# FCC/ IC TEST REPORT

According to

**FCC CFR Title 47 Part 15 Subpart C (15.247)**

| | | |
|---|---|---|
| **Applicant** | : | **Amcrest Technologies LLC** |
| **Address** | : | **16727 Park Row Dr.Houston, TX 77084** |
| **Manufacturer** | : | **Zhejiang Dahua Vision Technology Co., Ltd.** |
| **Address** | : | **No.1199, Bin'an road, Binjiang District, Hangzhou,P.R.China.** |
| **Equipment** | : | **960P/1.3MP Fixed Wireless IP Camera** |
| **Model No.** | : | **IPM-HX1B ,IPM-HX1W** |
| **FCC ID** | : | **ZZ2AMC016** |
| **IC ID** | : | **21923-AMC016** |
| **Test Period** | : | **Jul.18,2017~ Jul.31, 2017** |

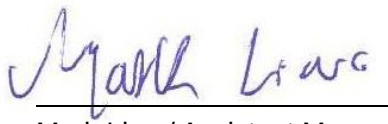
■ The test result refers exclusively to the test presented test model / sample.

■ Without written approval of ***Cerpass Technology Corporation Test Laboratory.*** the test report shall not be reproduced exc- ept in full.

■ The test report must not be used by the clients to claim product certification approval by any agency of the Government.

I HEREBY CERTIFY THAT :
The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.10 – 2013&RSS-247,Issue 2&RSS-Gen&FCC Part15.247**and the energy emitted by this equipment was ***passed.***

Approved by:



Mark Liao / Assistant Manager

Laboratory Accreditation:

☒ Cerpass Technology Corporation Test Laboratory

| | |
|---|---|
| **TAF LAB Code:** | **1439** |

# Radio Frequency Exposure

**LIMIT**

For 2.4G Band: According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

**EUT Specification**

| | |
|---|---|
| **EUT** | 960P/1.3MP Fixed Wireless IP Camera |
| **Frequency band (Operating)** | ☒ WLAN: 2.412GHz ~ 2.462GHz |
| **Device category** | ☐ Portable (<20cm separation)<br>☒ Mobile (>20cm separation) |
| **Exposure classification** | ☐ Occupational/Controlled exposure (S = 5mW/cm$^2$)<br>☒ General Population/Uncontrolled exposure (S=1mW/cm$^2$) |
| **Antenna diversity** | ☒ Single antenna<br>☐ Multiple antennas<br>☐ Tx diversity<br>☐ Rx diversity<br>☒ Tx/Rx diversity |
| **Max. output power for 2.4G Band** | IEEE802.11b: 22.42 dBm (0.1746W)<br>IEEE802.11g: 18.46 dBm (0.0701W)<br>IEEE802.11n HT20: 18.99 dBm (0.0793W)<br>IEEE802.11n HT40: 16.99 dBm (0.0500W) |
| **Antenna gain (Max)** | 6.12 dBi for 2.4G Band |
| **Evaluation applied** | ☒ MPE Evaluation*<br>☐ SAR Evaluation<br>☐ N/A |
| ***Remark:***<br>*1. The maximum output power is 22.42dBm (0.174582W) at 2437MHz (with numeric 4.09antenna gain.) for2.4G band*<br>*2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.*<br>*3. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm$^2$ even if the calculation indicates that the power density would be larger.* | |

**Note: Simultaneous transmission is not applicable for this EUT.*

## TEST RESULTS FOR 2.4G BAND

No non-compliance noted.

## Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

*Where* *E = Field strength in Volts / meter*
*P = Power in Watts*
*G = Numeric antenna gain*
*d = Distance in meters*
*S = Power density in milliwatts / square centimeter*

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

*P (mW) = P (W) / 1000 and*
*d (cm) = d(m) / 100*

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***Equation 1***

*Where* *d = Distance in cm*
*P = Power in mW*
*G = Numeric antenna gain*
*S = Power density in mW / cm²*

## Maximum Permissible Exposure

| Modulation Mode | Frequency band (MHz) | Max. Conducted output power(dBm) | Antenna gain (dBi) | Distance (cm) | Power density (mW/cm2) | Limit (mW/cm2) |
|---|---|---|---|---|---|---|
| IEEE802.11b | 2412-2462 | 22.42 | 6.12 | 20 | 0.14 | 1 |
| IEEE802.11g | 2412-2462 | 18.46 | 6.12 | 20 | 0.06 | 1 |
| IEEE802.11n HT20 | 2412-2462 | 18.99 | 6.12 | 20 | 0.06 | 1 |
| IEEE802.11n HT40 | 2422-2452 | 16.99 | 6.12 | 20 | 0.04 | 1 |