CHINT

Empower the World

CHINT STREET LIGHT SOLUTION

ABOUT CHINT

CHINT A leading global provider of smart energy solutions

CHINT was established 38 years ago in 1984 and built from the capital of approximately 8,000 US dollars. With our rapid development these years, CHINT has become the world's leading intelligent energy solutions provider for the whole industrial chain with the most complete product ranges. In 2021, our annual sales revenue exceeded 16.1 billion dollars and total assets of more than 16.2 billion.

Over two decades of global expansion, our business network covers more than 140 countries and regions worldwide in business industries of low-voltage electric, power transmission and distribution, smart technology, energy instruments and meters, green energy, solar and more. CHINT has more than 40,000 employees worldwide, creating more than 200,000 jobs in the industrial chains.

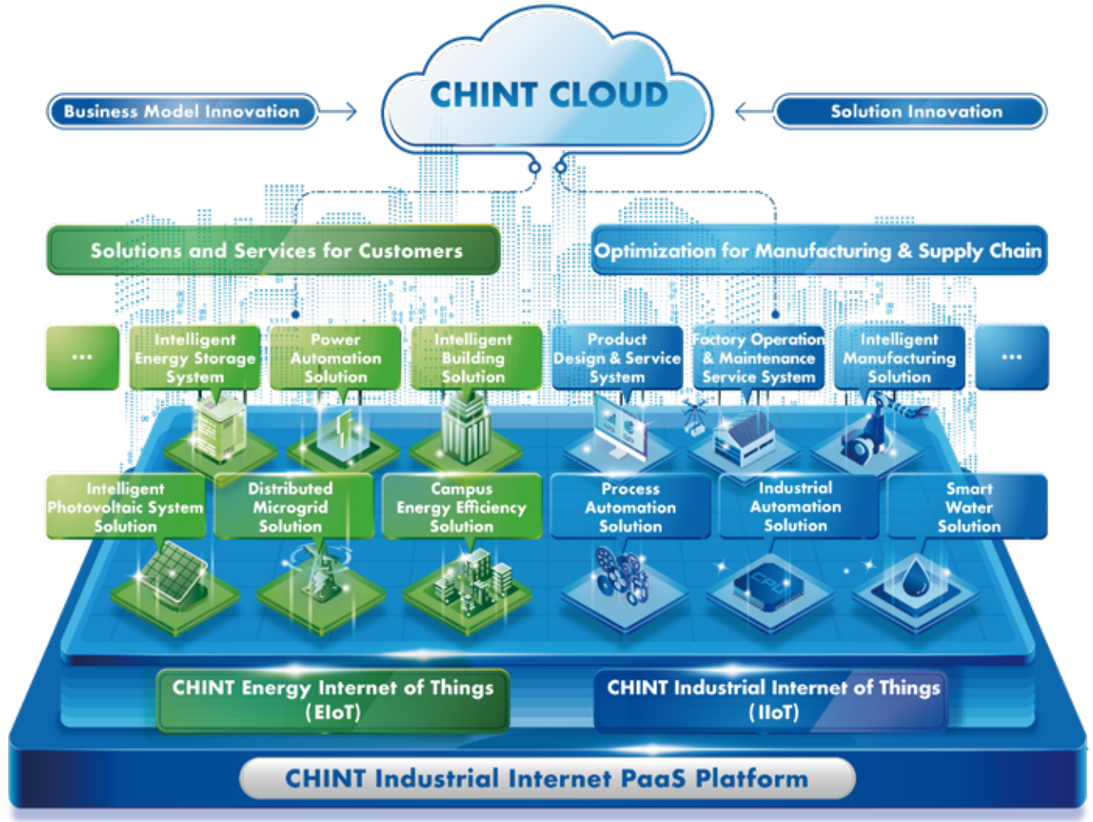
As the market localization progresses steadily, CHINT Global further establishes its supply chain through business integration and industrial upgrade. Optimizing the service system and project financing, providing innovatively integrated technical services for the global energy market, and a flexible working business model.energy, intelligent manufacturing and digital technology, CHINT has adopted "One Cloud & Two Nets" as the business strategy, takes "CHINT Cloud" as the carrier of intelligent technology and data application, and takes the lead in building the energy Internet of things (EIoT) and industrial Internet of things platforms (IIoT).

Focusing on the energy system of supply, storage, transmission, distribution and consumption, CHINT has core businesses of clean energy, energy distribution, big data and energy value-added services. Furthermore, CHINT's pillar businesses include photovoltaic equipment, energy storage, power transmission & distribution, low-voltage apparatuses, intelligent terminals, software development and control automation. By developing into a platform-based enterprise, CHINT provides a package of energy solutions for public institutions, industrial & commercial users and end-users, by building a regional smart energy operation ecosphere.

Main Businesses

- Clean Energy
- Low-voltage Apparatus
- Power Transmission and Distribution
- Instrumentation and Apparatus
- Smart Home
- Intelligent Building
- Intelligent Manufacturing
- Industry Automation
- Smart Heating
- Smart Water
- Home Electrical Apparatus
- Energy Efficiency Management

ONE CLOUD & TWO NETS STRATEGY



Energy system optimization is an inevitable trend against the background of resource shortage, environmental pollution and climate change – three challenges faced by global energy development. To keep in line with the trend, CHINT actively implements the business strategy of One Cloud & Two Nets, continuously promotes the deep integration of big data, IoT, AI and manufacturing industry in stages to become a platform-based enterprise, and leads the new direction of industry development.

As a medium of smart technology and data applications, CHINT Cloud connects corporate in-house manufacturing with operation and management data, realizing digital applications and services both internally and externally.

As a user-centric multi-energy complementary smart energy system, CHINT EIoT provides a package of energy solutions for governments, industrial & commercial users and end users. Its business includes Smart Energy Efficiency, Smart Power, Smart Home and Smart Clean Energy, etc.

As a smart manufacturing system based on corporate digital transformation, CHINT IIoT constitutes a flexible, high-efficiency and intelligent industrial system. Its business includes Intelligent Manufacturing, Intelligent Industry, Smart Water, Smart Heating, etc.

GLOBAL FOOTPRINT

4 National R&D Centers: North America, Europe, Asia Pacific, North Africa

6 International Marketing Territories: Asia Pacific, Western Asia and Africa, Europe, Latin America, North America, China

14 Manufacturing Bases: China (Wenzhou, Hangzhou, Shanghai, Jiaxing, Xianyang, Jinan, Yancheng), Thailand, Singapore, Vietnam, Malaysia, Egypt, Algeria and Cambodia

20+ International Logistics Centers

2300+ Sales Companies

GLOBAL CAPACITY LAYOUT

The industrial manufacturing bases are mainly located in Wenzhou, Hangzhou, Shanghai, Jiaxiang, Xianyang and Yancheng. Additionally, CHINT has set up factories in Thailand, Singapore, Vietnam, Malaysia, Egypt, Cambodia etc.

R&D, QUALITY, SALES, LOGISTICS

Main Advantages

Global R&D System

CHINT has established national R&D centers in North America, Europe, Asia Pacific, North Africa and other areas. We have explored the mode of Industry-University Research Institute Collaboration and Integration together with the universities and research institutions worldwide so as to integrate the global innovation resources and promote corporate R&D innovation and talent cultivation.

