

## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 60950-1, 2nd Edition, 2019-05-09 (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>	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
<b>Complementary CCN:</b>	N/A
<b>Product:</b>	Network Camera
<b>Model:</b>	WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L
<b>Rating:</b>	PoE DC 48V 80mA
<b>Applicant Name and Address:</b>	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

The products tested are Network Cameras for use outdoor or indoor environment.

Outdoor Environment Model: WV-S3532LM, WV-S3531L, WV-S3512LM, WV-S3511L,

Indoor Environment Model: WV-S3131L, WV-S3111L

The Network Cameras are supplied from Power of Ethernet (PoE standard IEEE 802.3af).

These models intended for Indoor/outdoor use and have not been evaluated for use in burglary and theft applications.

Input/Output Connector is intended to connect in indoor location.

### Model Differences

Outdoor Environment Model: WV-S3532LM, WV-S3531L, WV-S3512LM, WV-S3511L,

Indoor Environment Model: WV-S3131L, WV-S3111L

The models are essentially the same in construction except for the function tems as listed in Enclosure Id.7-01.

### Test Item Particulars

Equipment mobility	stationary
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)	PD 2
IP protection class	IP66 (Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM), IPX0 (Models WV-S3131L, WV-S3111L)
Altitude of operation (m)	Up to 2000m
Altitude of test laboratory (m)	Less than 1000m
Mass of equipment (kg)	2.1kg

#### Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (T<sub>ma</sub>) permitted by the manufacturer's specification of : 60°C
- The product was investigated to the following additional standards : The product was investigated to the following additional standards: For Outdoor Environmental Models only:, CSA/UL60950-22 1st edition - Equipment to be Installed Outdoors, IEC 60529, Edition 2.2 + Corr. 1:2013 + Corr. 2:2015, UL50E 1st Edition, C22.2 No. 94.2 1st Edition.
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS) : All circuits.
- The outdoor equipment/enclosure is : Type 4X Enclosure, IP rated 66
- The outdoor equipment/enclosure was evaluated for use in an ambient range of : -30°C to 50°C, (Note: When the IR LED is always off mode, the operating ambient temperature of WV-S3532LM & WV-S3512LM is -40 to +60 °C)
- LEDs provided in the product are considered low power devices : Yes

#### Additional Information

Maxumim Normal Load Condition: According to manufacturer's setting.  
(4 stream mode, IR LED, Full HD, H.265 60fps.)

The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant.

#### Additional Standards

The product fulfills the requirements of:

#### Markings and Instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	
Power rating - Company identification	Listee's or Recognized companys name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Outdoor Enclosure Marking for Outdoor Environment Models.	"Type 4X Enclosure" on Rating Label
IP Code for Outdoor Environmental Models	"IP66" on Rating Label

PoE Network Routing Caution on Installation Guide	"CAUTION: The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant."
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<b>Special Instructions to UL Representative</b>
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N/A
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<b>BD1.0</b>	<b>TABLE: Production-Line Testing Requirements</b>					
<b>BD1.1</b>	<b>Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.</b>					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
<b>BD1.2</b>	<b>Earthing Continuity Test Exemptions – This test is not required for the following models:</b>					
	For Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L					
<b>BD1.3</b>	<b>Electric Strength Test Exemptions – This test is not required for the following models:</b>					
	For Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L					
<b>BD1.4</b>	<b>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:</b>					
	N/A					

<b>BE1.0</b>	<b>Sample and Test Specifics for Follow-Up Tests at UL</b>				
Model	Component	Material	Test	Sample (s)	Test Specifics

1.5.1	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
Description:	Common Electrical Component	--	--	--	--	
Lithium Coin Battery	PANASONIC	BR-1225/HCN	3.0V, 48mAh, Maximum Abnormal Charging Current: 3.0mA	BBCV2(MH12210)	UL	
Alternate	POWER GLORY BATTERY TECH (HK) CO., LTD.	BR1225	3.0V, 45mAh, Maximum Abnormal Charging Current: 10mA	BBCV2(MH29853)	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Minimum V-1, Minimum 105	ZPMV2	UL	
IR LED	OSRAM	SFH4259S	5V, 70mA, 245mW	--	--	
Filter Motor	Seiko Instruments Inc.	D302-A66	DC 3.8V (MAX), 28.5Ω	--	--	
(Alternate)	TRICORE (CHINA) CORPORATION	11AON0800025	DC 2.6-3.8V (MAX), 28.5Ω	--	--	
Description:	Common Internal Plastics	--	--	--	--	
LENS_MOUNT	SABIC JAPAN L L C	LEXAN 3413R	Minimum V-2, Minimum 0.75 mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
MOUNT COVER	SABIC JAPAN L L C	LEXAN 3413R	Minimum V-2, Minimum 0.75 mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	

EYE COVER	SABIC JAPAN L L C	LEXAN 3413R	Minimum V-2, Minimum 0.75 mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
PAN HOLDER	Chi Mei Corp.	PA-765A	Minimum V-1, min. 1.5mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
Description:	Indoor Model Enclosures	--	--	--	--	
DOME	mitsubishi engineering plastics corp	S-3000VUR	Minimum V-2, Minimum 1.5 mm	QMFZ2(E41179)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
MAIN COVER	KINGFA SCI & TECH CO LTD.,	HP-126	Minimum HB, Minimum 1.2 mm	QMFZ2(E171666)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
UPPER CABINET	Chi Mei Corp.	PA765	Minimum V-0, Minimum 1.5 mm	QMFZ2(E56070)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
BASE CABINET	Interchangeable	ADC12	Aluminum	QMFZ2	--	
Description:	Outdoor Model Enclosures	--	--	--	--	

DOME(Outdoor Enclosure)	MITSUBISHI ENGINEERING PLASTICS CORP	S-3000VUR	Minimum V-2, Minimum 1.5 mm(Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.)(See Enclosure Id. 7-05)	QMFZ2(E41179)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used. (Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.)	QMFZ2	UL	
MAIN COVER OUTDDOR(Outdoor Enclosure)	Interchangeable	ADC12	Aluminum, Minimum 1.3 mm thick(See Enclosure Id. 7-06)	--	--	
UPPER CABINET	Chi Mei Corp.	PA765	Minimum V-0, Minimum 1.5 mm	QMFZ2(E56070)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
BASE CABINET OUTDDOR(Outdoor Enclosure)	Interchangeable	ADC12	Aluminum, Minimum 1.2 mm thick(See Enclosure Id. 7-07)	--	--	
Description:	Gaskets	--	--	--	--	
RUBBER BASE CABINET	Dow Toray Co., Ltd.	RBB-6640-40	See Enclosure Id. 7-04	QMFZ2(E55519)	UL	

