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 VIVOTEK INC
 6TH FL, 192 LIEN CHENG RD
 CHUNG HO DISTRICT
 NEW TAIPEI
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Date: 2019/08/06
 Subscriber: 100504413
 PartySite: 125336
 File No: E324690
 Project No: 4788944424
 PD No: 19042606
 Type: R
 PO Number: U922516

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>
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2019/08/01	X2	A154	Cert of Compliance	
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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.

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TPI File

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<u>Product Type</u>	<u>Model/Type Reference</u>	<u>Report Reference #</u>	<u>Status</u>
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	E324690-A10-UL	
Network Video Recorder	NR8201, NR8301	E324690-A12-UL	
Network Camera	FE8171V	E324690-A15-UL	
Network Camera	1) MD8562 2) MD8562D	E324690-A17-UL	
Network Camera	IK-WD14A, IK-WR14A	E324690-A21-UL	
Outdoor Dome Network Camera	FD8372	E324690-A22-UL	
Network Camera	FE8172, FE8172V	E324690-A25-UL	
Network Camera	IP8332-C	E324690-A28-UL	
Outdoor Speed Dome Network Camera	SD833XE (X = 0-9, A-Z or blank)	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 (The XX=0-9, 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	S5003FDXXXXXXXXXXXXX (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	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	CIVS-IPC-7530PD	E324690-A56-UL	
Network Camera	MD8531H-FXX(X= 0-9, a-z, A-Z, "-", "/" or blank for marketing purpose)	E324690-A58-UL	
Network Camera	IP8155HP, IP8165HP	E324690-A59-UL	
Network Camera	FD8152V-FX(B), FD8152V-FX(W) (X=0-9,a-z,A-Z,"-", "1" or	E324690-A60-UL	

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	blank for marketing purpose: (B) Black for enclosure color; (W) White for enclosure color).		
Network Camera	FE8181, FE8181V, FE8191 and FE8391-V	E324690-A61-UL	
Network Video Recorder	ND8401	E324690-A62-UL	
Camera	IB8367, IB8367-R	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, AT8131, AT8131-SF	E324690-A76-UL	
IP 360 Dome Camera (5M)	V6050FDxxxxxx, V6050FDWxxxxxx (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	
Network Camera	MD8563-EHFX (X= 0-9, a-z, A- Z, "-", "/" or blank for marketing purpose)	E324690-A88-UL	
Network Camera	VC8101	E324690-A90-UL	
Network Camera	MV21-HW, MV71-HW	E324690-A91-UL	
Network Video Recorder	ND9541, ND9441	E324690-A95-UL	
Network Camera	SD9361-XXX, SD9362-XXX, SD9362-XX-v2	E324690-A96-UL	

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	(X = 0-9, a-z, A-Z or blank)		
Network Camera	SD9364-EHL, SD9364-EH and SD9363-EHL	E324690-A97-UL	
Network Camera	MS8391-EV	E324690-A98-UL	
Network Camera	FD8166A-N	E324690-A99-UL	
Network Camera	IZ9361-EH	E324690-A100-UL	
Network Camera	SD9161-H	E324690-A101-UL	
Network Camera	(1) FE9182-H (2) FE9382-EHV	E324690-A103-UL	
Network Camera	SC8132	E324690-A105-UL	
NETWORK ATTACHED STORAGE	NR9681, NR9581, SR9681, SR9581	E324690-A106-UL	
Network Camera	CD8371-HNVFX (X=0~9, A~Z, a~z, space or "-" for marketing purpose), CD8371-HNTV	E324690-A107-UL	
Network Camera	FD8177-H, FD8167A, FD8179-H, FD8169A (indoor use) FD8377-HV, FD8367A-V, FD8379-HV, FD8369A-V (outdoor use)	E324690-A108-UL	
Network Camera	SD9365-EH, SD9366-EHL, SD9366-EH, SD9363-XXX-v2, SD9364-XXX-v2, SD9366-XX-v2, SD9364-XX-v2 (X=0-9, a-z, A-Z or blank for marketing purpose.)	E324690-A109-UL	
Network Camera	MS8392-EV	E324690-A110-UL	
Network Video Recorder	ND9441P, ND9541P	E324690-A111-UL	
Network Camera	MD8565-N	E324690-A112-UL	
Network Camera	J-WB51A	E324690-A113-UL	
Network Camera	IB8379-H, IB8377-H, IB8367A, IB8369A	E324690-A114-UL	
Network Camera	CIVS-IPC-8000P	E324690-A115-UL	
Network Camera	CIVS-IPC-8400	E324690-A116-UL	
Network Camera	CIVS-IPC-8020, CIVS-IPC-8030	E324690-A117-UL	
Network Camera	MD8564-EH	E324690-A118-UL	
Network Camera	FD8366-V	E324690-A119-UL	
Network Camera	(1) FE9191 (2) FE9391-EV	E324690-A120-UL	
Network Camera	MA8391-EVT	E324690-A121-UL	
Network Camera	CC8371-HV	E324690-A122-UL	
Network Camera	IP9191-HP	E324690-A123-UL	
Network Camera	FD9365-EHTV, FD9365-HTV, FD8365-HTV-v2	E324690-A124-UL	
Network Camera	MS9390-HV, CIVS-IPC-8080	E324690-A125-UL	
Network Camera	MV12W-HW, MV12WE-HW, MV12N-HW	E324690-A126-UL	
Network Camera	(A) IP8160; (B) IP8160-W	E324690-A127-UL	
Network Camera	CIVS-IPC-8930	E324690-A128-UL	

