



# 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.

■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

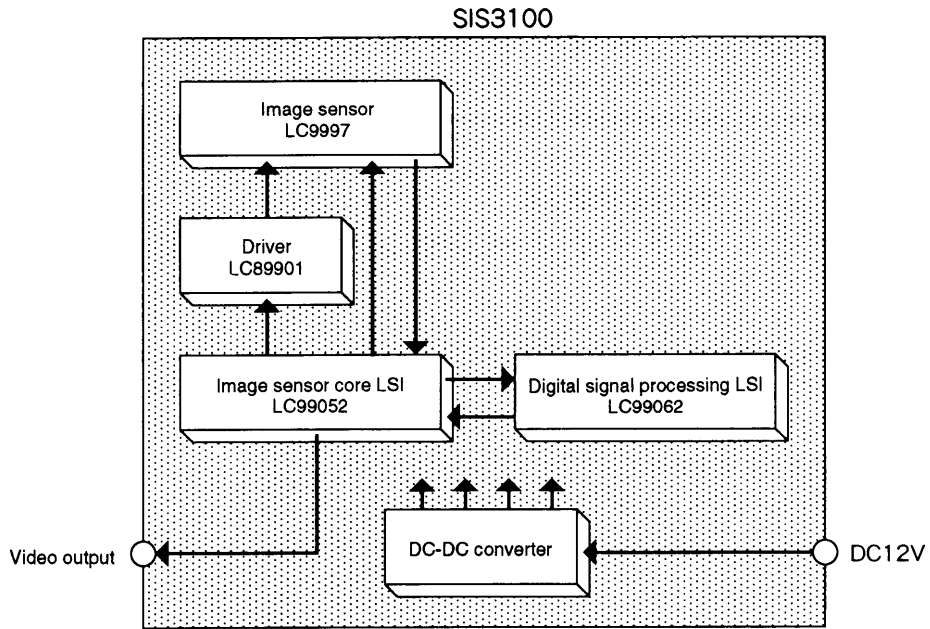
■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

**SANYO Electric Co.,Ltd. Semiconductor Business Headquarters**

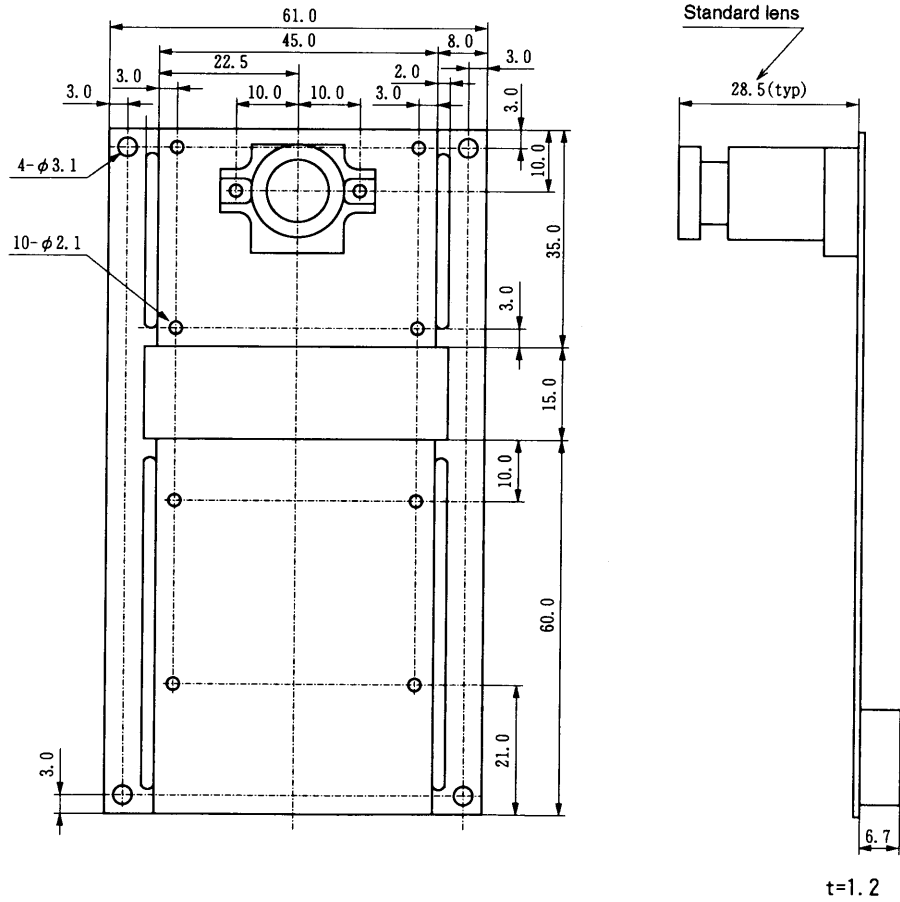
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

