RF EXPOSURE REPORT

Applicant	Hangzhou Hikvision Digital Technology Co., Ltd.
Address	No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China

Manufacturer or Supplier	Hangzhou Hikvision Digital Technology Co., Ltd.
Address	No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China
Product	Network Camera
Brand Name	HIKVISION
Model	DS-2CD2F12FWD-IWS
Additional Model & Model Difference	DS-2CD2F12FWD-IW, DS-2CD2F22FWD-IW, DS-2CD2F22FWD-IWS, DS-2CD2F42FWD-IW, DS-2CD2F42FWD-IWS, DS-2CD2F52F-IW, DS-2CD2F52F-IWS,DS-2CD2F12F-IZW, DS-2CD2F12F-IZWS
Date of tests	Mar. 25, 2017 ~ Apr. 19, 2017

☒ **FCC Part 2 (Section 2.1091)**

☒ **IC RSS-102 Issue 5**

☒ **KDB 447498 D01**

☒ **IEEE C95.1**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Breeze Jiang Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
	 Date: May 20, 2017

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS160908N043	Original release	May 20, 2017

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1. CERTIFICATION

FCC ID:	2ADTD-I0D2F00
IC	20199-I0D2F00
PRODUCT:	Network Camera
BRAND NAME:	HIKVISION
MODEL NO.:	DS-2CD2F12FWD-IWS
ADDITIONAL NO.:	DS-2CD2F12FWD-IW, DS-2CD2F22FWD-IW, DS-2CD2F22FWD-IWS, DS-2CD2F42FWD-IW, DS-2CD2F42FWD-IWS, DS-2CD2F52F-IW, DS-2CD2F52F-IWS,DS-2CD2F12F-IZW, DS-2CD2F12F-IZWS
TEST SAMPLE:	Engineering Sample
APPLICANT:	Hangzhou Hikvision Digital Technology Co., Ltd.
STANDARDS:	FCC Part 2 (Section 2.1091)
	IC RSS-102 Issue 5
	KDB 447498 D01
	IEEE C95.1

Note:

Additional models (see above table) are identical with the test model DS-2CD2F12FWD-IWS except the color of the appearance, silk screen and model name for trading purpose.

2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm^2)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

3. MPE CALCULATION FORMULA

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	2.4	Integral Antenna

6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
802.11b: 2412-2462	11	+-2	9	13
802.11g: 2412-2462	12	+-2	10	14
802.11n(20MHz):2412-2462	11	+-2	9	13
802.11n(40MHz):2422-2452	10	+-2	8	12

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
802.11b	2462	11.88
802.11g	2412	12.06
802.11n(20MHz)	2412	11.29
802.11n(40MHz)	2422	10.93

For FCC

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	14	2.4	20	0.00868	1.0

For IC

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (W/m^2)	LIMIT (W/m^2)
2412-2462	14	2.4	20	0.0868	5.37

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