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Network Camera	CIVS-IPC-8070	E324690-A129-UL	
Network Camera	FD9165-HT	E324690-A130-UL	
Network Camera	FD9367-HTV, FD9367-EHTV, FD9367-HV, FD9167-HT, FD9167-H.	E324690-A131-UL	
Network Video Recorder	ND8212W, ND8312	E324690-A132-UL	
Network Camera	IB9367-H, IB9367-HT, IB9367-EH, IB9367-EHT	E324690-A133-UL	
Network Camera	CIVS-IPC-8620	E324690-A134-UL	
Network Camera	(1) IB9365-HT (2) IB9365-EHT	E324690-A135-UL	
Network Camera	CIVS-IPC-8630	E324690-A136-UL	
Network Camera	FD8177-HT (indoor use) FD8377-EHTV, FD8377-HTV (outdoor use)	E324690-A137-UL	
Network Camera	(1) IB8377-HT (2) IB8377-EHT	E324690-A138-UL	
Network Camera	FE9180-H	E324690-A139-UL	
Network Camera	IP9167-HP, IP9167-HT	E324690-A140-UL	
Network Camera	FD9391-EHTV	E324690-A141-UL	
Network Camera	IB9391-EHT	E324690-A142-UL	
Network Video Recorder	1) ND9322P; 2) ND9424P	E324690-A144-UL	
Network Camera	MA9321-EHTV	E324690-A145-UL	
Network Camera	1) IB9387-EH, 2) IB9387-H	E324690-A148-UL	
Network Camera	TB9330-E, TB9331-E	E324690-A149-UL	
Vehicle Network Video Recorder	NV9311P, NV9411P	E324690-A150-UL	
Network Camera	1) IT9389-HT 2) IT9389-H	E324690-A151-UL	
Network Camera	FD9365-HTVL	E324690-A153-UL	
Network Camera	FD9187-HT, FD9187-H, FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9387-EHTV, FD9387-EHV	E324690-A154-UL	
Network Camera	SNC-WL862	E324690-A156-UL	

CERTIFICATE OF COMPLIANCE

Certificate Number 20190806-E324690
Report Reference E324690-A154-UL
Issue Date 2019-AUGUST-06

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

**This certificate confirms that
representative samples of**

INFORMATION TECHNOLOGY EQUIPMENT INCLUDING
ELECTRICAL BUSINESS

Network Camera
FD9187-HT, FD9187-H, FD9387-HTV, FD9387-HV,
FD9387-HVTPM, FD9387-EHTV, FD9387-EHV

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
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

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

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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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:	NWQG, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
Product:	Network Camera
Model:	FD9187-HT, FD9187-H, FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9387-EHTV, FD9387-EHV
Rating:	(Optional) 1) DC 42.5-57 V, 0.59-0.44 A (POE in) or DC 12 V, 1.9 A for Models FD9387-EHTV, FD9387-EHV 2) DC 37-57 V, 0.31-0.20 A (POE in) or DC 12 V, 0.87 A for Models FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9187-HT, FD9187-H
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.

