

# CERTIFICATE OF COMPLIANCE

**Certificate Number** R-E140407  
**Report Reference** E140407-A424-UL  
**Issue Date** 2020-JUNE-26

**Issued to:** PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA  
Product Safety & Compliance Dept  
Two Riverfront Plaza 9th Fl  
Newark NJ 07102-5490

**This certificate confirms that representative samples of**

INFORMATION TECHNOLOGY EQUIPMENT INCLUDING ELECTRICAL BUSINESS EQUIPMENT  
Network Camera  
WV-S4550L, WV-S4550LM, WV-S4150, WV-X4571L, WV-X4571LM, WV-X4171, WV-X4170, WV-S4550LPJ, Z-X4572

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

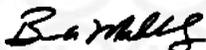
**Standard(s) for Safety:** UL 60950-1 and CAN/CSA C22.2 No. 60950-1-07 standard for Information Technology Equipment - Safety - Part 1: General Requirements

**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

<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-S4550L, WV-S4550LM, WV-S4150, WV-X4571L, WV-X4571LM, WV-X4171, WV-X4170, WV-S4550LPJ, Z-X4572, WV-X4573L, WV-X4573LM, WV-X4173, WV-X4172, WV-S4551L, WV-S4551LM, WV-S4151
<b>Rating:</b>	<p>WV-S4550L, WV-S4550LM, WV-S4550LPJ: 12 Vdc, 910 mA / PoE 48 Vdc, 240 mA</p> <p>WV-S4150: 12 Vdc, 385 mA / PoE 48 Vdc, 105 mA</p> <p>WV-X4571L, WV-X4571LM, WV-X4573L, WV-X4573LM 12 Vdc, 1.04 A / PoE 48 Vdc, 260 mA</p> <p>WV-X4171, WV-X4173: 12 Vdc, 560 mA / PoE 48 Vdc, 150 mA</p> <p>WV-X4170, WV-X4172: PoE 48 Vdc, 150 mA</p> <p>Z-X4572 PoE 48 Vdc, 270 mA</p> <p>WV-S4551L, WV-S4551LM: 12 Vdc, 930 mA / PoE 48 Vdc, 240 mA</p> <p>WV-S4151: 12 Vdc, 400 mA / PoE 48 Vdc, 110 mA</p>

**Applicant Name and Address:**

PANASONIC CORPORATION OF NORTH AMERICA  
PRODUCT SAFETY & COMPLIANCE DEPT  
TWO RIVERFRONT PLAZA  
9TH FL  
NEWARK NJ 07102-5490  
UNITED STATES

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: Yusuke Enokimura / Project  
Handler

Reviewed By: Kosuke Kawamura / 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.

[For Outdoor Environment Models]

WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ, Z-X4572, WV-X4573L, WV-X4573LM, WV-S4551L, WV-S4551LM

[For Indoor Environment Models]

WV-S4150, WV-X4171, WV-X4170, WV-X4173, WV-X4172, WV-S4151

The Network Cameras are supplied from Power of Ethernet (PoE standard IEEE 802.3af) or by 12 Vdc from an optional Class 2 UL Listed AC adaptor.

Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-X4573L, WV-X4573LM, WV-S4551L, WV-S4551LM and Z-X4572 are intended for 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**

WV-S4550L is basic model in this report.

WV-S4550LM is similar to WV-S4550L except for model designation and shape of ethernet connector.

WV-S4150 is similar to WV-S4550L except for model designation, enclosure material, ratings and operating condition.

WV-X4571L is similar to WV-S4550L except for model designation, current rating, and Maximum Resolution.

WV-X4571LM is similar to WV-S4550LM except for model designation, current rating, and Maximum Resolution.

WV-X4171 is similar to WV-S4150 except for model designation, current rating, and Maximum Resolution.

WV-X4170 is similar to WV-X4171 except for model designation, no DC 12V Input, Operating Condition, and no External IO / Audio In-out.

WV-S4550LPJ is similar to WV-S4550L except for model number and manufacturing location (Vol. X28). (see Miscellaneous Id. 7-01)

Z-X4572 is similar to WV-S4550L except for model designation, current rating, Maximum Resolution, no IR LED, no DC 12V Input, no base bracket, mass of equipment and addition of ITO coating as a heating element for dome cover.

WV-X4573L is similar to WV-X4571L except for model designation, current rating and imeging processor IC.

WV-X4573LM is similar to WV-X4571LM except for model designation, current rating and imeging processor IC.

WV-S4551L is similar to WV-S4550L except for model designation, current rating, Maximum Resolution. and imeging processor IC.

WV-S4551LM is similar to WV-S4550LM except for model designation, current rating, Maximum Resolution and imeging processor IC.

WV-X4173 is similar to WV-X4171 except for model designation, current rating and imeging processor IC.

WV-X4172 is similar to WV-X4170 except for model designation, current rating and imeging processor IC.

WV-S4171 is similar to WV-S4150 except for model designation, current rating, Maximum Resolution and imeging processor IC.

### 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)	Not connect to mains.
Pollution degree (PD)	PD 2
IP protection class	IP66 (Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ, Z-X4572, WV-X4573L, WV-X4573LM, WV-S4551L, WV-S4551LM), IPX0 (Models WV-S4150, WV-X4171, WV-X4170, WV-X4173, WV-X4172, WV-S4151)
Altitude of operation (m)	less than 2000
Altitude of test laboratory (m)	less than 1000
Mass of equipment (kg)	0.88 kg (Models WV-X4573L, WV-X4573LM), 0.87 kg (Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ, WV-S4551L, WV-S4551LM), 0.85 kg (Model Z-X4572), 0.39 kg (Model WV-S4150), 0.42 kg (Model WV-X4171, WV-X4173), 0.4kg (Model WV-X4170, WV-X4172), 0.39 kg (Model WV-S4151), 0.45 kg (Base bracket)

### 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 : For Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ, WV-X4573L, WV-X4573LM, WV-S4551L, WV-S4551LM: 60 °C, For Models WV-S4150, WV-X4171, Z-X4572: 50 °C, For Model WV-X4170: 40 °C
- The product was investigated to the following additional standards : For Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ, WV-X4573L, WV-X4573LM, WV-S4551L, WV-

S4551LM:, CSA/UL60950-22 2nd edition - Equipment to be Installed Outdoors, IEC 60529, Edition 2.2 + Corr. 1:2013 + Corr. 2:2015, UL50E 2nd Edition, C22.2 No. 94.2 2nd Edition.

- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- The outdoor equipment/enclosure is : For Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM,WV-S4550LPJ, Z-X4572, WV-X4573L, WV-X4573LM, WV-S4551L, WV-S4551LM:, Type 4X Enclosure, IP rated IP66
- The outdoor equipment/enclosure was evaluated for use in an ambient range of : -40 °C to +60 °C

**Additional Information**

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: [Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ, Z-X4572, WV-X4573L, WV-X4573LM, WV-S4551L, WV-S4551LM only] UL 60950-22 2nd Edition. Revised 2017-03-31, CSA C22.2 No. 60950-22-17 2nd Edition, IEC 60529, Edition 2.2 + Corr. 1:2013 + Corr. 2:2015, UL50E 2nd Edition, issued 2015-10-16, C22.2 No. 94.2-15 2nd Edition

**Markings and Instructions**

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Company identification	Listee's or Recognized companys name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Outdoor Enclosure Marking	"Type 4X Enclosure" on Rating Label
IP Code	"IP66" on Rating Label

**Special Instructions to UL Representative**

WV-S4550LPJ is manufactured in Vol. X28.  
Other models are manufactured in Vol. X195 or X215.