Ordering number : EN*5016

Thick Film Hybrid IC

SIS3100

Color Image Sensor Camera Module

Preliminary

Overview

This camera module allows the creation of a miniature color video camera by simply providing a case and connecting power supply and video output. Cameras based on this module using digital signal processing are optimal for a wide range of new application areas, from all types of image input devices for multimedia applications to computer controlled video conferencing systems and monitor cameras.

Features

- The use of digital signal processing allows this product to be used in a wide range of application areas.
- Ultra-miniature 1/5 inch 250,000 pixel color image sensor camera module
- 12 V DC single voltage power supply
- Composite video output
- Electronic auto-iris
- Mirror function
- Includes a special-purpose 1/5 inch image sensor lens.

Specifications

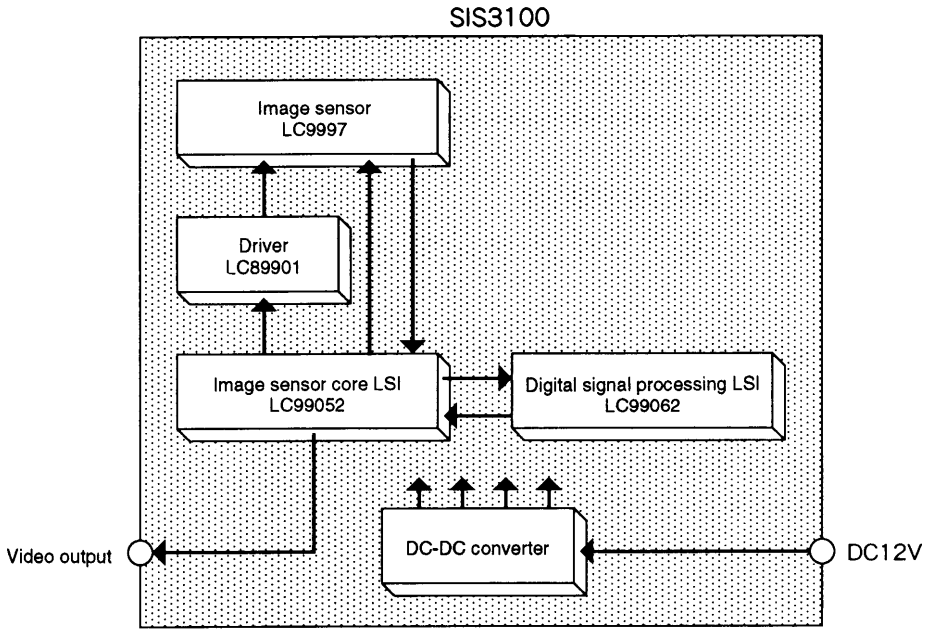
External dimensions	When the head and main unit are used as a single unit		61.0 mm × 110.0 mm (typ.)
	When the head and main unit are separated	Head	45.0 mm × 35.0 mm (typ.)
		Main unit	45.0 mm × 60.0 mm (typ.)
Power supply	DC 12 V ± 3 V		
Current consumption	170 mA (typ.)		
Image sensor	LC9997 (1/5 inch 250,000 pixel color image sensor)		
Effective pixel count	508H × 492V		
Synchronization scheme	Internal synchronization		
Video output	1 Vp-p (typ.)/75 Ω		
γ correction	0.45 (typ.)		
Horizontal resolution	220 TV lines (typ.)		
Iris	Electronic auto-iris		
Lens	F1.9, angle of view: 37° vertical, 48° horizontal		
Operating temperature	0 to +40°C		
Storage temperature	–20 to +60°C		
Smear	0.04% (typ.)		

Note: An extraneous radiation test is not performed.

