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RF Exposure Report

FCC Part 2.1091

EUT Name: Powerview Gen3 Motor Control Board

EUT Model: 1012000217

Prepared for:

Hunter Douglas Window Fashions
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Broomfield, CO 80020
USA

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1 Product Specifications

1.1 Product Description

The Model 1012000217 utilizes a radio proprietary to Hunter Douglas. The EUT will be in compliance with regulatory standards of regions it will be operating in.

1.2 Product Specifications

EUT Specifications	
Exposure Type	<input checked="" type="checkbox"/> General Population / Uncontrolled <input type="checkbox"/> Occupational / Controlled
Multiple Antenna Feeds:	<input type="checkbox"/> Yes, and how many <input checked="" type="checkbox"/> No
Hardware Version	
Software Version	
Note:	

1.3 Air Interfaces

Air Interface	Supported Capabilities	Modulation	Maximum Duty Cycle	Band	Frequency Range (MHz)	Maximum Output Power (dBm)
Proprietary Radio	N/A	GFSK	100%	N/A	2400 – 2483.5	5.75

2 RF Exposure Evaluation

2.1 Purpose

This report will demonstrate the compliance of RF exposure to the human body of the 1012000217 according to FCC rule part 2.1091. All transmitters, regardless if it is categorically excluded, are assessed to ensure the product can operate in manners that meet or exceed the minimum test separation distance as required by KDB 447498.

2.2 Categorical Exclusion Assessment

Air Interface	Band	Frequency Range (MHz)	FCC Rule Part	Categorically Excluded according to FCC 1.1307 (b)(1)
Proprietary Radio	N/A	2400 – 2483.5	15.247	Yes

2.3 Maximum Permissible Exposure Limit

The Maximum Permissible Exposure (MPE) limits according to FCC rule part 1.1310 for general population/uncontrolled exposure is as follows:

Frequency Range (MHz)	E-field strength (V/m)	H-field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
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

* = Plane-wave equivalent power density

2.4 Assessment Methods

The power density is calculated according to the following equation

$$S = \frac{EIRP}{4\pi R^2}$$

Where

S = Power Density (mW/cm²)

EIRP = Effective Isotropic Radiated Power (mW)

R = Minimum distance between the human body and antenna (cm)

When the calculated power density exceeds the MPE limits, the power density is measured.

Assessment Calculation

The maximum output power and antenna gain is declared by the manufacturer and used in this assessment. The minimum RF exposure distance during normal operation is 20 cm.

Stand Alone Analysis

Frequency Band (MHz)	Operating Mode	Max. Conducted Power (mW)	Numeric Antenna Gain	EIRP (mW)	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Percentage of Limit
2400-2483.5	2Mbps	3.76	1.44	5.4144	0.0011	1	0.11%

2.5 Conclusion

The EUT was found to be compliant to the requirements of FCC part 1.1310 and part 2.1091 with a minimum distance of 20 cm.