

RF Exposure

Applicant : SUNRADO TECHNOLOGY LIMITED
Address : Unit3, 6/F, Kam Hon Industrial Bldg 8 Wang Kwun Rd,
Kowloon Bay, Hong Kong
Product Name : AuraLull Sleep
Brand Mark : Trenbader
Model : TSM100
FCC ID : 2A47UTSM100
Report Number : BLA-EMC-202607-A01-03
Date of Receipt : July 1, 2026
Date of Test : July 1, 2026 to July 30, 2026
47 CFR Part 15, Part1.1307
Test Standard : 47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: *Hugh*Review by: *Xavier*Approved by: *Blue Zheng*

Issued Date: July 30, 2026

BlueAsia Technical Services (Shenzhen) Co., LtdAddress: No.41, South of Beihuan Road, Shangwu Community, Shiyuan
Subdistrict, Bao'an District, Shenzhen, Guangdong, China

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Revise Record

Version No.	Date	Description
01	July 30, 2026	Original

BlueAsia

1 General information

1.1 General information

Applicant	SUNRADO TECHNOLOGY LIMITED
Address	Unit3, 6/F, Kam Hon Industrial Bldg 8 Wang Kwun Rd, Kowloon Bay, Hong Kong
Manufacturer	ShenZhen ChuangDaRong Technology Limited
Address	B633, Block B, MingYou Procurement CTR, 168 BaoYuan RD, BaoAn Dist., Shenzhen, 518102
Factory	ShenZhen ChuangDaRong Technology Limited
Address	B633, Block B, MingYou Procurement CTR, 168 BaoYuan RD, BaoAn Dist., Shenzhen, 518102

1.2 General description of EUT

Product name	AuraLull Sleep
Model no.	TSM100
Series model	N/A
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Channel Spacing:	1MHz
Number of Channels:	79
Antenna Type:	PCB antenna
Antenna Gain:	-0.58dBi (Provided by customer)
Power supply or adapter information	DC4.5V by battery DC5V by USB
Hardware version	N/A
Software version	N/A
Engineer sample no.	BLA-EMC-202607-A01
S/N	TSM100-000001

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

2 Laboratory and accreditations

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

Company name:	BlueAsia Technical Services (Shenzhen) Co.,Ltd.
Address:	No.41, South of Beihuan Road, Shangwu Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, 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

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

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

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

3.3 Result

$$\text{EIRP} = \text{pt} \times \text{gt} = (\text{E} \times \text{d})^2 / 30$$

Where:

pt = transmitter output power in watts,

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

E = electric field strength in V/m,

d = measurement distance in meters (m)

$$\text{Spot} = (\text{E} \times \text{d})^2 / 30 \times \text{gt}$$

Separation distance = 0.5cm

Ant gain = -0.58dBi

For BT(Worst):

Max Output power = 1.835dBm @ 2480MHz 8DPSK=1.526mW < 2.717mW

EIRP = 1.835dBm -0.58dBi=1.255dBm

ERP = 1.255-2.15= -0.895dBm

Comply with RF exposure exemption limit.

----END OF REPORT----

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