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晶睿通訊股份有限公司
JOANNE CHANG

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VIVOTEK INC
6TH FL, 192 LIEN CHENG RD
CHUNG HO DISTRICT
NEW TAIPEI
235 TAIWAN

Date: 2015/12/29
Subscriber: 100504413
PartySite: 125336
File No: E324690
Project No: 4787107370
PD No: 15O58649
Type: R
PO Number: C1291509044

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue Date	Vol	Sec	Pages	Revised Date
	X2		Index Page(s)	
2015/12/21	X2	A82	Cert of Compliance	
2015/12/21	X2	A82	Add New Proc/Report Sect	

If there are illegible images in this package, legible images may be found online via MyHome@UL under My UL Reports/CDA.

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at http://ul.com/aboutul/locations.

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TPI File

Index

Product Type	Model/Type Reference	Report Reference #	Status
Outdoor Network Camera	IP8330, IP8332	E324690-A4-UL	
Network Camera	IP8162,IP8162P, CIVS-IPC-6000P	E324690-A9-UL	
Network Camera	FD8162, FD8162V, FD8362, FD8362E, CIVS-IPC-6020, CIVS-IPC-6030, CIVS-IPC-3530, CIVS-IPC-3535 and CIVS-IPC-3520	E324690-A10-UL	
Network Video Recorder	NR8201, NR8301	E324690-A12-UL	
Network Camera	IP8352	E324690-A13-UL	
Network Camera	FE8171V	E324690-A15-UL	
Video Encoder, 4 Port, Standalone; Video Encoder, 8 Port, Standalone	CIVS-SENC-4P-K9, CIVS-SENC-8P-K9, CIVS-SENC-4P, CIVS-SENC-8P	E324690-A16-UL	
Network Camera	1) MD8562 2) MD8562D	E324690-A17-UL	
Network Camera	IP8362	E324690-A18-UL	
Network Camera	IK-WD14A, IK-WR14A	E324690-A21-UL	
Outdoor Dome Network Camera	FD8372, CIVS-IPC-7030, CIVS-IPC-7030E	E324690-A22-UL	
Network Camera	FE8172, FE8172V, FE8173, FE8174, FE8174V, SF8174, SF8174V	E324690-A25-UL	
Network Camera	IP8332-C	E324690-A28-UL	
Outdoor Speed Dome Network Camera	SD83XXE (X = 0~9, A~Z or blank), CIVS-IPC-6930, CIVS-IPC-2830, CIVS-IPC-2835	E324690-A29-UL	
Network Camera	IP8172, IP8172P	E324690-A30-UL	
Network Camera	CIVS-IPC-6400	E324690-A31-UL	
Network Camera	CIVS-IPC-3421V	E324690-A33-UL	
Indoor Dome Network Camera	FD8136-FXX, FD8166-FXX (The X=0-9, A-Z, a-z or blank for marketing purpose)	E324690-A34-UL	
Network Camera	IK-WR04A, IK-WD04A	E324690-A36-UL	
Network Camera	IP8372	E324690-A37-UL	
IP Camera VGA	S5003FDXXXXXXXXXXXX (X can be 0-9, A-Z, a-z, blank or "-", and no impact safety related critical components and construction.)	E324690-A38-UL	
Network Camera	IK-WB81A	E324690-A39-UL	
1080P Fixed Dome Network Camera	FD8163, FD8363	E324690-A40-UL	
Network Camera	CIVS-IPC-6050	E324690-A44-UL	
Network Camera	FD8355EHV, FD8365EHV, FD8155H, FD8165H	E324690-A49-UL	
Network Camera	IK-WD05A, IK-WR05A	E324690-A50-UL	
Network Camera	FD8371EV	E324690-A51-UL	
Network Camera	CIVS-IPC-6400E	E324690-A52-UL	
Network Camera	IP8355EH, IP8365EH	E324690-A53-UL	
Network Camera	CIVS-IPC-6500PD	E324690-A54-UL	
Network Camera	(1) CIVS-IPC-7530PD (2) CIVS-IPC-7030P	E324690-A56-UL	
Network Camera	CIVS-IPC-3050, MD8531H-FXX, MD8531H-	E324690-A58-UL	

	FXX(W)(X= 0-9, a-z, A-Z, "-", "/" or blank for marketing purpose)		
Network Camera	IP8155HP, IP8165HP	E324690-A59-UL	
Network Camera	FD8152V-FX(B), FD8152V-FX(W) (X=0-9,a-z,A-Z,"-","1" or blank for marketing purpose: (B) Black for enclosure color; (W) White for enclosure color).	E324690-A60-UL	
Network Camera	FE8181, FE8181V, FE8191 ,FE8391-V, CIVS-IPC-7070	E324690-A61-UL	
Network Video Recorder	ND8401	E324690-A62-UL	
Camera	IB8367, IB8367-R, IB8367-T, IB8367-RT	E324690-A63-UL	
Network Camera	SD8161, SD8161-XX (X = 0-9, a-z, A-Z or blank for marketing purpose)	E324690-A64-UL	
Network Camera	IB8338-H, IB8338-HR	E324690-A66-UL	
Network Camera	FD8173-H, FD8373-EHV	E324690-A67-UL	
Network Camera	FD8181, FD8381-EV	E324690-A68-UL	
Network Camera	IK-WD31A, IK-WR31A	E324690-A71-UL	
Network Camera	IB8373-EH	E324690-A72-UL	
Network Camera	FD8167, FD8167-T, FD8138H (indoor use) FD8367-V, FD8367-TV, FD8338-HV (outdoor use)	E324690-A73-UL	
Network Camera	IP816A-HP	E324690-A74-UL	
Network Camera	IK-WF51A, IK-WF51R	E324690-A75-UL	
Stereo Camera	SC8131	E324690-A76-UL	
IP 360 Dome Camera (5M)	V6050FDxxxxxxx, V6050FDWxxxxxxx (x =0-9, a-z, space or "-" for marketing purpose).	E324690-A77-UL	
Network Camera	CC8370-HV	E324690-A78-UL	
Network Camera	CIVS-IPC-3630, CIVS-IPC-6630, CIVS-IPC-3620, CIVS-IPC-6620	E324690-A79-UL	
Network Camera	IP9171-HP	E324690-A80-UL	
Network Camera	FD9171-HT, FD9371-HTV, FD9371-EHTV	E324690-A81-UL	
Network Camera	(1) IB9371-HT, (2) IB9371-EHT	E324690-A82-UL	
Network Camera	FE8182	E324690-A83-UL	
Network Camera	FD816C-HF2	E324690-A84-UL	
Communication IP Camera	KX-NTV150XX (X=0~9, A~Z, a~z, space or "-" for marketing purpose)	E324690-A85-UL	
IP Video Doorphone	KX-NTV160XX (X=0~9, A~Z, a~z, space or "-" for marketing purpose)	E324690-A86-UL	

CERTIFICATE OF COMPLIANCE

Certificate Number	20151229-E324690
Report Reference	E324690-A82-UL
Issue Date	2015-DECEMBER-29
Issued to:	VIVOTEK INC 6TH FL,192 LIEN CHENG RD CHUNG HO DISTRICT NEW TAIPEI ,235 TAIWAN
This is to certify that representative samples of	INFORMATION TECHNOLOGY EQUIPMENT INCLUDING ELECTRICAL BUSINESS EQUIPMENT Product:- Network Camera Model:- (1) IB9371-HT, (2) IB9371-EHT
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 60950-1 - (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07 - (Information Technology Equipment - Safety - Part 1: General Requirements)
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
Product:	Network Camera
Model:	(1) IB9371-HT, (2) IB9371-EHT
Rating:	Optional. (1) PoE 36~57V,0.31~0.20A; or DC 12V, 0.75A (2) PoE 36~57V,0.75~0.45A; or DC 12V, 1.70A
Applicant Name and Address:	VIVOTEK INC 6TH FL, 192 LIEN CHENG RD CHUNG HO DISTRICT NEW TAIPEI 235 TAIWAN

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.

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

Prepared by: Terence She Reviewed by: Steven Huang

Supporting Documentation

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

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

B. Generic Inspection Instructions -

i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.

ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.

iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

- The equipment is a Class III Network Camera. The EUT provides an RJ45 connector, a DC Jack and two I/O terminal blocks used to connect external input/output devices. The EUT installs to the ceiling or wall. The power source can choose to use POE or external AC power adapter.

Model Differences

Model IB9371-EHT is similar to Model IB9371-HT except for the model designation, rating, Tma type and heater.

Technical Considerations

- Equipment mobility : stationary
- Connection to the mains : not directly connected to the mains
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : N/A
- Mains supply tolerance (%) or absolute mains supply values : No direct connection
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class III (supplied by SELV)
- Considered current rating of protective device as part of the building installation (A) : N/A
- Pollution degree (PD) : PD 2
- IP protection class : IP 66
- Altitude of operation (m) : Up to 2000
- Altitude of test laboratory (m) : Below 2000
- Mass of equipment (kg) : approx. 1.27 kg
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of: 50°C
- The product was investigated to the following additional standards: (1)CSA/UL60950-22 - Equipment to be Installed Outdoors , (2)IEC 60529-Degrees of protection provided by enclosures (IP Code)
- The following circuit locations (with circuit/schematic designation) were investigated as a limited

power source (LPS): All output ports

- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The outdoor equipment/enclosure is: IP rated 66
- The outdoor equipment/enclosure was evaluated for use in an ambient range of: -20~50 for model: IB9371-HT;, -50~50 for model: IB9371-EHT
- LEDs provided in the product are considered low power devices: Yes
- Based upon the product specification provided by the manufacturer, this unit is intended to be supplied by an UL Listed power source suitable for use at Tma 50 degree C whose output meets SELV, LPS and is rated PoE 36~57Vdc, 0.31~0.20A min. for Model IB9371-HT, 0.75~0.45A min. for Model IB9371-EHT; 12Vdc, 0.75A min. for Model IB9371-HT, 1.7A min. for Model IB9371-EHT.
- For the compliance with UL 60950-22, all interconnecting cables are to be routed inside UL Listed flexible conduits marked "outdoor".
- This equipment is to be connected only to PoE networks without routing to the outside plant.

Additional Information

N/A

Additional Standards

The product fulfills the requirements of: (1)CSA/UL60950-22 - Equipment to be Installed Outdoors , (2) IEC 60529-Degrees of protection provided by enclosures (IP Code)

Markings and instructions

Clause Title	Marking or Instruction Details
Inter-connecting cables - External detachable	Listee's Name and Part number (Marking or Instruction)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Instruction/Installation/Safety	Instruction/Installation/Safety Manual shall be shipped with unit with following statements: If the power adapter doesn't ship with the unit, the user manual shall have the description as below or equivalent: "This product is intended to be supplied by a Listed Power Adapter with LPS, rated PoE 36~57Vdc, 0.31~0.20A min. (for Model IB9371-HT), 0.75~0.45A min. (for Model IB9371-EHT); or 12Vdc, 0.75A min. (for Model IB9371-HT), 1.7A min. (for Model IB9371-EHT); and "This equipment is to be connected only to PoE networks without routing to the outside plant." or similar wording.

Wall/Ceiling Mount instruction	See enclosure 6-01.

Special Instructions to UL Representative

The Field Representative should verify the Tma (maximum ambient temperature) is minimum 50 degree C, rated PoE 36~57Vdc, 0.31~0.20A min. for Model IB9371-HT, 0.75~0.45A min. for Model IB9371-EHT; or 12Vdc, 0.75A min. for Model IB9371-HT, 1.7A min. for Model IB9371-EHT, LPS output from the updated version of UL reports for power adapter which was/were certified by UL 60950-1, 2nd edition, 2014-10-14 (provided from customer).

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
-	-	-	-	-	-	-

Earthing Continuity Test Exemptions - This test is not required for the following models:

All models

Electric Strength Test Exemptions - This test is not required for the following models:

All models

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:

-

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
-	-	-	-	-	-

1.5.1	**TABLE: list of critical components**					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
01.Power Adaptor (Optional)	Interchangeable	Interchangeable	O/P: 12Vdc, 1.67A minimum. Comply with L.P.S. Tma 50 degree C.	NWGQ/7	UL	
02. Enclosure	--	--	See enclosure diagram ID 4-01 for details.	--	--	
02-1. Front lens cover	--	--	Glass, 2.0mm thick minimum.	--	--	
02-1-1. Glue for Front lens cover	3M COMPANY INDUSTRIAL ADHESIVES & TAPES DIV	4920	Mass less than 4 g or volume less than 1750 mm^3	QOQW2	UL(MH17478)	
02-2. Top and Bottom enclosure	--	--	Aluminum, 2.5 mm thick minimum.	--	--	
03. Electric Double Layer Capacitors (BT2)	ELNA CO., LTD.	DHL-5R5D224T	Rated 5.5Vdc, 0.22F	--	--	
04. IR LED (Two provided)	High Power Lighting Corp.	HPL-H40DJ1B1	Peak wavelength: 840 min., 870 max. (Peak intensity: 1.263W/sr)	--	--	
05. IR LED (Two provided)	High Power Lighting Corp.	HPL-H40RJ1B1	Peak wavelength: 840 min., 870 max. (Peak intensity: 0.521W/sr)	--	--	
06. IR LED (Four provided)	High Power Lighting Corp.	HPL-H40CJ1B1	Peak wavelength: 840 min., 870 max. (Peak intensity: 0.2W/sr)	--	--	
07. O-ring	--	--	See below for details.	--	--	
07-1. O-ring (Between upper enclosure and bottom enclosure)	MOMENTIVE PERFORMANCE MATERIALS JAPAN L L C	TSE2186U(aq)	HB minimum, Silicone rubber overall see enclosure ID 4-02 for detail.	QMFZ2	UL (E56745)	
07-2. O-ring (Near bottom enclosure)	MING YEE INDUSTRIAL CO., LTD.	612017300G	EPDM rubber, overall see enclosure 4-03 for detail. (refer to E324690-A4),	--	--	
08. O-ring (For Hole of cable)	MOMENTIVE PERFORMANCE	TSE2186U(aq)	Two provided. HB minimum, Silicone rubber overall see	QMFZ2	UL (E56745)	

	MATERIALS JAPAN L L C		enclosure ID 4-04 for detail.			
09. Internal plastic parts/material	Interchangeable	Interchangeable	HB or HBF minimum	QMFZ2	UL	
10. PWB	Interchangeable	Interchangeable	V-1 minimum, 105 degree C minimum.	ZPMV2	UL	
11. Plastic Material of Flexible Printed Wiring (Optional)	Interchangeable	Interchangeable	Rated HB minimum or HBF minimum, when no components mounted on surface; If components mounted on surface, it should be minimum V-1 or VTM-1, 105 degree C minimum.	QMFZ2, QMTS2, ZPXK2, ZPMV2	UL	
12. Label	Interchangeable	Interchangeable	65 degree C if maximum surface temperature not specified.	PGDQ2, PGJI2	UL	
12a. Permanency of Marking (Alternate)	--	--	Engraved laser marking.	--	--	
12b. Permanency of Marking (Alternate)	--	--	Permanently ink-stamped, silk-screened, molded in, or in self-adhesive labels.	--	--	
13. Interconnecting Cable (Optional)	Interchangeable	Interchangeable	Minimum 60 degree C, 57V, maximum 3.05 m long, jacketed, VW-1 or FT-1	AVLV2, ZPFW2, DVPJ	UL	
13a. Interconnecting Cable (Optional) (Alternate)	Interchangeable	Interchangeable	Maximum 3.05 m long, jacketed, type CMP, CMR, CMG, CM, CMX, CMUC, or CMH.	DUZX, ZPFW2, DUXR/2	UL	
14. Wiring, internal secondary SELV circuits (Optional)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 57 V, 60 degree C.	AVLV2	UL	
15. Connectors and Receptacles (secondary SELV circuits)	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of plastic rated HB minimum	QMFZ2	UL	
15a. Connectors and Receptacles (secondary SELV circuits) (alternate)	Interchangeable	Interchangeable	Minimum 57 V.	ECBT2, RTRT2	UL	

15b. Connectors and Receptacles (secondary SELV circuits) (alternate)	Interchangeable	Interchangeable	--	DUXR2	UL	
16. Stepper motor (on the lens) (optional)	--	--	3.3Vdc	--	--	
17. Signal transformer (T6)	--	--	105 degree C minimum. See enclosure diagram ID 4-05 for details.	--	--	
18. Mounting base	Interchangeable	Interchangeable	PC, HB minimum	QMFZ2	UL	
19. Outer plastic enclosure (decoration enclosure)	Interchangeable	Interchangeable	HB min.	QMFZ2	UL	

Enclosures

Type	Supplement Id	Description
Photographs	3-01	Overall views-1
Photographs	3-02	Overall views-2
Photographs	3-03	Internal view-1
Photographs	3-04	Internal view-2
Photographs	3-05	Mainboard top view
Photographs	3-06	Mainboard bottom view
Photographs	3-07	I/O board top view
Photographs	3-08	I/O board bottom view
Photographs	3-09	IRLED board top view
Photographs	3-10	IRLED board bottom view
Photographs	3-11	Connector view
Diagrams	4-01	Enclosure dimension
Diagrams	4-02	O-ring (Between upper enclosure and bottom enclosure)
Diagrams	4-03	O-ring (Near bottom enclosure)
Diagrams	4-04	O-ring (For Hole of cable)
Diagrams	4-05	PoE Transformer (T6) Spec
Manuals	6-01	Manual
Miscellaneous	7-01	UL 60950-22 TRF
Miscellaneous	7-02	IEC 60529 TRF


