



Misesight Low Power Consumption Technology

Powering a Greener Tomorrow

A MILESIGHT TECHNOLOGY MOMENT

Misesight

MILSIGHT'S COMMITMENT TO THE PLANET

By reducing 67.8 kg of CO₂ per camera every year, we're turning vision into action for a sustainable world.

By reducing

67.8 kg of 

per camera every year

That's equivalent to:



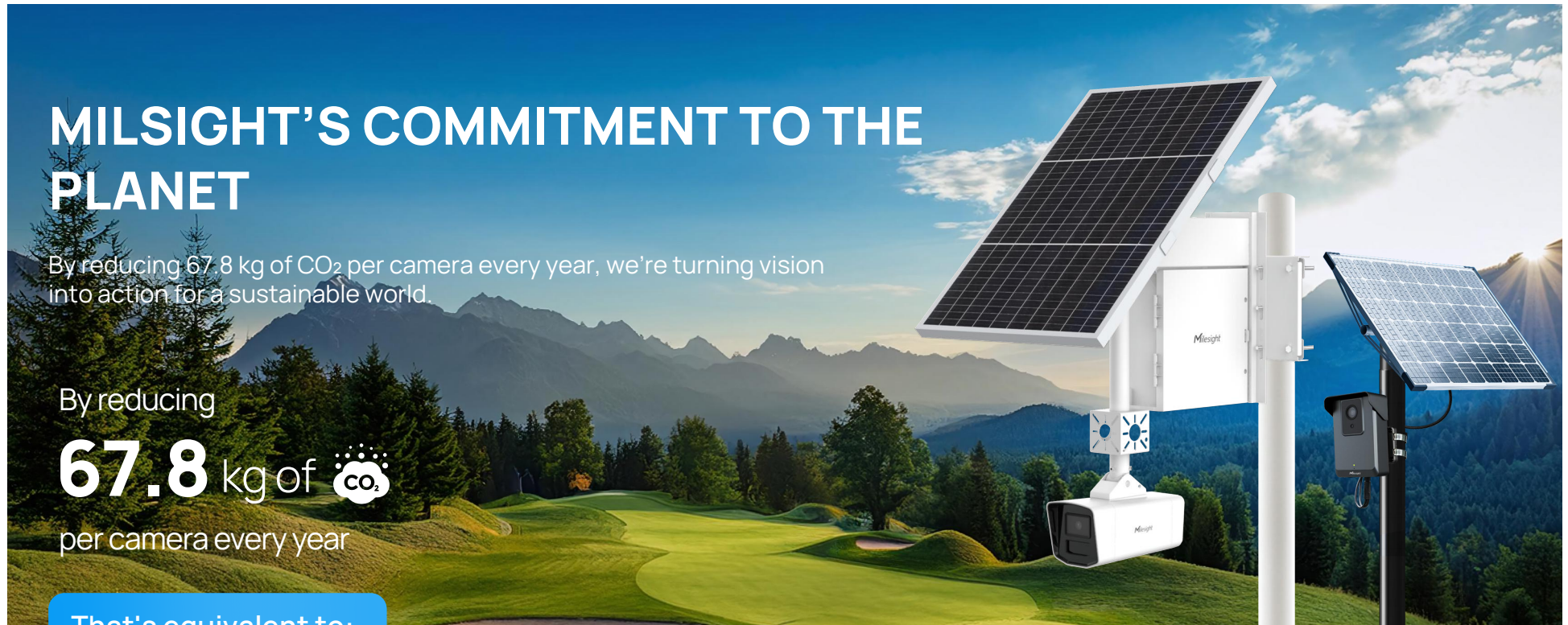
Planting 1 tree annually



Driving 360 kilometers



Charging a smartphone 5,000 times





INTRODUCTION

Milesight has long been committed to advancing in the ESG field, with a strong focus on environmental protection and fostering a sustainable future. The Milesight **solar-powered camera series** is specifically designed for off-grid, eco-friendly security applications, addressing a wide range of outdoor safety and traffic monitoring challenges. **Powered by solar energy, this system significantly reduces environmental impact**, contributing to the protection of the planet. To further enhance product efficiency, Milesight's advanced **low-power technology optimizes energy utilization and enhances energy recycling**, ensuring longer operational times and greater sustainability, even in the most demanding environments.



WHY LOW-POWER CONSUMPTION?

Global Needs for Low Power Consumption & Green Security

With increasing global emphasis on environmental sustainability, the need for low-power security solutions is growing rapidly. Energy-efficient products support sustainability while responding to heightened demands for eco-friendly security options worldwide.

Significant Cost Reductions

Reducing energy consumption in security applications not only minimizes ecological impact but also provides cost benefits by reducing utility expenses, especially beneficial for larger-scale deployments or remote areas with limited access to power grids.

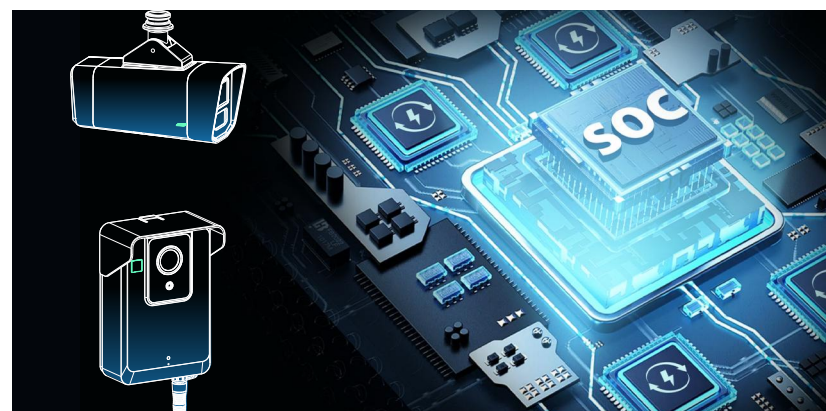
Off-grid Security Requirements

In off-grid or remote locations, security devices must operate efficiently with minimal power usage to last as long as possible on limited energy sources, such as solar power. Lower energy consumption maximizes battery life and reduces reliance on infrastructure, making such solutions ideal for demanding, infrastructure-free environments.