(Alternate)	WYNCA TINYO SILICONE CO., LTD.	TY856 (Hardness: 40)	Min. HB	QMFZ2 (E207571)	UL	
RUBBER BUSH PIGTAIL	Dow Toray Co., Ltd.	RBB-6640-40	See Enclosure Id. 7-03	QMFZ2(E55519)	UL	
(Alternate)	WYNCA TINYO SILICONE CO., LTD.	TY856 (Hardness: 40)	Min. HB	QMFZ2 (E207571)	UL	
RUBBER DOME	Dow Toray Co., Ltd.	RBB-6640-40	See Enclosure Id. 7-02	QMFZ2(E55519)	UL	
(Alternate)	WYNCA TINYO SILICONE CO., LTD.	TY856 (Hardness: 40)	Min. HB	QMFZ2 (E207571)	UL	

**Enclosures**

<b>Type</b>	<b>Supplement Id</b>	<b>Description</b>
Photographs	03-01	Overall View [Front] (Model WV-S3131L; Indoor Environment Model)
Photographs	03-02	Overall View [Bottom] (Model WV-S3131L; Indoor Environment Model)
Photographs	03-03	Internal View (Model WV-S3131L; Indoor Environment Model)
Photographs	03-04	Internal View [Removed Upper Cabinet] (Model WV-S3131L; Indoor Environment Model)
Photographs	03-05	Overall View [Front] (Model WV-S3531L; Outdoor Environment Model)
Photographs	03-06	Overall View [Bottom] (Model WV-S3531L; Outdoor Environment Model)
Photographs	03-07	Internal View (Model WV-S3531L; Outdoor Environment Model)
Photographs	03-08	Internal View [Removed Upper Cabinet] (Model WV-S3531L; Outdoor Environment Model)
Manuals	06-02	Installation Guid
Miscellaneous	07-01	Model Differences
Miscellaneous	07-02	Gasket Specification of RUBBER DOME
Miscellaneous	07-03	Gasket Specification of RUBBER BUSH PIGTAIL
Miscellaneous	07-04	Gasket Specification of RUBBER BASE CABINET
Miscellaneous	07-05	Outdoor Enclosure Specification of DOME
Miscellaneous	07-06	Outdoor Enclosure Specification of MAIN COVER
Miscellaneous	07-07	Outdoor Enclosure Specification of BASE CABINET

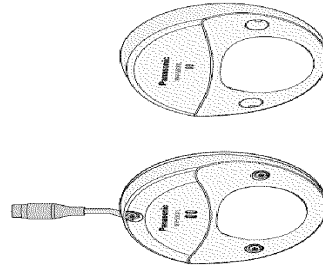


## Installation Guide

Included Installation Instructions

### Network Camera

Model No. **WW-S3531L / WW-S3511L**  
**WW-S3131L / WW-S311L**  
**WW-S3532LM / WW-S3512LM**



- Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.
- For information about the basic description of this product, refer to the important information on the provided CD-ROM. For information about how to perform the settings and how to operate this product, refer to the Operating Instructions on the following Panasonic support web site.

**WARNING:**

- To prevent injury, this apparatus must be securely attached to the wall ceiling in accordance with the installation instructions.
- To prevent fire or electric shock hazard, do not expose this apparatus to rain or moisture. (Indoor use only)
- The apparatus should not be exposed to dripping or spraying. (Indoor use only)
- All work related to the installation of this product should be made by qualified service personnel or system installers.
- The installation shall be carried out in accordance with all applicable installation rules.
- The connections should comply with local electrical code.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunlight, fire or fire risk.

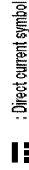
**CAUTION:**

- The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside port.

For Canada  
 CAN/ICES-049(NB-04)

For U.S.A.  
 The model number and serial number of this product may be found on the surface of the unit. You should note the model number and serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_



For U.S.A.  
**NOTE:** This equipment has been tested and found to comply with the limits for a Class A Digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
 (1) This device may not cause harmful interference, and  
 (2) this device must accept any interference received, including interference that may cause undesired operation.



Supplier's Declaration of conformity  
 Trade name : Panasonic  
 Model No. : WW-S3531L / WW-S3511L  
 WW-S3131L / WW-S311L  
 WW-S3532LM / WW-S3512LM  
 Responsible Party :  
 Panasonic Corporation of North America  
 Two Riverfront Plaza, Newark, New Jersey  
 07102-5480  
 Support Contact : 1-800-828-6747

Model Differences

Model	WV-S3532LM	WV-S3531L	WV-S3512LM	WV-S3511L	WV-S3131L	WV-S3111L
Ratings:	PoE DC 48V, 80mA					
Maximum Resolution:	2.4M pixels	1.3M pixels	1.3M pixels	1.3M pixels	2.4M pixels	1.3M pixels
Enclosure Material:	Metal			Plastics		
IR LED Function:	Provided					
Operating ambient temperature (°C):	-30 to +50 (see Note below)			0 to +40		
Shape of Ethernet connector:	Male	Female	Male	Female	Female	Female

