

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

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			Name and Function	Visa
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This document is the result of testing a specimen or a sample of the product submitted. It does not imply an assessment of the conformity of the whole manufactured products of the tested sample.

Information in italics are declared by the manufacturer/customer and are under his responsibility

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*

VISA:

WRITTEN BY: *B. VOVARD*

A handwritten signature in black ink, appearing to read "B. Vovard", with a long horizontal stroke extending to the right.

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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 Compliance Testing of Unlicensed Wireless Devices.
447498 D04 Interim General RF Exposure Guidance v01	RF Exposure Procedures 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 $P = (E \times d)^2 / (30 \times G_p)$ with $d = 3$ m and $G_p = 1$

$$PSD = EIRP / (4 \times \pi \times R^2)$$

$$\Rightarrow 17.263 / (4 \times \pi \times (20 \text{ cm})^2) = 0.0034 \text{ mW/cm}^2$$

$$\text{Limit} = \text{Frequency (MHz)} / 1500$$

$$\Rightarrow 902.75 / 1500 = 0.6018 \text{ mW/cm}^2$$

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 $P = (E \times d)^2 / (30 \times G_p)$ with $d = 3$ m and $G_p = 1$

$$PSD = EIRP / (4 \times \pi \times R^2)$$

$$\Rightarrow 239.331 / (4 \times \pi \times (20 \text{ cm})^2) = \mathbf{0.0476 \text{ mW/cm}^2}$$

$$\text{Limit} = \mathbf{1 \text{ mW/cm}^2}$$

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

$$\text{MPE Ratio} = PSD \text{ (mW/cm}^2\text{)} / PSD \text{ Limit (mW/cm}^2\text{)}$$

For 915 MHz SRD MPE Ratio :

$$\Rightarrow 0.0034 / 0.6018 = \mathbf{0.0056}$$

For 5 GHz Proprietary Protocol MPE Ratio :

$$\Rightarrow 0.0476 / 1 = \mathbf{0.0476}$$

$$\sum \text{ of MPE ratio} = \text{MPE ratio}(915\text{MHz}) + \text{MPE ratio}(5\text{GHz}) = 0.0056 + 0.0476 = 0.0532 \leq 1.0$$

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

□□□ End of report □□□