SANSI®

INTELLIGENT
STREET LIGHT

SANSI

LED Display
LED Lighting

Company Profile

Since 1993, Sansi has been manufacturing LED displays and lighting products with a strong focus on R&D, product lines, and sales. With a staff of more than 1,700 members including more than 400 diversified engineers, we generated RMB 1.07 billion worth of sales in 2015.

Sansi offers a variety of innovative products including LED displays and a series of lighting products ideal for both commercial and residential applications. Sansi's portfolio includes 277 patents including 187 international patents.

In the domestic market, Sansi has a 60% market share for road variable LED message signs, a 70% market share for High Speed Train stations, and a 50% market share for all subway LED lighting projects in China. In 2012, Signage Solutions Magazines referred to Sansi as "the second largest LED manufacture worldwide".

Awards

- The Shanghai Government Quality Prize
- Shanghai Science and Technology Progress Award
- China Famous Brand
- Shanghai Famous Brand
- The first Chinese Student Personnel Returning from Entrepreneurial Boom Award for Outstanding Enterprises
- 863 Semiconductor Lighting National Key Research Project for the Unit
- The Eighth Zi Jing Hua Bei Award for Outstanding Entrepreneur
- The drafting of related standards in the field of display screen and lighting field for the Ministry of Public Security, Ministry of Communications, Ministry of Science and Technology

Think innovation! We are dedicated to providing excellent services and products that are beneficial to both our customers and the environment.

Shanghai Headquarter   Jiashan Base   Lingang Base

## The technical concept of "intelligent street light"

Sansi "intelligent street light" is a fully integrated lighting system that connects information and communication technology between multiple parties through the use of real-time systems, data, and sensors.

Sansi intelligent street light will make it easier for cities and individuals to customize a smarter and more efficient city. Our lighting systems will help improve efficiencies between multiple parties that include municipalities, private entities, law enforcement, transportation grids, hospitals, schools, and libraries.
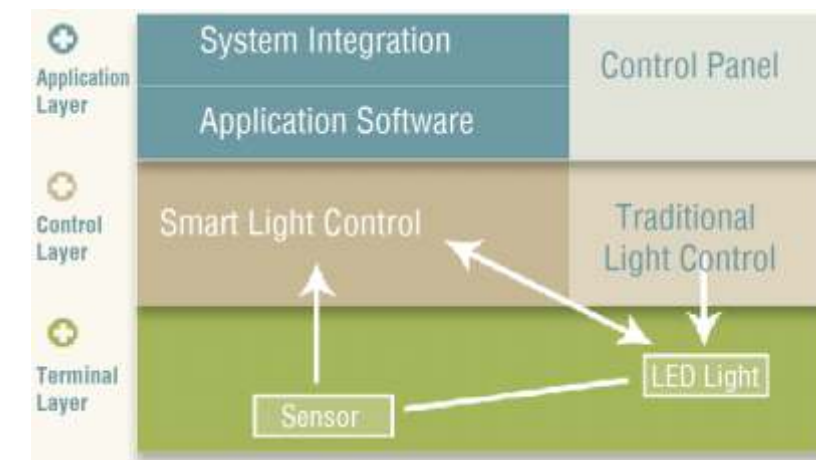
SANSI Lighting System (SLS)

