# Powerful, Reliable & Flexible Wireless Networking

## Ideal for a Wide Range of Remote Monitoring & Control Applications

### Wireless RS-232 / RS-485

A wireless RS-232/485 system built on IP•Link 1270 modules completely implements data transparent transmission, which may be one good replacement to the wired connections. The wireless RS-232/485 (IP•Link 1270) may save a lot of communication cables, and be making communication systems simpler and more convenient. This Wireless RS-232/485 is very adaptable to deploy at warehouses, oil fields and other such kinds of industry fields.

### Sensor Network

IP•Link 1270 module is embedded with a dual-channel 10-bit ADC input. Users can simply link the simply pre-processed signal to the input-port of the IP•Link 1270 module. These modules may collect the sensor data direct and implement the data transmission in the wireless sensor networks. It is adaptable for data capturing of sensors at industry fields, hydrographic monitoring, environment monitoring, etc.

### Home Network Intelligent Control

An intelligent home, deployed in a narrow space and consisting of several systems, such as security surveillance, home appliance control, fire control, and so on, will be inconvenient and uncomfortable for eyes by wired connections. Utilizing IP•Link 1270 module wireless technology will overcome these defects. The wireless module network integrates all the required functions, and monitor and controls the each home device on the home core gateway. Related information, please refer to "The Introduction to
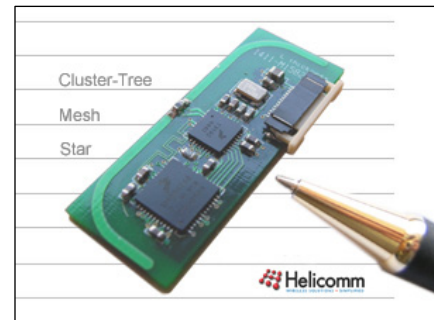


Helicomm-Beijing's WIN•GATE Home Network Gateway".

### Auto Metering System

IP•Link 1270 module has the features of low power consumption and powerful networking, which provides a solution for auto metering in industry and civil application. In the industry application, the ZigBee Auto metering system (built with IP•Link 1270 module may be one of best choices for the dangerous metering in high temperature, high pressure or poisonous environments. Also for home use, wireless auto metering will significantly reduce labor costs, and at the same time solve the malice debt problem.

The four typical applications described above are far behind the possible applications that IP•Link 1270 module can do. Other applications include wireless ordering system for restaurants, meter data gathering, remote controller for toys, and so on. It provides users endless imagination and wide application possibilities.

## IP•Link 1270 Specification

### RF

| | |
|---|---|
| Frequency | 2.4GHz |
| Modulation | DSSS |
| Max. data rate | 250Kb/s |
| Receive sensitivity | -91dBm |
| Transmit range | 200m (LOS) |
| RF channels | 16 (5M each) |
| Transmit power | -16dBm to 3dBm |

### Microcontroller

| | |
|---|---|
| Type | MC9S086T60 |
| RAM | 4KB |
| Flash ROM | 60KB |

### Module Power Consumption

| | |
|---|---|
| Transmit power | <49mA |
| Receive | <47mA |
| Power down | <50uA |

### I/O

| | |
|---|---|
| Physical | 14-pin (0.5mm) |
| Serial | UART |
| A/D | 2-channel, 10-bit |
| Control | Interrupt / Reset |

### Physical / environmental

| | |
|---|---|
| Size | W x H x D |
| Cm | 4.0 x 1.6 x 0.4 |
| Operating temp. | -20 ~ 60°C |
| Humidity | 10% ~ 90% |

## Block Diagram of IP•Link 1270
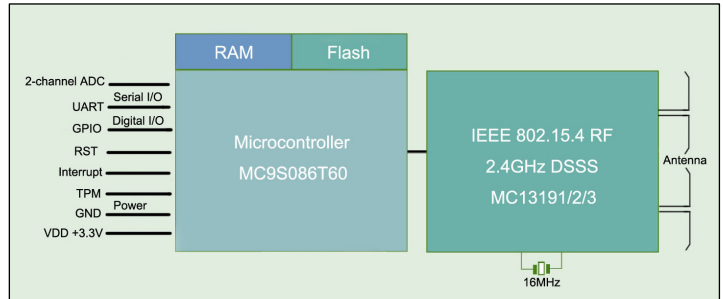


## Main Features

- **2.4GHz unlicensed ISM band RF Transceiver**
- **8-bit microcontroller**
- **2-channel, 10-bit A/D conversion**
- **PCB double dipole antenna**
- **14-pin ribbon connector**
- **APIs and full product documentation**
- **Quickly prototype ZigBee wireless solutions with Helicomm EZ-Net DevKit 1270 integrated development environment**

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