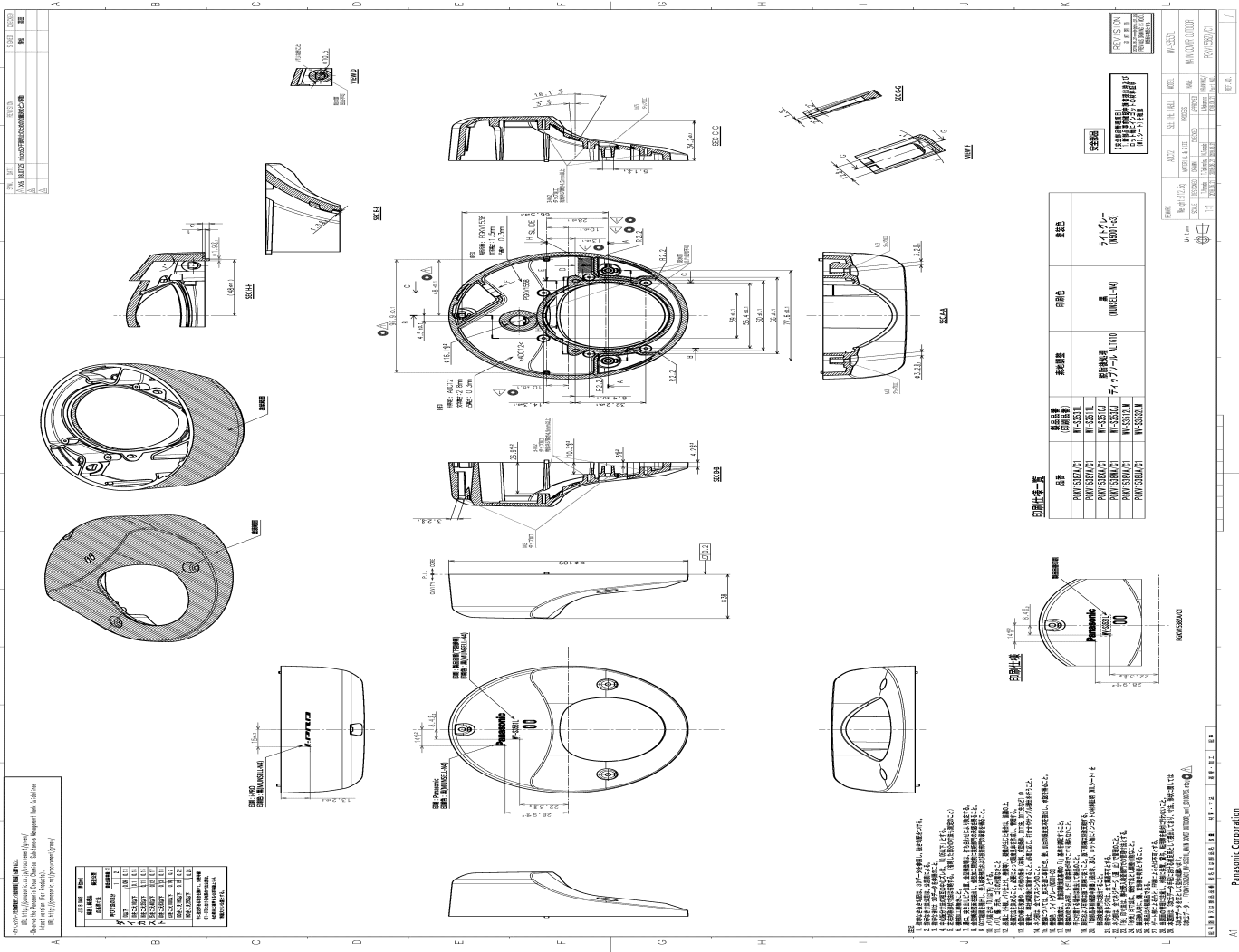
Note: When the IR LED is always off mode, the operating ambient temperature of WV-S3532LM & WV-S3512LM is -40 to +60 °C.







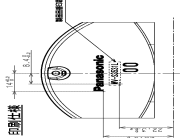




1. 本製品は、車内空気清浄機として使用してください。  
 2. 本製品の電源は、車の点検灯電源を使用してください。  
 3. 本製品の電源は、車の点検灯電源を使用してください。  
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部品名	品番	数量
本体	W-S2521	1
電源ケーブル	W-S2522	1
空気清浄フィルター	W-S2523	1
空気清浄フィルター	W-S2524	1
空気清浄フィルター	W-S2525	1
空気清浄フィルター	W-S2526	1
空気清浄フィルター	W-S2527	1
空気清浄フィルター	W-S2528	1
空気清浄フィルター	W-S2529	1
空気清浄フィルター	W-S2530	1
空気清浄フィルター	W-S2531	1
空気清浄フィルター	W-S2532	1
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空気清浄フィルター	W-S2536	1
空気清浄フィルター	W-S2537	1
空気清浄フィルター	W-S2538	1
空気清浄フィルター	W-S2539	1
空気清浄フィルター	W-S2540	1
空気清浄フィルター	W-S2541	1
空気清浄フィルター	W-S2542	1
空気清浄フィルター	W-S2543	1
空気清浄フィルター	W-S2544	1
空気清浄フィルター	W-S2545	1
空気清浄フィルター	W-S2546	1
空気清浄フィルター	W-S2547	1
空気清浄フィルター	W-S2548	1
空気清浄フィルター	W-S2549	1
空気清浄フィルター	W-S2550	1

部品名	品番	数量
本体	W-S2521	1
電源ケーブル	W-S2522	1
空気清浄フィルター	W-S2523	1
空気清浄フィルター	W-S2524	1
空気清浄フィルター	W-S2525	1
空気清浄フィルター	W-S2526	1
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空気清浄フィルター	W-S2546	1
空気清浄フィルター	W-S2547	1
空気清浄フィルター	W-S2548	1
空気清浄フィルター	W-S2549	1
空気清浄フィルター	W-S2550	1

