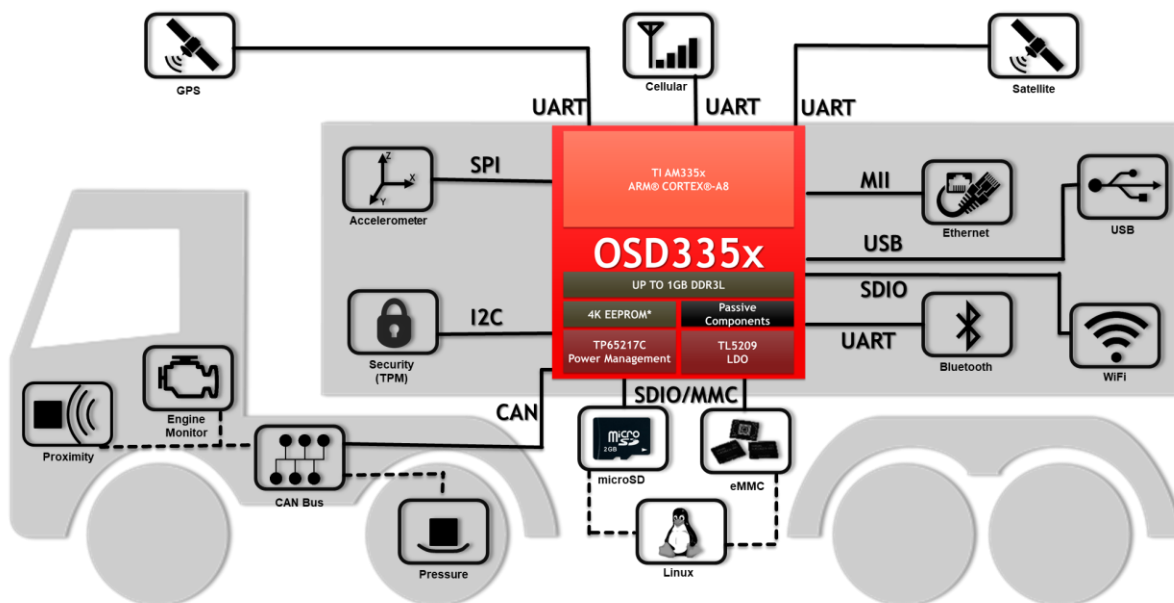


Fleet/Asset tracking systems help companies optimize their assets, whether that be trucks, tractors, trailers, cargo containers, or some other type of equipment. These systems allow companies to monitor the location, speed, operation, and general status of the asset they are monitoring. The information is collected by a remote service and the data along with analysis are presented to the company in a meaningful way.

Besides optimizing the use of their assets, many governments require companies to install some tracking functionality to ensure public safety and adherence to regulations. For example, in the US Federal Motor Carrier Safety Administration has implemented a requirement for Electronic Logging Devices to be installed in most commercial buses and trucks. They are required to record date, time, location (within 1 mile while on duty), engine hours, vehicle miles, and driver identification.

These systems consist of two parts, a hardware device that collects data on the asset and a remote software service that receives the information from the hardware, analyzes it, and presents it to the user. The OSD335x is an excellent choice for the foundation of the hardware system. It's integration, peripherals, performance, and power consumption make it ideal for quickly creating a robust tracking system.

[The OSD335x](#) can easily connect to peripherals such as GPS, to track the location of the asset, or temperature and vibration sensors, to collect other interesting information from the asset itself. It also has the processing power to make real-time decisions with the analytics or transmit the data back to the software service for further analysis. It has low power consumption, so it can be used on assets that do not have external power. It is robust, so it will not lose data in accidents, power outages, or loss of communication with the software service. It also can be secure, not allowing sensitive data to be stolen or compromised. Finally, it can provide data and analysis to a local user so they can act appropriately.



- **Powerful ARM Processor:**

The ARM Corex-A8 processor running up to 1GHz from Texas Instruments in the [OSD335x family](#) enables the features needed in any tracking system. It also provides enough performance to run analytics locally providing real-time actionable data to the driver, like optimizations to save time or fuel, while saving on bandwidth and server usage.

- **Connectivity:**

Whether it be Cellular, Satellite, Bluetooth, WiFi, USB, Ethernet, or some other communication protocol, you need to get your data to be analyzed somewhere. The [OSD335x family easily supports them all](#).

- **Interfaces:**

The [OSD335x has numerous interfaces](#) like UART, SPI, I2C, and GPIO to connect to any required sensor such as GPS or an accelerometer. It also has two CAN interfaces to easily communicate with a vehicle's on-board OBD2 network to collect data on the engine performance, fuel consumption, or other important measurements. Leverage the large Open Source Community to quickly implement your solution

- **Secure:**

The data collected is valuable and needs to be protected. The OSD335x includes hardware accelerators for AES, SHA, and random number generation enabling all of the collected data to be encrypted for storage and transmission to the remote data center. It can also be easily connected to a device like a Trusted Platform Module (TPM) to provide the ability to Secure Boot, making sure the software running on the device has not been compromised.

- **Low Power:**

For all of the performance and features provided by the [OSD335x it is an extremely power efficient device](#). Consuming less than

1W while performing most tasks it also has several low power modes allowing the power consumption to be optimized providing the performance required while minimizing the Power Take Off (PTO)

- **Full Linux Support:**

Leverage the breadth of the Linux community to quickly get your system running. No need to write drivers for different sensors or handle complex networking stacks, let Linux handle it for you. The OSD335x is completely supported in mainline Linux.

- **Smallest Form Factor**

The OSD335x integrates an ARM Processor, DDR3 Memory, 2 Power supplies, and Passives, over 100 components into a single [package as small as 21mm X 21mm](#). It is 60% smaller than a non-integrated solution. This provides superior performance in a package that can easily mount under the dash or in space constrained locations.

- **Robust Solutions:**

The [OSD335x is built to work in the harshest environments](#). It is rated to work in temperatures ranging from -40°C to 85°C. Also its plastic encapsulated mold makes it able to withstand the highest vibration environments.

- **Faster Time to Market:**

The OSD335x makes designing with a powerful ARM Cortex-A8 processor as easy as working with a Microcontroller. Spend less time on getting the processor to work and more time focusing on developing your product.

- **Get Started Today:**

Begin developing today. There are a number of open source development platforms available. We recommend looking at the [BeagleBoard.org](#)® [BeagleBone](#)® [Blue](#) and [OSD3358-SM-RED](#) as starting points for Fleet/Asset Tracking Systems.