

Born for the night

Adapts to DJI M300 & M350 RTK



SZWL-S2 PRO

AUTHORIZED PRODUCT MATERIAL · AI FULL-COLOR NIGHT VISION

S2 Pro

AI Night Vision Drone Camera

S2 Pro was released by Deenthink in 2023. Compatible for DJI M300&M350 RTK, S2 Pro features for strong low-light performance with full-color in nearly total darkness. It's also a hybrid payload night vision camera paired with laser range finder and zoom. With 30x optical Zoom, 160x max zoom, S2 Pro offers high quality imagery even with long distance.

The laser rangefinder obtains accurate coordinates of a location or object with detection range of 5m-1500m. S2 Pro has been in a wide range of unmanned applications including law enforcement, search and rescue, fire fighting, oil and gas survey in the night.



AI-powered ISP algorithm,
full-color HD imaging in
low light down to 0.0001 lux



4MP pixel zoom
camera, with 160X
integrated zoom



Laser rangefinder,
accurate range
measurement in 5-1500m



Intelligent HDR/3A,
high imaging quality, and
2K resolution HD picture



Refuse trailing, effectively
reduce the night moving
objects 90% trailing



Real-time image transmission,
real-time view of the scene
screen, abnormalities at a glance



IP55,
fearless of rain
and snow



Operating range -25°C to
60°C (-13°F~140°F), no worries
in extreme scenarios



Low wind resistance design

high-density aluminum alloy shell heat dissipation. Overcome the extreme operating environment of the drone



Night vision zoom camera

30X optical zoom,
160X integrated zoom,
4MP

1/1.8" Super Starlight CMOS,
0.0001 Lux Full Color HD Imaging



Laser rangefinder

measurement range: 5-1500 meters

Wavelength 905nm
accuracy in $\pm 1m$
real-time display of positioning altitude

Richly-defined color above 0.0001 lux

Generating images based on AI-powered ISP algorithm, this new technology enables users to see crisp, true-color images and take photos/videos in nearly complete darkness(0.0001 lux). Meanwhile, S2 Pro has excellent field of view and ultra-long night visibility distance.

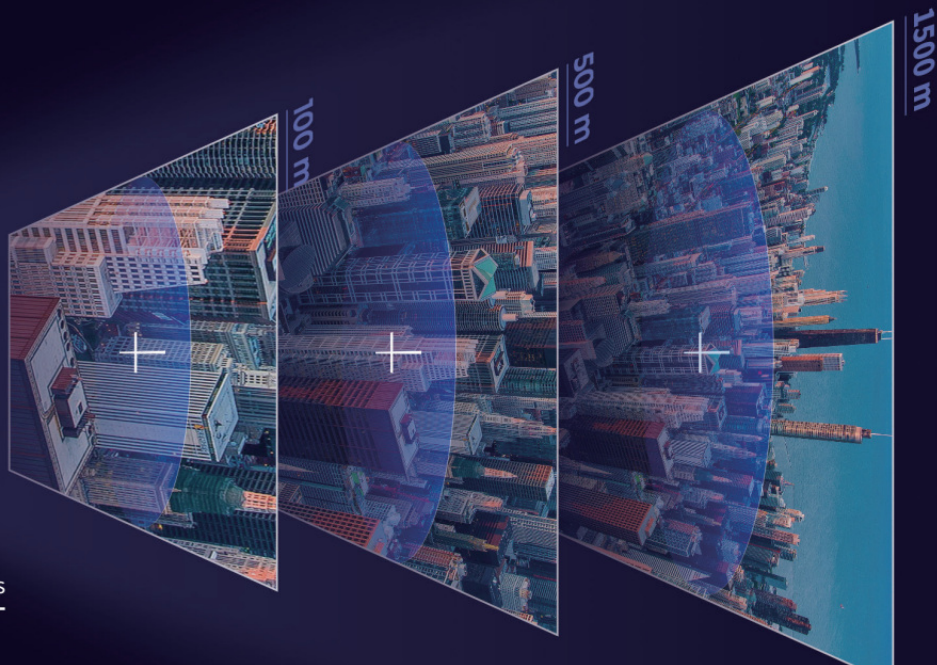


Accurate Distance Measuring

Equipped with a high-precision laser rangefinder, the detection distance is up to 1500 meters, real-time positioning and learn the position information of 5-1500m target.



the detection distance is up to 1500 meters



HDR Imaging in all conditions

In complex lighting scenes such as nighttime and city traffic, imaging is easily affected by light intensity, resulting in the loss of imaging details. The full-color zoom night vision camera has a built-in HDR function that boosts the high dynamic range to 120dB, restores true colors, and ensures that image details are not lost.

