Novel Sensor For Low-cost Automotive Detection Systems

Saelig announces the availability of the **PS25203 EPIC Sensor** (Electric Potential Integrated Circuit) for a wide range of contactless ECG and movement sensing in automotive applications, including driver fatigue monitoring and seat occupancy. The **EPIC sensor** is a completely new, award winning, patented sensor that can rapidly measure electric potential sources such as electrophysiological signals or spatial electric fields.

The **EPIC Sensor** revolutionizes the way movement sensing, medical ECG/EEG/EOG, proximity non-touch switching, or even gesture recognition signals are taken in vehicles. It can be used as a dry contact ECG sensor without the need for potentially dangerous low impedance circuits across the heart. By detecting changes in the electric field, the EPIC sensor can also drive a relay to act as a simple non-touch electric switch. The EPIC sensor can be employed in a proximity mode or to detect specific kinds of movement as a gesture recognition device.

Alan Lowne, CEO of Plessey's USA distributor Saelig Company, Inc., comments, "With the EPIC sensor chip, discrete movements of the human body can be detected - even at a distance, as in specific hand motions. Manufacturers are constantly trying to differentiate their products by improved user features and comfort inside the car. EPIC sensors provide that opportunity."

EPIC Sensor PS25203 applications include: driver monitoring for health and alertness by detecting heart rate and respiration; determining car occupancy to adjust the ride, handling and air bag deployment depending on the size and location of occupants. By adjusting the DSP and amplification circuitry, the sensors can be tuned for detection at a distance as required for differing automotive applications. **EPIC** sensor electrodes can be easily and discretely incorporated inside car seat backs to acquire the necessary biometric data.

PS25203 EPIC sensors are in in commercial production now in a custom 4-pin PCB hybrid package measuring 10.5mm x 10.5mm x 3.45mm.

Video demonstrations of the EPIC sensor are at http://www.plesseysemiconductors.com/media_video.html [1].

For detailed specifications, free technical assistance, or additional information, please contact Saelig by visiting http://www.saelig.com/category/MFR0113.htm [2].

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