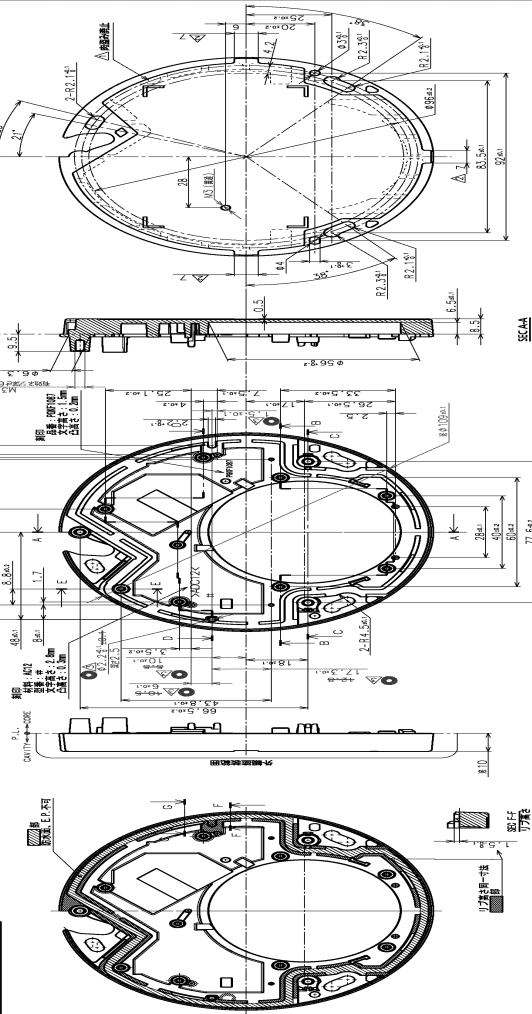


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REV.	DATE	REVISION	FIGURE	NO.
1	2012.02.01	設計変更承認済	53002	000001
2	2012.02.01	設計変更承認済	53002	000002
3	2012.02.01	設計変更承認済	53002	000003
4	2012.02.01	設計変更承認済	53002	000004
5	2012.02.01	設計変更承認済	53002	000005
6	2012.02.01	設計変更承認済	53002	000006
7	2012.02.01	設計変更承認済	53002	000007
8	2012.02.01	設計変更承認済	53002	000008
9	2012.02.01	設計変更承認済	53002	000009
10	2012.02.01	設計変更承認済	53002	000010
11	2012.02.01	設計変更承認済	53002	000011
12	2012.02.01	設計変更承認済	53002	000012

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 12. 設計変更承認済

項目	内容
1	設計変更承認済
2	設計変更承認済
3	設計変更承認済
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10	設計変更承認済
11	設計変更承認済
12	設計変更承認済

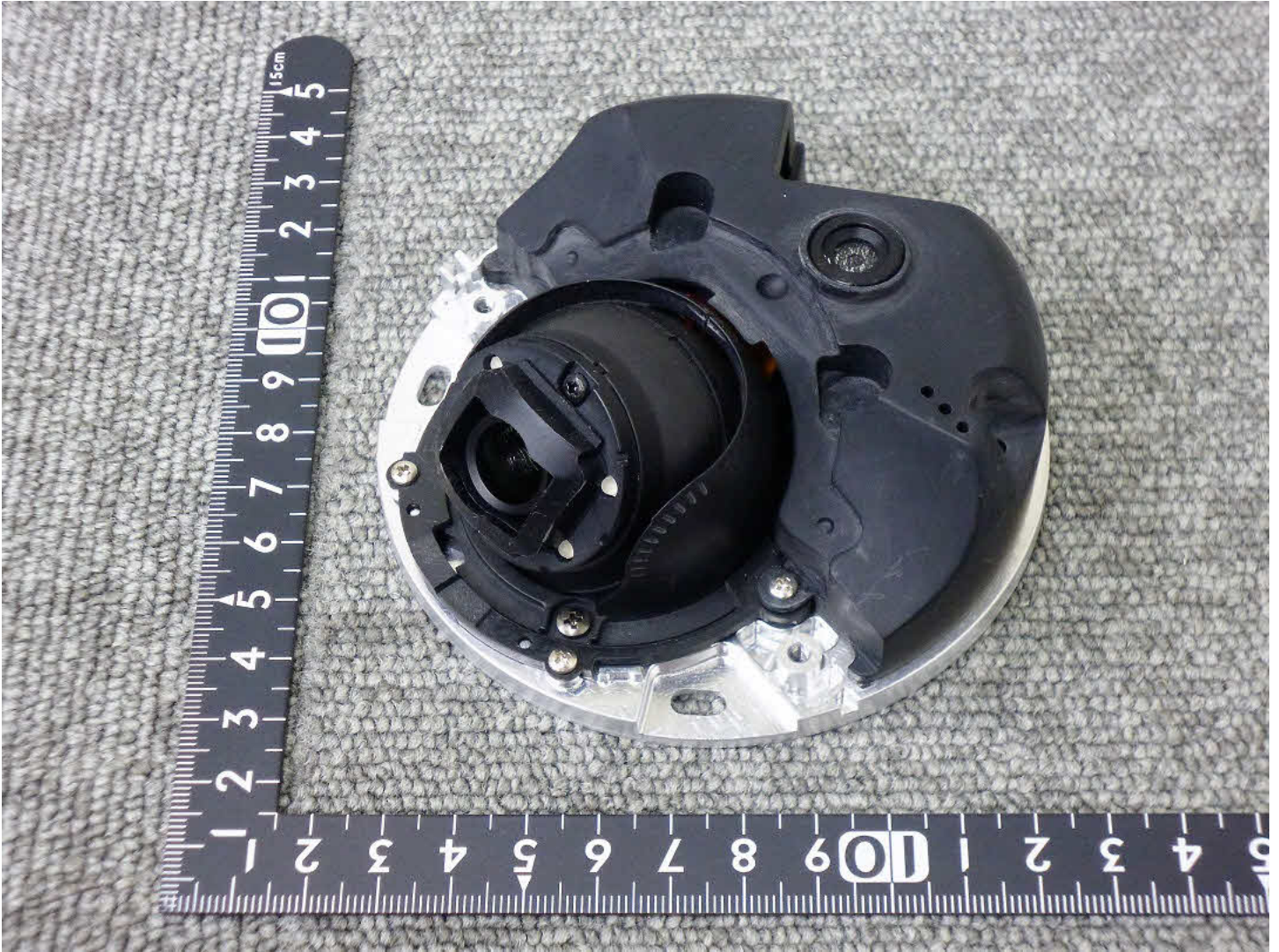


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 10. 設計変更承認済  
 11. 設計変更承認済  
 12. 設計変更承認済

