

# Data Logging System

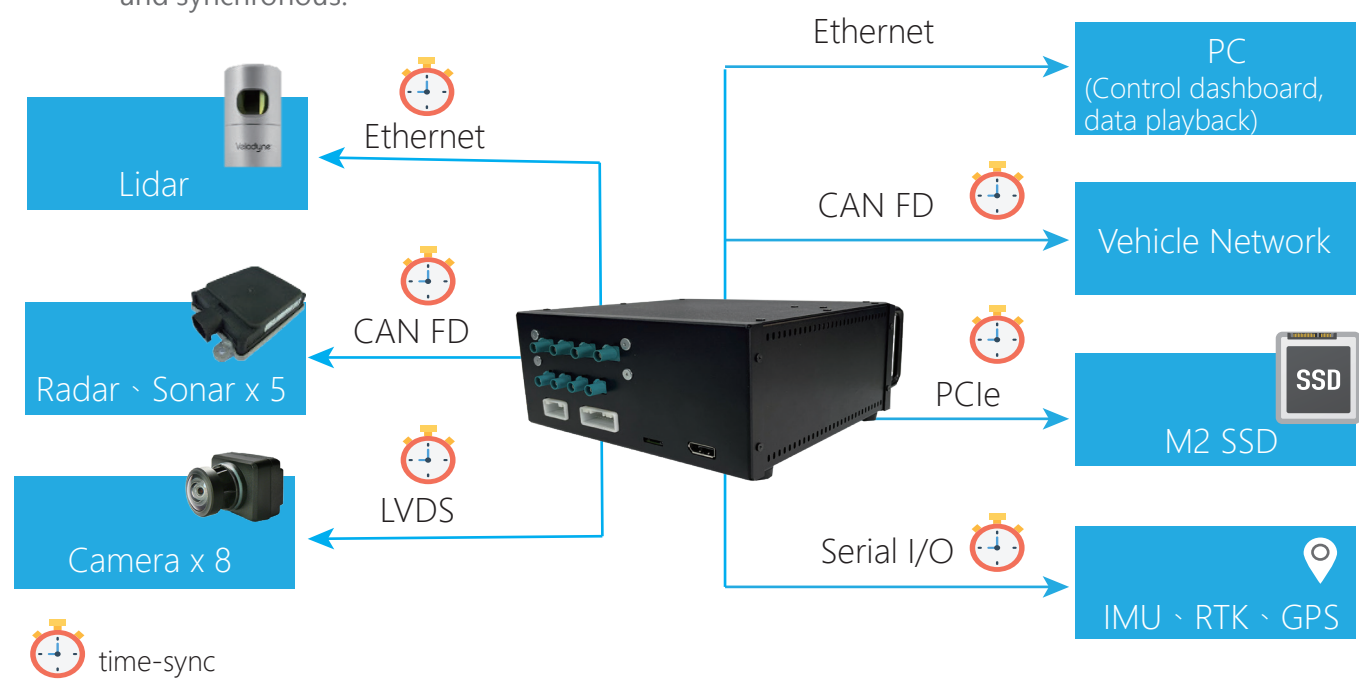
## oToDAS 500



# Description

## oToDAS 500

oToDAS500 is a data logging system for autonomous driving. It is designed on the automotive standard basis to operate in the severe driving conditions. Embedded with 8-channel LVDS connectors, it is a perfect solution for high speed, long distance and low noise image collection. Meanwhile, oToDAS500 is equipped with multiple input interfaces to collect the data from ultrasonic, mmWave, lidar, etc. Moreover, with its low power consumption, sensor synchronization and swappable hard disk, oToDAS 500 enables data collecting uninterrupted and synchronous.



# Features

- 01

**Swappable hard disk cartridge drive**  
With two M.2 PCIe slots, oToDAS 500 enables unstoppable data logging by swapping M.2 SSD.
- 02

**Multiple sensor inputs support autonomous driving**  
Up to 8x LVDS, 4x automotive Ethernet, 3x CANFD and 1x serial port. Compatible to cameras, ultrasonic, mmWave, lidar, IMU, GPS, etc.

