



시험 성적서

TEST REPORT

페이지(page) : (1) / (총(Total) 6)

성적서 번호 Report No.		ICRT-TR-E230769-0A	
신청자 Client	기관명 Name	KLT Co., Ltd.	
	주 소 Address	34-12, Bangchon-ro 955beon-gil, Tanhyeon-myeon, Paju-si, Gyeonggi-do, Republic of Korea	
시험대상품목 Sample description		Pulsarlube LINK	
모델명 Type designation		LK-B100	
정 격 Ratings		DC 5 V	
시험장소 Place of test		☒ 고정시험(Inside test) ☐ 현장시험(Field test) 주소지(Address): 112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea	
시험기간 Date of test		20. Mar. 2023 ~ 31. Mar. 2023	
시험방법/항목 Test Method/Item		FCC rule §1.1310	
시험결과 Test Results		Refer to 3. Maximum Permissible Exposure	
확 인 Affirmation	작성자 Tested by	기술책임자 Technical Manager	
	성 명 Name Seong-Hun, Jeong (서명) (Signature)	성 명 Name Tae-Yang, Yoon (서명) (Signature)	
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Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
ICRT-TR-E230769-0A	2023.04.07	Initial Issue	All

**Applicant & Manufacturer & Test Laboratory Information****1.1 Applicant information**

Applicant	KLT Co., Ltd.
Address	34-12, Bangchon-ro 955beon-gil, Tanhyeon-myeon, Paju-si, Gyeonggi-do, Republic of Korea
Contact Person	YoHan Kim
Telephone No.	82- 10-3402-5692
Fax No.	-
E-mail	yhkim@pulsarlube.com

1.2 Manufacturer Information

Manufacturer	KLT Co., Ltd.
Address	34-12, Bangchon-ro 955beon-gil, Tanhyeon-myeon, Paju-si, Gyeonggi-do, Republic of Korea

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	Pulsarlube LINK
Brand Name	-
Model Name	LK-B100
Additional Model Name	LK-B101
FCC ID	2APJH-LK-B100
Power Supply	DC 5 V

2.2 Additional Information

Equipment Class	DTS-Digital Transmission System	
Device Type	Stand-alone	
Operating Frequency	2 402 MHz ~ 2 480 MHz	
RF Output Power	Bluetooth LE 1M	7.39 dBm
Number of Channel	40	
Modulation Type	GFSK	
Antenna Type	Dipole Antenna	
Antenna Gain	2.296 dBi	
Antenna Operating Mode	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.

The electric field generated for a 1 mW/cm² exposure is calculated as follows:

$$E = \sqrt{(30 * P * G)} / D, \text{ and } S = E^2 / Z = E^2 / 377, \text{ because } 1 \text{ mW/cm}^2 = 10 \text{ W/m}^2$$

S = Power density in mW/cm², Z = Impedance of free space, 377 Ω

P = Power input to the external antenna

(Output power from the EUT antenna port (dBm) – cable loss (dB)),

E = Electric field strength in V/m, G = Numeric antenna gain, and D = distance in meter

Combining equations and rearranging the terms to express the distance as a function of the remaining variable

$$D = \sqrt{(30 * P * G)} / (377 * 10 S)$$

Changing to units of mW and cm, using P (mW) = P (W) / 1 000, d (cm) = 0.01 * d (m)

$$D = 0.282 * \sqrt{(P * G)} / S$$



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 LE 1M	7.39 ± 1.0	8.39	6.90	2.296	1.70	0.97	0.0023	1.00

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