

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
Product:	Network Camera
Model:	IP9171-HP
Rating:	I/P: 12Vdc, 0.72A or 24Vac, 0.8A, 50-60Hz or PoE 36~57Vdc, 0.3-0.2A
Applicant Name and Address:	VIVOTEK INC 6TH FL, 192 LIEN CHENG RD CHUNG HO DISTRICT NEW TAIPEI 235 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

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

Prepared by: Cary Hsieh

Reviewed by: Eddie Chen

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 supplied by PoE for indoor use only, consists of electronic components mounted on PWB then housed within metal enclosure. The EUT might be installed to the wall via mount kit.

Model Differences

N/A

Technical Considerations

- Equipment mobility : movable
- Connection to the mains : not directly connected to the mains
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC I
- 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) : PD2
- IP protection class : IP X0
- Altitude of operation (m) : Up to 2000 meters
- Altitude of test laboratory (m) : less than 2000 meters
- Mass of equipment (kg) : 0.6 (without mounting device and lens module)
- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 50°C
- 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
- Based upon the product specification provided by the manufacturer, this unit is intended to be supplied by an UL Listed power supply suitable for use at Tma 50 degree C whose output meets SELV, and is rated 12Vdc, 0.72A or 24Vac, 0.8A, 50-60Hz or PoE 36-57Vdc, 0.3-0.2A.
- PoE was considered as Network Environment 0 per IEC TR 62101, and thus the interconnected ITE circuits were considered SELV.

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	the installation instructions clearly state that "the ITE is to be connected only to PoE networks without routing to the outside plant" or equivalent.

Special Instructions to UL Representative

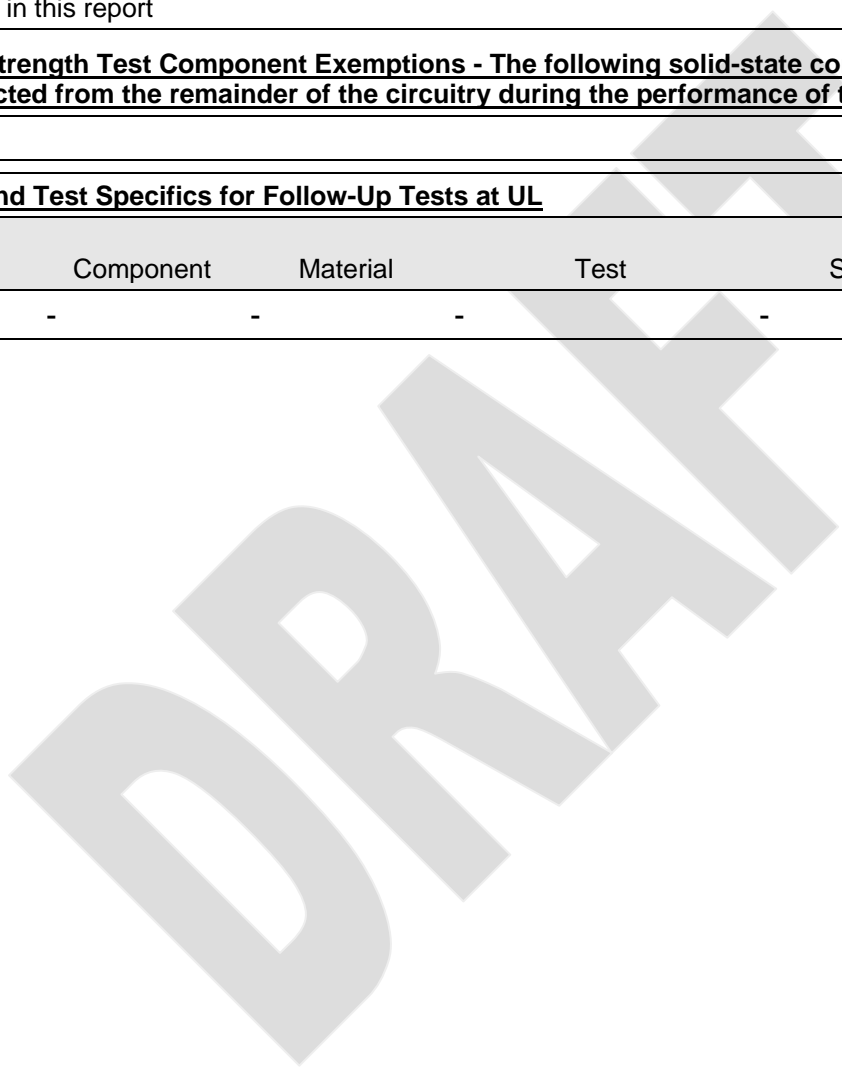
The Field Representative should verify the Tma (maximum ambient temperature) is minimum 50 degree C from the updated version of UL reports for power adapter which was/were certified by UL 60950-1, 2nd edition, 2014-10-14 (provided from customer).

