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

Date: 2015/10/28  
 Subscriber: 100504413  
 PartySite: 125336  
 File No: E324690  
 Project No: 4787098375  
 PD No: 15048659  
 Type: R  
 PO Number: P150828-03

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

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

**Issue**

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
	X2		Index Page(s)	
2015/10/26	X2	A81	Cert of Compliance	
2015/10/26	X2	A81	Add New Proc/Report Sect	

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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

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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	
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Network Camera	FE8171V	E324690-A15-UL	
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Network Camera	CIVS-IPC-3421V	E324690-A33-UL	
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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	
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Network Camera	CIVS-IPC-3050, MD8531H-FXX, MD8531H-FXX(W)(X= 0-9, a-z, A-Z, "-", "/" or blank for marketing purpose)	E324690-A58-UL	

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Network Camera	FE8181, FE8181V, FE8191 ,FE8391-V, CIVS-IPC-7070	E324690-A61-UL	
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IP 360 Dome Camera (5M)	V6050FDxxxxxxx, V6050FDWxxxxxxx (x =0-9, a-z, space or "-" for marketing purpose).	E324690-A77-UL	
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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	

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20151028-E324690  
**Report Reference** E324690-A81-UL  
**Issue Date** 2015-OCTOBER-28

**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  
Network Camera  
FD9171-HT, FD9371-HTV, FD9371-EHTV

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

**Standard(s) for Safety:** UL 60950-1 and 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](http://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

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	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)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	NWQG, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
<b>Product:</b>	Network Camera
<b>Model:</b>	FD9171-HT, FD9371-HTV, FD9371-EHTV
<b>Rating:</b>	(Optional) For Model FD9371-EHTV: For Terminal block: (1) 12Vdc, 1.75A For PoE: (2) 36-57Vdc, 0.7A-0.44A  For Models FD9171-HT, FD9371-HTV: For Terminal block: (1) 12Vdc, 1.0A For PoE: (2) 36-57Vdc, 0.4A-0.28A
<b>Applicant Name and Address:</b>	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: Lily Su

Reviewed by: Josh 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, consists of electronic components mounted on PWB and is equipped with a progressive scan CMOS sensor then housed within plastic/metal enclosure, also provides RJ45, and Terminal block, which is used to connect external input/output devices. The EUT installs to the wall or ceiling. The power source can choose to use POE or external power adapter.

**Model Differences**

1. Model FD9171-HT is similar to models FD9371-HTV and FD9371-EHTV except for enclosure construction, IP protection and the model designation.
2. Model FD9371-HTV is similar to model FD9371-EHTV except for heater and the model designation.
3. Models FD9371-HTV, FD9371-EHTV are for outdoor use with metal enclosure.
4. Model FD9171-HT is for indoor use with plastic enclosure.

**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 for models FD9371-HTV, FD9371-EHTV
- Altitude of operation (m) : Up to 2000
- Altitude of test laboratory (m) : Below 2000
- Mass of equipment (kg) : FD9371-HTV, FD9371-EHTV: 0.93 kg max.; FD9171-HT: 0.51 kg max.
- The product was submitted and evaluated for use at the maximum ambient temperature (T<sub>ma</sub>) 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 for models FD9371-HTV, FD9371-EHTV
- The outdoor equipment/enclosure was evaluated for use in an ambient range of: -50°C to 50°C for models FD9371-HTV, FD9371-EHTV
- 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, 0.7A-0.44A; 12Vdc, 1.75A (for model FD9371-EHTV); rated PoE 36-57Vdc, 0.4A-0.28A; 12Vdc, 1.0A (for models FD9171-HT, FD9371-HTV).
- 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	<p>Instruction/Installation/Safety Manual shall be shipped with unit with following statements:</p> <p>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, 0.7A-0.44A; 12Vdc, 1.75A min. (for model FD9371-EHTV); rated PoE 36-57Vdc, 0.4A-0.28A; 12Vdc, 1.0A min. (for models FD9171-HT, FD9371-HTV), if need further assistance with purchasing the DC power adapter please contact VIVOTEK for further information".</p>

	"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 and 6-02.

**Special Instructions to UL Representative**

The Field Representative should verify the Tma (maximum ambient temperature) is minimum 50 degree C, rated 12Vdc, 1.75A (for model FD9371-EHTV); rated 12Vdc, 1.0A (for models FD9171-HT, FD9371-HTV), 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
-	-	-	-	-	-

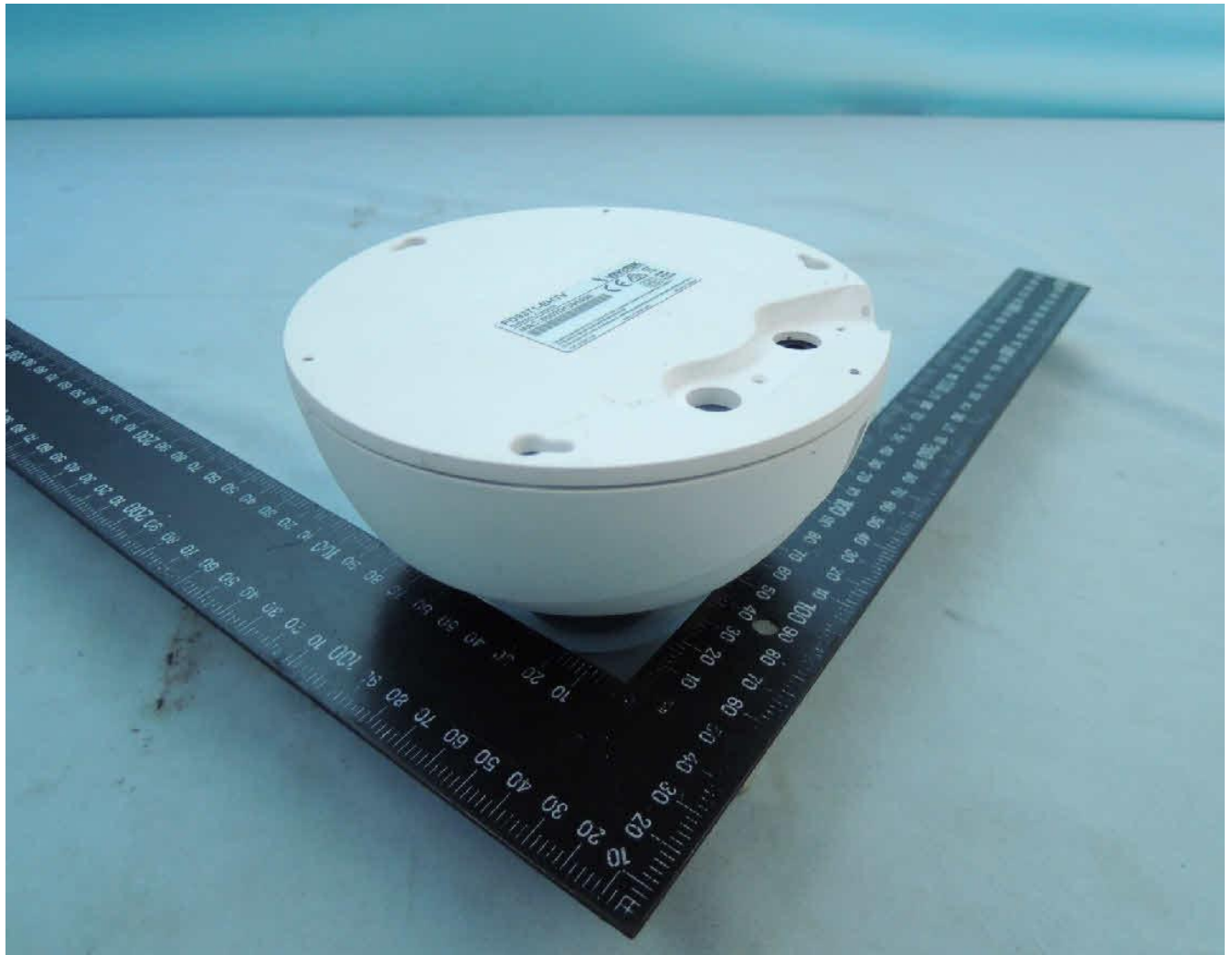
1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
01. Power Adapter (optional)	Various	Various	O/P: 12Vdc, 1.75A minimum. Tma = 50 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.	QQGQ	UL	
02. Label	Various	Various	55 degree C if max. Surface temperature is not specified.	PGDQ2, PGJI2	UL	
03. Metal enclosure (for models FD9371-HTV, FD9371-EHTV)	--	--	Aluminum, 3.0 mm thickness minimum. Overall see Enclosure/ Diagrams ID 4-01 for details.	--	--	4-01
04. Plastic enclosure (for model FD9171-HT)	SABIC INNOVATIVE PLASTICS B V	940(f1)	V-0 min., 2.5 mm thickness min., , 80 degree C min., overall see Enclosure/ Diagrams ID 4-02 for details.	QMFZ2	UL	4-02
05. Lens cover	TEIJIN LIMITED RESIN AND PLASTIC	L-1225Z(#1)(f1)	HB min., 2.5mm min., 115 degree C min., outdoor used. Overall see Enclosure/ Diagrams ID 4-07 for details.	QMFZ2	UL	4-07
06. Mounting Screws	--	--	M3*25 type. Three provided.	--	--	
07. Internal Plastic Part/Materials	Various	Various	Rated HB minimum.	QMFZ2	UL	
08. PWB	--	--	V-1 minimum, 105 degree C minimum	ZPMV2	UL	
09. Electric double layer capacitor (BT2)	ELNA Co. LTD.	DHL-5R5D224T	Rated 5.5Vdc, 0.22F.	--	--	
10.O-ring (Between plastic lens cover and metal enclosure)	MOMENTIVE PERFORMANCE MATERIALS JAPAN L L C	TSE2186U(aq)	Silicone rubber. (Vivotek part No. 612000400G). Overall see Enclosure/	QMFZ2	UL	4-03

(for models FD9371-HTV, FD9371-EHTV)			Diagrams ID 4-03 for details.			
11. O-ring (Between top enclosure and bottom enclosure) (for models FD9371-HTV, FD9371-EHTV)	MOMENTIVE PERFORMANCE MATERIALS JAPAN L L C	TSE2186U(aq)	Silicone rubber. (Vivotek part No. 612043700G). Overall see Enclosure/ Diagrams ID 4-04 for details.	QMFZ2	UL	4-04
12. O-ring for Cable Glands (for Hole of LAN cable) (for models FD9371-HTV, FD9371-EHTV)	AVC Industrial Corp.	EP06350P(AVC)	EPDM rubber or . (Vivotek part No. 660013110G and Cat No. MG16A-06B-ST- XABCF). Overall see Enclosure/ Diagrams ID 4-05 for details.	JMLU2	UL	4-05
13. Hole plug (for Hole of General I/O terminal block) (for models FD9371-HTV, FD9371-EHTV)	MOMENTIVE PERFORMANCE MATERIALS JAPAN L L C	TSE2186U(aq)	Silicone rubber. (Vivotek part No. 612041300G). Overall see Enclosure/ Diagrams ID 4-06 for details.	QMFZ2	UL	4-06
14. Interconnecting Cable (Optional)	Various	Various	Maximum length 3.05 m. FEP, PTFE, PVC, TFE, neoprene, polyimide or rated VW-1 or FT- 1. Minimum 80 degree C. Minimum 30 V.	AVLV2 or ZPFW2	UL	
14a. Interconnecting Cable (Optional) (alternate)	Various	Various	Maximum 3.05 m long, type CMP, CMR, CMG, CM, CMX, CMUC, or CMH.	DUZX or ZPFW2 or DUXR/2	UL	
15. Wiring, internal secondary SELV circuits	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1 or FT-1, min 30V, 60 degree C	AVLV2	UL	
16. Connectors and Receptacles (secondary SELV circuits)	Various	Various	Metal/plastics, Copper alloy pins housed in bodies of plastic rated HB min.	DUXR2, RTRT2, ECBT2, QMFZ2	UL	

