RF Exposure Exhibit

FCC ID: 2AL2U-020002

Model: ET71001

Manufacturer: etectRx, Inc.

747 SW 2nd Ave., Suite 365T

Gainesville, FL 32601

General Information:
Applicant: etectRx, Inc.
Environment: General Population/ Uncontrolled Exposure
Exposure Conditions: Portable/Body Worn
The device is a lanyard worn pendant using BLE modulation in the 2.4 GHz ISM band.

Technical Information:
Minimum Test Separation Distance: 2.15mm
Highest Operating Frequency: 2480 MHz
Antenna Type: Omnidirectional (base loaded monopole)
Antenna Gain: -10 dBi (Peak)
Maximum Transmitter EIRP: -13.26dBm (0.047 mW)

Frequency (MHz)	2402	2440	2480
Conducted RF Power Output dBm (mW)	-5.34	-4.37	-3.26 (0.47)

Justification for SAR Test Exclusion:

Standalone SAR Test Exclusion:
Per KDB 447498 D01 General RF Exposure Guidance v06, the standalone 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$SAR := \left(\frac{Po}{d}\right) \cdot \sqrt{f}$$

Where:
d is separation distance in mm (5 mm being the lower limit)
f is the frequency in GHz (2.48 GHz)
Po is the conducted power output in mW (0.47mW)

Limits:

≤ 3.0 for 1 gram SAR and, ≤ 7.5 for 10-g extremity SAR.

Conclusion:

Evaluating the above equation gives a resultant numeric threshold of 0.15.
This is ≤ 3 for the 1gram SAR exclusion; then SAR exclusion applies.

Exposure of Bystanders

General Information:
Environment: General Population/ Uncontrolled Exposure
Exposure Conditions: Greater than 20cm
The device is a lanyard worn pendant using BLE modulation in the 2.4 GHz ISM band.

Technical Information:
Minimum Test Separation Distance: >20cm
Highest Operating Frequency: 2480 MHz
Antenna Type: Omnidirectional (base loaded monopole)
Antenna Gain: -10 dBi (Peak)
Maximum Transmitter EIRP: - dBm (0.047 mW)
Maximum RF Conducted Power: -3.26 dBm (0.47 mW)

MPE Calculation:
The Power Density (mW/cm²) is calculated as follows:

$$S := \frac{(P \cdot G)}{\left(4\pi \cdot R^2\right)}$$

Where:
S = Power density in mW/cm²
P = Power input to the antenna in mW (0.47mW).
G = Power gain of the antenna in the direction of interest relative to an isotropic radiator (-10dBi).
R = Distance to the center of radiation of the antenna in cm (20cm).

FCC power density limit (general population): 1mW/cm² for frequencies above 1.5 GHz and below 100 GHz

For this EUT:

S = 0.0 mW/cm²

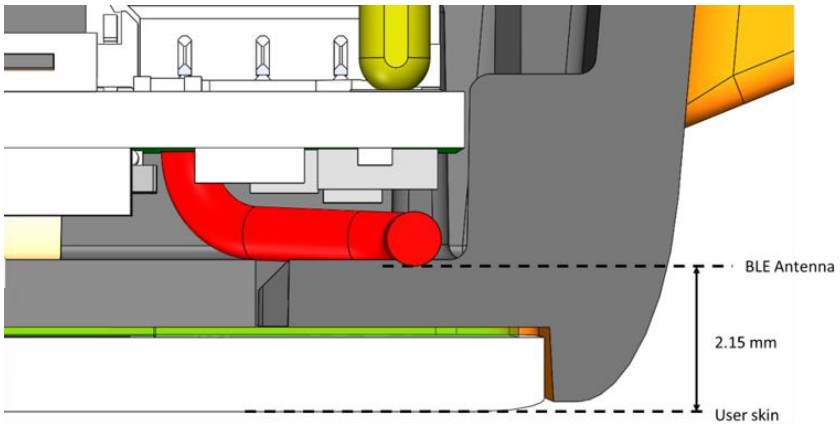

Figure 1 Product case cutaway view (LCD down)
Distance to antenna structure (antenna in red) 2.15mm

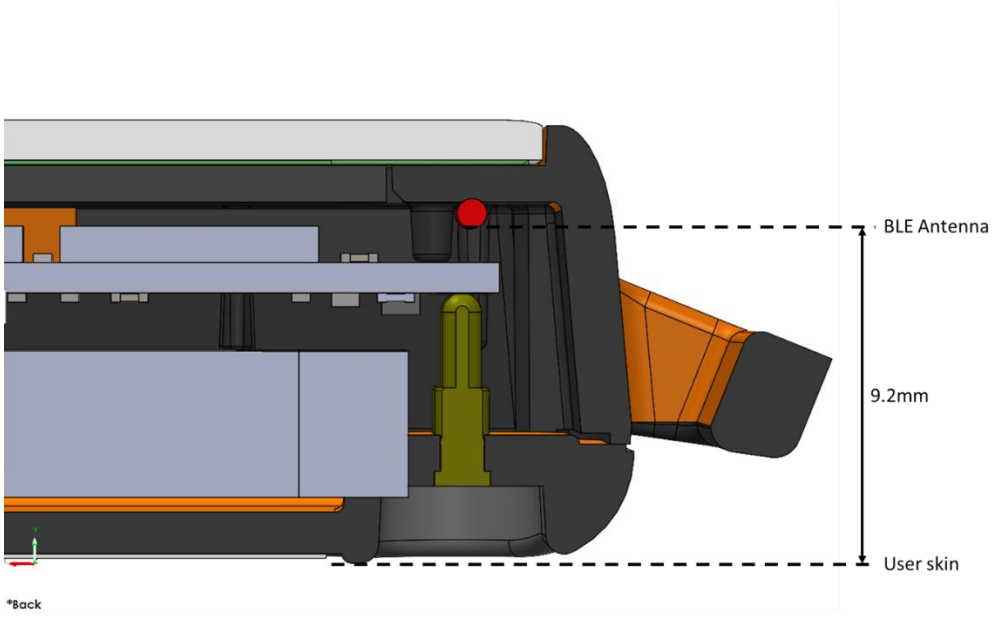

Figure 2 Product case, cutaway view, (normal position)
Distance to antenna structure 9.2mm