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Prepared by: Jong Lee

Reviewed by: Eric Liu

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

See Enclosure Misc. 7-01 for detail.

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 X0
- Altitude of operation (m) : Up to 2000
- Altitude of test laboratory (m) : Below 2000
- Mass of equipment (kg) : 0.908 Max.
- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: See Enclosure Misc. 7-01 for detail.
- The product was investigated to the following additional standards: CSA/UL60950-22 - Equipment to be Installed Outdoors,
- 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 was evaluated for use in an ambient range of: See Enclosure Misc. 7-01 for detail.
 - LEDs provided in the product are considered low power devices: No
 - 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 whose output meets SELV, LPS and rated See Enclosure Misc. 7-01 for detail.
 - 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: N/A

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 See Enclosure Misc. 7-01 for detail.. If need further assistance with purchasing the DC power adapter please contact supplier for further information."</p> <p>"This equipment is to be connected only to PoE networks without routing to the outside plant." or similar wording.</p>
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, whose output meets SELV, LPS and rated See Enclosure Misc. 7-01 for detail. 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.Label	--	--	Min. 70 degree C to metal or plastic surface	PGDQ2 or PGJ12	UL	
02.POE adaptor (optional) (for Models FD9387-EHTV, FD9387-EHV use)	--	--	O/P: DC 42.5-57V, 0.59-0.44A minimum. Tma = 55 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.	QQGQ	UL	
02a.POE adaptor (optional) (for Models FD9387-HTV, FD9387-HV, FD9387-HVTPM use)	--	--	O/P: DC 37-57V, 0.31-0.20A minimum. Tma = 55 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.	QQGQ	UL	
02b.POE adaptor (optional) (for Models FD9187-HT, FD9187-H use)	--	--	O/P: DC 37-57V, 0.31-0.20A minimum. Tma = 50 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.	QQGQ	UL	
03. AC adaptor (optional) (for Models FD9387-EHTV, FD9387-EHV use)	--	--	O/P: DC 12V, 1.9A minimum. Tma = 55 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.	QQGQ	UL	
03a. AC adaptor (optional) (for Models FD9387-HTV, FD9387-HV, FD9387-HVTPM use)	--	--	O/P: DC 12V, 0.87A minimum. Tma = 55 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.	QQGQ	UL	
03b. AC adaptor	--	--	O/P: DC 12V, 0.87A minimum.	QQGQ	UL	

(optional) (for Models FD9187-HT, FD9187-H use)			Tma = 50 degree C. Marked with "LPS" or "Limited Power Source" or complied with "Limited Power Source" checked by inspection.			
04. Metal enclosure (for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM)	--	--	Aluminum, 3.0 mm thickness minimum. Overall see Enclosure/ Diagrams ID 4-01 for details.	--	--	
05. Plastic enclosure (for Models FD9187-HT, FD9187-H)	Sabic Japan L L C	943 (f1)	V-2, 2.5 mm thickness min., 120 degree C, Overall see Enclosure/ Diagrams ID 4-02 for details.	QMFZ2	--	
06. 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 and 4-08 for details.	QMFZ2	--	
07. PWB	--	--	V-1 or better, minimum 105 degree C	ZPMV2	UL	
08. Electric double layer capacitor (BT1)	ELNA Co. Ltd.	DX serie	Rated 5.5Vdc, 0.33F.	--	--	
09.O-ring (Between plastic lens cover and metal enclosure and Between top enclosure and bottom enclosure) (for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM use)	Momentive Performance Materials Japan L L C	TSE2186U(aq)	Silicone rubber. Overall see Enclosure/ Diagrams ID 4-03 for details.	QMFZ2(E56745)	UL	
10.O-ring (Between top enclosure and bottom enclosure) (for Models FD9387-	Momentive Performance Materials Japan L L C	TSE2186U(aq)	Silicone rubber. Overall see Enclosure/ Diagrams ID 4-04 for details.	QMFZ2(E56745)	UL	

EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM use)						
11. Gasket for Cable Glands (for Hole of LAN cable)(for model FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM use)	AVC Industrial Corp	S61(AVC)	Silicone rubber. Overall see Enclosure/ Diagrams ID 4-05 for details.	JMLU2 (MH48567)	UL	
12. Gasket of Cable Glands (for I/O terminal), if cable is not provided. (Alternate) (for Model FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM use)	Momentive Performance Materials Japan L L C	TSE2186U(aq)	Silicone rubber. Overall see Enclosure/ Diagrams ID 4-06 for details.	QMFZ2(E56745)	UL	
13. POE transformer (T1) (for Model FD9387-EHTV, FD9387-EHV use)	Matrix Electronics Co., Ltd.	MTSE015	105 degree C.	--	--	
13a. POE transformer (T1) (for Models FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9187-HT, FD9187-H use)	Matrix Electronics Co., Ltd.	MTSE018	105 degree C.	--	--	
13b. POE transformer (T1) (for Models FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9187-HT, FD9187-H use) (Alternate)	Audix Technology (Xiamen) Co., Ltd.	STD15-350	105 degree C.	--	--	
13c. POE transformer (T1) (for Models	Acroparts Technology Co, Ltd.	13W12V	105 degree C.	--	--	

FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9187-HT, FD9187-H use) (Alternate)						
14. Interconnecting Cable (Optional)	--	--	Maximum length 3.05 m. FEP, PTFE, PVC, TFE, neoprene, polyimide or rated VW-1 or FT-1. Minimum 80 degree C. Minimum 60 V.	AVLV2	UL	
14a. Interconnecting Cable (Optional)	--	--	Type CMP or CMR or CMG or CM or CMX or CMUC or CMH, 3.05 m long maximum.	DUXR or DUZX	UL	
15. Internal Wiring (SELV)	--	--	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; minimum 60 V, 60 degree C.	AVLV2	UL	
16. Connectors and Receptacles (Sec.), (SELV)	--	--	Minimum 60 V	ECBT2, RTRT2, DUXR2	UL	
16a. Connectors and Receptacles (Sec.) (SELV) (Alternate)	--	--	Copper alloy pins housed in bodies of (QMFZ2), and V-2 minimum.	QMFZ2	UL	
17. IR LED (two provided)	Lextar	PR88F03	850 nm., 3.6 W Exempt Group	--	--	
17a. IR LED (two provided)	Lextar	PR35F0A	850 nm., 2 W Exempt Group	--	--	
18. Heater	--	--	8 W max, 28 ohm.	--	--	
19. Internal Plastic Part/Materials	--	--	Rated HB minimum.	QMFZ2	UL	

Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Overall View-1 for Model FD9387-EHTV
Photographs	3-02	Overall View-2 for Model FD9387-EHTV
Photographs	3-03	Overall View-3 for Model FD9387-EHTV
Photographs	3-04	Overall View-4 for Model FD9387-EHTV
Photographs	3-05	Overall View-5 for Model FD9387-EHV
Photographs	3-06	Overall View-6 for Model FD9387-EHV
Photographs	3-07	Overall View-7 for Model FD9387-EHV
Photographs	3-08	Overall View-8 for Model FD9387-EHV
Photographs	3-09	Overall View-9 for Model FD9387-HTV
Photographs	3-10	Overall View-10 for Model FD9387-HTV
Photographs	3-11	Overall View-11 for Model FD9387-HTV
Photographs	3-12	Overall View-12 for Model FD9387-HTV
Photographs	3-13	Overall View-13 for Model FD9387-HV, FD9387-HVTPM
Photographs	3-14	Overall View-14 for Model FD9387-HV, FD9387-HVTPM
Photographs	3-15	Overall View-15 for Model FD9387-HV, FD9387-HVTPM
Photographs	3-16	Overall View-16 for Model FD9387-HV, FD9387-HVTPM
Photographs	3-17	Overall View-17 for Model FD9187-HT
Photographs	3-18	Overall View-18 for Model FD9187-HT
Photographs	3-19	Overall View-19 for Model FD9187-HT
Photographs	3-20	Overall View-20 for Model FD9187-HT
Photographs	3-21	Overall View-21 for Model FD9187-H
Photographs	3-22	Overall View-22 for Model FD9187-H
Photographs	3-23	Overall View-23 for Model FD9187-H
Photographs	3-24	Overall View-24 for Model FD9187-H
Photographs	3-25	Internal View-1 for Model FD9387-EHTV
Photographs	3-26	Internal View-2 for Model FD9387-EHTV
Photographs	3-27	Internal View-3 for Model FD9387-EHTV
Photographs	3-28	Internal View-4 for Model FD9387-EHV
Photographs	3-29	Internal View-5 for Model FD9387-HTV
Photographs	3-30	Internal View-6 for Model FD9387-HV, FD9387-HVTPM
Photographs	3-31	Internal View-7 for Model FD9187-HT
Photographs	3-32	Internal View-8 for Model FD9187-H
Photographs	3-33	Internal View-9 for Model FD9387-EHTV
Photographs	3-34	Internal View-10 for Model FD9387-EHTV