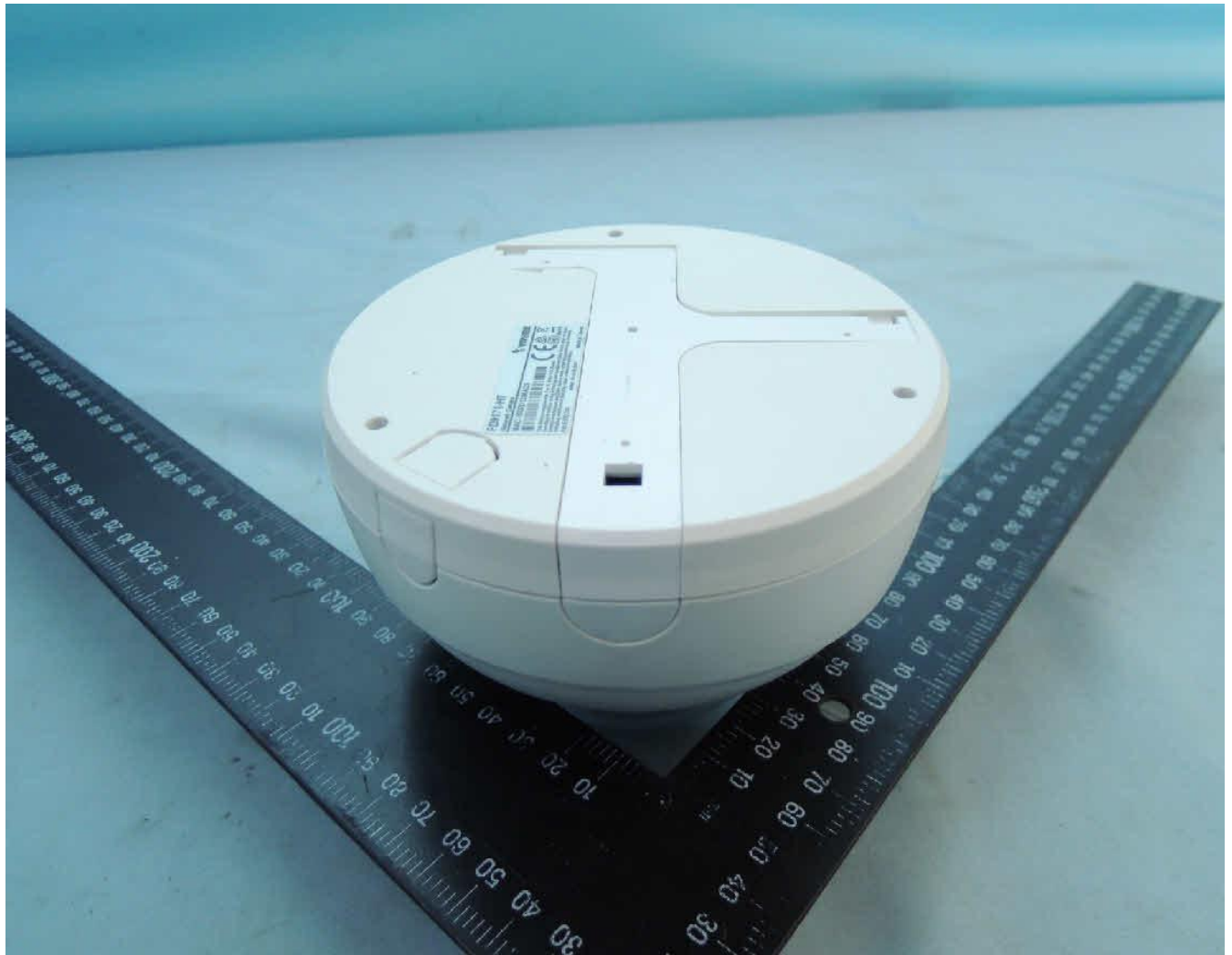
## Enclosures

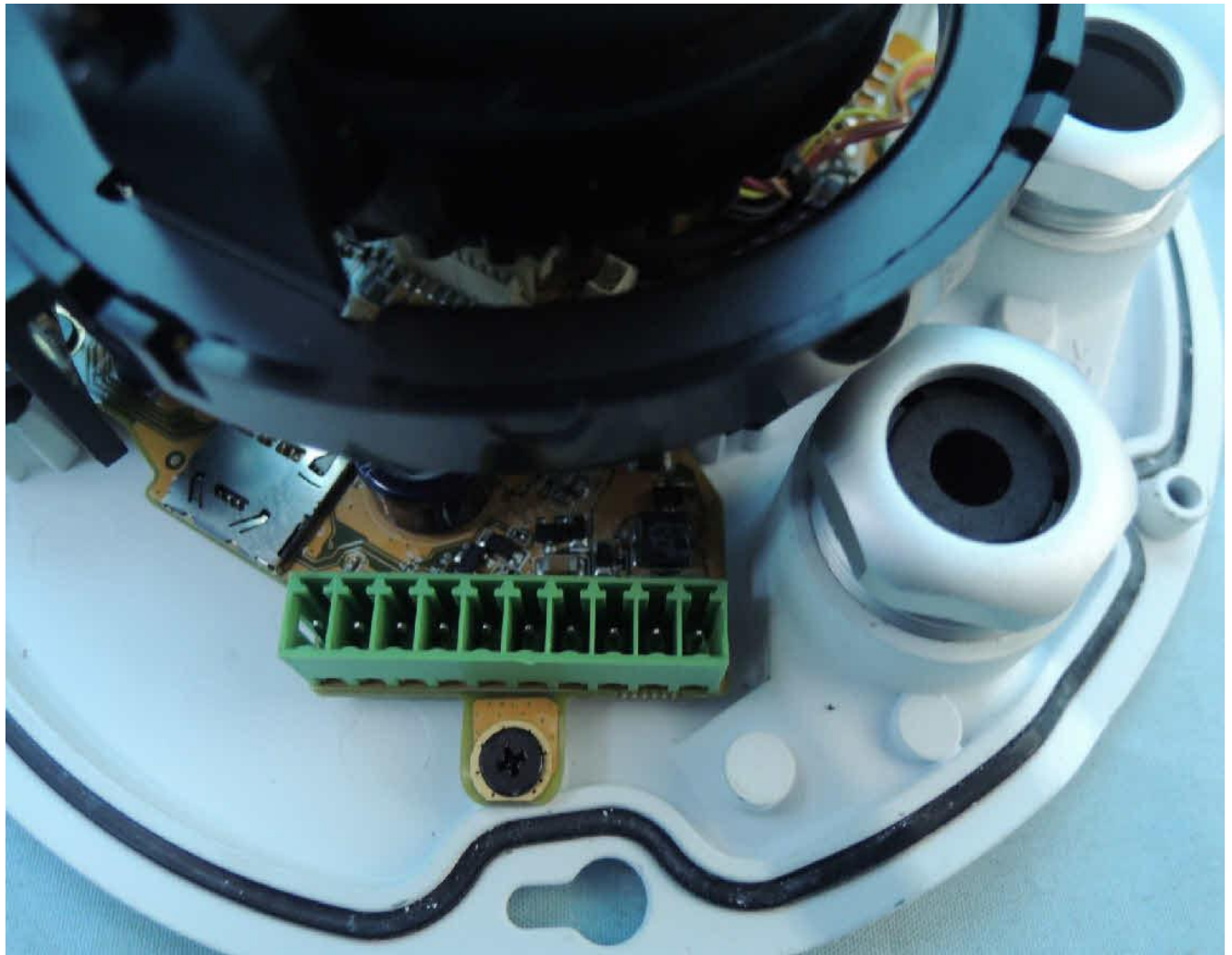
<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
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Manuals	6-02	Manual (for indoor, Model FD9171-HT)
Miscellaneous	7-01	UL 60950-22 TRF