REV.	DATE	REVISION	FIGURE	NO.
1	2012.02.01	設計変更承認済	53002	000001
2	2012.02.01	設計変更承認済	53002	000002
3	2012.02.01	設計変更承認済	53002	000003
4	2012.02.01	設計変更承認済	53002	000004
5	2012.02.01	設計変更承認済	53002	000005
6	2012.02.01	設計変更承認済	53002	000006
7	2012.02.01	設計変更承認済	53002	000007
8	2012.02.01	設計変更承認済	53002	000008
9	2012.02.01	設計変更承認済	53002	000009
10	2012.02.01	設計変更承認済	53002	000010
11	2012.02.01	設計変更承認済	53002	000011
12	2012.02.01	設計変更承認済	53002	000012

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 12. 設計変更承認済

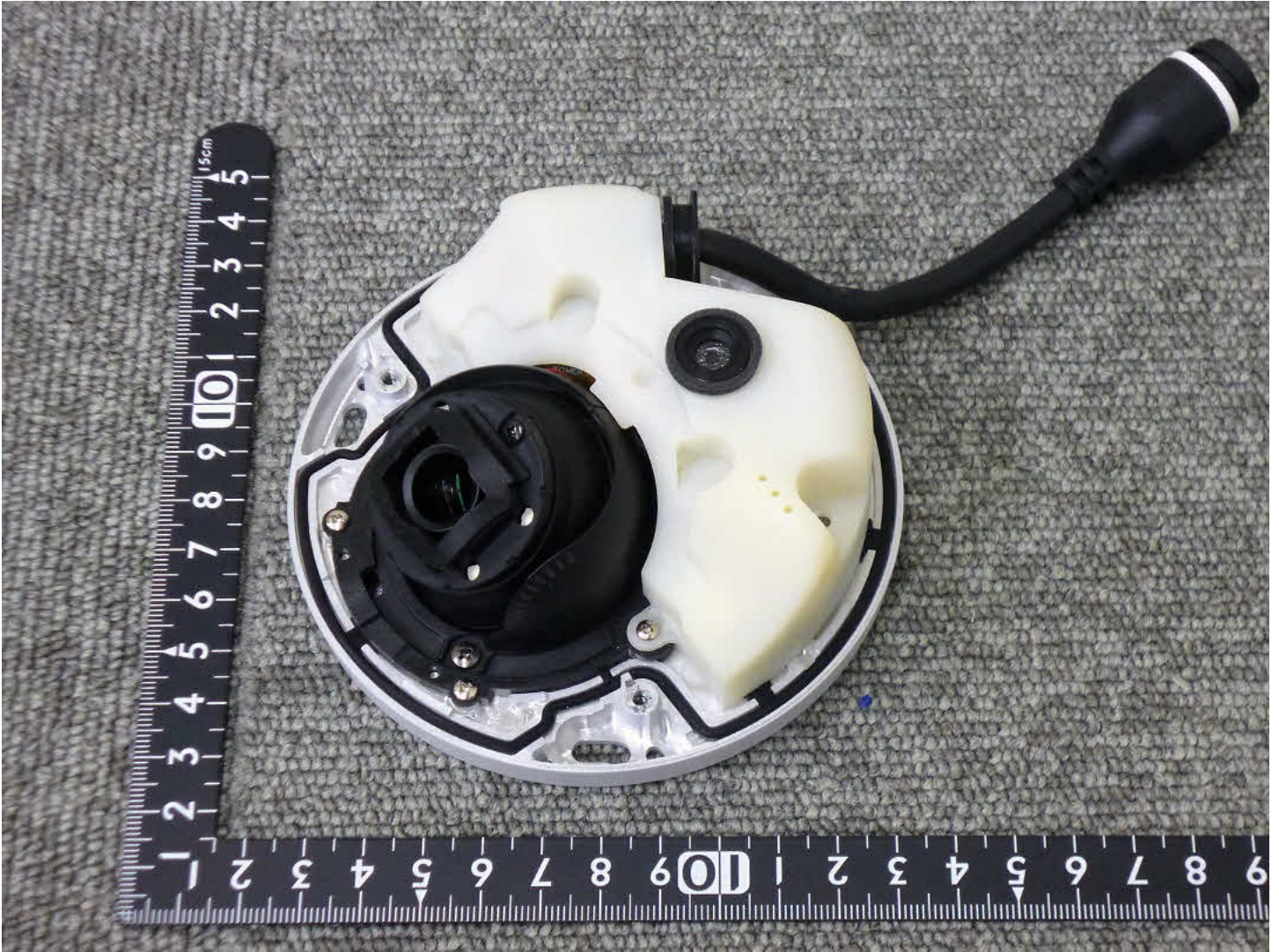


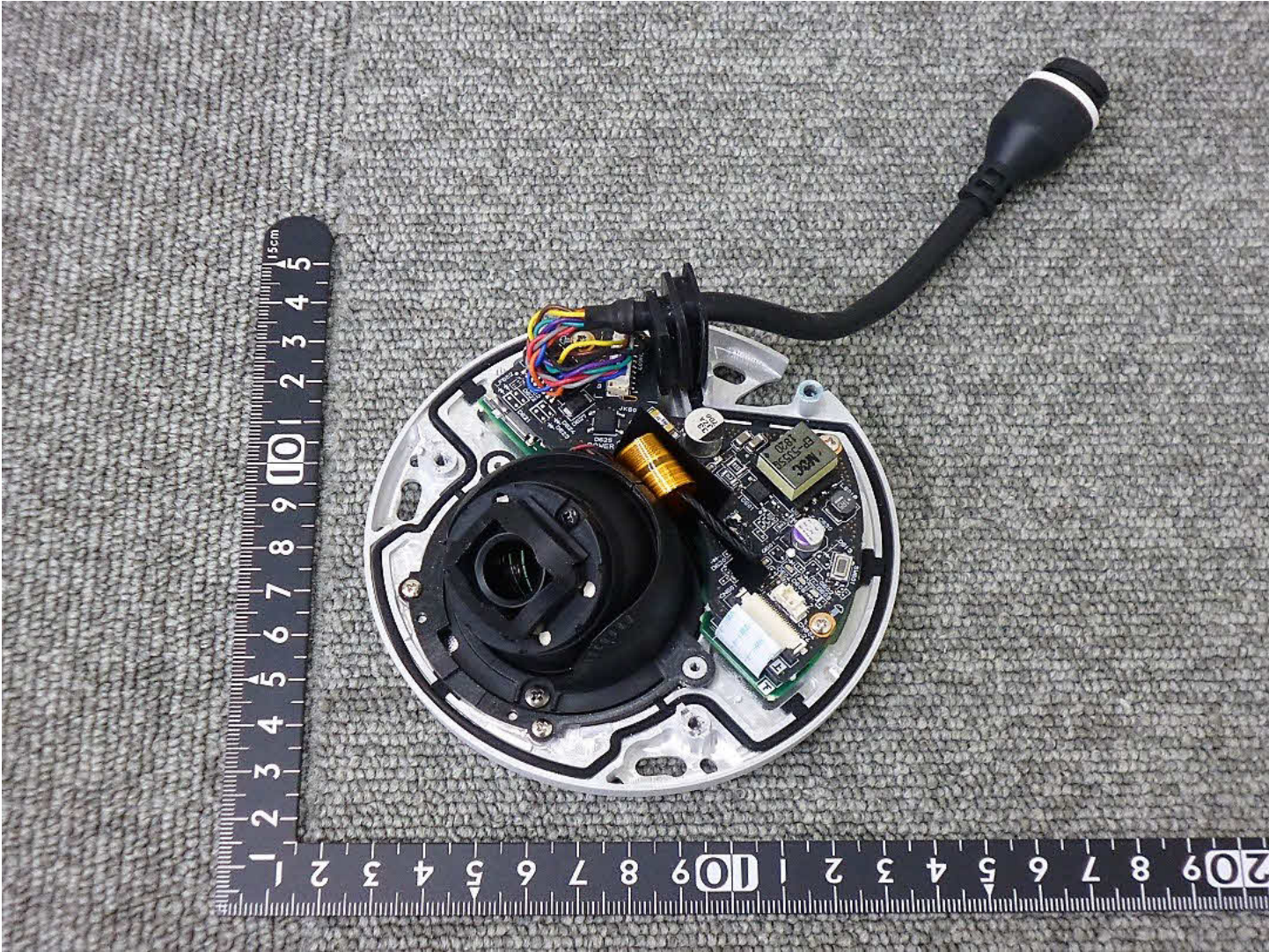














## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 60950-1, 2nd Edition, 2019-05-09 (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>	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
<b>Complementary CCN:</b>	N/A
<b>Product:</b>	Network Camera
<b>Model:</b>	WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L
<b>Rating:</b>	PoE DC 48V 80mA
<b>Applicant Name and Address:</b>	Panasonic i-PRO Sensing Solutions Co., Ltd. 4-1-62 MINOSHIMA HAKATA-KU FUKUOKA-SHI FUKUOKA-KEN 812-8531 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: Ayano Matsumoto / Project  
Handler

Reviewed By: Bruce A. Mahrenholz / 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

The products tested are Network Cameras for use outdoor or indoor environment.

Outdoor Environment Model: WV-S3532LM, WV-S3531L, WV-S3512LM, WV-S3511L,

Indoor Environment Model: WV-S3131L, WV-S3111L

The Network Cameras are supplied from Power of Ethernet (PoE standard IEEE 802.3af).

These models intended for Indoor/outdoor use and have not been evaluated for use in burglary and theft applications.

Input/Output Connector is intended to connect in indoor location.

### Model Differences

Outdoor Environment Model: WV-S3532LM, WV-S3531L, WV-S3512LM, WV-S3511L,

Indoor Environment Model: WV-S3131L, WV-S3111L

The models are essentially the same in construction except for the function tems as listed in Enclosure Id.7-01.

### Test Item Particulars

Equipment mobility	stationary
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)	PD 2
IP protection class	IP66 (Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM), IPX0 (Models WV-S3131L, WV-S3111L)
Altitude of operation (m)	Up to 2000m
Altitude of test laboratory (m)	Lsee than 1000m
Mass of equipment (kg)	2.1kg

#### Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (T<sub>ma</sub>) permitted by the manufacturer's specification of : 60°C
