

## Mistral Announces Sensor Fusion Kit Using TI mmWave Sensors and Jacinto™ TDA3x Processors for Camera Vision

*Kit provides advanced ADAS capabilities using Vision Analytics and sensor data fusion in real-time.*

**Bangalore, India, Thursday, 04 April 2019:** Mistral Solutions, a leading technology design and system engineering company, today announced its Sensor Fusion Kit, an integrated platform using camera vision and a RADAR module featuring Texas Instruments (TI) mmWave sensors and Jacinto TDA3x processors, for automotive advanced driver assistance systems (ADAS).

Using the Jacinto TDA3 processor for vision analytics and TI mmWave high-resolution AWR1243 and AWR1843 chips for automotive radar, Mistral's Sensor Fusion Kit provides integrated camera and sensor fusion processing capabilities, offering the accuracy and redundancy required for autonomous driving applications.

The Sensor Fusion Kit is uniquely designed to provide high accuracy along with superior imaging capabilities.

The Sensor Fusion Kit's RADAR module consists of a radio frequency (RF) board containing the antenna and TI mmWave sensors, and a camera module that includes a camera sensor mounted on a processor board.

The software platform delivers synchronized point cloud and video data from the sensors. Complex post processing and ADAS video and vision analytics algorithms run on the TI TDA3 processor board. Raw sensor data output is made available from the RADAR Module and camera sensor via CAN/LVDS/CSI ports for enhanced algorithm development. The platform supports integrated GigE, CAN and other serial interfaces for power and in-vehicle connectivity.

The module has a built-in self-test and self-calibrating RF section, lowering production test cost and supporting periodic in-field tests.

The modular design and size of the hardware enables customers to design optimized enclosures to suit specific applications.

Features	
•	<i>Heterogeneous and scalable platform</i>
•	<i>Compact Modular Design</i>
•	<i>DSP and 2MB memory</i>
•	<i>Camera sensors</i>
•	<i>GigE and CAN Interface</i>
•	<i>Fusion Vision Analytics</i>
•	<i>ASIL targeted</i>
•	<i>Operating Temperature Range: -40°C to 125°C</i>
•	<i>Dimensions:</i>
○	<i>Sensor Fusion kit: 76mm x 115mm</i>
○	<i>Standalone RADAR Module: 60mm x 40mm</i>



The Sensor Fusion Kit is available with three RF antenna variants to cater to different ADAS applications:

- Ultra-Short Range radar (ODS)
- Short Range radar (Three Elements)
- Mid-Range radar (Tapered Elements)

In addition to the Sensor Fusion Kit, Mistral also offers its RADAR modules as stand-alone sensor and antenna board variants.

ADAS applications that the Sensor Fusion Kit caters to includes: Object Detection, Pedestrian Detection, Traffic Sign Recognition, Lane Detection and Departure Warning, Lane tracking, Drive Recording, Automatic Emergency Braking, Adaptive Cruise Control, Forward Collision Warning and Parking assist.

“Mistral’s Sensor Fusion Kit can bring in ground-breaking changes to ADAS applications. The Sensor Fusion Kit is designed to deliver high accuracy and high processing power. The integrated camera in the platform shall accelerate the product development cycle and lower cost. For Mistral, this is a milestone product, adding to our range of form factor modules that help customers realize their product vision based on market trends.” said Srinivas Panapakam, VP – PES Sales & Business development, Mistral Solutions.

“The software in the Sensor Fusion Kit performs Object Identification, Classification and Annotates Video stream with Radar Range data for ADAS functionality,” said Selvaraj Kaliyappan, Vice President – Engineering, Mistral Solutions. “This heterogeneous and scalable software platform provides a mix of high performance and computing power for advanced post processing and ADAS video / vision analytics. The camera and TI mmWave sensors in the Kit complement each other for object identification and calculating range, velocity and elevation.”

Mistral also offers customization services for adapting the Sensor Fusion Kit to different form factor sizes and interfaces. Mistral can also support with IP6x compliant mechanical enclosure design and development. With expertise in Automotive Radar and related imaging sensors and video analytics, Mistral can help developers reduce time to market for their products while ensuring high reliability and low cost of development.

For more information, visit [www.mistralsolutions.com/sensor-fusion](http://www.mistralsolutions.com/sensor-fusion). For pricing and customization, please contact [sales@mistralsolutions.com](mailto:sales@mistralsolutions.com).

### **About Mistral**

Mistral is a technology design and systems engineering company providing end-to-end solutions for product design and application deployment. Mistral is focused in three business domains: Product Engineering Services, Aerospace & Defence and Homeland Security. Mistral provides total solutions for a given requirement, which may include hardware design, embedded software development, systems integration and customized turnkey solutions

Mistral’s Product Engineering Services are delivered through a proven development process, designed for embedded product development. Mistral’s hardware and software team works together in a seamless manner providing expert product designs covering board and FPGA Designs, BSP and Firmware developments, Embedded Application developments, integration of 3rd party solutions, testing & validation, product prototyping, production coordination and product sustenance services. Mistral Solutions is a Platinum Member of Texas Instrument Design Network offering development platforms, reference designs and services in the area of software & hardware design, development and consulting on various TI DSPs platform.

### **Contact:**

**Akhila DS**, Assistant General Manager – Marketing

Mistral Solutions Pvt. Ltd.

No.60, ‘Adarsh Regent’, 100 Ft. Ring Road,

Domlur Extension, Bangalore – 560071

Tel: 91 80 4562 1557

Email: [akhila@mistralsolutions.com](mailto:akhila@mistralsolutions.com)