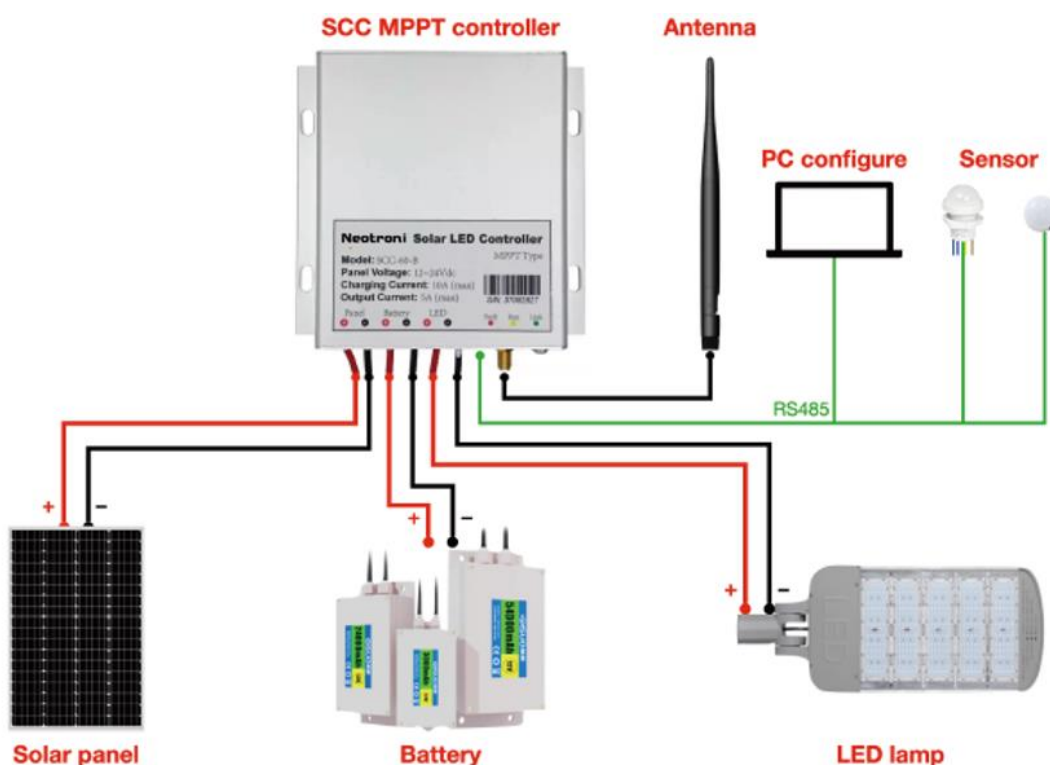




Solar Charger & LED lamp Controller MPPT High Efficacy Built-in LED driver NB-IOT/LoRa Communication AC power redundant

- MPPT Hi-Efficiency Tracking charging, Efficiency up to 99%
- Inner clock, support 8 programmable timers
- Built-in constant current LED driver, allow remote setup wattage and dimming control.
- Battery protection.
- Revert connection/Short circuit/open circuit/Max power limitation protections.
- Wireless communication available: NB-IOT/ LoRaWAN
- Support Open API. Many IOT communication port.
- IP67 Rating. Aluminum Housing.
- Support AC power redundant.

