



Quick Reference

December 2018

Revision 011

IAMU21X Iono Arduino Uno

IAME21X Iono Arduino Ethernet

IAMS21X Iono Arduino Solo

Be sure to always remove the power supply before installing or removing the Arduino board inside Iono Arduino.

Iono Arduino must be operated with both side covers installed.

Follow all applicable electrical safety standards, guidelines, specifications and regulations for installation, wiring and operations of Iono Arduino modules.

Carefully read the complete Iono Arduino user guide before installation.

www.sferalabs.cc

Iono Arduino is not authorised for use in safety-critical applications where a failure of the product would reasonably be expected to cause personal injury or death. Safety-critical applications include, without limitation, life support devices and systems, equipment or systems for the operation of nuclear facilities and weapons systems. Iono Arduino is neither designed nor intended for use in military or aerospace applications or environments and for automotive applications or environment. Customer acknowledges and agrees that any such use of Iono Arduino is solely at Customer's risk, and that Customer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

Sfera Labs S.r.l. may make changes to specifications and product descriptions at any time, without notice. The product information on the web site or materials is subject to change without notice.

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Safety information

Carefully and fully read the user guide before installation and retain it for future reference.

Qualified personnel

The product described in this manual must be operated only by personnel qualified for the specific task and installation environment, in accordance with all relevant documentation and safety instructions. A qualified person should be capable of fully identifying all installation and operation risks and avoid potential hazards when working with this product.

Hazard levels

This manual contains information you must observe to ensure your personal safety and prevent damage to property. Safety information in this manual are highlighted by the safety symbols below, graded according to the degree of danger.



Indicates a hazardous situation which, if not avoided, **will** result in death or serious personal injury.



Indicates a hazardous situation which, if not avoided, **may** result in death or serious personal injury.



Indicates a hazardous situation which, if not avoided, can result in minor or moderate personal injury.



Indicates a situation which, if not avoided, can result in damage of property.

Safety instructions

General safety instructions

Protect the unit against moisture, dirt and any kind of damage during transport, storage and operation. Do not operate the unit outside the specified technical data.

Never open the housing. If not otherwise specified, install in closed housing (e.g. distribution cabinet). Earth the unit at the terminals provided, if existing, for this purpose. Do not obstruct cooling of the unit. Keep out of the reach of children.



Life threatening voltages are present within and around an open control cabinet.

When installing this product in a control cabinet or any other areas where dangerous voltages are present, always switch off the power supply to the cabinet or equipment.



Risk of fire if not installed and operated properly.

Follow all applicable electrical safety standards, guidelines, specifications and regulations for installation, wiring and operations of this product.

Ensure that the product is properly installed and ventilated to prevent overheat.



The connection of expansion devices to this product may damage the product and other connected systems, and may violate safety rules and regulations regarding radio interference and electromagnetic compatibility.

Use only appropriate tools when installing this product. Using excessive force with tools may damage the product, alter its characteristics or degrade its safety.

Warranty

Sfera Labs S.r.l. warrants that its products will conform to the specifications. This limited warranty lasts for one (1) year from the date of the sale. Sfera Labs S.r.l. shall not be liable for any defects that are caused by neglect, misuse or mistreatment by Customer, including improper installation or testing, or for any products that have been altered or modified in any way by Customer. Moreover, Sfera Labs S.r.l. shall not be liable for any defects that result from Customer's design, specifications or instructions for such products. Testing and other quality control techniques are used to the extent that Sfera Labs S.r.l. deems necessary.

Warranty will not apply in the event of:

- installation, maintenance and use contrary to the instructions and warnings provided by Sfera Labs S.r.l. or in conflict with legal regulations or technical specifications;
- damages occurred due to: defects and/or abnormalities of the electrical wirings, defects or abnormal distribution, failure or fluctuation of electrical power, abnormal environmental conditions (such as dust or smoke, including cigarette smoke) and damages related to air conditioning systems or humidity control systems;
- tampering;
- damage due to natural events or force majeure or not related to the original defects, such as damage due to fire, flood, war, vandalism and similar events;
- damage caused by use of the product outside of the limitations set in the technical specifications;
- removal, modification of the serial number of the products or any other action which prevents its unique identification;
- damage caused during transportations and shipment.

The complete Terms and Conditions document applicable to this product is available here:

<https://www.sferalabs.cc/terms-and-conditions/>

Disposal

Waste Electrical & Electronic Equipment



(Applicable in the European Union and other European countries with separate collection systems). This marking on the product, accessories or literature indicates that the product should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Installation and use restrictions

Standards and regulations

The design and the setting up of electrical systems must be performed according to the relevant standards, guidelines, specifications and regulations of the relevant country. The installation, configuration and programming of the devices must be carried out by trained personnel.

The installation and wiring of connected devices must be performed according to the recommendations of the manufacturers (reported on the specific data sheet of the product) and according to the applicable standards.

All the relevant safety regulations, e.g. accident prevention regulations, law on technical work equipment, must also be observed.

Safety instructions

Carefully read the safety information section at the beginning of this document.

Set-up

For the first installation of the device proceed according to the following procedure:

- ✓ make sure all power supplies are disconnected
- ✓ install and wire the device according to the schematic diagrams on the specific product user guide
- ✓ after completing the previous steps, switch on the power supply and other related circuits.

Conformity Information

EU

This device complies with the essential requirements of the following directives and harmonised standards:

- ✓ 2014/35/UE (Low Voltage)
- ✓ 2014/30/UE (EMC)
- ✓ EN61000-6-2:2005 (EMC Immunity)
- ✓ EN60664-1:2007 (Electrical safety)
- ✓ EN61000-6-3:2007 (Emission for residential, commercial and light-industrial environments)
- ✓ 2011/65/UE (RoHS)

The declaration of conformity is available on the internet at the following address: <https://www.sferalabs.cc/iono-arduino/>