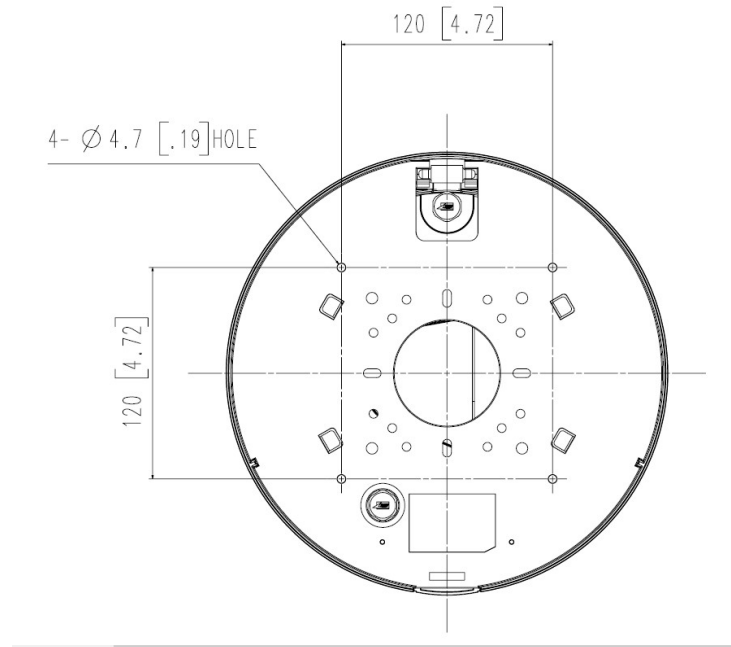
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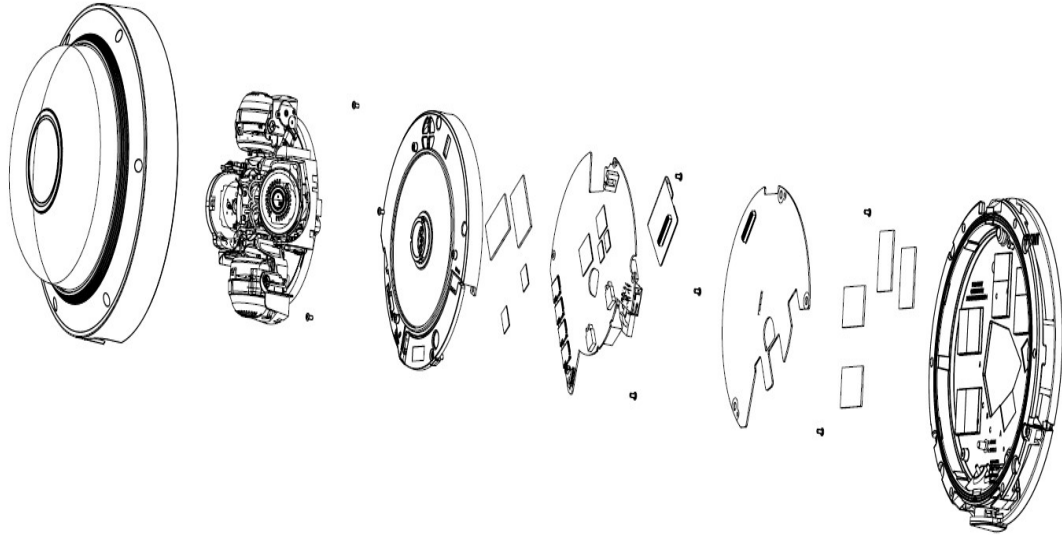
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품 번	품 명	단종	Qty
NEW	ASSY, FINAL-PNM-9084QZ	A	
AM07-013323A	ASSY,CASE TOP-PNM-9084QZ_WISENET	A	1
FC29-011848A	CASE_TOP_PNM-9084QZ_WISENET	DC	1
FC15-007090A	COVER_GLASS_PNM-9084QZ	MD	1
FC15-007091A	COVER_GHOST_PNM-9084QZ	MD	1
FC15-007124A	COVER_TOP_DECO_PNM-9084Q	MD	1
PM03-001017A	VINYL_PROTECT_PNM-9084QZ	ETC	1
Z6001045901A	4748_M3_L6 SCREW	SC	4
FC18-004000A	SCREW_BUILT_IN_TORX_20_M4, L12	SC	6
AM07-013327A	ASSY_CASE_BOTTOM_PNM-9084QZ	A	1
FC29-011847A	CASE_BOTTOM_PNM-9084QZ	DC	1
FC10-001134A	RUBBER_GASKET_PNM-9000VQ	RB	1
FC39-005726A	MOUNT_PLATE_PNM-9084QZ	DC	1
MC06-001082A	BUSH-CABLE_FLEXIBLE	RB	2
FC18-004000A	SCREW_BUILT_IN_TORX_20_M4, L12	SC	2
RM01-004164A	WIRE_METALIC_SAFETY	ETC	1
Z6909023701A	1000_FILAMENT_TAPE	ETC	1
Z9642306007	SCREW_MACHINE_M3, L6	SC	4
FC38-001138A	SPRING_ETC_FIXED_9080VQ	ETC	2
FC09-006670A	BRACKET_WIRE_SNP-8081R	ETC	1
FC15-006682A	COVER_BOT_XNV-6081Z	MD	1
HP06-001187	GORE_VENT_SCREW_IN TYPE	ETC	2
FC39-005725A	FRAME_BODY_PNM-9084QZ	DC	1
FC28-000556A	PAD_THERMAL_30x45x2	RB	6
FC28-000730A	PAD_THERMAL_17x12x1	RB	2
FC15-007305A	COVER_OUTPUT_CABLE_PNM-9084QZ	MD	1
FC18-004000A	SCREW_BUILT_IN_TORX_20_M4, L12	SC	1
PT03-003054A	LABEL_WARNING-XNV-6081Z	ETC	1
Z9642306007	MACHINE SCREW M3, L6	SC	16
AM07-013381A	ASSY-MECHA-9084QZ	A	
AM07-013337A	ASSY,CAMERA-1-9084		
AM07-013336A	ASSY-VCL-ROTATE-9084QZ-1		4
AM07-012783A	ASSY,COVER-GEAR-RO-9084		1
AM07-013335A	ASSY-SUB-GEAR-ROTATE-9084		1
AM07-013373A	ASSY,MOTOR-ROTATE-9084		1
AM07-013371A	ASSY-SUB-FPCB-ROTATE-9084		1
EP08-000101	MOTOR,STEP-SMC10-20:2PHASE /20STEP/ 5VOL		1
MC11-000408A	GEAR-MOTOR SPUR,POM,3.3,N/A,MOLD,0.4,3.9		1
MC19-002628A	SHAFT-R-GEAR-6085		2



