



HDCS-7003 Series

New

Fanless Embedded System SDI 1080p Full HD Video Capture Solution



Features

- 2nd Gen Intel® Core™ i7 with on-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 8GB)
- Dual combo (10/100/1000 baseT(X) or 1000 baseSFP slot) Gigabit LAN ports, supporting Intel® AMT 7.0
- Supports two USB 3.0 ports, four USB 2.0 ports, one SATA 6GB/s port, one CAN-bus port and eight COM ports (four with isolation)
- Supports maximum 3-channel SDI 1080p real time video capture
- Supports Linux Fedora 16 (v3.4) 32-bit/64-bit V4L2
- Supports Windows® 7 64-bit/32-bit for Microsoft WDM driver
- Provides SDK compatible with Microsoft DirectShow and reference sample code for second development

Introduction

The HDCS-7003 series is a high performance fanless embedded system for video processing and video/audio analyzing with full HD video format. The HDCS-7003 series supports one to three channels of Serial Digital Interface (SDI) video and audio inputs. The SDI interface is currently available and popular in professional video equipments and devices to provide precise and high quality video. The HDCS-7003 series is capable to perform 30fps in each channel with full HD 1080p video format. The target markets of the HDCS-7003 series focus on medical imaging devices, studio HD storage and automatic inspection machines. The software development kit (SDK) makes the HDCS-7003 series an ideal solution for system integrators to facilitate project and product implementation and fulfill a variety of applications and requirements.

Applications



Endoscopy Surgery

Endoscopy typically refers to looking inside the body for medical reasons using an endoscope through video capture devices which require clear and detailed image for precise operations.



Ultrasound Scanner

Ultrasound procedures are done using a transducer on the surface of the body, and the reflection could construct image/video data for diagnosis.



Automatic Optical Inspection

Automated optical inspection (AOI) is an automated visual inspection of a wide range of products. AOI systems are always implemented at image processing through video capture devices. Each industry is different in how image acquisition signals are transferred to the camera.

Specifications

Model Name	HDCS-7003-S/SC Series		HDC-7002-S/SC Series	HDC-7001-S/SC Series
Platform	TANK-700-QM67/2G-R10			
Processor	Socket G2 supports Intel® Core™ i7-2710QE quad-core 2.1G processor			
System Chipset	Intel® QM67			
OS	Windows® 7 64-bit (W764) Windows® 7 32-bit (W732) Linux Fedora OS 64-bit (LF64) Linux Fedora OS 32-bit (LF32)			
Display	VGA+HDMI			
Memory	On-board 2GB memory One 204-pin 1333/1066 MHz DDR3 dual-channel SDRAM SO-DIMM slot (system max. 4GB)			
LAN	2 x RJ-45 (one with Intel® AMT 7.0 support)			
Wireless	Optional			
USB Port	4 x USB 2.0 port on the rear panel 2 x USB 3.0 port on the front panel			
COM Port	4 x RS-232 port by DB-9 connector on the rear panel 2 x RS-232 port by RJ-45 connector on the front panel 2 x RS-232/422/485 port with isolation by RJ-45 connector on the front panel			
CAN Bus	1 x Phoenix terminal block on the front panel			
Storage	Built-in 500GB 2.5" SATA 6Gb/s or SATA 3Gb/s HDD with SSD support			
Video/Audio Capture	Three SDI video capture cards pre-installed	Two SDI video capture cards pre-installed	One SDI video capture card pre-installed	
Audio	Audio jacks (line-out/mic-in) on the rear panel			
Expansions	1 x SO-DIMM slot			
Indicators	Indicators are located on the front panel, including: AT/ATX mode indicator HDD status indicator CPU over-heat warning indicator Power One: 9V~28V DC terminal block input indicator Power Two: 9V~28V DC adapter input indicator			
Antenna Connectors	Two on the front panel One on the rear panel			
Switches	AT/ATX, ACC Mode1 and ACC Mode2 switches on the rear panel			
Chassis Construction	Extruded Aluminum Alloy for fanless support Heavy duty steel sheet			
Chassis Dimensions	310mm x 200mm x 62mm			
Chassis Color	Sliver black			
Operating Shock	Half-Sine Shock Test 5G/11ms, 3 shocks per axis			
Operating Vibration	MIL-STD-810F 514.5 C-2			
Humidity	5% to 95%, no condensation			

Ordering Information

	Part Number	Description
Windows® 7 64-bit	HDCS-7003-S/SC/W764-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 3 built-in high-definition capture cards, Windows 7 64-bit
	HDCS-7002-S/SC/W764-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 2 built-in high-definition capture cards, Windows 7 64-bit
	HDCS-7001-S/SC/W764-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 1 built-in high-definition capture card, Windows 7 64-bit
Linux Fedora 64-bit	HDCS-7003-S/SC/LF64-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 3 built-in high-definition capture cards, Linux Fedora 64-bit
	HDCS-7002-S/SC/LF64-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 2 built-in high-definition capture cards, Linux Fedora 64-bit
	HDCS-7001-S/SC/LF64-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 1 built-in high-definition capture card, Linux Fedora 64-bit
Windows® 7 32-bit	HDCS-7003-S/SC/W732-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 3 built-in high-definition capture cards, Windows 7 32-bit (Embedded)
	HDCS-7002-S/SC/W732-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 2 built-in high-definition capture cards, Windows 7 32-bit (Embedded)
	HDCS-7001-S/SC/W732-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 1 built-in high-definition capture card, Windows 7 32-bit (Embedded)
Linux Fedora 32-bit	HDCS-7003-S/SC/LF32-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 3 built-in high-definition capture cards, Linux Fedora 32-bit
	HDCS-7002-S/SC/LF32-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 2 built-in high-definition capture cards, Linux Fedora 32-bit
	HDCS-7001-S/SC/LF32-R10	Fanless embedded system, Intel® QM67 chipset, 2nd Generation Intel® Core™ i7-2710QE processor, 2GB DDR3 on-board memory, 2.5" 500GB HDD, 1 built-in high-definition capture card, Linux Fedora 32-bit