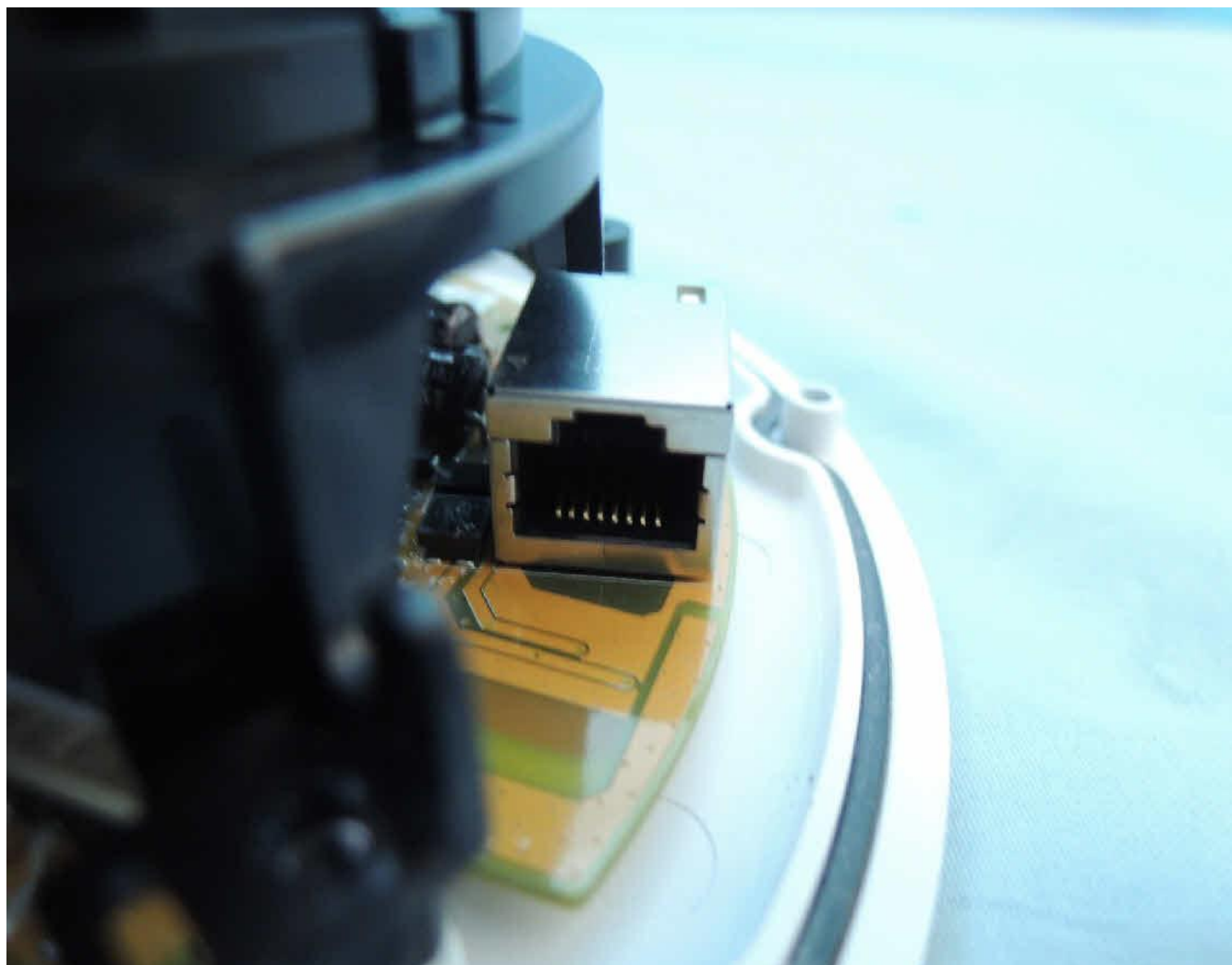




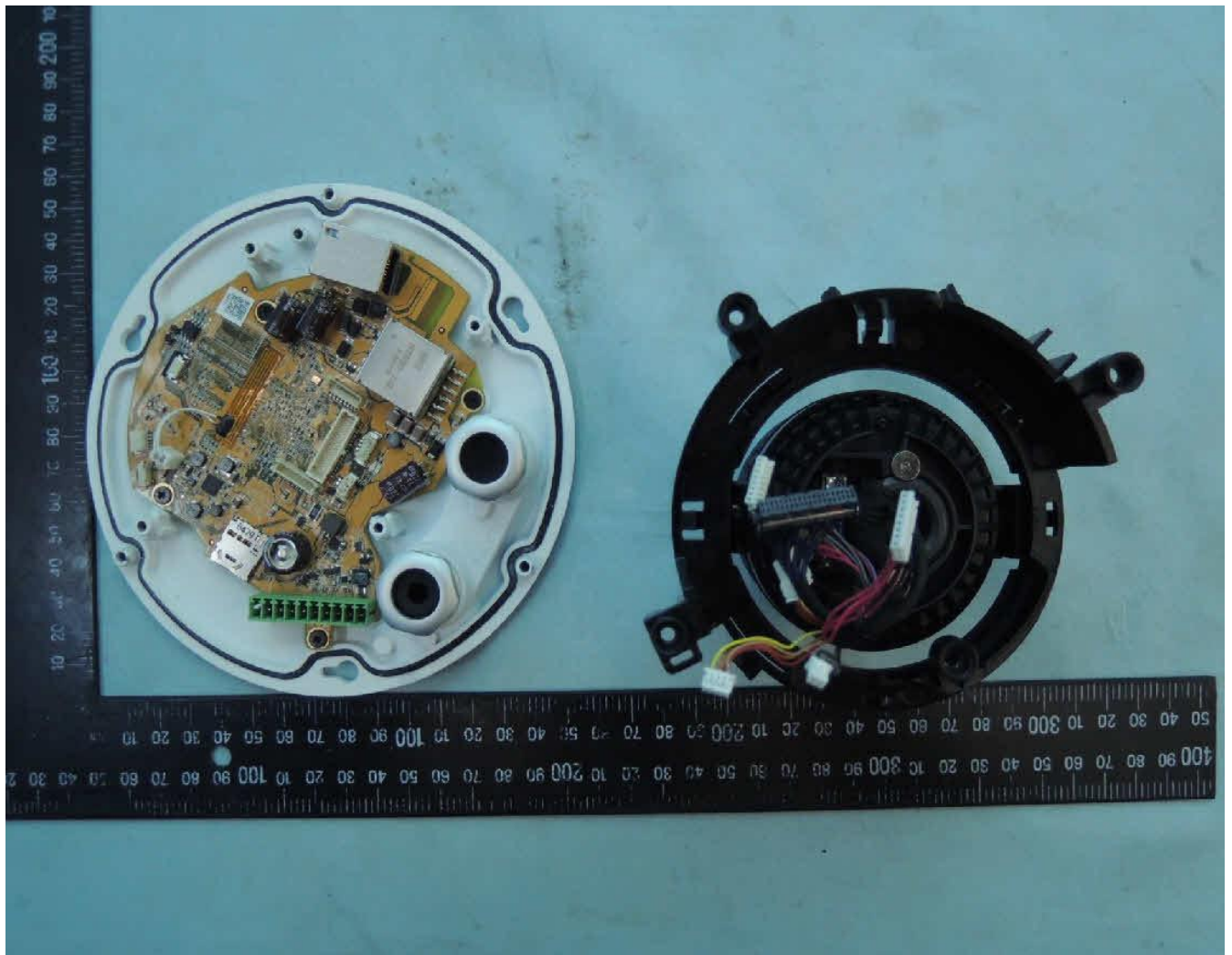


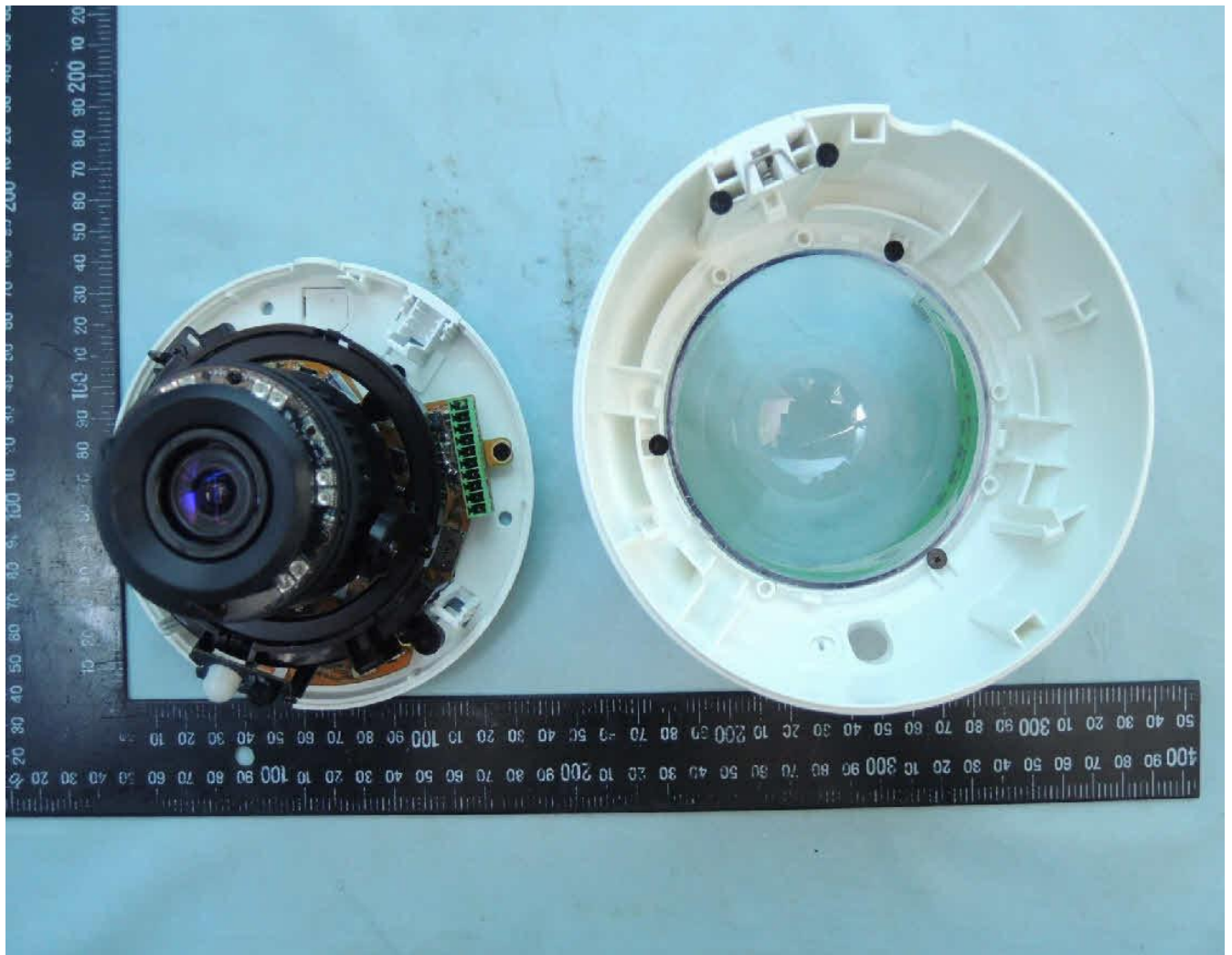


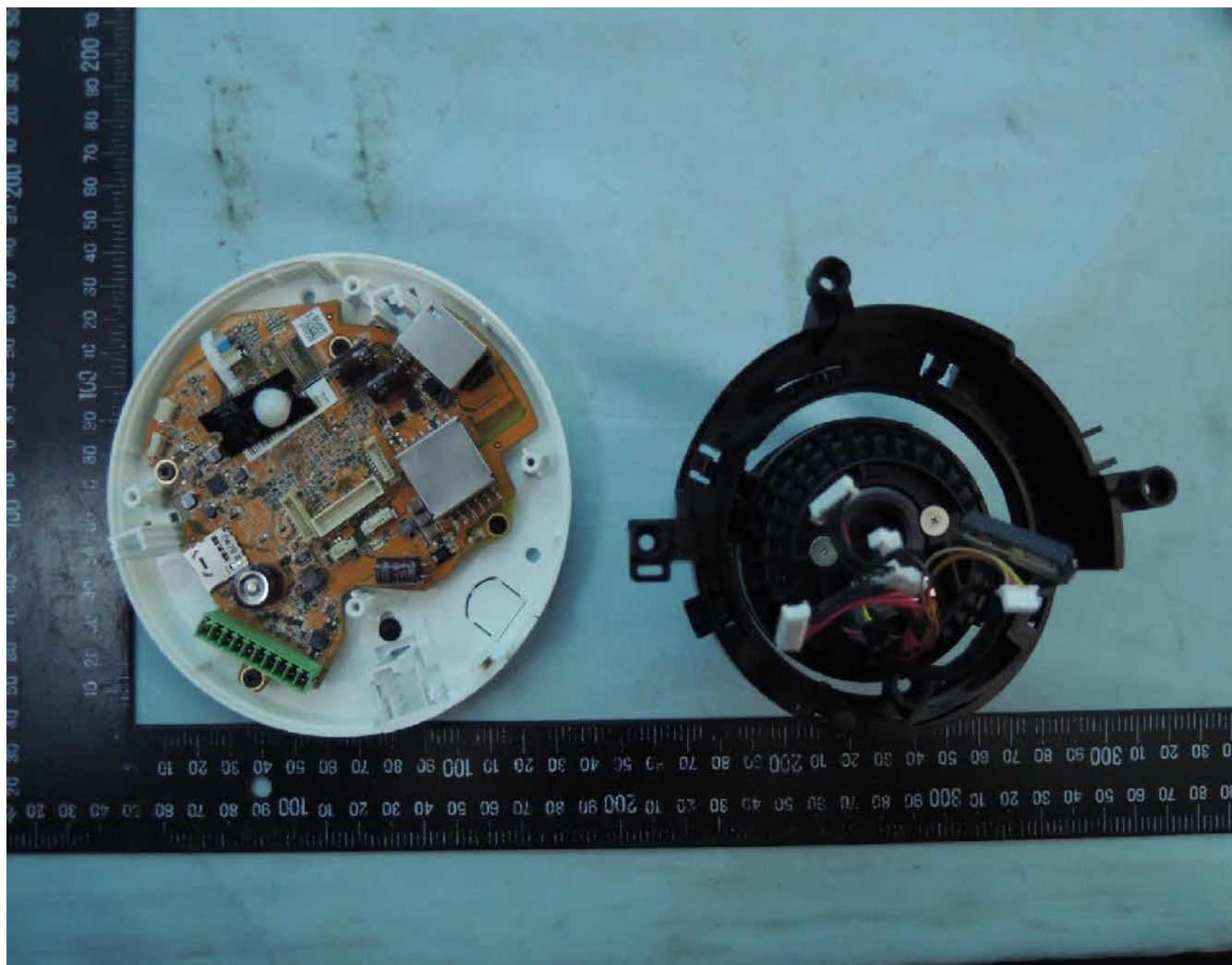






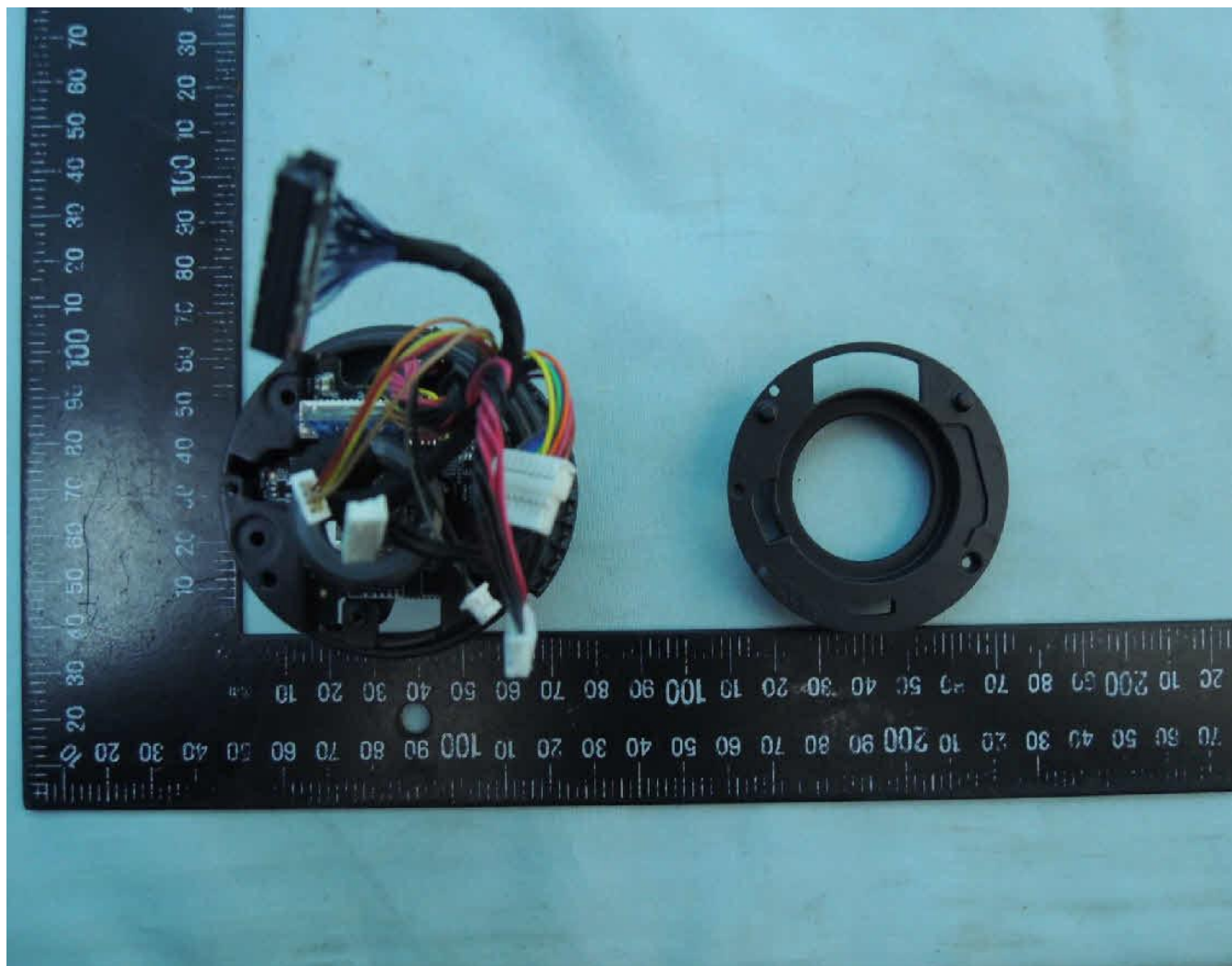


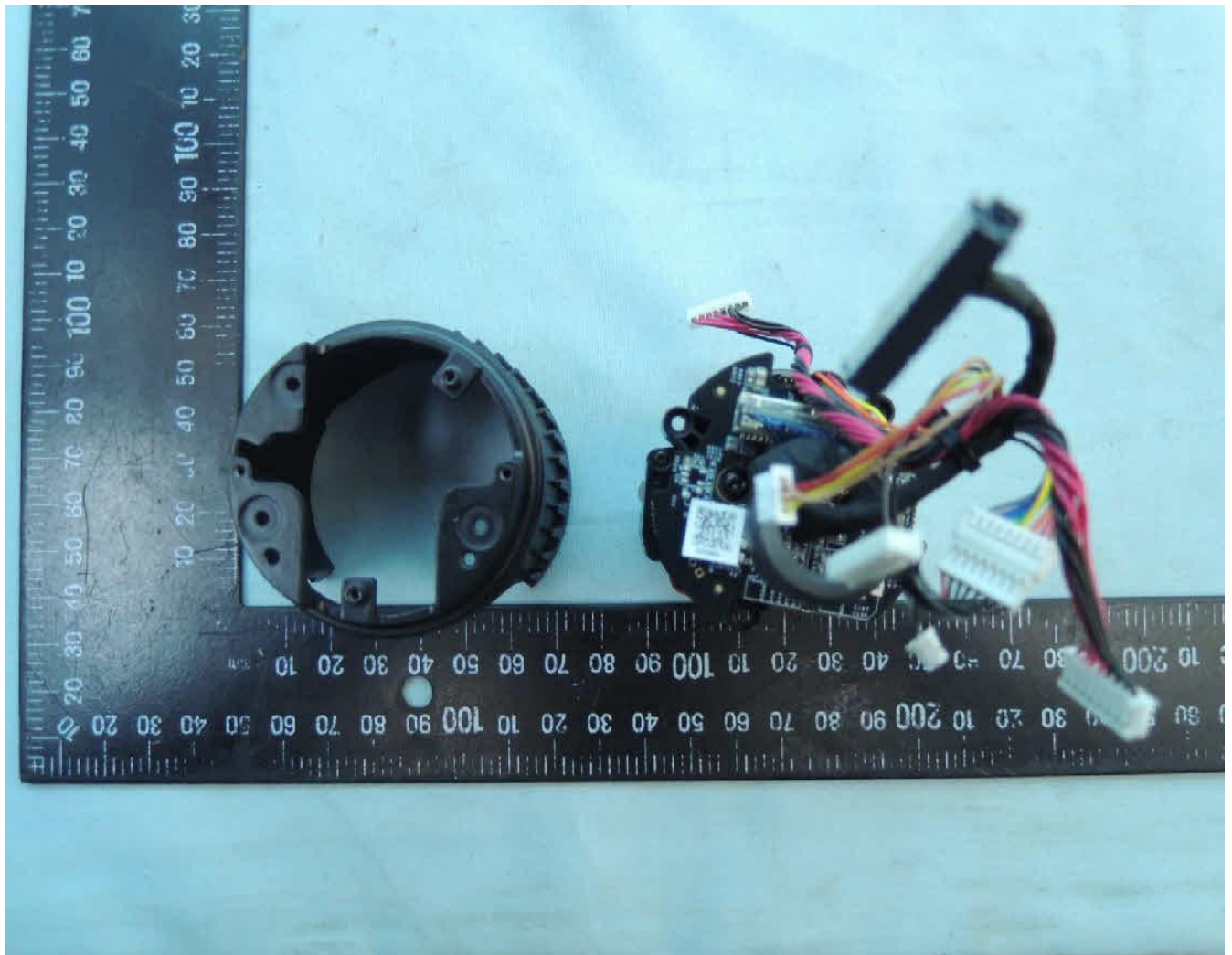


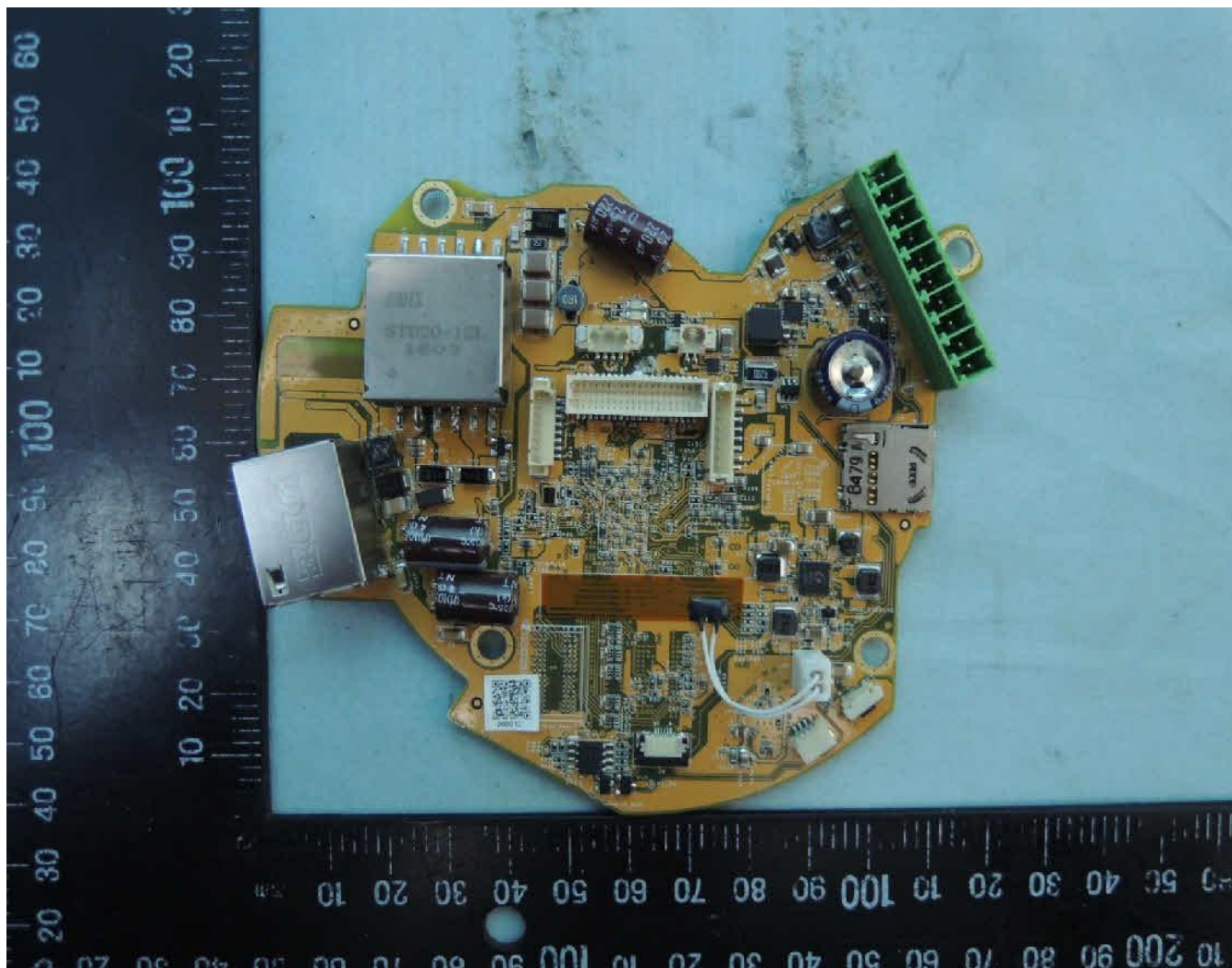


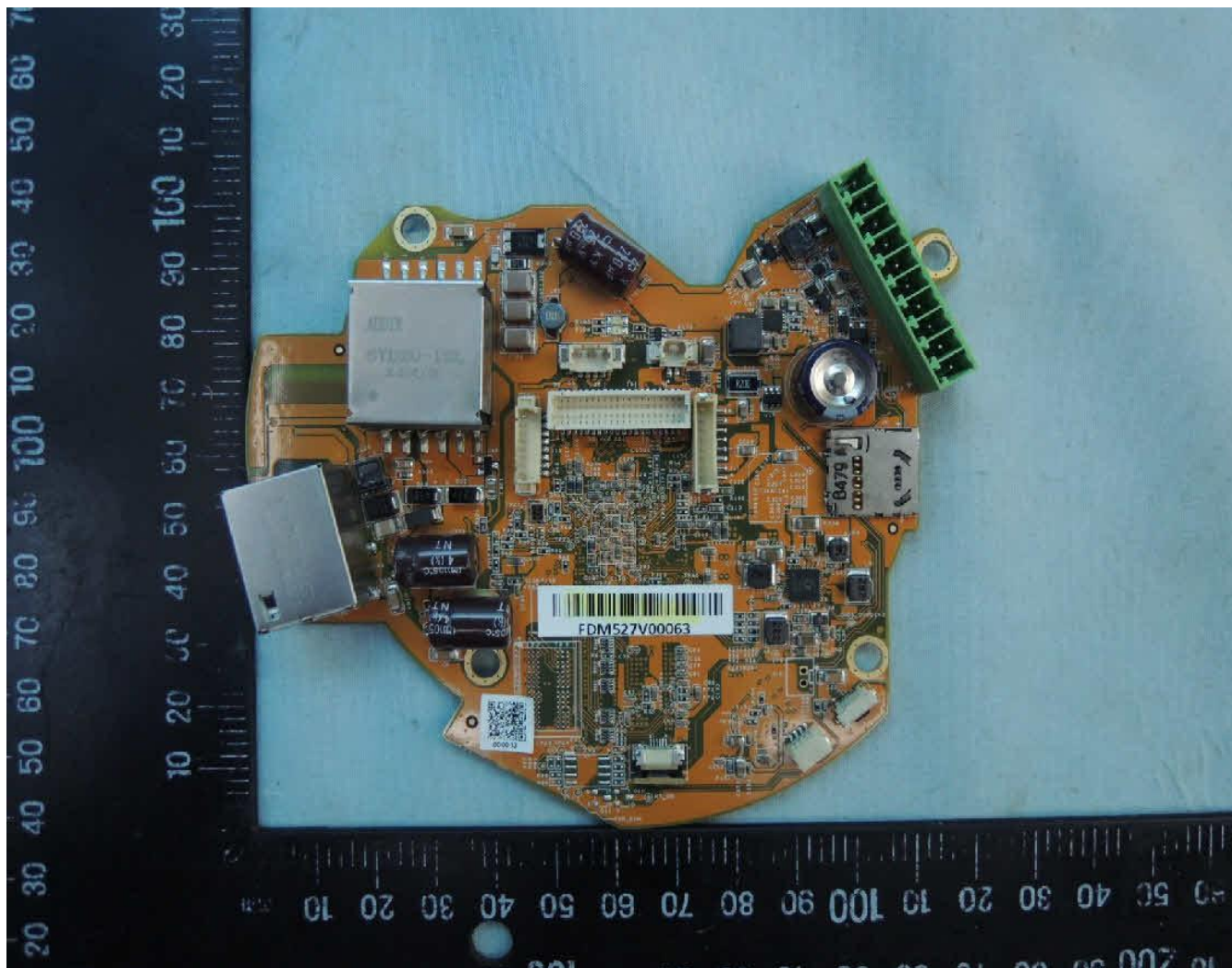


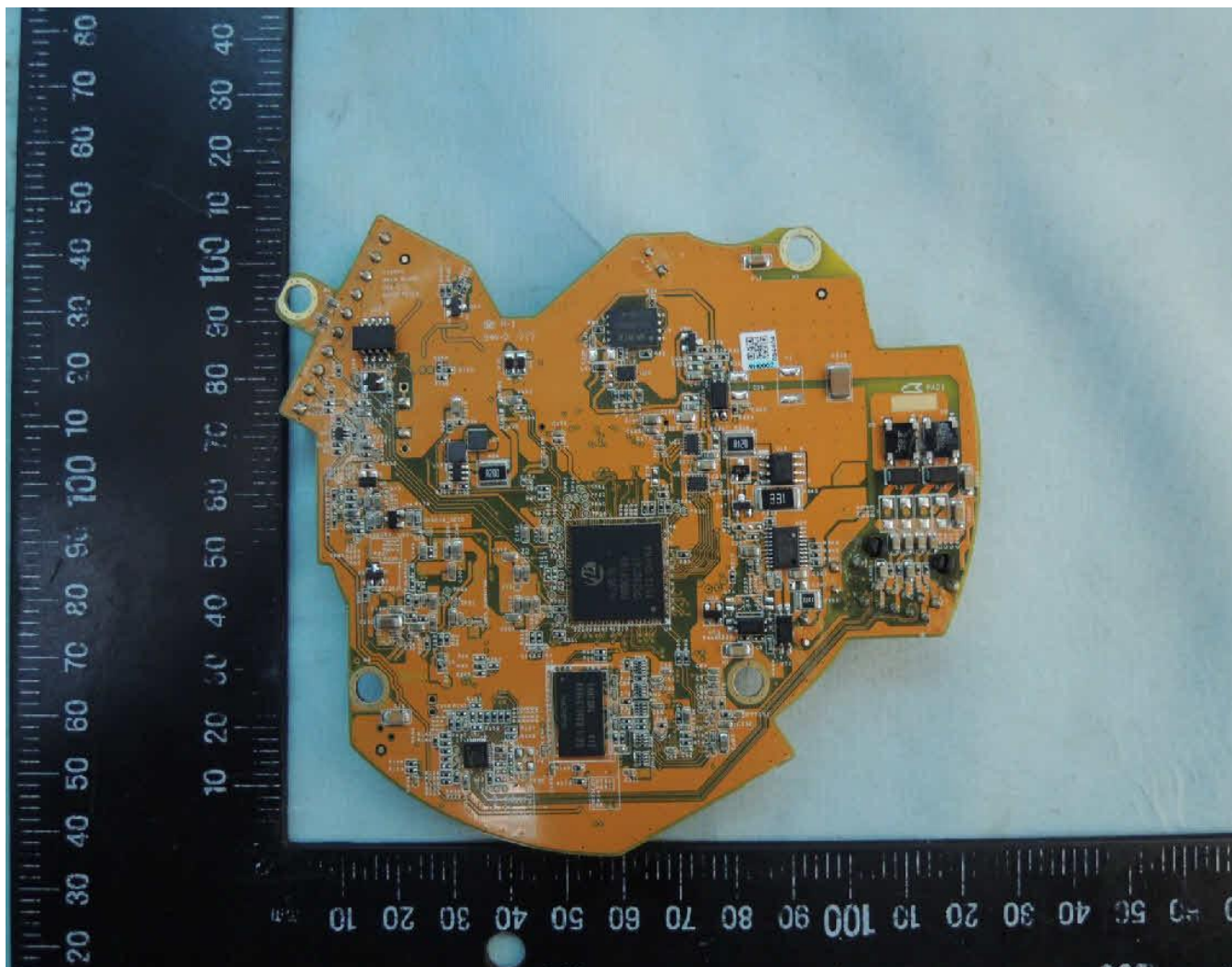


