

## FCC RF Exposure Report

Product name : IQ2.0  
Applicant : SALTO Systems, S.L.  
FCC ID : UKCIQ2

Test report No. : 170600688 FCC RF exposure Ver 2.00

## Laboratory information

### Accreditation

Telefication is designated by the FCC as an Accredited Test Firm for compliance testing of equipment subject to Certification under Parts 15 & 18. The Designation number is: NL0001

The Industry Canada registration number for the 3 meter test chamber of Telefication is: 4173A-1.

### Documentation

Telefication complies with the accreditation criteria for test laboratories as laid down in ISO/IEC 17025:2005. The accreditation covers the quality system of the laboratory as well as the specific activities as described in the authorized annex bearing the accreditation number L021 and is granted on 30 November 1990 by the Dutch Council For Accreditation (RvA: Raad voor Accreditatie).

The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 10 years at Telefication Nederland.

### Testing Location

|                    |                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------|
| Test Site          | Telefication BV                                                                                       |
| Test Site location | Edisonstraat 12a<br>6902 PK Zevenaar<br>The Netherlands<br><br>Tel. +31316583180<br>Fax. +31316583189 |
| Test Site FCC      | NL0001                                                                                                |

## Revision History

| Version | Date       | Remarks          | By |
|---------|------------|------------------|----|
| v1.00   | 25-10-2017 | Release version  | PS |
| v2.00   | 24-04-2018 | Updated clause 1 | PS |

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## 1 General Description

### 1.1 Applicant

|               |                                                                          |
|---------------|--------------------------------------------------------------------------|
| Client name:  | Salto systems, S.L.                                                      |
| Address       | C/Arkotz 9 Pol. Lanbarren, Oiartzun                                      |
| Zip code:     | 20180                                                                    |
| Telephone:    | +34 943344550                                                            |
| Contact name: | <a href="mailto:j.imedio@saltosystems.com">j.imedio@saltosystems.com</a> |
| E-mail:       | Mr. Juan Imedio                                                          |

### 1.2 Manufacturer

|                    |                                                                          |
|--------------------|--------------------------------------------------------------------------|
| Manufacturer name: | Salto systems, S.L.                                                      |
| Address:           | C/Arkotz 9 Pol. Lanbarren, Oiartzun                                      |
| Zip code:          | 20180                                                                    |
| Contact name::     | <a href="mailto:j.imedio@saltosystems.com">j.imedio@saltosystems.com</a> |
| E-mail:            | Mr. Juan Imedio                                                          |

### 1.3 Tested Equipment Under Test (EUT)

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| Product name:     | IQ2.0                                                     |
| Brand name:       | SALTO                                                     |
| Product type:     | Data transmission equipment operating in the 2.4 GHz band |
| FCC ID:           | UKCIQ2                                                    |
| ISED ID           | 10088A-IQ2                                                |
| Model(s):         | IQ222, IQ223, IQ224                                       |
| Software version: | --                                                        |
| Hardware version: | --                                                        |

## 1.4 MPE Calculation Method

Calculation method of RF Safety Distance:

$$PD = 10 * \frac{P_{out} * G}{4\pi r^2}$$

Where:

PD = Power Density in  $W/m^2$

Pout = Output power in mW

G = Gain of antenna

R = Distance between observation point and centre of the radiator in cm

## 1.5 Antenna

| Technology   | WiFi    | BLE     | ZigBee  |
|--------------|---------|---------|---------|
| Antenna type | Chip    | Chip    | Chip    |
| Antenna gain | 0.5 dBi | 1.0 dBi | 0.5 dBi |

## 1.6 Calculation results

| Technology                | Frequency (MHz) | Max power (mW) | Antenna gain (numeric) | Distance (cm) | Power density ( $W/m^2$ ) | Limit ( $W/m^2$ ) | MPE ratio             | MPE ratio limit |
|---------------------------|-----------------|----------------|------------------------|---------------|---------------------------|-------------------|-----------------------|-----------------|
| WiFi                      | 2412            | 82.2           | 1.12                   | 20            | 0.183                     | 10                | 0.0183                |                 |
| BLE                       | 2402            | 6.80           | 1.26                   | 20            | $17.0 \times 10^{-3}$     | 10                | $1.7 \times 10^{-3}$  |                 |
| ZigBee                    | 2445            | 1.44           | 1.12                   | 20            | $3.21 \times 10^{-3}$     | 10                | $3.21 \times 10^{-4}$ |                 |
| Total MPE ratio (approx.) |                 |                |                        |               |                           |                   | 0.0203                | $\leq 1.0$      |