Photographs	3-35	Main board top View-1 for Model FD9387-EHTV, FD9387-EHV
Photographs	3-36	Main board bottom View-2 for Model FD9387-EHTV, FD9387-EHV
Photographs	3-37	Main board top View-3 for Model FD9387-HTV, FD9387-HV, FD9387-HVTPM
Photographs	3-38	Main board top View-4 for Model FD9387-HTV, FD9387-HV, FD9387-HVTPM
Photographs	3-39	Main board top View-5 for Model FD9187-HT, FD9187-H
Photographs	3-40	Main board bottom View-6 for Model FD9187-HT, FD9187-H
Photographs	3-41	IR LED board View-1 for Model FD9387-EHTV, FD9387-HTV, FD9187-HT
Photographs	3-42	IR LED board View-2 for Model FD9387-EHTV, FD9387-HTV, FD9187-HT
Photographs	3-43	IR LED board View-3 for Model FD9387-EHV, FD9387-HV, FD9387-HVTPM, FD9187-H
Photographs	3-44	IR LED board View-4 for Model FD9387-EHV, FD9387-HV, FD9387-HVTPM, FD9187-H
Photographs	3-45	Sensor board View-1 for All Model
Photographs	3-46	Sensor board View-2 for All Model
Diagrams	4-01	Metal Enclosure drawing for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM
Diagrams	4-02	Plastic Enclosure drawing for Models FD9187-HT, FD9187-H
Diagrams	4-03	O-ring drawing (Between plastic lens cover and metal enclosure for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM)
Diagrams	4-04	O-ring drawing (Between top enclosure and bottom enclosure for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM)
Diagrams	4-05	Cable Glands drawing (for Hole of LAN cable for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM)
Diagrams	4-06	Hole plug drawing (for Hole of General IO terminal block for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM)
Diagrams	4-07	Outdoor lens cover drawing (for Models FD9387-EHTV, FD9387-EHV, FD9387-HTV, FD9387-HV, FD9387-HVTPM)
Diagrams	4-08	Indoor lens cover (for Models FD9187-HT, FD9187-H)
Manuals	6-01	User Manual for Outdoor Models
Manuals	6-02	User Manual for Indoor Models
Miscellaneous	7-01	Model difference
Miscellaneous	7-02	Part 22 Report
Miscellaneous	7-03	IEC62471 Informative Report

Test Record

Test Record No. 1

The manufacturer submitted representative production samples of Network Camera, Models FD9187-HT, FD9187-H, FD9387-HTV, FD9387-HV, FD9387-HVTPM, FD9387-EHTV, FD9387-EHV;

Testing was waived based upon evaluation under the CB scheme.

Refer the CB Scheme Test Report Ref. No. SU0041-19003, dated 2019-07-15 for relative test results, CB Scheme Test Certificate Ref. No. DK-85953-UL dated 2019-07-31 and Report were prepared by UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK.

The following tests were waived:

Test	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer to CB Report.
Durability of Marking (1.7.11)	Refer to CB Report.
Limited Current Circuit Measurement (2.4.1, 2.4.2)	Refer to CB Report.
Limited Power Source Measurements (2.5)	Refer to CB Report.
Steady Force (4.2.1 - 4.2.4)	Refer to CB Report.
Impact (4.2.5, 4.2.1, Part 22 10.2)	Refer to CB Report.
Stress Relief (4.2.7, 4.2.1)	Refer to CB Report.
Loading - Wall and Ceiling Mounted Equipment (4.2.10)	Refer to CB Report.
Heating (4.5.1, 1.4.12, 1.4.13)	Refer to CB Report.
Component Failure (5.3.1, 5.3.4, 5.3.7)	Refer to CB Report.

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