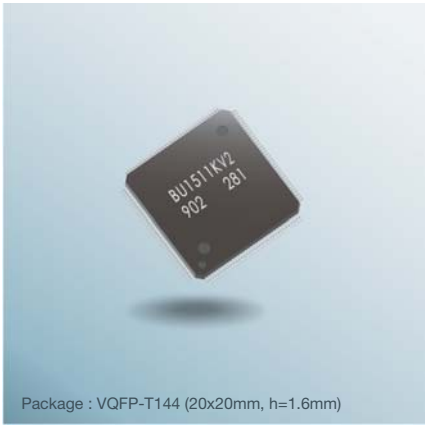
Monolithic Drive Recorder IC

BU1511KV2



Package : VQFP-T144 (20x20mm, h=1.6mm)

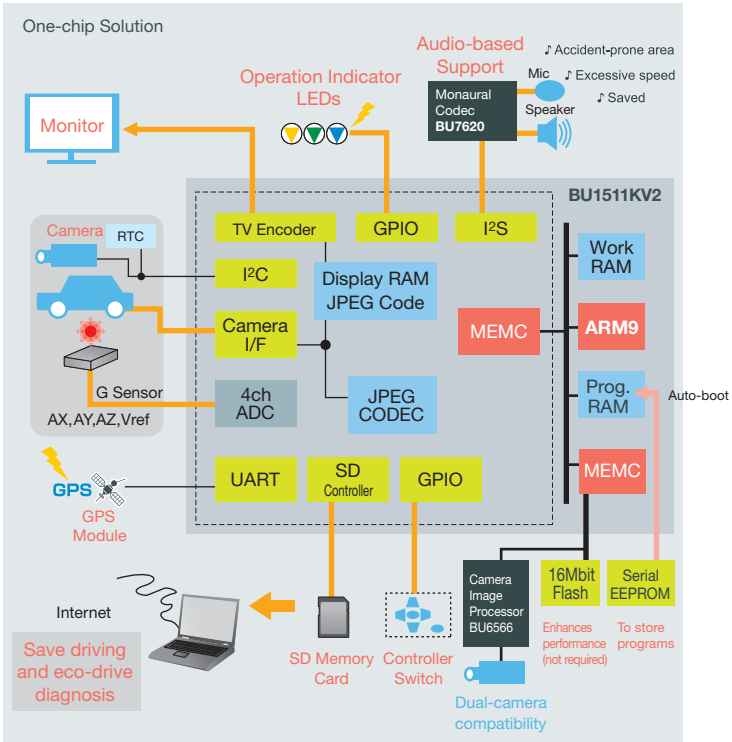
Supports safe, eco-friendly driving

Product outline

ROHM's development concept is to offer high performance drive recorders that do not require a PC for widespread adoption in vehicles of all types. Drive recorder effectiveness has already been confirmed in taxis, buses, trucks, and other commercial vehicles, and it is anticipated that utilization in consumer vehicles will result in fewer accidents and improved fuel efficiency. The BU1511KV2 integrates a TV encoder, and enables simple configuration by connecting a G sensor (acceleration sensor), camera, and SD card. In addition, a built-in ARM9 processor, combined with specialized software, supports safe, environmentally friendly driving.

