

CCD Image Sensors for DSCs (Digital Still Cameras)

Overview

Providing a variety of CCD Image Sensors for the multimedia application field that is expanding almost infinitely.

The industry's state-of-the-art technology employed ensures higher performance and expanded functions than those of conventional models, thus offering a wide range of applications.

Features

- Offering a lineup of models with 350k to 5.36M pixels in total
- Providing high-resolution images almost as fine as photographs
- High sensitivity, a wide dynamic range
- A newly developed plastic package employed
- Ensuring ease of system construction with peripheral ICs/LSIs



Specifications

Part No.	Size	Nominal pixel count in total	Effective pixel count (*) (H) (V)	Scanning mode	Saturation output Typ. (mV)	Sensitivity (F8.0) Typ. (mV)	Aspect ratio	Package
MN39321PD	3.1 mm (Type-1/6)	350k	659 × 494	PS	450	200	4 : 3	WDIP014-P-0350A
MN39472PJ	6.0 mm (Type-1/3.2)	2.11M	1648 × 1236	IS	550	300	4 : 3	WDIP016-P-0500C
▲MN39400	6.6 mm (Type-1/3.2)	3.34M	2088 × 1550	IS	800	350	4 : 3	WDIP018-P-0400A
MN39592PJ	6.9 mm (Type-1/2.5)	3.34M	2088 × 1550	IS	550	300	4 : 3	WDIP020-P-0500A
MN39482PT	6.9 mm (Type-1/2.5)	4.24M	2336 × 1774	IS	800	330	4 : 3	WDIP018-P-0400A
MN39593PT	9.1 mm (Type-1/1.8)	5.36M	2620 × 1984	IS	700	320	4 : 3	WDIP020-P-0500A

(*): The effective pixel count includes the transient pixels. ▲: Under development

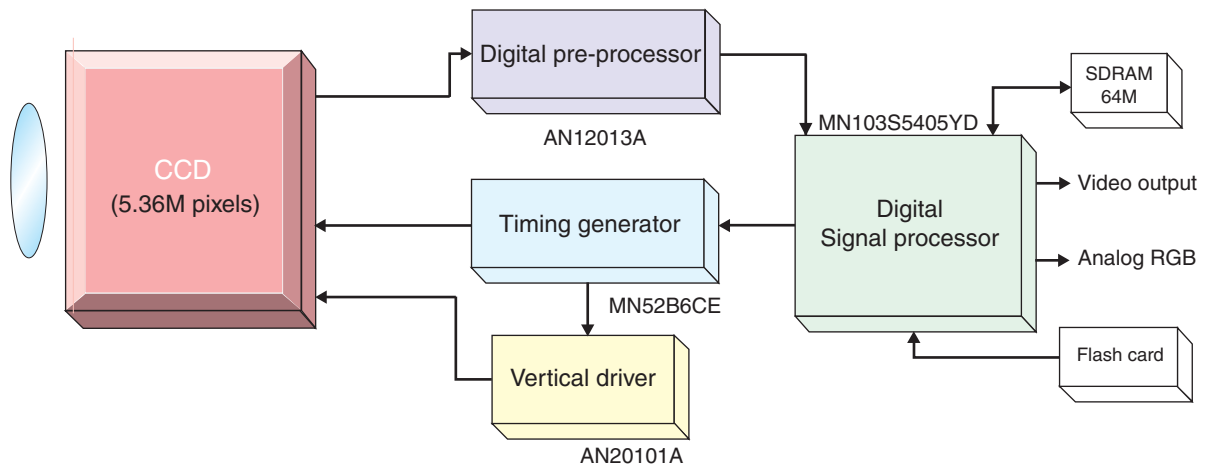
[Symbols] PS: Progressive Scan IS: Interlace Scan

Peripheral ICs/LSIs

	Part No.	Operating voltage (V)	Process	Function	Package	Pin count
Timing generator	MN5296-1	3.3	CMOS	Compatible with 2.31M/2.11M/1.33M pixels CCD	TQFP	48
	MN52B6CE	3.3	CMOS	Compatible with Type-1/1.8 5M pixels CCD	TQFP	48
Vertical driver	AN20101A	15.0, 15.0, 3.3, 0, -7.5	CMOS	Compatible with interlace CCD3:1	QFN	28
	MN31121SA	3.3, 15.0, -7.0	CMOS	Multi-power supply type	SSOP	20
	MN3114	5.0, 15.0, -7.0	CMOS	Multi-power supply type	SSOP	24
Digital Pre-processor	AN12012A	2.7 to 3.6	CMOS	CDS + AGC + 10-bitADC incorporated	LQFP	48
	AN12013A	2.7 to 3.6	CMOS	CDS + AGC + 12-bitADC incorporated	LQFP	48
	AN12050A	2.7 to 3.6	CMOS	TG + CDS + AGC + 10-bitADC incorporated	LQFP	48
Digital Signal processor	MN673282A	3.0 to 3.6	CMOS	Compatible with 2.31M/1.33M pixels CCD	LQFP	164
	MN103S5405YD	2.7 to 3.6	CMOS	Compatible with over 1.33M pixels CCD	CSP	344

System Configuration

CCD Camera System (I)



CCD Camera System (II)