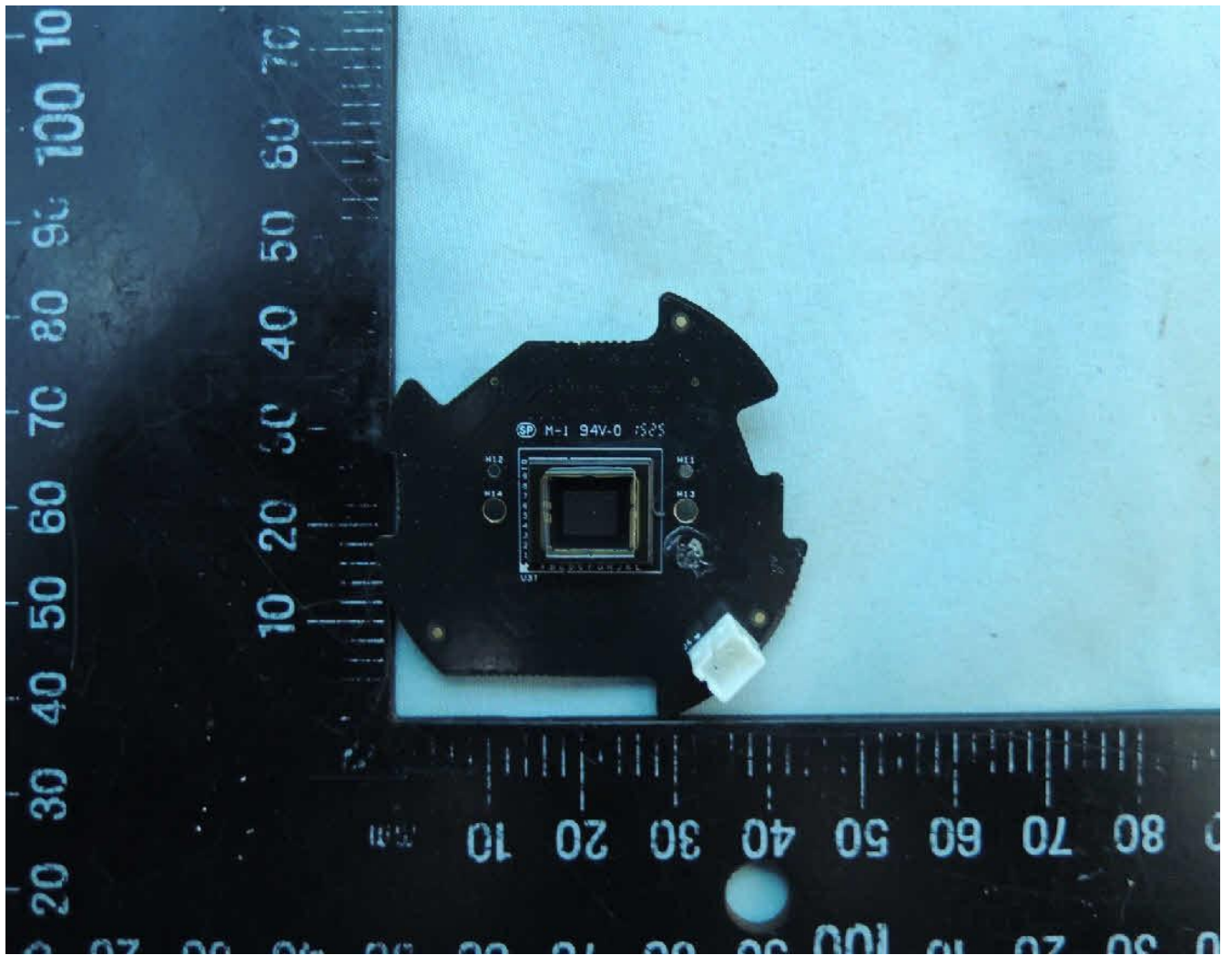




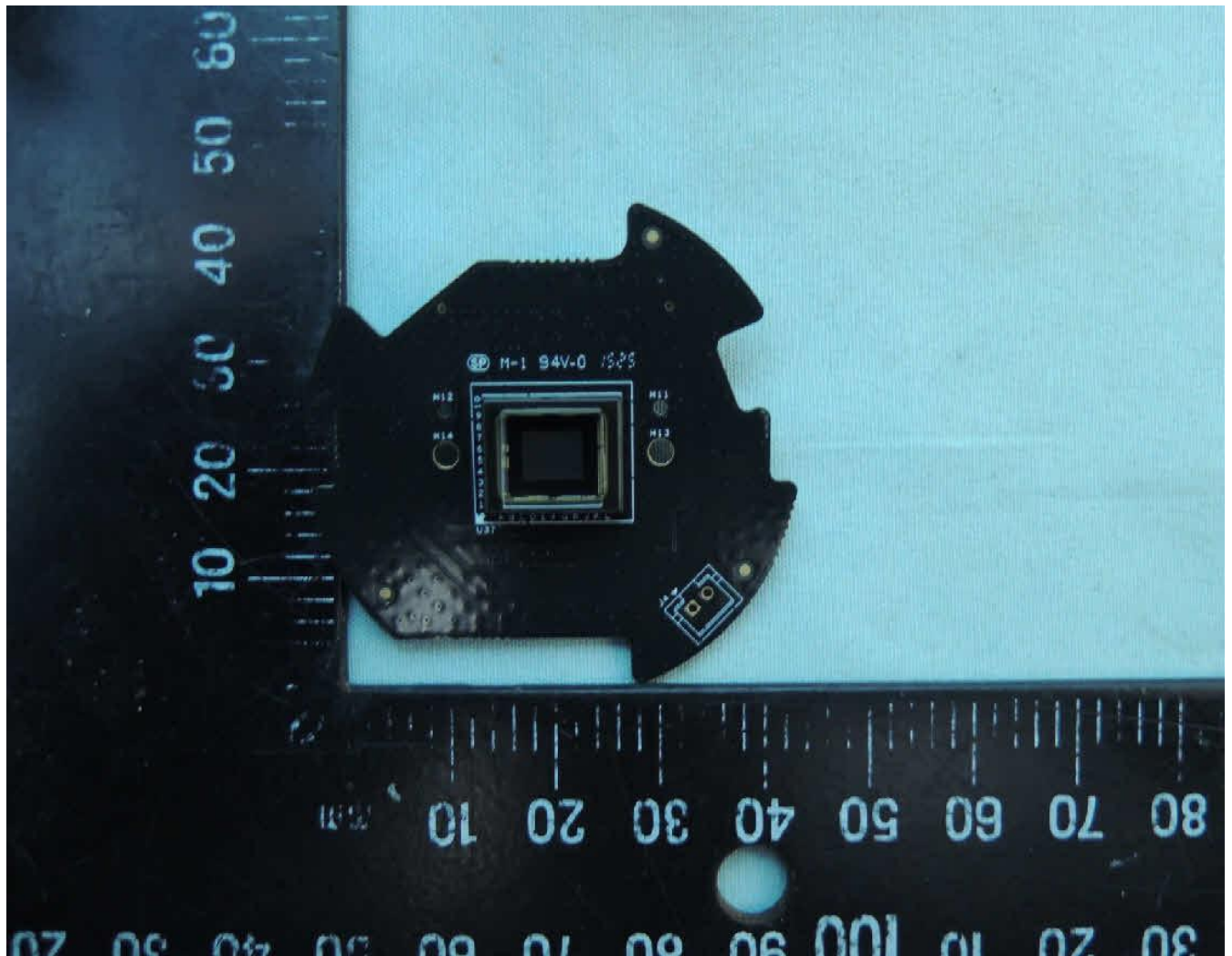


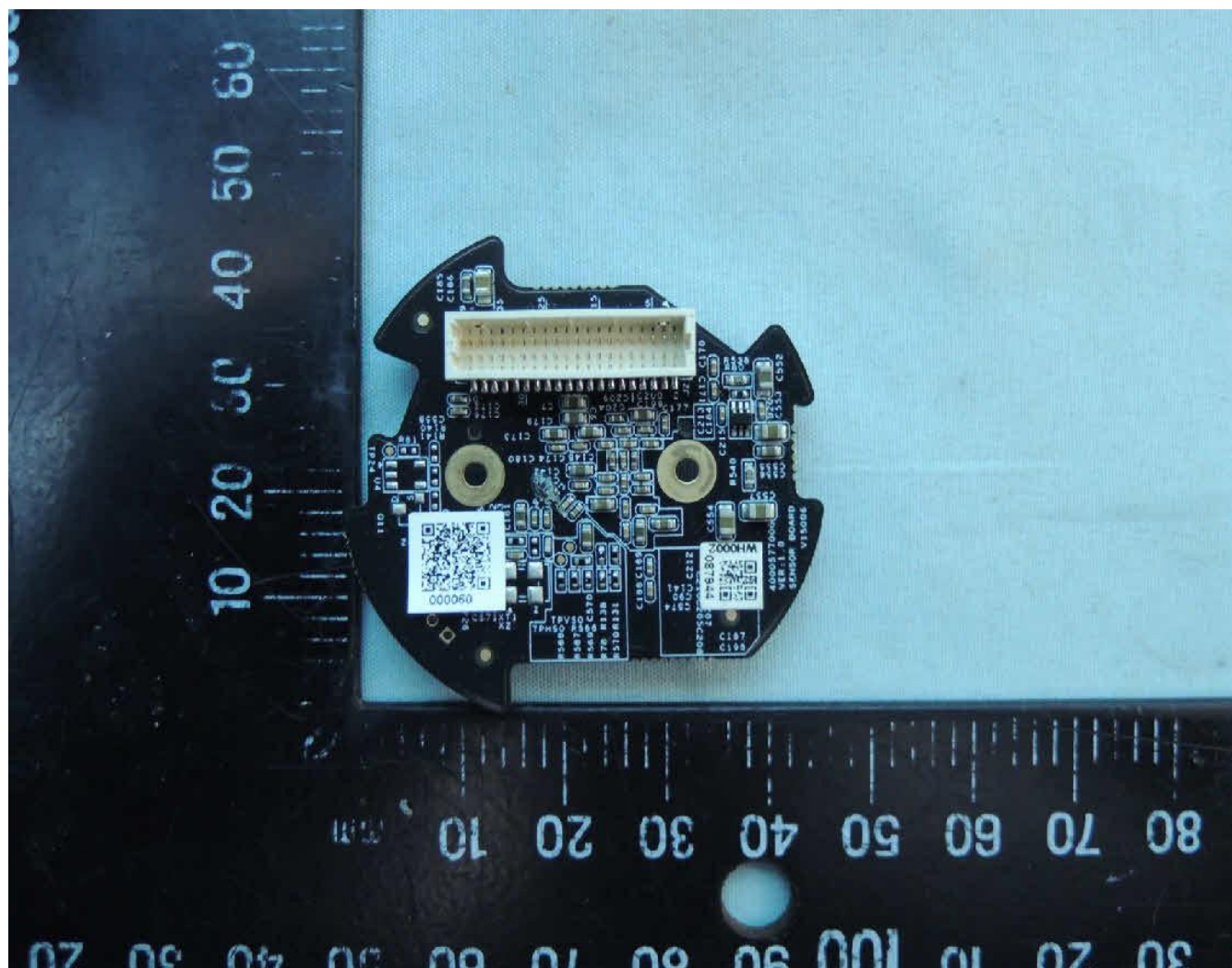




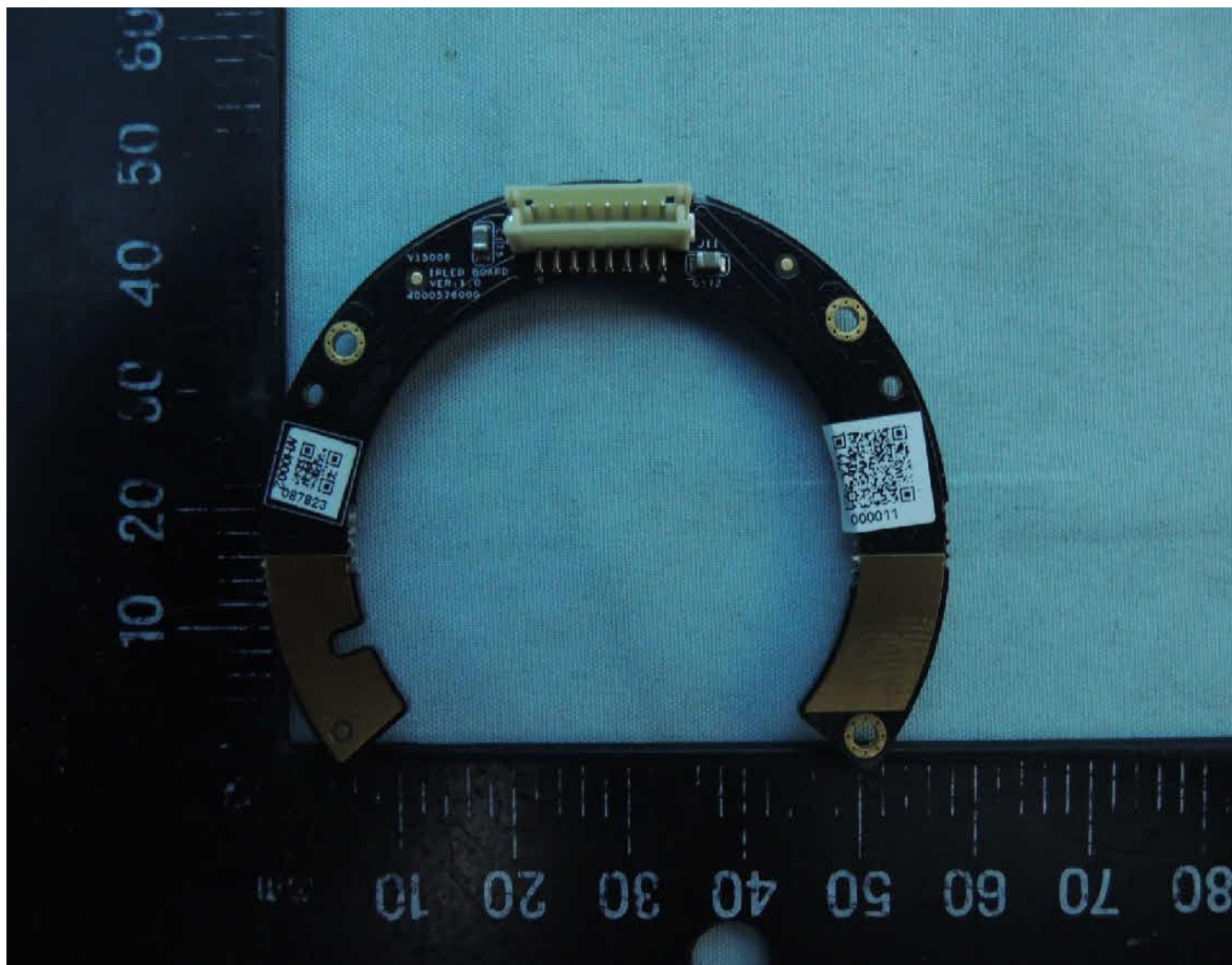


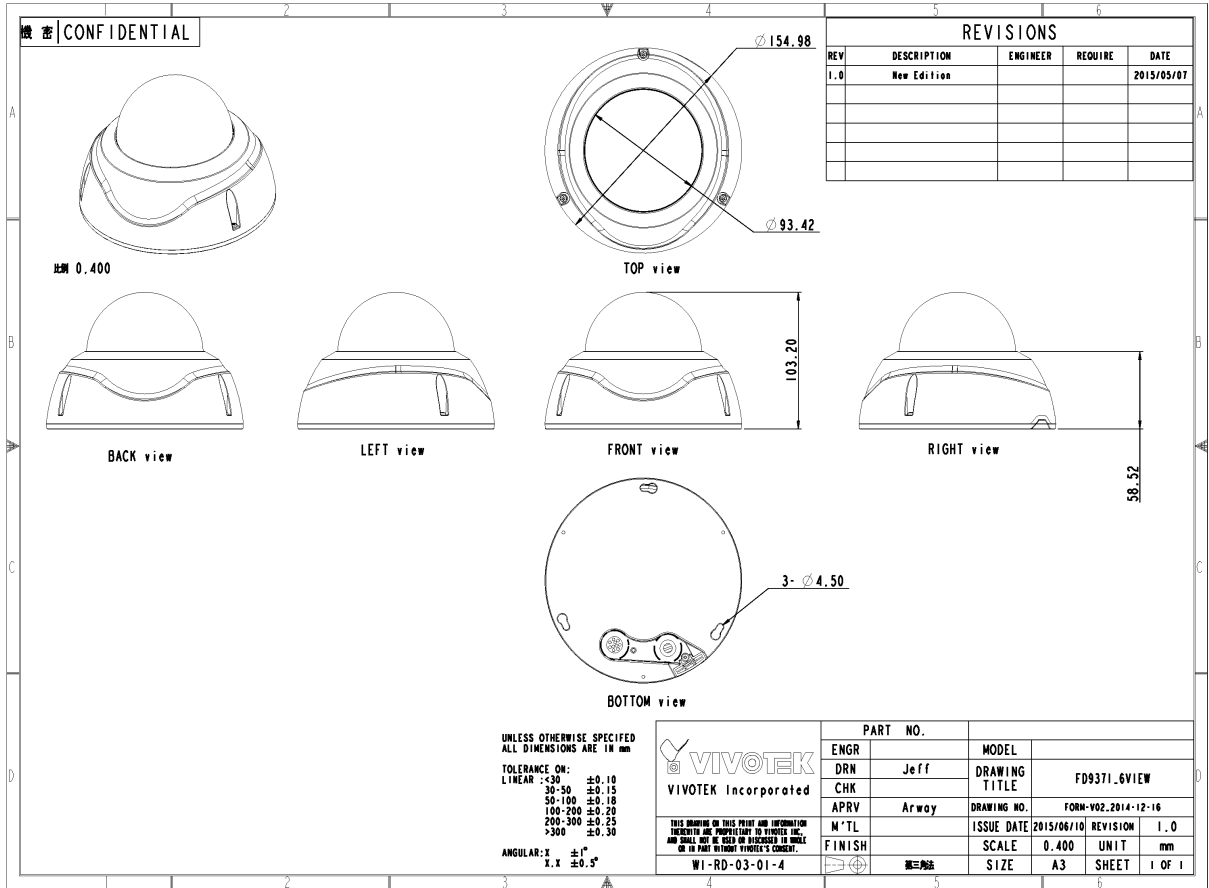


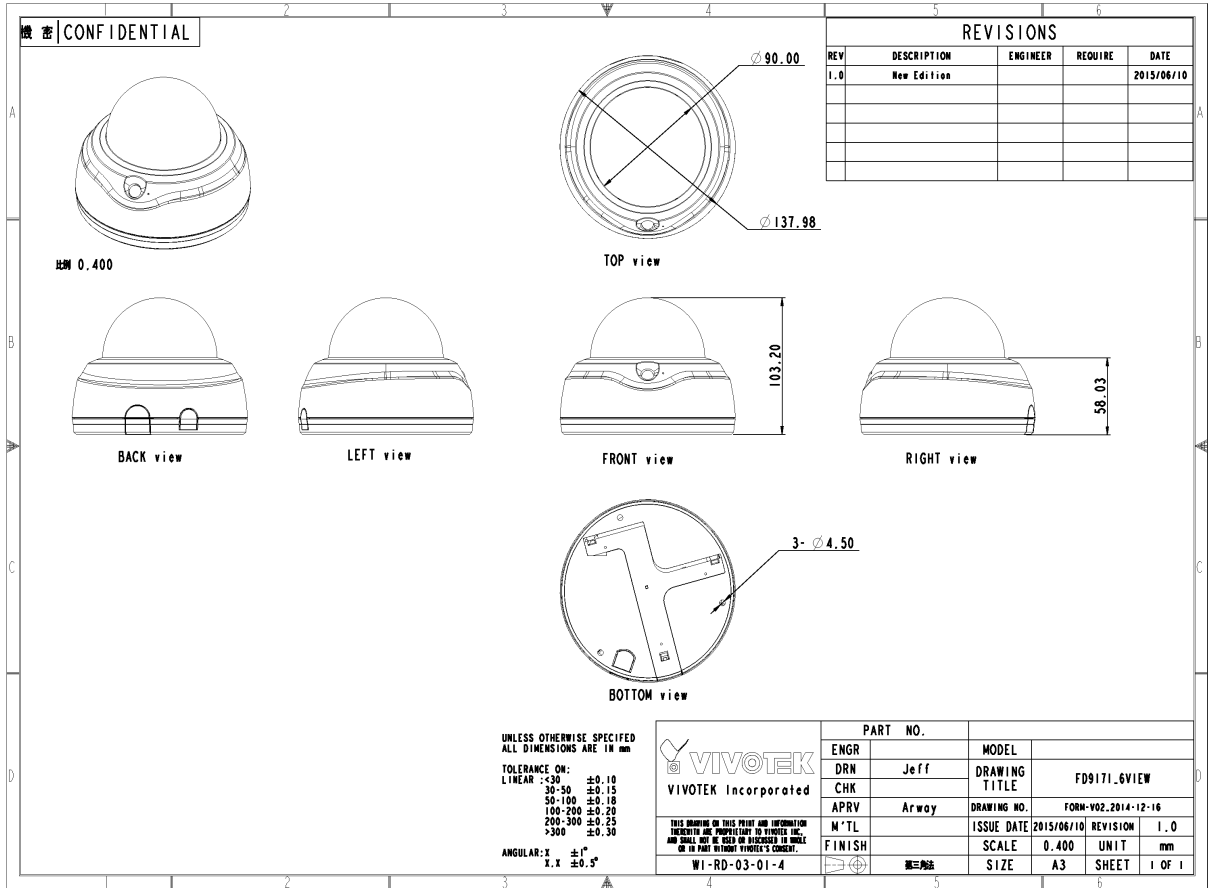












機密 CONFIDENTIAL

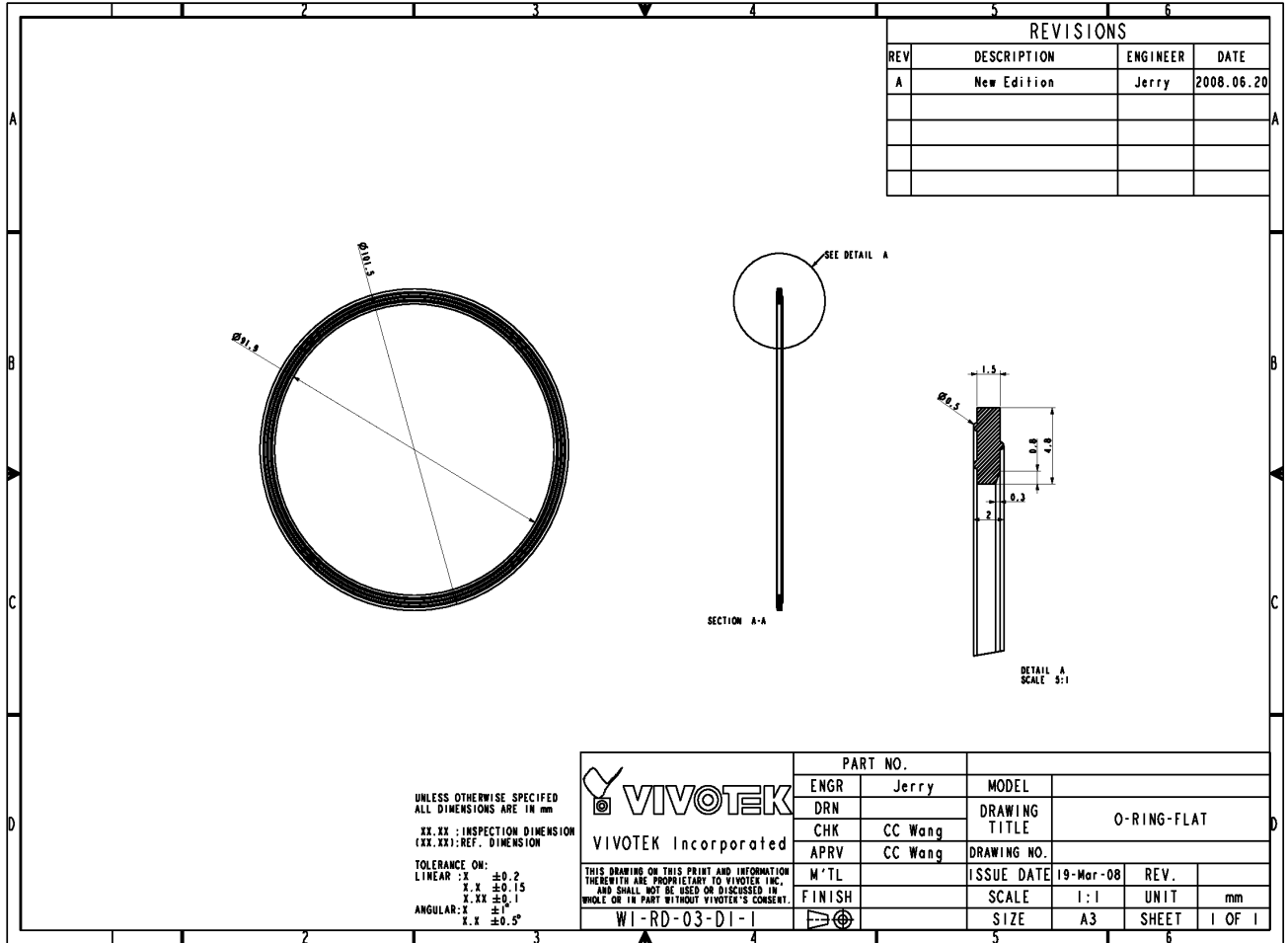
REVISIONS				
REV	DESCRIPTION	ENGINEER	REQUIRE	DATE
1.0	New Edition			2015/06/10

比例 0.400

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS ARE IN mm

TOLERANCE ON:  
 LINEAR : <math>\pm 0.10</math>  
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           <math>\pm 0.18</math>  
           <math>\pm 0.20</math>  
           <math>\pm 0.25</math>  
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 ANGULAR: <math>\pm 1^\circ</math>  
           <math>\pm 0.5^\circ</math>

