

Intensified CCD (ICCD) Cameras

ATD2900

Features

- Wavelength Range: 200–1100 nm
- Scientific-grade Cooled sCMOS
- Detector Pixel Count: 2048 × 2048
- Bit Depth: 16 bit
- Image Intensifier Aperture: 18 mm
- Photocathode Material: S25R
- Gate Time: < 5 ns
- Gate Precision: < 500 ps
- Output Window: 1:1 Fiber Optic Panel

Application

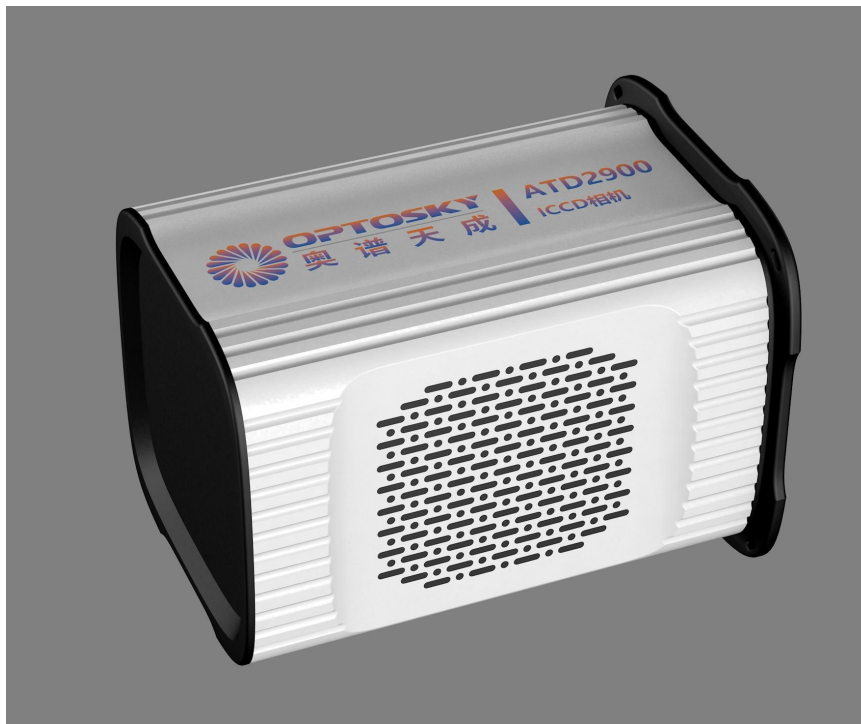
- Scientific Research
- Spectral Detection
- Fluorescence Detection
- Bioluminescence
- High-Speed Imaging

Description

The ATD2900 by Optosky is a low-temperature, high-performance intensified CCD (ICCD) cameras designed for the ultraviolet-visible spectrum. Featuring a third-generation high-efficiency image intensifier, it captures high-quality images in extremely low-light conditions, ideal for extreme environments.

Equipped with a research-grade sCMOS sensor, the ATD2900 has a cooling module that reduces the sensor's operating temperature by up to 40 degrees, minimizing thermal noise. A fog prevention structure prevents frost on the sensor, ensuring clear images even in low temperatures.

This series combines high sensitivity, low noise, and high resolution, delivering exceptional performance in low-light settings. It is ideal for scientific research, astronomy, and security monitoring due to its powerful image enhancement and detail capture capabilities.



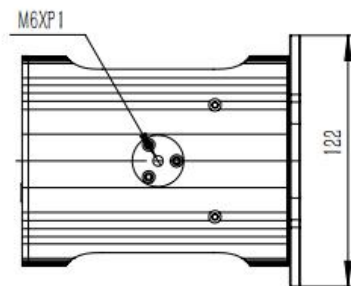
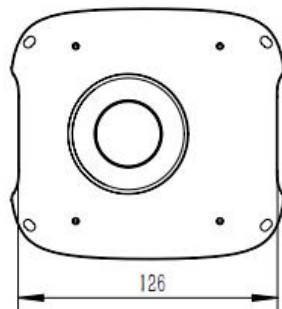
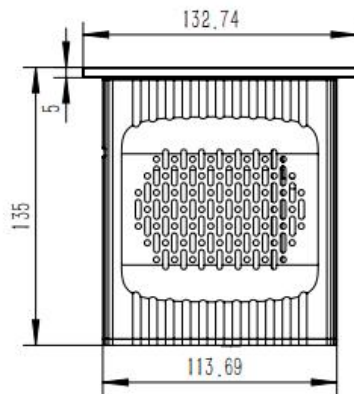
1. Selection guide

Model	Features	Pixel size (μm)
ATD2900-ICCD-400	Scientific-grade cooling type IsCMOS, 2048*2048	6.5 x6.5
ATD2900-ICCD-TG-400	Scientific-grade cooling type IsCMOS, 2048*2048	6.5 x6.5

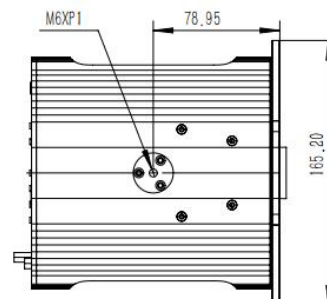
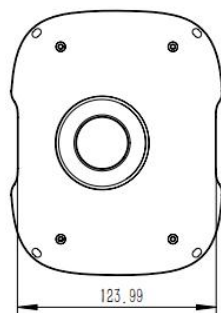
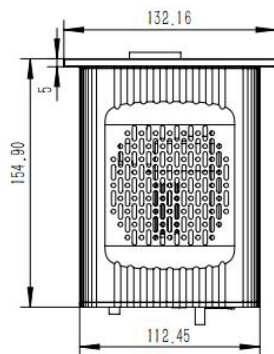
2. Parameter

NO.	Specifications	Parameter	
		ATD2900-ICCD-400	ATD2900-ICCD-TG-400
1	Spectral range	200~1100nm	
2	Number of pixels	2048*2048	
3	Pixel size (μm)	6.5×6.5	
4	Cooling method	Two-stage cycle thermoelectric cooling system, 40 degrees below ambient temperature, precise and controllable	
5	Gating	No	Yes
6	Photocathode material	S25R	Imported high performance third generation image intensifier
7	Image intensifier aperture	Ø18 (mm)	
8	Output window	1: 1	
9	Fluorescent screen	P43	
10	Optical gating width	-	< 5ns
11	Delay and gating adjustment accuracy	500ps	
12	IO interface	1 optocoupler isolated input, 1 optocoupler isolated output, 2 direct GPIO	
13	Bit depth	16bit	
14	Power supply	External power supply, DC12V, 3A	
15	Dimensions (length × width × height)	135×133×122mm	155×132×165mm

3. Structural dimensions



ATD2900-ICCD-400 Dimensions



ATD2900-ICCD-TG-400 Dimensions