



RF Exposure Evaluation

For

Bird Home Automation GmbH

IP Access Control Device

Test Model: A1121

Prepared for : Bird Home Automation GmbH
Address : Uhlandstr. 165, 10719 Berlin, Germany

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : December 26, 2025
Number of tested samples : 2
Sample number : A251219075-1, A251219075-2
Serial number : Prototype
Date of Test : December 26, 2025 ~ March 19, 2026
Date of Report : March 19, 2026



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Scan code to check authenticity

**RF Exposure Evaluation****Report Reference No.** : **LCSA12255050ED**

Date of Issue..... : March 19, 2026

Testing Laboratory Name..... : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

Address..... : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Testing Location/ Procedure..... : Full application of Harmonised standards ■
Partial application of Harmonised standards □
Other standard testing method □**Applicant's Name**..... : **Bird Home Automation GmbH**

Address..... : Uhlandstr. 165, 10719 Berlin, Germany

Test SpecificationStandard..... : FCC KDB publication 447498 D01 General 1 RF Exposure
Guidance v06
FCC CFR 47 part1 1.1310**Test Report Form No.**..... : TRF-4-E-214 A/0

TRF Originator..... : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF..... : Dated 2011-03

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EUT Description..... : **IP Access Control Device**

Trade Mark..... : DoorBird

Test Model..... : A1121

Ratings..... : Please Refer to Page 6

Result : **PASS****Compiled by:****Supervised by:****Approved by:**

Diamond Lu/ Administrators

Kevin Huang/ RF Manager

Gavin Liang/ Manager



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RF Exposure Evaluation

Test Report No. : LCSA12255050ED	<u>March 19, 2026</u> Date of issue
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Test Model.....	: A1121
EUT.....	: IP Access Control Device
Applicant.....	: Bird Home Automation GmbH
Address.....	: Uhlandstr. 165, 10719 Berlin, Germany
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Bird Home Automation GmbH
Address.....	: Uhlandstr. 165, 10719 Berlin, Germany
Telephone.....	: /
Fax.....	: /
Factory.....	: Bird Home Automation GmbH
Address.....	: Uhlandstr. 165, 10719 Berlin, Germany
Telephone.....	: /
Fax.....	: /

Test Result	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





Revision History

Report Version	Issue Date	Revision Content	Revised By
000	March 19, 2026	Initial Issue	--





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1. Product Information

EUT	: IP Access Control Device
Test Model	: A1121
Ratings	: Inout: PoE 44-57V or 15VDC, max 15W
Hardware Version	: /
Software Version	: /
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 40 channels for Bluetooth V5.0 (DTS)
Channel Spacing	: 2MHz for Bluetooth V5.0 (DTS)
Modulation Type	: GFSK for Bluetooth V5.0 (DTS)
Bluetooth Version	: V5.0
Antenna Description	: FPC Antenna, 3.57dBi(Max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2462MHz
Channel Spacing	: 5MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Modulation Type	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PCB Antenna, 2.0dBi(Max.)
NFC	:
Operating Frequency	: 13.56MHz
Modulation Type	: ASK
Antenna Description	: FPC Coil Antenna, 0dBi(Max.)
RFID	:
Operating Frequency	: 125kHz
Modulation Type	: ASK
Antenna Description	: Coil Antenna, 0dBi(Max.)
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Mobile Devices

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.





2. Evaluation Method

According to KDB447498 D01 General RF Exposure Guidance V06

RFID:

According to KDB447498 D01 General RF Exposure Guidance V06 - 4.3. General SAR test exclusion guidance 4.3.1 c) can be exempted as follows using a test separation distances of < 200 mm:

Appendix C

SAR Test Exclusion Thresholds for < 100 MHz and < 200 mm

Approximate SAR test exclusion power thresholds at selected frequencies and test separation distances are illustrated in the following table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	< 50	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm
100	237	474	481	487	494	501	507	514	521	527	534	541	547	554	561	567	mW
50	308	617	625	634	643	651	660	669	677	686	695	703	712	721	729	738	
10	474	948	961	975	988	1001	1015	1028	1041	1055	1068	1081	1095	1108	1121	1135	
1	711	1422	1442	1462	1482	1502	1522	1542	1562	1582	1602	1622	1642	1662	1682	1702	
0.1	948	1896	1923	1949	1976	2003	2029	2056	2083	2109	2136	2163	2189	2216	2243	2269	
0.05	1019	2039	2067	2096	2125	2153	2182	2211	2239	2268	2297	2325	2354	2383	2411	2440	
0.01	1185	2370	2403	2437	2470	2503	2537	2570	2603	2637	2670	2703	2737	2770	2803	2837	

WIFI and Bluetooth LE:

According 447498 D01 General RF Exposure Guidance v06 - 4.3. General SAR test exclusion guidance 4.3.1 b) can be exempted as follows using a test separation distances of > 50 mm:

