



시험 성적서

TEST REPORT

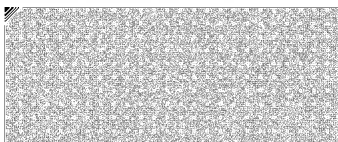
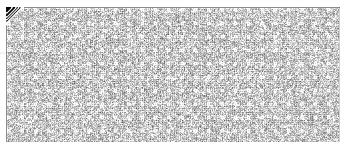
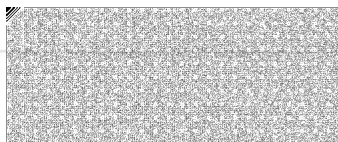
페이지(page) : (1) / (총(Total) 6)

성적서 번호 Report No.		ICRT-TR-E222692-0A	
신청자 Client	기관명 Name	ventaron	
	주소 Address	59, Wonpogongwon 1-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Republic of Korea	
시험대상품목 Sample description		Magnito Mouse	
모델명 Type designation		VM-M300S	
정격 Ratings		DC 3.0 V	
시험장소 Place of test		<input checked="" type="checkbox"/> 고정시험(Inside test) <input type="checkbox"/> 현장시험(Field test) 주소지(Address): 112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea	
시험기간 Date of test		31. Oct. 2022	
시험방법/항목 Test Method/Item		FCC rule §1.1310	
시험결과 Test Results		Refer to 3. Maximum Permissible Exposure	
확인 Affirmation	작성자 Tested by	기술책임자 Technical Manager	
	성명 Name	성명 Name	
	Seong-Hun, Jeong (서명) (Signature)	Tae-Yang, Yoon (서명) (Signature)	
<input type="checkbox"/> 위 성적서는 고객이 제공한 시료에 대한 시험결과입니다. The above test report is certified that the above mentioned products have been tested for the sample.			
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2022. 11. 02			
주식회사 아이씨알 대표이사			
The head of INTERNATIONAL CERTIFICATION REGISTRAR			

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The authenticity of the test report can be checked on the G4B or ICR website.

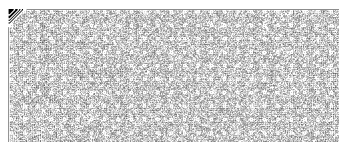
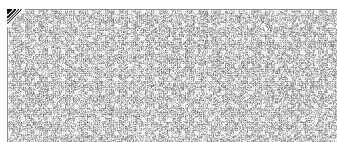
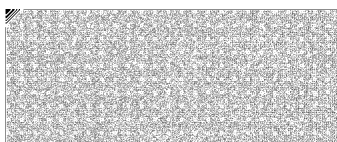
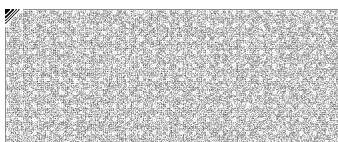
경기도 김포시 양촌읍 황금3로7번길 112 / Tel: 02-6351-9001 ~ 6





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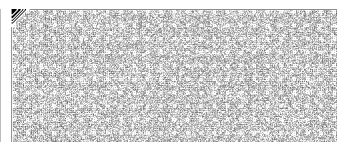
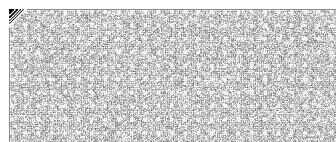
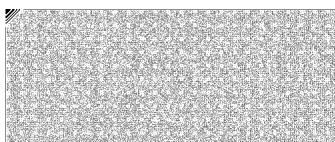
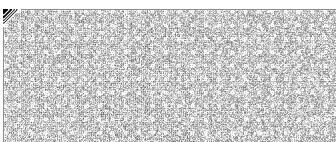




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Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
ICRT-TR-E222692-0A	2022-11-02	Initial Issue	All





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1. Applicant & Manufacturer & Test Laboratory Information

1.1 Applicant information

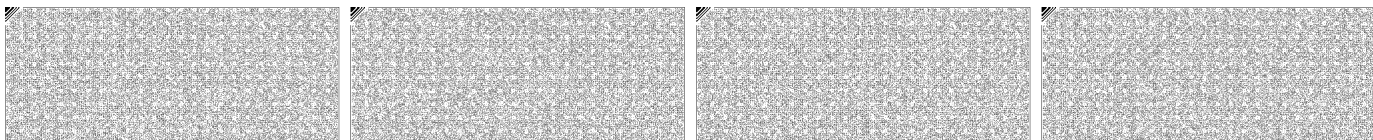
Applicant	ventaron
Address	59, Wonpogongwon 1-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Republic of Korea
Contact Person	SANGMIN SHIN
Telephone No.	82-10-9830-7786
Fax No.	-
E-mail	ssm77@ventaron.net