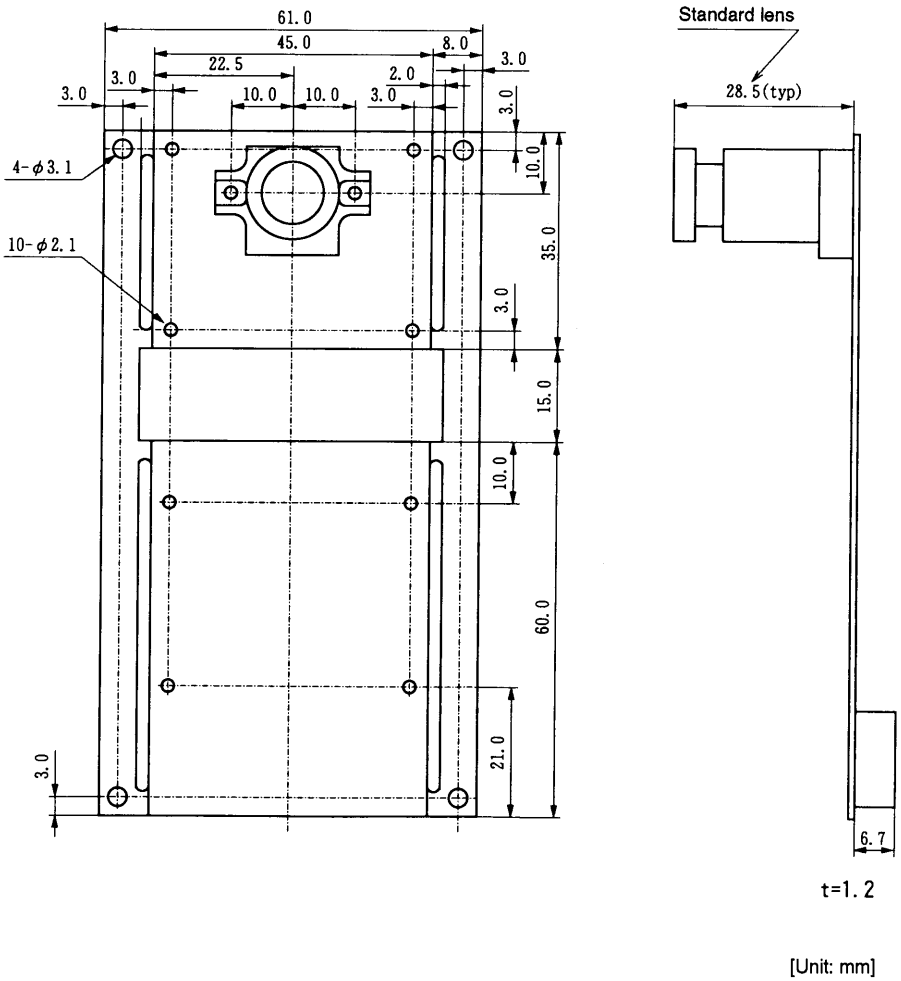
SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Block Diagram



External Dimensions

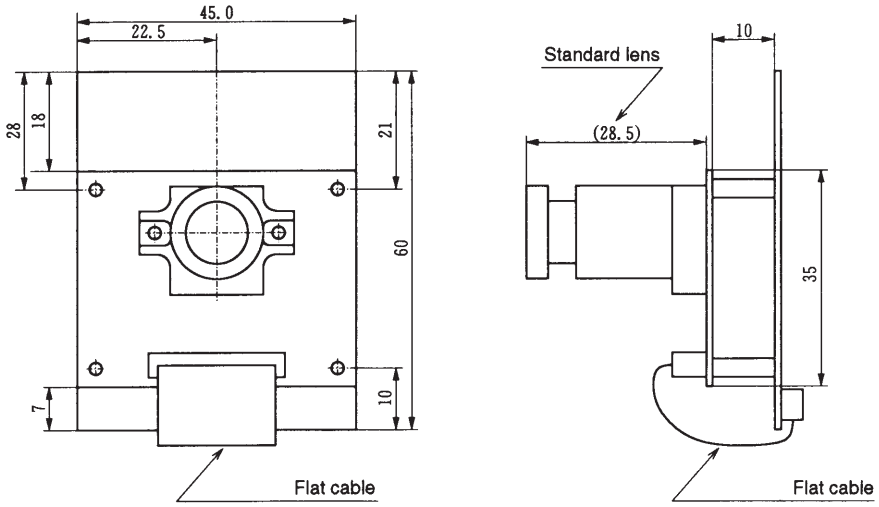


[Unit: mm]

