6 Steps to Use DSC100

illuminance Measurement

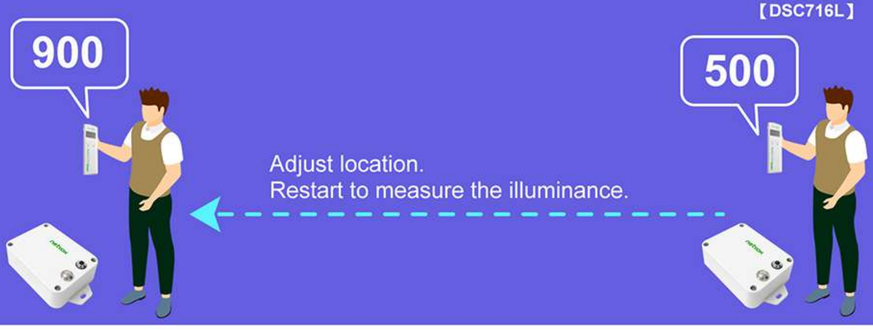
Measure illuminance near the IoT devices to make sure DSC100 can generate sufficient power.

1 Use DSC716L to detect illuminance

Press the button to detect the illuminance of light source.

Note: The LCD display could only show 4 digits. The maximum data would be 9999 (lux).

【DSC716L】



DSC Energy Calculation

After measuring illuminance, visit the **DSC Energy Calculation Website** for more detailed information of DSC100 parallel connection.

2 Enter the device model, illuminance, and daily average time.

◎ Take R718EC for example.

Fill in 800 lux detected by DSC716 and set the average time as 8 hours.

Battery Life Calculation | DSC Battery Calculation | 语言 中文

keywords R718EC Search *Calculate Based on TxPower=20dBm, SF=10 @25°C,

Light source 800 lux, Average lighting hour per day 8 Hour(s) 2

Device Model	Device Name	Time interval (Min)	Times of sending data per day(times)	Current consumption of sampling &sending data (mA)	Power-consuming time of sampling and sending data (mS)	Total Power consumption of sampling and sending data (mAH)	Current consumption of receiving data (mA)	Power-consuming time of receiving data (mS)	Total current consumption of receiving data (mAH)	Power consumption of sending data per day (mAH)	Sleeping hours per day (H)	Device sleeping current (uA)	Total sleeping power consumption per day (mAH)	Total power consumption per day (mAH)	DSC daily power generation (mAH)	Required number of power bank (pcs)	Total capacitance (mAH)
R718EC	Wireless Activity Detection And Temperature Sensor	60	24	120	740	0.04439	12	35	0.00012	1.07	24	80	1.92	2.99	2.48	2	316

Visit the **DSC Energy Calculation Website** to try different combinations of time interval and times of sending data for DSC100 parallel connection.

3 Set time interval and times of sending data per day.

Time interval: 60; Times of sending data: 24 (default setting)

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Light source 800 lux, Average lighting hour per day 8 Hour(s)

Device Model	Device Name	Time interval (Min) 3	Times of sending data per day(times) 3	Current consumption of sampling &sending data (mA)	Power-consuming time of sampling and sending data (mS)	Total Power consumption of sampling and sending data (mAH)	Current consumption of receiving data (mA)	Power-consuming time of receiving data (mS)	Total current consumption of receiving data (mAH)	Power consumption of sending data per day (mAH)	Sleeping hours per day (H)	Device sleeping current (uA)	Total sleeping power consumption per day (mAH)	Total power consumption per day (mAH)	DSC daily power generation (mAH)	Required number of power bank (pcs)	Total capacitance (mAH)
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Visit the **DSC Energy Calculation Website** to make sure your DSC100 work properly for your devices.

4 Check results.

Light source: 800 lux; average time: 8 hours; Time interval: 60;
Times of sending data: 24

R718EC needs at least 2 power banks.

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5 Adjust setting values for a more satisfying result

☆ **Receive reports more frequently**

Lower the time interval as 30 (min)
Required number of power bank remains 2.

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☆ **Lower the number of power banks**

Move DSC and device closer to light source.
Illuminance increases to 1000 (lux).
Required number of power bank decrease to 1.

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R718EC	Wireless Activity Detection And Temperature Sensor	60	24	120	740	0.04439	12	35	0.00012	1.07	24	80	1.92	2.99	3.11	1	158

Why You Need More Than One DSC100?

- Increase the amount of power generated by DSC.
- Support devices with higher power consumption.
- Receive data reports more frequently.
- Optimize performance in dim environments.