# SIS3100

## Block Diagram



## External Dimensions

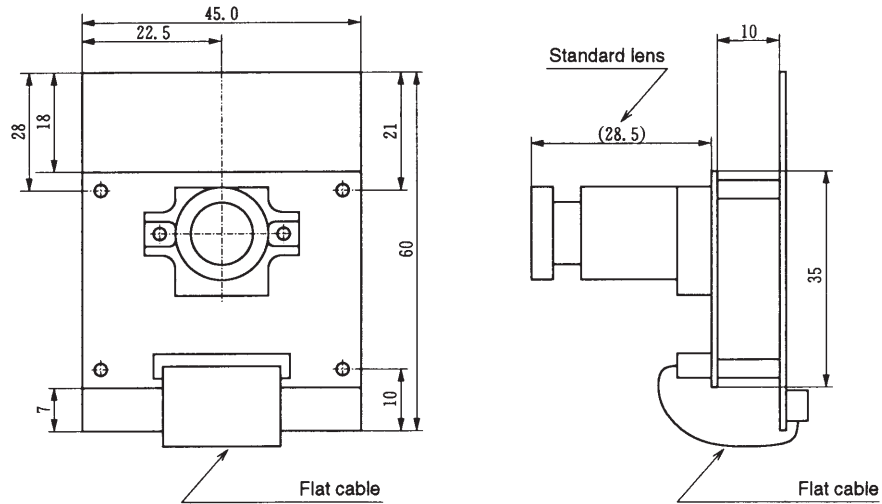


[Unit: mm]

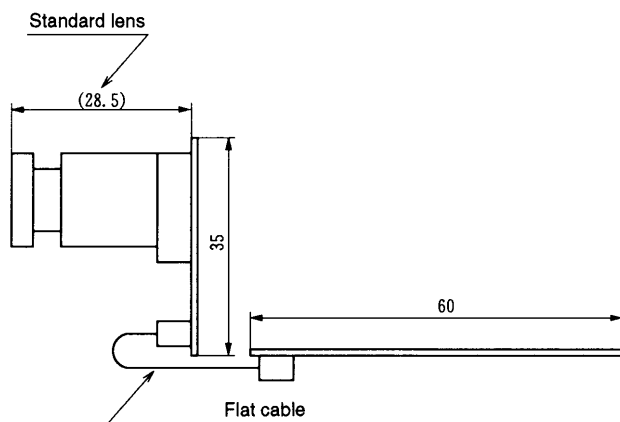
### Assembly Variations

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

1. Head and main unit overlapped



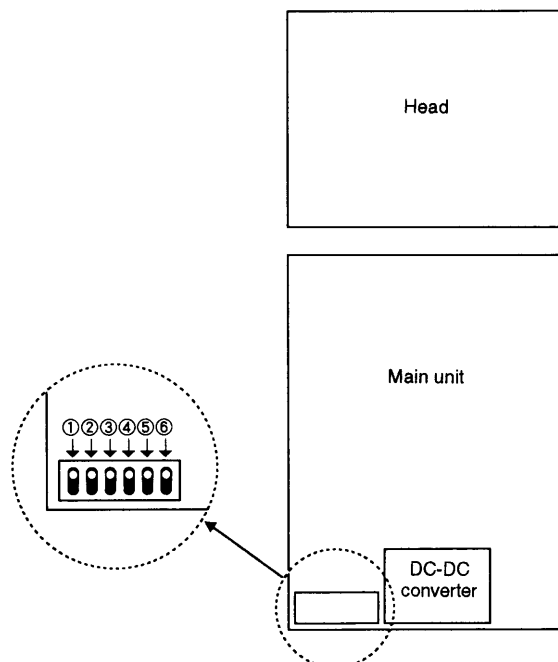
2. Head and main unit mounted perpendicularly



### 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 M $\Omega$  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.

- Specifications of any and all SANYO products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- SANYO Electric Co., Ltd. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any and all SANYO products described or contained herein fall under strategic products (including services) controlled under the Foreign Exchange and Foreign Trade Control Law of Japan, such products must not be exported without obtaining export license from the Ministry of International Trade and Industry in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of SANYO Electric Co., Ltd.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the SANYO product that you intend to use.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of August, 1998. Specifications and information herein are subject to change without notice.