1.2 Manufacturer Information

Manufacturer	Dongguan Lingjie Electronics & Technology Co., Ltd
Address	No.23, ZhenXing North Road, TeiYuan Community, XieGang Town, DongGuan City GuangDong province, China

1.3 Test Laboratory Information

Conducted tests were performed at	
Laboratory	ICR Co., Ltd.
Address	112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea
Telephone No.	+82-2-6351-9002
Fax No.	+82-2-6351-9007
RRA No.	KR0165
KOLAS No.	KT652





2. Equipment under Test(EUT) Information

2.1 General Information

Product Name	Magnito Mouse
Brand Name	-
Model Name	VM-M300S
Additional Model Name	VM-M300W, VM-M300G, VM-M300P, VM-300B
FCC ID	2A8OG-VM-M300S
Power Supply	DC 3.0 V

2.2 Additional Information

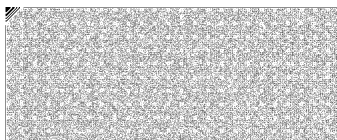
Equipment Class	DSS - Frequency Hopping Spread Spectrum system DTS - Digital Transmission System	
Device Type	Stand-alone	
Operating Frequency	2 402 MHz ~ 2 480 MHz	
RF Output Power	DSS : Bluetooth BDR	-7.04 dBm
	DTS : Bluetooth LE	-6.96 dBm
Number of Channel	DSS : Bluetooth BDR	79
	DTS : Bluetooth LE	40
Modulation Type	GFSK	
Antenna Type	PCB Antenna	
Antenna Gain	2.34 dBi	
Antenna Operating Mode	Single Antenna Equipment with only one antenna	

2.3 Mode of operation during the test

- The EUT is continuous transmission mode during the test with set at Low Channel, Middle Channel, and High Channel.
To get a maximum radiated emission levels from the EUT, the EUT was moved throughout the XY, YZ, XZ planes.

2.4 Modifications of EUT

- None



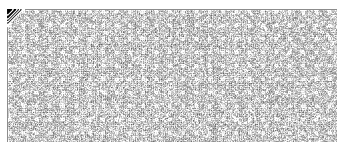
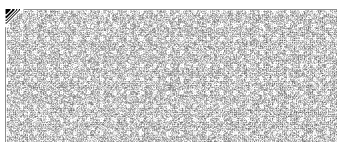


3. Maximum Permissible Exposure

3.1 RF Exposure calculation

According to the FCC rule §1.1310 the limit for General Population/Uncontrolled exposure is 1 mW/cm² for the device operating 1 500 MHz ~ 100 000 MHz.

Kind of EUT	WIRELESS MOUSE	
Operating Frequency Band	<input type="checkbox"/> WLAN(802.11b/g/n(HT20)): 2 412 MHz ~ 2 462 MHz <input type="checkbox"/> WLAN(802.11n(HT40)): 2 422 MHz ~ 2 452 MHz <input type="checkbox"/> WLAN: 5 180 MHz ~ 5 320 MHz / 5 500 MHz ~ 5 700 MHz <input type="checkbox"/> WLAN: 5 745 MHz ~ 5 825 MHz <input checked="" type="checkbox"/> Bluetooth: 2 402 MHz ~ 2 480 MHz	
Max. Output Power	DSS : Bluetooth BDR	-7.04 dBm
	DTS : Bluetooth LE	-6.96 dBm
Exposure Evaluation Applied	<input type="checkbox"/> MPE <input type="checkbox"/> SAR <input checked="" type="checkbox"/> N/A	





3.2 Result

According to above equation, the following result was obtained.

Operating Mode	Target Power W / tolerance	Max tune up power		Antenna Gain		Safe Distance (cm)	Power Density (mW/cm ²) @ 20 cm Separation	Limit (mW/cm ²)
		(dBm)	(mW)	Log	Linear			
Bluetooth BDR	-7.04 ± 1.0	-6.04	0.249	2.34	1.71	0.185	0.000 08	1.00
Bluetooth LE	-6.96 ± 1.0	-5.96	0.254			0.187	0.000 09	

According to above table, for Bluetooth BDR safe distance,

$$D = 0.282 * \sqrt{(0.249 * 1.71)/1.00} = 0.185 \text{ cm.}$$

For getting power density at 20 cm separation in above table, following formula was used.

$$S = P * G / (4\pi * R^2) = 0.249 * 1.71 / (4 * \pi * 20^2) = 0.000 08$$

Where:

S = Power Density,

P = Power input to the external antenna (Output power from the EUT antenna port (dBm) – cable loss (dB)),

G = Gain of Transmit Antenna (linear gain), R = Distance from Transmitting Antenna

- END -

