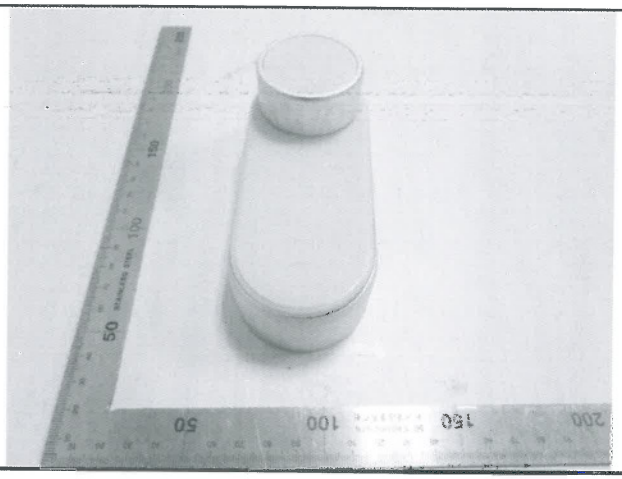
Prüfbericht-Nr.: *Test Report No.:*	**50073014 001**	**Auftrags-Nr.:** *Order No.:*	**154186596**	**Seite 1 von 9** *Page 1 of 9*
Kunden-Referenz-Nr.: *Client Reference No.:*	**60052183**	**Auftragsdatum:** *Order date:*	**06.28.2016**	
Auftraggeber: *Client:*	**Glue AB** c/o Epicenter, Malmskillnadsgatan 32, Stockholm, Sweden			
Prüfgegenstand: *Test item:*	**GLUE SMART LOCK**			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**GL04A.CL; GL04A.CG; GL04A.CD** **FCC ID: 2AJLELOCKV2** **IC: 21878-LOCKV2**			
Auftrags-Inhalt: *Order content:*	**Complete test**			
Prüfgrundlage: *Test specification:*	**FCC KDB # 447498 D01 V06** **RSS-102 Issue 5, March 2015**			
Wareneingangsdatum: *Date of receipt:*	**10.14.2016**			
Prüfmuster-Nr.: *Test sample No.:*	**A000440500-006**			
Prüfzeitraum: *Testing period:*	**10.29.2016 to 01.05.2017**			
Ort der Prüfung: *Place of testing:*	**MRT Technology(Suzhou) Co., Ltd.**			
Prüflaboratorium: *Testing laboratory:*	**TÜV Rheinland (Shanghai) Co., Ltd.**			
Prüfergebnis*: *Test result*:*	**Pass**			



geprüft von / *tested by:*			**kontrolliert von** / *reviewed by:*		
03.04.2017	Elliot Zhang / Senior Project Engineer	Elliot Zhang	03.04.2017	Shi Li / Section Manager	SL
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

TEST SUMMARY

2.3.1 FCC EVALUATION FOR BLUETOOTH LOW ENERGY

RESULT: Pass

2.4.1 IC EVALUATION FOR BLUETOOTH LOW ENERGY

RESULT: Pass

Contents

1. General Product Information

1.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a Glue Smart Lock which support Bluetooth Low Energy, and it should only be used in conjunction with the Glue Wi-Fi Hub to ensure that the Glue Smart Lock will perform as designed, with maximum security and functionality.

The aim of this report is to evalute the RF Exposure of the EUT.

For details refer to the User Manual and Circuit Diagram.

1.2 Ratings and System Details

Table 1: Technical Specification of EUT

General Description of EUT	
Product Name:	GLUE SMART LOCK
Brand Name:	GLUE
Model No.:	GL04A.CL; GL04A.CG; GL04A.CD
Rated Voltage:	DC 6V (4x1.5V AA batteries)
Technical Specification of BLE	
Frequency Range:	2402 – 2480MHz
Modulation Type:	GFSK
Antenna Type:	PCB
Antenna Gain:	1.95 dBi

Note: There are three models in all, and all the three models are the same except the color, so the Model GL04A.CL was chosen for the test, and please refer to the table below for the difference of the three models.

Table 2: Models Difference Description

Model	Electronic	Plstic	Painting of thumbturn glass + front outer cover	Aluminum
GL04A.CL	Same for all	Same for all	White	Light
GL04A.CG				Gold
GL04A.CD			Dark	Dark

2. RF Exposure

2.1 FCC Requirement and Limit

According to FCC KDB # 447498 D01 V06, Clause 4.3.1

(a) For 100MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\frac{(\text{max. power of channel, including tune - up tolerance, mW})}{(\text{min. test separation distance, mm})} \times \sqrt{\text{f(GHz)}}$$

≤ 3.0 ,for 1-g SAR, and ≤ 7.5 , for 10-g extremity SAR

2.2 IC Requirement and Limit

According to IC RSS-102 Issue 5, March 2015, Clause 2.5.1 Exemption Limits for Routine Evaluation – SAR Evaluation.
SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

Table 1: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance

Frequency [MHz]	Exemption Limits [mW]				
	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71	101	132	162	193
450	52	70	88	106	123
835	17	30	42	55	67
1900	7	10	18	34	60
2450	4	7	15	30	52
3500	2	6	16	32	55
5800	1	6	15	27	41

Frequency [MHz]	Exemption Limits [mW]				
	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of ≥50 mm
≤300	223	254	284	315	345
450	141	159	177	195	213
835	80	92	105	117	130
1900	99	153	225	316	431
2450	83	123	173	235	309
3500	86	124	170	225	290
5800	56	71	85	97	106

2.3 FCC Evaluation Results

2.3.1 FCC Evaluation for Bluetooth Low Energy

RESULT: **Pass**

According to the Bluetooth Low Energy RF test report No. 50068239 001 issued by TÜV Rheinland (Shanghai) Co., Ltd. The maximum peak conducted output power is

Frequency [GHz]	Maximum Conducted Peak Output Power [dBm]	Maximum Conducted Peak Output Power [mW]
2.48	-1.03	0.788860118

And for the frequency 2.48GHz, the SAR test exclusion thresholds at the test separation distance 5mm is,
1-g SAR test exclusion thresholds = 9.525009525 mW
10-g SAR test exclusion thresholds = 23.81252381 mW

Note: Since the distance between the human and the device in generally using is lower than 5mm, so a distance of 5mm is applied to determine SAR test exclusion.

Conclusion
The device is exclude for SAR test and complies with the FCC exposure requirements since the maximum conducted peak output power is lower than the SAR test exclusion thresholds.

2.4 IC Evaluation Results

2.4.1 IC Evaluation for Bluetooth Low Energy

RESULT: **Pass**

According to IC RSS-102 Issue 5, March 2015, table 1, for the frequency 2.45GHz, the SAR test exclusion thresholds at the test separation distance 5mm is 4mW.

Note: Since the distance between the human and the device in generally using is lower than 5mm, so a distance of 5mm is applied to determine SAR test exclusion.

Conclusion
The device is exclude for SAR test and complies with the IC exposure requirements since the maximum conducted peak output power is lower than the SAR test exclusion thresholds.

3. List of Tables