

RF Exposure

Applicant : Shenzhen LiteTrace Technologies Co., Ltd
Address : 305 Suite C, 3151 Shahe West Street Jianxing Technology Plaza, Nanshan Shenzhen, China
Product Name : Wall Switch
Brand Mark : Keilton
Model : WP1018.A0
Series model * : WP1018YYYYY
Report Number : BBLA-EMC-202506-A1703
FCC ID : 2A26YWP1018
Date of Receipt : Jun.11,2025
Date of Test : Jun.11,2025 to Jun.20,2025
47 CFR Part 15, Part1.1307
Test Standard : 47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

*Notes:"YYYYY" - can be blank or any alphanumeric or decimal point for commercial purposes.

Compiled by: *charlie* Review by: *Xavier* Approved by: *13 June Zheng*
Issued Date: Jun.20,2025



BlueAsia of Technical Services(Shenzhen) Co.,Ltd.

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Revise Record

Version No.	Date	Description
01	Jun.20,2025	Original

1 General information

1.1 General information

Applicant	Shenzhen LiteTrace TechnologiesCo., Ltd
Address	305 Suite C, 3151 Shahe West Street Jianxing Technology Plaza, Nanshan Shenzhen, China
Manufacturer	Shenzhen LiteTrace TechnologiesCo., Ltd
Address	305 Suite C, 3151 Shahe West Street Jianxing Technology Plaza, Nanshan Shenzhen, China
Factory	Shenzhen LiteTrace TechnologiesCo., Ltd
Address	305 Suite C, 3151 Shahe West Street Jianxing Technology Plaza, Nanshan Shenzhen, China

1.2 General description of EUT

Product Name	Wall Switch
Model no.	WP1018.A0
Series model	WP1018YYYYY
Differences of Series model	The present report Family Certification for the above mentioned HVINs/Models based on them being identical in enclosure/form factor, internal circuitry/PCB components, hardware/software and the only difference is in the marketing model names
Power supply or adapter information	DC3V
Hardware Version	1.0
Software Version	1.0
Engineer sample no	BBLA-EMC-202506-A17

Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

For BLE

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK
Rate data	1Mbps; 2Mbps
Channel Spacing	2MHz
Number of Channels	40
Antenna Type	PCB antenna
Antenna Gain	-1.37dBi(Provided by customer)

2 Laboratory and accreditations

The test facility is recognized, certified, or accredited by the following organizations:

Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Address:	Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
ISED CAB identifier No.:	CN0028
Telephone:	+86-755-28682673
FAX:	+86-755-28682673

3 RF Exposure Compliance Requirement

3.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

3.2 Limits

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

3.3 Result

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Mode	Frequency (MHz)	Max Output power(dBm)	Max Output power(mW)	Ant gain (dBi)	Evaluation ERP(dBm)	Evaluation ERP(mW)	Limit of Pth(mW)	Result
BLE 2M	2402	0.485	1.12	-1.37	-3.035	0.50	2.79	Pass

$ERP = \text{Max Output power} + \text{Ant gain} - 2.15$

Comply with RF exposure exemption limit.

----END OF REPORT----

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