SBC-X10

Kaleidoscope's X Line of industrial SBC's (Single Board Computers) allows enterprises to easily deploy scalable end-to-end Internet of Things solutions which are compatible with over 90% of the vast range of commodity sensors on the market today.

Industrial SBC for Rapid IoT Deployments

Kaleidoscope's SBC-X10 is a multi-purpose industrial class SBC designed and built from the ground up to help simplify the deployment of large scale IoT solutions by enabling 'plug-and-play' style IoT without compromising any of the power and flexibility traditionally found in industrial computers in the field.

The X10 is managed through the central Kaleidoscope Cloud, and our intuitive browser-based interface enables for rapid deployment of our hardware without specialist training or certifications. Additionally, Kaleidoscope's centralized management gives administrators deep visibility into their IoT field deployments and how their devices and runtimes are operating in the field.

IoT delivered "Over the Air"

Kaleidoscope's "Over the Air" delivery of both firmware, and sensor runtime updates ensures that your field devices are always running at their optimum. New features, bug fixes, and enhancements are delivered seamlessly over the web, meaning no manual software updates to download or missing security patches to worry about.

Additionally, our Docker™ based container orchestration allows for the individual source code required to interface with your sensors to be developed locally, and delivered in real-time throughout your organization, no matter how many devices are in the field or what programming languages you chose.

Suitable Deployment Industries

- Manufacturing
- Pharmaceutical & Health
- Agriculture
- Building Automation
- Smart Cities
- Utilities & Alternative Energy
- Construction & Mining
- Transportation & Logistics

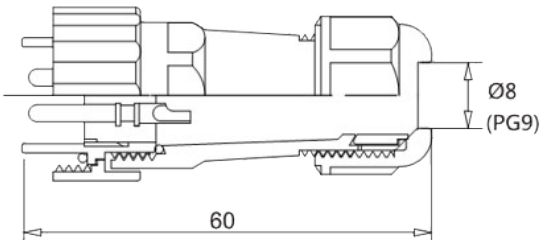
Dimensions & Interfaces

Designed for Industrial/Rugged Deployments

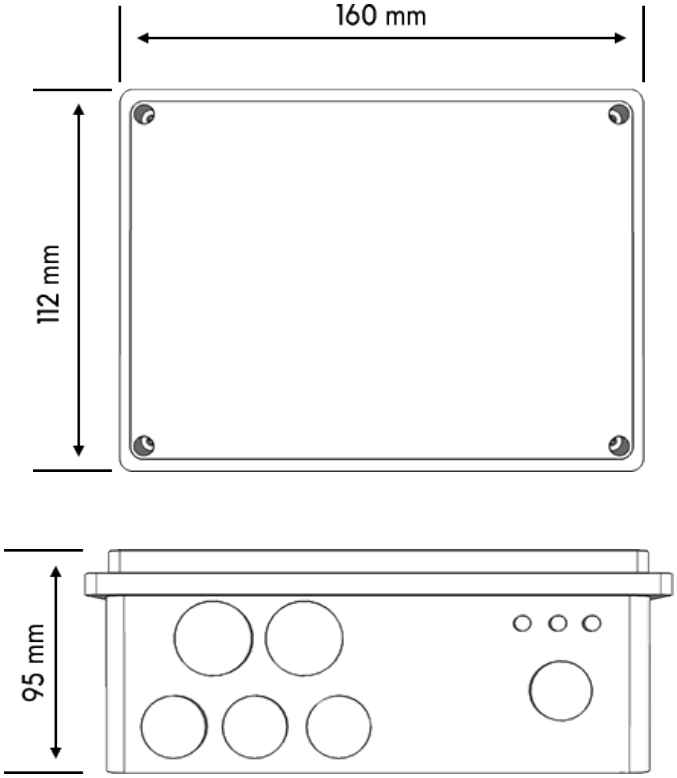
The SBC-X10 has been designed from the ground up with IP66 standards for the toughest of field deployments. The devices I/O sensor ports make use of the standard, low-cost "SP16" silicone socket & plug type,

This allows for both use of Kaleidoscope ready sensors, as well as generic low cost "commodity" sensors (assembly of SP16 socket required).. Sockets can be purchased from Kaleidoscope direct or online from a range of sellers.

SP16 Connector



Exterior Dimensions



Specifications

Network:

- 2.4 GHz IEEE 802.11 a/b/g network bridge/access radio.

- 10/100 Base-T Ethernet (RJ45).

Supported frequency bands:
- 2.412 - 2.484 GHz.

Antenna:

External 3 dBi SMA antenna (replaceable) for network bridge/access radio.

Chipsets:

Quad-core Cortex-A7 ARM CPU.

512MB DDR3 SDRAM.

8GB On-board storage (Custom order up to 32GB if required).

Power:

Integrated 110-240v auto-switching AC power input (Via HT634 IP66 waterproof connector).

12v DC input for integration with battery/solar system.

Power consumption: 3W max.

Interfaces:

1x 10/100 Base-T Ethernet (RJ45).

1x USB 2.0 Type A.

1x 4-pin DC/AC power connector (HT634 connector).

1x SMA antenna connector.

3x 7-pin Analogue + Digital I/O Sensor Ports (SP16 connector).

LED Indicators:

3x Multi-function status indicator LED's.

Mounting:

Desktop or wall mount capable.

Environment:

Ambient operating temperature: -20 °C to 50 °C.

Humidity: 2 to 95%.

Ingress Protection: IP66 (Suitable for outdoor usage).

Fan-less operation.

Security:

2048bit TLS certificate based integrated encryption for all traffic transmitted between device and Kaleidoscope Cloud.

Warranty:

12 month hardware replacement warranty with Kaleidoscope "replace in advance" program optionally available for large scale deployments.

Kaleidoscope Cloud:

End-to-end support with device registration in Kaleidoscope Cloud, and Kaleidoscope Edge Computing Support for Over the Air Updates. Data ingress and Kaleidoscope Cloud services billed separately.

Color Options:

Available in White, and Black.