

# IRIS Base

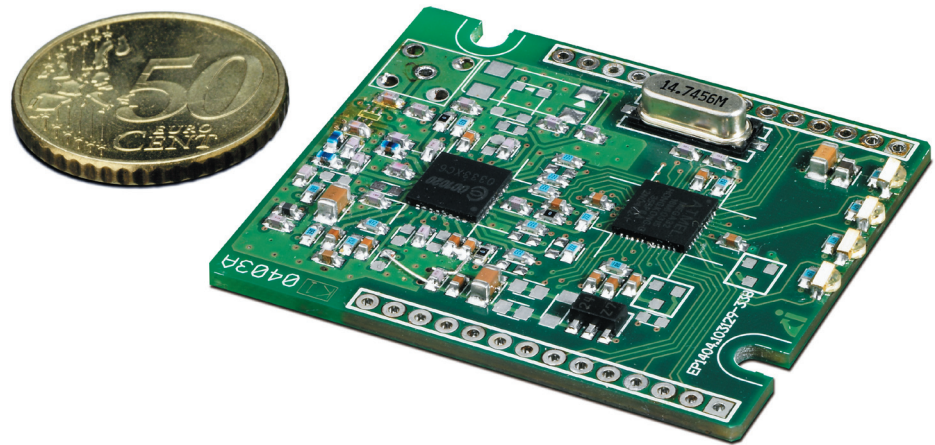


## IRIS System

A typical IRIS system consists of a group of IRIS units arranged in a tree structure connected to each other by radio.

The top unit is the concentrator in the system and the connection to end-user via, e.g. a serial interface, a web-module or a GSM-module. The other units in the system are connected to various electronic equipments via I/O and serial interface or acts as repeaters to enable communication over longer distances.

IRIS units can, besides being a part of a radio network, work in pairs and work as standalone units.



## IRIS Base

IRIS-Base is the kernel in most IRIS solutions. It is made for integration with existing equipment and it is easy to configure both before delivery and on location.

Besides the radio interface, which is used for communication with other IRIS units, the IRIS-Base has analogue and digital inputs, digital outputs and a serial interface, for both RS-232 and RS-485 protocol.

To make the system flexible there are several internal functions, such as timers, counters and logical flags, which can be used for monitoring and controlling external devices.

Received messages are interpreted and appropriate actions can be taken.

New messages can be created and sent. The created messages can, beside fixed text strings and received text, contain different parameters e.g. status for I/O, flags, timers and counters, ID and alias for the unit, and RSSI.

The IRIS Base is also available in a low power version, 3 volts power supply instead of 5 volts. This version is developed for solutions with battery power.



## Technical data:

### Radio:

Frequency	433.050 – 434.775 MHz; 439.700 – 439.975 MHz
Power	10 mW
Sensitivity	-112dBm
Modulation type	FSK
Bit rate	4800 Bits/s
Range	> 1 km (in line of sight)

### Serial communication:

Level	CMOS level
Speed	300-115200 Baud
Databits	7, 8
Stopbits	1, 2
Parity	None, even or odd

### I/O:

Digital / analogue inputs	6
- Resolution	10 bits
- Range	0 - 2.5 VDC
- Input leakage	max 1 $\mu$ A
Digital outputs	4
	V <sub>cc</sub> = 5 VDC, I <sub>ol</sub> =I <sub>oh</sub> =20 mA; Only resistive load, no inductive
- Level high	4.0 - VCC
- Level low	0 - 0.7 VDC
Max output current	20 mA (resistive)

### Power supply:

Voltage	4.5 - 5.5 VDC: Normal: 5.0 VDC
Power consumption (no active input or output pins)	50 mA @ 5 VDC (transmitting)
Maximal power consumption	150 mA @ 5 VDC

### Miscellaneous:

Size	42x51 mm
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**For more information:** [www.irisnetwork.se](http://www.irisnetwork.se), [info@irisnetwork.se](mailto:info@irisnetwork.se)