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MC11-004648A	GEAR,SPUR-R2-6085;MOLD		1
MC11-004649A	GEAR,SPUR-R3-6085;MOLD		1
Z6003022301A	M17_3MM_TAP_BIND HEAD		2
RM04-001100A	TAPE-PORON-9084		1
FC15-007114A	COVER-GEAR-R-9084;MOLD	MD	1
FC15-007113A	COVER-REAR-9084;MOLD	MD	1
Z6003019801A	SCREW-TAP TYPE;6003-001440,BH+,B,M2,L4,		3
MC11-005436A	GEAR-TILT-9084;MOLD	MD	1
FC04-001009A	BALL-2_5PI;SUS		6
MC11-005435A	GEAR-ROTATE-9084	MD	1
AM06-008932A	ASSY,PCB-PNM-9084QZ SENSOR PBA		1
EP02-004631A	HARNESS-PNM-9084QZ;MCX,RED,50P-50P,340MM		1
Z6001055101A	SCREW-MACHINE;6001-001707,BH+,M2,L4,ZP		2
EP14-001133	LENS SET-E5299D;2M2860;VF		1
AM07-013375A	ASSY,SUB-TP-MODULE-9084		4
FC15-007115A	COVER-BASE-9084;MOLD	MD	1
AM06-008935A	ASSY,PCB-PNM-9084QZ INTERFACE PBA		1
EP02-004636A	HARNESS-PNM-9084QZ HEATER;WIRE,BLACK,2P-		1
EP02-004640A	HARNESS-PNM-9084QZ;WIRE,BLACK,8P-2WAY 4P		1
AM07-013333A	ASSY,SUB-GEAR-TILT-9084		1
AM07-013372A	ASSY,MOTOR-TILT-9084		1
AM07-013369A	ASSY,SUB-FPCB-TILT-9084		1
EP08-002492A	MOTOR,STEP-6040		1
FC18-000470A	PIN-ABF SENSOR GUIDE;SUS304BD,GUIDE PIN		2
FC09-008365A	BRACKET,MOTOR-6040;PC+GF30%		1
FC15-005766A	COVER-GEAR-MODULE-6085;MOLD		1
MC11-004647A	GEAR,SPUR-COM-6085;MOLD		1
MC11-004800A	GEAR,WORM-6085;MOLD		1
MC11-004801A	GEAR-HELICAL_6085;MOLD		1
Z6003020401A	SCREW-TAP TYPE;6003-001453,BH+,B,M1.7,L		4
RM04-001053A	TAPE-PORON-6040;PORON,0.4MM,3.9		1
AM07-013334A	ASSY-SUB-GEAR-PAN-9084		1
AM07-013370A	ASSY-MOTOR-PAN-9084		1
EP16-002891A	FPCB-PNM-9084QZ PAN;1L		1
EP08-002492A	MOTOR,STEP-6040		1
FC18-000470A	PIN-ABF SENSOR GUIDE;SUS304BD,GUIDE PIN		2
FC09-008365A	BRACKET,MOTOR-6040;PC+GF30%		1
FC15-005766A	COVER-GEAR-MODULE-6085;MOLD		1
MC11-004647A	GEAR,SPUR-COM-6085;MOLD		1
MC11-004605A	GEAR,WORM-6040;POM,NA,MOLD		1
MC11-004606A	GEAR-SPUR_HELICAL_6040;POM,NA,MOLD		1
Z6003020401A	SCREW-TAP TYPE;6003-001453,BH+,B,M1.7,L		4
RM04-001053A	TAPE-PORON-6040;PORON,0.4MM,3.9		1

