

SZG604Z wireless intelligent solar led street light



Applications:

- urban main roads, secondary roads
- county, township, town, village road
- economic development zone and high-tech park road
- industrial and mining plant road
- tourist attractions
- resort road
- park, parking roads
- villas and high-end residential roads

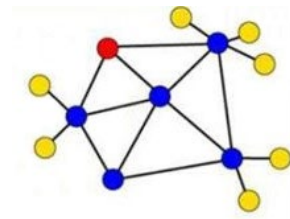
Description of performances:

❖ ZigBee wireless remote communication

- Compatible with 4G networks in countries all around the world
- Intelligent algorithms, quickly and accurately collect information
- Smart antennas have intelligent functions such as suppression of signal interference,
- automatic tracking, and digital beam adjustment.
- MIMO technology, which improves the system's anti-attenuation and noise performance
- Using ZigBee technology, support single point communication and broadcast communication
- Excellent battery compatibility, under the interference of high voltage spikes, strong magnetic field, electrostatic field, lightning surge, strong static electricity, temperature range change, the system can work accurately.



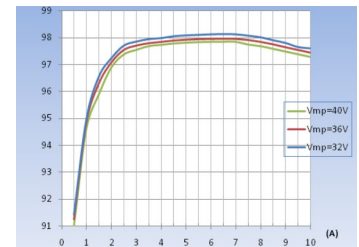
Concentrate controller



Mesh structure

❖ Intelligent solar slave controller

- adopting MPPT technology to track the maximum power of solar panel
- MPPT efficiency: $\geq 99.9\%$
- charge conversion efficiency: $\geq 98.5\%$
- constant current drive efficiency: $\geq 98.5\%$
- IPT technology to ensure 365 days' lighting every day
- control mode: light control, time control, induction control



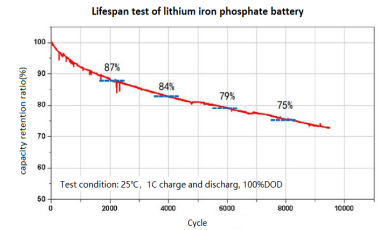
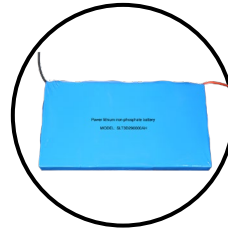
❖ Super brightness Philips led chip

- led chip luminous efficiency: 230 lm/W
- average service life: 100,000 hours
- color rendering index: ≥ 75 Ra
- LM80 test report
- no blue light hazard



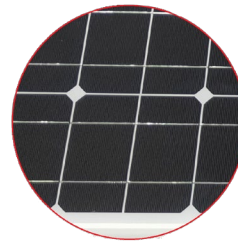
❖ Lithium iron phosphate battery

- lithium iron phosphate battery for new energy vehicles
- cycle life: ≥ 3000 cycles
- free of cobalt and other heavy metals
- no fire, no explosion, absolutely safe and reliable
- High temperature discharge efficiency is over 95%.
- warranty: 5 years

