RF Exposure Evaluation Declaration

FCC ID: SVNVCS-TS51A0

APPLICANT: Zhejiang Dahua Vision Technology Co., Ltd

Application Type: Certification

Product: VIDEO CONFERENCING ENDPOINT

Model No.: DH-VCS-TS51A0

Trademark:

FCC Classification: Digital Transmission System (DTS)

Reviewed By : Jame Yuan
(Jame Yuan)

Approved By : Marlin Chen
(Marlin Chen)

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.
The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1704RSU05805	Rev. 01	Initial report	05-20-2017	Valid

1. PRODUCT INFORMATION

Product Name	VIDEO CONFERENCING ENDPOINT
Model No.	DH-VCS-TS51A0
Serial Model No.	DH-VCS-TS51A0, VCS-TS51A0, DHI-VCS-TS51A0, DH-VCS-TS51XX, VCS-TS51XX, DHI-VCS-TS51XX (“X” can be 0-9 or A-Z 0R a-z (except A or 0) or Blank to define different client only)
Brand Name:	
Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462 MHz 802.11n-HT40: 2422 ~ 2452 MHz
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM
Antenna Gain	5.23dBi
Components	
Adapter	Manufacturer: SHENZHEN HONOR ELECTRONIC CO., LTD. M/N: ADS-65HI-12N-1 12048E Input: 100-240V ~ 50/60Hz, 1.5A max Output: 12Vdc, 4.0A

Note: Differences between all models are for different marketing requirement.

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

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

Pd is the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

Product	VIDEO CONFERENCING ENDPOINT
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Clause 1 of antenna description.

Test Mode	Frequency Band (MHz)	Maximum Output Power (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
802.11b/g/n	2412 ~ 2462	20.83	0.0803	1

CONCULISON:

Therefore, the Max Power Density at R (20 cm) = 0.0803mW/cm^2 < 1mW/cm^2.
So the EUT complies with the requirement.

The End