

Test Report Number:	LCZE25080016	Total Page(s):2			
Applicant Name:	ARTCILUX LIGHTING (HK) CO., LIMITED				
Applicant Address:	RM 705, 7/F, FA YUAN COMMERCIAL BUILDING, NOS. 75-77, FA YUEN STREET, KOWLOON, HK.				
Product Name:	Wireless hand sweep induction remote control switch				
Model / Type Reference:	2S-S1312SE.2IR				
FCC ID:	2BRRC-S1312SE-2IR				
Date of Issue:	2025-08-11				
Testing Laboratory:	LCTECH Guangdong Testing Services Co., Ltd. 2/F,Technology and Enterprise Development Center, Guangyuan Road, Xiaolan, Zhongshan, Guangdong, China				
Test Specification:	KDB 447498 D04 Interim General RF Exposure Guidance v01				
Test Result:	Passed				
Compiled by:	Reviewed by:				
2025-08-11 Rex He		2025-08-11 Tension Li			
Date	Name	Signature	Date	Name	Signature
Remark:					
N/A					
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RF Exposure evaluation

According to 447498 D04 Interim General RF Exposure Guidance v01

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

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

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).
The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
Frequency (MHz)	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

$$eirp = pt \times gt = (EXd)^2 / 30$$

where: pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m, --- $10^{((dBuV/m)/20)/10}$

d = measurement distance in meters (m)--- $3m$ $Sopt = (EXd)^2 / 30 \times gt$

Frequency(MHz)	Field Strength (dBuV/m)	eirp(mW)	limit (mW)	min. distance (cm)
2420	77.19	0.016	3	0.50

Then SAR evaluation is not required