- 24 research institutes
- The average annual R&D investment accounts for 4-12% of the revenue
- Over 6000 patents in total

Global Certification

The products have passed the standards and specifications in various regions around the world and obtained numerous international certifications

Honors

- No. 1 in China's Top 100 Private Enterprises with Social Responsibility in 2021
- No. 92 in 2021 China's Top 500 Private Enterprises
- No. 244 in 2021 Top 500 Chinese Enterprises
- The intelligent manufacturing factory of low-voltage electrical appliances was selected as the national 2021 Intelligent Manufacturing Demonstration Factory

Integrated Vertical R&D

By gathering the global industry elites to Provide safe and stable energy-saving green and advanced electric products.

5% At least 5% of revenue is invested in research and development

Great Quality System

Ensuring flaw-fraw-free and trouble-free products, the multi-dimensional and multilevel control is conducted through procurement, inspection, quality control and certification.

One-stop Services

CHINT's concept is that it is not difficult to fulfill a high-quality logistics distribution at one time, while it is difficult to stay as accurat e and prompt as the first-time. High-efficiency and high-precision accuracy are our requirement.

48-Hour Response

Providing end-to-end one-stop services for customers with complains, business consulting and technical support by solving problems immediately and including any possible problems in advance.

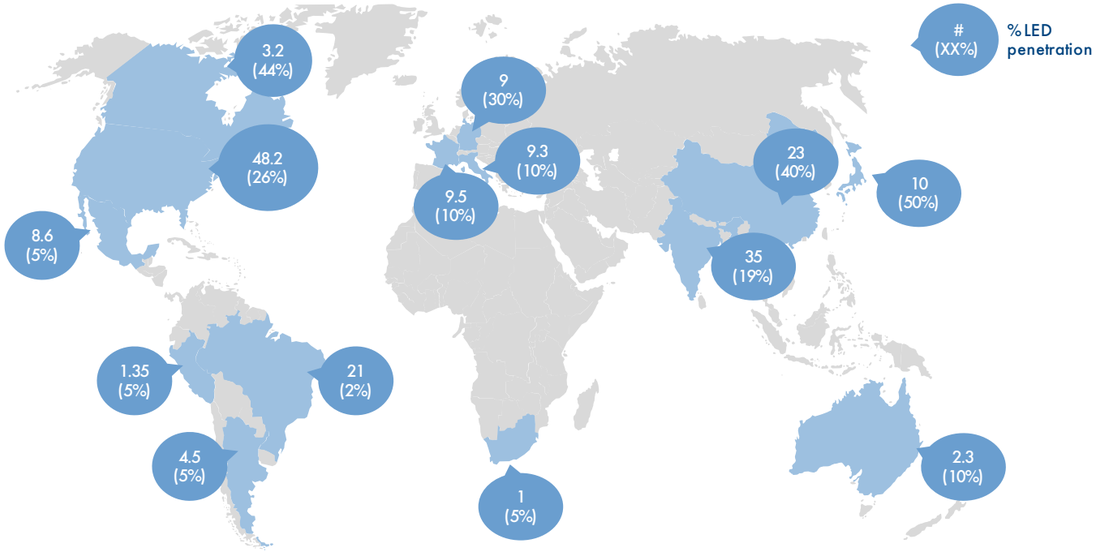
48 hour Global Services

CONTENTS

1.0 OVERVIEW

1.1 Backgrounds

Lighting points by geographical area



Source: Arthur D. Little analysis

There are about **320** million street lights worldwide, of which Asia accounts for **25%**, Europe and North America for **20%** and South America for **10%**. Traditional street lights use high-pressure sodium lamps, whose life span is generally around 28,000 hours, while high-power LEDs (chips) generally have a life span of 100,000 hours. The future global street lighting trend is a comprehensive transformation to LED lights, as of now, the global average penetration rate of LED is still less than 15%, there are significant differences between countries. Not only is this reflected in the scale, but also in the penetration rate, grossness and business model of LEDs.

In recent years, the smart street lighting market is growing by leaps and bounds globally. As cutting-edge technologies such as 5G, AI and IoT continue to mature, driven by new infrastructure and smart city construction, low-carbon and smart lighting is becoming increasingly popular in the market, and the rapid development of the smart street lighting industry has become inevitable.

As a pioneer in the field of smart power, CHINT has been deeply involved in the field of smart power for many years. With the core advantages of industry-leading and self-researching wisdom power ecosystem, it has become a comprehensive solution provider of 5G wisdom city "cloud + end" at home and abroad, contributing to the design and construction of wisdom street light and business model innovation and exploration.

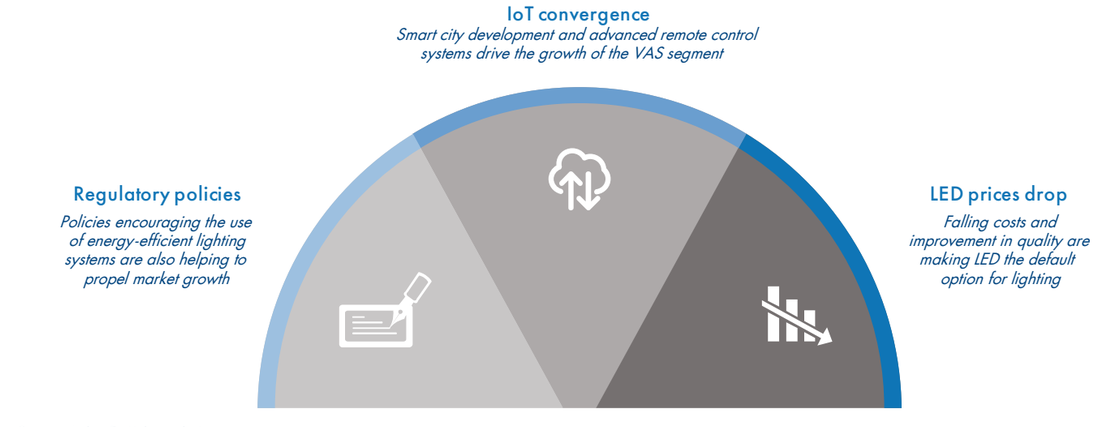
The CHINT Group has introduced numerous street lighting solutions for different application scenarios of street lighting, combining its own product features to address the needs of smart cities, environmentally friendly towns and low-carbon parks, providing city managers, township builders and park operators with convenient, reliable, safe and environmentally friendly street lighting products.

1.0 OVERVIEW

1.2 GTM

Arthur D Little believes that the future growth drivers of the smart street lamp market mainly come from three aspects: regulatory policies, convergence of the Internet of Things, and falling LED prices.

Key market drivers



Source: Arthur D. Little analysis

Rank	City	Connected streetlights	Country
1	Miami	500,000	United States
2	Paris	280,000	France
3	Madrid	225,000	Spain
4	Los Angeles	165,000	United States
5	Jakarta	140,000	Indonesia
6	Montreal	132,500	Canada
7	Birmingham	130,000	United Kingdom
8	Dongguan	120,000	China
9	Buenos Aires	108,500	Argentina
10	Milan	101,060	Italy

Source: IOT Analytics, Arthur D. Little analysis

The global Smart rod market size stood at around USD **5.75** billion in 2019, and will grow by USD **7.97** billion during 2020-2024 to reach around USD **13.72** billion, according to the data in the "Global Smart Rod Market 2020-2024" report published by Technavio. The compound annual growth rate reached **19%**.