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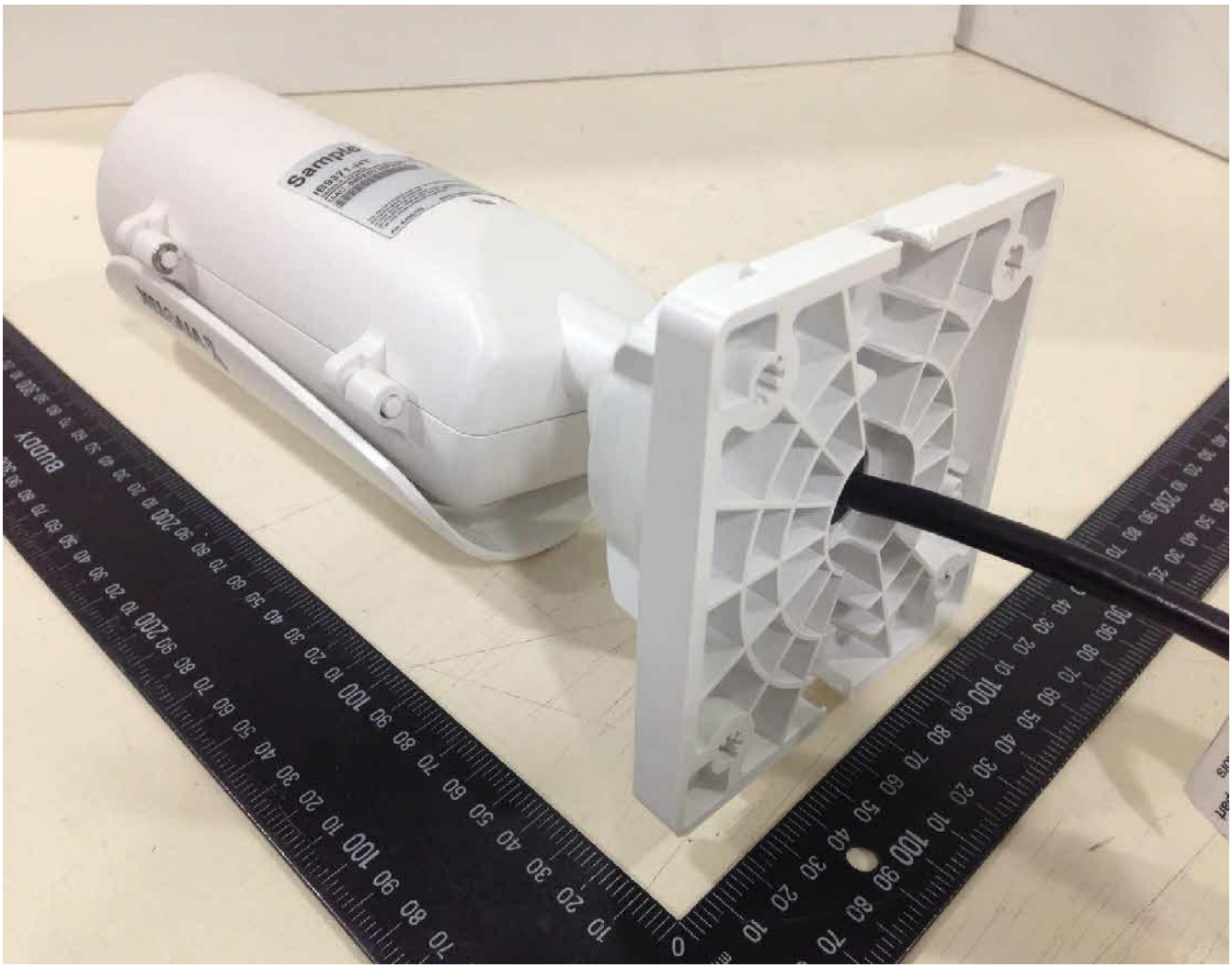
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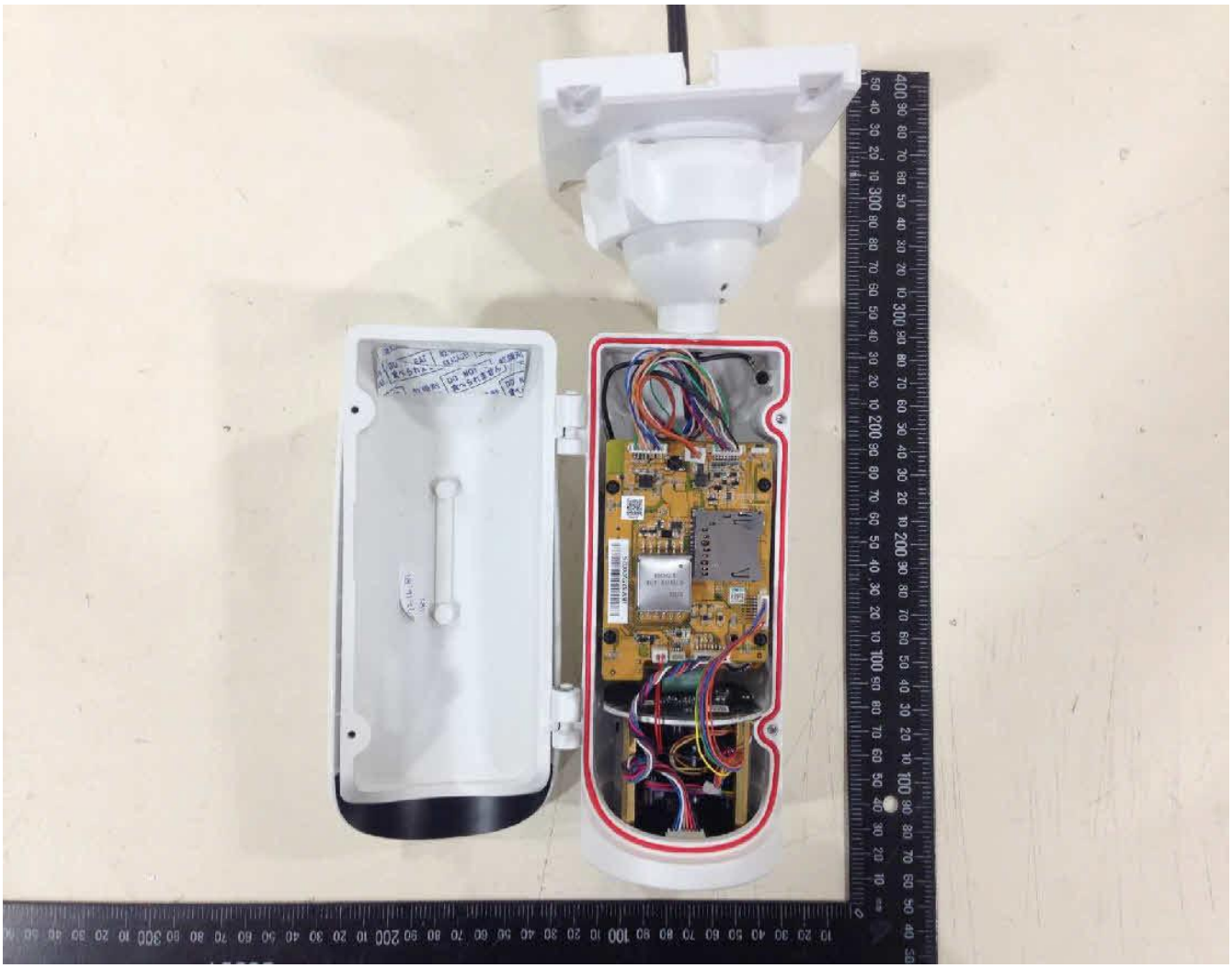