- 03

**Real time data processing, providing lossless output**  
Embedded with automotive TDA4 AI SoM, data processing up to 8 Gbps without compressing and filtering.
- 04

**Automotive grade key component adapting to severe driving conditions**  
By utilizing automotive grade TDA4 AI SoC, DDR4, PMIC, etc., oToDAS 500 logs data in severe driving conditions.
- 05

**Millisecond level time sync accuracy**  
Time synchronization under 1 millisecond. Optimize data processing collected by various sensors.
- 06

**Compatible with multiple SerDes cameras**  
Compatible with several oToCAM automotive grade cameras. Seamless integration from day one to mass production

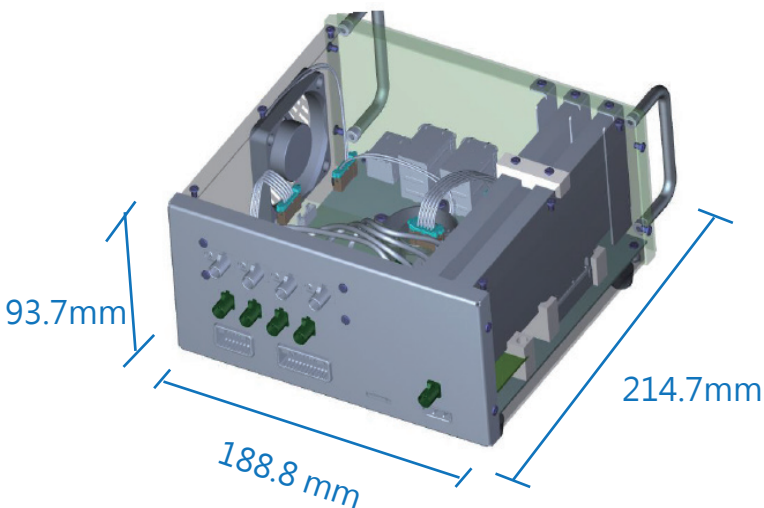
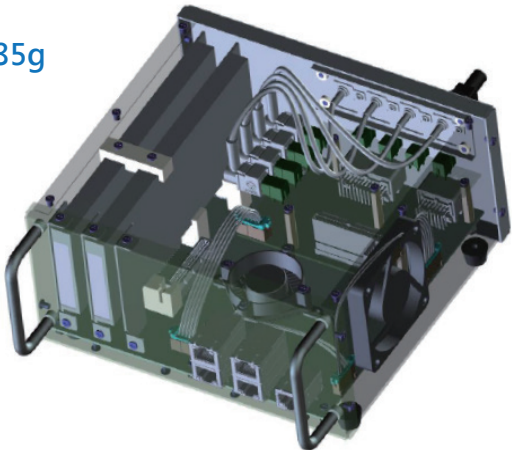


# Specification

## oToDAS 500

# Mechanism

Weight : 1885g



# Product Pictures



# Compatible and Supported Camera

Supported models will be changed by time

| Resolution | Data Format | fps   | Max Q'ty | Model Number  |
|------------|-------------|-------|----------|---|
| 1M         | YUV 8-bit   | 30/60 | 8        | oToCAM201/oToCAM204/oToCAM235/<br>oToCAM235-C89T/oToCAM206-A128T/<br>oToCAM206-C89T/oToCAM206/<br>oToCAM267-S190T/oToCAM267-S76T/<br>oToCAM231        |
| 2M         | YUV 8-bit   | 30    | 8        | oToCAM234/oToCAM234-S114T/<br>oToCAM264ISP-L61T/oToCAM264ISP-L73T/<br>oToCAM264ISP-S119T/oToCAM264ISP-S186T   |
|            |             | 60    | 4        |   |
|            | RAW 12-bit  | 30    | 8        | oToCAM237/oToCAM263-S61T/<br>oToCAM263-S119T/oToCAM263-S73T/<br>oToCAM263-S186T/oToCAM264-S61T/<br>oToCAM264-S119T/oToCAM264-S73T/<br>oToCAM264-S186T |
|            |             | 60    | 6        |   |
| 5M         | YUV 8-bit   | 30    | 2        | Planning  |
|            | RAW 12-bit  | 30    | 4        | oToCAM260/oToCAM261/oToCAM262/<br>oToCAM260-S92M  |
| 8M         | YUV 8-bit   | 25    | 2        | N/A   |
|            | RAW 12-bit  | 30    | 2        | oToCAM265-C120T/oToCAM265-C60T/<br>oToCAM265-C30T/oToCAM266-C120T/<br>oToCAM266-C60T/oToCAM266-C30T   |

| Interface (Data logging)                  |
|---|
| LVDS: 8; up to 8 * 2Mp                    |
| Ethernet (RJ45): 4 * 1Gbps; up to 4 Lidar |
| CAN FD: 3; Radar, Sonar                   |
| Serial IO: IMU, RTK, GPS                  |
| Data logging rate                         |
| 8 Gbps                                    |
| Data storage                              |
| PCIe: 2; up to two M.2 SSD                |
| Swappable storage cartridge               |
| Data synchronization                      |
| Camera frame sync (HW)                    |
| Timestamp for all interface <1ms          |
| Adjustable frame rate                     |
| Host management                           |
| Ethernet (RJ45): 1Gbps                    |
| Main Board                                |
| TI TDA4V Mid                              |
| Other                                     |
| DP monitor                                |
| Buzzer interface x1                       |
| JTAG                                      |
| USB type C x1 ( through PCIe adaptor)     |



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