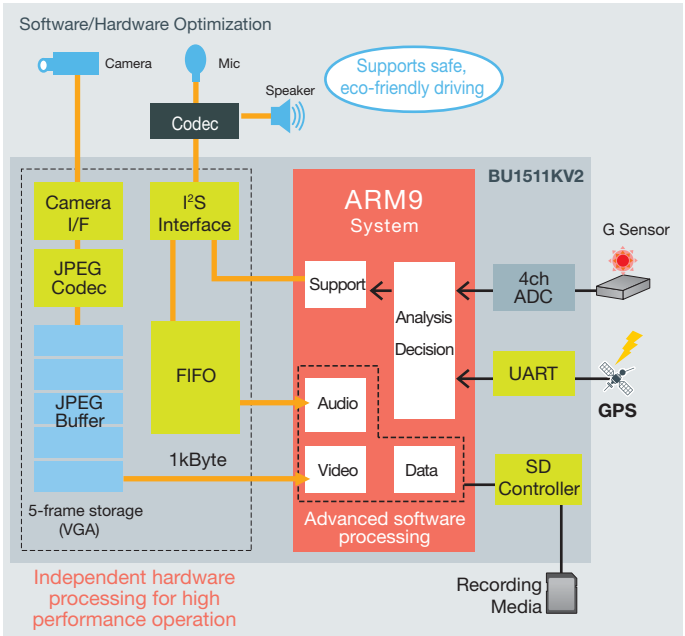
Simple, single-chip system structure

Configuration is easy with ROHM's drive recorder IC. A TV encoder is already built-in. Simply connect a G sensor, camera, and SD card. In addition, software and hardware optimization ensure lower overall costs.



Hardware and software optimization improves performance

Separate hardware-based circuitry is utilized for the JPEG codec and I²S interface, providing 5-frame buffering for JPEG compression (VGA) and 1kByte FIFO for I²S. In addition, interruption-free operation makes analysis and high-performance software processing by the ARM9 CPU core possible with signals received from the G sensor and GPS module.



The content specified in this document is correct as of 22th April, 2009.

ROHM Co.,Ltd.
21 Saiin Mizosaki-cho, Ukyo-ku,
Kyoto 615-8585 Japan
TEL : +81-75-311-2121 FAX : +81-75-315-0172
www.rohm.com

New Concept

Drive Recorder for Eco-friendly Driving

Contributes to more efficient, environmentally friendly driving

[ECO 1] Greater fuel efficiency and safer driving

Current drive recorders have been proven to reduce accident rates and improve fuel efficiency in commercial vehicles such as taxis, trucks, and buses. However, until now there were no high performance drive recorders designed for consumer cars. Existing models were useful only during accidents. Plus installation was often expensive.

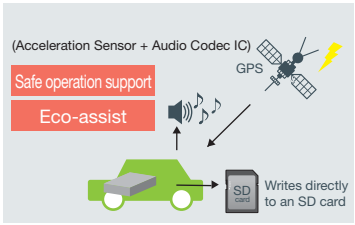
Conventional drive recorders

1. Useful only during accidents
2. PC required
3. Expensive, difficult to install

Greatly Enhanced

ROHM's proposed drive recorder

1. Multifunction	Safe operation/ Eco-assist tools
2. No PC required	Confirmation via TV, car navigation system, or mobile phone
3. Inexpensive	10,000 yen/unit price



[ECO 2] Significant, far-reaching impact

Utilizing the driver recorder as a support tool provides greater awareness for safer, more efficient driving.

[Trial calculation in Japan]

Incorporating eco-drive recorders is expected to have multiple, widespread effects.

Reduced CO_2 — Reduces CO_2 emissions by about 31 million tons *1

Improved Fuel Efficiency — 1,400 billion yen (economic effects) *2

Fewer Accidents *3

1st Party Personal Injury Accidents	3rd Party Personal Injury Accidents	Property Damage Accidents
23%	39%	13%

*1 Yearly mileage, non-commercial vehicles (77 million total) : 8645km (per vehicle)
Based on 10km/ltr standard fuel consumption a 20% improvement in efficiency results in 12.5km/ltr fuel economy, which equates to a 46.4g/km reduction in CO_2 emissions via gasoline conversion. Yearly, this comes out to a 401.4kg reduction in CO_2 emissions per vehicle. Nationwide the total amount reduced is:
401.4kg CO_2 x 77 million vehicles = 30.91 million t → 31 million t

*2 Improving fuel efficiency by 20% is estimated to save 17ltr/year per vehicle:
17ltr/vehicle x 105 yen/ltr x 77million vehicles = 1397.9 billion yen → 1,400 billion yen

*3 Reference data (2005)
Report on the effects of on-board video drive recorders
(3/2006 : Road Transport Bureau ; Ministry of Land, Infrastructure, Transport, and Tourism)

Drive Recorder IC
BU1511KV2

Social action in Semiconductors

ROHM Co.,Ltd.
21 Saiin Mizosaki-cho, Ukyo-ku,
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