Before



After



Lift one's head above the fog

In rain, fog, snow, and other environments, light is affected by the occurrence of different degrees of attenuation, which in turn leads to blurred imaging. De-fog kinetic energy automatically analyzes each pixel in the picture, calculates the degree of attenuation of light through the obstacles, through the algorithm to compensate for the imaging, and ultimately realizes the de-fogging, presenting high-definition imaging.

Before



After



Before



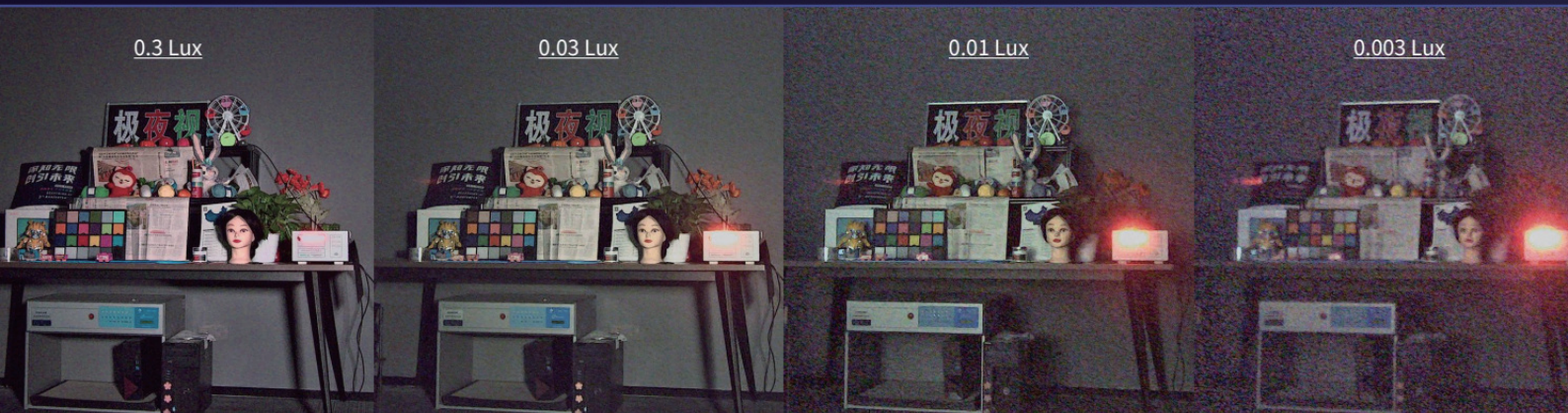
After



IR-Cut founction

Due to the influence of different wavelengths of light, the final image of the color is prone to deviation from the color seen by the naked eye, especially in the night environment. The light is extremely weak and difficult to image, and color deviation is more serious. Turning on the IR-CUT function can capture invisible light sources, thus ensuring that the target is prioritized in extremely dark scenes.

S2 Pro Night Vision



Competitor



AI Night Vision UAV Camera S Series

AI Night Vision Drone Camera S2 Pro

Spec

Sensor	1/1.8" Starlight CMOS
Minimum Illumination	Full color: 0.0001 Lux
Image Resolution	4MP, Full color 2688*1520P
Video Frame	5fps ~ 30fps
Digital Noise	Support
AI HDR	Support
Exposure Mode	Auto

Zoom

Focal	f=7.1~171mm, 30X optical zoom、160X max zoom Equivalent 34.8-820.8mm
Aperture	F 1.6 - F 5.1
Field of View	D:59.2° WIDE; 2.5° TELE H:34.6° WIDE; 1.4° TELE V:66.7° WIDE; 2.9° TELE
Day-night Mode	Electric IR-CUT

AI Night Vision UAV Camera S Series

AI Night Vision Drone Camera S2 Pro

Laser Ranging

Effective Distance	5 - 1500 m
Wavelength	905 nm
Measurement Accuracy	± 1 m

PTZ

Angular Jitter	$\pm 0.008^{\circ}$
Control Rotation Range	P: $-120^{\circ} \sim +30^{\circ}$, Y: $\pm 320^{\circ}$
Interface	DGC 2.0
Power	13.6 V / 2 A

Interface

SD card	Micro SD (Max 128G)
---------	---------------------

General Spec

Circuit Power	7 W
Protection Level	IP 55
Working Humidity	$-25^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ($-13^{\circ}\text{F} \sim 140^{\circ}\text{F}$), Humidity < 95% (Condensation-free)
Size	L 179mm * W 126.5mm * H 158mm
Weight	About 885g ± 5