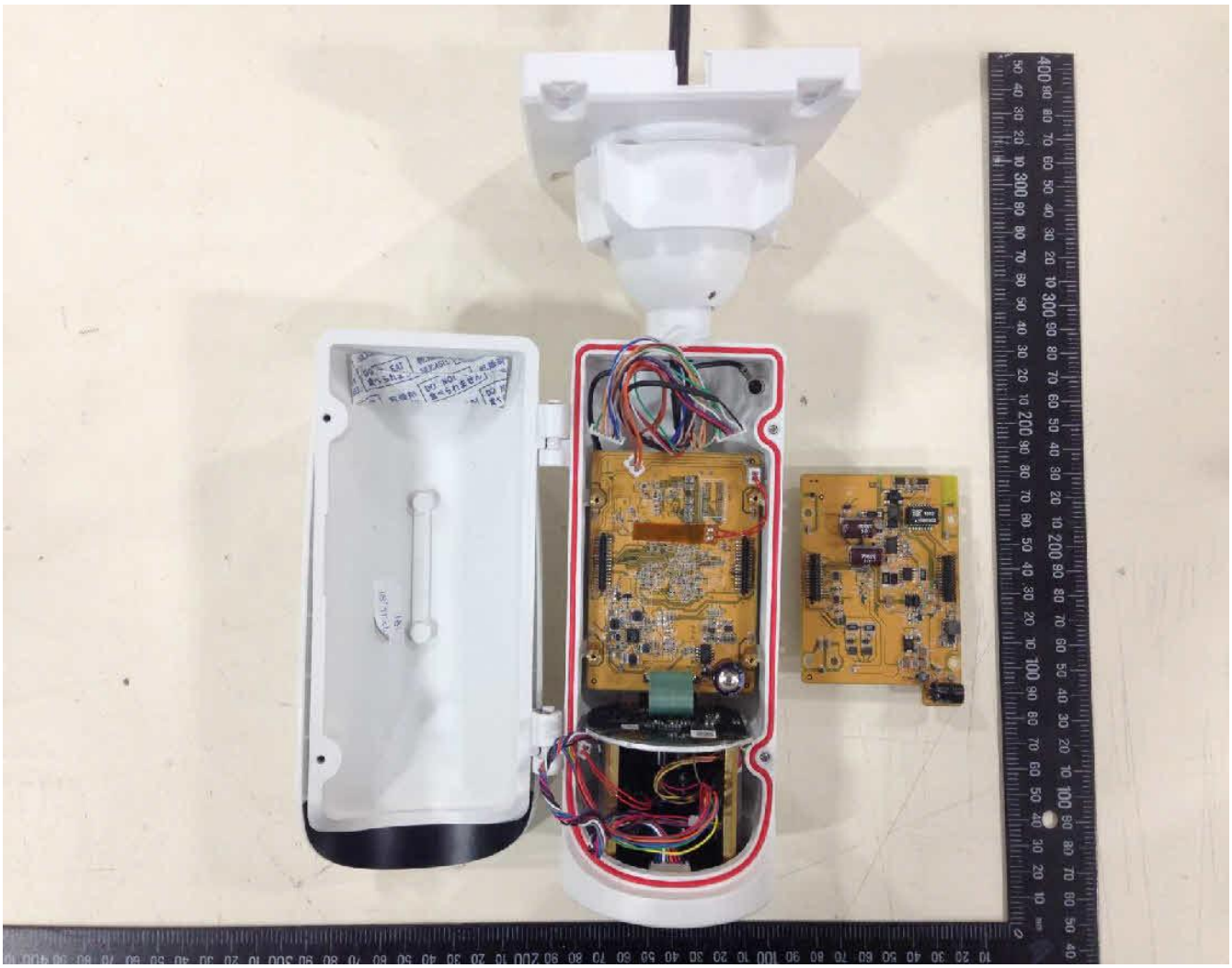

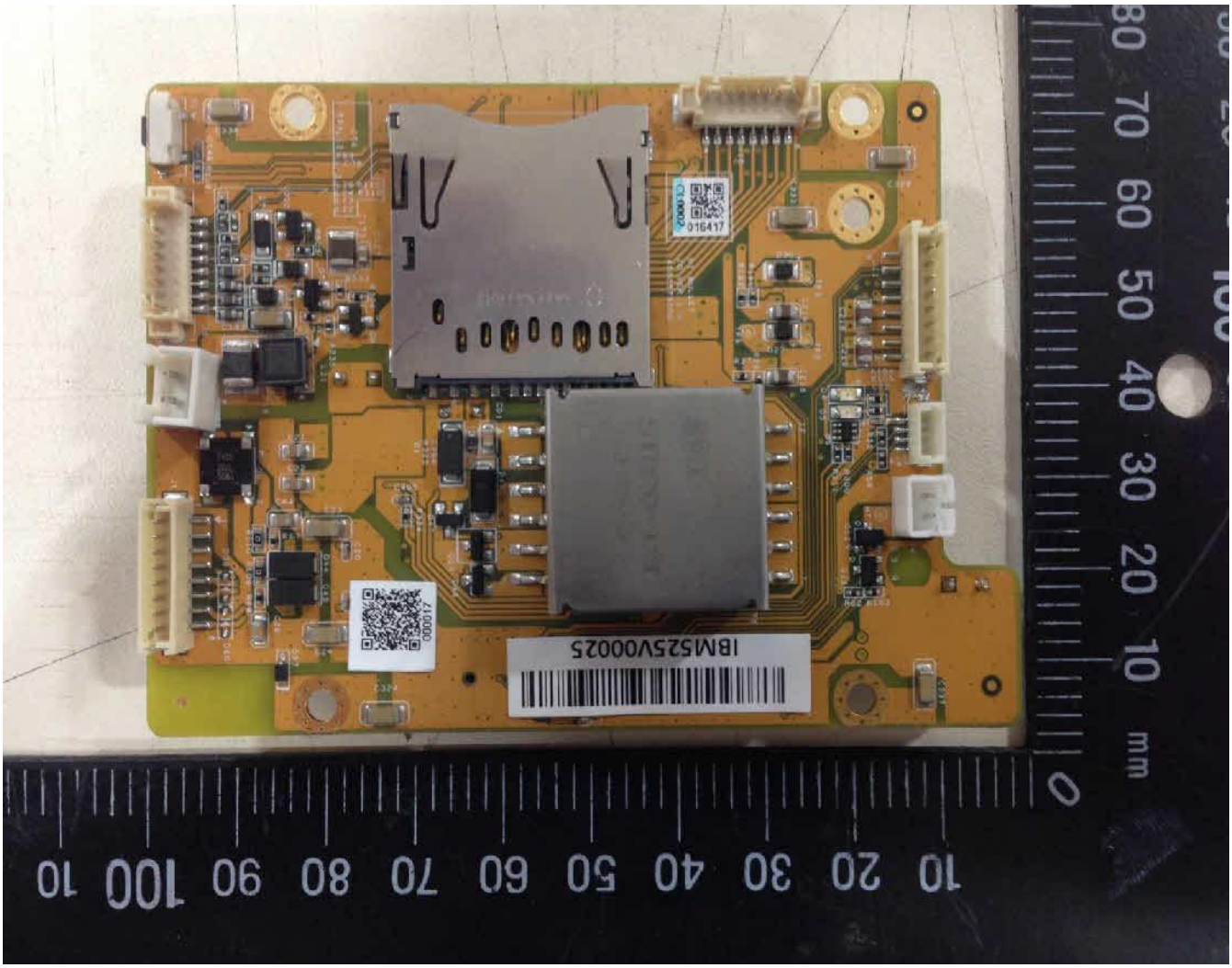
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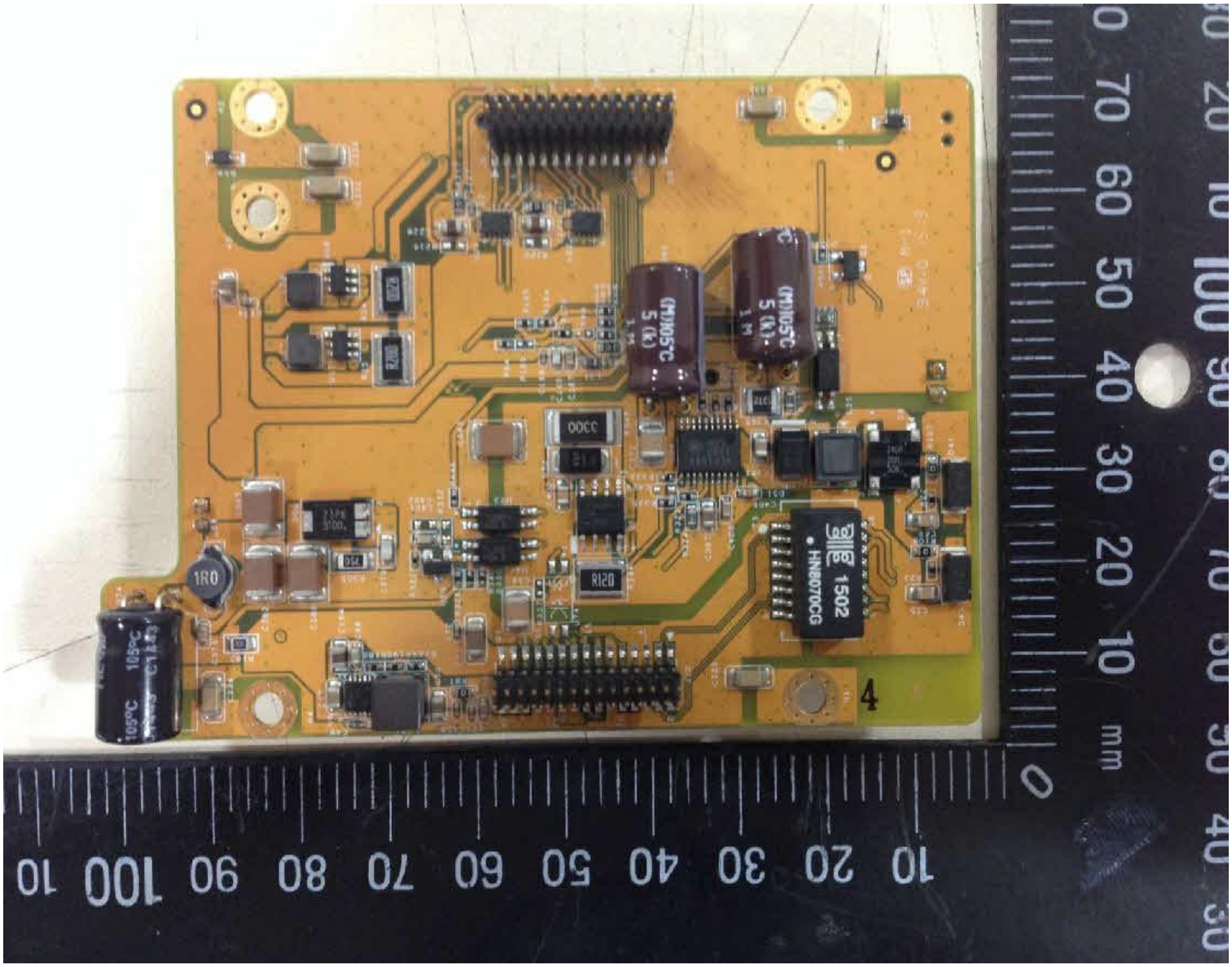
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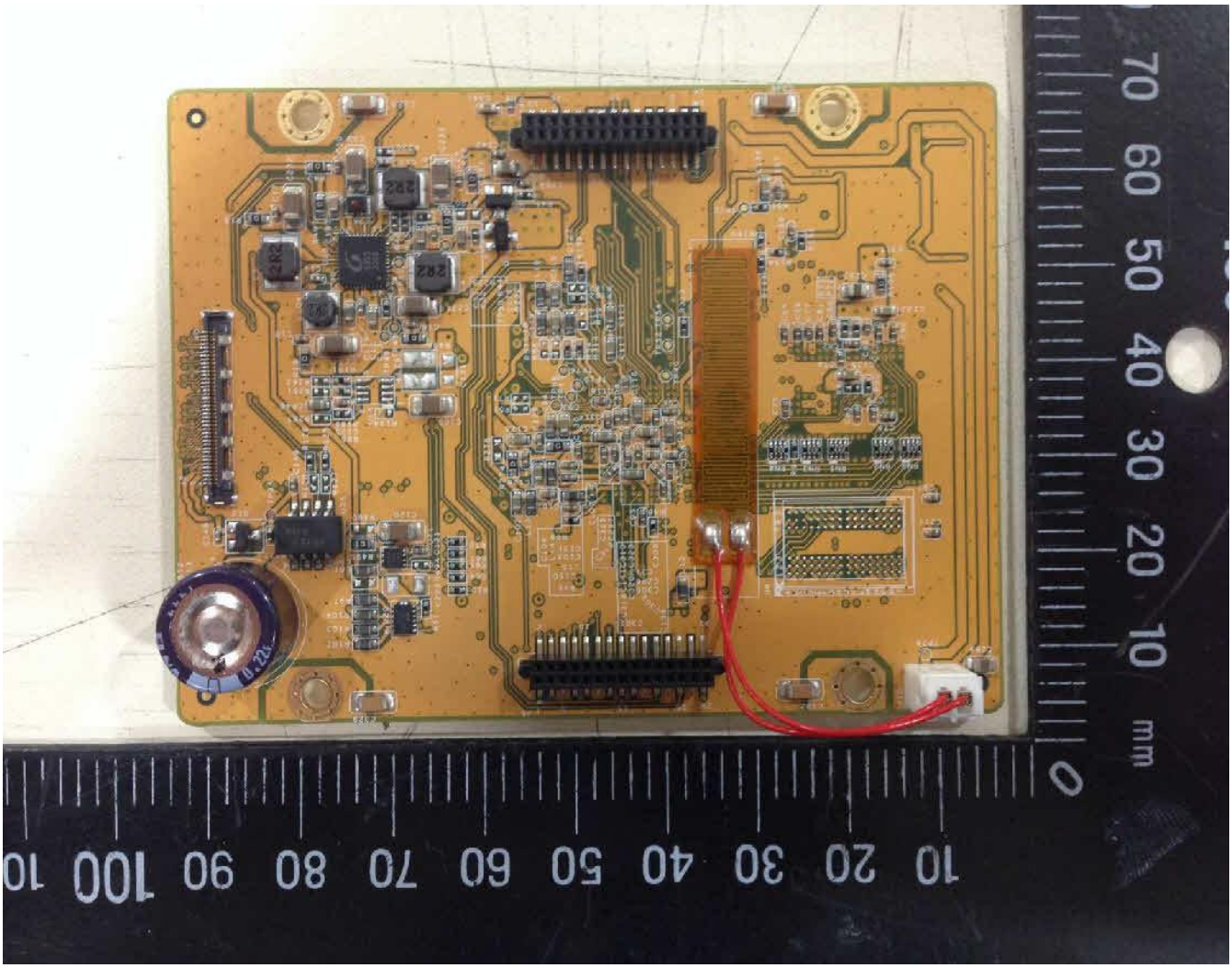
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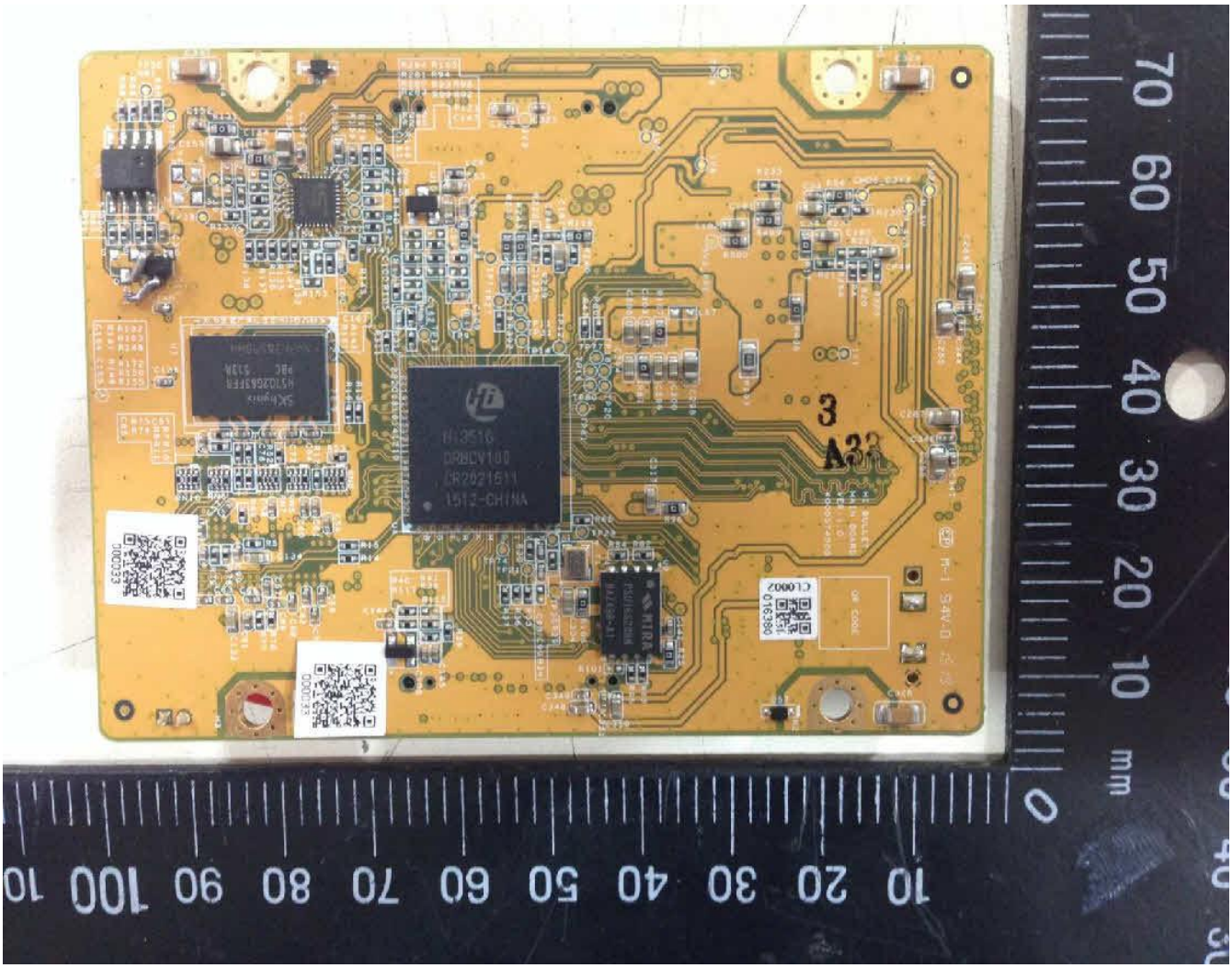
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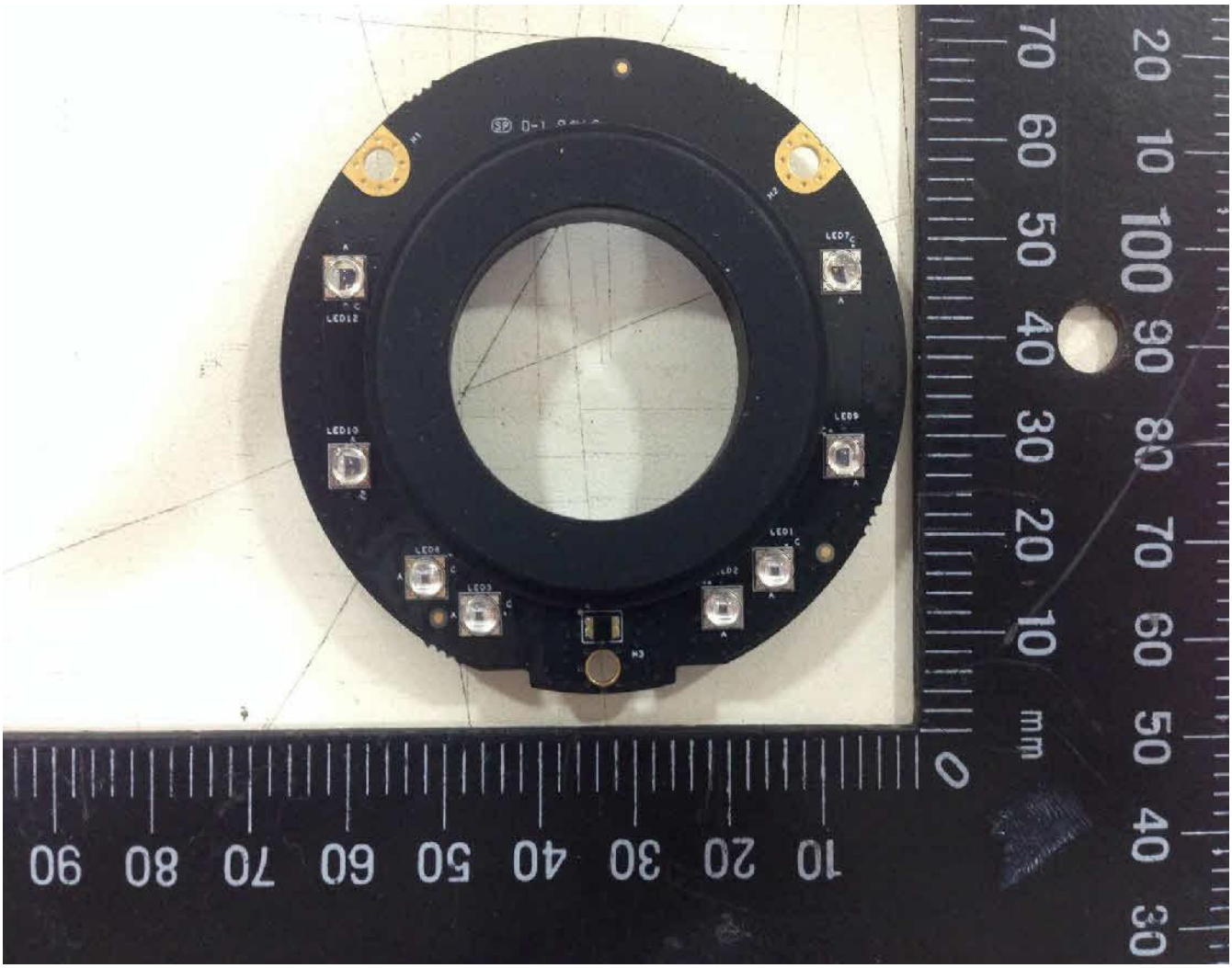
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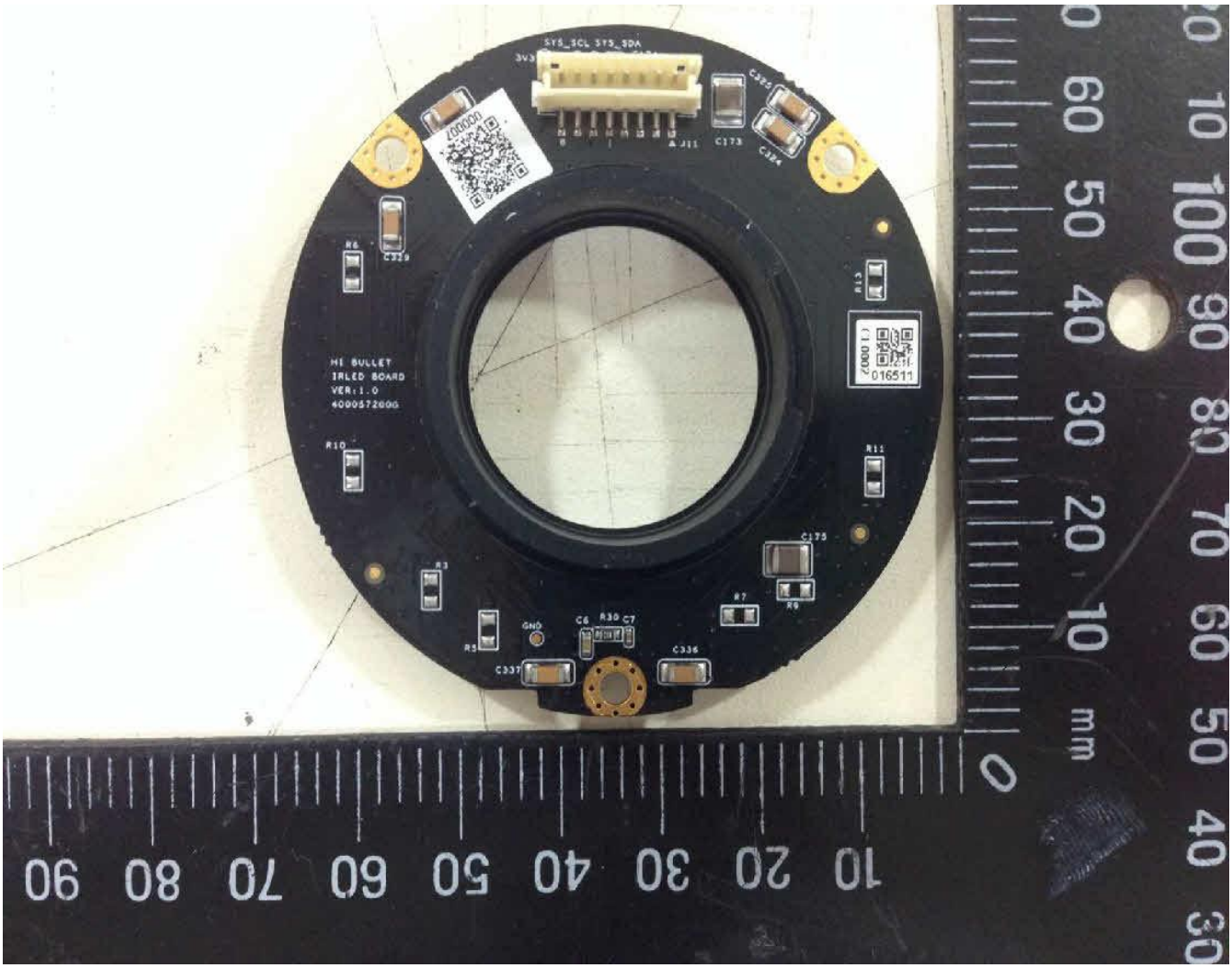
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機密|CONFIDENTIAL

REVISIONS				
REV	DESCRIPTION	ENGINEER	REQUIRE	DATE
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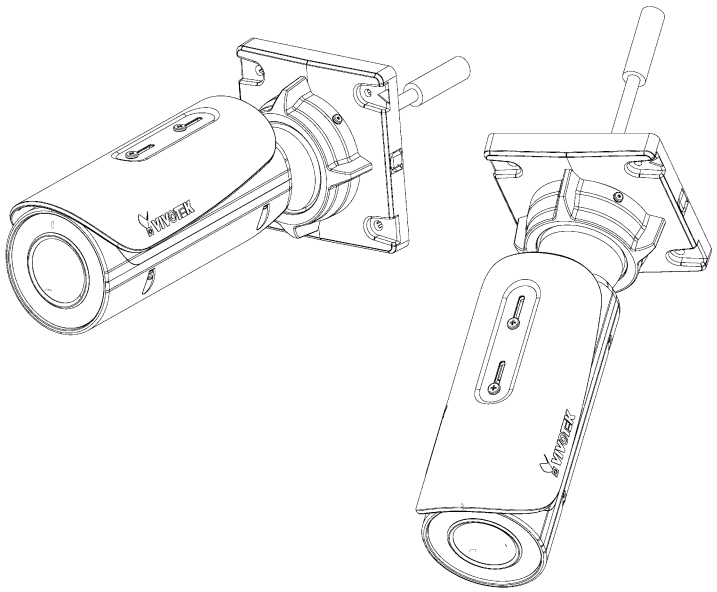

