

## Overview

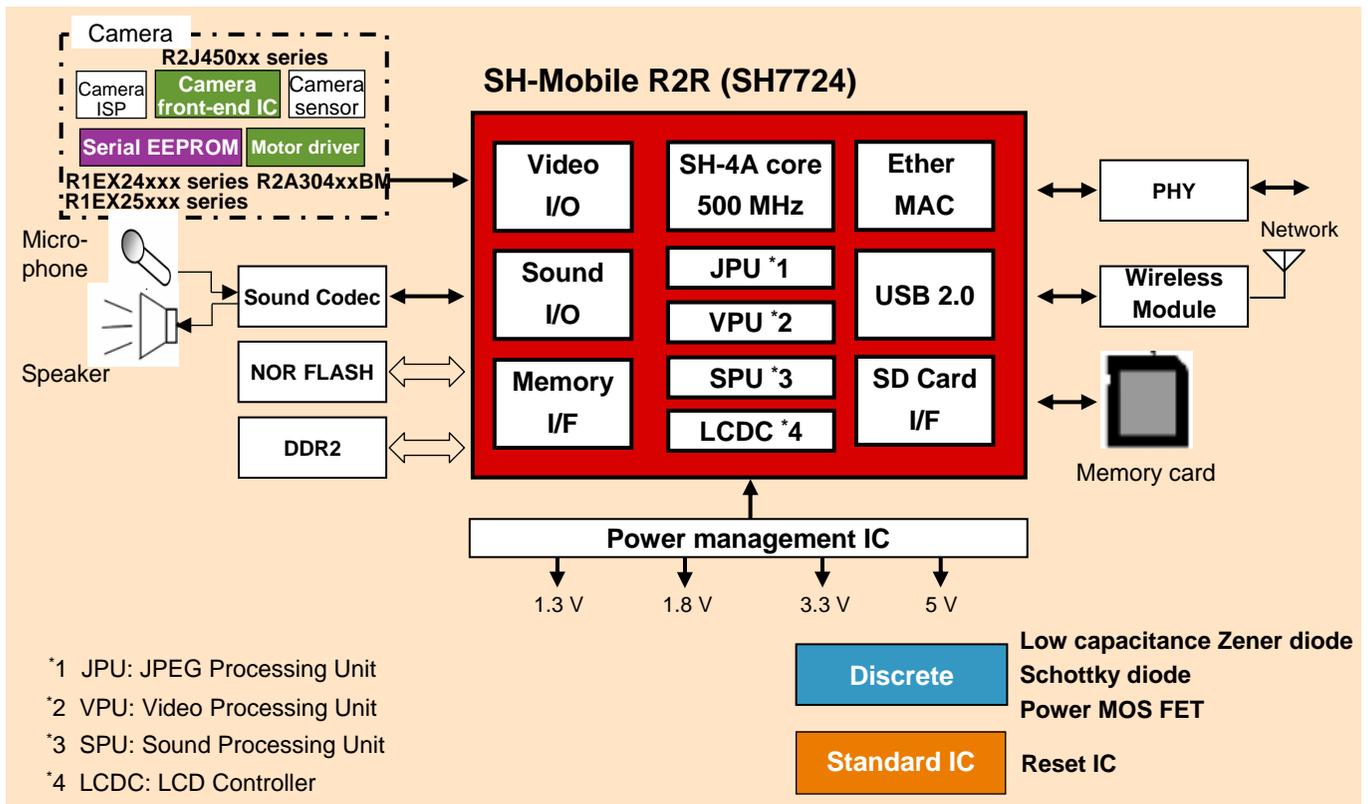


In the network camera field, the spread of remote control surveillance cameras and demands for higher image quality and eco-friendliness (energy-saving) are accelerating the shift away from conventional analog CCTV cameras. The market is expected to continue to expand in the future.

The Renesas SH-MobileR2R (SH7724) microcontroller equipped with the MS7724 Linux platform is optimal for network camera applications. The platform comes with the Linux Kernel BSP (Board Support Package) sample program, and software for system development such as evaluation middleware (H.264/MPEG4 codec middleware) and sample applications, making it possible to start device evaluation and system development immediately after purchase, which helps shorten system development time. The MS7724 can encode and decode HD (1280 x 720) size images at 30 fps, satisfying the demand for higher image quality for network cameras.

In addition, the SH-MobileR2R (SH7724) has two channels of camera input, making it a highly versatile device that is optimal for products using camera monitoring functions. By utilizing the H.264/MPEG4 codec and JPEG codec that are built-in as hardware IP and the 10/100 Mbps Ether MAC and LCD controller, the SH-MobileR2R (SH7724) can be used not only in network cameras but also in applications such as digital signage systems, TV conference systems, automotive backing & side monitoring, and drive recorders. The Renesas lineup of front-end ICs (R2J450xx series) and ASSPs such as motor drivers (R2A304xxBM series) is also suitable for use in the camera unit.

## System Block Diagram



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## Recommended Products

As of October 2010

Block	Semiconductor device	Recommended products	Features, etc.
Signal Processing unit/ Network Application	Microprocessor	SH-Mobile R2R SH7724 (R8A77240D500BG)	High performance, low power consumption, supports HD playback/recording support
Camera	Motor driver IC	R2A304xxBM	Compact, thin, low power consumption
	Camera front-end IC	R2J450xx series, other	High-precision/high performance, low power consumption
	EEPROM	R1EX24xxx series	I <sup>2</sup> C bus interface *1
R1EX25xxx series		SP bus interface *2	
Discrete	Low capacity Zener diode	RKZxxKP, RKZxxKL series	Low capacitance, small package
	Schottky diode	HRW0202A, other	Low capacitance, small package
	Power MOS FET	HAT1021R, other	Low on-resistance, high-speed switching, small package
Standard IC	Reset IC	RNA50C27	For 3.3V, 1.8V dual power supply MCU

\*1 I<sup>2</sup>C: Inter-Integrated Circuit

\*2 SPI: Serial Peripheral Interface

## Related Application Notes/Sample Code

Title	Document No.
SH7724 Linux BSP (Board Support Package)	-

## Related Software

Title	Document No.
Audio codec	-
FAT file system	-
Sound middleware	-
Super-resolution middleware	-
Video middleware	-

## Related Boards

Name	Part No.
SuperH Linux Platform	R0P7724LC0021RL
SuperH Linux Platform (option: camera board)	R0P7724LE0021RL
SuperH Linux Platform (option: LCD board)	R0P7724LE0011RL

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