LP0002: 2020

TEST REPORT

For

EDM 行車紀錄器

Model: EDM-XPRO

Trade Name: EDM

Issued to

布迪科技有限公司
臺北市中山區新生北路 3 段 61 號 2 樓之 15

Issued by

Compliance Certification Services Inc.
Wugu Laboratory
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City, Taiwan. (R.O.C.)
Issued Date: November 19, 2021

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	October 4, 2021	Initial Issue	ALL	Allison Chen
01	November 19, 2021	See the following Note Rev.(01)	P.1, 4, 5, 9	Allison Chen

Note:
Rev.(01)
1. 修改：產品名稱、天線增益值。

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TABLE OF CONTENTS

1 TEST RESULT CERTIFICATION 4
2 EUT DESCRIPTION 5
3 FACILITIES AND ACCREDITATIONS 6
3.1. FACILITIES 6
3.2. EQUIPMENT 6
3.3. LABORATORY ACCREDITATIONS AND LISTINGS 6
4 LP0002 REQUIREMENT 7
4.1. LIMIT 7
4.2. HUMAN EXPOSURE ASSESSMENT 8

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1 Test Result Certification

Applicant: 布迪科技有限公司
臺北市中山區新生北路 3 段 61 號 2 樓之 15

Manufacturer: ShenZhen V-SYS Technology Co.,Ltd.

Equipment Under Test: EDM 行車紀錄器

Trade Name: EDM

Model: EDM-XPRO

APPLICABLE STANDARDS	
STANDARD	**RESULT**
LP0002: 2020	PASS

Statements of Conformity
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The above equipment was tested by Compliance Certification Services Inc. for compliance with the requirements set forth in LP0002. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Kevin Tsai
Deputy Manager

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2 EUT Description

Product	EDM 行車紀錄器
Trade Name	EDM
Model Number	EDM-XPRO
Model Discrepancy	N/A
Received Date	April 8, 2021
Frequency Range	2.4GHz IEEE 802.11b Mode: 2412 ~ 2462 MHz IEEE 802.11g Mode: 2412 ~ 2462 MHz IEEE 802.11n HT20 Mode: 2412 ~ 2462 MHz
Transmit Data Rate	2.4GHz IEEE 802.11b Mode : 1, 2, 5.5, 11 Mbps IEEE 802.11g Mode : 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20 Mode : 6.5, 7.2, 13, 14.4, 19.5,21.7, 26, 28.9, 39, 43.3, 52, 57.8, 58.5, 65.0, 72.2
Type of Modulation	2.4GHz IEEE 802.11b Mode: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g Mode: OFDM (64QAM, 16QAM, QPSK, BPSK IEEE 802.11n HT20 Mode: OFDM (64QAM, 16QAM, QPSK, BPSK
Channel Number	2.4GHz IEEE 802.11b Mode: 2412 ~ 2462 MHz 11 Channels IEEE 802.11g Mode: 2412 ~ 2462 MHz 11 Channels IEEE802.11n HT20 Mode: 2412 ~ 2462 MHz 11 Channels
Transmit Power	2.4GHz IEEE 802.11b Mode: 16.12 dBm (40.926 mW) IEEE 802.11g Mode: 21.13 dBm (129.718 mW) IEEE 802.11n HT20 Mode : 20.96 dBm (124.738 mW)
Antenna Type	FPCB antenna / Gain: 2.48 dBi 2.4GHz: Gain 2.48 dBi (Numeric gain: 1.77)

Remark:
1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
3. Disclaimer: The variant model numbers / trademarks are assessed as identical in hardware and software to each other, hence all variants are fully covered by the test results in this test report without further verification test.
4. The Transmit Power referred the power of the test report T210408W02-RD for RF Exposure assessment purpose.

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3 Facilities and Accreditations

3.1. Facilities

All measurement facilities used to collect the measurement data are located at

☐ No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

☒ No.11, Wugong 6th Rd., Wugu Dist, New Taipei City, Taiwan (R.O.C.)
Tel: 886-2-2299-9720 / Fax: 886-2-2299-9721

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

3.2. Equipment

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

3.3. Laboratory Accreditations and Listings

The test facilities used to perform radiated and conducted emissions tests are accredited by National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code: 200600-0 to perform Electromagnetic Interference tests according to FCC PART 15 AND CISPR 22 requirements. No part of this report may be used to claim or imply product endorsement by NVLAP or any agency of the US Government. In addition, the test facilities are listed with Federal Communications Commission (registration no: 93105 and 90471).

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4 LP0002 Requirement

4.1. Limit

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the following limits.

Limits for Occupational / Controller Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	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	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

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/cm^2)	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	($180/f^2$)*	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

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4.2. Human Exposure Assessment

No non-compliance noted.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ **Equation 1**

Where d = Distance in cm
P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm^2

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Maximum Permissible Exposure

Substituting the MPE safe distance using d = 20 cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm^2

WIFI 2.4GHz
IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
1	2412	40.9	1.77	20	0.0144	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
1	2412	129.7	1.77	20	0.0457	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
1	2412	124.7	1.77	20	0.0439	1

--End of Report--

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