



Maximum Permissible Exposure

FCC ID: 2AHU2WVSXM70

APPLICANT: ASA Electronics Shenzhen Limited

Application Type: Certification

Product: Digital Wireless Observation Monitor

Model No.: WVSXM70CV, WVSXM70

Brand Name: Voyager


FCC Rule Part(s): Part 2.1091 (Mobile)

Received Date: August 10, 2021

Test Date: August 25, 2021 ~ September 6, 2021

Reviewed By : 

(Paddy Chen)

Approved By : 

(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report. Test results reported herein relate only to the item(s) tested.

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Revision History

Report No.	Version	Description	Issue Date
2108TW5502-U3	1.0	Original Report	2021-09-07

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	Digital Wireless Observation Monitor
Model No.	WVSXM70CV, WVSXM70
Trademark	Voyager
Supports Radios Spec.	FHSS 2.4GHz

Note: 1) The model difference is as below:

Model	Accessory Cable
WVSXM70	Without GPIO cable
WVSXM70CV	GPIO cable

2) The test sample model is WVSXM70CV.

1.2. Antenna Description

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Master Wave Technology Co., Ltd	98152MSAX004	Dipole	3.91dBi

2. Maximum Permissible Exposure(MPE)

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				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
0.3-1.4	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

Note : (1) f= Frequency in MHz , (2) * = Plane-wave equivalent power density

Calculation Formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

Under normal use condition, is at least 20cm away from the body of the user .

So, this device is classified as **Mobile Device**.

2.2. Test Result

Frequency Band (MHz)	Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2403~2472	19.45	88.10	3.91	20	0.0431	1

Therefore, the maximum calculations are less than the “1” limit. Complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091.

————— The End —————