- The product was investigated to the following additional standards : The product was investigated to the following additional standards: For Outdoor Enviromentl Models only:, CSA/UL60950-22 1st edition - Equipment to be Installed Outdoors, IEC 60529, Edition 2.2 + Corr. 1:2013 + Corr. 2:2015, UL50E 1st Edition, C22.2 No. 94.2 1st Edition.
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS) : All circuits.
- The outdoor equipment/enclosure is : Type 4X Enclosure, IP rated 66
- The outdoor equipment/enclosure was evaluated for use in an ambient range of : -30°C to 50°C, (Note: When the IR LED is always off mode, the operating ambient temperature of WV-S3532LM & WV-S3512LM is -40 to +60 °C)
- LEDs provided in the product are considered low power devices : Yes

#### Additional Information

Maxumim Normal Load Condition: According to manufacturer's setting.  
(4 stream mode, IR LED, Full HD, H.265 60fps.)

The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant.

#### Additional Standards

The product fulfills the requirements of:

#### Markings and Instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	
Power rating - Company identification	Listee's or Recognized companys name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Outdoor Enclosure Marking for Outdoor Environment Models.	"Type 4X Enclosure" on Rating Label
IP Code for Outdoor Environmental Models	"IP66" on Rating Label

PoE Network Routing Caution  
on Installation Guide

"CAUTION: The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant."

**Special Instructions to UL Representative**

N/A

<b>BD1.0</b>	<b>TABLE: Production-Line Testing Requirements</b>					
<b>BD1.1</b>	<b>Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.</b>					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
<b>BD1.2</b>	<b>Earthing Continuity Test Exemptions – This test is not required for the following models:</b>					
	For Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L					
<b>BD1.3</b>	<b>Electric Strength Test Exemptions – This test is not required for the following models:</b>					
	For Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L					
<b>BD1.4</b>	<b>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:</b>					
	N/A					

<b>BE1.0</b>	<b>Sample and Test Specifics for Follow-Up Tests at UL</b>				
Model	Component	Material	Test	Sample (s)	Test Specifics