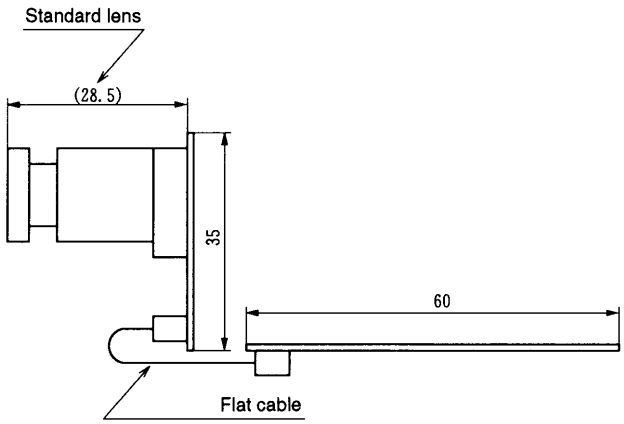
Assembly Variations

The SIS3100 supports the following assembly variations, since the head and the main unit can be separated.

1. Head and main unit overlapped



2. Head and main unit mounted perpendicularly



External Connections

① DC: +12 V input
② GND: Power supply system ground
③ CONT: Control pin on the DC-DC converter
④ GND: Power supply system ground
⑤ VIDEO: Video output
⑥ GND: Video system ground
Note: Pins 3 and 4 are normally left open.

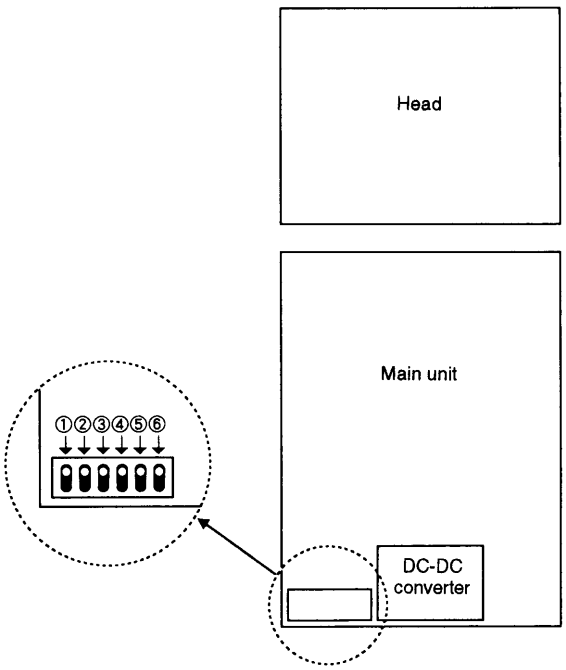


Image Sensor Module Usage Notes

1. Contamination or soiling of the optical system parts can result in image quality degradation. Do not allow dirt, dust, organic solvents, oils, or other foreign matter to get on the lens.
2. When handling a printed circuit board, handle the board only by the corners and avoid touching the components mounted on the board if at all possible.
3. Since applying bending stresses to printed circuit boards can result in solder cracks and other problems, avoid applying such stresses to the board. In particular, avoid applying bending stresses to the printed circuit board when separating the board at the V-notch section.
4. Do not apply excessive mechanical stresses to the lens or other parts of the module.
5. Since this module uses components that are sensitive to static electric discharges, personnel and equipment must be grounded. As a safety precaution, insert a resistor of about 1 MΩ between ground and the personnel grounding bracelet used.
6. Before turning on the power, reconfirm that all connections between the module and external equipment and power supplies are correct and secure.