2.0 STREET LIGHT APPLICATION SCENARIOS

2.1 Expressway

An expressway is a road with four or more lanes, with a median barrier, all three-dimensional intersections, all controlled access exclusively for cars to divide into separate lanes and directions.

Uneven lighting at night is not conducive to safe driving, so due to cost and safety factors, China's expressway lights are only installed at expressway junctions and city entrances and exits. The intersection lights are usually equipped with traffic equipment and Internet of Things (IoT) functions to achieve remote monitoring and remote operation and maintenance. CHINT has introduced industry-leading expressway lighting products with high-power lamp heads, long-life lithium batteries and multi interface street light poles to meet the characteristics of expressways.

Features of expressway lights

- More difficult to build
- High cost of street light installation
- Multiple uses for one light
- Single arm design is the main feature

For more details, please refer to "CHINT Street Light Solutions" Expressway Series.

2.0 STREET LIGHT APPLICATION SCENARIOS

2.2 City Traffic Road

City traffic roads are roads that provide access to all areas of a city, are used for transport and travel within the city, and are connected to roads outside the city for external traffic. They often run through the whole city and can be a city's landmark. They are usually found on the axes of the city, on the ring roads or in the main commercial areas.

CHINT 's high-power solar street lights are designed to meet the characteristics of city trafficroads and expressways, with the advantage that they do not require trenching and wiring, and are plug-and-play, greatly reducing the cost of street lighting and operation and maintenance. At the same time, CHINT's original slotted pole with sliding slot design can meet the original traffic signal, monitoring and speed camera equipment mounts; fully reserved functional interfaces can be expanded to increase the later smart city equipment mounts, such as 5G communication, environmental detection, city broadcasting, one-key alarm and other functions, reducing the waste of resources caused by multiple pole construction, saving the cost of repeated construction of various poles, making the environment more beautiful and tidy.

Features of city traffic road lights

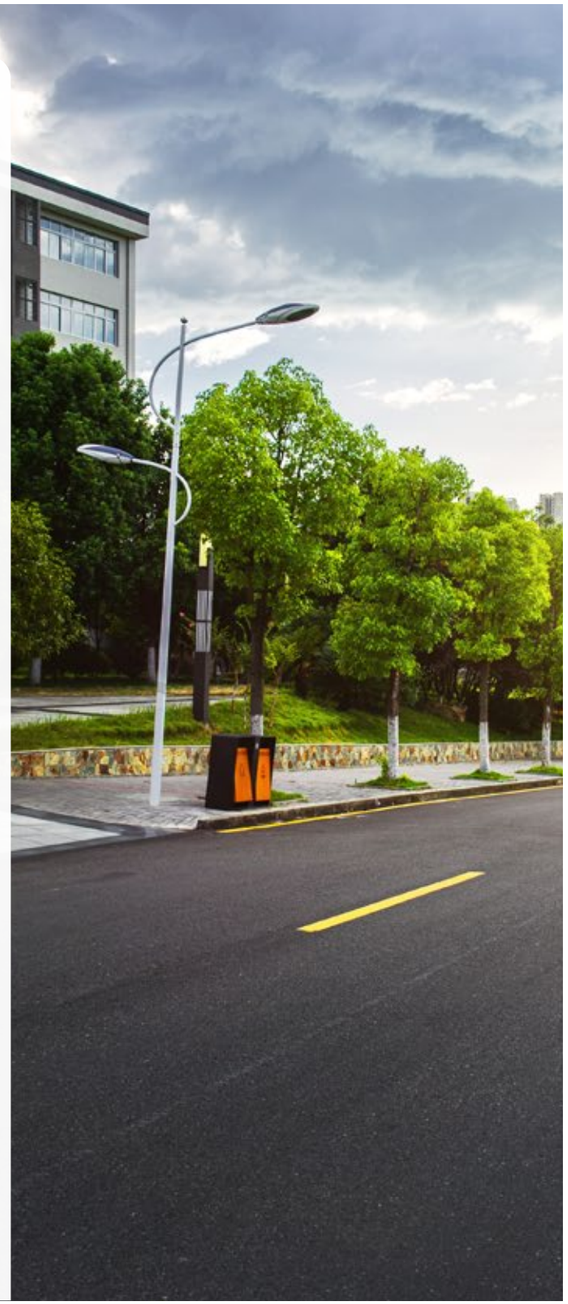
- Light type with city characteristics
- Energy-saving and low - carbon transformation
- Multi-functional integrated development
- Straight arm, single arm design

For more details, please refer to "CHINT Street Light Solutions" City Traffic Series.

2.3 City Life Road

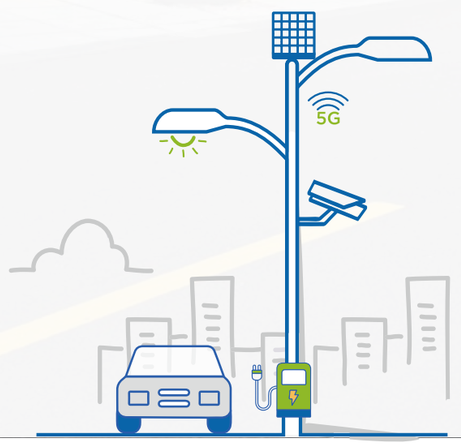
City life road is the city of each residential area, for city traffic and pedestrian use, to facilitate the residents of living, working and cultural and recreational activities, and with the city's main traffic road connecting road.

CHINT has introduced a double-arm solar street light for the characteristics of city roads, with an efficient controller for independent switching and dimming control of each street light to achieve energy saving and efficient management, which can support emergency intelligent linkage in special weather and important festivals. At the same time, CHINT's original slotted pole, integrated and split design, can be combined with LED display, mobile phone charging, charging pile charging, voice broadcasting and other functions as required. Its wireless installation design, adjustable lighting time and plug-in installation reduce installation and electricity costs, while bringing great convenience to city residents and improving the quality of public life.



Features of city life road lights

- Double arm, high and low arm design
- Energy saving and low carbon transformation
- Multi-functional integration development
- Take into account the pedestrian night lighting



For more details, please refer to "CHINT Street Light Solutions" City life Series.

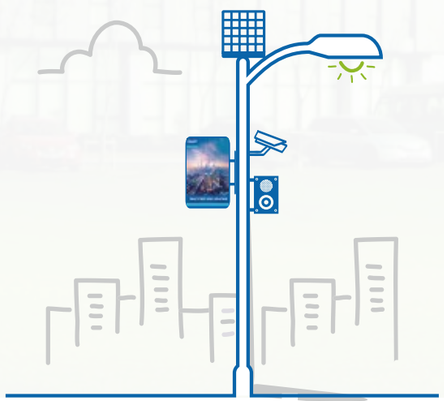
2.4 Industrial Park Road

Unlike city roads, road traffic in industrial parks has its own characteristics. It is mainly for engineering and logistics vehicles, with a relatively single mode of travel. The road design is based on single and double lanes, and the road length is relatively short.

CHINT has designed a variety of single arm high pole solar street lights with high power solar panels and high efficiency controllers, which can be equipped with LED displays and voice announcement systems to rotate important contents such as safety precautions to improve the management level of the park. Solar panel + lithium battery combination, wireless installation design, plug-in installation, adjustable lighting time. This reduces the park's electricity costs and provides lighting protection for logistics vehicles and staff working in the park at night. It also helps the park to achieve intelligent low-carbon development and environmental protection.