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
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<u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u>						
All models in this report						
<u>Electric Strength Test Exemptions - This test is not required for the following models:</u>						
All models in this report						
<u>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:</u>						
-						
<u>Sample and Test Specifics for Follow-Up Tests at UL</u>						
Model	Component	Material	Test	Sample(s)	Test Specifics	
-	-	-	-	-	-	-



1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
01.Power Adaptor (Optional)	Interchangeable	Interchangeable	O/P: 12Vdc, 0.72A minimum. Comply with L.P.S. Tma 50 degree C.	NWGQ/7	UL	
01a.Power Adaptor (Optional) (Alternate)	Interchangeable	Interchangeable	O/P: 24Vac, 0.8A minimum, 50-60Hz. Comply with L.P.S. Tma 50 degree C.	NWGQ/7	UL	
02. Metal enclosure	Interchangeable	Interchangeable	Aluminum, 2.0 mm thick minimum. See enclosure diagram 4-01 for details.	--	--	
03. Electric Double Layer Capacitors (BT3)	ELNA Co., Ltd.	DSK-3R3K204T614-KL	Rated 3.3Vdc, 0.2F	--	--	
04. Internal plastic parts/material	Interchangeable	Interchangeable	HB minimum	QMFZ2	UL	
05. PWB	Interchangeable	Interchangeable	V-1 minimum, 105 degree C minimum.	ZPMV2	UL	
06. Label	Interchangeable	Interchangeable	60 degree C if maximum surface temperature not specified.	PGDQ2, PGJI2	UL	
06a. Permanency of Marking (Alternate)	--	--	Engraved laser marking.	--	--	
06b. Permanency of Marking (Alternate)	--	--	Permanently ink-stamped, silk-screened, molded in,	--	--	

			or on self-adhesive labels.			
07. Interconnecting Cable (Optional)	Interchangeable	Interchangeable	Minimum 60 degree C, 57V, maximum 3.05 m long, jacketed, VW-1 or FT-1	AVLV2, ZPFW2, DVPJ,	UL	
07a. Interconnecting Cable (Optional) (Alternate)	Interchangeable	Interchangeable	Maximum 3.05 m long, jacketed, type CMP, CMR, CMG, CM, CMX, CMUC, or CMH.	DUZX, ZPFW2, DUXR/2	UL	
08. Wiring, internal secondary SELV circuits (Optional)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 57 V, 60 degree C.	AVLV2	UL	
09. Connectors and Receptacles (secondary SELV circuits)	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of plastic rated V-2 minimum	QMFZ2	UL	
09a. Connectors and Receptacles (secondary SELV circuits) (alternate)	Interchangeable	Interchangeable	Minimum 57 V.	ECBT2, RTRT2	UL	
09b. Connectors and Receptacles (secondary SELV circuits) (alternate)	Interchangeable	Interchangeable	One provided. (RJ-45)	DUXR2	UL	
10. Mounting kit	Interchangeable	Interchangeable	Aluminum alloy. See Enclosure Diagram 4-02 for details.	--	--	

