



RF Exposure Evaluation Declaration

FCC ID: BRWSPMSR6300PM
Applicant: Horizon Hobby, LLC
Product: SR6300PM Receiver
Model No.: SPMSR6300PM
Brand Name: Spektrum™
FCC Rule Part(s): FCC Part 2.1091
Result: Complies

Reviewed By:

Sunny Sun

Sunny Sun

Approved By:

Robin Wu

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.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2203RSU077-U2	Rev. 01	Initial Report	2022-06-29	Valid

CONTENTS

Description	Page
1. General Information	4
1.1. Applicant.....	4
1.2. Manufacturer	4
1.3. Product Information	4
2. RF Exposure Evaluation.....	5
2.1. Exemption Thresholds	5
2.2. Exemption for Simultaneous Transmission Sources	5
2.3. Test Result.....	7

1. General Information

1.1. Applicant

Horizon Hobby, LLC
2904 Research Rd., Champaign, IL, 61822

1.2. Manufacturer

Horizon Hobby, LLC
2904 Research Rd., Champaign, IL, 61822

1.3. Product Information

Product Name	SR6300PM Receiver
Model No.	SPMSR6300PM
Brand Name	Spektrum™
Frequency Range	2405 ~ 2478MHz
Type of Modulation	GFSK
Channel Number	23
Operating Temperature	-10 ~ 40°C
Power Type	By Battery (DC 3.5V ~ 9.6V)
Antenna Type	Monopole Antenna
Antenna Gain	-1.93 dBi
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

2. RF Exposure Evaluation

2.1. Exemption Thresholds

Per § 1.1307(b)(3)(i)(B), a single RF source is considered an RF exempt device if its available maximum time-averaged (matched conducted) power or its effective radiated power (ERP), whichever is greater, are less than or the threshold P_{th} (mW) described in the following formula.

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

2.2. Exemption for Simultaneous Transmission Sources

A device with multiple RF sources transmitting simultaneously will be considered an RF exempt device if the following Formula is satisfied.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure \text{ Limit}_k} \leq 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using the § 1.1307(b)(3)(i)(B) formula for P_{th} , including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using the applicable § 1307(b)(3)(i)(C) Table 1 formula for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance.

P_i = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

$P_{th,i}$ = the exemption threshold power (P_{th}) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source i .

ERP_j = the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source j .

$ERP_{th,j}$ = exemption threshold ERP for fixed, mobile, or portable RF source j , at a distance of at least $\lambda/2\pi$, according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question.

$Evaluated_k$ = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation.

$Exposure\ Limit_k$ = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable sources, as applicable

2.3. Test Result

Product	SR6300PM Receiver
Test Item	RF Exposure Evaluation

Modulation	Frequency (MHz)	EIRP (dBm)	ERP (dBm)	Conducted Power (dBm)	Max. Conducted Tune-up Power (dBm)	Max. Power (mW)	Exclusion Threshold (mW) @ 20cm
GFSK	2405	7.70	5.55	9.63	10.0	10.0	< 3060
	2440	8.00	5.85	9.93	10.0	10.0	< 3060
	2478	7.70	5.55	9.63	10.0	10.0	< 3060

The End