Z6003020401A	SCREW-TAP TYPE;6003-001453,BH+,B,M1.7,L		4
Z6003019801A	SCREW-TAP TYPE;6003-001440,BH+,B,M2,L4,		2
FC15-007118A	COVER-PI-BAR-9084;MOLD	MD	1
FC15-007116A	COVER-HOLDER-PAN-9084;MOLD	MD	1
Z6003019801A	SCREW-TAP TYPE;6003-001440,BH+,B,M2,L4,		5
AM07-013376A	ASSY,COVER-FRONT-9084QZ		1
FC15-007112A	COVER-FRONT-9084;MOLD	MD	1
AM06-008933A	ASSY,PCB-PNM-9084QZ HEATER PBA		1
Z6003022301A	M17_3MM_TAP_BIND HEAD		2
EP02-004635A	HARNESS-PNM-9084QZ;WIRE,RED,20P-15P,160M		1
FC18-004952A	SCREW,TAPTITE-M3;SPECIAL,0.5,8,N,3		1
AM07-013341A	ASSY,COVER-SPRING-9084		1
FC15-007117A	COVER-SPRING-9084;MOLD	MD	1
FC38-001147A	SPRING,COM-6040;SUSU304WPB		3
MC19-003052A	SHAFT-PAN-9084	MD	1
MC11-005437A	GEAR-PAN-9084;MOLD	MD	1

INFINO	Grade	NH-1035
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Component - Plastics [guide info]

E115797

Lotte Advanced Materials Co Ltd

56 Gosan-ro, Ulsan-si Gyeonggi-do 437-711 KR

NH-1035(+)

Polycarbonate (PC), "INFINO", furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HA1	RTI Elec	RTI Imp	RTI Str
ALL	1.5	V-0	-	-	80	80	80
	2.0-2.7	V-0, 5VB	-	-	80	80	80

