REM-EMIESS25A515AXO-02Av0

MPE test report

According to the standard:

CFR 47 FCC PART 15

Equipment under test:

SIGYN MKII

FCC ID: *X4GSH-00001*

Company:

SKY-HERO

Distribution: Mr FRANCK **(Company:** SKY-HERO**)**

Number of pages: 7

Ed.	Date	Modified Page(s)	Technical Verification and Quality Approval Name and Function / Visa
0	21-Mar-25	Creation	M. DUMESNIL, Radio Laboratory Manager

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DESIGNATION OF PRODUCT:	***SIGYN MKII***
Serial number (S/N):	*04103AA3I0495* ***(Radiated)*** *04103AA3G0294* ***(Conducted)***
Reference / model (P/N):	*SH-00001*
Software version:	*1.1.5*
MANUFACTURER:	*AXON ENTERPRISE, INC*

COMPANY CERTIFYING THE PRODUCT:

Company:	*AXON ENTERPRISE, INC*
Address:	17800 N 85TH ST SCOTTSDALE, AZ 85255 UNITED STATES

COMPANY SUBMITTING THE PRODUCT:

Company:	SKY-HERO
Address:	18 RUE D'ENGHIEN B-1080 - BRUSSELS BELGIQUE
Responsible:	Mr Franck
DATES OF TEST:	From 31-Jan-25 to 24-Feb-25
TESTING LOCATION:	EMITECH ANGERS laboratory at BEAUCOUZE (49) FRANCE FCC Accredited under US-EU MRA Designation Number: FR0009 Test Firm Registration Number: 873677
TESTED BY:	B. VOVARD
WRITTEN BY:	B. VOVARD

VISA:

CONTENTS

REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	**11-Mar-25**	/	Creation

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: ***SIGYN MKII***, in accordance with normative reference.

The equipment under test integrates:

- Proprietary protocol 5 GHz transmitter radio function not already certified,
- 915 MHz SRD transceiver radio part already certified (FCC ID: QOS-RXNANO).

2. PRODUCT DESCRIPTION

Class:	B
Utilization:	Law Enforcement

For 5 GHz proprietary protocol :

Antenna type and gain:	3.9 dBi / Cable dipole antenna
Operating frequency range:	From 5725 MHz to 5850 MHz
Number of channels:	4, see below : - Channel SH23 at 5732 MHz - Channel SH24 at 5769 MHz - Channel SH25 at 5806 MHz - Channel SH26 at 5843 MHz
Channel spacing:	37 MHz
Power Setting:	Video Power 2

For 915 MHz SRD :

Antenna type and gain:	2.0 dBi / Cable dipole antenna
Operating frequency range:	From 902.75 MHz to 927.25 MHz
Number of channels:	50
Channel spacing:	0.5 MHz

Power source:	2x Batteries in series 18650 Li-Ion 3.7 Vdc 3120 mA

The radio is not operational during charge mode. All measurements are realized on internal battery.

Power level, frequency range and channels characteristics are not user adjustable.

The details pictures of the product and the circuit boards are joined with this file.

3. NORMATIVE REFERENCE

The standards and testing methods related throughout this report are those listed below.
They are applied on the whole test report even though the extensions (version, date and amendment) are not repeated.

CFR 47 (2025)	Radio Frequency Devices
ANSI C63.10	2013 Procedures for ComplianceTesting of Unlicensed Wireless Devices.
447498 D04 Interim General RF Exposure Guidance v01	RF Exposure Pocedures and Equipment Authorization Policies for Mobile and Portable Devices

4. RF EXPOSURE

For 915 MHz SRD Radio Part in standalone :

According to grant with FCC ID referenced "QOS-RXNANO", the maximum conducted power measured is 10.892 mW at the frequency 902.75 MHz. The antenna gain declared by the applicant is 2.0 dBi, the maximum radiated output power with antenna gain result to 17.263 mW.

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01, paragraph 1.4.2 :

Maximum Permissive Exemption according paragraph 1.1310(d)(2) of CFR 47 FCC Part 15

Maximum measured power = 17.263 mW at 902.75 MHz
with $P = (E \times d)^2 / (30 \times Gp)$ with d = 3 m and Gp = 1

PSD= EIRP/$(4*\pi*R^{2)}$

⇨ $17.263/(4*\pi*(20\ cm)^2)$= **0.0034 mW/cm²**

Limit= Frequency (MHz)/1500

⇨ 902.75/1500= **0.6018 mW/cm²**

The equipment fulfils the requirements on power density for general population/uncontrolled exposure and therefore fulfils the requirements of 47 CFR §1.1310.

For 5 GHz Proprietary Protocol Radio Part in standalone :

According to measurements for FCC ID referenced "*X4GSH-00001*", the maximum conducted power measured is 97.498 mW at the frequency 5806 MHz. The antenna gain declared by the applicant is 3.9 dBi, the maximum radiated output power with antenna gain result to 239.331 mW.

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01, paragraph 1.4.2 :

Maximum Permissive Exemption according paragraph 1.1310(d)(2) of CFR 47 FCC Part 15

Maximum measured power = 239.331 mW at 5806 MHz
with $P = (E \times d)^2 / (30 \times Gp)$ with d = 3 m and Gp = 1

PSD= $EIRP/(4*\pi*R^{2)}$

⇨ $239.331/(4*\pi*(20\ cm)^2)$= **0.0476 mW/cm²**

Limit= 1 mW/cm²

The equipment fulfils the requirements on power density for general population/uncontrolled exposure and therefore fulfils the requirements of 47 CFR §1.1310.

Calculus for simultaneous transmission

MPE Ratio= PSD (mW/cm²)/ PSD Limit (mW/cm²)

For 915 MHz SRD MPE Ratio :

⇨ 0.0034/0.6018= **0.0056**

For 5 GHz Proprietary Protocol MPE Ratio :

⇨ 0.0476/1= **0.0476**

$\sum$ of MPE ratio = MPE ratio(915MHz) + MPE ratio(5GHz) = 0.0056 + 0.0476 = 0.0532 ≤ 1.0

The product meet the requirement for Simultaneous transmission MPE test exclusion from §2.2 of KDB 447498

□□□ End of report □□□