



PC-BASED ENCODER/DECODER

PC-Based Encoder/Decoder

This PC-based unit is the latest encoder/decoder from our laboratories, utilizing the most advanced technology in video/audio encoding/decoding, hard disk record and TCP/IP.

Physical description

- Max 64 video in (PAL, NTSC)
- Max 64 audio in (linear in)
- 1 line in (for voice talk)
- 1 10/100/1000M Ethernet
- support Up to 42 Hard Drives IDE/SATA/SCSI/RAID
- 1 RS-485 for keyboard, 1 RS-485 for PTZ control
- 1 RS-232
- 1 USB
- 1 VGA
- 19-inch case (450mm*450mm*95mm) (optional larger case for systems above 32 channels)

Function :

The PC based encoder/decoder adopts a high performance Windows Embedded XP real-time multi-tasking operating system and hyperthreading CPU, to perfectly implement all the functions needed to build a broadcast IPTV system. **Compression function:**

- Support maximum 64 channels video in. Each channel can be compressed independently in 25F/S (PAL) or 30F/S (NTSC), using H.264 algorithm. Both variable bit-rate and variable frame rate are supported.
- Support max 64 channels audio in. Each channel can be compressed independently, using an OggVorbis audio standard with MP3 quality. The output bit-rate is 16 kbps.
- The output video and audio streams are integrated to generate the synchronized H.264 stream. Video and audio coincide with each other from beginning to end when the stream is played back.

- Supports following resolution on every channel:
PAL:4CIF (704*576), DCIF(528*384), 2CIF(704*288),CIF(352*288), QCIF(176*144);
NTSC: 4CIF (704*480), DCIF(528*320), 2CIF(704*240),CIF(352*240), QCIF(176*120)
- Supports position configurable OSD & LOGO. Supports watermark.

Network Functions:

- Supports TCP/IP (ARP, RARP, IP, ODP, TCP, PPP, PPPoE, DHCP, SNMP, etc).
- Supports broad-band transmission (ADSL, etc).
- Supports narrow-band transmission (PSTN, etc).
- Streams of one or more channels, Encoder/Decoder's running state can be accessed through network.
- Encoder/Decoder's parameters can be set through the network.
- Supports remote control of Pan/Tilt/Zoom Cameras.
- Streams can be recorded in a remote host PC .
- Files in the Encoder/Decoder can be downloaded to or remotely played in a remote host PC.
- Supports remote upgrading.
- PC hosts can gain direct control of the Encoder/Decoder's RS-232 or RS-485 port.
- Supports voice talk between host in broadcast center (back end) and Encoder/Decoder's (front end)
- Supports embedded web server. Browser can be used to access Net DVR.

Storage Functions:

- Won't lose frames when switch record files
- Supports hard disk sleep mode.
- Supports FAT32 file system.
- Supports HDD smart
- Supports cyclic and non-cyclic record mode.
- Supports network access storage (NAS).
- Supports USB flash disk, USB hard disk, USB CDRW for backup.

Preview & Playback Functions:

- Supports Monitor; Supports VGA;
- Switch quickly in preview mode;
- Supports partial zone sheltering;
- Supports local file Play and time play, support play fast, play slow, pause, play frame one by one, etc;
- Supports OSD, LOGO

PTZ control:

- Supports Pan-Tilt-Zoom control and Preset through front, keyboard and network;
- Supports most popular camera protocol.
- Ability to customize new camera protocol.

General Specifications

Video Compression H.264

Voice Audio input	1 Channel, BNC (Linear Electrical Level – Resistance:6000)
Communication Interface	1 RJ45 10M/100M UTP Network – 1 RJ45 for RS232, 1 RJ45 for RS485
Keyboard Interface	1 RJ45
Serial Link Interface	1 RJ45
HDD IDE Interface	SCSI, support 16 HDD Hot Swappable
USB Interface	1, support USB1.1; Support U flash disk, USB HDD, USB CDR/W
VGA Interface	1, Support 800 × 600/60Hz – 800 × 600/75Hz – 1024 × 768/60Hz
Switch Alarm Input	Up to 32 (optional expandable)
Switch Alarm Output	Up to 32 (optional expandable)

		Enterprise
	Motherboard & Chipset	Intel Xeon E7520
	CPU	Xeon 3.2MHz Nocona Socket 604
	RAM	1024MB DDR2 400 PC2 3200
	Storage	RAID5 SCSI
	Video Display	GeForce 6600GT AGP (Dual VGA)
	OS	Windows Server 2003
	Video Compression	H.264 Advanced Video Compression (Multicast)
System	Audio Compression	OggVorbis 16Kbps
	Chasis Type	4U Rackmount (Optional 9U)
	Storage Media	DVD–RW
	Mouse	Optical PS/2
	Keyboard	106–Key
	LAN	10/100/1000 Base T Ethernet
	Modem	V.92 PCI 56k
	Backup Storage	(Optional) DAT– Supports IDE, SCSI, NAS, DDS3/4, RAID
	Encoder/Decoder	PCI–X Hardware Encoder and Hardware Decoder
	Video Inputs	1~64 BNC (1.0Vp–p 75 O) Resistance 75& (NTSC/PAL)
	Audio Inputs	1~64 BNC (1.0Vp–p 75 O) Linear Level 600&
	Size	4U Chassis: W17" x L18" (20" w/ handle) x H7"
	Weight	Up to 50 Pounds on Standard 4u Chassis
	Power Supply	Max. 700W, 90~264V(47Hz~65Hz) : free Vtg