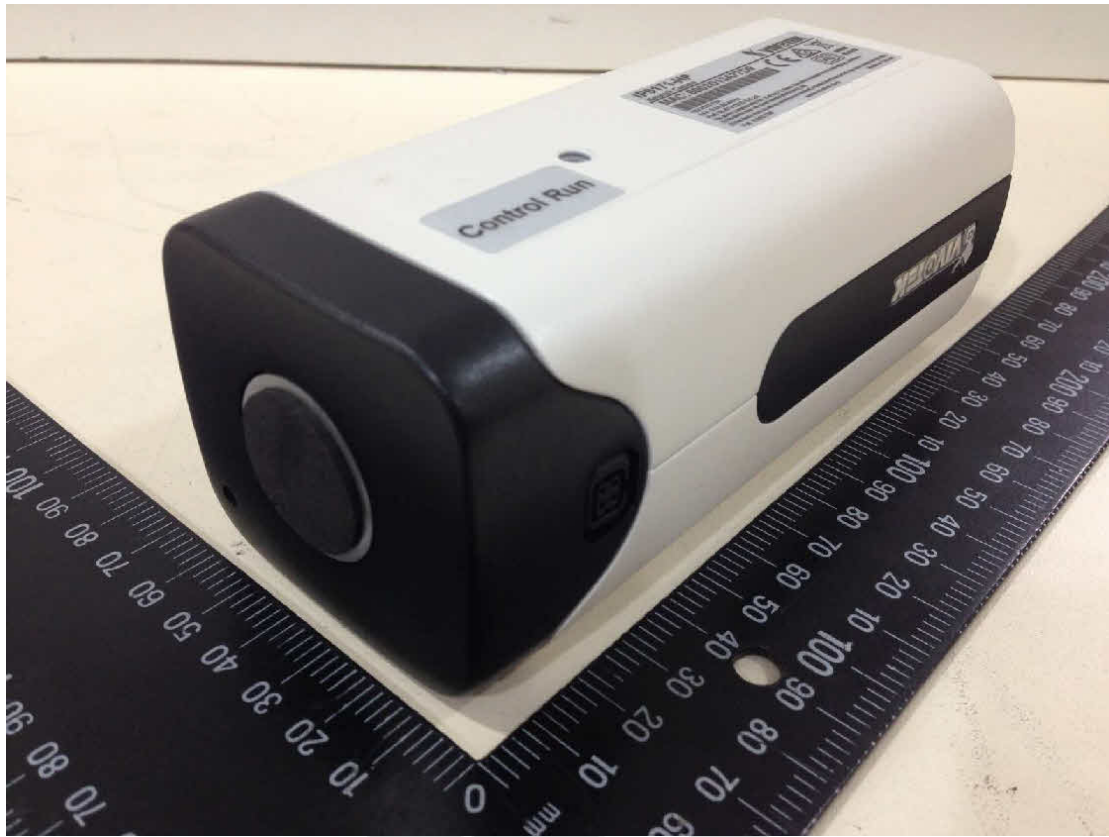
Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Overall View-1
Photographs	3-02	Overall View-2
Photographs	3-03	Internal View-1
Photographs	3-04	Internal View-2
Photographs	3-05	View-1 of Mainboard
Photographs	3-06	View-2 of Mainboard
Photographs	3-07	View-1 of I/O board
Photographs	3-08	View-2 of I/O board
Diagrams	4-01	Enclosure Diagram
Diagrams	4-02	Mounting Diagram