Features of industrial park road lights

- Single arm high lamp post design
- High power adjustable lighting
- Combined with 5G smart park development
- Low carbon and environmental protection



For more details, please refer to "CHINT Street Light Solutions" Industrial Park Series.

2.5 Scenic Roadt

CHINT has introduced the single arm low pole solar street light for scenic roads. The wireless installation design, adjustable light hours and plug-in installation reduce the difficulty of road construction in scenic tourist areas, fully respect nature, avoid damage to rare plants and their growing environment, and maintain ecological balance.

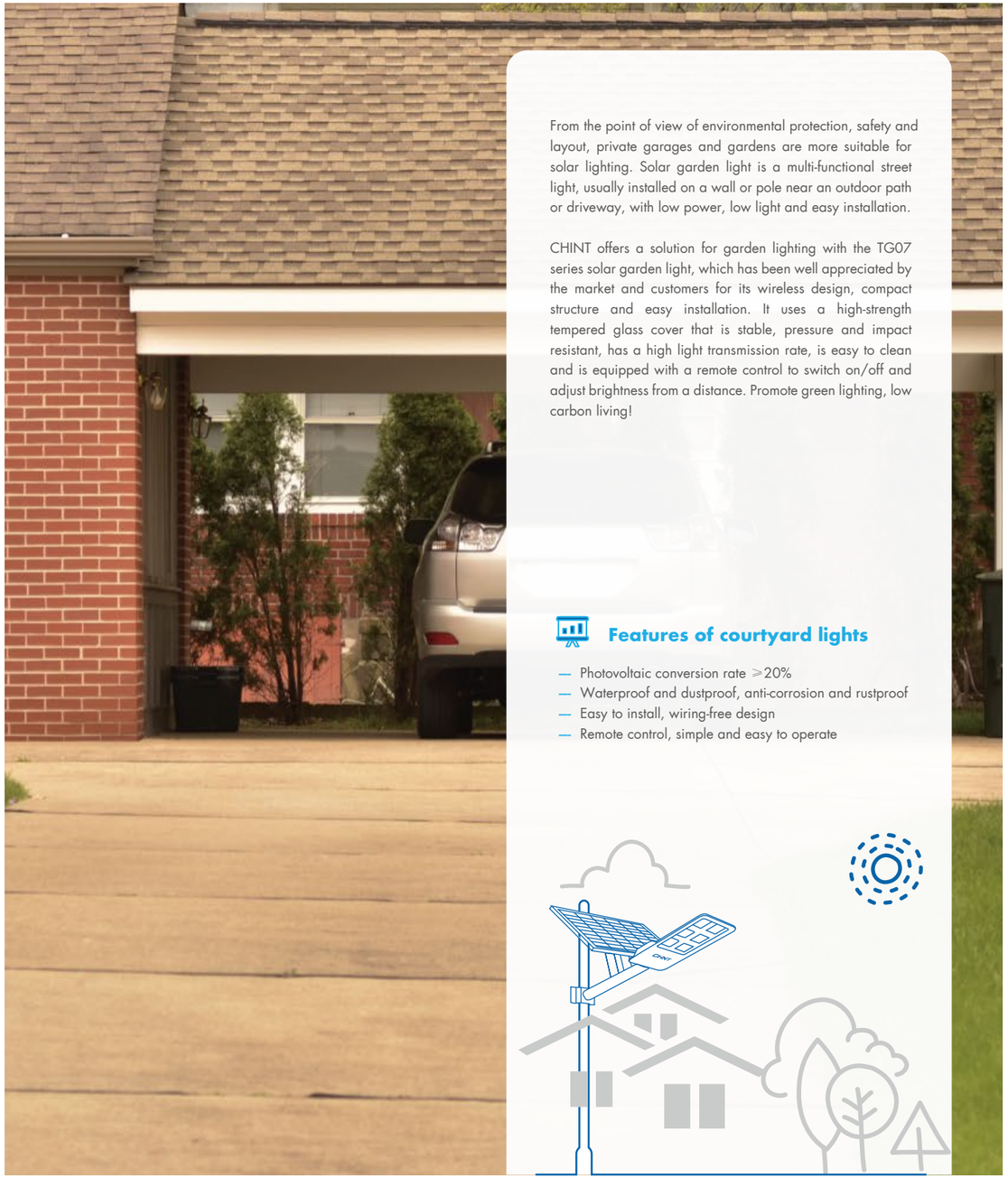
CHINT's original slotted light pole can be mounted with LED display and voice broadcasting system to achieve the rotation of important contents such as the introduction of plants and animals and safety precautions, and the broadcasting system on the street light can realize the functions of finding people and things and reminding the length of the play, which improves the service mode of the park and guarantees the safety of tourists.

Features of scenic road lights

- Single arm low light pole design
- Small power adjustable lighting
- Multi-functional integration
- Low carbon environmental protection

For more details, please refer to "CHINT Street Light Solutions" Scenic Series.

2.6 Courtyard Road



From the point of view of environmental protection, safety and layout, private garages and gardens are more suitable for solar lighting. Solar garden light is a multi-functional street light, usually installed on a wall or pole near an outdoor path or driveway, with low power, low light and easy installation.

CHINT offers a solution for garden lighting with the TG07 series solar garden light, which has been well appreciated by the market and customers for its wireless design, compact structure and easy installation. It uses a high-strength tempered glass cover that is stable, pressure and impact resistant, has a high light transmission rate, is easy to clean and is equipped with a remote control to switch on/off and adjust brightness from a distance. Promote green lighting, low carbon living!

Features of courtyard lights

- Photovoltaic conversion rate ≥20%
- Waterproof and dustproof, anti-corrosion and rustproof
- Easy to install, wiring-free design
- Remote control, simple and easy to operate

For more details, please refer to the "Street Light Solutions" Courtyard Series

3.0 CHINT SOLAR STREET LIGHT SOLUTIONS

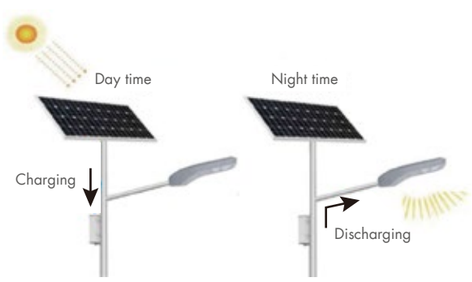
3.1 CHINT Solar Street Light Solutions

With a large number of streetlights, they are the most intensive infrastructure in urban and highway construction. Traditional street lights are construction oriented and maintenance-oriented, and there are management problems. Later maintenance and management work cannot keep up, making the implementation of street lighting maintenance slow and making it difficult to ensure the safety of residents at night.

Improving street and expressway lighting is one of the most obvious and effective ways to improve the quality of life and economic vitality of cities. According to CHINT's project case statistics, the use of solar street lights will reduce overall energy and maintenance costs by more than 50%. In the future, new control technologies can be continuously upgraded and advanced energy management, security and communication systems can be integrated on the same infrastructure.