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN mm

TOLERANCE ON:
LINEAR <30 ± 0.10
30-50 ± 0.15
50-100 ± 0.18
100-200 ± 0.20
200-300 ± 0.25
>300 ± 0.30

ANGULAR:X ± 1°
X.X ± 0.5°

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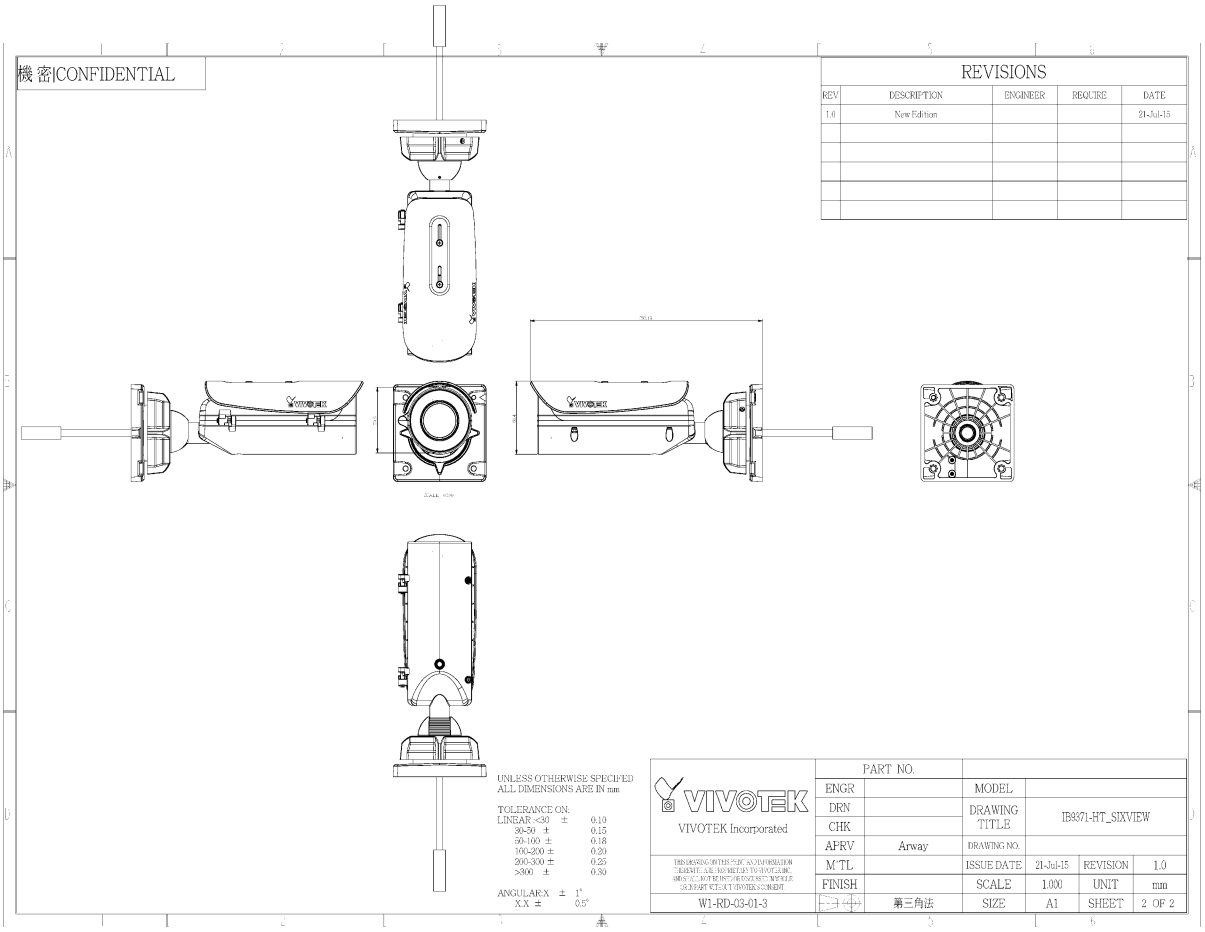
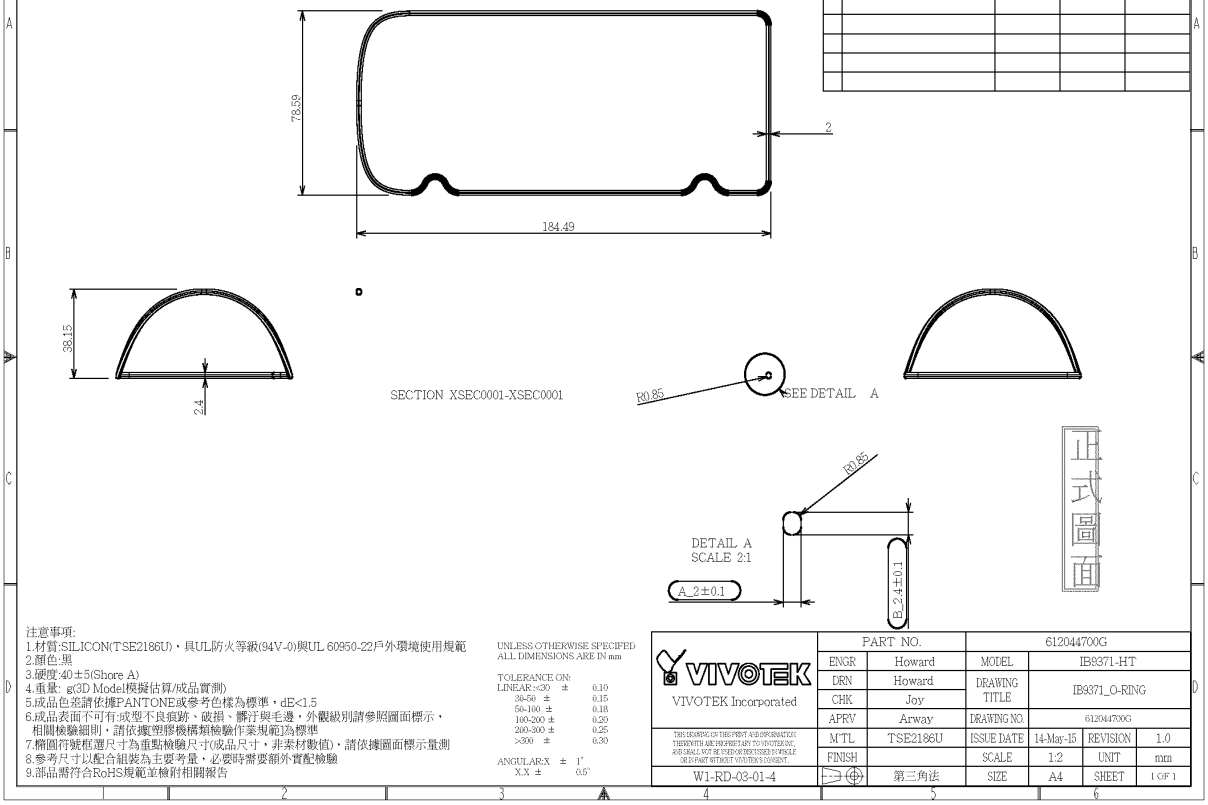
PART NO.					
ENGR		MODEL			
DRN		DRAWING TITLE	IB9371-HT_SIXVIEW		
CHK					
APRV	Arway	DRAWING NO.			
M'TL		ISSUE DATE	03-Jul-15	REVISION	1.0
FINISH		SCALE	1.000	UNIT	mm
W1-RD-03-01-3	第三角法	SIZE	A1	SHEET	1 OF 2


機密|CONFIDENTIAL
REVISIONS
REV | DESCRIPTION | ENGINEER | REQUIRE | DATE
1.0 | New Edition | | | 21-Jul-15
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN mm
TOLERANCE ON:
LINEAR <30 ± 0.10
30-50 ± 0.15
50-100 ± 0.18
100-200 ± 0.20
200-300 ± 0.25
>300 ± 0.30
ANGULAR:X ± 1°
X.X ± 0.5°
VIVOTEK
VIVOTEK Incorporated
PART NO.
ENGR
DRN
CHK
APRV Arway
M'TL
FINISH
W1-RD-03-01-3
第三角法
MODEL
DRAWING TITLE IB9371-HT_SIXVIEW
DRAWING NO.
ISSUE DATE 21-Jul-15
REVISION 1.0
SCALE 1.000
UNIT mm
SIZE A1
SHEET 2 OF 2

機密|CONFIDENTIAL

REVISIONS				
REV	DESCRIPTION	ENGINEER	REQUIRE	DATE
1.0	New Edition	Howard		14-May-15



正式圖面

注意事項:
1.材質:SILICON(TSE2186U)，具UL防火等級(94V-0)與UL 60950-22戶外環境使用規範
2.顏色:黑
3.硬度:40±5(Shore A)
4.重量: g(3D Model模擬估算/成品實測)
5.成品色差請依據PANTONE或參考色樣為標準，dE<1.5
6.成品表面不可有:成型不良痕跡、破損、髒汙與毛邊，外觀級別請參照圖面標示，
相關檢驗細則，請依據塑膠機構類檢驗作業規範]為標準
7.橢圓符號框選尺寸為重點檢驗尺寸(成品尺寸，非素材數值)，請依據圖面標示量測
8.參考尺寸以配合組裝為主要考量，必要時需要額外實配檢驗
9.部品需符合RoHS規範並檢附相關報告

UNLESS OTHERWISE SPECIFED
ALL DIMENSIONS ARE IN mm

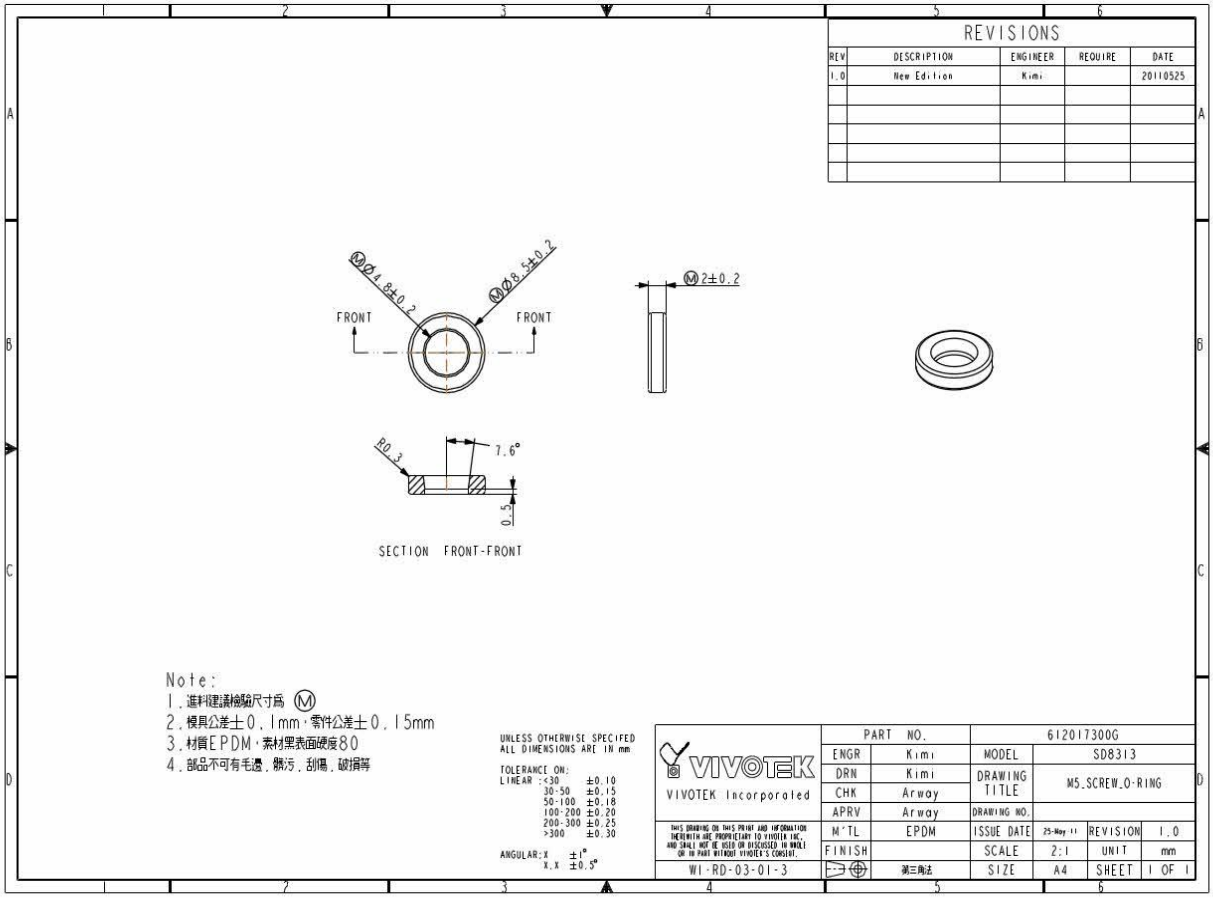
TOLERANCE ON:
LINEAR: <30 ± 0.10
30-50 ± 0.15
50-100 ± 0.18
100-200 ± 0.20
200-300 ± 0.25
>300 ± 0.30

ANGULAR: X ± 1°
X.X ± 0.5°

VIVOTEK Incorporated

W1-RD-03-01-4

PART NO.		612044700G			
ENGR	Howard	MODEL	IB9371-HT		
DRN	Howard	DRAWING TITLE	IB9371_O-RING		
CHK	Joy				
APRV	Arway	DRAWING NO.	612044700G		
M'TL	TSE2186U	ISSUE DATE	14-May-15	REVISION	1.0
FINISH		SCALE	1:2	UNIT	mm
第三角法		SIZE	A4	SHEET	1 OF 1


REVISIONS
REV | DESCRIPTION | ENGINEER | REQUIRE | DATE
1.0 | New Edition | Kimi | | 20110525
Ⓜ Ø4.8±0.2
Ⓜ Ø8.5±0.2
FRONT
FRONT
Ⓜ 2±0.2
R0.3
7.6°
0.5
SECTION FRONT-FRONT
Note:
1. 進料檢驗檢驗尺寸爲 Ⓜ
2. 模具公差±0.1mm，零件公差±0.15mm
3. 材質EPDM，素材黑表面硬度80
4. 部品不可有毛邊，髒污，刮傷，破損等
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN mm
TOLERANCE ON:
LINEAR : <30 ±0.10
30-50 ±0.15
50-100 ±0.18
100-200 ±0.20
200-300 ±0.25
>300 ±0.30
ANGULAR: X ±1°
X.X ±0.5°
VIVOTEK
VIVOTEK Incorporated
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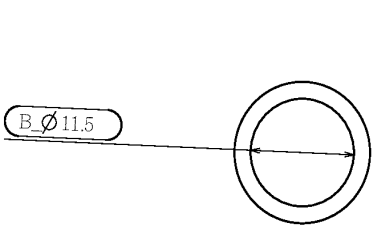
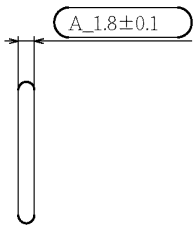
WI-RD-03-01-3
PART NO. 6120173000
ENGR Kimi
DRN Kimi
CHK Arway
APRV Arway
M'TL EPDM
FINISH
MODEL SD8313
DRAWING TITLE M5_SCREW_O-RING
DRAWING NO.
ISSUE DATE 25-May-11
REVISION 1.0
SCALE 2:1
UNIT mm
SIZE A4
SHEET 1 OF 1
第三角法

機密(CONFIDENTIAL)

REVISIONS				
REV	DESCRIPTION	ENGINEER	REQUIRE	DATE
1.0	New Edition	Howard		10-Aug-15





正式圖面

注意事項:
1.材質:SILICON(TSE2186U)，具UL防火等級(94V-0)與UL 60950-22戶外環境使用規範
2.顏色:黑
3.硬度:50±5(Shore A)
4.重量: g(3D Model模擬估算/成品實測)
5.成品色差請依據PANTONE或參考色樣為標準，dE<1.5
6.成品表面不可有:成型不良痕跡、破損、髒汙與毛邊，外觀級別請參照圖面標示，
相關檢驗細則，請依據塑膠機構類檢驗作業規範)為標準
7.橢圓符號框選尺寸為重點檢驗尺寸(成品尺寸，非素材數值)，請依據圖面標示量測
8.參考尺寸以配合組裝為主要考量，必要時需要額外實配檢驗
9.部品需符合RoHS規範並檢附相關報告

UNLESS OTHERWISE SPECIFED
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TOLERANCE ON:
LINEAR:<30 ± 0.10
30-50 ± 0.15
50-100 ± 0.18
100-200 ± 0.20
200-300 ± 0.25
>300 ± 0.30

ANGULAR:X ± 1°
X.X ± 0.5°

VIVOTEK Incorporated

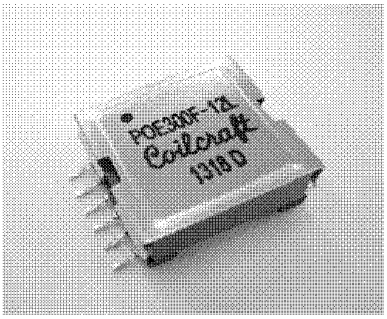
W1-RD-03-01-4

PART NO.		612045200G			
ENGR	Howard	MODEL	IB9371-HT		
DRN	Howard	DRAWING TITLE	IB9371_O-RING_CABLE		
CHK	Joy				
APRV	Arway	DRAWING NO.	612045200G		
M'TL		ISSUE DATE	14-May-15	REVISION	1.0
FINISH		SCALE	2:1	UNIT	mm
第三角法		SIZE	A4	SHEET	1 OF 1

Coilcraft

RoHS COMPLIANT

1. ELECTRICAL SPECIFICATION



Part number Click for comments	L at 0 A ±10% (µH)	L at Ipk min (µH)	DCR (Ohms) pri	sec	aux	Leakage L max (µH)	Turns ratio pri:sec	pri:aux	Ipk (A)	Output
POE300F-12L	42.0	37.8	0.061	0.015	0.195	0.545	1 : 0.33	1 : 0.33	2.6	12 V, 2.5 A

1 When ordering, please specify packaging code: e.g. POE300F-12L**D**
Packaging: **D** = **13" machine-ready reel**
EIA 481 embossed plastic tape (175 parts per full reel)

2 Inductance is for the primary, measured at 250 kHz, 0.7 Vrms, 0 Adc

3 Ipk is the peak primary current drawn at minimum input voltage.

4 DCR is with the windings connected in parallel, measured at 25°C. For other operating temperatures, use this DCR at Temperature calculator..

