

CERTIFICATE OF COMPLIANCE

Certificate Number 20181108-E140407
Report Reference E140407-A433-UL
Issue Date 2018-NOVEMBER-08

Issued to: 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
Model: WV-S3531L, WV-S3532LM, WV-S3511L, WV-
S3512LM, WV-S3131L, WV-S3111L

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

Standard(s) for Safety: UL 60950-1 & 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
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide 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

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|------------------------------------|---|
| 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: | NWQQ, NWQQ7 (Information Technology Equipment Including Electrical Business Equipment) |
| Product: | Network Camera |
| Model: | WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L |
| Rating: | PoE DC 48V 80mA |
| 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.

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Prepared by: Yusuke Enokimura

Reviewed by: Naoyuki Ito

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.

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) : 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
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) 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.

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 company's 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 | "CAUTION: The network camera is only intended for a connection to an |

| | |
|---------------------------------------|--|
| Routing Caution on Installation Guide | ethernet or PoE network without routing to the outside plant." |
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| Special Instructions to UL Representative N/A |
|---|

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:

For Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L

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

For Models WV-S3531L, WV-S3532LM, WV-S3511L, WV-S3512LM, WV-S3131L, WV-S3111L

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 | | | | | |