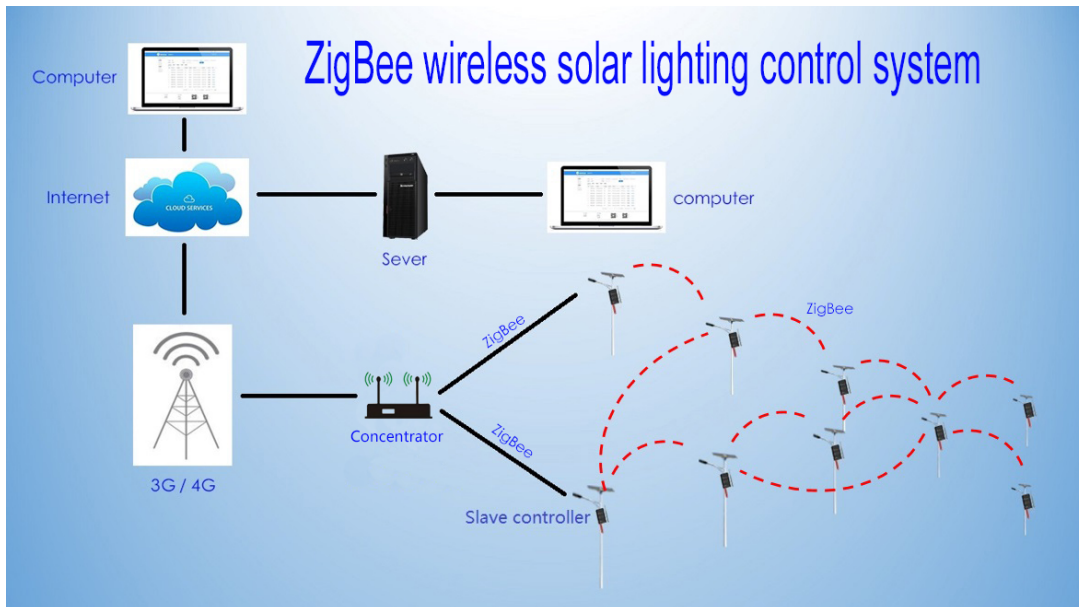


❖ High efficiency solar panel from Taiwan

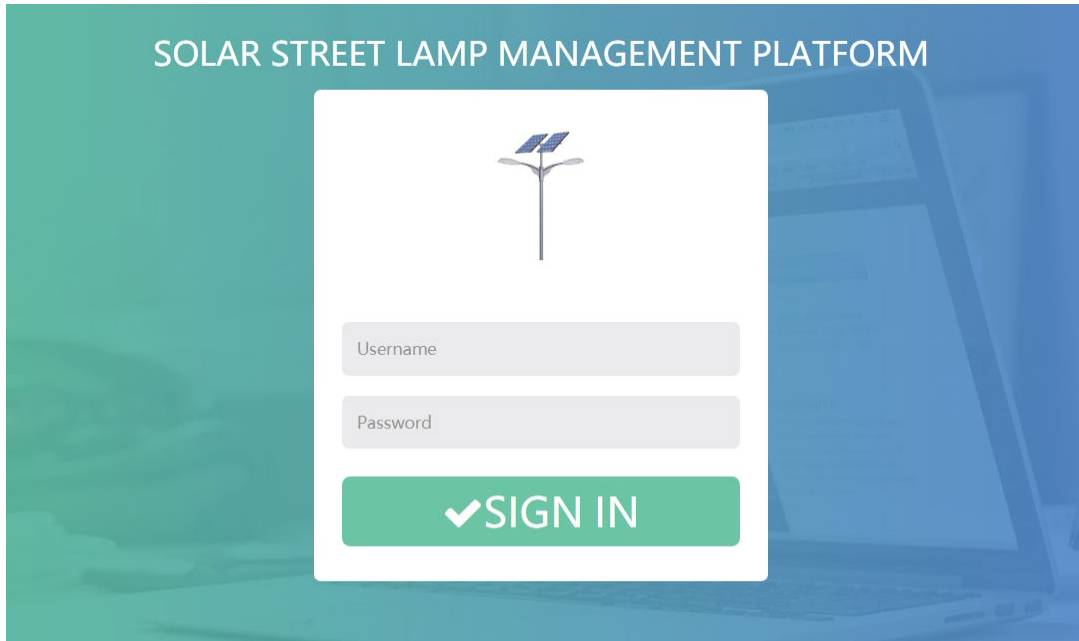
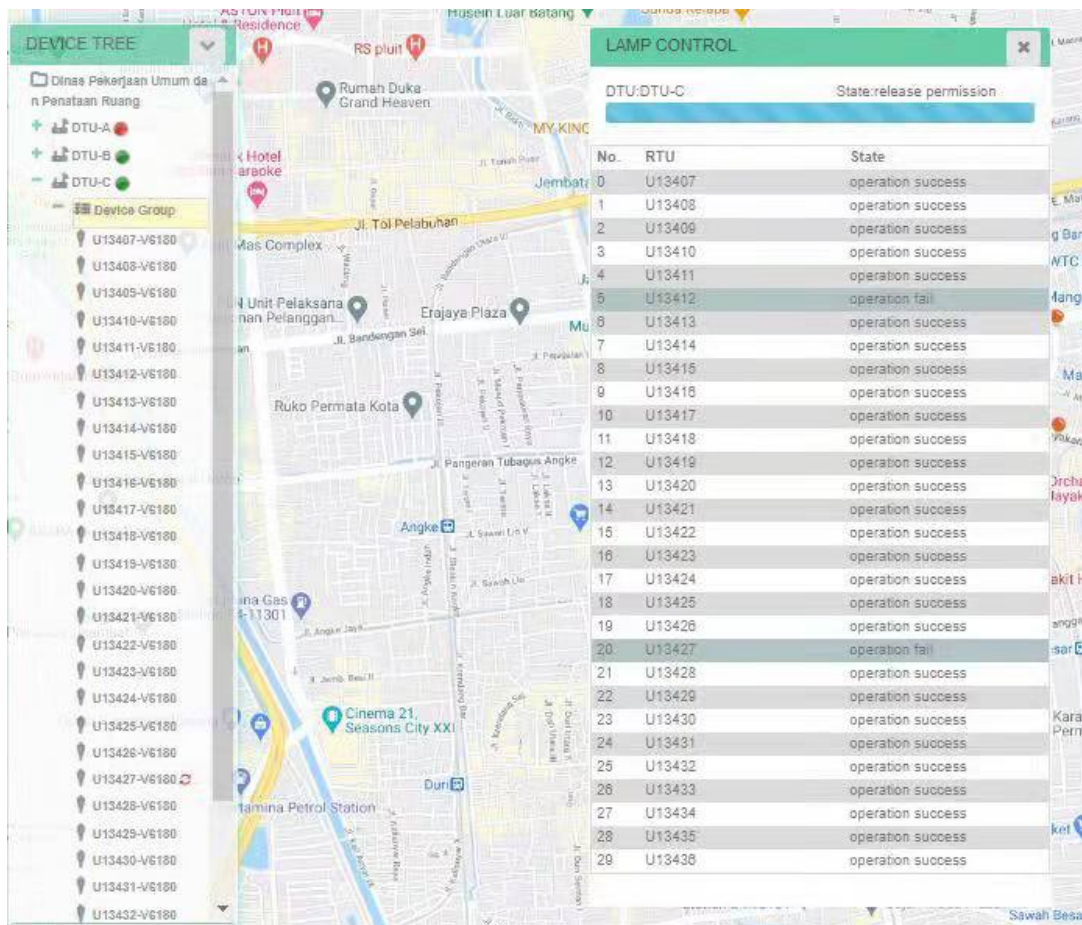
- mono solar wafers imported from Taiwan
- solar conversion efficiency: $\geq 21\% \sim 22\%$
- wafer specification: 156*156 mm
- lifespan: ≥ 20 years
- warranty: 5 years



