RF Exposure Report

Report No.:	SA160705E11A
FCC ID:	N5C90172201
Test Model:	IC722
Received Date:	Sep. 14, 2016
Test Date:	Oct. 03, 2016
Issued Date:	Oct. 20, 2016
Applicant:	StarVedia Technology Inc.
Address:	5F.-6, No.38, Taiyuan St., Zhubei City, Hsinchu County 302, Taiwan R.O.C
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
SA160705E11A	Original release.	Oct. 20, 2016

1 Certificate of Conformity

Product:	Full HD IP CAM
Brand:	StarVedia
Test Model:	IC722
Sample Status:	ENGINEERING SAMPLE
Applicant:	StarVedia Technology Inc.
Test Date:	Oct. 03, 2016
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Oct. 20, 2016

Midoli Peng / Specialist

Approved by : _____ , **Date:** Oct. 20, 2016

May Chen / Manager

2 RF Exposure

2.1 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

2.2 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

2.3 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**.

2.4 Antenna Gain

WLAN Antenna					
Brand	Model	Gain (dBi)	Antenna Type	Connector Type	Frequency range (MHz to MHz)
NA	NA	2.2	Dipole	NA	2400~2483.5
Z-Wave Antenna					
Brand	Model	Gain (dBi)	Antenna Type	Connector Type	Frequency range (MHz)
NA	NA	-20.41	Helical	NA	868~928

2.5 Calculation Result Of Maximum Conducted Power

WLAN

Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	229.615	2.2	20	0.07581	1

Z-Wave

Frequency (MHz)	Field Strength of Fundamental (dBuV/m) @3m	Pout EIRP (dBm)	Pout EIRP (mW)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
908.4-916	78.2	-17.03	0.0198	20	0.000001	0.6056

Note: 1. Pout EIRP (dBm) = Field Strength of Fundamental (dBuV/m) - 95.23 (dB)

2. Power Density Limit = F/1500

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN + Z-Wave = 0.07581/1 + 0.000001/0.6056 = 0.07581

Therefore the maximum calculations of above situations are less than the "1" limit.

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