5 Leakage inductance is for the primary with the secondary windings shorted.

6 Turns ratio is with the primary and the secondary windings connected in parallel.

7 Output is with the secondary windings connected in parallel. Output of the auxiliary winding is 12 V.

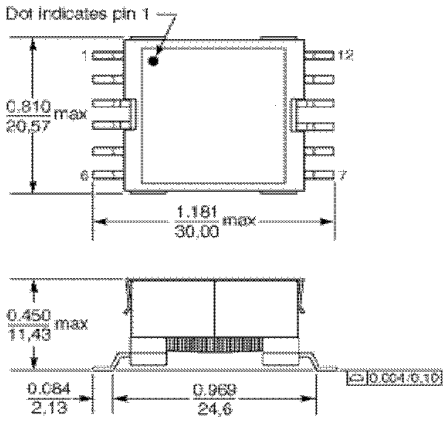
8 **Ambient temperature range:** –40°C to +125°C

9 **Storage temperature range:** Component: –40°C to +125°C
Tape and reel packaging: –40°C to +80°C

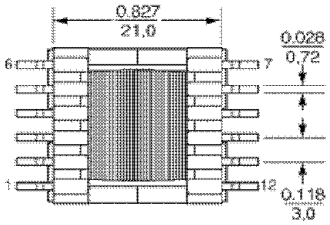
10 **Resistance to soldering heat:** Three reflows at >217°C for 90 seconds (+260°C ±5°C for 20 – 40 seconds), allowing parts to cool to room temperature between.

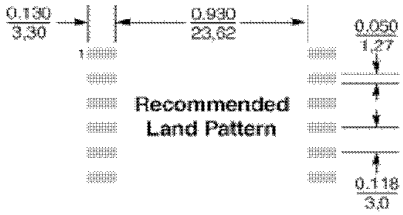
11 Electrical specifications at 25°C.

2. MECHANICAL SPECIFICATIONS

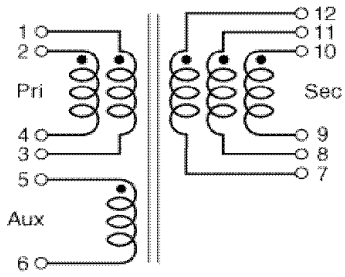


"XXXX" WEEK CODE
"Y" INTERNAL CODE





Weight: 11.9 g



The primary windings and the secondary windings are to be connected in parallel on the PC board.

承 認 書 Specifications	分類番号 Classified No.	TTS-ASST00327	2/4

品 名 TITLE: STD20-12L

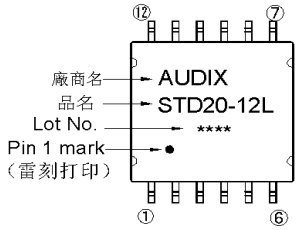
電気特性 Electric Characterisrics

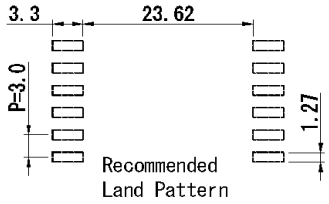
Part number	Inductance at 0 A ±10%uH	Inductance at Ipk min(uH)	DCR max(Ω) pri	DCR max(Ω) sec	DCR max(Ω) aux	Leakage inductance max(uH)	Turns ratio pri : sec	Turns ratio pri : aux	Ipk (A)	Output (REF)
STD20-12L	42	37.8	0.061	0.015	0.195	0.545	1:0.33	1:0.33	2.6	12V, 2.5A

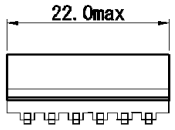
1. Inductance is for the primary, measured at 250kHz, 0.7Vrms, 0Adc.
2. Peak primary current drawn at minimum input voltage.
3. DCR is with the windings connected in parallel.
4. Leakage inductance is for the primary winding with the secondary windings shorted.
5. Turns ratio is with the primary and the secondary windings connected in parallel.
6. Output is with the secondary windings connected in parallel. Output of the auxiliary winding is 12V.
7. Electrical specifications at 25℃.
8. Operating temperature -40℃ to + 125℃.
9. Storage temperature -40℃ to + 125℃.
10. Packaging -55℃ to + 80℃.

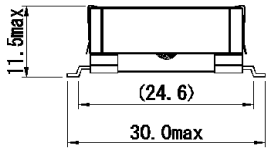
外形、寸法 Externals and Dimensions

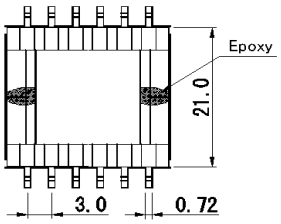
UNIT: mm



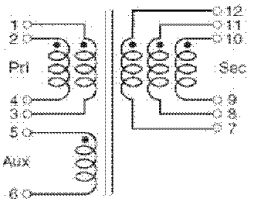








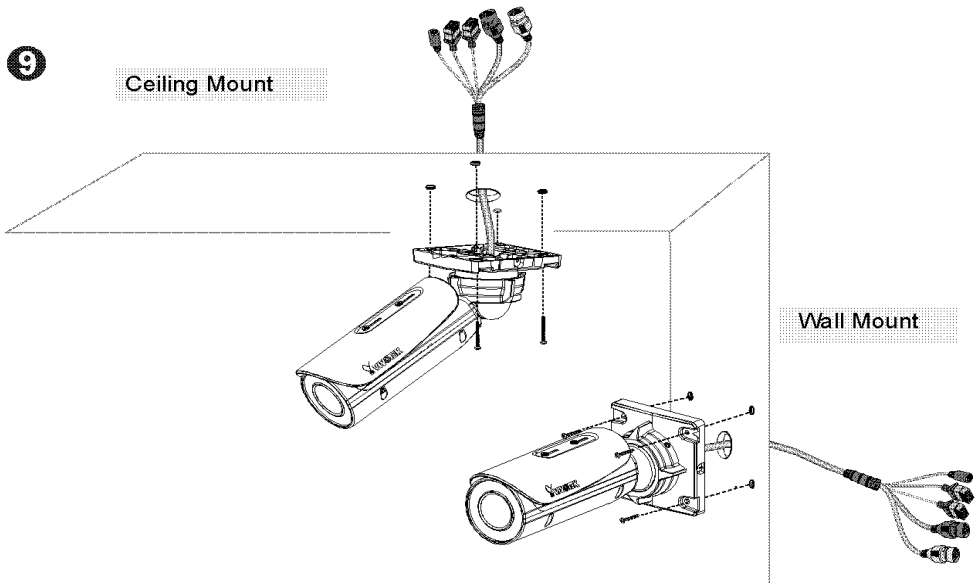
Schematics



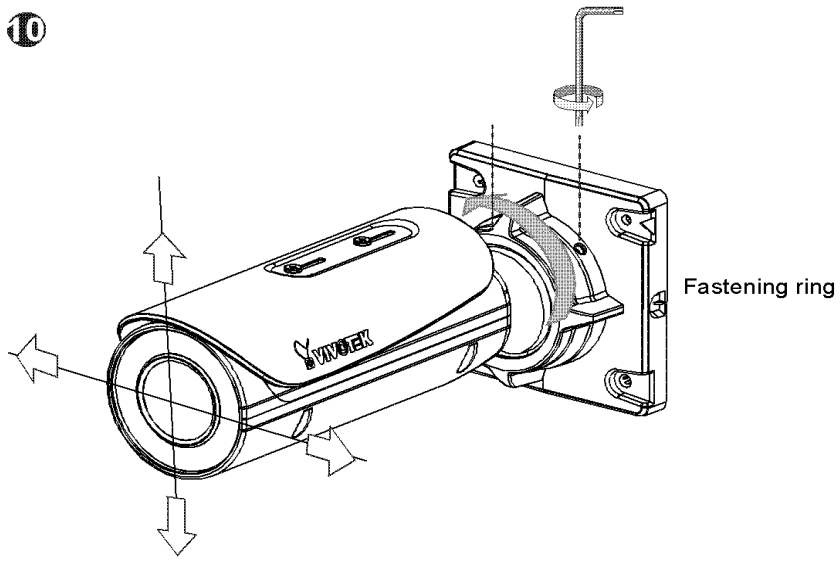
品名: STD20 -12L
- 輸出電壓 Otput Voltage
- 型名 Type

Lot No.: * * * *
- 周 Wkk
- 年 Year

9. Secure the Network Camera to a wall or ceiling.



10. Adjust the shooting direction by loosening the hex and anti-tamper screws on the fastening ring. Aim the camera at the area of your interest. Tighten the fastening ring when done with the adjustment.

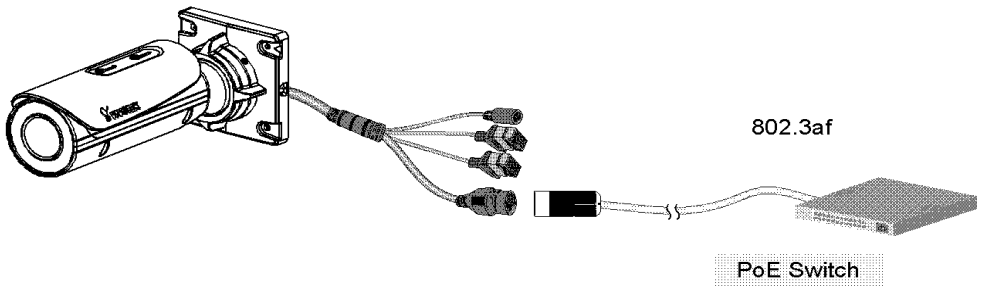


Network Deployment

General Connection (PoE)

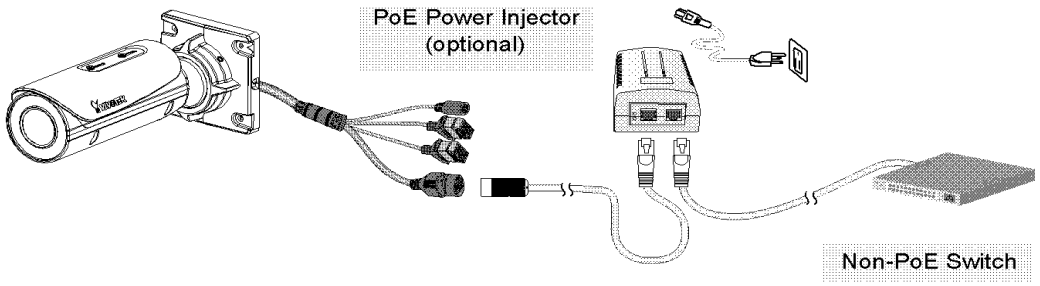
When using a PoE-enabled switch

The Network Camera is PoE-compliant, allowing transmission of power and data via a single Ethernet cable. Follow the below illustration to connect the Network Camera to a PoE-enabled switch via Ethernet cable.



When using a non-PoE switch

Use a PoE power injector (optional) to connect between the Network Camera and a non-PoE switch.



NOTE:

1. The camera is only to be connected to PoE networks without routing to outside plants.
2. For PoE connection, use only UL listed I.T.E. with PoE output.

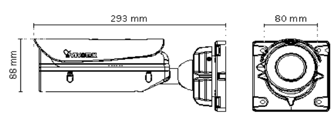
Technical Specifications

Technical Specifications

Model	IB9371-HT: Remote Focus IB9371-EHT: Remote Focus, Extreme Weather
System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	128MB
RAM	512MB
Camera Features	
Image Sensor	1/2.9" Progressive CMOS
Maximum Resolution	2048x1536 (3MP)
Lens Type	Vari-focal
Focal Length	f = 3 ~ 9 mm
Aperture	F1.2 ~ F2.3
Auto-iris	P-iris
Field of View	39° ~ 92° (Horizontal) 29° ~ 68° (Vertical) 49° ~ 108° (Diagonal)
Shutter Time	1/5 sec. to 1/16,000 sec.
WDR Technology	WDR Pro
Day/Night	Removable IR-cut filter for day & night function
Minimum Illumination	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W)
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)
IR Illuminators	30 meters
On-board Storage	Slot type: SD/SDHC/SDXC card slot Seamless Recording
Video	
Compression	H.265 & H.264 & MJPEG
Maximum Frame Rate	30fps @ 2048x1536 30fps @ 1920x1080 In all compression modes
Maximum Streams	3 simultaneous streams
S/N Ratio	70 dB
Dynamic Range	100 dB
Video Streaming	Adjustable resolution, quality and bitrate Smart Stream II
Image Settings	Time stamp, text overlay, flip & mirror Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks Scheduled profile settings, 3DNR, video rotation, defog
Audio	
Audio Capability	Two-Way Audio (full duplex)
Compression	G.711, G.726
Interface	External microphone input Audio output
Network	
Users	Live viewing for up to 10 clients
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, SSL, TLS
Interface	10 Base-T/100 BaseTX Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard
ONVIF	Supported, specifications available at www.onvif.org
Intelligent Video	
Video Motion Detection	Five-window video motion detection
VCA*	Line crossing detection, field detection, loitering detection
Alarm and Event	
Alarm Triggers	Video motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, camera tampering detection, audio detection
Alarm Events	Event notification using digital output, HTTP, SMTP, FTP and NAS server, SD card File upload via HTTP, SMTP, FTP, NAS server and SD card
General	
Smart Focus System	Remote Focus
Connectors	RJ-45 cable connector for Network/PoE connection Audio input Audio output DC 12V power input Digital input*1 Digital output*1
LED Indicator	System power and status indicator
Power Input	12V DC IEEE 802.3at PoE
Power Consumption	IB9371-HT: Max. 9 W (DC 12V) Max. 11 W (PoE) IB9371-EHT: Max. 20 W (DC 12V Heater on) Max. 23.6W (PoE Heater on)
Dimensions	Ø 88 x 293 mm
Weight	IB9371-HT: 1130 g IB9371-EHT: 1103 g
Casing	Weather-proof IP66-rated housing Vandal-proof IK10-rated metal housing (Camera Only)
Safety Certifications	CE, LVD, FCC Class A, VCCI, C-Tick, UL
Operating Temperature	IB9371-HT: Starting Temperature: -10°C ~ 50°C (14°F ~ 122°F) Working Temperature: -20°C ~ 50°C (-4°F ~ 122°F) IB9371-EHT: Starting Temperature: -40°C ~ 50°C (-40°F ~ 122°F) Working Temperature: -50°C ~ 50°C (-58°F ~ 122°F)
Humidity	90%
Warranty	36 months
System Requirements	
Operating System	Microsoft Windows 8/7/Vista/XP/2000
Web Browser	Mozilla Firefox 7~10 (streaming only) Internet Explorer 7/8/9/10/11
Other Players	VLC: 1.1.11 or above Quicktime: 7 or above
Included Accessories	
CD	User's manual, quick installation guide, Installation Wizard 2, VAST
Others	Quick installation guide, warranty card, sun shield, wall mount bracket, alignment sticker, desiccant bag, waterproof connector, screw pack

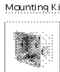
* Available per project request.

