Rapidise operates as an Original Design Manufacturer (ODM) leveraging its 12+ years of design and 25+ years of manufacturing experience to deliver complex dashcam and vehicle telematics solutions. The following case studies summarize three distinct dashcam projects based on Rapidise's proprietary RISE platforms.

Summarized Dashcam Case Studies

1. LTE Edge AI Box (Emergency Call System)

This project represents a high-volume engagement focused specifically on vehicle safety and compliance, targeting the rigorous Japanese market.

Element	Details and Outcomes
Objective	To enhance vehicle safety by developing an **advanced emergency call system** designed to automatically connect to an emergency call center upon accident detection.
Customer/Market	**Japan based Tier 1** partner.
Tech Stack	**Processor:** QCM6125 or SC668S-WF. **Platform:** RISE C1 Platform. **OS:** Android. **Connectivity:** LTE (4G) Communication, Wi-Fi, and Bluetooth. **Hardware:** Integrated compact **2-camera unit** (front and in-cabin).
Key Features	Includes Voice Call Functions (Microphone and Speaker), a **Dedicated SOS Button**, and the capability for **Video Data Transmission** to the emergency center following an accident.
Stage & Volume (LTV)	**Current Stage:** PVT (Production Validation Test). **LTV Volume: 400,000+** units.

2. Dual Camera Dashcam (North American Fleet Focus)

This solution emphasizes fleet management and driver behavior monitoring using high-end AI processing power.

Element	Details and Outcomes

Objective	Build a Dual Dash Camera (in-cabin and road-facing) for **Transport Fleets** to enable data access and management via a mobile application and cloud servers.
Customer/Market	Primarily targeted at transport fleets operating in the **North American region**.
Tech Stack	**Processor:** Qualcomm Processor **QCS5430**. **Platform: RISE X1 Platform** (featuring a 3.5 TOPS NPU for AI). **OS:** Android 13. **Connectivity:** LTE (4G), Wi-Fi, Bluetooth, GPS, **CAN Connectivity**, and **IMU Sensor**.
Key Features	Integration of advanced algorithms for detecting specific driver/vehicle behavior events such as **sudden braking and rapid acceleration**. Supports DMS/ADAS applications like Lane Departure Warning and Driver Drowsiness.
Stage & Volume (LTV)	ODM engagement is active. Stage and volume are not explicitly stated in the sources for this project.

3. Dual DashCam (SM6225 Multi-Regional Solution)
This project focuses on flexibility by offering multiple connectivity variants and extensive geographical deployment.

Element	Details and Outcomes
Objective	Build a Dual Dash Camera product with three distinct connectivity variants: **WiFi only, WiFi + LTE, and WiFi + Ethernet**. The aim is to integrate advanced DMS, ADAS, and IMU-based algorithms.
Customer/Market	Targeted for deployment across **MEA, North America, Africa, and Indian regions**.

Tech Stack	**Processor:** Qualcomm Processor **SM6225**. **Platform: RISE Y1 Platform** (featuring a 2 TOPS NPU for AI). **OS:** Android 13. **Connectivity:** LTE (4G), Wi-Fi, Bluetooth, GPS, and **CAN Connectivity**. Includes an **IMU Sensor**.
Key Features	Designed to deliver driver monitoring, safety, and multiple operational use cases through IMU-based algorithms. The availability of an **Ethernet** variant allows for specific integration scenarios.
Stage & Volume (LTV)	ODM engagement is active. Stage and volume are not explicitly stated in the sources for this project.

Transferable Work for OEM/Tier 1 Partners

Rapidise's work on these dashcam solutions provides several pre-validated and fully engineered modules highly transferable to other OEM/Tier 1 partners in the automotive industry.

1. **RISE Platform Hardware & Edge AI Integration:**
   - **Pre-optimized Modules:** The use of **RISE X1** (QCS5430) and **RISE Y1** (SM6225) platforms provides tested, high-performance computing modules for edge AI processing, eliminating the need for foundational hardware design.
   - **AI/Vision Stack:** The entire **Telep Library AI Portfolio**, which includes over 20 pre-developed ADAS/DMS algorithms (e.g., **Accident Detection, Front Collision Alert, Drowsiness Detection, Mobile Distraction**, and **Lane Departure Warning**) is available for immediate deployment and customization.
2. **Safety and Telematics Systems:**
   - **E-Call/SOS Functionality:** The comprehensive design and integration of the **advanced emergency call system** developed for the Japan AI Box, including the SOS button, voice call functions, and automatic accident-triggered video transmission, is a ready-to-use safety module.
   - **Data Acquisition and Cloud Analytics:** Proven integration of **CAN Connectivity** and IMU sensors to collect raw vehicle data, coupled with the **Rapidise ADAS & DMS Analytics Dashboard** and **Device Management & Analytics** platform in the cloud (AWS, Azure, GCP).
3. **Advanced Manufacturing Capabilities:**
   - **High-Volume Readiness:** The capacity to handle large LTV volumes, demonstrated by the 400,000+ unit projection for the Japan AI Box.
   - **Specialized Assembly:** Expertise in **Camera Module Assembly** performed in an **ISO Class 6 Clean Room**, which ensures high-quality optical components necessary for reliable computer vision systems.
   - **Vehicle Testing:** Access to specialized testing infrastructure, including the Pre-certification Lab and reliability testing involving a **Vehicle Cold Chamber** and **Chassis Dynamometer**, crucial for automotive-grade product validation.