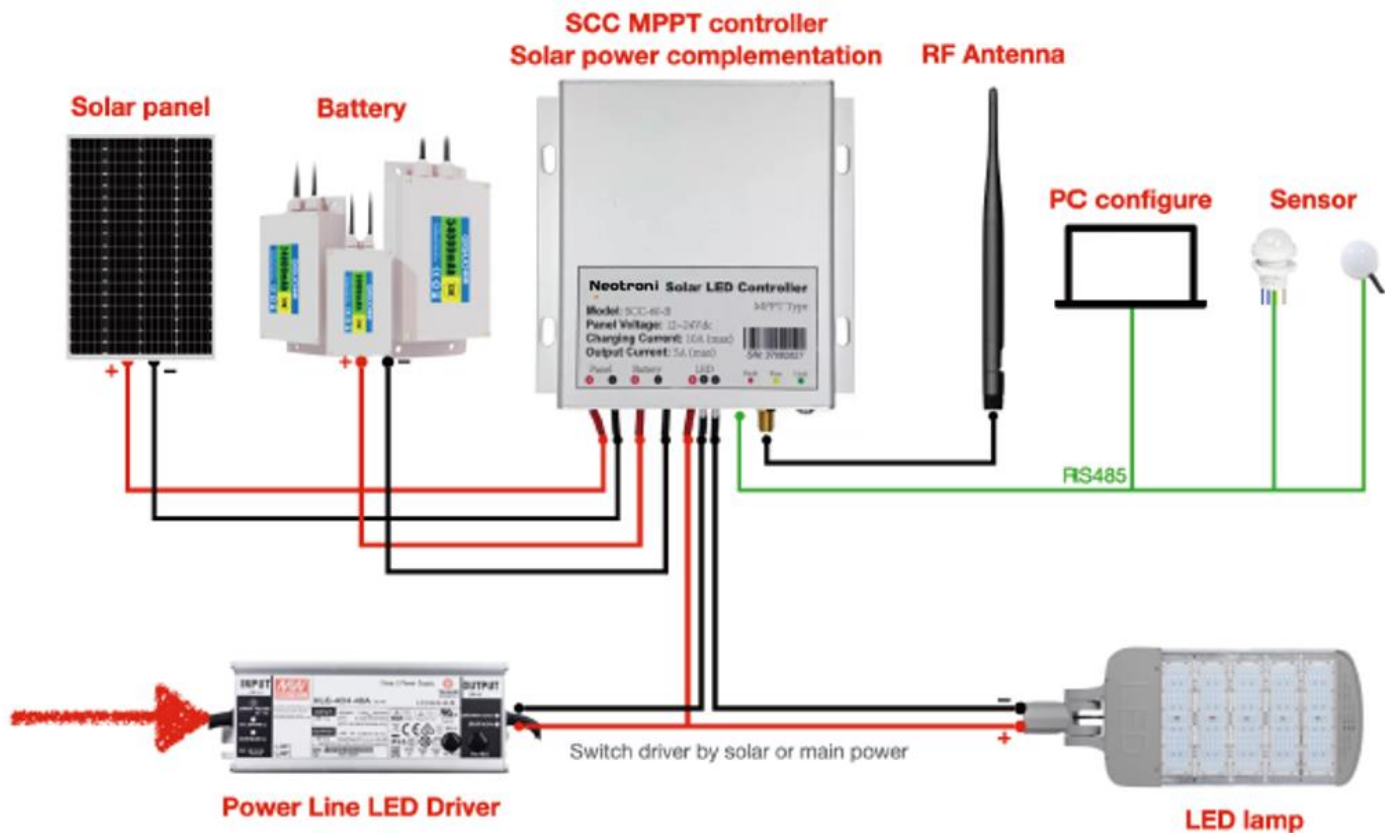
Model No.	Wireless Module
SCN-201-XXX	NB-IOT/LTE
SCN-202-XXX	LoRaWAN/ (LoRaWAN gateway is required)