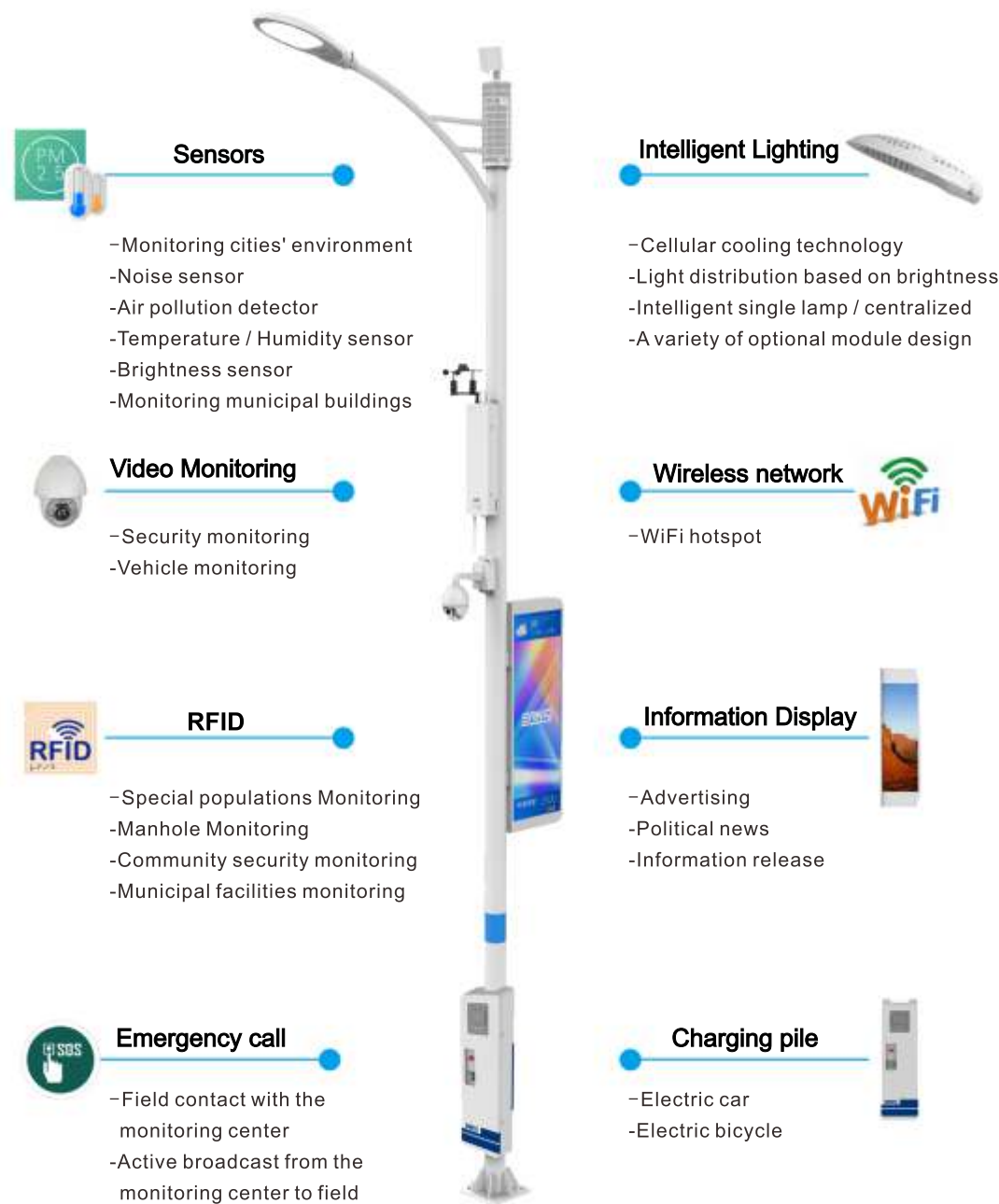## Sansi Intelligent Street Light Application Diagram
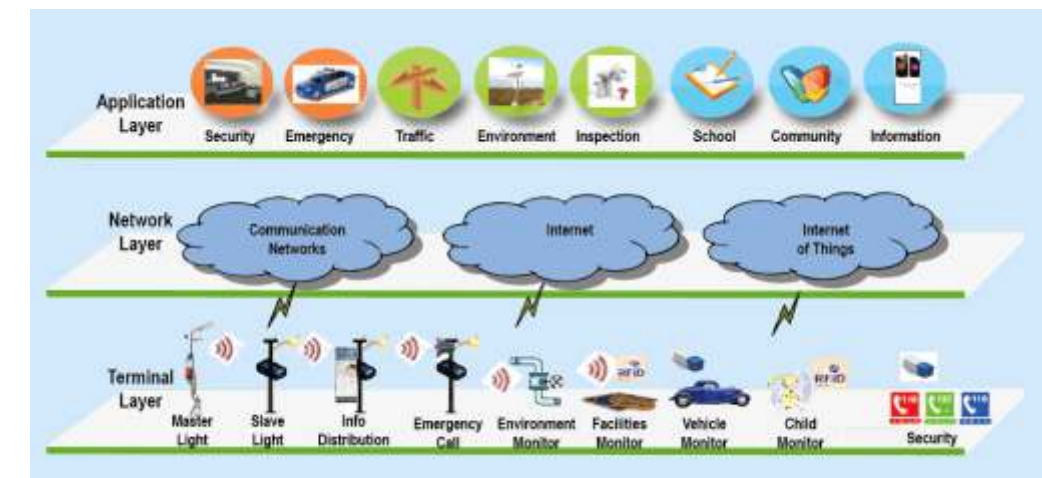
Application layer- the joint operation mode of environment sensing, CPS fusion processing, data analysis and mining

