

Spectrum Research & Testing Lab., Inc. No.167,Ln. 780, Shan-Tong Rd.,Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.) Reference No.: A19071201 Report No.: MPEA19071201 FCC ID : 2AXUR-X5002 Page:1 of 7 Date: Nov. 03, 2020

Product Name:DASH CAMModel No.:X5002MASI AUTO Co., LTD.Applicant:7F.-10, No.9, Sec. 2, Nankan Rd., Luzhu Dist., Taoyuan City<br/>338, TaiwanDate of Receipt:Jul. 12, 2020Finished date of Test:Oct. 20, 2020Applicable Standards:KDB 447498<br/>KDB 865664

TEST REPORT

We, **Spectrum Research & Testing Laboratory Inc.**, hereby certify that one sample of the above was tested in our laboratory with positive results according to the above-mentioned standards. The records in the report are an accurate account of the results. Details of the results are given in the subsequent pages of this report.

Tested By :

Richard Lin

(Richard Lin)

11/3/2020 Date:

Approved By :

(Johnson Ho, Director)

Date: 11/3/2020

FMNG-059\_1.1 REPORT





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# 1. DOCUMENT POLICY AND TEST STATEMENT

## 1.1 DOCUMENT POLICY

- The report shall not be reproduced except in full, without the written approval of SRT Lab, Inc.
- FCC Registered Test Site Number : TW1016

# 1.2 TEST STATEMENT

- The test results in the report apply only to the unit tested by SRT Lab.
- There was no deviation from the requirements of test standards during the test.
- DC power source, DC 3.7V of charge battery or DC 5.0V from PC USB Port, was used during the test.

## **1.3 EUT MODIFICATION**

- No modification in SRT Lab.

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# 2. DESCRIPTION OF EUT AND TEST MODE

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	DASH CAM			
MODEL NO.	X5002			
	DC power source, DC 3.7V of charge battery or DC 5.0V			
POWER SUPPLI	from PC USB Port			
FREQUENCY BAND	2400 MHz ~ 2483.5 MHz			
CARRIER FREQUENCY	2412 MHz			
NUMBER OF CHANNELS	1			
RATED RF OUTPUT POWER	11.86 dBm (15.35 mW)			
MODULATION TYPE	IEEE802.11g OFDM(BPSK/16-QAM/64-QAM)			
MODE of OPERATION	Duplex			
ANTENNA TYPE	Chip Antenna (Brand : RainSun Model : AN1003)			
ANTENNA GAIN	1.5 dBi			

**NOTE:** For more detailed information, please refer to the EUT's specification or user's manual provided by manufacturer.

# 3. RF POWER EXPOSURE EVALUATION TEST

#### 3.1 LIMIT

According to the requirements of Part 1.1310(e), KDB 447498 D01 General RF Exposure Guidance v06, Section7, and KDB 865664 D02 RF Exposure Reporting v01r02, section 2.

Frequency Range (MHz)	Electric Field Strength(E) (V/m)	Magnetic Field Strength(H) (A/m)	Power density (S) (mW/cm²)	Averaging Time  E ²,  H ² or S (minutes)	
0.3-3.0	614	1.63	(100)*	6	
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6	
30-300	61.4	0.163	1.0	6	
300-1500			f/300	6	
1500-100,000			5	6	

## Limits for Occupational/Controlled Exposure

#### Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength(E) (V/m)	Magnetic Field Strength(H) (A/m)	Power density (S) (mW/cm²)	Averaging Time  E ²,  H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f²)*	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz \*Plane-wave equivalent power density

**NOTE 1:** Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

**NOTE 2:** General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

# 3.2 TEST PROCEDURE

- 1. The EUT was operating in Tx mode.
- 2. The EUT uses an Printed Antenna, the antenna gain of 3 dBi is declared by the manufacturer.

 $S = PG / 4\pi R^2$ 

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Where: S = power density

- P = power input to antenna
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the center of radiation of the antenna

# 3.3 EUT OPERATING CONDITION

- 1. Setup the EUT and all peripheral devices .
- 2. Turn on the power of all equipment and EUT.
- 3. Set the EUT under continuous transmission condition mode.
- 4. The EUT was set to the highest available power level.



# 3.4 CONNECT POWER AT THE ANTENNA CONNECTOR RESULT

Temperature:	25 °C	Humidity:	67 % RH
Spectrum Detector:	PK.	Tested Mode:	802.11g
Tested By:	Richard Lin	Tested Date:	Oct. 20, 2020

CHANNEL	CHANNEL FREQUENCY	MPE DISTANCE	ANTENNA GAIN	A PEAK POWER		CALCULATED RF EXPOSURE	
NUNDER	(MHz)	(cm)	(dBi)	dBm	mW	(mW/cm²)	(mvv/cm <sup>-</sup> )
CH01	2412	20	1.5	11.86	15.35	0.00431	1

NOTE: Limits for Occupational/Controlled Exposure