

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 ^(*)		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
MN39473PT	6.6 mm (Type-1/2.7)	2.11M	1648	1236	IS	600	260	4 : 3	WDIP016-P-0500C
▲MN39480PT	6.6 mm (Type-1/2.7)	3.44M	2088	1550	IS	800	350	4 : 3	WDIP018-P-0400A
MN39474PT	6.9 mm (Type-1/2.6)	2.31M	1816	1208	IS	550	300	3 : 2	WDIP020-P-0500A
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

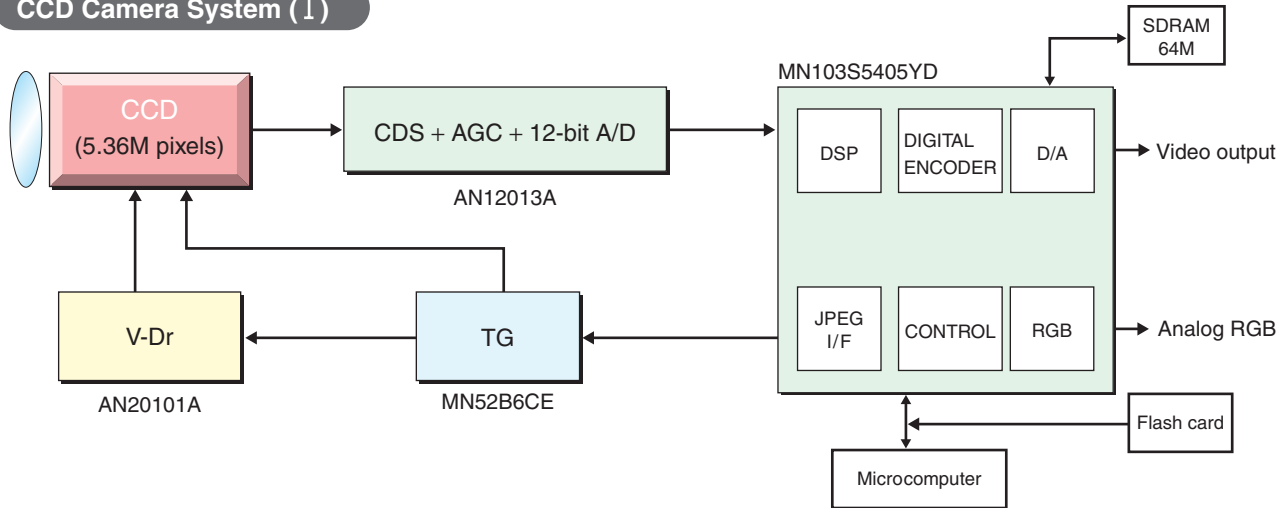
[Symbols] PS: Progressive Scan IS: Interlace Scan

Peripheral ICs/LSIs

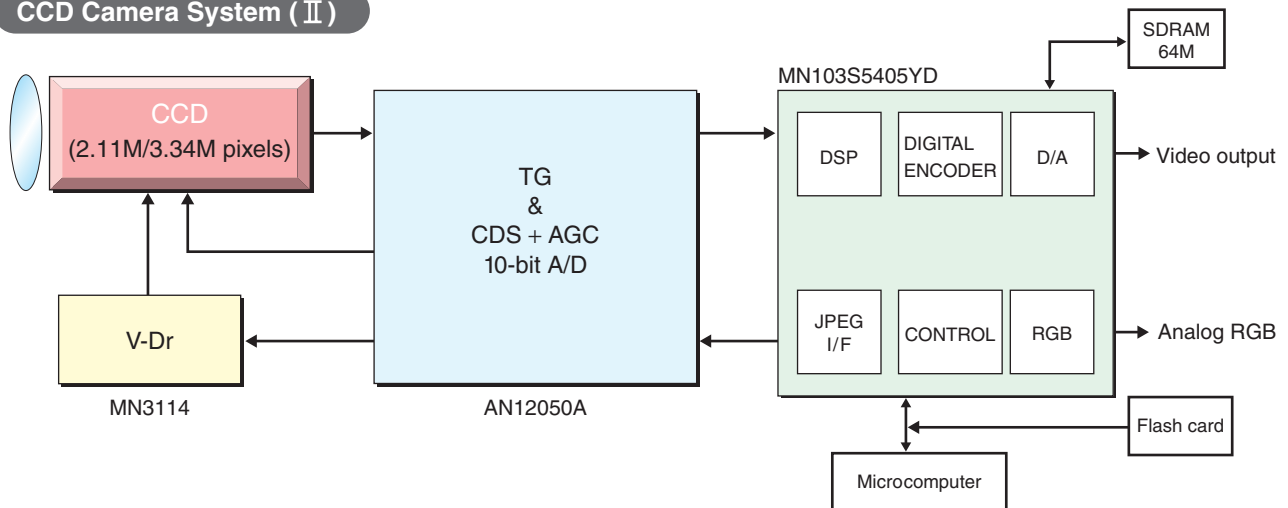
	Part No.	Operating voltage (V)	Process	Function	Package	Pin count
Timing generator	MN5296-1	3.3	CMOS	Compatible with 2.31M/2.11M/1.33M pixels CCD	TQFP	48
	MN52B6CE	3.3	CMOS	Compatible with Type-1/1.8 5M pixels CCD	TQFP	48
Vertical driver	AN20101A	15.0, 15.0, 3.3, 0, -7.5	CMOS	Compatible with interlace 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
Signal 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
	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)



CCD Camera System (III)

