

IRIS SAP



IIoT Sensor Access Point

IRIS SAP (Sensor Access Point) is a stand alone Sensor Access Point node for the deployment of Wireless Sensor Networks (WSN). Thus, user can deploy spatially distributed autonomous **IRIS SAP** nodes using sensors to monitor physical or environmental conditions, states and parameters.

IRIS SAP nodes can be easily wireless connected to the **IRIS BOX TRS** IIoT gateway, thus enabling direct access from any smart device to process parameters real time values, logic real time states, field devices control, logged data download and system configuration.

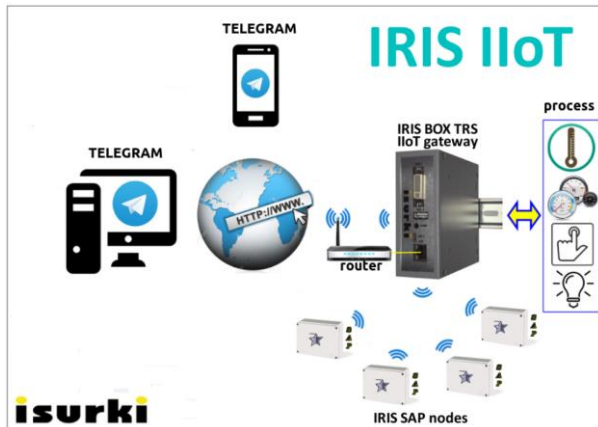
The **IRIS**¹ ecosystem is a state of the art cutting edge telecontrol system, developed by **ISURKI** as the result of more than 25 years of expertise in the design and deployment of industrial telecontrol systems for the management of facilities, services and environmental control networks.

The **IRIS** ecosystem includes different packs of Plug & Sense sensors.

The **IRIS SAP** nodes design is based on the next premises:

- Embedded sensors.
- External universal 4-20 mA field sensors input range compatible.
- External Plug & Sense sensor packs.
- Wireless.
- Self powered and ultra low power consumption.
- Harsh environments.

¹ As a result of a constant evolution, here in stated characteristics can be upgraded and changed without previous notice to customer. Please ask the last data sheet version contacting directly with our company.



IRIS IIoT ecosystem architecture

OTHER RELATED DEVICES OF THE IRIS IIoT ECOSYSTEM

- [IRIS BOX TRS](#) IIoT gateway and telecontrol remote server.
- [TESDA](#) embedded industrial input-outputs board, digital & analog, for IRIS BOX TRS and IRIS BOX PC.
- [IRIS BOX PC](#) embedded industrial box PC for developers.
- [CNC4200](#) 4-20 mA water level sensor.
- [Application note](#).

IRIS SAP: Sensor Access Point for IIoT IRIS ecosystem

EMBEDDED SENSORS

temperature
accelerometer
relative humidity
Hall effect

SAP

EMBEDDED Wi-Fi

Wifi

802.11 b/g/n Radio
802.11 n (2.4 GHz), up to 150 Mbps
Station mode
WMM
TX/RX A-MPDU, RX A-MSDU
Immediate block ACK
TX power for 72.2 Mbps: 14 dBm typ.
TX power for 11b mode: 20 dBm typ.
RX sensitivity: -98 dBm at 1 DSSS
Automatic beacon monitoring (TSF)

isurki
Instrumentation & Control

BATTERY POWERED

Ultra low power consumption
80 µA @ 3V7
2 years autonomy without charging
1 lithium battery powered
3.7V / 1500 mA
remote charge level indication
energy saving modes:
- deep sleep
- sleep
- idle
- full

CPU, MEMORY and RTC

Xtensa® single-/dual-core
32-bit LX6
520 Kb SRAM
4 Mb Disk on chip
RTC timer and watchdog

EXTERNAL SENSORS AND ANALOG/DIGITAL INPUTS

2 x 4-20mA / 0-1V analog inputs
4 x digital inputs dry contact
4 x IRIS' plug & sense sensors
- water pack: level, temp., flow (open channel)
- meteo pack: temp, atm.pres., HR, anemo, solar
- air quality pack: CO, NO2, O3, SO2, NH3, PM, Dust
- soil and agro pack: available soon

DIMENSIONS & ENVIRONMENT

outdoor plastic box IP66
120x80x56 mm
UV radiation protected
self-extinguishing
flammability according to UL94 V-2
working temp.: from -20 up to +70 °C

- Unlimited number of nodes.
- Fully user configurable process parameters.
- Configurable latency with IRIS BOX TRS gateway.
- Configurable log interval.
- On site embedded led for node diagnostics.
- Fully remote (over the air) configurable.
- Unlimited after sales support.



Company headquarters in Irun, Spain