Dimensions



Compatible Accessories

Mounting Kits



AM-714
Junction Box

Ver. 8

VIVOTEK

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E: sales@vivotek.com

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602, Best sky Tower, Plot No. F-5, Netaji Subhash Place, Pitam Pura, Delhi-110 034
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E: salesindia@vivotek.com

Test Report issued under the responsibility of:

TEST REPORT
IEC 60950-22
Information technology equipment
Safety – Part 22: Equipment to be installed outdoors

Report Reference No. ..... :	OFF-4787107370
Date of issue ..... :	2015-11-24
Total number of pages	22
CB Testing Laboratory ..... :	Underwriters Laboratories Taiwan Co., Ltd
Address ..... :	260 Da-Yeh Road Peitou Taipei City, Taiwan 112.
Applicant's name ..... :	VIVOTEK INC
Address ..... :	6TH FL, 192 LIEN CHENG RD, CHUNG HO DISTRICT, NEW TAIPEI, TAIWAN.
Test specification:	
Standard ..... :	IEC 60950-22 : 2005 (1st Edition)
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_22A
Test Report Form(s) Originator ..... :	The Standards Institution of Israel Ltd.
Master TRF ..... :	Dated 2007-03

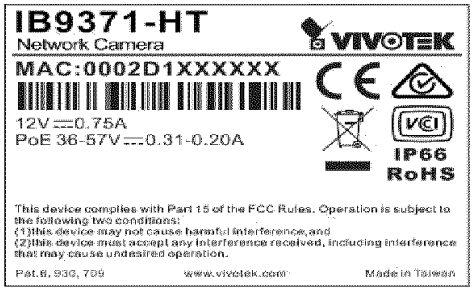
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

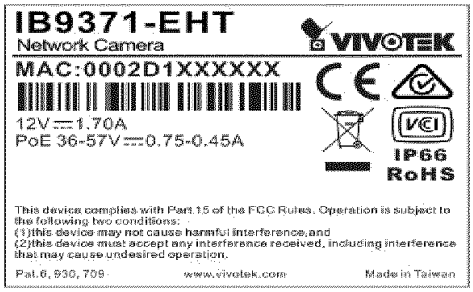
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description..... :	Network Camera
Trade Mark ..... :	VIVOTEK
Manufacturer ..... :	VIVOTEK INC. / 5F, NO.168, LIEN-CHENG RD., CHUNG-HO, NEW TAIPEI CITY, 235, TAIWAN, R.O.C
Model/Type reference ..... :	(1) IB9371-HT, (2) IB9371-EHT
Ratings ..... :	Optional. (1) PoE 36~57V,0.31~0.20A; or DC 12V, 0.75A (2) PoE 36~57V,0.75~0.45A; or DC 12V, 1.70A

Testing procedure and testing location:		
☒ **CB Testing Laboratory**:		
Testing location/ address ..... :	Underwriters Laboratories Taiwan Co., Ltd 260 Da-Yeh Road Peitou Taipei City, Taiwan 112.	
☐ **Associated CB Test Laboratory:**		
Testing location/ address ..... :		
Tested by (name + signature) ..... :	Terence She	
Approved by (+ signature)..... :	Steven Huang	
☐ Testing procedure: TMP		
Tested by (name + signature) ..... :		
Approved by (+ signature)..... :		
Testing location/ address ..... :		
☐ Testing procedure: WMT		
Tested by (name + signature) ..... :		
Witnessed by (+ signature) ..... :		
Approved by (+ signature)..... :		
Testing location/ address ..... :		
☐ Testing procedure: SMT		
Tested by (name + signature) ..... :		
Approved by (+ signature)..... :		
Supervised by (+ signature) ..... :		
Testing location/ address ..... :		
☐ Testing procedure: RMT		
Tested by (name + signature) ..... :		
Approved by (+ signature)..... :		
Supervised by (+ signature) ..... :		
Testing location/ address ..... :		

Summary of testing:	
Tests performed (name of test and test clause): 4.2.5, 4.2.1, PART 22 10.2 IMPACT TES 9.1 - ANNEX B – WATER SPRAY TEST	**Testing location:** **Underwriters Laboratories Taiwan Co., Ltd. 260 Da-Yeh Road Peitou Taipei City, Taiwan 112.**
Summary of compliance with National Differences: CA, US, EU	
Copy of marking plate	


IB9371-HT
Network Camera
VIVOTEK
MAC:0002D1XXXXXX
12V ⎓0.75A
PoE 36-57V ⎓0.31-0.20A
IP66
RoHS
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.
Pat.6, 930, 709
www.vivotek.com
Made in Taiwan


IB9371-EHT
Network Camera
VIVOTEK
MAC:0002D1XXXXXX
12V ⎓1.70A
PoE 36-57V ⎓0.75-0.45A
IP66
RoHS
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.
Pat.6, 930, 709
www.vivotek.com
Made in Taiwan

Test item particulars ..... :	
Temperature range ..... :	-20 degree C to 50 degree C for model: IB9371-HT
	-50 degree C to 50 degree C for model: IB9371-EHT
Overvoltage category ..... :	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV
	Not Applicable. (No direct connection to mains)
IP protection class ..... :	IP 66
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)
Testing ..... :	
Date of receipt of test item ..... :	2015-11-24
Date (s) of performance of tests ..... :	2015-11-24

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(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.

General product information:

- The equipment is a Class III Network Camera. The EUT provides an RJ45 connector, a DC Jack and two I/O terminal blocks used to connect external input/output devices. The EUT installs to the ceiling or wall. The power source can choose to use POE or external AC power adapter.

The equipment will be installed to the ceiling or wall.

Additional Information

Additional investigation in accordance with EN 60950-22:2006+A11:2008

Name and address of factory (ies)

VIVOTEK INC. / 5F, NO.168, LIEN-CHENG RD., CHUNG-HO, NEW TAIPEI CITY, 235, TAIWAN, R.O.C

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
4	CONDITIONS FOR OUTDOOR EQUIPMENT		Pass
4.1	Ambient air temperature		Pass
	Suitability for use at any temperature in the range specified by the manufacturer. If not specified by the manufacturer, the range is taken as -33°C to +40°C	The temperature range are: -20 degree C to 50 degree C for model: IB9371-HT -50 degree C to 50 degree C for model: IB9371-EHT	--
4.2	AC mains supply		N/A
	Suitability for the highest Overvoltage Category expected in the installation location	Not directly connected to mains.	N/A
	Components used to reduce the Overvoltage Category comply with IEC 61643-series		N/A
	Reference to installation instructions .....:		N/A
4.3	Rise of earth potential		
	Special earthing conditions	Class III product	N/A
	Reference to installation instructions .....:		N/A
5	MARKING AND INSTRUCTIONS		Pass
	Special installation features for protection from conditions in the OUTDOOR LOCATION (see 1.7.2 of IEC 60950-1)		Pass
	OUTDOOR ENCLOSURE classification according to IEC 60529 (IP Code)	The equipment is considered as outdoor equipment.	N/A
6	PROTECTION FROM ELECTRICAL SHOCK IN AN OUTDOOR LOCATION		Pass
6.1	Voltage limits of user-accessible parts in OUTDOOR LOCATIONS (2.2.2 and 2.2.3 of IEC 60950-1 with voltage limits of IEC60950-22)		Pass
	Voltages under normal conditions (V) .....:	(see separate test report IEC 60950-1)	Pass
	Voltages under fault conditions (V).....:	(see separate test report IEC 60950-1)	Pass
6.2	Limited current circuits in outdoor locations		N/A
	The requirements of 2.4 of IEC60950-1 apply without change		N/A

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
7	WIRING TERMINALS FOR CONNECTION OF EXTERNAL CONDUCTORS		N/A
	The mains supply terminations powered via the normal building installation wiring are as specified in 3.3 of IEC 60950-1	Not directly connected to mains.	N/A
	The mains supply terminations powered directly from the mains distribution system are as specified in IEC 60364	Not directly connected to mains.	N/A
8	CONSTRUCTION REQUIREMENTS FOR OURDOOR ENCLOSURES		Pass
8.1	General		Pass
	Protection against corrosion by use of suitable materials or by application of a protective coating	Metallic enclosure was made of aluminium. (see separate test report IEC 60950-1 table 1.5.1 for details)	Pass
	Parts serving as a functional part of an OUTDOOR ENCLOSURE (e.g., dials, connectors, etc.) comply with the same environmental protection requirements as for the OUTDOOR ENCLOSURE	No use.	Pass
	Use of OUTDOOR ENCLOSURE to carry current during normal operation		N/A
	Connection of a conductive part of an OUTDOOR ENCLOSURE to protective earth for carrying fault currents (see 2.6 of IEC 60950-1 and 8.3 of this standard)	(see separate test report IEC 60950-1 and 8.3 of this report)	N/A
8.2	Resistance to ultra-violet radiation		N/A
	Resistance of non-metallic parts of an OUTDOOR ENCLOSURE to degradation by ultra-violet (UV) radiation		N/A
	Parts providing mechanical support:		N/A
	Tensile strength test (ISO 527)		N/A
	Flexural strength test (ISO 178)		N/A
	Parts providing impact resistance:		N/A
	Charpy impact test (ISO 179)		N/A
	Izod impact test (ISO 180)		N/A
	Tensile impact test (ISO 8256)		N/A
	All parts:		N/A
	Flammability classification (1.2.12 and annex A of IEC 60950-1)		N/A
8.3	Resistance to corrosion		Pass

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.1	General	Metallic enclosure was made of aluminium alloy and after evaluated/reviewed the data provided from manufacturer, the construction complied with requirements. See separate test report IEC 60950-1 for details.	Pass
	Resistance of metallic parts of an OUTDOOR ENCLOSURE to the effects of water-borne contaminants		N/A
	Alternate method for 8.3.2-8.3.4 (IEC 61587-1)		N/A
8.3.2	Test apparatus	See 8.3.1.	N/A
	Salt-spray test (IEC 60068-2-11)		N/A
	Test in a water-saturated sulphur dioxide atmosphere (water-saturated sulphur dioxide atmosphere as described in Annex A; chamber as described in ISO 3231)		N/A
8.3.3	Test procedure	See 8.3.1.	N/A
8.3.4	Compliance criteria		N/A
8.4	Bottoms of FIRE ENCLOSURES		N/A
	Comply with 4.6.2 of IEC 60950-1		N/A
	Bottom of FIRE ENCLOSURE of OUTDOOR EQUIPMENT mounted directly and permanently on a non-combustible surface (e.g., concrete or metal)	No opening.	N/A
8.5	Gaskets		N/A
	If gaskets are used as the method for protection against the ingress of potential contaminants, requirements of 8.5.1 through 8.5.3 apply	Refer to E324690-A63-UL	N/A
8.5.1	General		N/A
8.5.2	Oil resistance		N/A
8.5.3	Securing means		N/A

9	PROTECTION OF EQUIPMENT WITHIN AN OUTDOOR ENCLOSURE		Pass
9.1	Protection from moisture (see Table 2)	IP66	Pass
9.2	Protection from plants and vermin	No openings on the enclosure.	Pass
9.3	Protection from excessive dust	PD3 used for evaluation.	Pass
10	MECHANICAL STRENGTH OF ENCLOSURES		Pass
10.1	General		Pass

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
10.2	Impact test (4.2.5 of IEC 60950-1)		Pass
	Compliance criteria:		--
	- after test the level of protection remains in accordance with 9.1of this standard		Pass
	- after test the requirements of 4.2.1 of IEC 60950-1 are met		Pass
11	OUTDOOR EQUIPMENT CONTAINING VENTED BATTERIES		N/A
	Adequate ventilation in the compartment housing a vented battery, where gassing is possible during normal usage or over-charging	No such batteries were employed.	N/A
	Protection against the risk of ignition of local concentrations of hydrogen and oxygen in a compartment containing both a battery and electrical components		N/A
	Hydrogen gas concentration measurement test		N/A
	Measured hydrogen gas concentration (% by volume) .....:		—
	Max. allowed gas concentration for the mixture location in proximity to an ignition source (% by volume) .....:	≤ 1% by volume	—
	Max. allowed gas concentration for the mixture location not in proximity to an ignition source (% by volume) .....:	≤ 2% by volume	—
	Overcharging of rechargeable battery (see 4.3.8 of IEC 60950-1)	(see separate test report IEC 60950-1)	N/A
A	ANNEX A, WATER-SATURATED SULPHUR DIOXIDE ATMOSPHERE (see 8.3.2 and 8.3.3)		N/A
B	ANNEX B, WATER SPRAY TEST (see 9.1)		Pass
C	ANNEX C, ULTRAVIOLET LIGHT CONDITIONING TEST (see 8.2)		N/A
C.1	Test apparatus .....:		N/A
C.2	Mounting of test samples .....:		N/A
C.3	Carbon-arc light-exposure apparatus .....:		N/A
C.4	Xenon-arc light-exposure apparatus .....:		N/A
D	ANNEX D, GASKET TESTS (see 8.5)		P

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
D.1	Gasket tests	Tests were conducted in E234690-A63	P
D.2	Tensile strength and elongation tests (for gaskets that can stretch)		P
	Tensile strength (%) .....:		P
	Elongation (%) .....:		P
	Visible deterioration, deformation, melting, cracking or hardening of the material .....:		P
D.3	Compression test (for gaskets with closed cell construction)	Not closed cell construction.	N/A
	Initial thickness of the specimen (mm) .....:		N/A
	Thickness of the specimen after test a) (mm), compression set after test a) (%).....:		N/A
	Thickness of the specimen after test b) (mm), compression set after test b) (%).....:		N/A
	Thickness of the specimen after test c) (mm), compression set after test c) (%).....:		N/A
	Visible cracks or deterioration .....:		N/A
D.4	Oil immersion test	Not subject to oil or coolant.	N/A
	Swelling (%).....:		N/A
	Shrinking (%).....:		N/A

E	ANNEX E, RATIONALE		—
E.1	General		—
E.2	Electric shock		—
E.3	Energy related hazards		—
E.4	Fire		—
E.5	Mechanical hazards		—
E.6	Heat related hazards		—
E.7	Radiation		—
E.8	Chemical hazards		—
E.9	Biological hazards		—
E.10	Explosion hazards		—

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

IEC 60950-22:2005 – COMMON MODIFICATIONS		
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions	
General	Delete all the "country" notes in the reference document according to the following list: 4.1 Note 3 4.3 Note 8.5 Note 10.2 Note D.3 Note D.4 Note	

ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS	—

ZB	SPECIAL NATIONAL CONDITIONS		
4.1	In **Finland**, **Norway** and **Sweden**, the temperature in winter may be extremely low. For OUTDOOR EQUIPMENT this will demand special design so that the equipment can withstand transport, erection and operation/service at temperatures down to -50°C	This National Condition has been removed in EN 60950-22:2006 + A11:2008.	N/A
10.2	In **Finland**, **Norway** and **Sweden** there are additional requirements for the minimum ambient temperature. See 4.1 of this annex.	This National Condition has been removed in EN 60950-22:2006 + A11:2008.	N/A
D.3	In **Finland**, **Norway** and **Sweden** there are additional requirements for the minimum ambient temperature. See 4.1 of this annex.	This National Condition has been removed in EN 60950-22:2006 + A11:2008.	N/A

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**		
8.2a)	Tensile strength test (ISO 527)		**N/A**
Material identification (manufacturer, type designation) .....:			—
Shape and dimensions of test samples.....:			—
Conditioning for Set 1 of samples.....:			—
Conditioning for Set 2 of samples (including Annex C) .....:			—
Test conditions (T °C, RH %) .....:			—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile strength (MPa)	Test sample #	Tensile strength (MPa)

Arithmetic mean for Set 1 (MPa) .....:	
Arithmetic mean for Set 2 (MPa) .....:	
Retention (%) .....:	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**		
8.2b)	Flexural strength test (ISO 178)		**N/A**
Material identification (manufacturer, type designation) .....:			—
Shape and dimensions of test samples.....:			—
Conditioning for Set 1 of samples.....:			—
Conditioning for Set 2 of samples (including Annex C) .....:			—
Test conditions (T °C, RH %) .....:			—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Flexural strength (MPa)	Test sample #	Flexural strength (MPa)

Arithmetic mean for Set 1 (MPa) .....:	
Arithmetic mean for Set 2 (MPa) .....:	
Retention (%) .....:	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2c)	Charpy impact test (ISO 179) - unnotched	**N/A**
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (according to Tables 2 and 3 of ISO 179) .....:		—
Test conditions (T °C, RH %) .....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Charpy impact strength (kJ/m^2)	Test sample #	Charpy impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2d)	Charpy impact test (ISO 179) - notched	**N/A**
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (according to Tables 2 and 3 of ISO 179) .....:		—
Test conditions (T °C, RH %) .....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Charpy impact strength (kJ/m^2)	Test sample #	Charpy impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**		
8.2e)	Izod impact test (ISO 180) - unnotched		**N/A**
Material identification (manufacturer, type designation) .....:			—
Shape and dimensions of test samples.....:			—
Conditioning for Set 1 of samples.....:			—
Conditioning for Set 2 of samples (including Annex C) .....:			—
Test method (according to Table 1 of ISO 180) .....:			—
Test conditions (T °C, RH %) .....:			—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Izod impact strength (kJ/m^2)	Test sample #	Izod impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2f)	Izod impact test (ISO 180) - notched	**N/A**
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (according to Table 1 of ISO 180) .....:		—
Test conditions (T °C, RH %) .....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Izod impact strength (kJ/m^2)	Test sample #	Izod impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	
Supplementary information:	

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**		
8.2g)	Tensile impact test (ISO 8256) - unnotched		**N/A**
Material identification (manufacturer, type designation) .....:			—
Shape and dimensions of test samples.....:			—
Conditioning for Set 1 of samples.....:			—
Conditioning for Set 2 of samples (including Annex C) .....:			—
Test method (A or B)			—
Test conditions (T °C, RH %) .....:			—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile impact strength (kJ/m^2)	Test sample #	Tensile impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2h)	Tensile impact test (ISO 8256) - notched	**N/A**
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (A or B)		—
Test conditions (T °C, RH %) .....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile impact strength (kJ/m^2)	Test sample #	Tensile impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	
Supplementary information:	

