



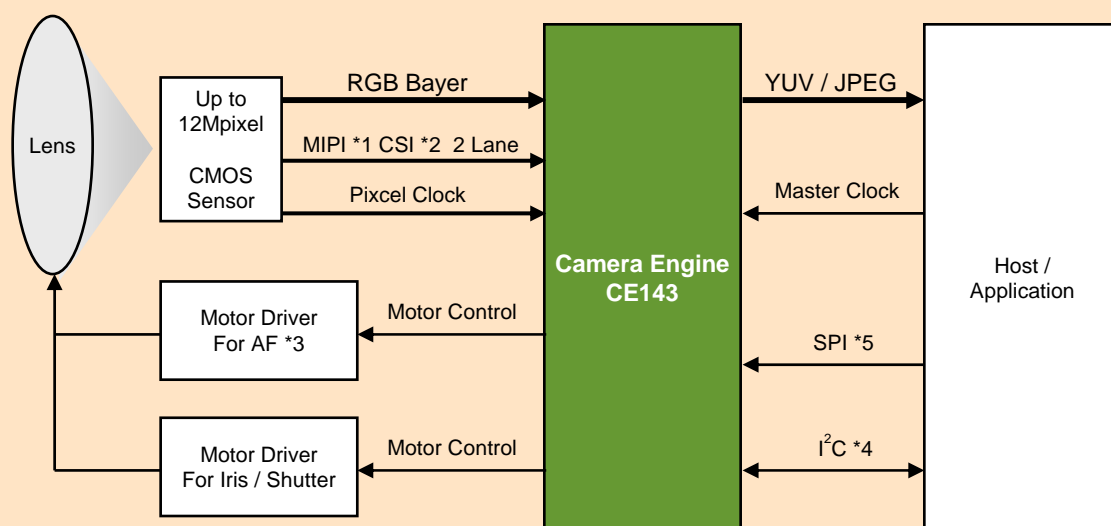
Overview

Camera function is firmly established as an essential feature of nearly all mobile phones with data transmission functions. The demands for camera functions and performance increase every year, and have become highly complex, incorporating not only high pixel count and high resolution, but also multifunctionality, including anti-blurring functions and noise reduction for photos taken in the dark. On top of this, customers want their phone cameras to be more compact than specialized camera devices.

To meet these demands, Renesas has developed the LSI camera engine "CE143", designed specifically for mobile phone cameras. By connecting to a conventional application processor, high-performance camera functions can be incorporated. In response to the demand for higher pixel count, CE143 supports 12 million pixels for static images and 30 fps full HD video recording. In terms of multifunctionality, a face detection function supporting up to five faces and digital zoom using single frame super resolution technology have been added. In particular, the latter enables high quality zoom to be achieved even in cameras lacking optical zoom.

Although recent application processors have increased in functionality and a camera is now a standard equipment for cellular phone, Renesas Electronics' camera engine stands above other competitors' products.

System Block Diagram



- *1 MIPI : Mobile Industry Processor Interface
- *2 CSI : Camera Serial Interface
- *3 AF : Auto Focus
- *4 I²C : Inetr Integrated Circuit
- *5 SPI : Serial Peripheral Interface

Recommended Products

As of July 2010

Block	Semiconductor device	Recommended products	Features, etc.
ASSP for mobile phone camera	Camera engine	CE143	12 megapixels, face detection, single frame super resolution

Notes:

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Renesas Electronics America Inc.

 2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A.
 Tel: +1-408-588-6000, Fax: +1-408-588-6130

Renesas Electronics Canada Limited

 1101 Nicholson Road, Newmarket, Ontario L3Y 9C3, Canada
 Tel: +1-905-898-5441, Fax: +1-905-898-3220

Renesas Electronics Europe Limited

 Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K
 Tel: +44-1628-585-100, Fax: +44-1628-585-900

Renesas Electronics Europe GmbH

 Arcadiastrasse 10, 40472 Düsseldorf, Germany
 Tel: +49-211-65030, Fax: +49-211-6503-1327^L
Renesas Electronics (China) Co., Ltd.

 7th Floor, Quantum Plaza, No.27 ZhiChunLu Haidian District, Beijing 100083, P.R.China
 Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

Renesas Electronics (Shanghai) Co., Ltd.

 Unit 204, 205, AZIA Center, No.1233 Lujiazui Ring Rd., Pudong District, Shanghai 200120, China
 Tel: +86-21-5877-1818, Fax: +86-21-6887-7858 / -7898

Renesas Electronics Hong Kong Limited

 Unit 1601-1613, 16/F., Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong
 Tel: +852-2886-9318, Fax: +852 2886-9022/9044

Renesas Electronics Taiwan Co., Ltd.

 7F, No. 363 Fu Shing North Road Taipei, Taiwan
 Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

Renesas Electronics Singapore Pte. Ltd.

 1 harbourFront Avenue, #06-10, keppel Bay Tower, Singapore 098632
 Tel: +65-6213-0200, Fax: +65-6278-8001

Renesas Electronics Malaysia Sdn.Bhd.

 Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
 Tel: +60-3-7955-9390, Fax: +60-3-7955-9510

Renesas Electronics Korea Co., Ltd.

 11F., Samik Lavied' or Bldg., 720-2 Yeoksam-Dong, Kangnam-Ku, Seoul 135-080, Korea
 Tel: +82-2-558-3737, Fax: +82-2-558-5141

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