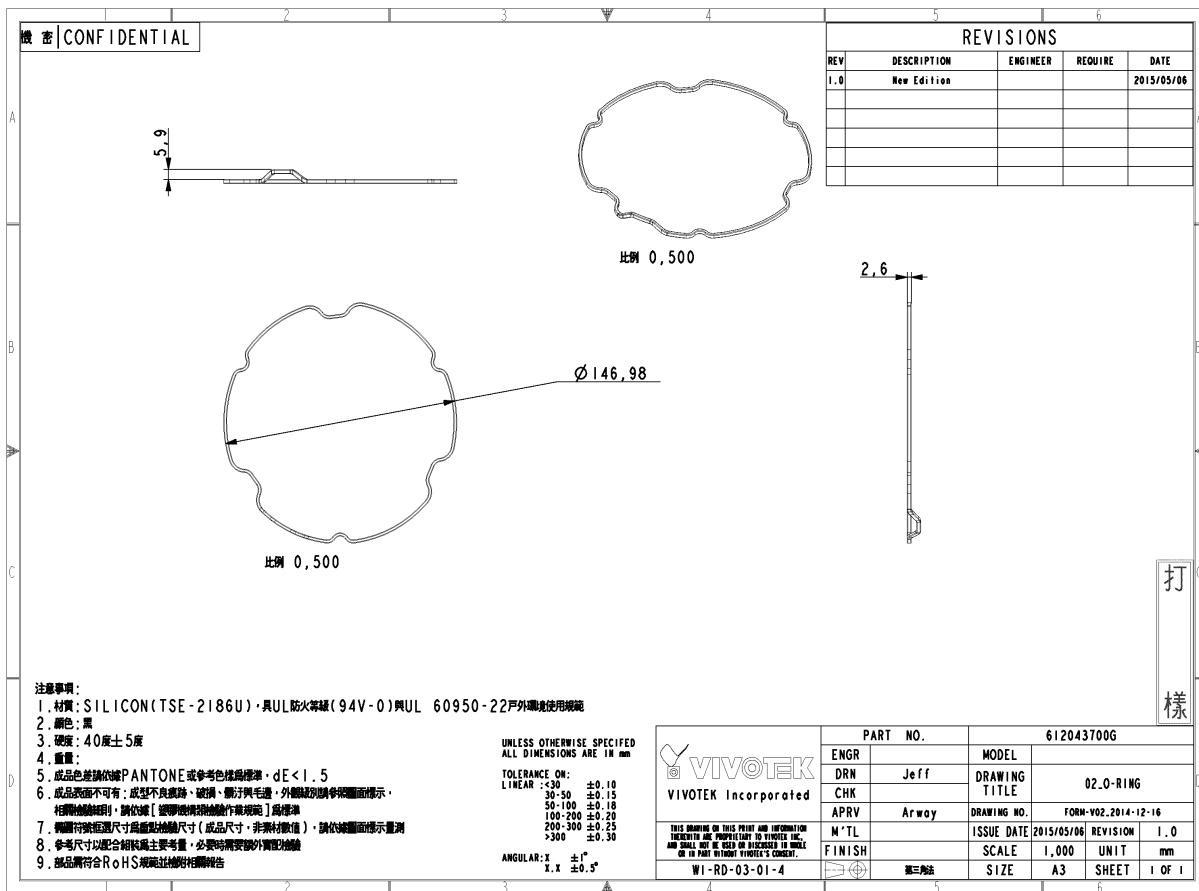
 VIVOTEK Incorporated	PART NO.		MODEL	
	ENGR	Jeff	DRAWING TITLE	
	CHK		FD9171_6VIEW	
	APRV	Arway	DRAWING NO.	FORM-V02.2014-12-16
<small>THIS DRAWING OR THIS PRINT AND INFORMATION THEREON ARE PROPRIETARY TO VIVOTEK INC. AND SHALL NOT BE USED OR REPRODUCED IN WHOLE OR IN PART WITHOUT VIVOTEK'S CONSENT.</small>		M'TL	ISSUE DATE	2015/06/10
		FINISH	SCALE	0.400
			SIZE	A3
			SHEET	1 OF 1

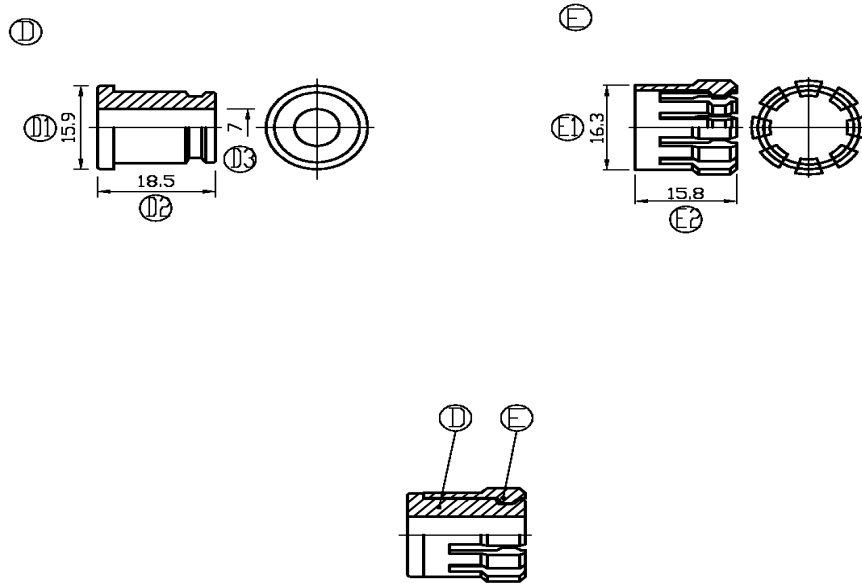


REVISIONS			
REV	DESCRIPTION	ENGINEER	DATE
A	New Edition	Jerry	2008.06.20

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS ARE IN mm  
XX.XX : INSPECTION DIMENSION  
(XX.XX): REF. DIMENSION  
TOLERANCE ON:  
LINEAR : X ±0.2  
          X.X ±0.15  
          X.XX ±0.1  
ANGULAR : X ±1°  
          X.X ±0.5°

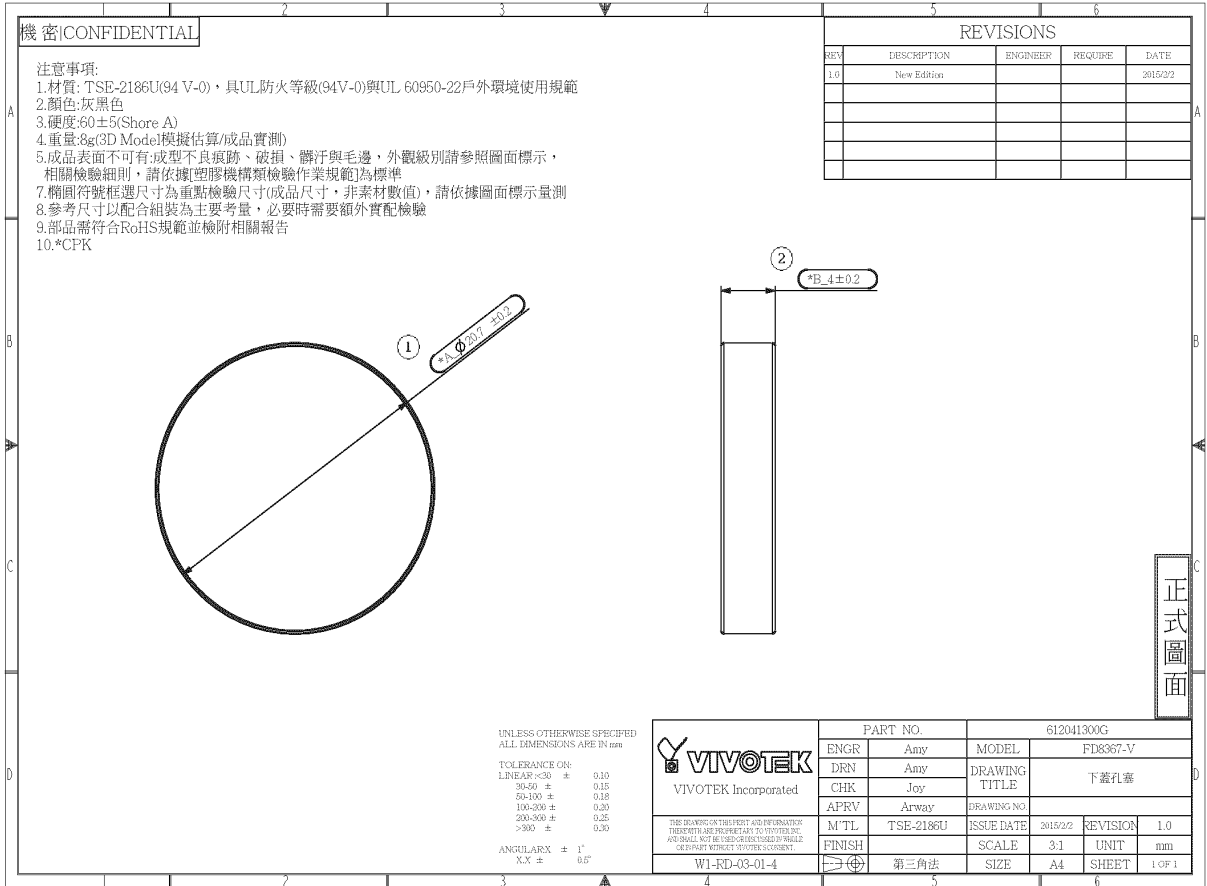
 <b>VIVOTEK</b> VIVOTEK Incorporated	PART NO.		MODEL	
	ENGR	Jerry	DRAWING	O-RING-FLAT
	DRN		TITLE	
	CHK	CC Wang	DRAWING NO.	
APRV	CC Wang	M'TL	ISSUE DATE	19-Mar-08
THIS DRAWING OR THIS PRINT AND INFORMATION THEREON ARE PROPRIETARY TO VIVOTEK INC. AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT VIVOTEK'S CONSENT.	FINISH	SCALE	1:1	REV.
WI-RD-03-D1-1		SIZE	A3	UNIT
				mm
				SHEET
				1 OF 1

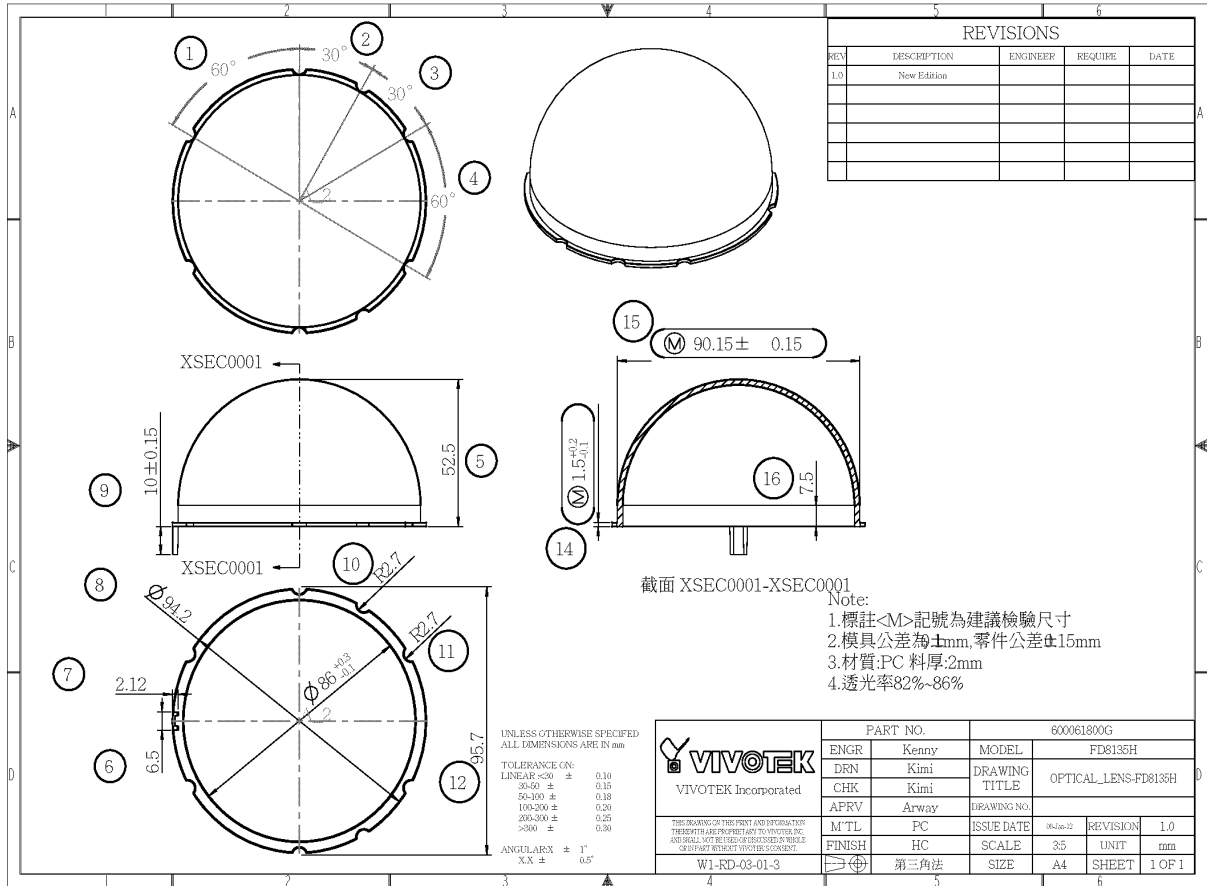




Confidential 機密文件 非授權 請勿外流

<b>AVC 全冠企業有限公司</b> AVC Industrial Corp.			INSPECTED BY	YAWEN	2014.09.19	Working Temp. -40°C to 105°C (-40°F to 221°F) TOLERANCE: 6 ±0.2    18.1~30±0.5 6.1~9±0.3    30.1~50±0.6 9.1~18±0.4    50.1~80±0.8 REMARK: All rights reserved ( ) Inside reference value	PATENTED
			DRAWN BY	LING GHIU	2014.09.19		
PRODUCT: NYLON CABLE GLANDS			MATERIAL	D PART: BLACK EPDM		RoHS	
PART NO.: MG16A-06B-ST-XABCF				E PART: BLACK PA66 UL94V-2			
SCALE: 1:1	UNIT: mm	REV. 7.1					







FD9381-HTV, FD9381-EHTV, FD9371-HTV, FD9371-EHTV

Quick Installation Guide

P/N: 6250314xxG



Warning Before Installation / Warnung vor der Installation / Waarschuwing voor installatie

- Power off the Network Camera as soon as smoke or unusual odors are detected.
Refer to your user's manual for the operating temperature.
Do not place the Network Camera on unsteady surfaces.
Do not touch the Network Camera during a lightning storm.
Do not insert sharp or tiny objects into the Network Camera.
Replacing or failing to properly install the waterproof components, e.g., cables or cable glands, will void our IP656667 warranty.



安裝前應注意事項 / 安裝警告 / インストール前の注意

- 如果發現網路攝影機出現煙霧或異常氣味，請立即關閉攝影機。
切勿將網路攝影機安裝在不穩固的表面上。
切勿在雷暴期間觸摸網路攝影機。
請勿將任何銳利或微小的物件插入網路攝影機。
更換或無法正確安裝防水組件(例如：電纜或電纜密封蓋)將使我們的IP656667保固失效。



Avvertencia antes de la instalación / Advertencia antes de la instalación / Advertencia antes de la instalación

- Apague la cámara de Rede si ve humo u olores extraños.
No toque la cámara de Rede cuando haya tormenta.
No introduzca ningún objeto dentro de la Cámara de Rede, como agujas.
Reemplazar o instalar incorrectamente los componentes desenchufados, por ejemplo los cables o los presecables de cables, anulará la garantía IP656667.



Avvertencia antes de la instalación / Aviso antes de la instalación / Advertencia antes de la instalación

- Éteignez rapidement la caméra réseau si elle dégage de la fumée ou une odeur inhabituelle.
Ne touchez pas à la caméra réseau lors d'un orage.
N'intéressez pas d'objet dans la caméra réseau (p. ex. des aiguilles).
Remplacez ou installez incorrectement les composants débranchés, par exemple les câbles ou des presécables, annuler la garantie de votre IP656667.



Avvertenza prima dell'installazione / Kurulum Öncesi Uyarılar / Varning Innan installation

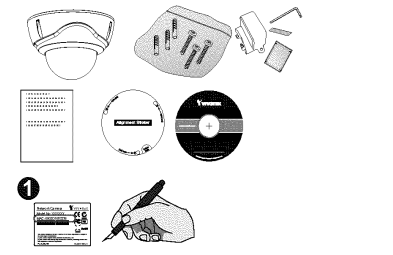
- Spegnere immediatamente la videocamera di rete se questa presenta fumo o un odore insolito.
Non toccare la videocamera di rete durante i temporali.
Non far cadere la videocamera di rete.
La sostituzione o l'installazione non corretta di componenti a stacca, ad esempio cavi o premontaggio, determineranno l'annullamento della garanzia IP656667.



