

CERTIFICATE OF COMPLIANCE

Certificate Number 20180822-E140407
Report Reference E140407-A407-UL
Issue Date 2018-AUGUST-22

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

**This is to certify that
representative samples of**

Information Technology Equipment Including Electrical
Business Equipment
Network Camera
Model: WV-S1511LN, WV-S1531LN, WV-S1531LTN, WV-
S1531LNS, WV-S1531LNPJ

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
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

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:	NWQG, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
Product:	Network Camera
Model:	WV-S1511LN, WV-S1531LN, WV-S1531LTN, WV-S1531LNS, WV-S1531LNPJ
Rating:	12Vdc, 750mA or 48Vdc (PoE), 195mA
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: Walid Beytoughan

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 Network Cameras are supplied from AC or DC power supply or Power over Ethernet (PoE standard IEEE 802.3af).

The product is intended for outdoor use and has not been evaluated for use in burglary and theft applications.

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

Model Differences

WV-S1531LN is basic model in this report.

WV-S1531LTN is similar to WV-S1531LN except for model number and focal point distance.

WV-S1511LN is similar to WV-S1531LN except for model number and definition and no zoom motor provided.

WV-S1531LNS is similar to WV-S1531LN except for model number and an additional painting for heavy salt damage resistance on the metal outer enclosure.

WV-S1531LNJP is similar to WV-S1531LN except for model number and manufacturing location (Vol. X28).

Technical Considerations

- Equipment mobility : fixed
- Connection to the mains : N/A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : N/A
- 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 : IP 66
- Altitude of operation (m) : Up to 2000

- Altitude of test laboratory (m) : Approx. 10 to 20
- Mass of equipment (kg) : Approx. 1.6 Kg
- 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: CSA/UL60950-22 - Equipment to be Installed Outdoors, IEC 60529, Edition 2.1 + Corr. 1:2003 + Corr. 2:2007 + Corr. 3:2009, UL50E 1st Edition, Revised 2007-09-04, C22.2 No. 94.2 1st Edition.
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The outdoor equipment/enclosure is: Type 4X Enclosure, IP rated IP66
- The outdoor equipment/enclosure was evaluated for use in an ambient range of: -40°C to 60°C, ,
- LEDs provided in the product are considered low power devices: Yes

Additional Information

PoE circuit was evaluated as SELV circuit, because this product is connected only to PoE networks without routing to the outside plant and suitable instruction is provided in the user manual. See sub-clause 1.7.2 for details.

IEC 60950-22, Equipment to be Installed Outdoor have been evaluated (see enclosure Miscellaneous Id. 7-02 and 7-03).

The LED emission from Model WV-S1xxx was determined to be Exempt Group based on the following rationale.

Model WV-S1xxx has similar constructions to the Applicant's another model, Model WV-S2131L, which was evaluated to IEC 62471 (2006). The LED emission from Model WV-S2131L was assigned to Exempt Group with enough margin as described in Enclosure Id. 7-03 of this report. While both models WV-S1xxx and WV-S2131L employ the same LEDs (two provided) driven at the same current, 220 mA, there are two differences that can affect irradiance, i.e. the interval between two LEDs mounted (13.32mm for WV-S1xxx, 59.898mm for WV-S2131L) and the shape of the cover located above the LEDs. However, it was determined that the emission from Model WV-S1xxx could also be considered as Exempt Group since the effective irradiance (or radiance) is still much less than all the exposure limits for Exempt Group even if the value is doubled.

Additional Standards

The product fulfills the requirements of: UL 60950-22 1st Ed. Revised 2011-12-19, CSA C22.2 No. 60950-22-07, IEC 60529, Edition 2.1 + Corr. 1:2003 + Corr. 2:2007 + Corr. 3:2009, UL50E 1st Edition, Revised 2007-09-04, C22.2 No. 94.2 1st 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 company's 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-S1531LNPJ is manufactured in Vol. X28. Other models are manufactured in Vol. X195.	

Production-Line Testing Requirements							
<u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u>							
Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s	
N/A	--	--	--	--	--	--	
<u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u>							
All models							
<u>Electric Strength Test Exemptions - This test is not required for the following models:</u>							
All models							
<u>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:</u>							
N/A							
<u>Sample and Test Specifics for Follow-Up Tests at UL</u>							
Model	Component	Material	Test	Sample(s)	Test Specifics		
N/A	--	--	--	--	--		