

UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Listing
CCN:	AZOT, AZOT7 (Audio/video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	Network Camera
Model:	WV-S61501-Z1
Rating:	12 Vdc, 970 mA PoE 48 Vdc, 270 mA (Class0)
Applicant Name and Address:	i-PRO Co., Ltd. 7-9-66 HAKOZAKI HIGASHI-KU FUKUOKA-SHI FUKUOKA 812-0053 JAPAN

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.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

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

Prepared By: Nao Maede / Project Handler Reviewed By: Tadao Nakayama / Reviewer

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

This product is a Network Camera for use in an indoor environment.

This equipment is supplied from the External Power Supply.

External Power Supply : Only connect 12 Vdc Class 2 power supply (UL 1310/CSA 223) or limited power source (IEC/EN/UL/CSA 60950-1, IEC/EN/UL/CSA 62368-1 Annex Q).

That External Power Supply itself is not evaluated in this report.

Model Differences

N/A

Test Item Particulars

Product group	end product
Classification of use by	Instructed person Skilled person
Supply Connection	not mains connected: ES1
Supply tolerance	None
Supply connection – type	External Power Supply
Considered current rating of protective device	N/A
Equipment mobility	stationary wall/ceiling-mounted
Over voltage category (OVC)	OVC II
Class of equipment	Class III
Special installation location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified Tma (°C)	50°C
IP protection class	IPX0
Power systems	not AC mains
Altitude during operation (m)	2000 m or less
Altitude of test laboratory (m)	Approximately 10 to 20 m
Mass of equipment (kg)	1.95kg

Technical Considerations

- The product is intended for use on the following power systems : No direct connection
- Mains supply tolerance (%) or absolute mains supply : No direct connection

Additional Information

Unless otherwise stated, all tests were conducted under *Maximum Normal Load.

*Maximum Normal Load is Continuous recording with TILT/PAN motors are operated.

Additional Standards

The product fulfills the requirements of: EN IEC 62368-1:2020+A11:2020

Markings and Instructions

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee’s or Recognized Company’s name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
F.4 Equipment for use in location where children are not likely to be present	Following statement or equivalent is provided on Installation Guide. "This product is not suitable for use in locations where children are likely to be present."

Special Instructions to UL Representative

N/A

BD1.0						
TABLE: Production-Line Testing Requirements						
BD1.1						
Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.						
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
BD1.2						
Earthing Continuity Test Exemptions – This test is not required for the following models:						
WV-S61501-Z1						
BD1.3						
Electric Strength Test Exemptions – This test is not required for the following models:						
WV-S61501-Z1						
BD1.4						
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.						
N/A						

BE1.0					
Sample and Test Specifics for Follow-Up Tests at UL					
Model	Component	Material	Test	Sample (s)	Test Specifics
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4.1.2	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
Lens unit	UNION OPTECH CO., LTD.	T5285-HQ11B	Constructed with following items which indicated by [LU]	--	--	
Focus Motor / Zoom Motor [LU]	--	--	DC 5.0V, 55ohm/phase	--	--	
IR Switching Motor [LU]	--	--	DC 4.5-5.5V, 65ohm/phase	--	--	
Iris Motor [LU]	--	--	DC 4.5-5.5V, Excite: 180ohm, Brake: 500ohm	--	--	
DC 12V input Connector (CN510)	Switchlab Inc.(SwichLab (ShangHai) Co., Ltd.)	ME030-350029401	AC 150V, 12A	XCFR2	UL	
PoE input Connector (JK503)	DONGGUAN YUQIU ELECTRONICS CO., LTD.	1605042-01611	AC 150V, 1.5A	--	--	
Material of PoE input Connector (JK503)	CHANG CHUN CHEMICAL (ZHANGZHOU) CO., LTD.	4815	V-0	QMFZ2	UL	
Alternative	Interchangeable	Interchangeable	V-0	QMFZ2	UL	
Lithium battery (B501)	Panasonic Corporation, Panasonic Corporation of North America	BR-1225 or BR- 1225A	3.0V, 48mAh Max. abnormal charging current: 3.0mA, Abnormal charging current was prevented by Diode (D583) and 1.2kohm Resistor (R628).	BBCV2	UL	

Alternative	POWER GLORY BATTERY TECH (HK) CO., LTD.	BR1225	3.0V, 48mAh Max. abnormal charging current: 10mA, Abnormal charging current was prevented by Diode (D583) and 1.2kohm Resistor (R628).	BBCV2	UL	
PCBs	Interchangeable	Interchangeable	Minimum V-1, Minimum 105°C	ZPMV2	UL	
Flexible PCBs	Interchangeable	Interchangeable	Minimum V-1 or VTM-1	ZPXK2	UL	
Internal Wires	Interchangeable	Interchangeable	VW-1, Minimum 30V, Minimum 80°C	AVLV2	UL	
TILT motor	MinebeaMitsumi Inc.	PM25S-048-PAE0	DC 13V, 15Ω	--	--	
PAN Motor	MinebeaMitsumi Inc.	PM35S-N48-PAD8	DC 10.5V, 9Ω	--	--	
LENS COVER	CHANG CHUN PLASTICS CO., LTD.	4115	Minimum 0.75mm thick, min. V-2	QMFZ2	UL	
Alternative	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
BASE CASE	Interchangeable	ADC12	Aluminum	--	--	
DOME LENS	MITSUBISHI CHEMICAL CORPORATION	TF8	Minimum 1.2mm thick, HB	QMFZ2	UL	
Alternative	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
COVER FRONT	CHI MEI CORPORATION	PC-540	Minimum 0.75mm thick, HB	QMFZ2	UL	

Alternative	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
COVER TOP L	CHI MEI CORPORATION	PC-540	Minimum 0.75mm thick, HB	QMFZ2	UL	
Alternative	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
COVER TOP R	CHI MEI CORPORATION	PC-540	Minimum 0.75mm thick, HB	QMFZ2	UL	
Alternative	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
COVER DECORATION	CHI MEI CORPORATION	PC-540	Minimum 0.75mm thick, HB	QMFZ2	UL	
Alternative	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
Marking Plate	SUZHOU ADVANCE PRINTING CO., LTD.	AP000068	Applied to Bottom. (Conducted Durability Test.)	PGDQ2, PGDQ8	UL	
Alternative	SANKO SANGYO CO., LTD.	SWPL-CW / SWPL-CW-C	Applied to Bottom. (Conducted Durability Test.)	PDGQ2, PDGQ8	UL	

Enclosures

Type	Supplement Id	Description
Photographs	03-01	Overall View 1
Photographs	03-02	Overall View 2
Photographs	03-03	Bottom View
Photographs	03-04	Internal View 1
Photographs	03-05	Internal View 2









