

RF EXPOSURE Test Report

Product: Dashcam

Trade Mark: MettaX

Model Number: MC904

FCC ID: 2BW4F-MC904

Prepared for

METTAX DIGITAL (HONGKONG) CO., LIMITED
ROOM 1009 10/F FRONT BLOCK MING SANG INDUSTRIAL BUILDING
19 HING YIP STREET KWUN TONG KL

Prepared by

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TEST RESULT CERTIFICATION

Applicant's Name..... : METTAX DIGITAL (HONGKONG) CO., LIMITED
Address : ROOM 1009 10/F FRONT BLOCK MING SANG INDUSTRIAL
BUILDING 19 HING YIP STREET KWUN TONG KL
Manufacturer's Name : MettaX Digital(Shenzhen)Co., LTD
503, 5F, Block A, Building 7, Shenzhen International Innovation
Address : Valley, Dashi 1st Road, Nanshan District, Shenzhen,
Guangdong, China

Product description

Product name : Dashcam
Model Number : MC904

Standards : FCC CFR 47 PART 1 , 1.1310

Test procedure..... : KDB 447498 D01 General RF Exposure Guidance v06

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test..... :

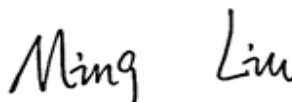
Date (s) of performance of tests..... : July 10, 2026~Aug. 13, 2026

Test Result..... : **Pass**

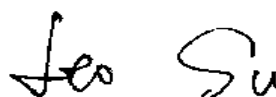
Testing Engineer :


(Z o e S u)

Technical Manager :


(M i n g L i u)

Authorized Signatory :


(L e o S u)

[illegible]

1 General Description

1.1 Description of EUT

Product name:	Dashcam
Model name:	MC904
Series Model:	MC904A, MC904C, MC904E, MC904L, MC904N, MC904M, MC904P, MC904X
Different of series model:	All the models are the same circuit and module, except the model No..
Operation frequency:	IEEE 802.11b/g/n20: 2412-2462MHz IEEE 802.11n40: 2422-2452MHz
Modulation type:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g/n (HT20/H40): OFDM (BPSK, QPSK, 16QAM, 64QAM)
Bit Rate of transmitter:	IEEE 802.11b: 1/2/5.5/11Mbps IEEE 802.11g: 6/9/12/18/24/36/48/54Mbps IEEE 802.11n (20MHz): MCS0-7, up to 72.2Mbps IEEE 802.11n (40MHz): MCS0-7, up to 150Mbps
Antenna type:	External antenna
Antenna gain:	2.95dBi
Max. output power:	16.83dBm
Hardware version:	V1.0
Software version:	V1.0
Battery:	N/A
Power supply:	Input: DC 12V
Adapter information:	N/A

1.2 Test Mode

Pretest Test Mode	Description of Mode
1	TX
2	/
3	/

1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
/	/	/	/

2 Test Facilities and Accreditations

2.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
Designation Number:	848916
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

2.2 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C~35°C
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

2.3 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

The data and results quoted in this document are true and accurate values, and uncertainties are not involved in the calculations.

In addition, components and mass production processes that are similar to testing equipment may introduce additional deviations, and the manufacturer is solely responsible for the continued compliance of the equipment.

Measurement Frequency Range	U, (dB)	Note
RF frequency	2×10^{-5}	
RF power, conducted	± 0.57 dB	
Temperature	± 1 degree	
Humidity	± 5 %	

2.4 Test Software

Software name	Manufacturer	Model	Version
RF Test System	MWRF	MTS 8310	V2.0.0.0

3 List of Test Equipment

RF							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E041	MXG Anaioog Signal Generator	Agilent	N5181A	MY47070421	2026-04-27	2027-04-26
2	HB-E042	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	132108	2026-04-27	2027-04-26
3	HB-E043	MXG Anaioog Signal Generator	Agilent	N5182A	US46240335	2026-04-28	2027-04-27
4	HB-E044	Signal& spectrum Analyzer	R&S	FSV3044	101264	2026-04-28	2027-04-27
5	HB-E045	RF Control Box	Noyetec	NY100-R FCB	N/A	2026-04-28	2027-04-27
6	HB-E058	Thermometer Clock Humidity Monitor	N/A	HTC-1S	N/A	2026-04-30	2027-04-29

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

4 RF Exposure

4.1 Standalone SAR test exclusion considerations

4.1.1. Limit

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).

Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
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
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	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
300-1,500			f/1500	30
1,500-100,000			1.0	30

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

MPE Calculation Method

Friis transmission 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 = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

R = distance between observation point and center of the radiator in cm(20cm)

P_d the limit of MPE, 1mW/cm².

If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4.1.2. Test Result

WIFI 2.4GHz:

Operation Frequency:

WIFI 802.11b/g/n HT20: 2412-2462MHz,

802.11n HT40: 2422-2452MHz,

Power density limited: 1mW/ cm²

Antenna Type: FPC Antenna;

WIFI antenna gain: 2.95dBi

R = 20cm

$mW = 10^{(dBm/10)}$

antenna gain Numeric = $10^{(dBi/10)} = 10^{(2.95/10)} = 1.97$

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2412	802.11b	16.78	16±1	17	50.12	2.95	1.97	0.02941	1
2437		16.45	16±1	17	50.12	2.95	1.97	0.02941	1
2462		16.37	16±1	17	50.12	2.95	1.97	0.02941	1
2412	802.11g	16.83	16±1	17	50.12	2.95	1.97	0.02941	1
2437		16.6	16±1	17	50.12	2.95	1.97	0.02941	1
2462		16.77	16±1	17	50.12	2.95	1.97	0.02941	1
2412	802.11n 20	16.73	16±1	17	50.12	2.95	1.97	0.02941	1
2437		16.52	16±1	17	50.12	2.95	1.97	0.02941	1
2462		16.75	16±1	17	50.12	2.95	1.97	0.02941	1
2422	802.11n 40	16.55	16±1	17	50.12	2.95	1.97	0.02941	1
2437		16.42	16±1	17	50.12	2.95	1.97	0.02941	1
2452		16.68	16±1	17	50.12	2.95	1.97	0.02941	1

Conclusion:

Simultaneous transmit:

NO	Configurations	Maximum MPE Value			Limits
		2.4GHz WIFI	WWAN	Transmit simultaneously	
1	2.4GHz WIFI + WWAN	0.02941	0.71675	0.74616	1

According to KDB 447498 D01 General RF Exposure Guidance v06, At the transmit simultaneously calculation method is as follows:

Transmit simultaneously MPE = Σ of MPE ratios

MPE ratios = Field strengths or power density / MPE limit at the test frequency

For the max result: $0.417174 \leq 1g$ SAR, No SAR is required.

Host integrated overall module, max simultaneous transmission MPE reference to original module

FCC ID: XMR202112EC200AAU.

***** END OF REPORT *****