1.5.1	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
Description:	Common Electrical Component	--	--	--	--	
Lithium Coin Battery	PANASONIC	BR-1225/HCN	3.0V, 48mAh, Maximum Abnormal Charging Current: 3.0mA	BBCV2(MH12210)	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Minimum V-1, Minimum 105	ZPMV2	UL	
IR LED	OSRAM	SFH4259S	5V, 70mA, 245mW	--	--	
Filter Motor	Seiko Instruments Inc.	D302-A66	DC 3.8V (MAX), 28.5Ω	--	--	
(Alternate)	TRICORE (CHINA) CORPORATION	11AON0800025	DC 2.6-3.8V (MAX), 28.5Ω	--	--	
Description:	Common Internal Plastics	--	--	--	--	
LENS_MOUNT	SABIC INNOVATIVE PLASTICS	LEXAN 3413R	Minimum V-2, Minimum 0.75 mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
MOUNT COVER	SABIC INNOVATIVE PLASTICS	LEXAN 3413R	Minimum V-2, Minimum 0.75 mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
EYE COVER	SABIC INNOVATIVE PLASTICS	LEXAN 3413R	Minimum V-2, Minimum 0.75 mm	QMFZ2(E45587)	UL	

(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
PAN HOLDER	Chi Mei Corp.	PA-765A	Minimum V-1, min. 1.5mm	QMFZ2(E45587)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
Description:	Indoor Model Enclosures	--	--	--	--	
DOME	MITSUBISHI ENGINEERING PLASTICS CORP	S-3000VUR	Minimum V-2, Minimum 1.5 mm	QMFZ2(E41179)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
MAIN COVER	KINGFA SCI & TEC CO LTD.,	HP-126	Minimum HB, Minimum 1.2 mm	QMFZ2(E171666)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
UPPER CABINET	Chi Mei Corp.	PA765	Minimum V-0, Minimum 1.5 mm	QMFZ2(E56070)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
BASE CABINET	Interchangeable	ADC12	Aluminum	QMFZ2	--	
Description:	Outdoor Model Enclosures	--	--	--	--	
DOME(Outdoor Enclosure)	MITSUBISHI ENGINEERING PLASTICS CORP	S-3000VUR	Minimum V-2, Minimum 1.5 mm(Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water	QMFZ2(E41179)	UL	

			Exposure and Immersion in accordance with UL 746C.)(See Enclosure Id. 7-05)			
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used. (Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.)	QMFZ2	UL	
MAIN COVER OUTDDOR(Outdoor Enclosure)	Interchangeable	ADC12	Aluminum, Minimum 1.3 mm thick(See Enclosure Id. 7-06)	--	--	
UPPER CABINET	Chi Mei Corp.	PA765	Minimum V-0, Minimum 1.5 mm	QMFZ2(E56070)	UL	
(Alternate)	Interchangeable	Interchangeable	Minimum HB at thickness and color used.	QMFZ2	UL	
BASE CABINET OUTDDOR(Outdoor Enclosure)	Interchangeable	ADC12	Aluminum, Minimum 1.2 mm thick(See Enclosure Id. 7-07)	--	--	
Description:	Gaskets	--	--	--	--	
RUBBER BASE CABINET	DOW CORNING TORAY SILICONE CO LTD	RBB-6640-40	See Enclosure Id. 7-04	QMFZ2(E55519)	UL	
(Alternate)	WYNCA TINYO SILICONE CO., LTD.	TY856 (Hardness: 40)	Min. HB	QMFZ2 (E207571)	UL	

RUBBER BUSH PIGTAIL	DOW CORNING TORAY SILICONE CO LTD	RBB-6640-40	See Enclosure Id. 7-03	QMFZ2(E55519)	UL	
(Alternate)	WYNCA TINYO SILICONE CO., LTD.	TY856 (Hardness: 40)	Min. HB	QMFZ2 (E207571)	UL	
RUBBER DOME	DOW CORNING TORAY SILICONE CO LTD	RBB-6640-40	See Enclosure Id. 7-02	QMFZ2(E55519)	UL	
(Alternate)	WYNCA TINYO SILICONE CO., LTD.	TY856 (Hardness: 40)	Min. HB	QMFZ2 (E207571)	UL	

**Enclosures**

<b>Type</b>	<b>Supplement Id</b>	<b>Description</b>
Photographs	03-01	Overall View [Front] (Model WV-S3131L; Indoor Environment Model)
Photographs	03-02	Overall View [Bottom] (Model WV-S3131L; Indoor Environment Model)
Photographs	03-03	Internal View (Model WV-S3131L; Indoor Environment Model)
Photographs	03-04	Internal View [Removed Upper Cabinet] (Model WV-S3131L; Indoor Environment Model)
Photographs	03-05	Overall View [Front] (Model WV-S3531L; Outdoor Environment Model)
Photographs	03-06	Overall View [Bottom] (Model WV-S3531L; Outdoor Environment Model)
Photographs	03-07	Internal View (Model WV-S3531L; Outdoor Environment Model)
Photographs	03-08	Internal View [Removed Upper Cabinet] (Model WV-S3531L; Outdoor Environment Model)
Manuals	06-02	Installation Guid
Miscellaneous	07-01	Model Differences
Miscellaneous	07-02	Gasket Specification of RUBBER DOME
Miscellaneous	07-03	Gasket Specification of RUBBER BUSH PIGTAIL
Miscellaneous	07-04	Gasket Specification of RUBBER BASE CABINET
Miscellaneous	07-05	Outdoor Enclosure Specification of DOME
Miscellaneous	07-06	Outdoor Enclosure Specification of MAIN COVER
Miscellaneous	07-07	Outdoor Enclosure Specification of BASE CABINET

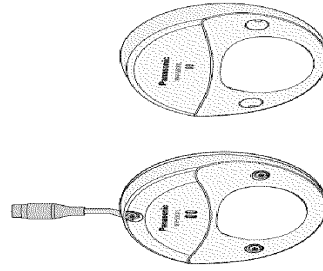


## Installation Guide

Included Installation Instructions

### Network Camera

Model No. **WW-S3531L / WW-S3511L**  
**WW-S3131L / WW-S3111L**  
**WW-S3532LM / WW-S3512LM**



- Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.
- For information about the basic description of this product, refer to the important information on the provided CD-ROM. For information about how to perform the settings and how to operate this product, refer to the Operating Instructions on the following Panasonic support web site.