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

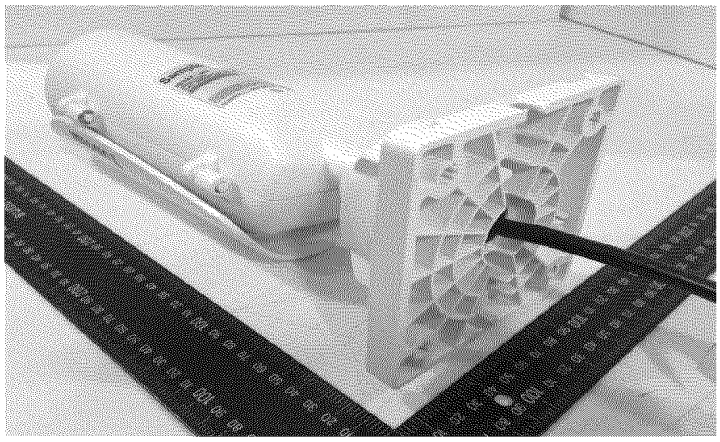
ATTACHMENT

US - UL60950-22, First Edition - SPECIAL NATIONAL CONDITIONS			
4	Applicable parts of Chapter 8 of the NEC may be applicable to ITE installed outdoors with connections to communication systems		Pass
4.2	Power supply cords are to be suitable outdoor use type as required by Section 400-4 of the NEC, i.e., marked “water resistant,” “outdoor,” “W” or “W-A.”		N/A
4.2	Surge Arrestors and Transient Voltage Surge Suppressors installed external to the ITE are required to comply with the appropriate NEC requirements.		N/A
5	Outdoor Enclosures are required to be classified and marked in accordance with UL 50		N/A
7	Applicable parts of the NEC, NFPA 70; and the National Electrical Safety Code, ANSI/IEEE C2, are required, as appropriate.		N/A
7	Wiring terminals intended to supply Class 2 outputs are required per Article 725 of the NEC to be marked.		N/A
11	Requires stationary installations of storage batteries external to the ITE to comply with Article 480 of the NEC		N/A
OTHER DIFFERENCES			
1.2	For protection of ITE against direct lightning strikes, reference is made to NFPA 780 for additional requirements.		Pass
2	All references to IEC 60950-1 in this standard are replaced by the equivalent UL 60950-1 Standards. All relevant Standards referenced in the Part 1 Standard (Annex P, including P.1 and P.2) also apply to this Part 22 Standard and are not listed below. All references to clauses and subclauses in IEC 60950-1 are to the second edition.		Pass
EU - EN 60950-22, First Edition - SPECIAL NATIONAL CONDITIONS			
4.1	In Finland, Norway and Sweden, the temperature in winter may be extremely low. For OUTDOOR EQUIPMENT this will demand special design so that the equipment can withstand transport, erection and operation/service at temperatures down to -50 °C.		N/A
10.2	In Finland, Norway and Sweden there are additional requirements for the minimum ambient temperature. See 4.1 of this annex.		N/A
D.3	In Finland, Norway and Sweden there are additional requirements for the minimum ambient temperature. See 4.1 of this annex.		N/A

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

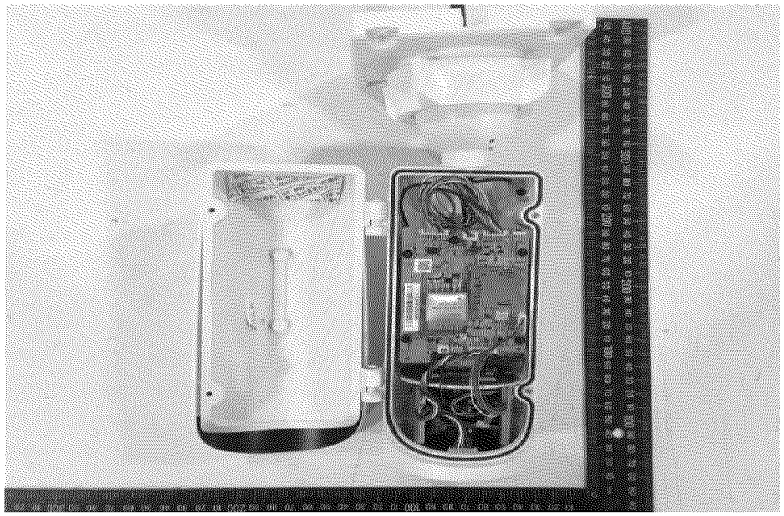
ATTACHMENT
Photos

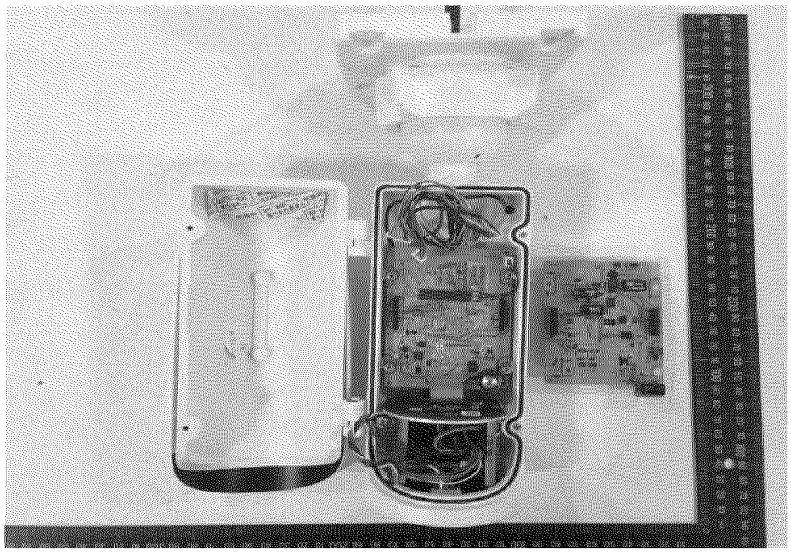
Overall views



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

Internal views





the standard in safety

Underwriters Laboratories

TEST REPORT IEC 60529 Degrees of protection provided by enclosures (IP 66)		
Test Report Project No.	OFF-4787107370-A-1	
Date of issue ..... :	2015-11-27	
Testing		
Date of receipt of test item.....	2015-11-16, 2015-11-17	
Testing Laboratory ..... :	UNDERWRITERS LABORATORIES TAIWAN CO LTD	
Address ..... :	1ST FI, 260 DA-YEH RD, PEI TOU DISTRICT, TAIPEI CITY, TAIWAN 112	
Tested by (Name + Signature) ..... :	Stanley Chien, Robert Kuo	Stanley Chien, Robert Kuo
Approved by (Name + Signature) ... :	Jonathan Chen	Jonathan Chen
Applicant ..... :	VIVOTEK INC.	
Address ..... :	6TH FL, 192 LIEN CHENG RD CHUNG HO DISTRICT NEW TAIPEI 235 TAIWAN	
Product Description ..... :	Network Camera	
Model (Category) No. ..... :	(1) IB9371-HT, (2) IB9371-EHT	
Ratings ..... :	(Optional) (1) PoE 36~57V,0.31~0.20A; or DC 12V, 0.75A (2) PoE 36~57V,0.75~0.45A; or DC 12V, 1.70A	
Standard ..... :	IEC 60529: 2013-08 + Corr 1: 2013-10 + Corr. 2: 2015-01; EN 60529 :1991 + A1: 2000+ A2: 2013-10	
Document Version	V1.0	
Document Created by	Cloud Chen	

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General Information

Information conveyed by this Report applies only to the test sample(s) actually tested. Underwriters Laboratories Taiwan Co., Ltd. did not select the sample(s), determine whether the sample(s) was representative of production sample(s), nor was UL provided with information relative to the formulation or identification of component materials used in the test sample(s).

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1. DESCRIPTION

1a. GENERAL PRODUCT INFORMATION

Report Summary:

All applicable tests according to the referenced standard(s) have been carried out.

Tests performed on Model IB9371-EHT were considered to be representative of Model IB9371-HT.

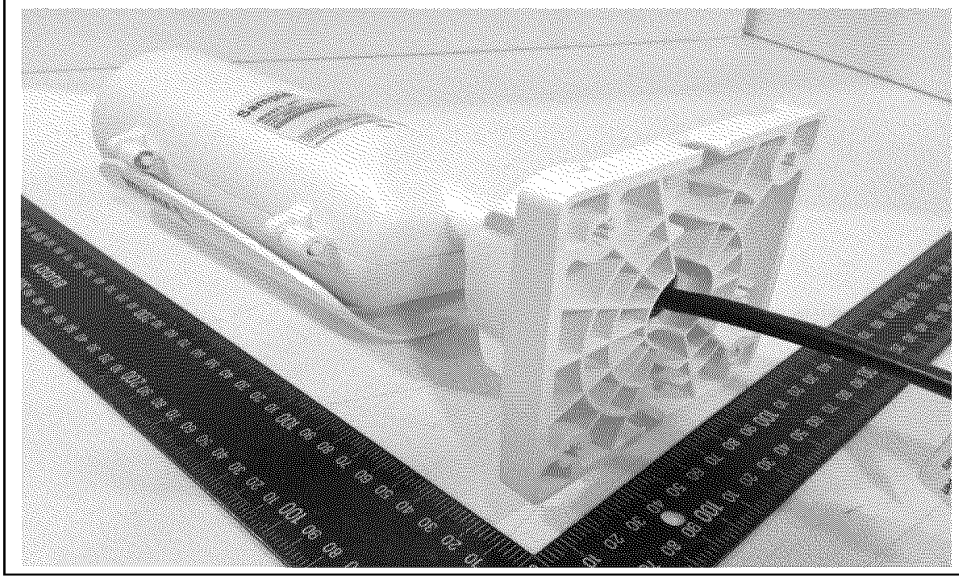
Product Description:

The equipment is a Class III Network Camera. The EUT provides an RJ45 connector, a DC Jack and two I/O terminal blocks used to connect external input/output devices. The EUT installs to the ceiling or wall. The power source can choose to use POE or external AC power adapter.

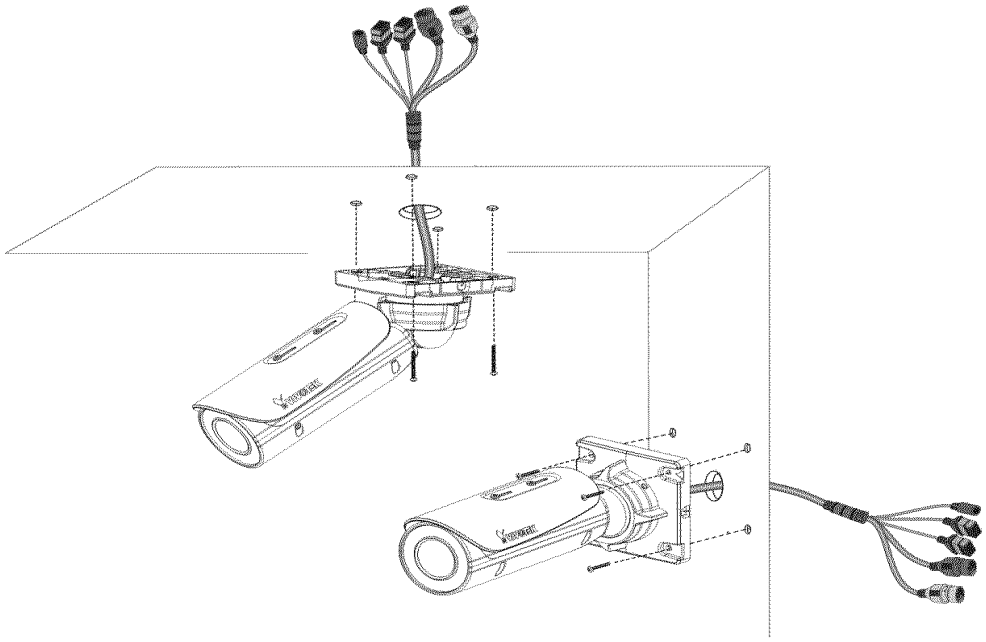
Model Difference:

Model IB9371-EHT is similar to Model IB9371-HT except for the model designation, rating, Tma type and heater.

1b. PRODUCT PHOTOGRAPHS



1c. INSTALLATION INFORMATION



- Supply Connection: N/A
- Additional Setting Requirement : N/A

2. DETAIL FOR TESTING:

2a. GENERAL TEST INFORMATION

Atmospheric conditions for Test	
Temperature range:	15 ℃ to 35 ℃
Relative humidity:	25 % to 75 %
Air pressure:	86 kPa to 106 kPa (860 mbar to 1 060 mbar).
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement .....:	Compliance#
- test object does not meet the requirement .....:	Non-Compliance

Note# -
According with below clauses of IEC 60529, the compliance results based on additional checking items that were described in detail of test.

Acceptance conditions for first characteristic numeral 5 for protection against solid foreign objects
The protection is satisfactory if, on inspection, talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety. Except for special cases to be clearly specified in the relevant product standard, no dust shall deposit where it could lead to tracking along the creepage distances.

Acceptance conditions for secondary characteristic numeral 1 thru 8
Any water has entered, it shall not:
– be sufficient to interfere with the correct operation of the equipment or impair safety;
– deposit on insulation parts where it could lead to tracking along the creepage distances;
– reach live parts or windings not designed to operate when wet;
– accumulate near the cable end or enter the cable if any.

2b. TEST ITEMS AND RESULT

Test No.	Test Performed Date	Test Name	Test Result
1	N/A	Clause 12 - Tests for protection against access to hazardous parts indicated by the first characteristic numeral(1 thru 6) : **6** ~~[and Additional Letter (A thru D) : ____].~~ For low-voltage equipment (rated voltages not exceeding 1 000 V a.c. and 1 500 V d.c.)	Compliance (No test was conducted necessary based on construction without opening provided)
2	2015-11-23	Clause 13 - Tests for protection against solid foreign objects indicated by the first characteristic numeral (5 thru 6) : **6** .	Compliance
3	2015-11-24	Clause 14 - Tests for protection against water indicated by the second characteristic numeral (1 thru 8) : **6** .	Compliance

2c. TEST SAMPLE IDENTIFICATION

The table below is provided to provide correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Card No.	Date Received, YYYY-MM-DD	Test No.	Sample No.	Manufacturer, Product Identification and Ratings
2249970	2015-11-17	2	2249970-1	VIVOTEK INC Product: Network Camera Model IB9371-EHT Rating: PoE 36~57V,0.75~0.45A; or DC 12V, 1.70A
2248201	2015-11-16	3	2248201-1	VIVOTEK INC Product: Network Camera Model IB9371-EHT Rating: PoE 36~57V,0.75~0.45A; or DC 12V, 1.70A

2d. TEST EQUIPMENT INFORMATION

UL test equipment information is recorded on Meter Use in UL's Laboratory Project Management (LPM) database.

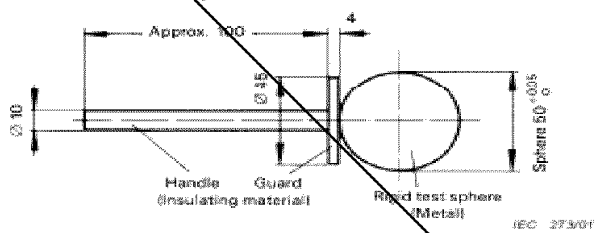
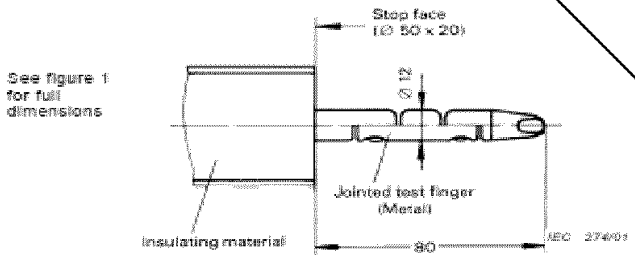
3. DETAIL FOR TESTING

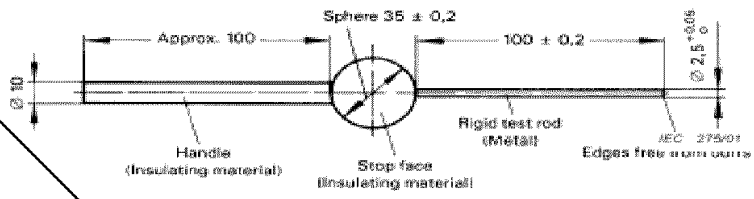
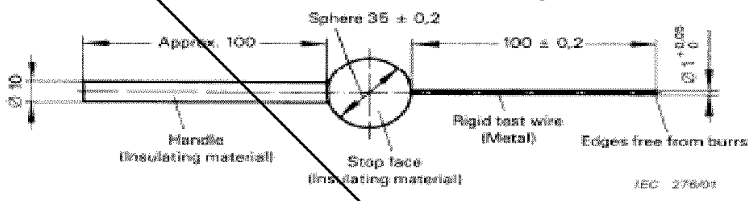
Clause 12 - Tests for protection against access to hazardous parts indicated by the first characteristic numeral (1 thru 6) : ____ [and Additional Letter (A thru D) : ___].
For low-voltage equipment (rated voltages not exceeding 1 000 V a.c. and 1 500 V d.c.)

Date(s) of performance of tests..... :	
Test Conditional:	
Temperature Relative humidity Air pressure	_____(15 °C to 35 °C) _____(25 % to 75 %) _____(86 kPa to 106 kPa (860 mbar to 1 060 mbar))

METHOD

The access probe is pushed against or inserted through any openings of the Representative Sample(s), Sample No. _____; Empty Enclosure Model No._____ ; Product Name, Model (Category) No._____ with the force specified in below table.

First numeral	Addit. letter	Access probe	Test force
1	A	Sphere 50 mm diameter 	50 N ± 10 %
2	B	Jointed test finger 	10 N ± 10 %

First numeral	Addit. letter	Access probe	Test force
3	C	Test rod 2,5 mm diameter, 100 mm long 	3 N ± 10 %
4, 5, 6	D	Test wire 1,0 mm diameter, 100 mm long 	1 N ± 10 %

A low-voltage supply (of not less than 40 V and not more than 50 V) in series with a suitable lamp should be connected between the probe and the hazardous parts inside the enclosure. Hazardous live parts covered only with varnish or paint, or protected by oxidation or by a similar process, are covered by a metal foil electrically connected to those parts which are normally live in operation.

For the test of first characteristic numeral 1, the access probe 50 mm diameter shall not completely pass through the opening.