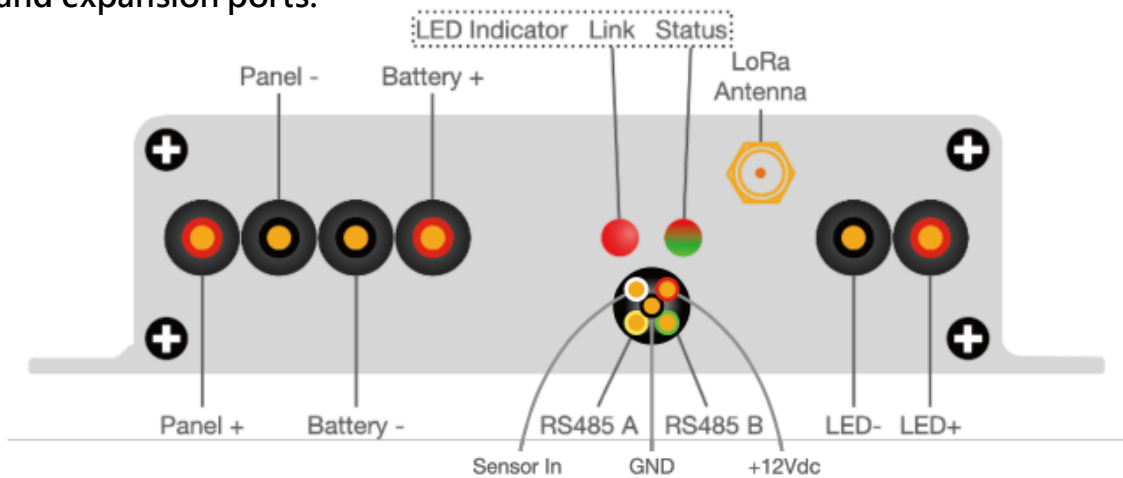
- Connect sequence:
Connect Load first, -
→ Battery → Solar Panel

- AC back redundant:

The SCN-200 is allow to connect AC/DC LED driver. Switch to AC power when battery is low and go back to battery supply when battery is charged.



- Device panel and expansion ports:



- LED Indication signal:

Indication LED	Status	Memo
RED/GREEN LED	RED constant ON	Charging
	GREEN constant on	Discharging
	Blink: ON 0.1 and OFF 0.1 sec.	Error
	LED OFF	Idle
RED LED	Slow blink: ON 1 and OFF 1 sec.	Network connecting
	Quick blink: ON:0.1 and OFF 0.1 sec.	Network connected

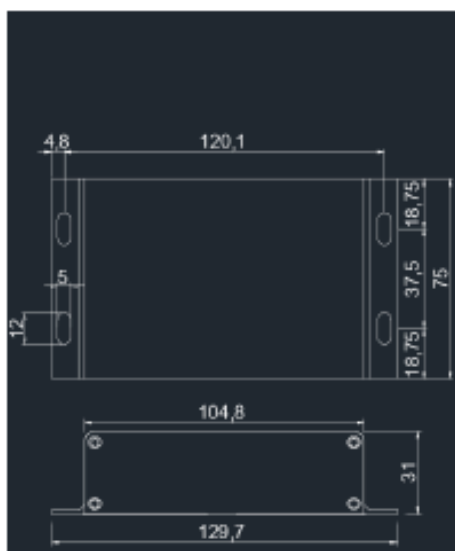
- Expansion IOT ports:

No.	Port	Function
1	Panel+	Connect to PV Panel (+)
2	Panel-	Connect to PV Panel(-)
3	Battery+	Connect to Battery (+)
4	Battery-	Connect to Battery (-)
5	LED indicator – Link	Network connection status
6	LED indicator –Status	Controller current status
7	Antenna	To Antenna (SMA)
8	LED+	Connect to LOAD (LED lamp +)
9	LED-	Connect to LOAD (LED lamp -)
10	Sensor In	Connect to digital sensor, TTL signal , Max. Volatge 5.5V
11	GND	Ground
12	+12Vdc	Offer 12VDC output. Max. output current 100mA
13	RS485-A	RS485 port
14	RS485-B	