Comparative Tracking Index (CTI): -

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10¹² ohm-cm): -

High-Voltage Arc Tracking Rate (HVTR): -

High Volt, Low Current Arc Resis (D495): -

Dimensional Stability (%): -

(+) - May be replaced by one, two, or three numbers and/or letter(s)

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 1998-08-24

Last Revised: 2008-02-15

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10, IEC 60695-11-20	Class (color)	1.5	V-0 (ALL)
			2.0-2.7	V-0, 5VB (ALL)
Glow-Wire Flammability (GWI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWI)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m ²	-	-
ISO Izod Impact	ISO 180	kJ/m ²	-	-
ISO Charpy Impact	ISO 179-2	kJ/m ²	-	-



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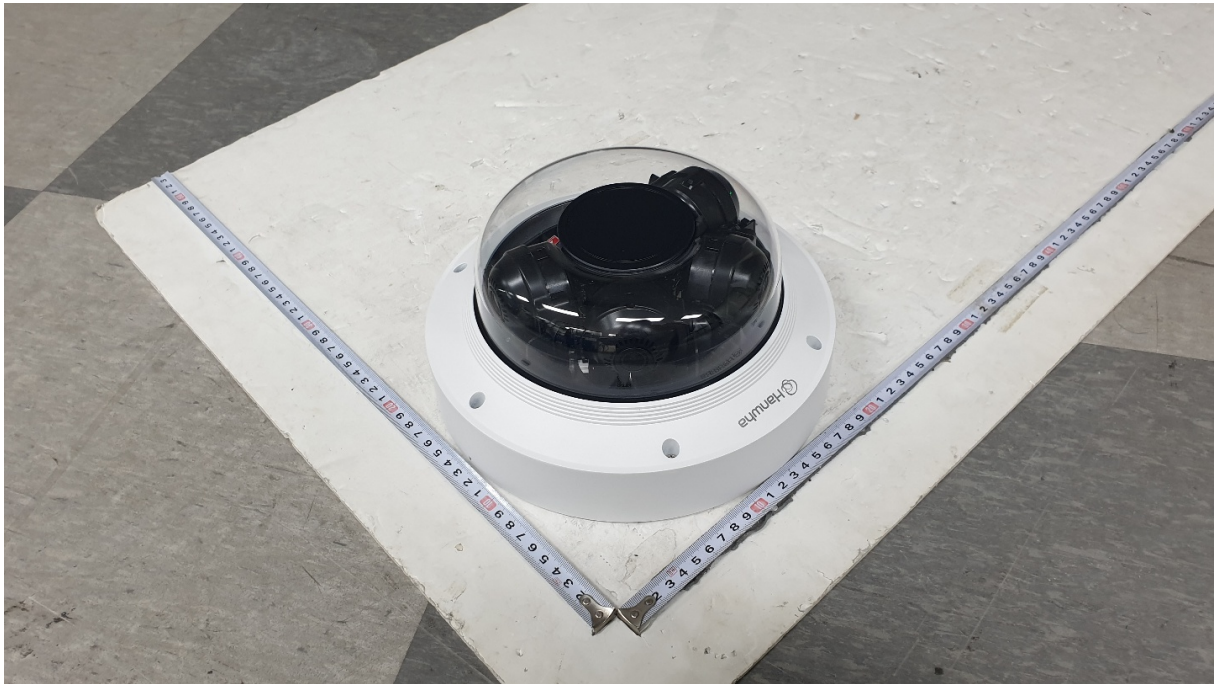
Tel: +82-31-339-9970

