

RF Exposure Evaluation Report

Product : Curtain rolling motor
Trade mark : N/A
Model/Type reference : M3310EIG
Serial Number : N/A
Report Number : EED32L00294202
FCC ID : 2AU8E-M3310EIG
Date of Issue : Oct. 23, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498D01v06
Test result : PASS

Prepared for:

Smartplus Inc

415 Steelcase Road, East Markham, Ontario Canada, L3R 1G3

Prepared by:

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Oct. 23, 2020

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Check No.:3096361185



2 Version

Version No.	Date	Description
00	Oct. 23, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Smartplus Inc
Address of Applicant:	415 Steelcase Road, East Markham, Ontario Canada, L3R 1G3
Manufacturer:	DONGGUAN RIDONG INTELLIGENT EQUIPMENT CO., LTD.
Address of Manufacturer:	No.1 Shuibei Industry Estate, Fenggang Town, Dongguan City, Guangdong, China
Factory:	DONGGUAN RIDONG INTELLIGENT EQUIPMENT CO., LTD.
Address of Factory:	No.1 Shuibei Industry Estate, Fenggang Town, Dongguan City, Guangdong, China

4.2 General Description of EUT

Product Name:	Curtain rolling motor
Model No.(EUT):	M3310EIG
Trade Mark:	N/A
EUT Supports Radios application	914MHz, 915MHz, 916MHz

4.3 Product Specification subjective to this standard

Frequency Range:	914MHz, 915MHz, 916MHz
Modulation Type:	2-GFSK
Test Power Grade:	Default
Test Software of EUT:	Default
Antenna Type:	PCB built-in antenna
Antenna Specification	3 dBi
Max Output Power:	85.75 dBμV/m (-11.63 dBm)
	The Max Output Power data refer to the report EED32L00294201
Power Supply:	DC 24V
Sample Received Date:	Sep.09, 2020
Sample tested Date:	Sep.09, 2020 to Sep. 28, 2020
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

Result:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
2	915	0.069	1.995	20	0.00003	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00294201 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***