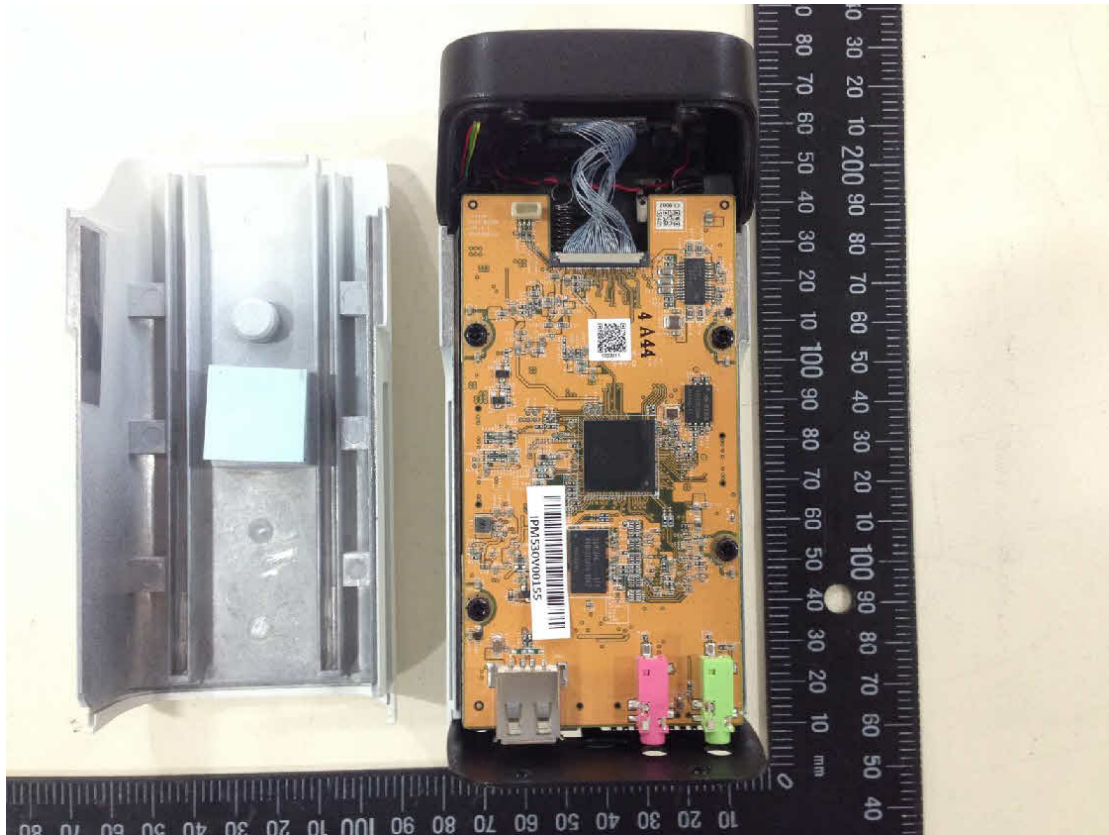
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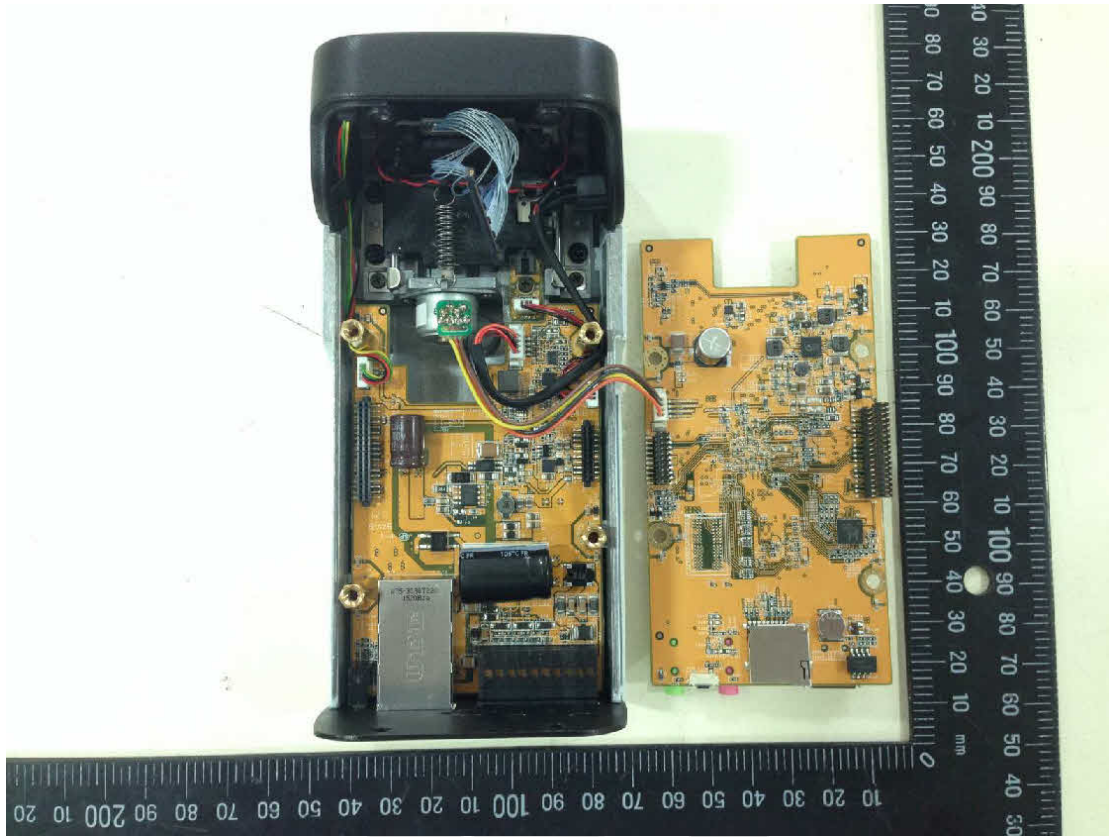
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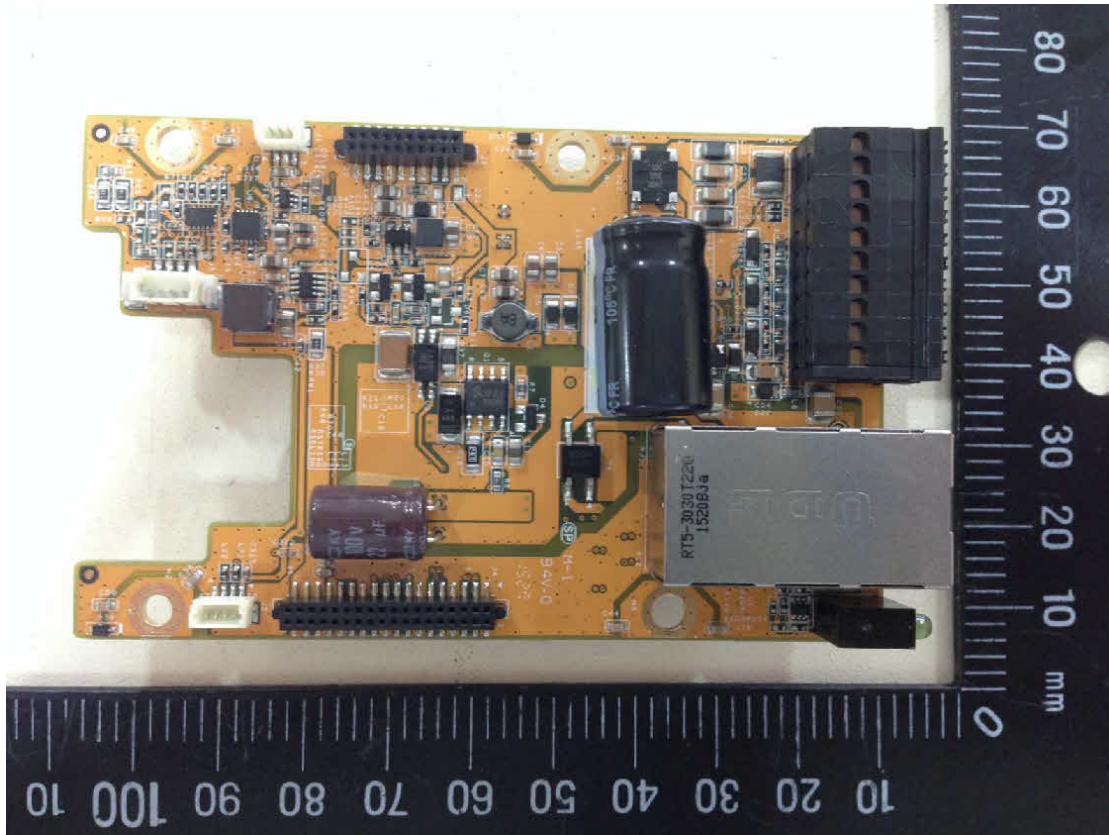
