



RF Exposure Evaluation Declaration

FCC ID: 2ANOT-203532

Applicant: Alliance Laundry Systems LLC

Application Type: Certification


Product: Wireless Network Control

Brand Name: 

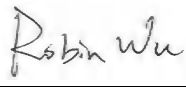
Model No.: 203532

FCC Classification: Digital Transmission System (DTS)

Test Procedure(s): KDB 447498 D01 General RF Exposure Guidance v06

Reviewed By: 

(Sunny Sun)

Approved By: 

(Robin Wu)



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
1911RSU027-U2	Rev. 01	Initial Report	09-05-2020	Valid

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1. Product Information

1.1. Feature of Equipment under Test

Product Name	Wireless Network Control
Model No.	203532
Brand Name	
S/N	9120301
SW Vserion	0.02
Zigbee Specification	802.15.4

1.2. Product Specification Subjective to this Report

Frequency Range	2410 ~ 2480 MHz
Channel Number	15
Type of Modulation	O-QPSK
Antenna Type	Dipole Antenna
Antenna Gain	2dBi

Note: The antenna is declared by the manufacturer.

1.3. Working Frequencies for this report

Channel	Frequency	Channel	Frequency	Channel	Frequency
11	2405 MHz	12	2410 MHz	13	2415 MHz
14	2420 MHz	15	2425 MHz	16	2430 MHz
17	2435 MHz	18	2440 MHz	19	2445 MHz
20	2450 MHz	21	2455 MHz	22	2460 MHz
23	2465 MHz	24	2470 MHz	25	2475 MHz

2. RF Exposure Evaluation

2.1. Limits

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 (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1500	30
1,500-100,000	--	--	1.0	30

f= Frequency in MHz

* = Plane-wave equivalent power density

Calculation Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

P_d is the limit of MPE, 1mW/cm². 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

Product	Wireless Network Control
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Clause 1.2 of this report.

Test Mode	Frequency Band (MHz)	Maximum Average Output Power (dBm)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)	Result
Zigbee	2405 ~ 2475	7.38	0.0017	1	Pass

_____ The End _____

Appendix - EUT Photograph

Refer to "1911RSU027-UE" file.