Network layer - based on Ethernet standard protocol , combination of EPON, 3G/4G, WIFI, Zigbee and other technology integration
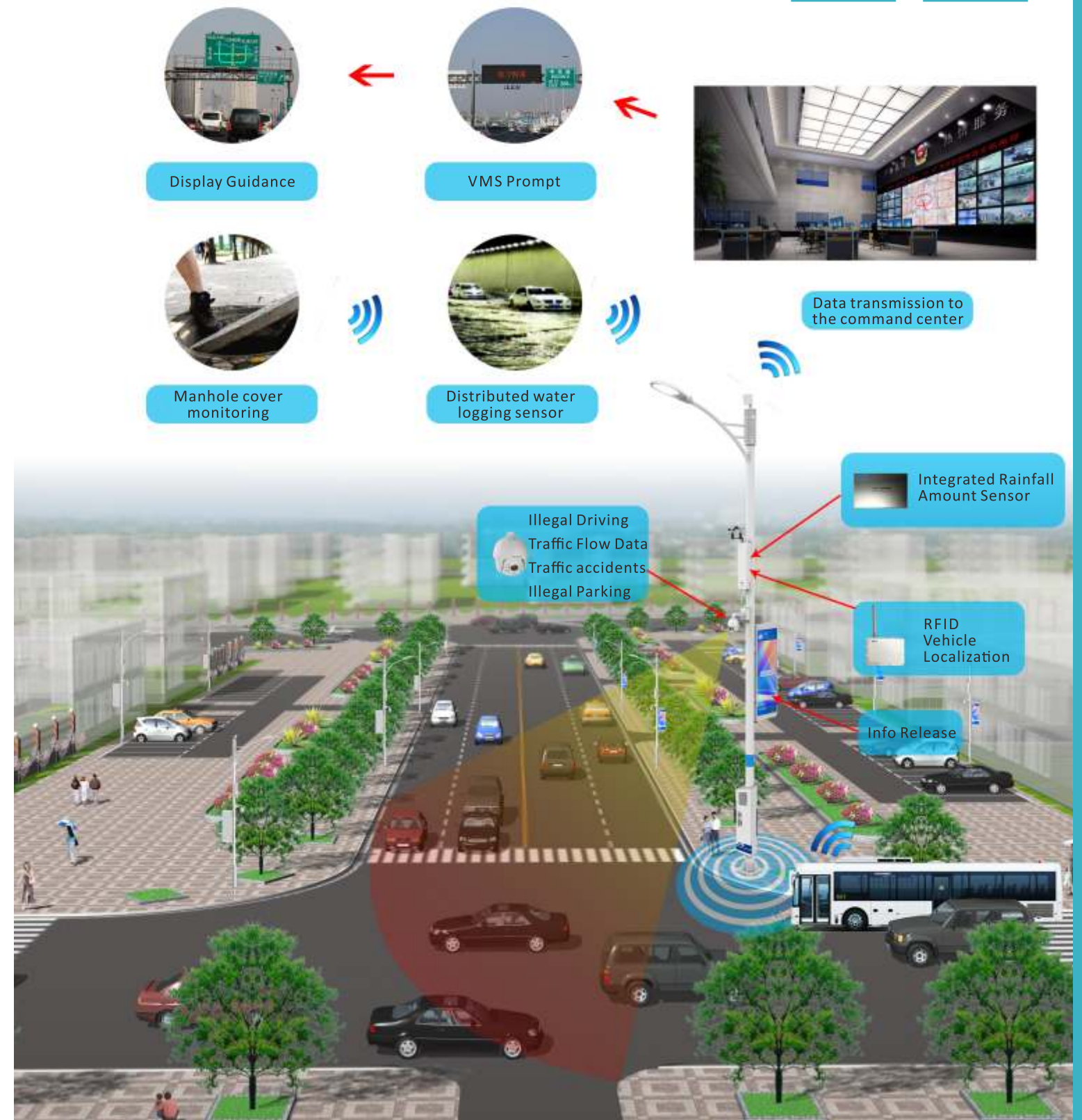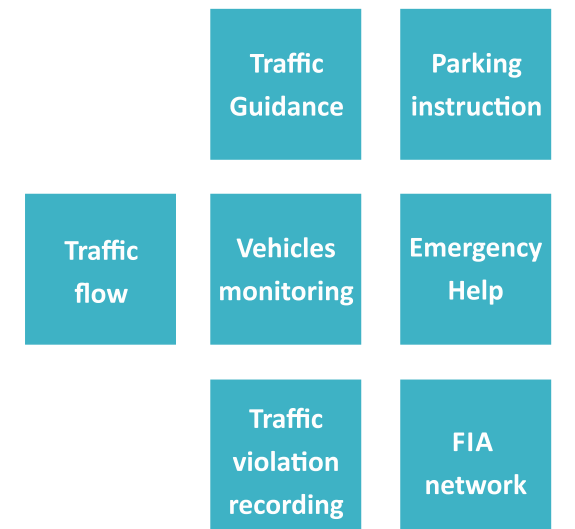
Terminal layer - unified terminal equipment agreement to Realization the underlying interconnection