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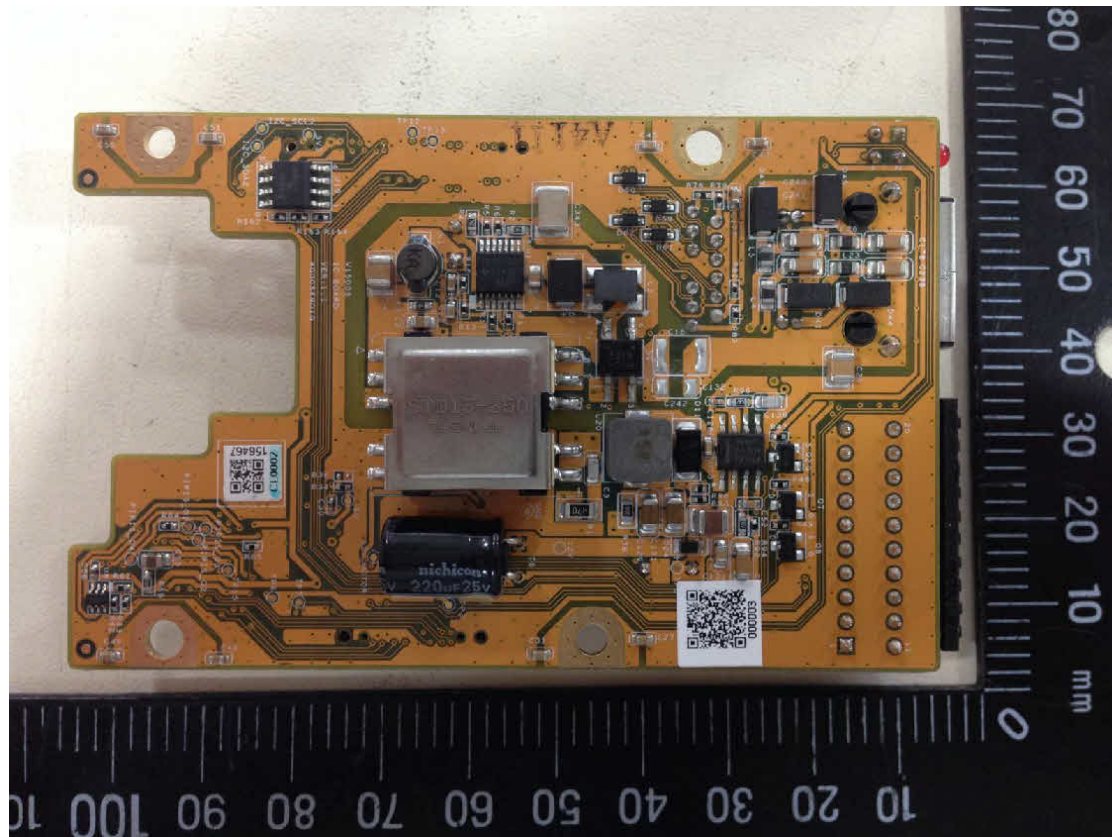
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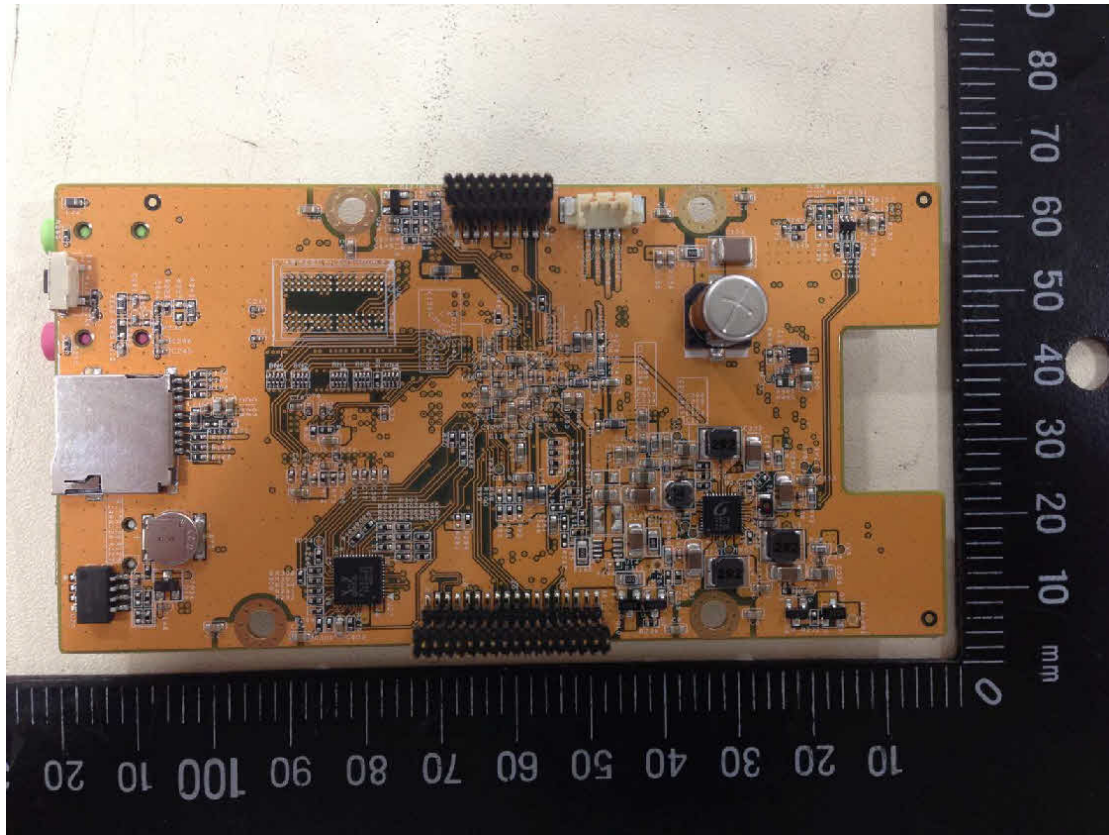
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