Working principle

Reference photo of Solar Street Light



Solar street light working principle is easy and simple. Solar street lights have solar panels that are responsible for converting the sunlight radiation into electricity. The device's semiconductor materials facilitate the process of conversion of solar energy into

Solar street lights will experience four stages during working

Charging

Throughout the day, the solar panels will convert the solar energy from the sun into electricity which will charge the battery. The intelligent solar controller charges the battery throughout the day and controls the current to ensure that the battery is not overcharged.

Stop Charging

As the sun sets, the built-in photocell will sense the voltage drop, the panels are no longer taking a charge. The battery has been charged throughout the day and is now ready to discharge and provide electricity for the lamp and turn it on. If there is inclement weather, there are usually 3-4 days backup for most solar lighting system. The specific configuration depends on customer needs.

Lighting

When the illuminance of the surrounding environment or time reaches the starting threshold set by the controller, the solar street light is started and powered by the battery.

Stop Lighting

When the illuminance of the surrounding environment or time reaches the shut-down threshold set by the controller, the solar street light is turned off and the battery stops supplying power.

3.0 CHINT SOLAR STREET LIGHT SOLUTIONS

PRODUCT FEATURES

Resource Integration

Utilise existing infrastructure to integrate resources and improve the utilisation of urban infrastructure

Space Optimisation

Make full use of pole-mounted space, unite multiple poles, optimise urban space and enhance the utilisation of urban public space

Wide coverage advantage

Smart street light has network, electricity, mountable and wide coverage characteristics, which is the best carrier for 5G signal coverage, IoT device mounting and data collection, and fits in with the new infrastructure needs

Energy saving and carbon reduction

Intelligent switching, intelligent dimming and green power technology are used to achieve energy saving and carbon reduction in street lighting
Low installation and operation and maintenance costs

3.0 CHINT SOLAR STREET LIGHT SOLUTIONS

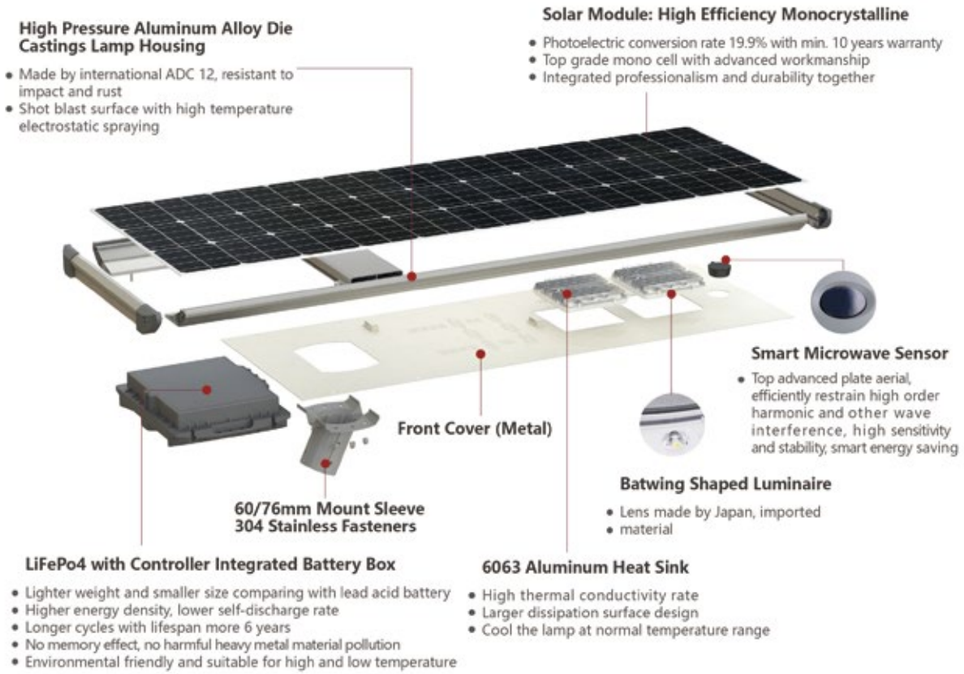
— CHINT Solar Street Light Solution

ALL - IN - ONE

ALL-IN-ONE solar street light means solar panel, lighting fixture, rechargeable batteries are all integrated together.

ALL-IN-ONE solar street lights use a microwave induction method to control the on and off of the street light. The microwave induction switch is a moving object detector designed using the principle of the Doppler Effect. It detects whether the position of the object is moving in a non-contact manner, and then generates a corresponding switch operation. The product has strong anti-radio frequency interference ability and is not affected by temperature, humidity, light, air flow, dust, etc. When no one passes by, the street light can automatically adjust to 15% of the actual power operation to save energy. In addition, the control strategy can be reset as needed.

Key components structure diagram



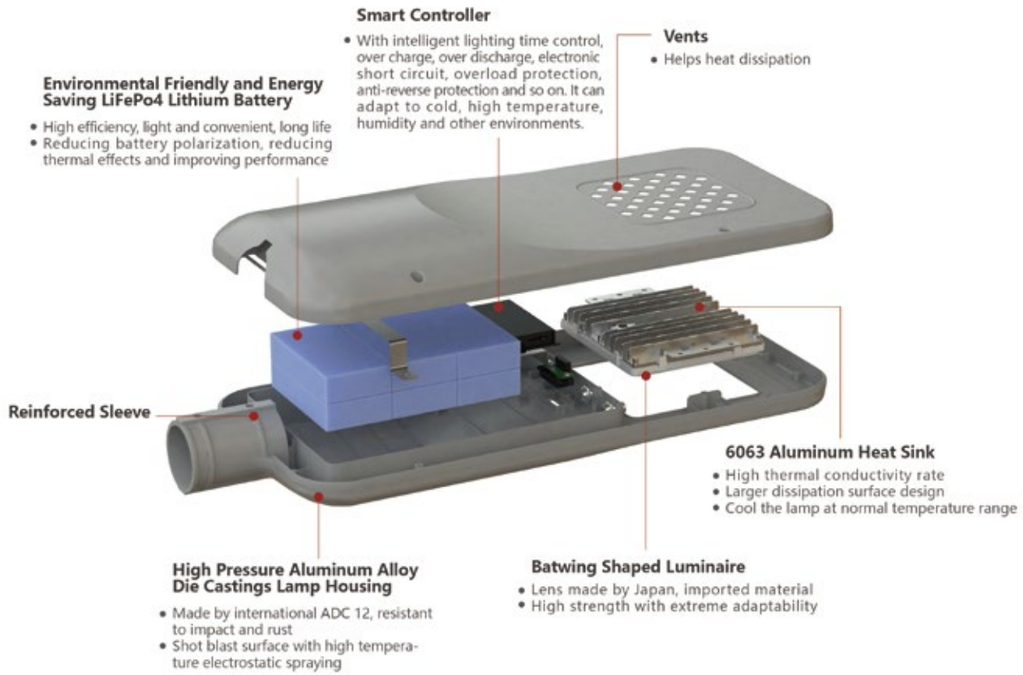
3.0 CHINT SOLAR STREET LIGHT SOLUTIONS

Split type

The Split type lamp is divided into two parts, ALL-IN-TWO and ALL-IN-THREE ; The Split type solar street light has four parts: solar panel, lighting fixture, rechargeable battery and pole.

The split type lamp uses light-controlled time controller to control the on and off, with a maximum of 4 periods settings.