- WARNING:**
- To prevent fire, this apparatus must be securely attached to the wall ceiling in accordance with the installation instructions.
  - To prevent fire or electric shock hazard, do not expose this apparatus to rain or moisture. (Indoor use only)
  - The apparatus should not be exposed to dripping or spraying. (Indoor use only)
  - All work related to the installation of this product should be made by qualified service personnel or system installers.
  - The installation shall be carried out in accordance with all applicable installation rules.
  - The connections should comply with local electrical code.
  - Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunlight, fire or fire risk.

**CAUTION:**

- The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside port.

For Canada  
 CAN/ICES-001(NB-03)

For U.S.A.  
 The model number and serial number of this product may be found on the surface of the unit. You should note the model number and serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_



For U.S.A.  
**NOTE:** This equipment has been tested and found to comply with the limits for a Class A Digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
 (1) This device may not cause harmful interference, and  
 (2) this device must accept any interference received, including interference that may cause undesired operation.

**FC**  
 Supplier's Declaration of conformity  
 Trade name : Panasonic  
 Model No. : WW-S3531L / WW-S3511L  
 WW-S3131L / WW-S3111L  
 WW-S3532LM / WW-S3512LM  
 Responsible Party :  
 Panasonic Corporation of North America  
 Two Riverfront Plaza, Newark, New Jersey  
 07102-5480  
 Support Contact : 1-800-828-6747

Model Differences

Model	WV-S3532LM	WV-S3531L	WV-S3512LM	WV-S3511L	WV-S3131L	WV-S3111L
Ratings:	PoE DC 48V, 80mA					
Maximum Resolution:	2.4M pixels	2.4M pixels	1.3M pixels	1.3M pixels	2.4M pixels	1.3M pixels
Enclosure Material:	Metal			Plastics		
IR LED Function:	Provided					
Operating ambient temperature (°C):	-30 to +50 (see Note below)			0 to +40		
Shape of Ethernet connector:	Male	Female	Male	Female	Female	Female

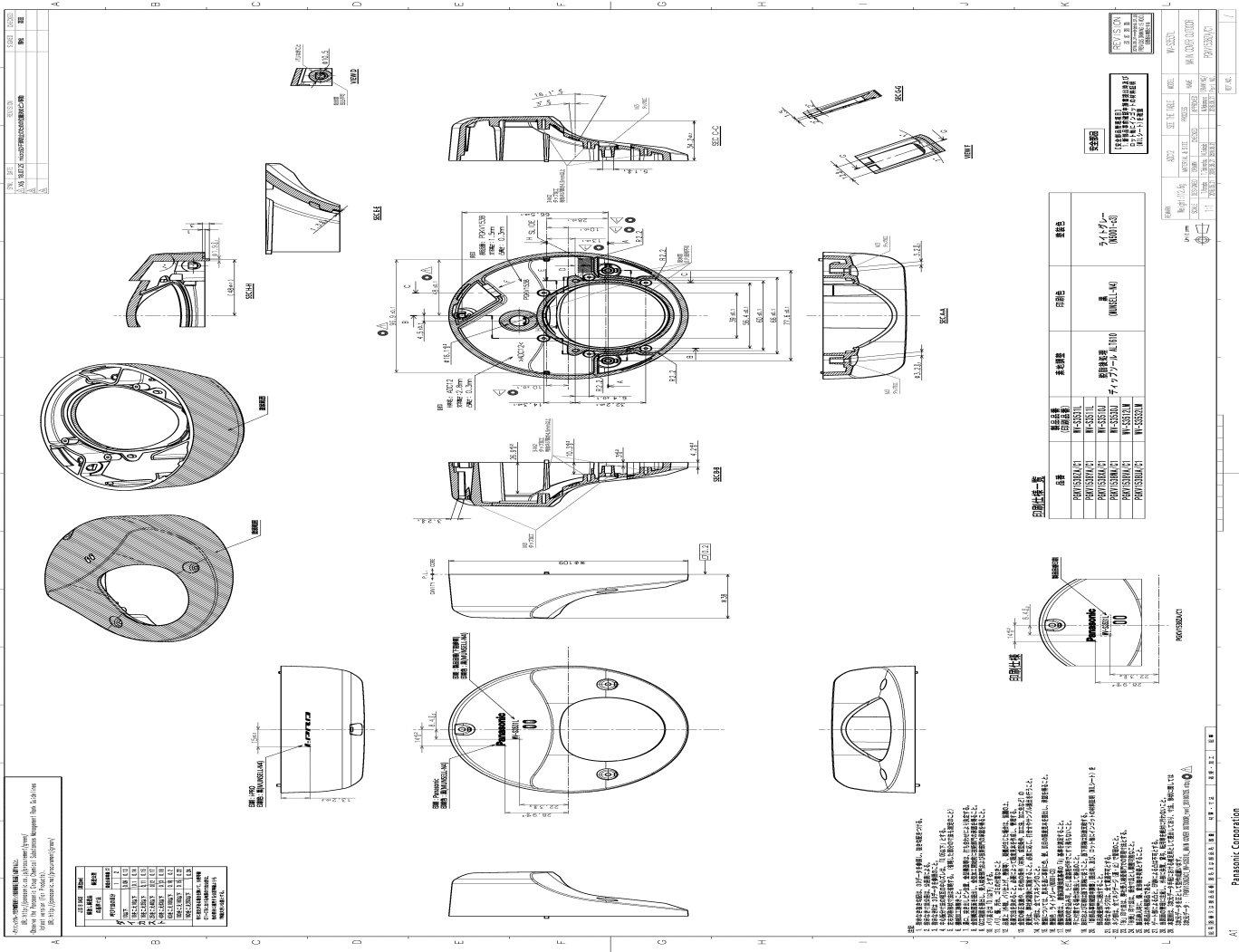
Note: When the IR LED is always off mode, the operating ambient temperature of WV-S3532LM & WV-S3512LM is -40 to +60 °C.











1. 本製品は、車内空気清浄機として使用してください。  
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部品名	部品番号	数量	単位
本体	W-S2521	1	個
電源ケーブル	W-S2522	1	本
取扱説明書	W-S2523	1	冊
保証書	W-S2524	1	枚
その他			

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その他			

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