	Power	110/220 VAC, 60/50 Hz (non condensing) at 40°C
	Operating Temperature	25°F ~ 110°F
	Power Management	Programmable Auto–Reboot in Case of Power Loss
	UPS	External UPS (Optional)
Monitoring	Interface	Web Graphical User Interface
	Display Rate	Real–Time All Channels Simultaneous (30FPS/NTSC 25FPS/PAL)
	Display Resolution	QCIF, CIF, 2CIF, DCIF, 4CIF
	Disconnection Detection	Watchdog Function
	POS Terminal Display	Video Text Inserter (Optional)
	PTZ Control	PTZ GUI Interface (RS–232/422 Interface)
	Time Stamp	Image Embedded With Date/Time Information
Recording	Recording Resolution	4CIF (704x480), DCIF(528x320), 2CIF(704x240),CIF(352x240), QCIF(176x120)
	Record Rate	Real–Time All Channels Simultaneous (30FPS/NTSC 25FPS/PAL)
	Mode	Watch, Normal, Motion Detection, Sensor, Pre–Post Alarm/Scheduled Multi–Channel
	Search Mode	By Channel, Date & Time, Motion Detection, Sensor Events
Playback	Playback Mode	Play, Pause, Step Play, 1 – 2048 times Fast Forward/Rewind, Scrub
	Image Adjustment	Brightness, Contrast, Saturation, Hue, Zooming
	Encryption	RSA
Security		
Remote	Monitoring	Full Remote Control PSTN, ISDN, ADSL, LAN and TCP/IP
Standard	Safety Standards	EN60950, UL1459
Approvals	EMC Standards	EN55022 Class–B, EN50082–1
	FCC	Part 15 Class–B, VCCI Class–2

Model	Description
PCE-01	1 Channel H.264AVC PC-Based Hardware Encoder
PCE-02	2 Channel H.264AVC PC-Based Hardware Encoder
PCE-03	3 Channel H.264AVC PC-Based Hardware Encoder
PCE-04	4 Channel H.264AVC PC-Based Hardware Encoder
PCE-05	5 Channel H.264AVC PC-Based Hardware Encoder
PCE-06	6 Channel H.264AVC PC-Based Hardware Encoder
PCE-07	7 Channel H.264AVC PC-Based Hardware Encoder
PCE-08	8 Channel H.264AVC PC-Based Hardware Encoder
PCE-09	9 Channel H.264AVC PC-Based Hardware Encoder
PCE-10	10 Channel H.264AVC PC-Based Hardware Encoder
PCE-11	11 Channel H.264AVC PC-Based Hardware Encoder
PCE-12	12 Channel H.264AVC PC-Based Hardware Encoder
PCE-13	13 Channel H.264AVC PC-Based Hardware Encoder
PCE-14	14 Channel H.264AVC PC-Based Hardware Encoder
PCE-15	15 Channel H.264AVC PC-Based Hardware Encoder
PCE-16	16 Channel H.264AVC PC-Based Hardware Encoder
PCD-01	1 Channel H.264AVC PC-Based Hardware Decoder
PCD-02	2 Channel H.264AVC PC-Based Hardware Decoder
PCD-03	3 Channel H.264AVC PC-Based Hardware Decoder
PCD-04	4 Channel H.264AVC PC-Based Hardware Decoder
WEP-01	1 Channel H.264 AVC Website-Embedded Player
WEP-02	2 Channel H.264 AVC Website-Embedded Player
WEP-03	3 Channel H.264 AVC Website-Embedded Player
WEP-04	4 Channel H.264 AVC Website-Embedded Player
WEP-05	5 Channel H.264 AVC Website-Embedded Player
WEP-06	6 Channel H.264 AVC Website-Embedded Player
WEP-07	7 Channel H.264 AVC Website-Embedded Player
WEP-08	8 Channel H.264 AVC Website-Embedded Player
WEP-09	9 Channel H.264 AVC Website-Embedded Player
WEP-10	10 Channel H.264 AVC Website-Embedded Player
WEP-11	11 Channel H.264 AVC Website-Embedded Player
WEP-12	12 Channel H.264 AVC Website-Embedded Player
WEP-13	13 Channel H.264 AVC Website-Embedded Player
WEP-14	14 Channel H.264 AVC Website-Embedded Player
WEP-15	15 Channel H.264 AVC Website-Embedded Player
WEP-16	16 Channel H.264 AVC Website-Embedded Player