Key components structure diagram



3.2 CHINT Smart Street Light Solution

At present, the intelligent street light on the market is to use the street light pole as a carrier to install additional functions, such as traffic monitoring, public safety monitoring, pollutant monitoring, air quality monitoring, meteorology, medical assistance, wireless WIFI, voice broadcasting, information screen, charging pile, big data collection and other equipment, also known as "multi-functional street light", and therefore has the potential to grow with the city. The product itself is not primarily a technological innovation, but rather an innovation in the integration model. The product itself is not primarily a technological innovation, but an innovation in the integration model. It takes advantage of the ubiquity of streetlights, sharing resources and using streetlight poles as carriers for interconnection and interoperability, providing a means to improve the intelligent management of the city and speed up response times.

CHINT's intelligent circuit breaker cloud platform provides an overall system solution for light pole microstations.

Solar street light with charging pile solution, CHINT can provide site procurement and provide charging pile solution.

For solar street light IoT solutions, CHINT can provide monitoring modules that allow customers to remotely access street light information, operation and maintenance via online websites and apps.

3.0
CHINT STREET LIGHT SOLUTION
CHINT SOLAR STREET LIGHT SOLUTIONS

The lifeblood of the city - the water, electricity, gas, heat and transport that are essential to people's daily lives. CHINT Group has integrated "Smart Energy", "Smart Power", "Smart Water", "Smart Heating", "Smart Gas" and "Smart Transport" into the solutions.

In the future, smart street lights will have more opportunities in urban road traffic, urban security and IOT communication. It will become an important data support for the development of smart cities.

Smart Street Light Service Empowerment

Citizens

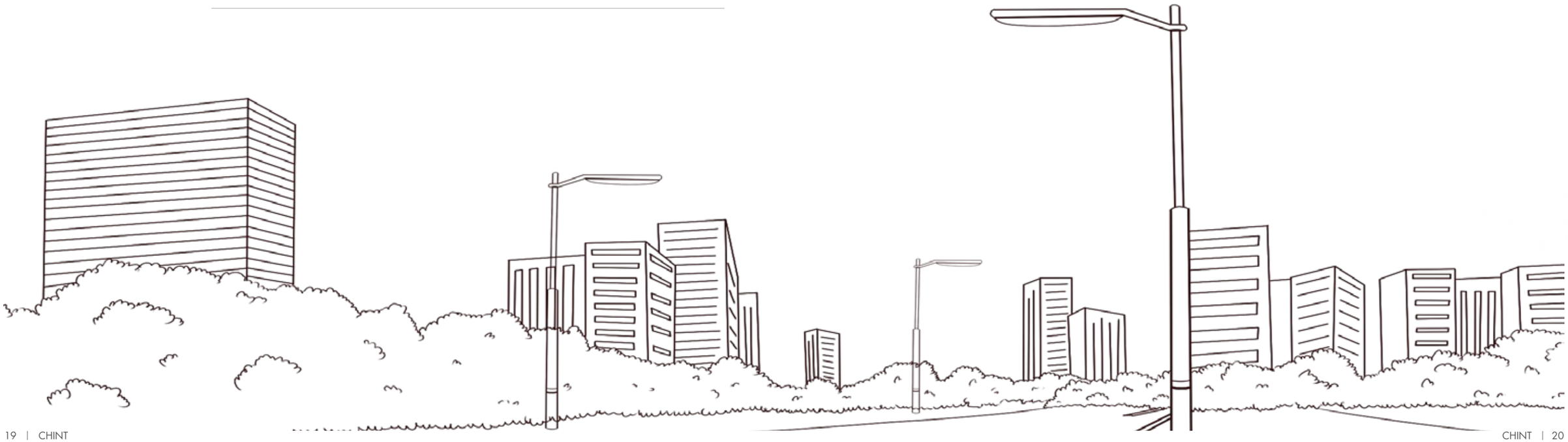
Safe passage, information access, wireless WIFI

Traffic control, City management, Operation platform

Quick mount, easy access to power, unified interface, standardised management (power supply, pole, communication, data), the Formation of an open, integrated and shared ecological environment.

City Manager

Dynamic asset management, intensive management, full poles and boxes to achieve "green - energy saving - environmental protection".



3.0 CHINT SOLAR STREET LIGHT SOLUTIONS

3.0 CHINT SOLAR STREET LIGHT SOLUTIONS

01 Intelligent Lighting

- Remote switching and dimming; status enquiry, fault alarm.
- Data analysis, remote upgrade; map function, logging system.

02 Environmental Monitoring

- Real-time monitoring of environmental parameters; real-time distrib tion of monitoring data.
- Environmental data analysis

03 WIFI coverage

- Wireless signal coverage.
- More stable access and faster rates.
- Intelligent channel analysis to reduce interference.

04 IP Voice Column

- Promotional voice playback; independent control of each terminal; remote shouting; background release management; targeted push interface.

05 Video Surveillance

- Real-time surveillance, face recognition; traffic monitoring, location tracking; event engine, abnormal behaviour warnings; storage and backup.

06 Heart rate detection

- Hand-held detection.
- LCD display.
- Voice announcement.
- Abnormal alarm.

07 LED display

- Promotional video and picture playback; adaptive release of broadcast content; regional grouping management; targeted push interface; snapshot confirmation storage, background release management.

08 Visual one-touch alarm

- Network communication for remote visual calls.
- One-touch alarm to call the monitoring centre.
- GIS map to locate the location of the alarm.

09 Mobile phone charging

- Supports wireless fast charging of mobile phones; USB fast charging port.

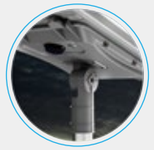
10 New Energy Charging Piles

- Real-time monitoring of the charging pile's power, current, voltage, power and switching light operating parameters.
- Real-time monitoring of the operational status and faults of the charging piles.
- Collection of data for big data analysis and integration.

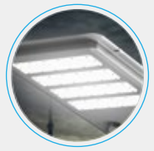
4.0 STREET LIGHT PRODUCT SERIES

4.1 Expressway Series

Product Feature



Multi-angle adjustments



High efficiency Led lamps

Video monitoring

Sloar lights

Smart lights

MODEL	150W	Sloar lights	Smart lights
Solar Panel	Rated Power	36V/160Wp, Mono	—
LED Lamp	Rated Power	24V/ 150W	24V/ 150W
	Lumens(LM)	13500-15000lm	1500018000lm
	Life-span	100,000 hours	100,000 hours
	Color Temp (CCT)	5000K (2700~6500K available)	5000K (3000~6500K available)
	CRI	>70	>70
	Viewing Angle	140°	140°
Controller	Type	MPPT/DM160	MPPT/PWM
Battery	Capacity/Type	25.6V/36AH (921.60WH) / LiFePO4 Lithium	—
	Life-span	8+ years (3000 circles)	—
Pole	Materials	Aluminium Alloy	Q235
	Pole Length	10-12m	12m
	Space Between	40-45M	40M
General Data	Working Temp	-30 ~+80	-30℃～+55℃
	Optional features	A、B、C、D	Monitor / Signage
	Protection Level	IP66	IP66
	Certificate	CE / ROHS / IP66/ IK08/ TÜV-SUD ISO9001/ ISO14001	—