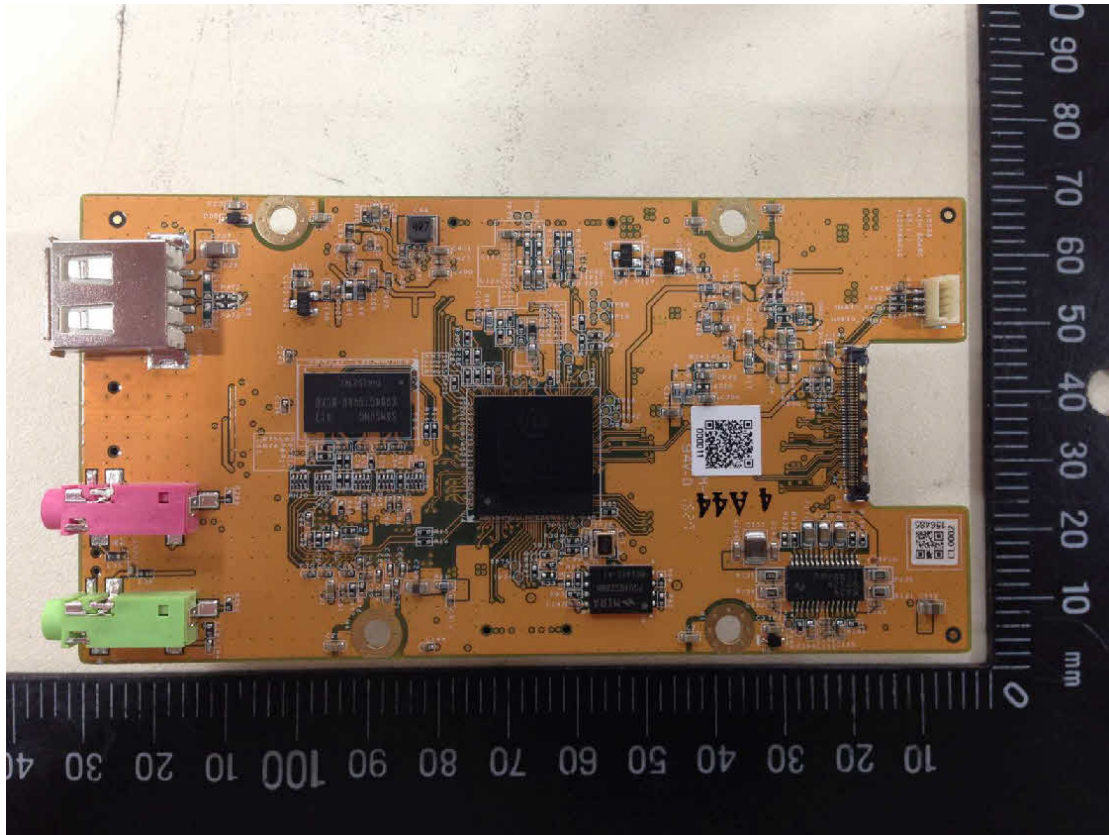
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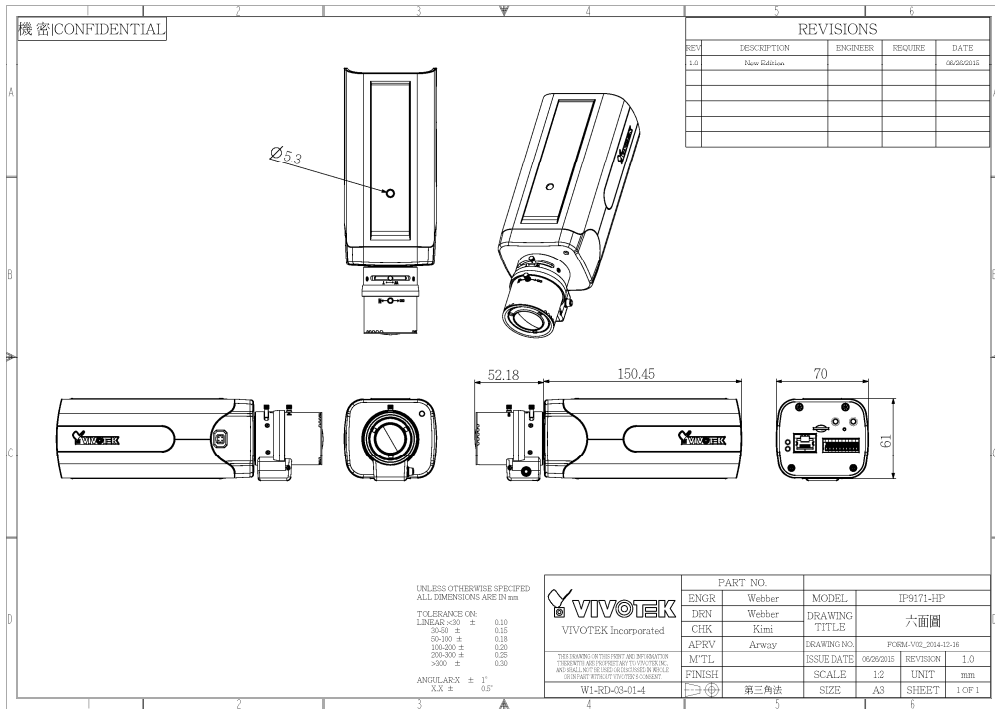
Photographs ID 3-07



Photographs ID 3-08



Diagrams ID 4-01



Diagrams ID 4-02

CUSTOMER: VIVOTEK	TransPac I/N: BR-01/BK	REV:1.1
VIVOTEK I/N : 6630004300G	ISSUE DATE: 2012.12.06	PAGE: 2
SUBJECT: BR-01/BK Indoor Camera Mounting Bracket		

TECHNICAL DATA
CONTAINS:

1. GENERAL:
Die-cast aluminum alloy with ivory coating
Max. load: 5.0kgs
Scan Angle: 360°
Tilt Angle: 120°
Fixing: 3 screws with bushings
Cable feed through hole conceals wiring
Usage: Ceiling / Wall Mount
Color: Silver



2. MECHANICAL:

Dimension: 149mm L x 75mm(dia.)

