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# **RF Exposure Evaluation Declaration**

**FCC ID**: 2APPT-2969

**Applicant:** Airthings ASA

**Product:** View Plus for Business

**Model No.:** 2969

Brand Name: Airthings

FCC Rule Part(s): FCC Part 2.1091

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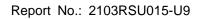




The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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# **Revision History**

Report No.	Version	Description	Issue Date	Note
2103RSU015-U9	Rev. 01	Initial Report	06-12-2021	Valid





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## 1. PRODUCT INFORMATION

## 1.1. Equipment Description

Product Name	View Plus for Business	
Model No.	2969	
Brand Name	Airthings	
SRD Radio	Various bands in the 865-928MHz range (region dependent)	
Bluetooth Version	v5.1 Single mode	
Operating Temp.	4 ~ 40°C	
Rated Input	5VDC (USB cable) or batteries	

## 1.2. Product Specification Subjective to this Report

BLE			
Frequency Range	2402 ~ 2480MHz		
Channel Number	40		
Type of modulation	GFSK		
Data Rate	1Mbps & 2Mbps		
Antenna Type	PCB antenna		
Antenna Gain	3.3 dBi		
SRD			
Operating Frequency	905.6 ~ 926 MHz		
Type of Modulation	FSK		
Antenna Type	PCB antenna		
Antenna Gain	5 dBi		

Note: Above information is declared by manufacturer.





## 2. RF Exposure Evaluation

#### 2.1. Limits for FCC:

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time	
(MHz) Strength (V/m)		Strength (A/m) (mW/cm²)		(Minutes)	
(A) Limits for Occupational/ Control Exposures					
300-1500			f/300	6	
1500-100,000			5	6	
(B) Limits for General Population/ Uncontrolled Exposures					
300-1500	00-1500 f/1500		6		
1500-100,000			1	30	

f= Frequency in MHz

Calculation Formula:  $Pd = (Pout*G)/(4*pi*r^2)$ 

Where

Pd = power density in mW/cm<sup>2</sup>

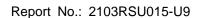
Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.





### 2.2. Test Result of RF Exposure Evaluation for FCC

Product	View Plus for Business
Test Item	2969

#### FCC:

Test Mode	Frequency Band (MHz)	Maximum Average Output Power (dBm)	E.I.R.P Including Tune-up	Power Density at $R = 20 \text{ cm}$ $(mW/cm^2)$	Limit (mW/cm²)
			(dBm)		
Bluetooth-LE	2400 ~ 2483.5	5.47	9.27	0.0017	1
SRD	905.6 ~ 926	13.50	19.00	0.0158	1

#### **CONCLUSION:**

The Max Power Density at R  $(20 \text{ cm}) = (0.0017 + 0.0158) \text{ mW/cm}^2 = 0.0175 \text{mW/cm}^2 < 1 \text{ mW/cm}^2$ . The device is excluded for SAR test and complies with the FCC exposure requirements since the maximum conducted peak output power is lower than the SAR test exclusion thresholds. So, the EUT complies with RF Exposure requirement.

 The End	





# Appendix A - EUT Photograph

Refer to "2103RSU015-UE" file.