



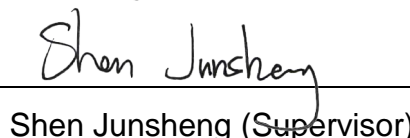
# RF EXPOSURE EVALUATION REPORT

**APPLICANT** : Skeeter Enterprises  
**PRODUCT NAME** : Stadia Neptune  
**MODEL NAME** : 1  
**BRAND NAME** : N/A  
**FCC ID** : 2BFZ6-1  
**STANDARD(S)** : FCC 47 CFR Part 2(2.1093)  
**RECEIPT DATE** : 2024-04-20  
**TEST DATE** : 2024-04-23 to 2024-04-30  
**ISSUE DATE** : 2024-06-07

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Change History		
Version	Date	Reason for Change
1.0	2024-06-07	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1 Applicant and Manufacturer Information

<b>Applicant:</b>	Skeeter Enterprises
<b>Applicant Address:</b>	8184 Compass pointe E Wynd NE, Leland, NC 28451
<b>Manufacturer:</b>	Anteral
<b>Manufacturer Address:</b>	Calle Tajonar 22. 31006, Pamplona Spain

## 1.2 Equipment under Test (EUT) Description

<b>Product Name:</b>	Stadia Neptune
<b>Serial No.:</b>	(N/A, marked #1 by test site)
<b>Hardware Version:</b>	N/A
<b>Software Version:</b>	N/A
<b>Frequency Range:</b>	Bluetooth: 2402 – 2480 MHz Radar: 24.005 – 24.245 GHz
<b>Modulation Type:</b>	Bluetooth: GFSK

**Note:**

When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% risk level.



### 1.3 Applied Reference Documents

Leading reference documents for testing:

Identity	Document Title	Method determination /Remark
FCC 47 CFR Part 2(2.1093)	Radio Frequency Radiation Exposure Assessment: Portable devices	No deviation
KDB 447498 D01v06	General RF Exposure Guidance	No deviation
<b>Note:</b> Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.		



## 2. Device Category and RF Exposure Limit

Per user manual, based on 47 CFR 2.1093, this device belongs to portable device category with General Population/Uncontrolled exposure.

➤ **Portable Devices:** 47 CFR 2.1093(b)

For purposes of this section, a portable device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance within 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location.

➤ **General Population/Uncontrolled Exposure limit:**

The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.

**Table 1 Limits for Maximum Permissible Exposure (MPE)**

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz\* = Plane-wave equivalent power density

**Table 2 Limits for General Population/Uncontrolled Exposure (SAR)**

Type Exposure	Uncontrolled Environment Limit
Spatial Peak SAR (1g cube tissue for head and trunk)	1.6 W/kg
Spatial Peak SAR (10g cube tissue for limbs)	4.0W/kg
Spatial Peak SAR (1g cube tissue for whole body)	0.08 W/kg

### 3. Maximum Average Power (Strength) Summary

#### ➤ Maximum Average Power of Bluetooth

Wireless Mode	Frequency (MHz)	Max. Average Power (dBm)	Tune-up Power (dBm)	Tune-up Power (mW)
Bluetooth	2440	0.62	1.0	1.26

**Note:**

1. According to KDB 447498 Section 4.3, MPE assessment is based on source-based time-averaged maximum conducted output power of the RF channel requiring assessment, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.
2. The maximum average power of Bluetooth is derived from the report 18220WC40076901.
3. Limitation expressed in dBm is calculated by  $10^{P/10}$  (mW).

#### ➤ Maximum Field Strength of Radar

Wireless Mode	Frequency (MHz)	Peak field strength (dBuV/m)	Peak field strength (V/m)	Peak EIRP (mW)
Radar	24125.5	97.16	0.072	1.56

**Note:**

1. The maximum field strength of radar is derived from the report SZ24040353W01.
2. Limitation expressed in dBuV/m is calculated by  $20\log$  Emission Level ( $1000 \times \text{mV/m}$ ) per section 15.245(b).
3. EIRP calculate method

$$\text{EIRP} = (\text{E} \cdot \text{d})^2 / 30$$

Where

E is electric field strength in V/m

d is measurement distance in meters (m)

EIRP is the equivalent isotropically radiated power in W

## 4. RF Exposure Assessment

### ➤ Standalone Transmission Assessment

#### <Bluetooth>

Wireless Mode	Frequency (GHz)	Tune-up Power (mW)	Test Distance (mm)	Scaling Result	Exclusion Thresholds for 1-g SAR
Bluetooth	2.44	1.26	5	0.39	3.0

#### Note:

- According to KDB 447498 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation distances  $\leq 50$  mm are determined by:  

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0.$$
  - $f(\text{GHz})$  is the RF channel transmit frequency in GHz
  - Power and distance are rounded to the nearest mW and mm before calculation
  - The result is rounded to one decimal place for comparison
- When standalone SAR is not required to be measured, per FCC KDB 447498 D01v06 4.3.2), the following equation must be used to estimate the standalone 1g SAR.

$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} \cdot \frac{\text{Max. power of channel, mW}}{\text{Min. Separation Distance, mm}}$$

Wireless Mode	Tune-up Limit (dBm)	Exposure Position	Body
		Test Distance (mm)	5
Bluetooth	1.0	Estimated SAR (W/kg)	0.052

#### <Radar>

Wireless Mode	Frequency (MHz)	Peak EIRP (mW)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
Radar	24125.5	1.56	0.5	1.0

#### Note:

- According to the unwanted emissions requirements of ANSI C63.10-2013 clause 12.7.3, if radiated measurements are performed, then field strength is then converted to EIRP.
- MPE calculate method

$$\text{Power Density} = \text{EIRP} / 4\pi R^2$$

Where:  $\text{EIRP} = P + G$

P = Output Power (dBm)

G = Antenna Gain (dBi)

R = Separation Distance (5mm)



➤ **Simultaneous Transmission Assessment**

1. Multi-band simultaneous transmission consideration

Plot No.	Simultaneous Transmission Consideration	Body
1	Bluetooth + Radar	Yes

2. Multi-band simultaneous transmission result

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

- P and ERP summation terms are basic exemption criteria
- Evaluated/Exposure Limit sum accounts for preexisting exposure levels

Wireless Mode	RF Exposure (SAR/PD)	Limit	Total Exposure Ratio	TER Limit
Bluetooth	0.052 W/kg	1.6 W/kg	0.53	1.0
Radar	0.494 mW/cm <sup>2</sup>	1.0 mW/cm <sup>2</sup>		

➤ **Conclusion:**

According to 47 CFR Part 2.1093, this device complies with human exposure basic restrictions.





## Annex A General Information

### 1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

### 2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

### 3. Facilities and Accreditations

The FCC designation number is CN1192, the test firm registration number is 226174.

————— END OF REPORT —————