For the test of first characteristic numeral 2, the jointed test finger may penetrate to its 80 mm length, but the stop face shall not pass through the opening. Starting from the straight position, both joints of the test finger shall be successively bent through an angle of up to 90° with respect to the axis of the adjoining section of the finger and shall be placed in every possible position.

RESULT

The access probe **[**touched**] [**did not touched**]** the hazardous live parts of Empty Enclosure Model No. _____ ; Product Name, Model (Category) No._____. The pushing force used was _____ N.

Note: The distance of hazardous live parts shall be defined for Empty Enclosure and indicated information in user manual.

No test was conducted necessary based on construction without opening provided.

Clause 13 - Tests for protection against solid foreign objects indicated by the first characteristic numeral (5 thru 6) : 6 .

Date(s) of performance of tests..... :	2015-11-23 (Tests conducted by Stanley Chien)
Test Conditional:	
Temperature Relative humidity Air pressure	23.1 °C (15 °C to 35 °C) 67.5 % (25 % to 75 %) 99.7 kPa (740.8 mmHg) (86 kPa to 106 kPa (860 mbar to 1 060 mbar))

METHOD

~~All sample(s);~~ Sample No. 2249970-1 ~~of Empty Enclosure Model No. _____; Product Name, Model (Category) No._____~~were each mounted and supported in the worst case intended mounting position in a closed dust chamber which maintained talcum powder in suspension. The effective volume of the test chamber was ~~[~~2.33 m^3 ~~] [_____ m^3]~~, sufficient to allow uniform distribution of the dust.

The talcum powder used passed through a square meshed sieve having a nominal wire diameter of 0.050 mm and a nominal width between wires of 0.075 mm. The amount of talcum powder installed in the test chamber was ~~[~~2kg/m^3 of test chamber volume~~] [_____ kg]~~.

Test condition was necessity in one of two categories:

[**X**] Category 1: Enclosures where the normal working cycle of the equipment causes reductions in air pressure within the enclosure below that of the surrounding air, for example, due to thermal cycling effects. (For IP5X or IP6X)

The sample under test was connected to a vacuum pump to maintain the pressure below atmospheric pressure. The connection was made using ~~[~~a specially provided hole~~] [_____]~~.

The sample under test was exposed to the talcum powder atmosphere until there were at least 80 volume changes where the maximum flow rate was 60 volume changes per hour, the maximum vacuum was 20 mbar and the test duration was 2 hours minimum, 8 hours maximum.

Note: Devices intended for panel mounting are to be installed in an enclosure having at least the same IP rating, connected to the vacuum pump and exposed for eight hours.

[ ] Category 2: Enclosures is no pressure difference relative to the surrounding air is present. (For IP5X only)

The sample under test was exposed to the talcum powder atmosphere for a period of 8 hours.

RESULT

Talc Dust Test Conditions

Sample No.	~~[~~Model~~]~~ ~~[Cat.]~~ No.	Internal Enclosure Volume, dm^3	Flow Rate, dm^3/h	Test Duration, h	No. of Volume Changes During Test	Vacuum, ~~mbar,~~ kpa
2249970-1	IB9371-EHT	0.779693	0	8	0	-1.5

[X][For sample No. 2249970-1 ~~] [For sample Nos.]~~ talcum powder did not enter the enclosure (IP6X or IP5X rating).

Checking Item –
[**X**] Depend On Visual Checking; and
[ ] Depend On Product Functional Checking (Specified detail Information); [Additional Action was operated before Functional Checking –
[] Rotate Product;
[] Shake Product;
[] _____ Product;]
[ ] Depend On _____ Test Checking (Ex: Dielectric Voltage Withstanding Test, Specified detail Information)

[ ][For sample No._____**]** **[**For sample Nos._____**]** the talcum powder inside the enclosure did not contact live parts, did not deposit in the area of specified electrical spacings nor did it affect operation (IP5X rating).

Checking Item –
[ ] Depend On Visual Checking; and
[ ] Depend On Product Functional Checking (Specified detail Information); [Additional Action was operated before Functional Checking –
[] Rotate Product;
[] Shake Product;
[] _____ Product;]

A. the amount (was) (was not) sufficient to interfere with the correct operation of the equipment or impair safety

[ ] Depend On _____ Test Checking (Ex: Dielectric Voltage Withstanding Test, Specified detail Information)
[ ] Depend On product standard _____ which could accept the talcum powder could lead to tracking along the creepage distances.

[ ][For sample No._____**]** **[**For sample Nos._____**]** talcum powder entered the enclosure **[**and contacted live parts deposited in the area of specified electrical spacings or affected operation.**]**

Checking Item –
[ ] Depend On Visual Checking; and
[ ] Depend On Product Functional Checking (Specified detail Information); [Additional Action was operated before Functional Checking –
[] Rotate Product;
[] Shake Product;
[] _____ Product;]
[ ] Depend On _____ Test Checking (Ex: Dielectric Voltage Withstanding Test, Specified detail Information)

Clause 14 - Tests for protection against water indicated by the second characteristic numeral (IP1 thru 8) : 6 .

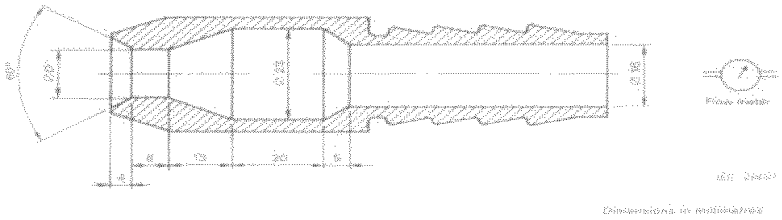
Date(s) of performance of tests..... :	2015-11-24 (Tests conducted by Robert Kuo)
Test Conditional:	
Temperature Relative humidity Air pressure	20.1 °C (15 °C to 35 °C) 64.2 % (25 % to 75 %) 1018.9 mbar (86 kPa to 106 kPa (860 mbar to 1 060 mbar))

Section 14.2.6 - WATER SPRAY TEST FOR ENCLOSURE DESIGNATION IPX6

METHOD

The enclosure was placed in its normal upright mounting position. The unit was subjected to a stream of water from a test nozzle as shown below (Reference Fig. 6 of EN 60529) having a 12.5 mm internal diameter, delivering 100 liters of water per minute ± 5 percent with water pressure at the nozzle adjusted to achieve the specified delivery rate. The core of the substantial stream of water measured approximately 120 mm in diameter at 2.5 m distance from the nozzle. The distance from nozzle to the tested enclosure surface was between 2.5 and 3 meters. The test duration was at least 1 minute per square meter of the electrical enclosure, but not less than 3 minutes. (The calculated surface area for the electrical enclosure was _____ square meters ± 10%.)

During the test the water temperature did not differ by more than 5°K from the temperature of the specimen (electrical enclosure) under test. If the water temperature was more than 5°K below the temperature of the specimen, a pressure balance was provided for the enclosure.



WATER DRIP TEST FOR ENCLOSURE DESIGNATION IPX6 (CON'T):

RESULTS

[X][For sample No.__2248201-1__] ~~[For sample Nos._____]~~ the water did not enter the enclosure.

Checking Item –
[X] Depend On Visual Checking; and
[ ] Depend On Product Functional Checking (Specified detail Information); [Additional Action was operated before Functional Checking –
[] Rotate Product;
[] Shake Product;
[] ____ Product;]

[ ][For sample No._____] [For sample Nos._____] Water did enter the enclosure and:

Checking Item –
[ ] Depend On Visual Checking;
A. (did) (did not) deposit on insulation parts where it could lead to tracking along the creepage distances
B. (did) (did not) reach live parts or windings not designed to operate when wet
C. (did) (did not) accumulate near the cable end or entry cable if any

and
[ ] Depend On Product Functional Checking (Specified detail Information); [Additional Action was operated before Functional Checking –
[] Rotate Product;
[] Shake Product;
[] ____ Product;]

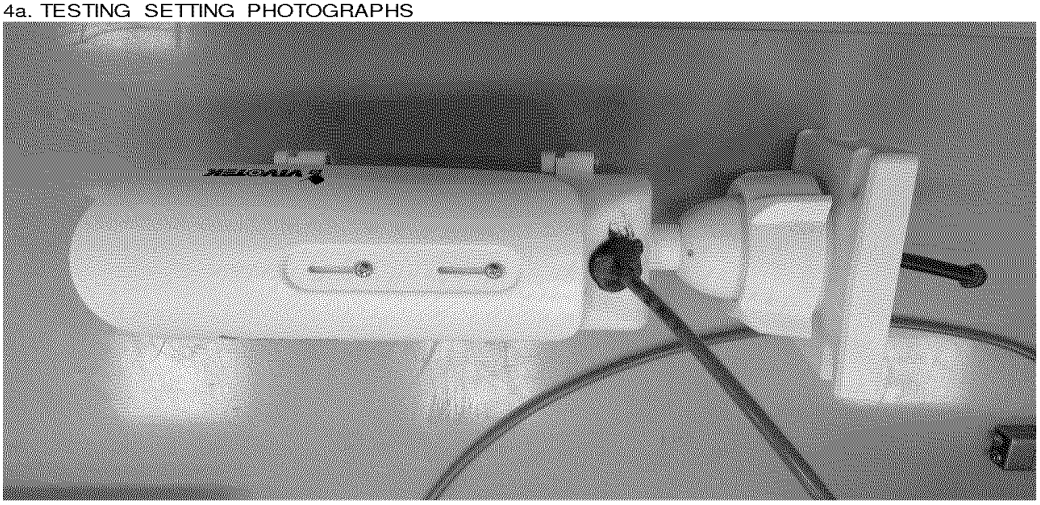
A. the amount (was) (was not) sufficient to interfere with the correct operation of the equipment or impair safety

[ ] Depend On _____ Test Checking (Ex: Dielectric Voltage Withstanding Test, Specified detail Information)

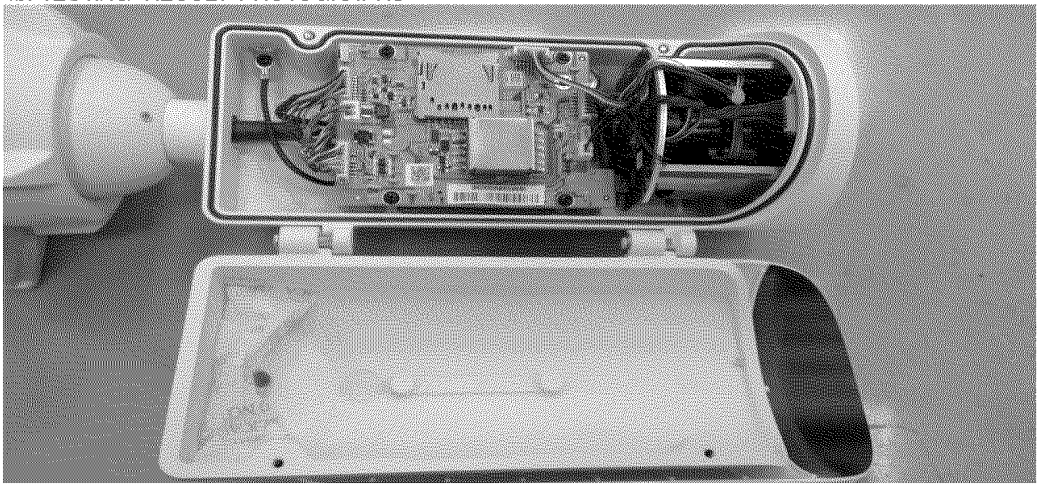
4. APPENDIX:

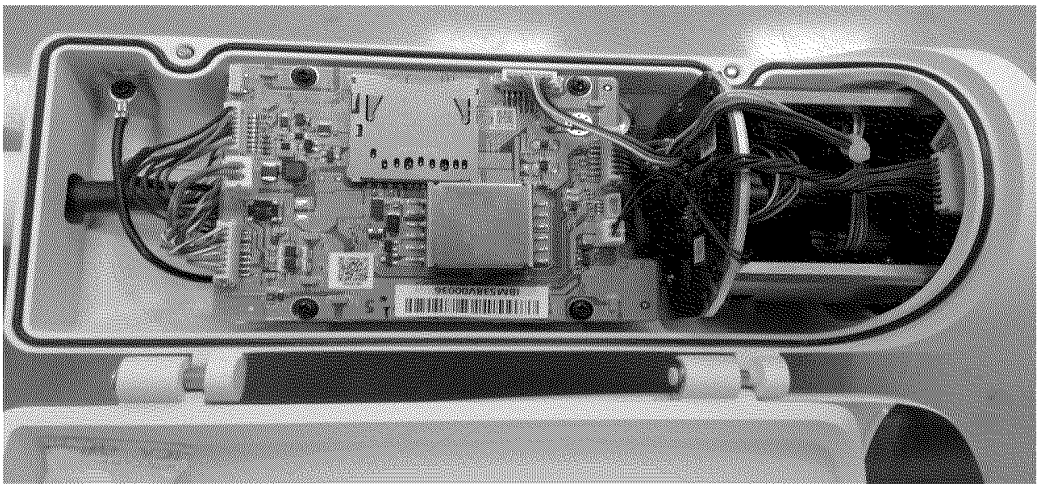
CLAUSE 13 TESTING RESULT PHOTOGRAPHS

4a. TESTING SETTING PHOTOGRAPHS



4b. TESTING RESULT PHOTOGRAPHS

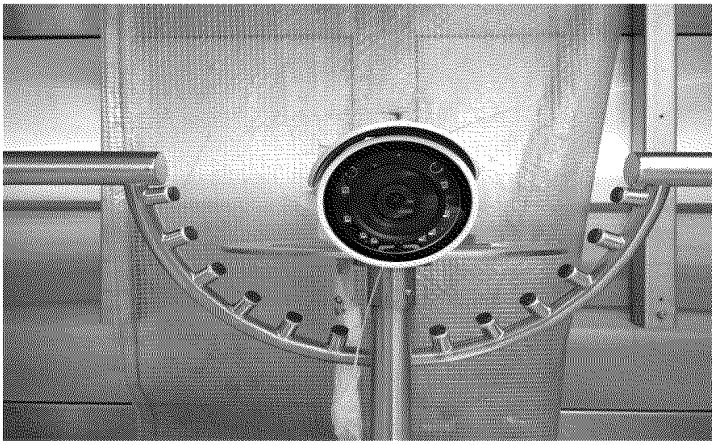




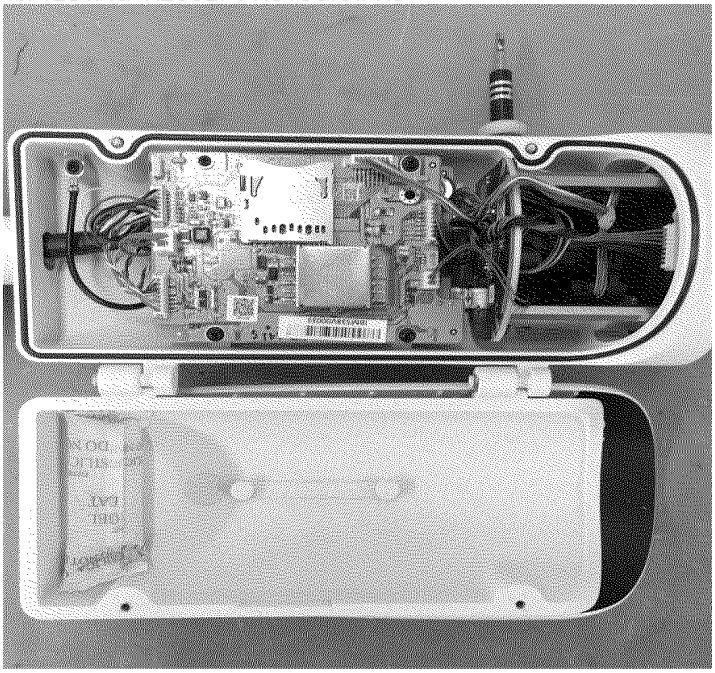
Test Report Project No. OFF-4787107370-A-1

CLAUSE 14 TESTING RESULT PHOTOGRAPHS

4a. TESTING SETTING PHOTOGRAPHS



4b. TESTING RESULT PHOTOGRAPHS



Test Record No. 1

- The manufacturer submitted representative production samples of Network Camera, Models IB9371-EHT, IB9371-HT.

- Unless otherwise indicated below, all tests were performed by Unless otherwise indicated below, all tests were performed by PERFECTLINK INTERNATIONAL CORP, located in 4TH FL 16-1 SEC 2 ZHONGYANG S RD,BEITOU DISTRICT, TAIPEI, and witnessed by a member of the UL staff under the WTDP. Except Part 22 Test was conducted in-house UL TPI.

- Unless otherwise indicated, all tests were conducted on Models IB9371-HT.

- Tests performed on Model IB9371-HT was considered to be representative of Model IB9371-EHT.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Input: Single-Phase (1.6.2)	
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	
Limited Power Source Measurements (2.5)	
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	
Steady Force (4.2.1 - 4.2.4)	
Impact (4.2.5, 4.2.1, Part 22 10.2)	
Stress Relief (4.2.7, 4.2.1)	
Loading - Wall and Ceiling Mounted Equipment (4.2.10)	
Heating (4.5.1, 1.4.12, 1.4.13)	
Component Failure (5.3.1, 5.3.4, 5.3.7)	
Abnormal Operation (5.3.1 - 5.3.9)	
Overload of Operator Accessible Connector (5.3.7)	
Water Spray (Part 22 9.1, Annex B)	

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 tests were waived:

Test	Rationale for Waiving
Tensile Strength and Elongation (Part 22 8.5, Annex D.2)	Refer to E324690-A63

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-01	CRD
Datasheet	2-02	Datasheet
Datasheet	2-03	Datasheet (Part 22)