The purpose behind Sansi's intelligent lighting applications is to make life on the road easier and safe. We make full use of the information and communication technologies that we do have and provide intelligent responses to the various needs of people's livelihood, environmental protection, and industrial and commercial activities.

Relying on the ability of LED street lights, displays and software system integration, Sansi's intelligent street light system is certified by the National Lighting Test Centre and has been recognized by China Illuminating Engineering Society as an internationally advanced system.

Sensors

−Monitoring cities' environment
-Noise sensor
-Air pollution detector
-Temperature / Humidity sensor
-Brightness sensor
-Monitoring municipal buildings

Video Monitoring

−Security monitoring
-Vehicle monitoring

RFID

−Special populations Monitoring
-Manhole Monitoring
-Community security monitoring
-Municipal facilities monitoring

Emergency call

−Field contact with the
 monitoring center
-Active broadcast from the
 monitoring center to field

Intelligent Lighting

−Cellular cooling technology
-Light distribution based on brightness
-Intelligent single lamp / centralized
-A variety of optional module design

Wireless network

−WiFi hotspot

Information Display

−Advertising
-Political news
-Information release

Charging pile

−Electric car
-Electric bicycle

Internet + Smart Traffic

Traffic Guidance

Parking instruction

Traffic flow

Vehicles monitoring

Emergency Help

Traffic violation recording

FIA network

Display Guidance

VMS Prompt

Manhole cover monitoring

Distributed water logging sensor

Data transmission to the command center

Integrated Rainfall Amount Sensor

Illegal Driving
Traffic Flow Data
Traffic accidents
Illegal Parking

RFID Vehicle Localization

Info Release

Internet + Safe City

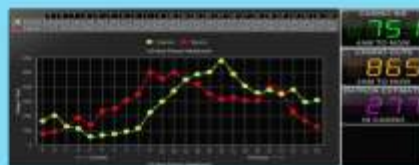**Video surveillance smart monitoring integration**

City managing

Group incidence

Emergency Processing

Coordinated Camera + Sensor

Traffic flow / fire alarm / gas leakage / vehicle exhausts detection

Smart Schoolyard

Smart Retirement

Emergency call
Alart release

Internet + Smart Community

By the advantages of light pole position and the power supply to realize electric vehicle charging pile deployment. Cooperate with BMW for charging pole integration