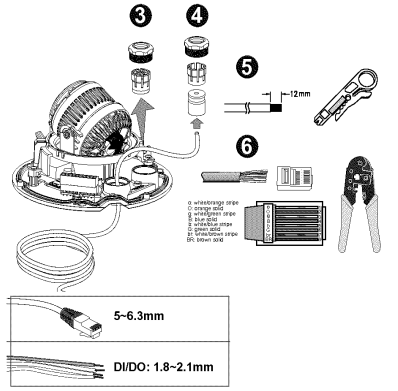
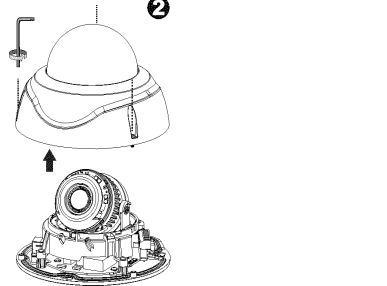
Advarsel inden installation / Peringatan Sebelum Pemasangan

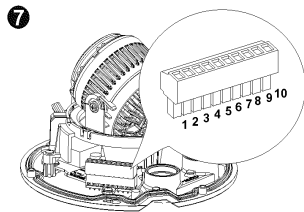
- Sis stemmen fra kamerat så snart der kan lugtes røg eller usædvanlig lugt.
Placer ikke netværkskameraet på ustabile underlag.
Indfør ikke skarpe eller små objekter i netværkskameraet.
Læs advarsel eller fjælgig installation af de vandtætte komponenter, kabler eller kabelbøjninger, vil sætte garantien for din IP656667 ud af kraft.

Package Contents / Packungsinhalt kontrollieren / Inhoud van de verpakking
檢查包裝內容物 / 檢查包裝內容 / パッケージ内容の確認
Vérifier le contenu de l'emballage / Verifi que o conteúdo da embalagem / Compruebe el contenido del embalaje

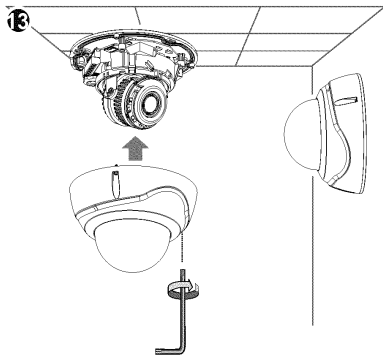
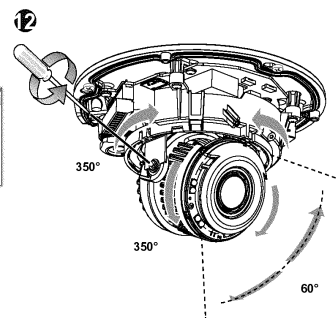
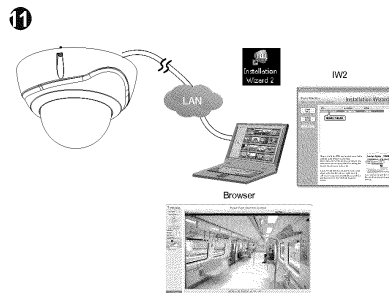
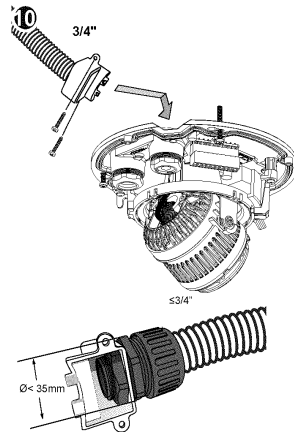
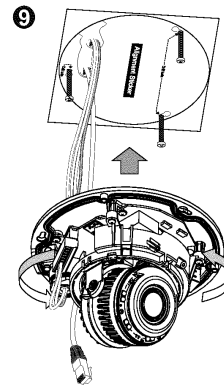
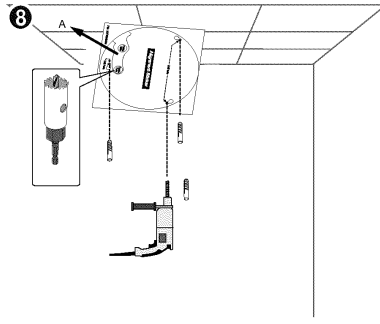


Hardware Installation / Hardware installation / Hardware installieren
硬体安装 / 硬件安装 / ハードウェア・インストール
Installation du matériel / Instalação de Hardware / Instalación del hardware
Instalacja sprzętu / Монтаж оборудования / Instalace hardwaru
Installazione hardware / Donanım Montajı / Installation av hårdvara
تركيب الأجهزة





#	Name
1	EXT MIC N
2	EXT MIC P
3	Audio out-
4	Audio out+
5	D+
6	D-
7	DC-
8	DC+
9	12V DC IN
10	12V DC IN



**HARDWARE LIMITED WARRANTY**

**What is Covered:** This warranty covers any hardware defects in materials or workmanship, with the exceptions stated below.


**How Long Coverage Lasts:** This warranty lasts for THIRTY (30) MONTHS from the date of purchase by the original end-user customer.

**What is Not Covered:** This warranty does not cover cosmetic damage or any other damage or defect caused by abuse, misuse, neglect, use in violation of instructions, repair by an unauthorized third party, or an act of God. Also, if serial numbers have been altered, damaged, or removed. Further, consequential and incidental damages are not recoverable under this warranty.

**What VIVOTEK Will Do:** VIVOTEK will, in our sole discretion, repair or replace any product that proves to be defective in material or workmanship. Any repair or replacement part of the product will receive a THREE MONTH warranty extension.

**How To Get Service:** Contact our authorized distributors in your region. Please check our website ([www.vivotek.com](http://www.vivotek.com)) for the information of an authorized distributor near you.

**Your Rights:** SOME STATES DO NOT ALLOW EXCLUSION OR LIMITATION OF CONSEQUENTIAL OR INCIDENTAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.



**VIVOTEK INC.**  
#F, No. 182, Lien-Cheng Rd., Chung-Hsi, Taipei County, Taiwan  
[www.vivotek.com](http://www.vivotek.com)

1. Proof of the date of purchase is required. In the event you do not render such document, warranty will commence from the date of manufacture.  
2. Cosmetic damage will only be covered by this warranty if such damage has been noticed at the time of purchase.

All specifications are subject to change without notice.  
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**VIVOTEK INC.**  
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**VIVOTEK Europe**  
Buissonlaan 22-221, 1116SR Almere, The Netherlands  
T: +31-658-534614 E: [sales@vivotek.com](mailto:sales@vivotek.com)

# VIVOTEK FD9171-HT & FD9181-HT Quick Installation Guide

P/N: 625032500G

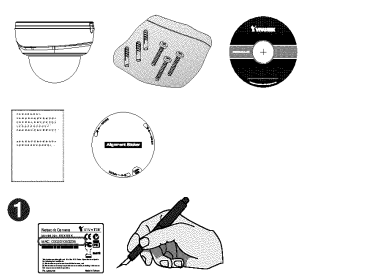
## Warning Before Installation / Warnung vor der Installation / Waarschuwing voor installatie

- Power off the Network Camera as soon as smoke or unusual odors are detected.  
Netzwerkamera bei Rauchentwicklung oder ungewöhnlichen Geruch sofort abschalten.  
Schakel de Network Camera uit zodra u rook of ongebruikelijke geuren waarsneemt.
- Do not place the Network Camera on unsuitable surfaces.  
Netzwerkamera nur auf feste Unterlagen abstellen.  
Plaats de Network Camera niet op een instabiel oppervlak.
- Do not insert sharp or tiny objects into the Network Camera.  
Keine Fremdkörper, z.B. Nadeln, in die Networkkamera einführen.  
Stee geen scherpe of zeer kleine objecten in de Network Camera.
- Replacing or failing to properly install the waterproof components, e.g., cables or cable glands, will void our IP65/66/67 warranty.  
Ein Austausch oder die unsachgemäße Installation der wasserdichten Komponenten, z.B. Kabel oder Kabelverschraubungen, führt zum Verlust unserer IP65/66/67 Garantie.  
Als de wasserdichte componenten, zoals kabels of kabelklemmen, niet correct worden geplaatst of vervangen, is de garantie van de IP65/66/67 ongeldig.
- Refer to your user's manual for the operating temperature.  
Heweise zur Betriebstemperatur siehe Benutzeranleitung.  
Zie de gebruikershandleiding voor informatie over de gebruikstemperatuur.
- Do not touch the Network Camera during a lightning storm.  
Netzwerkamera bei Gewittern nicht anfassen.  
Raak de Network Camera niet aan tijdens onweer.
- Do not do the Network Camera. Netzwerkamera nicht fallen lassen.  
Last de Network Camera niet vallen.

## Avvertimento prima dell'installazione / Kurulum Öncesi Uyarılar / Varning Innan Installation

- Éteignez rapidement la caméra réseau si elle dégage de la fumée ou une odeur inhabituelle.  
Deactive a Cámara de Rede se vir fumo ou sentir cheiros estranhos.  
Apague la cámara de red si aparece humo o algún olor no habitual.
- Ne disposez pas la caméra réseau sur des surfaces instables.  
No coloque a Cámara de Rede em superfícies instáveis.  
No coloque la cámara de red sobre superficies que no sean firmes.
- N'intérez pas d'objet dans la caméra réseau (p. ex. des aiguilles).  
No introduza nenhum objecto dentro da Cámara de Rede, como agulhas.  
No inserte ningún objeto en la cámara de red, como agujas.
- Remplacez ou installez incorrectement les composants étanches, par exemple les câbles ou des presse-étoupes, annule la garantie de votre IP65/66/67.  
Substitución o falha ao instalar corretamente os componentes impermeáveis, por exemplo, cabos os respaldos de cables, anularán la garantía de su IP65/66/67.
- Consultez le guide d'utilisateur pour obtenir la température de fonctionnement.  
Consulte o manual do usuário para obter informações sobre a temperatura de funcionamento.  
Consulte el manual del usuario para ver la temperatura de funcionamiento.
- Ne touchez pas à la caméra réseau lors d'un orage.  
No toque na Cámara de Rede quando houver trovoadas.  
No toque la cámara de red si hubiera tormentas.
- Ni laissez pas tomber la caméra réseau.  
No deice caer a Cámara de Rede.  
No deje caer la cámara de red.

## Package Contents / Packungsinhalt kontrollieren / Inhoud van de verpakking 検査包装内容物 / 検査包装内容 / パッケージ内容の確認



## 安規前應注意事項 / 安裝警告 / インストール前の注意

- 如果發現煙霧或出現異常氣味，請立即關閉攝像機電源並檢查攝像機材料，請立即關閉攝像機電源並檢查攝像機材料，請立即關閉攝像機電源並檢查攝像機材料。  
If you find smoke or unusual odors, please turn off the power of the camera immediately and check the camera materials. Please turn off the power of the camera immediately and check the camera materials. Please turn off the power of the camera immediately and check the camera materials.
- 請勿將攝像機安裝在不穩固的表面上。  
Do not place the camera on unsuitable surfaces.
- 請勿將任何物件放入攝像機內部。  
Do not insert any objects into the camera.
- 請勿在雷暴期間觸摸攝像機。  
Do not touch the camera during a lightning storm.
- 請勿讓攝像機掉落。  
Do not let the camera fall.

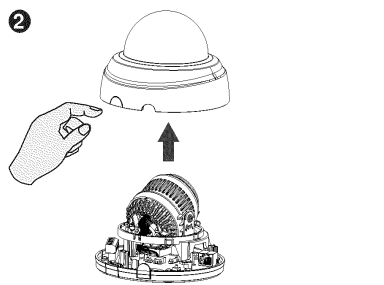
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## Avvertimento prima dell'installazione / Kurulum Öncesi Uyarılar / Varning Innan Installation

- Éteignez rapidement la caméra réseau si elle dégage de la fumée ou une odeur inhabituelle.  
Deactive a Cámara de Rede se vir fumo ou sentir cheiros estranhos.  
Apague la cámara de red si aparece humo o algún olor no habitual.
- Ne disposez pas la caméra réseau sur des surfaces instables.  
No coloque a Cámara de Rede em superfícies instáveis.  
No coloque la cámara de red sobre superficies que no sean firmes.
- N'intérez pas d'objet dans la caméra réseau (p. ex. des aiguilles).  
No introduza nenhum objecto dentro da Cámara de Rede, como agulhas.  
No inserte ningún objeto en la cámara de red, como agujas.
- Remplacez ou installez incorrectement les composants étanches, par exemple les câbles ou des presse-étoupes, annule la garantie de votre IP65/66/67.  
Substitución o falha ao instalar corretamente os componentes impermeáveis, por exemplo, cabos os respaldos de cables, anularán la garantía de su IP65/66/67.
- Consultez le guide d'utilisateur pour obtenir la température de fonctionnement.  
Consulte o manual do usuário para obter informações sobre a temperatura de funcionamento.  
Consulte el manual del usuario para ver la temperatura de funcionamiento.
- Ne touchez pas à la caméra réseau lors d'un orage.  
No toque na Cámara de Rede quando houver trovoadas.  
No toque la cámara de red si hubiera tormentas.
- Ni laissez pas tomber la caméra réseau.  
No deice caer a Cámara de Rede.  
No deje caer la cámara de red.

## Hardware Installation / Hardwareinstallation / Hardware installieren 硬体安装 / 硬件安装 / ハードウェア・インストール



## Avvertimento prima dell'installazione / Kurulum Öncesi Uyarılar / Varning Innan Installation

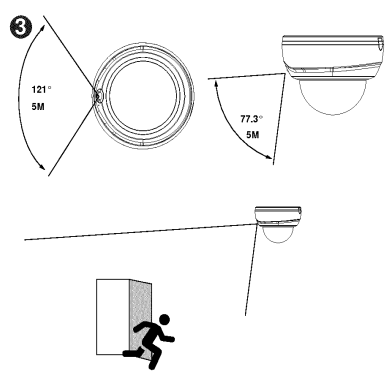
- Éteignez rapidement la caméra réseau si elle dégage de la fumée ou une odeur inhabituelle.  
Deactive a Cámara de Rede se vir fumo ou sentir cheiros estranhos.  
Apague la cámara de red si aparece humo o algún olor no habitual.
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No toque la cámara de red si hubiera tormentas.
- Ni laissez pas tomber la caméra réseau.  
No deice caer la cámara de Rede.  
No deje caer la cámara de red.

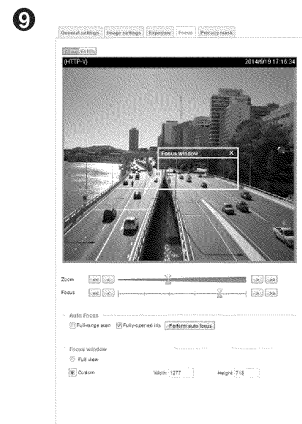
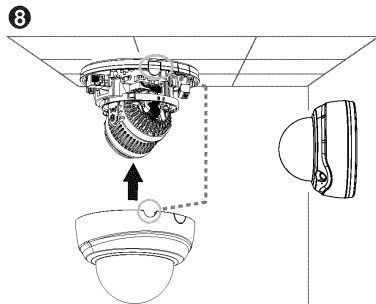
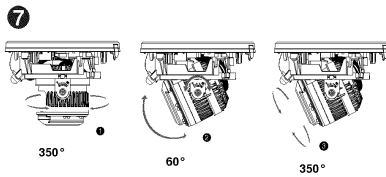
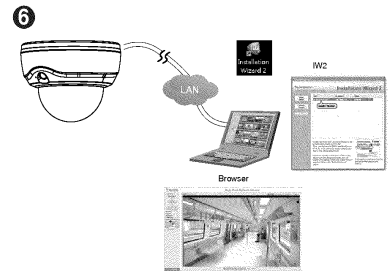
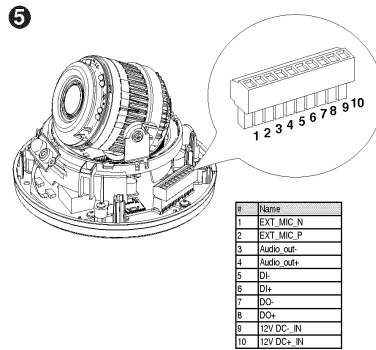
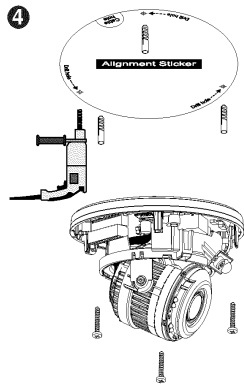
如果發現煙霧或出現異常氣味，請立即關閉攝像機電源並檢查攝像機材料，請立即關閉攝像機電源並檢查攝像機材料，請立即關閉攝像機電源並檢查攝像機材料。  
If you find smoke or unusual odors, please turn off the power of the camera immediately and check the camera materials. Please turn off the power of the camera immediately and check the camera materials. Please turn off the power of the camera immediately and check the camera materials.

