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CCD Camera Modules Developed

**Built-in Personal Computer Interface
Optimal for Video Conferencing and Similar Applications**

SIS4000, SIS5000 Series

Overview

Due to advances in image and audio data compression technology and improvements in network environments, the market for video telephone and video conferencing systems is expected to grow rapidly in the near future, mainly in the USA at first.

The movement towards the provision of an environment in which these systems could be used progressed between 1992 and 1996 as the international standardization of personal computer based video conferencing. Starting with the H.320 ISDN standard in 1992, standardization in this area proceeded with establishment of the H.324 POTS (public analog line) standard in 1995 and the H.323 LAN (network) standard in 1996.

Handling moving images in an actual video conferencing system requires a video camera that consists of a CCD, the peripheral circuits for converting the acquired video data to digital, and data compression circuits that conform to international standards so that data can be transmitted efficiently. Additionally, cameras for this application must be as compact as possible so that they can also respond to the needs for mobile computing that have developed in recent years.

Now, we at Sanyo, have developed two video camera module series, the SIS4000 Series and the SIS5000 Series, by combining the required peripheral ICs with a CCD with a Sanyo-original device structure that is currently well-received in the market as a digital still camera. The SIS4000 Series products include a built-in personal computer interface circuit and the SIS5000 Series products, which are designed for personal computer video conferencing systems, additionally include a dedicated video data compression IC that conforms to international standards for video conferencing systems.

These products enable the rapid development of personal computer video input systems as well as video telephone and video conferencing systems that are not only extremely compact, but that also meet the needs of the times.

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PRODUCT INFORMATION

Features and Specifications

Features

<SIS4000 Series>

 • Output of from 8 to 25 frames (equivalent to CIF or QCIF) of digital video images per second

 • Supported interfaces: PCMCIA (SIS4700), USB (SIS4800), and parallel port (SIS4900)

 • Windows 95 device drivers included

<SIS5000> Series

 • Built-in image compression functions that conform to the H.261 and H.263 standards (MPEG1, JPEG, and FRACTAL compression are available as options.)

 • Output of from 10 to 30 frames (CIF or QCIF) of digital video images per second

 • Supported interfaces: USB (SIS5000) and parallel port (SIS5100)

 • Windows 95 device drivers included

Main Specifications

Catalog No.	SIS4700	SIS4800	SIS4900	SIS5000	SIS5100
Output type	Digital				
Compression type	Simplified video compression with about a 50% compression ratio			H.261, H.263	
Interface	PCMCIA	USB	Parallel port	USB	Parallel port
Weight	100 g	30 g	30 g	80 g	80 g
Dimensions	CCD unit: 20 x 20 x 13 mm Circuit board: 54 x 126 x 17 mm	CCD unit: 30 x 30 x 20 mm Main unit: 45 x 60 x 8 mm	CCD unit: 30 x 30 x 20 mm Main unit: 45 x 60 x 8 mm	CCD unit: 30 x 35 x 30 mm Main unit: 62 x 105 x 25 mm	CCD unit: 30 x 35 x 30 mm Main unit: 62 x 105 x 25 mm

Sample Availability

Samples of the SIS4000 Series and the SIS5000 Series will be available in October 1997.