Fax: +82-31-624-9501

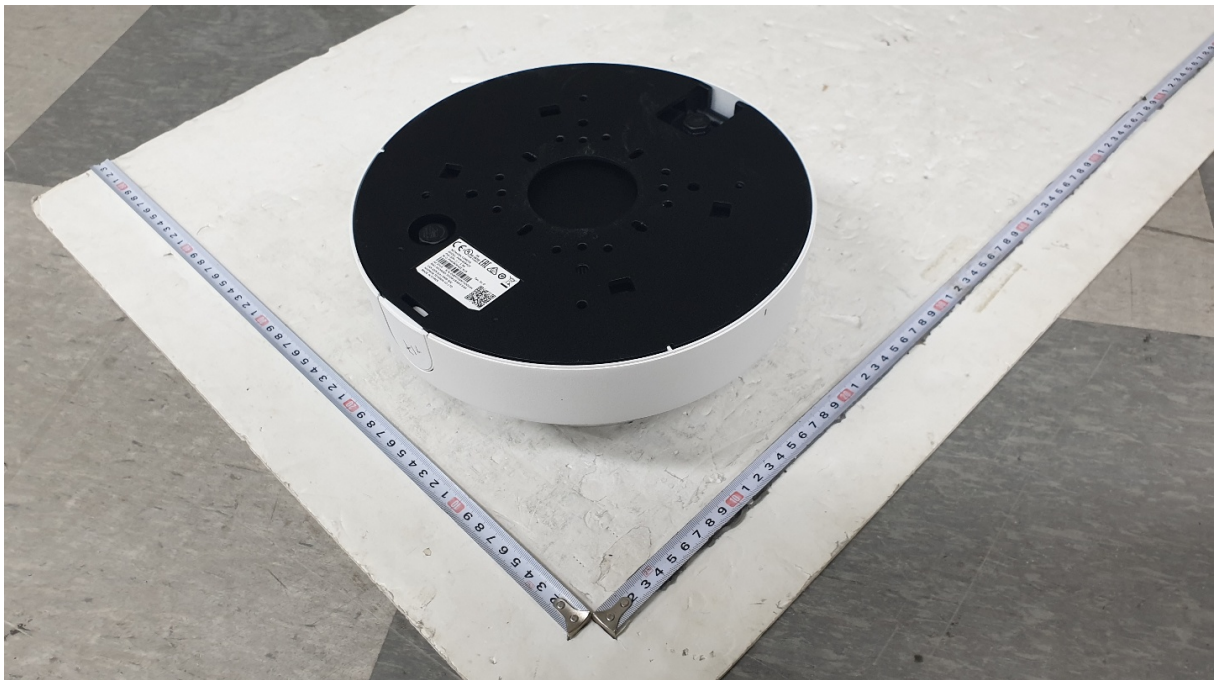
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<Photo 2 > Test Unit





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Gyeonggi-do, KOREA, REPUBLIC OF

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Fax: +82-31-624-9501

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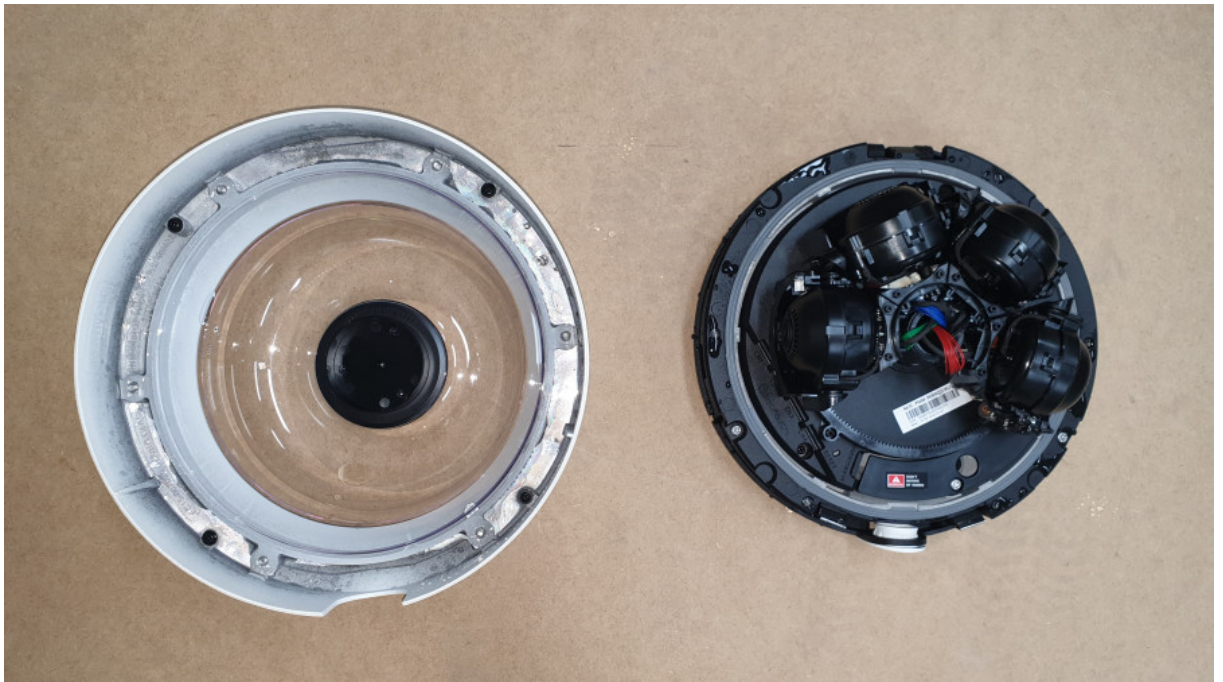
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<Photo 3 > Hose down test