Real time traffic density warning

Traffic density data gathering

Real time traffic density detection

Data transmission to the command center

Fire alarm
Gas Leakage

Traffic density detection system
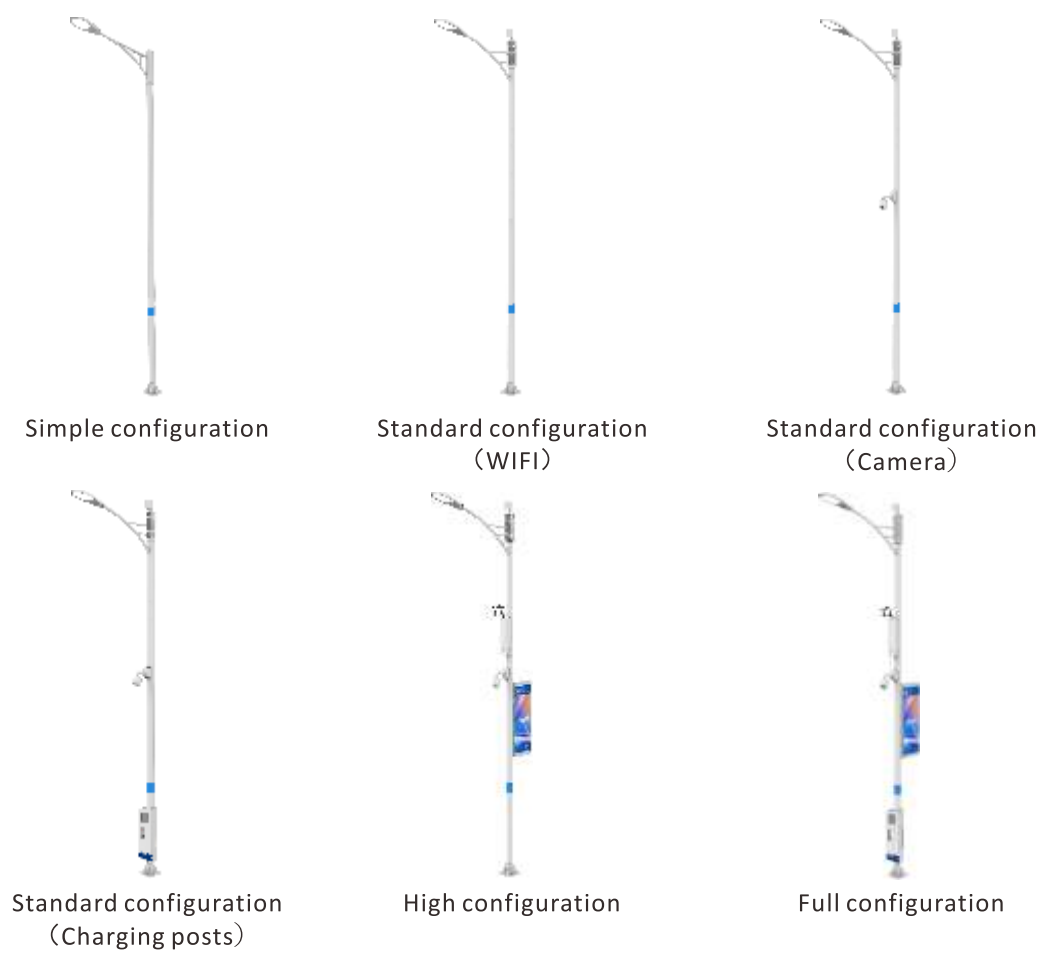Traffic density detection
Abnormal event detection

Info Release

Emergency Call
Emergency Info Release

Info Release

Safety Card
Help Call

Call Button
Intercom System

Provide large scale E-Car charging coverage

Simple configuration Standard configuration Standard configuration
（WIFI） （Camera）

Standard configuration High configuration Full configuration
（Charging posts）

Intelligent street lighting configuration scheme

	Simplified Configuration	Standard Configuration	High Configuration	Top Configuration
Basic Features				
Communication Sub-system	●	●	●	●
Control Sub-system	●	●	●	●
Optional Features				
LED Light	●	●	●	●
Light Post	★	●	●	●
Sensors Sub-system		★	●	●
Video Survilliance Sub-system		★	●	●
RFID Sub-system		★	●	●
LED Display		★	●	●
Emergency call Sub-system		★	●	●
Power Charging Station		★	★	●
Micro base statin,WIFI		★	★	●

