

The wireless communication solution of IOL(Internet of Lamp)

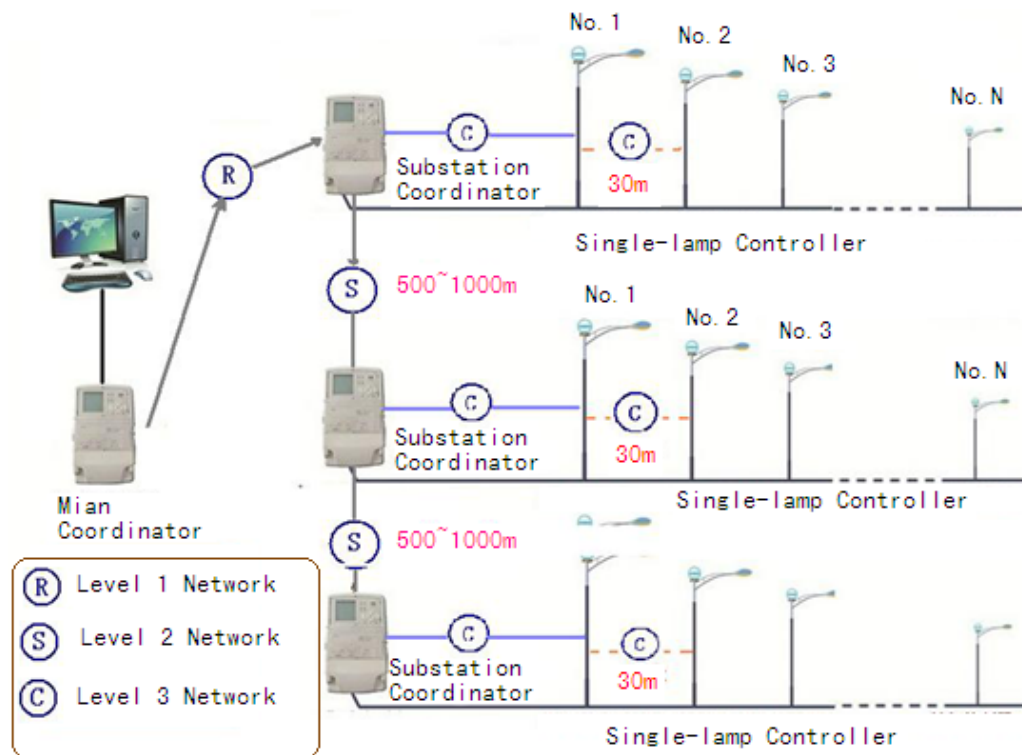
CWDN wireless light control system



In today's society, city lighting has become a showcase to exhibit the charming of city. However, lamp's maintenance and management, especially the problem of electricity, have become an important problem, and cause the attention of people, particularly, in the background with power shortage. Thus, the lighting system of the city, which more intelligent, more environmentally and more energy-efficient, will become the inevitable trend of development.

In such a context, we focus on the introduction of a set of wireless intelligent monitoring system based on wireless routing technology. ("CWDN" (Cellular+wireless+Digital+Net: Cellular wireless data network)) It can achieve the communication function of remote control with the LED lamp, high pressure sodium lamp, where in the city road, square and residential quarters, to improve the management level of city lighting.

Lamp control system-Components



This system is mainly composed of single lamp wireless acquisition controller, the base station and monitor center .

Upper computer Control system:Installed in the control room's computer



Center (coordinator):By connecting between 232bus and computer.Upper computer Control system can communicate with the center by 232bus.



Substation coordinator (the secondary center device):installed at the crossings of controlled road.The main function is to transfer the instruction,which made by center and single-lamp controller .



Single-lamp controller :Installed at the bottom of the light pole, is mainly responsible for collecting the lamp working condition, and transmitting the instruction along with the substation coordinator , as well as communicating with each single lamp.



The street lamp control system-communication mode

The upstream and downstream data of system are adopting advanced wireless transmission mode of "CWDN" cellular wireless data network to transmit.Upstream data include: state of the lamp, the temperature;Current, voltage and the state of controller,etc.Downstream data refers to many kinds instructions ,which made by central computer, including the street lamp switch instructions;and each unit of work status inquiry instruction as well as to the control unit parameters preset, etc.

The adoption of advanced wireless "CWDN" network, this system can quickly to build any size and not restricted by time, space, and other conditions."CWDN" wireless network also have advantages with minor error, strong anti-interference ability, low cost, easy extension, and convenient extension.It makes wireless "CWDN" network intelligent light control system become the preferred way of networking.

Light control system in community-communication mode

Recently year, City construction in China has achieved rapid development, high-grade residential area of both scale and grade are also improving by the development of economy. But along with it is the increasingly prominent of energy supply and demand contradiction , thus, the energy conservation and emissions reduction, lower energy consumption become a trend in the future's construction industry. lighting control system of residential area, the new light managed mode , which is born in such a environment, has become more and more popular.



System Composements:

Upper computer(control center) Software:



Center (coordinator) : By connecting between 232bus and computer.Upper computer Control system can communicate with the center by 232bus.



Lamp control node: Through the way of on-off to control AC220V's relay, to achieve the purpose of control the lights on and off, as well as communicate with center.