4.0 STREET LIGHT PRODUCT SERIES

4.2 City Traffic Series

Sloar lights

Smart lights

Product Feature

Intelligent Lighting

Information Release Screen

Environmental Monitoring

MODEL	120W	Sloar lights	Smart lights
Solar Panel	Rated Power	36V/120Wp, Mono	—
LED Lamp	Rated Power	24V/120W	24V/120W
	Lumens(LM)	10800-12000lm	12000-14000lm
	Life-span	100,000 hours	100,000 hours
	Color Temp (CCT)	5000K (2700~6500K available)	5000K (3000~6500K available)
	CRI	>70	>70
	Viewing Angle	140°	140°
Controller	Type	MPPT/DM160	MPPT/PWM
Battery	Capacity/Type	25.6V/30AH (768WH) / LiFePO4 Lithium	—
	Life-span	8+ years (3000 circles)	—
Pole	Materials	Aluminium Alloy	Q235
	Pole Length	10-12m	12m
	Space Between	35~40M	40M
General Data	Working Temp	-30 ~+80	-30℃～+55℃
	Optional features	A、B、C、D	Screen Signal light
	Protection Level	IP66	IP66
	Certificate	CE / ROHS / IP66/ IK08/ TÜV-SUD ISO9001/ ISO14001	—

4.3 City Life Series

Product Feature

Lithium iron phosphate battery

Sloar lights

Product Feature

Customised lamp

Car Charging

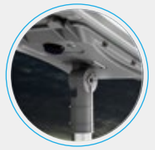
Wireless charging

Smart lights

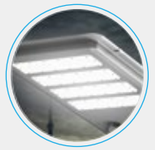
MODEL	80W	Sloar lights	Smart lights
Solar Panel	Rated Power	18V/80Wp, Mono	—
LED Lamp	Rated Power	24V/ 80W	24V/ 80W
	Lumens(LM)	7200-8000lm	7500-8500lm
	Life-span	100,000 hours	100,000 hours
	Color Temp (CCT)	5000K (2700~6500K available)	5000K (2700~6500K available)
	CRI	>70	>70
	Viewing Angle	140°	140°
Controller	Type	MPPT/DM160	MPPT/PWM
Battery	Capacity/Type	12.8V/36AH (406.8WH) / LiFePO4 Lithium	—
	Life-span	8+ years (3000 circles)	—
Pole	Materials	Aluminium Alloy	Q235
	Pole Length	8-10m	10m
	Space Between	30-35M	35-40M
General Data	Working Temp	-30 ~+80	-30℃～+55℃
	Optional features	A、B、C、D	Charging Piles / LED Display
	Protection Level	IP66	IP66
	Certificate	CE / ROHS / IP66/ IK08/ TÜV-SUD ISO9001/ ISO14001	—

4.4 Industrial Park Series

Product Feature



Multi-angle adjustments



High efficiency Led lamps

All-in-one Solar Modules

Sloar lights

Product Feature

Intelligent Lighting

Information Release Screen

Environmental Monitoring

Smart lights

MODEL	30W	Sloar lights	Smart lights
Solar Panel	Rated Power	18V/60Wp, Mono	—
LED Lamp	Rated Power	12V / 50W	12V/ 50W
	Lumens(LM)	4500-5000lm	5000-7000lm
	Life-span	100,000 hours	100,000 hours
	Color Temp (CCT)	5000K (2700~6500K available)	5000K (2700~6500K available)
	CRI	>70	>70
	Viewing Angle	140°	140°
Controller	Type	MPPT/DM160	MPPT/PWM
Battery	Capacity/Type	12.8V/124AH (307.2WH) / LiFePO4 Lithium	—
	Life-span	8+ years (3000 circles)	—
Pole	Materials	Aluminium Alloy	Q235
	Pole Length	6-7m	8m
	Space Between	25-30M	20-25M
General Data	Working Temp	-30 ~+80	-30℃～+55℃
	Optional features	A、B、C、D	IP Sound Bars / LED Display
	Protection Level	IP66	IP66
	Certificate	CE / ROHS / IP66/ IK08/ TÜV-SUD ISO9001/ ISO14001	—

4.5 Scenic Series

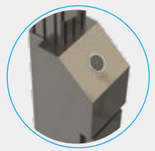
Sloar lights

Smart lights

Product Feature

Wind power

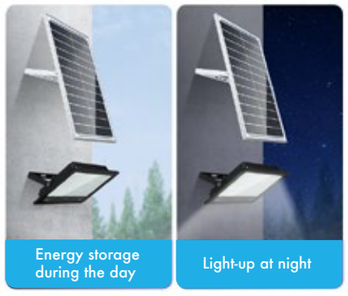
Solar panels



Wireless charging

MODEL	30W	Sloar lights	Smart lights
Solar Panel	Rated Power	18V/40Wp, Mono	—
LED Lamp	Rated Power	12V/ 30W	12V/ 30W
	Lumens(LM)	2700-3000lm	4000-6000lm
	Life-span	100,000 hours	100,000 hours
	Color Temp (CCT)	5000K (2700~6500K available)	5000K (2700~6500K available)
	CRI	>70	>70
	Viewing Angle	140°	140°
Controller	Type	MPPT/DM160	MPPT/PWM
Battery	Capacity/Type	12.8V/18AH (230.4WH) / LiFePO4 Lithium	—
	Life-span	8+ years (3000 circles)	—
Pole	Materials	Aluminium Alloy	Q235
	Pole Length	6m	4m
	Space Between	40M	40M
General Data	Working Temp	-30 ~+80	-30℃～+55℃
	Optional features	A、B、C、D	Wind power / Wireless charging
	Protection Level	IP66	IP66
	Certificate	CE / ROHS / IP66/ IK08/ TÜV-SUD ISO9001/ ISO14001	—

4.6 Courtyard Series



Energy storage during the day

Light-up at night

IP65 protection | Solar charging | Water and dust resistant | Intelligent light control | Pressure resistant

Remote control | Anti-corrosion | Iron phosphate battery | Lightning resistant | Durable

MODEL	Power (W)	Lumen (Lm)	Size(mm)	Color temp	CRI	IP Level
NEP-TG07003120W0	3	≥250	195×171×55	7500	70	IP65
NEP-TG07005120W0	5	≥560	240×190×55	7500	70	IP65
NEP-TG07009120W0	9	≥800	298×240×55	7500	70	IP65
NEP-TG07013120W0	13	≥960	372×265×55	7500	70	IP65

5.0 INTELLIGENT IOT SOLUTION

5.1 Solar Street Light IoT Solution

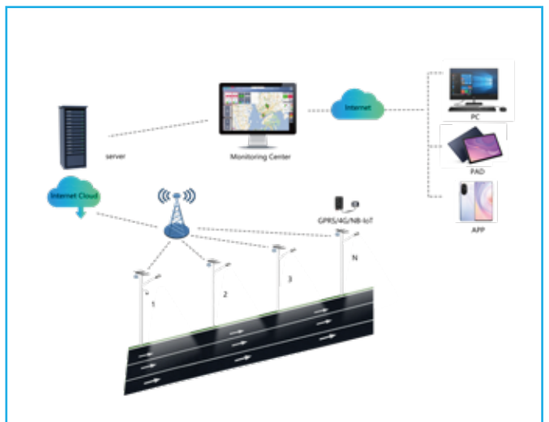
The IoT Monitoring Solar Street Light (IoT SSL) is an innovative solar street light that integrates the latest IoT technology to enable users to monitor and control their solar street light (SSL) remotely from the web and application side.