Note：1"●"Must have items
2"★" Optional items
3、System update supported

Smart Light Specifications	
Smart Lighting	Modular System Road light power: 60W-250W Flux: 6000lm -25000lm. Color temperature: 4000K/5000K Protection grade: IP65. Environment temperature: -40 C ~ +55 C Voltage: AC85-264V Embedded intelligent dimming module, Two level energy saving.
Information Display	Pixel spacing: 3 0mm, 4 0mm Resolution: 576X192 Brightness: >3500cd/m square Driver: constant current Dimming: 32 level auto/manual control Refresh rate≥960Hz Environment temperature: -20℃ - +50℃
Control and information transmission	Ethernet RS485 WIFI Dimming interface 2.4GHz wireless
Information collection	1.3 million color outdoor camera, PTZ control Integrated environmental monitoring sensor, real -time monitoring of 5/ PM2. temperature and humidity / atmospheric pressure / wind direction / noise integrated RFID reading head, equipped with RFID tag card, record municipal equipment and child monitoring.
Power Charging	Embedded 7.5kW electric AC charging station. Working voltage: 220AC, Working current: 32A Smart card payment supported
Control	Integrated intelligent lighting control, information collection, information dissemination and emergency call and other functions; Linked control of each device History data query, including light status, energy saving, environmental parameters etc. Auto alart for multiple emergency situations.

Sansi intelligent street light network diagram

StarRiver

Sansi intelligent control software system StarRiver, relying on cloud platform, realize the three grade monitoring: point (wisdom Street) - line (Road) - surface (city) of to achieve screen control, light control, collection, linkage unity.
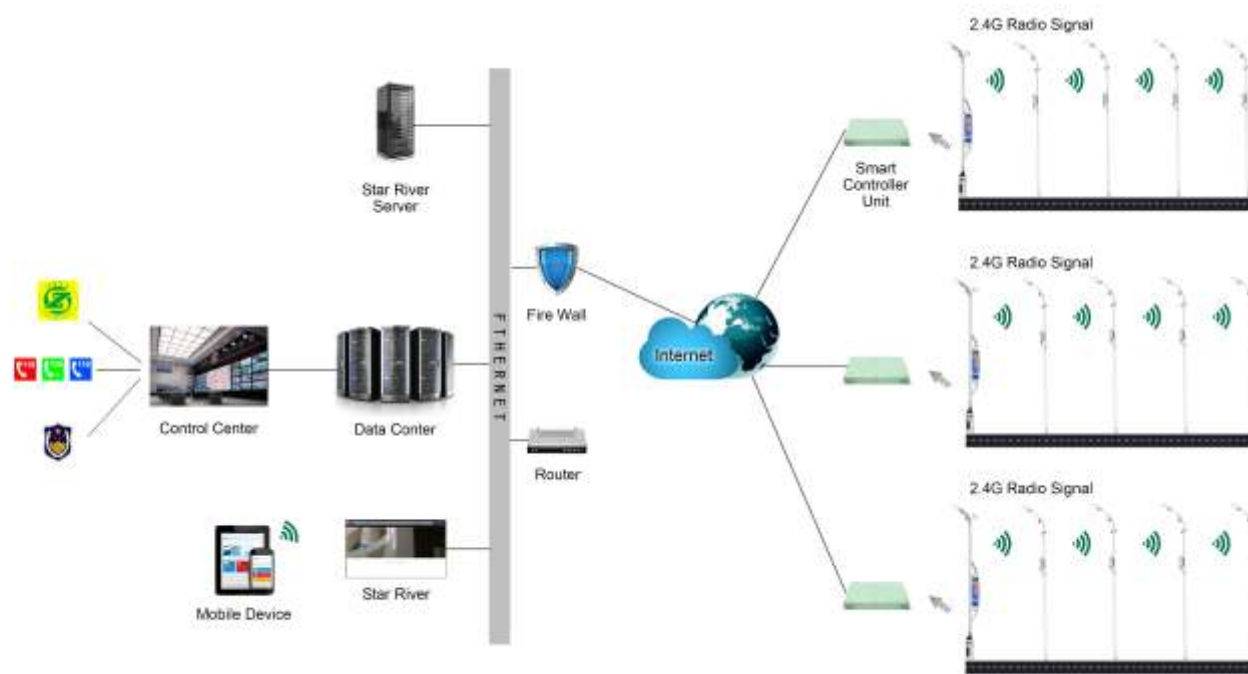
Hangzhou Smart Road Light

Jiangsu Smart Road Light

Jiangxi Smart Road Light

Jiangsu Smart Road Light