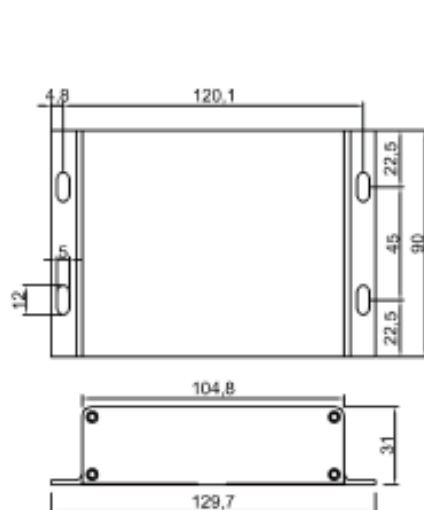
- Technical parameters

	Item	SCN-XXX-040	SCN-XXX-060	SCN-XXX-090	SCN-XXX-120	SCN-XXX-150
Solar Panel	System Voltage	12.8V/25.6V (Programmable via API)				
	Open circuit Vol.	20Vdc±2Vdc for 12.8V system / 40Vdc±2Vdc for 25.6V system				
	Max. Input Watt.	240W/36V	240W/36V	240W/36V	360W/36V	420W/36V
	Max. charge Curr.	10A	10A	10A	15A	20A
	MPPT Track Ragge.	Battery voltage +1V to PV Panel Voltage				
	MPPT Track Efficiency	>99%				
	Charge Efficiency	85%~98% (Typical 97%)				
Battery	Charging Vol.	10~24.4V (25°C) for 12.8V system 20~28.8V(25°C) for 25.6V system				
	Over charge Vol.	13.5~15V for 12.8V system (default:14.4V) 27~30V for 25.6V system (default:28.8V)				
	Over charge recover Vol.	Over charge Voltage-0.2V				
	Over discharged Voltage.	10~12V for 12.8V system (default:11.6V) 20~24V for 25.6V system (default: 23.3V)				
	Recover Voltage.	Over discharged volltage+2V				
	Temp. compensation	N/A				

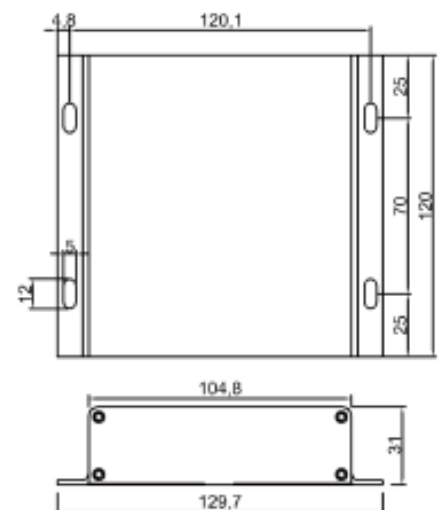
	Item	SCN-XXX-040	SCN-XXX-060	SCN-XXX-090	SCN-XXX-120	SCN-XXX-150
LOAD	Load current	0-833mA	0-1250mA	0-1875mA	0-2500mA	0-4000mA
	Load voltage	30~48Vdc				
	Max. Load	40W	60W	90W	120W	150W
	Driven Efficacy	85~95% (Typical 93%)				
	Load current adjust step.	<=30mA				
	Dimming range	10%~100%				
	Schedules	8 sections, programmable via host				
	Each section duration	0~255 mins				
	Sensor connection.	Via RS485 or Digital Input				
	Sensor detection delay	YES				
	Operation Temp.	-30°C~60°C				
	IP	IP67				
	Protection	Reverse connection, wrong connection, over voltage, over charged and discharged, Lithium BMS over charged, over temperature, Load open and short circuit.				
	Idle consumptn	≤30mA for 12.8V system/ ≤20mA for 25.6V system				
	Dimension	75*129.7*31mm	90*129.7*31mm	90*129.7*31mm	120*129.7*31mm	90*129.7*31mm
	Installation space	45*120.1mm	45*120.1mm	45*120.1mm	70*120.1mm	70*120.1mm
	Weight (w/o Antenna)	450g	550g	550g	700g	700g



SCN-XXX-040



SCN-XXX-060/090



SCN-XXX-120/150