Appendix B

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and > 50 mm

Approximate SAR test exclusion power thresholds at selected frequencies and test separation distances are illustrated in the following table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm
100	474	481	487	494	501	507	514	521	527	534	541	547	554	561	567	mW
150	387	397	407	417	427	437	447	457	467	477	487	497	507	517	527	
300	274	294	314	334	354	374	394	414	434	454	474	494	514	534	554	
450	224	254	284	314	344	374	404	434	464	494	524	554	584	614	644	
835	164	220	275	331	387	442	498	554	609	665	721	776	832	888	943	
900	158	218	278	338	398	458	518	578	638	698	758	818	878	938	998	
1500	122	222	322	422	522	622	722	822	922	1022	1122	1222	1322	1422	1522	
1900	109	209	309	409	509	609	709	809	909	1009	1109	1209	1309	1409	1509	
2450	96	196	296	396	496	596	696	796	896	996	1096	1196	1296	1396	1496	
3600	79	179	279	379	479	579	679	779	879	979	1079	1179	1279	1379	1479	
5200	66	166	266	366	466	566	666	766	866	966	1066	1166	1266	1366	1466	
5400	65	165	265	365	465	565	665	765	865	965	1065	1165	1265	1365	1465	
5800	62	162	262	362	462	562	662	762	862	962	1062	1162	1262	1362	1462	

Simultaneous Transmission:

According FCC part 1.1307 in paragraph (b)(3)(ii)(B) - in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$





3. Conducted Power

[2.4G WIFI]

Mode	Channel	Frequency(MHz)	Average Conducted Output Power (dBm)
IEEE 802.11b	1	2412	12.89
	6	2437	11.55
	11	2462	11.63
IEEE 802.11g	1	2412	10.87
	6	2437	8.93
	11	2462	9.05
IEEE 802.11n HT20	1	2412	10.27
	6	2437	9.19
	11	2462	9.40
IEEE 802.11n HT40	3	2422	9.58
	6	2437	9.62
	9	2452	10.24

[BLE]

	Modulation	Channel	Max. Conducted Power (dBm)
BLE	GFSK	LCH	-1.85
		MCH	0.61
		HCH	-0.46

Mode	Frequency (MHz)	Max Power (dBuV/m)	Max Power (dBm)
RFID	0.125	77.28	-22.62
NFC	13.56	53.19	-46.71

According to the calculation formula of power:
Below 1GHz: dBm=dBuV/m-95.2-4.7





4. Manufacturing Tolerance

[2.4G WIFI]

11B (Average)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11G (Average)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	10.0	8.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20SISO (Average)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	10.0	9.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40SISO (Average)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	9.0	9.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[BLE]

Modulation	Channel	Target (dBm)	Tolerance $\pm$ (dB)
GFSK	LCH	-1.0	1.0
	MCH	0.0	1.0
	HCH	0.0	1.0

Mode	Frequency (MHz)	Target (dBm)	Tolerance $\pm$ (dB)
RFID	0.125	-22.0	1.0
NFC	13.56	-46.0	1.0





5. Measurement Results

5.1 Standalone Evaluation

[2.4G WIFI]

Mode	Frequency (MHz)	Distance (mm)	Average Conducted Output Power (dBm)	Max Power (mW)	Exclusion Threshold (mW)	SAR Exemption fulfilled
IEEE 802.11b	2412	> 50mm	13.0	19.9526	97	Yes
	2437	> 50mm	12.0	15.8489	96	Yes
	2462	> 50mm	12.0	15.8489	95	Yes
IEEE 802.11g	2412	> 50mm	11.0	12.5893	97	Yes
	2437	> 50mm	9.0	7.9433	96	Yes
	2462	> 50mm	10.0	10.0000	95	Yes
IEEE 802.11n HT20	2412	> 50mm	11.0	12.5893	97	Yes
	2437	> 50mm	10.0	10.0000	96	Yes
	2462	> 50mm	10.0	10.0000	95	Yes
IEEE 802.11n HT40	2422	> 50mm	10.0	10.0000	97	Yes
	2437	> 50mm	10.0	10.0000	96	Yes
	2452	> 50mm	11.0	12.5893	95	Yes

[BLE]

Mode	Channel	Distance (mm)	Max. Conducted Power (dBm)	Max Power (mW)	Exclusion Threshold(mW)	SAR Exemption fulfilled
BLE	LCH	> 50mm	0.0	1.0000	97	Yes
	MCH	> 50mm	1.0	1.2589	96	Yes
	HCH	> 50mm	1.0	1.2589	95	Yes

Mode	Frequency (MHz)	Distance (mm)	Max Power (dBm)	Max Power (mW)	Exclusion Threshold(mW)	SAR Exemption fulfilled
RFID	0.125	≤ 50mm	-21.0	0.007943	941	Yes
NFC	13.56	≤ 50mm	-45.0	0.000032	459	Yes

Remark:

1. Output power including tune-up tolerance;





5.2 Simultaneous Transmission Evaluation

Mode	Max Power (mW)	Threshold ERP or Exemption limit (mW)	Ratio of MPE-Value/Limit	Limit
2.4GWIFI	19.9526	97	0.20569691	/
BLE	1.2589	96	0.01311354	/
RFID	0.007943	941	0.00000844	/
NFC	0.000032	459	0.00000007	/
Total Ratio			0.21881896	1.0

6. Conclusion

SAR-Based Exemption fulfilled

7. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

Test Firm Registration Number: 254912.

8. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Output power	1GHz-40GHz	±0.57dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

.....THE END OF REPORT.....

