

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20180118-E140407  
**Report Reference** E140407-A424-UL  
**Issue Date** 2018-JANUARY-18

**Issued to:** 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**

Information Technology Equipment Including Electrical  
Business Equipment  
Network Camera  
WV-S4550L, WV-S4550LM, WV-S4150, WV-X4571L, WV-  
X4571LM, WV-X4171, WV-X4170

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  
[www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's  
Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	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)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	NWQG, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
<b>Product:</b>	Network Camera
<b>Model:</b>	WV-S4550L, WV-S4550LM, WV-S4150, WV-X4571L, WV-X4571LM, WV-X4171, WV-X4170, WV-S4550LPJ
<b>Rating:</b>	WV-S4550L, WV-S4550LM, WV-S4550LPJ: 12 Vdc, 910 mA / PoE 48 Vdc, 240 mA  WV-S4150: 12 Vdc, 385 mA / PoE 48 Vdc, 105 mA  WV-X4571L, WV-X4571LM 12 Vdc, 1.04 A / PoE 48 Vdc, 260 mA  WV-X4171: 12 Vdc, 560 mA / PoE 48 Vdc, 150 mA  WV-X4170: PoE 48 Vdc, 150 mA
<b>Applicant Name and Address:</b>	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.

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Prepared by: Yuta Iida

Reviewed by: Yusuke Enokimura

### 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

[For Indoor Environment Models]

WV-S4150, WV-X4171, WV-X4170

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, and WV-X4571LM 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)

### 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) : 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), IPX0 (Models WV-S4150, WV-X4171, WV-X4170)
- Altitude of operation (m) : less than 2000
- Altitude of test laboratory (m) : less than 1000
- Mass of equipment (kg) : 0.87 kg (Models WV-S4550L, WV-S4550LM, WV-X4571L, WV-X4571LM, WV-S4550LPJ), 0.39 kg (Model WV-S4150), 0.42 kg (Model WV-X4171), 0.4kg (Model WV-X4170), 0.45 kg (Base bracket)
- 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: 60 °C, For Models WV-S4150, WV-X4171: 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:., 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:., 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 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 -	Listee's or Recognized company's name, Trade Name, Trademark or File

Company identification	Number
Power rating - Model	Model Number
Outdoor Enclosure Marking	"Type 4X Enclosure" on Rating Label
IP Code	"IP66" on Rating Label
<b>Special Instructions to UL Representative</b> WV-S4550LPJ is manufactured in Vol. X28. Other models are manufactured in Vol. X195.	

**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
N/A	--	--	--	--	--	--

**Earthing Continuity Test Exemptions - This test is not required for the following models:**

ALL

**Electric Strength Test Exemptions - This test is not required for the following models:**

ALL

**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

**Sample and Test Specifics for Follow-Up Tests at UL**

Model	Component	Material	Test	Sample(s)	Test Specifics
N/A	--	--	--	--	--