System topology:



Background management software (part of the interfaces) :

DEVICE TREE

- Dinas Pekerjaan Umum dan Penataan Ruang
 - DTU-A
 - DTU-B
 - DTU-C
 - Device Group
 - U13407-V6180
 - U13408-V6180
 - U13409-V6180
 - U13410-V6180
 - U13411-V6180
 - U13412-V6180
 - U13413-V6180
 - U13414-V6180
 - U13415-V6180
 - U13416-V6180
 - U13417-V6180
 - U13418-V6180
 - U13419-V6180
 - U13420-V6180
 - U13421-V6180
 - U13422-V6180
 - U13423-V6180
 - U13424-V6180
 - U13425-V6180
 - U13426-V6180
 - U13427-V6180
 - U13428-V6180
 - U13429-V6180
 - U13430-V6180
 - U13431-V6180
 - U13432-V6180

LAMP CONTROL

DTU:DTU-C State:release permission

No.	RTU	State
0	U13407	operation success
1	U13408	operation success
2	U13409	operation success
3	U13410	operation success
4	U13411	operation success
5	U13412	operation fail
6	U13413	operation success
7	U13414	operation success
8	U13415	operation success
9	U13416	operation success
10	U13417	operation success
11	U13418	operation success
12	U13419	operation success
13	U13420	operation success
14	U13421	operation success
15	U13422	operation success
16	U13423	operation success
17	U13424	operation success
18	U13425	operation success
19	U13426	operation success
20	U13427	operation fail
21	U13428	operation success
22	U13429	operation success
23	U13430	operation success
24	U13431	operation success
25	U13432	operation success
26	U13433	operation success
27	U13434	operation success
28	U13435	operation success
29	U13438	operation success

Technical parameters:

Model and power	SZG604Z-40W	SZG604Z-50W	SZG604Z-60W
Rated power	40W	50W	60W
Brand of led chip	Philips	Philips	Philips
Luminous efficiency for led (lm/W)	230 lm/W	230 lm/W	230 lm/W
Total luminous flux (lm)	6800±5% lm	9000±5% lm	13000±5% lm
Light efficiency for luminaire (lm/W)	185 lm/W	185 lm/W	185 lm/W
Beam angle	140°*70°	140°*70°	140°*70°
Correlated color temperature (K)	3000-6500K	3000-6500K	3000-6500K
Color rendering index (Ra)	≥75Ra	≥75Ra	≥75Ra
LED lifespan (h)	100000 hrs	100000 hrs	100000 hrs
Type of battery	LFP battery	LFP battery	LFP battery
Capacity of battery	260Wh	380Wh	510Wh
Lifespan of battery	≥3000 cycles	≥3000 cycles	≥3000 cycles
Charging time (h)	6-7 hrs	6-7 hrs	6-7 hrs
PIR sensor	20% (normal) /100% (activated)	20% (normal) /100% (activated)	20% (normal) /100% (activated)
Mono solar panel	55Wp	70Wp	90Wp
Material of shell	aluminum alloy	aluminum alloy	aluminum alloy
Material of cover for led	PC	PC	PC
Lighting time per day	12 hrs	12 hrs	12 hrs
Continuous rainy day	3-7 days	3-7 days	3-7 days
Discharging temperature	-20~+55℃	-20~+55℃	-20~+55℃
IP protection	IP65	IP65	IP65
Dimension	950*377*252 mm	1196*377*252 mm	1520*377*252 mm
Weight	15 Kg	17 Kg	21.5 Kg
Diameter of mounting pipe	φ60 mm	φ60 mm	φ60 mm
Recommended mounting height	6 m	6-7 m	7-8 m