<Photo 4 > Test Result





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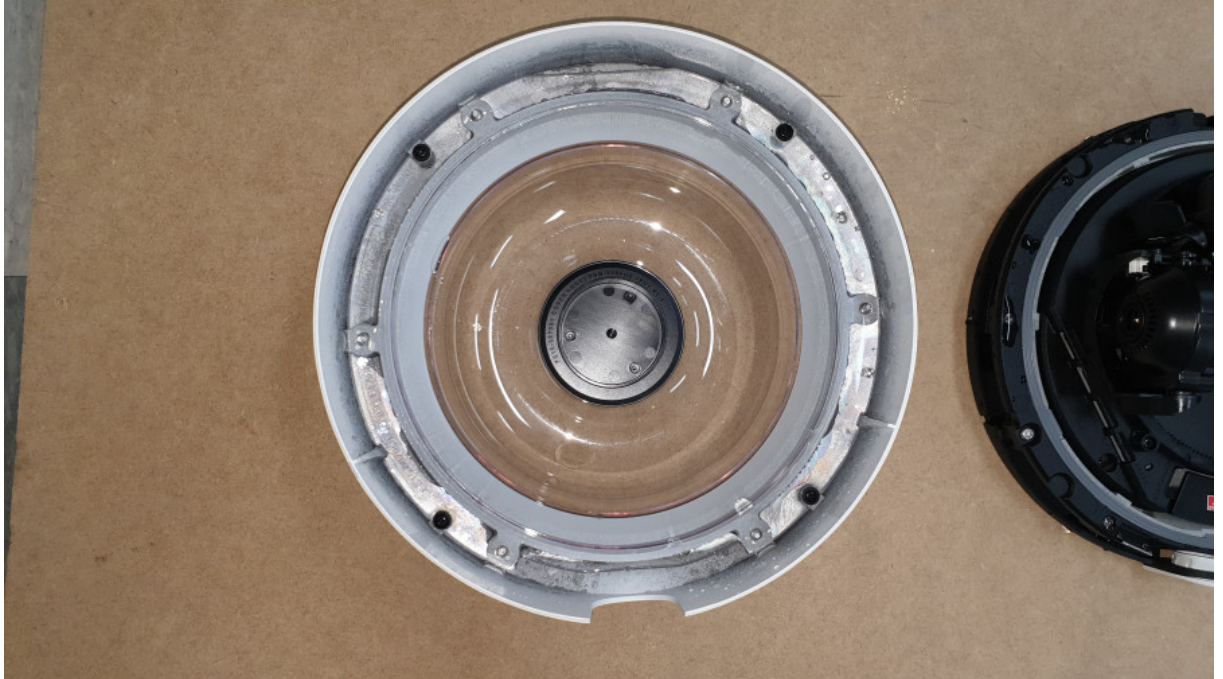
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<Photo 5 > Test Result



<Photo 6 > Test Result

