

MPE Evaluation According To EN62311: 2008

Applicant : Zhejiang Dahua Vision Technology Co., Ltd.
No.1199, Bin'an Road, Binjiang District, Hangzhou, P.R. China

Manufacturer : Zhejiang Dahua Vision Technology Co., Ltd.
No.1199, Bin'an Road, Binjiang District, Hangzhou, P.R. China

Product Name : IP CAMERA

Type/Model : DH-IPC-HDW5231RN-Z, DH-IPC-HDW5231RP-Z, IPC-HDW5231RN-Z,
IPC-HDW5231RP-Z, DH-IPC-HDW5231RP-Z-S2, DH-IPC-HDW5431RN-Z,
DH-IPC-HDW5431RP-Z, IPC-HDW5431RN-Z, IPC-HDW5431RP-Z,
DH-IPC-HDW5431RP-Z-S2, DH-IPC-HDW5830RN-Z,
DH-IPC-HDW5830RP-Z, IPC-HDW5830RN-Z, DH-IPC-HDW5830RP-Z-S2,
DH-IPC-HDW5830RP, N58BH4Z, N58BH4ZI, IPC-HDW2231RP-ZS,
IPC-HDW2231RN-ZS, DH-IPC-HDW2231RP-ZS, DH-IPC-HDW2231RN-ZS,
IPC-HDW2231RP-ZS-S2, IPC-HDW2230RP-ZS, DH-IPC-HDW2230RP-ZS,
DH-IPC-HDW2230RN-ZS, IPC-HDW2230RN-ZS, IPC-HDW2431RN-ZS,
IPC-HDW2431RP-ZS, DH-IPC-HDW2431RP-ZS,
DH-IPC-HDW2431RN-ZS, IPC-HDW2431RP-ZS-S2,
DH-IPC-HDW2531RP-ZS-27135, DH-IPC-HDW2531RN-ZS-27135,
IPC-HDW2531RP-ZS-27135, IPC-HDW2531RN-ZS-27135,
DH-IPC-HDW2531RP-ZS, DH-IPC-HDW2531RN-ZS, IPC-HDW2531RP-ZS,
IPC-HDW2531RN-ZS

Rating : 12Vdc 1A,
POE: 48Vdc 200mA

The equipment complies with the requirements according to the following standard:

EN62311: 2008: Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)

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Reviewed by:



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1. Summary of tests

TEST	REFERENCE	RESULTS
Assessment	Council recommendation 1999/519/EC	Pass

Notes: NA =Not Applicable

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2. RF Exposure Limit

Council Recommendation 1999/519/EC: The criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency radiation.

Reference levels for electric, magnetic and electromagnetic fields (Table 2 of 1999/519/EC)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	-	$3,2 \times 10^4$	4×10^4	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	$4\ 000/f$	$5\ 000/f$	-
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	-
0,8-3 kHz	$250/f$	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	$0,73/f$	$0,92/f$	-
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Notes:

1. *f* as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any $68/f^{1.05}$ - minute period (*f* in GHz).
4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.
5. The shading grid stands for the applied limit in this report.

3. RF Exposure Assessment

Test result: **PASS**

3.1 ASSESSMENT REQUIREMENTS

For non-radio transmitting apparatus, the compliance assessment to emissions of E or H field has to be made according to the highest internal frequency used within the apparatus under analysis or at which the apparatus operates with the following criteria:

- Highest internal frequency of the apparatus is less than 100MHz, the assessments shall be made up to 1GHz;
- Highest internal frequency of the apparatus is between 100MHz and 400MHz, the assessment shall be made up to 2GHz;
- Highest internal frequency of the apparatus is between 400MHz and 1GHz, the assessment shall be made up to 5GHz;
- Highest internal frequency of the apparatus is above 1GHz, the measurement shall be made up to 5 × the highest frequency.

3.2 ASSESSMENT RESULT

Kind of emission: unintentional radiators intentional radiators

Inherently compliant: unintentional radiators (for example incandescent light bulbs and audio/visual (A/V) equipment, information technology equipment (ITE) and multimedia equipment (MME) that does not contain radio transmitters), is deemed to meet the requirements in this standard without test.

Low power compliant: the equipment is deemed to meet the requirements in this standard without test for the radiated output power is lower than P_{max} (low-power exclusion level): 20mW.

E-field strength Test:

TEST DATA SUMMARY			
Carrier Frequency (MHz)	Distance between Field Sensor and device (cm)	Measured E-field Strength (V/m)	Limit (V/m)
/	/	/	/