INTRODUCING MILESIGHT LOW POWER CONSUMPTION TECHNOLOGY

Hardware Selection: Prioritizing High Performance

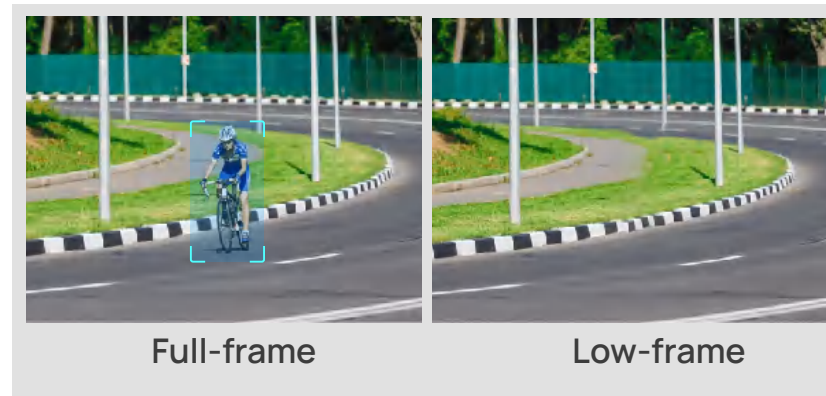
Milesight employs advanced low-power System on Chip (SoC) technology, where the camera operates at a lower chip frequency, optimizing energy use without compromising real-time responsiveness. Additionally, high-performance, low-power network modules adapt dynamically based on operating modes to further reduce consumption. The use of high-efficiency microcontrollers (MCUs) supports multiple power-saving modes and achieves ultra-low static operating current, enhancing overall energy efficiency.



Working Modes: Optimizing Energy Utilization

Eco Mode: Dynamic Frame Rate

To optimize energy use, Milesight's cameras use a dynamic frame rate system. When no object is detected, the camera operates at a lower frame rate to save power. Upon detecting an object, the camera immediately switches to a full-frame rate to ensure high detection accuracy. This technology intelligently balances performance and power consumption.



Flexible Sleep Modes

Milesight cameras incorporate adaptive sleep modes to conserve power while maintaining security capabilities:

- Conserving Power and Extending Battery Life:**
 Sleep modes significantly reduce power usage, extending operational lifespan, especially crucial for remote and off-grid security deployments.
- Enhanced Energy Utilization:**
 As full performance is not required at all times, sleep modes optimize power allocation, reducing unnecessary energy consumption.
- Improved System Stability and Hardware Longevity:**
 Consistent high power consumption can lead to device overheating and affect hardware durability. Sleep modes lower this risk by minimizing energy load to enhance the device reliability.



Sleep Mode	How it Works	How to Wake-up	Average Power Consumption
SP111	<ul style="list-style-type: none"> Enter sleep mode based on battery level or preset schedule Scheduled image capture 	Ultra-fast VMS remote wake-up	0.19 W
SC211	<ul style="list-style-type: none"> Default mode Reverts to sleep mode after 3 seconds of inactivity 	<ul style="list-style-type: none"> Radar-triggered once a movement is detected Remote wake-up through MQTT/TCP or dialing the SIM Card. 	0.29W

Low-power IR Technology: Greatly Reducing Power Consumption

Milesight's low-power IR technology, successfully implemented in SP111 and SC211, effectively addresses power waste associated with infrared night vision, offering a more eco-friendly and low-power option for outdoor surveillance. Through intelligent IR control, unnecessary power consumption is minimized, significantly extending operational time in low-light or nighttime conditions.

· IR Strobe Mode (SP111 LPR Model):

The IR in the SP111 model employs a strobe mode, activating IR lights in short, periodic bursts only in night. This design reduces IR power consumption by more than 60% compared to a continuous IR mode.

· Smart IR Activation (SC211):

The SC211 model conserves power by activating IR illumination when a moving object is detected and needs to be captured at night. This system minimizes continuous IR usage, which is particularly advantageous in off-grid and remote areas where battery preservation is critical.



RmNet Dial-up Method

Utilizing RmNet dial-up technology, Milesight cameras achieve faster response times compared to traditional PPP dial-up. With an average response within 10 seconds, this innovation minimizes system runtime, contributing to overall energy savings by reducing the load on network modules.

Immediacy and Timing Image Transmission Modes

Milesight offers two image transmission modes to further conserve energy:

- **Immediacy Mode:**

Sends images immediately upon capture, ideal for real-time monitoring needs.

- **Timing Mode:**

Stores images on an SD card and transmits them at designated intervals. This reduces frequent 4G module activation, decreasing energy usage associated with real-time transmission demands.



▼ Milesight Product Energy Consumption Table

Product	Working Mode	Power Consumption (W)
SC211	Sleep Mode	0.29
	Work Mode(Day)	1.17
	Work Mode(Night)	5.9
SP111	Sleep Mode	0.19
	Work Mode (Event + Record+ 4G streaming OFF)	1.75
	Work Mode (Event + Record+4G streaming OFF+ Dynamic FPS ON)	1.65
	Work Mode (Event + Record+ 4G streaming ON)	2.75

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