The CHINT IoT SSL solution integrates the latest IoT technology to enable users to monitor and control their solar lighting system online from anywhere with internet access.

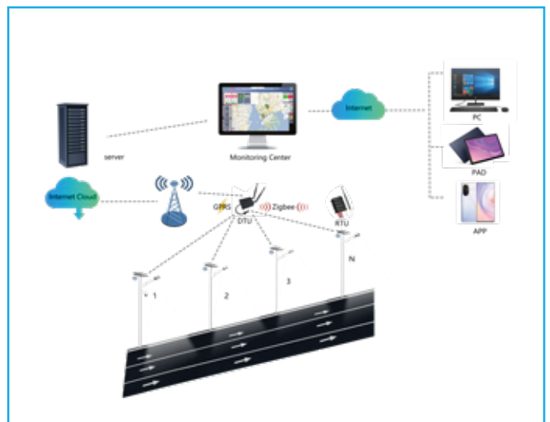
CHINT IoT SSL integrates MPPT charging, boost LED drivers, IoT communication and control technology in an IoT SSL controller. A solar-powered IoT Gateway/Concentrator/Data Terminal Unit (IoT DTU) is used to connect all IoT SSLs to a LoRaWAN or ZigBee based VLAN.The IoT DTU also connects the VLAN to the CHINT IoT Server based on cloud computing technology via GPRS/2G/3G/4G cellular telecommunication networks.

External modules

GPRS/NB-IoT built-in module



GPRS, 4G, NB-LOT SOLUTIONS



433M, LORAWAN, ZIBGEE SOLUTIONS

5.0 INTELLIGENT IOT SOLUTION

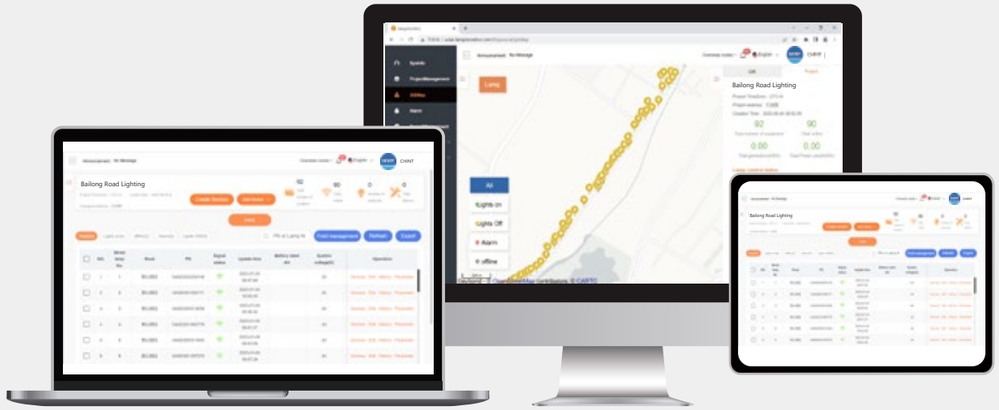
5.2 Smart Lighting Solution

Through a variety of different communication protocols, CHINT connects each light to the internet through information sensing devices, which can be used to realize on-demand lighting and fine management of street lights by combining infrared mobile control, timing control, time-controlled light control and fault monitoring of the road section.

This enables energy saving and emission reduction, efficient operation and timely maintenance, and realizes intelligent solutions for street lights as a carrier for smart cities.

6.0 MONITORING

6.1 Street Light Monitoring Platform



The smart light pole technology is built with new and rebuilt street lights as the carrier. Through the latest Internet of Things, big data and artificial intelligence technology, it integrates smart lighting system, video monitoring system, broadcasting system, information release system, call for help and alarm system, environmental monitoring system, WIFI signal, mobile phone wireless charging, new energy charging pile and so on. Realize intelligent, low-carbon and multi pole integrated construction of street lights.

Through data empowerment, Chint intelligent street lamp system implements real-time online management 24 hours a day. It can not only carry out intelligent management of setting and daily operation through the platform, but also carry intelligent equipment to expand smart city to realize precise intelligent control of management and service.

- User-friendly and multilingual interface.
- Network-based remote management.
- Internet-connected computers and smart phones allow visualisation of real-time and historical data for easy analysis and understanding, and multiple formats for better presentation.
- Manage the name, number, quantity and status of all devices.
- The cloud server controls the switching on and off of lights and the adjustment of street light parameters.
- Achieve fault management: fault type, fault description, processing status, fault time, operation and other data display;

Display

- Logging
- Fault logging
- History of daily, monthly, annual and total power consumption
- Collect statistics on number of street lights and online numbers
- Daily, monthly and annual reports show weather information

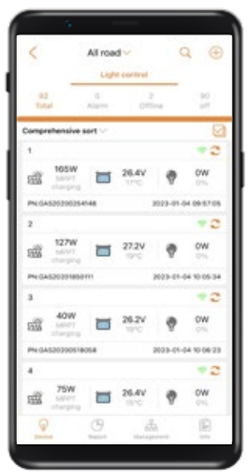
Data analysis

- Power consumption curve
- Energy saving curve
- Maintenance planning information
- Reduction of total carbon dioxide emissions
- System performance analysis and distribution of total system revenue

6.0 MONITORING

6.2 Street Light Mobile App

The Solar Street Light App is available for iPhone and smartphones with Android OS, making mobile monitoring of your solar street light system easier and faster. Real-time and historical data is automatically updated and can be viewed anytime, anywhere to keep track of the street lighting system's operation, in day, month, year and total format. In addition to power generation and fault information, such as CO2 savings, weather conditions and monitoring information can also be displayed. Supports remote mode to perform various operations on the device, [power on], [power off], [adjust device brightness], [change device parameters] [view street lamp position] and other operations easily.



Single lamp control

Control of street light switches, brightness adjustment, current and voltage acquisition, power calculation

Wireless network

NB-IoT, GPRS, LTE and other cellular networks from the device to the cloud, no wiring required

Fault management

Automatic reporting of fault information, fault finding through the platform, query history fault function

Energy consumption management

Online monitoring and storage of energy consumption, support for configuration of energy saving strategies

Intelligent monitoring

Remote monitoring and control via PC web terminal and mobile phone APP

Big data analysis

Based on the massive data of the platform, it can analyse the failure of street lights and energy consumption.

- Local mode can access system data directly via WiFi
- Supports a variety of operations on the
- [Real-time data] and [historical data] automatically update, check if you want, and grasp the operation of street

7.1 Solar street light application case

Project Site

Kumasi, Ghana

Product Parameters

60W/ 6m and with Lithium battery

Application Environment

Expressway

Project Site

Algeria

Product Parameters

30W/ 45W/ 60W with GEL battery

Application Environment

City Traffic Road

7.2 Smart street light application case

Project Site

Panshui Town, Wenzhou

Product Parameters

300pcs 80W smart street lights

Application Environment

Equipped with display screen, AI voice alarm smart device

7.0 STREET LIGHT APPLICATION CASE

Project Site

Electrical City Avenue, Yueqing

Product Parameters

459 100W smart street lights with drone inspection system

Application Environment

Smart lighting can also assist drones with regular inspection tasks

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