如果發現煙霧或出現異常氣味，請立即關閉攝像機電源並檢查攝像機材料，請立即關閉攝像機電源並檢查攝像機材料，請立即關閉攝像機電源並檢查攝像機材料。  
If you find smoke or unusual odors, please turn off the power of the camera immediately and check the camera materials. Please turn off the power of the camera immediately and check the camera materials. Please turn off the power of the camera immediately and check the camera materials.

## Advarsel inden installation / Peringatan Sebelum Pemasangan

- Éteignez rapidement la caméra réseau si elle dégage de la fumée ou une odeur inhabituelle.  
Deactive a Cámara de Rede se vir fumo ou sentir cheiros estranhos.  
Apague la cámara de red si aparece humo o algún olor no habitual.
- Ne disposez pas la caméra réseau sur des surfaces instables.  
No coloque a Cámara de Rede em superfícies instáveis.  
No coloque la cámara de red sobre superficies que no sean firmes.
- N'intérez pas d'objet dans la caméra réseau (p. ex. des aiguilles).  
No introduza nenhum objecto dentro da Cámara de Rede, como agulhas.  
No inserte ningún objeto en la cámara de red, como agujas.
- Remplacez ou installez incorrectement les composants étanches, par exemple les câbles ou des presse-étoupes, annule la garantie de votre IP65/66/67.  
Substitución o falha ao instalar corretamente os componentes impermeáveis, por exemplo, cabos os respaldos de cables, anularán la garantía de su IP65/66/67.
- Consultez le guide d'utilisateur pour obtenir la température de fonctionnement.  
Consulte o manual do usuário para obter informações sobre a temperatura de funcionamento.  
Consulte el manual del usuario para ver la temperatura de funcionamiento.
- Ne touchez pas à la caméra réseau lors d'un orage.  
No toque na Cámara de Rede quando houver trovoadas.  
No toque la cámara de red si hubiera tormentas.
- Ni laissez pas tomber la caméra réseau.  
No deice caer la cámara de Rede.  
No deje caer la cámara de red.





**HARDWARE LIMITED WARRANTY**

**What is Covered:** This warranty covers any hardware defects in materials or workmanship, with the exceptions noted below.


**How Long Coverage Lasts:** This warranty lasts for **THIRTY-SIX MONTHS** from the date of purchase by the original end-user customer.

**What is Not Covered:** This warranty does not cover cosmetic damage or any other damage or defect caused by abuse, misuse, neglect, use in violation of instructions, repair by an unauthorized third party, or an act of God. Also, if serial numbers have been altered, defaced, or removed. Further, consequential and incidental damages are not recoverable under this warranty.

**What VIVOTEK WILL Do:** VIVOTEK will, in our sole discretion, repair or replace any product that proves to be defective in material or workmanship. Any repair or replacement of the product will require a **THREE-MONTH** warranty extension.

**How To Get Service:** Contact our authorized distributors in your region. Please check our website [www.vivotek.com](http://www.vivotek.com) for the information of an authorized distributor near you.

**Your Rights:** SOME STATES DO NOT ALLOW EXCLUSION OR LIMITATION OF CONSEQUENTIAL, INCIDENTAL, OR INCIDENTAL DAMAGES, SO THE ABOVE EXCLUSION, LIMITATION, AND REMEDY MAY NOT APPLY TO YOU. THIS WARRANTY DOES NOT WAIVE YOUR LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.



**VIVOTEK INC.**  
#F, No. 192, Lien-Chang Rd., Chung-Ho,  
Taichung County, Taiwan.  
[www.vivotek.com](http://www.vivotek.com)

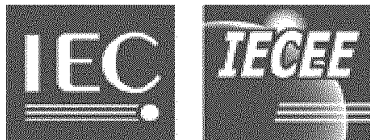
1. Proof of the date of purchase is required. In the event you can not render such document, warranty will commence from the date of manufacture.  
2. Cosmetic damage will only be covered by this warranty if such damage has been issued with this line of coverage.

All specifications are subject to change without notice.  
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**VIVOTEK INC.**  
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**VIVOTEK USA, INC.**  
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Tel: +1-408-732-6651 | Fax: +1-408-732-6651 | E: [sales@vivotek.com](mailto:sales@vivotek.com)


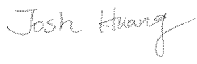
**VIVOTEK Europe**  
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T: +31-2046-1306-40-1 | [sales@vivotek.com](mailto:sales@vivotek.com)



Test Report issued under the responsibility of:



<b>TEST REPORT</b> <b>IEC 60950-22</b> <b>Information technology equipment</b> <b>Safety – Part 22: Equipment to be installed outdoors</b>	
<b>Report Reference No.</b> ..... :	OFF-4787098375
Date of issue..... :	2015-10-08
Total number of pages..... :	22
<b>CB Testing Laboratory</b> ..... :	Underwriters Laboratories Taiwan Co., Ltd
Address..... :	260 Da-Yeh Road Peitou Taipei City, Taiwan 112.
<b>Applicant's name</b> ..... :	VIVOTEK INC
Address..... :	6TH FL, 192 LIEN CHENG RD, CHUNG HO DISTRICT, NEW TAIPEI, TAIWAN.
<b>Test specification:</b>	
Standard..... :	IEC 60950-22 : 2005 (1 <sup>st</sup> Edition)
Test procedure..... :	CB Scheme
Non-standard test method..... :	N/A
<b>Test Report Form No.</b> ..... :	IEC60950_22A
Test Report Form(s) Originator..... :	The Standards Institution of Israel Ltd.
Master TRF..... :	Dated 2007-03
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<b>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.</b>	
<b>Test item description</b> ..... :	Network Camera
Trade Mark..... :	N/A
Manufacturer..... :	Same as applicant
Model/Type reference..... :	FD9371-HTV
Ratings..... :	For Terminal block: (1) 12Vdc, 1.75A For PoE: (2) 36-57Vdc, 0.7A-0.44A

<b>Testing procedure and testing location:</b>	
<input checked="" type="checkbox"/> <b>CB Testing Laboratory:</b>	
Testing location/ address .....	Underwriters Laboratories Taiwan Co., Ltd 260 Da-Yeh Road Peitou Taipei City, Taiwan 112.
<input type="checkbox"/> <b>Associated CB Test Laboratory:</b>	
Testing location/ address .....	
Tested by (name + signature) .....	
	Lily Su 
Approved by (+ signature) .....	Josh Huang 
<input type="checkbox"/> Testing procedure: TMP	
Tested by (name + signature) .....	
Approved by (+ signature) .....	
Testing location/ address .....	
<input type="checkbox"/> Testing procedure: WMT	
Tested by (name + signature) .....	
Witnessed by (+ signature) .....	
Approved by (+ signature) .....	
Testing location/ address .....	
<input type="checkbox"/> Testing procedure: SMT	
Tested by (name + signature) .....	
Approved by (+ signature) .....	
Supervised by (+ signature) .....	
Testing location/ address .....	
<input type="checkbox"/> Testing procedure: RMT	
Tested by (name + signature) .....	
Approved by (+ signature) .....	
Supervised by (+ signature) .....	
Testing location/ address .....	

<b>Summary of testing:</b>	
<b>Tests performed (name of test and test clause):</b> PART 22, 9.1 - ANNEX B – WATER SPRAY TEST PART 22, 10.2 - IMPACT TEST PART 22, 8.5, ANNEX D.2 – TENSILE STRENGTH AND ELONGATION PART 22, 8.5, ANNEX D.3 – COMPRESSION TEST – GASKETS, CLOSED CELL CONSTRUCTION	<b>Testing location:</b> <b>Underwriters Laboratories Taiwan Co., Ltd. 260 Da-Yeh Road Peitou Taipei City, Taiwan 112.</b>
<b>Summary of compliance with National Differences: CA, US</b>	
<b>Copy of marking plate</b> N/A	

<b>Test item particulars</b> .....	
Temperature range .....	-50 degree C to 50 degree C
Overvoltage category .....	<input type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV Not Applicable. (No direct connection to mains)
IP protection class .....	IP 66
<b>Possible test case verdicts:</b>	
- 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)
<b>Testing</b> .....	
Date of receipt of test item .....	2015-09-25
Date (s) of performance of tests .....	2015-10-01, 2015-10-07
<b>General remarks:</b>	
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.	
<b>General product information:</b>	
The equipment is a Class III Network Camera. The EUT is equipped with sensor and provides a general I/O terminal block which is 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.	
<b>Additional Information</b>	
N/A	
<b>Name and address of factory (ies)</b>	
N/A	

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 is -50 degree C to 50 degree C	--
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 OUTDOOR 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 alloy. (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		Pass
	Resistance of non-metallic parts of an OUTDOOR ENCLOSURE to degradation by ultra-violet (UV) radiation	For plastic lens cover: Polymeric materials used for outdoor enclosure in the equipment complies UL 746C, section 24 and 57 is considered to be equivalent to UL/ IEC 60950-22 Cl. 8.2 requirement.	Pass
	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:		Pass

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
	Flammability classification (1.2.12 and annex A of IEC 60950-1)	(see separate test report IEC 60950-1)	Pass
8.3	Resistance to corrosion		Pass
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		Pass
	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	Annex D.2 and Annex D.3 conducted	Pass
8.5.1	General		Pass
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)	No water inside	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

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
10	MECHANICAL STRENGTH OF ENCLOSURES		Pass
10.1	General		Pass
10.2	Impact test (4.2.5 of IEC 60950-1)		Pass
	Compliance criteria:		--
	- after test the level of protection remains in accordance with 9.1 of 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

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

D	ANNEX D, GASKET TESTS (see 8.5)		Pass
D.1	Gasket tests		Pass
D.2	Tensile strength and elongation tests (for gaskets that can stretch)		Pass
	Tensile strength (%) .....	Not less than 75%.	Pass
	Elongation (%) .....	Not less than 60%.	Pass
	Visible deterioration, deformation, melting, cracking or hardening of the material .....	No deterioration.	Pass
D.3	Compression test (for gaskets with closed cell construction)	Not closed cell construction.	Pass
	Initial thickness of the specimen (mm) .....	1.116	Pass
	Thickness of the specimen after test a) (mm), compression set after test a) (%) .....	1.112	Pass
	Thickness of the specimen after test b) (mm), compression set after test b) (%) .....	1.115	Pass
	Thickness of the specimen after test c) (mm), compression set after test c) (%) .....	1.119	Pass
	Visible cracks or deterioration .....	No visible cracking or other adverse effect	Pass
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 60950-22:2007 – 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		
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ZB	SPECIAL NATIONAL CONDITIONS		
4.1	In <b>Finland, Norway and Sweden</b> , the temperature in winter may be extremely low. For <b>OUTDOOR EQUIPMENT</b> 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 <b>Finland, Norway and Sweden</b> 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 <b>Finland, Norway and Sweden</b> 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

<b>8.2</b>	<b>TABLE: Resistance to ultra-violet radiation</b>		
8.2c)	Charpy impact test (ISO 179) - unnotched		<b>N/A</b>
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 <sup>2</sup> )	Test sample #	Charpy impact strength (kJ/m <sup>2</sup> )
Arithmetic mean for Set 1 (kJ/m <sup>2</sup> ) .....			
Arithmetic mean for Set 2 (kJ/m <sup>2</sup> ) .....			
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 view



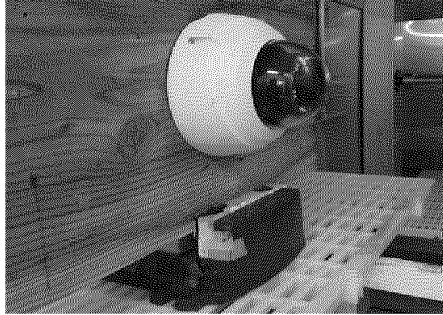
TRF No. IEC60950\_22A

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

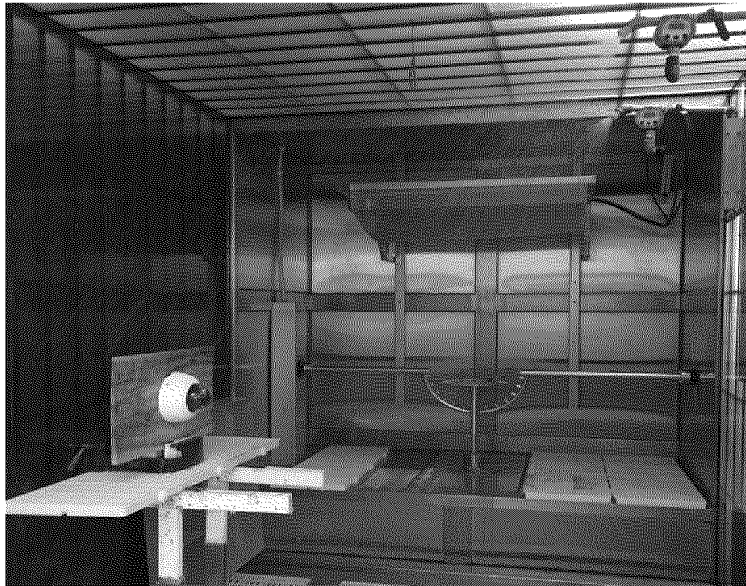
**ATTACHMENT**

**Photos**

Setting



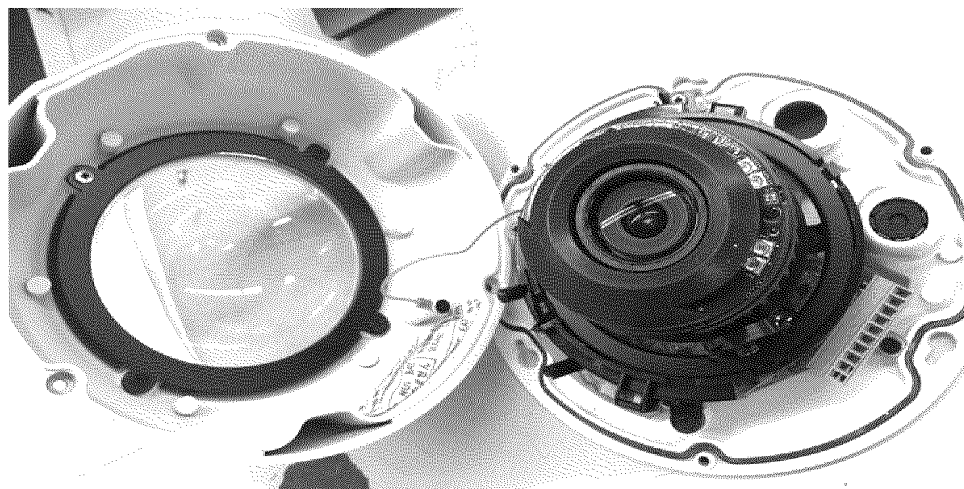
Duration



TRF No. IEC60950\_22A

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

Result



TRF No. IEC60950\_22A

## Test Record

**Test Record No. 1**

- The manufacturer submitted representative production sample of Network Camera, Models FD9171-HT, FD9371-HTV, FD9371-EHTV.

- Only the test checked in "List of Tests" pages were deemed necessary.

- Unless otherwise indicated below, all tests were performed by Prodigy Technology Consultant Co Ltd, located in Linkou, New Taipei City, and submitted under the TPTDP.

- WATER SPRAY TEST and IMPACT TEST according to UL 60950 PART22 were conducted by Underwriters Laboratories Taiwan Co., Ltd. 260 Da-Yeh Road, 112 Peitou Taipei City, Taiwan.

- Unless otherwise indicated, all tests were conducted on models FD9171-HT, FD9371-EHTV.

- Tests performed on model FD9371-EHTV were considered to be representative of model FD9371-HTV.

- Test results reported relate only to the items tested.

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)	
Steady Force (4.2.1 - 4.2.4)	
Impact (4.2.5, 4.2.1, Part 22 10.2)	In house / TPTDP
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)	
Overload of Operator Accessible Connector (5.3.7)	
Water Spray (Part 22 9.1, Annex B)	In house

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-UL report
Compression - Gaskets, Closed Cell Construction (Part 22 8.5.1, Annex D.3)	Refer to E324690-A73-UL report

## Test Record

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.

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Datasheet	2-01	Datasheet (TPTDP)
Datasheet	2-02	Datasheet (WTDP)
Attachment	2-03	CRD