

## DCH-5100EC H.264 HD Encoders and Trans-coders



The DCH-5100EC is a high quality single channel high definition MPEG4/H.264 encoder/trans-coder. It has a wide range of digital/ analog video and audio inputs: CVBS, HD-SDI, HDMI, YPbPr and stereo audio. The compressed MPEG4/H.264 signal is output to the ASI and IP ports. It can also be used as MPEG-2 to H.264 trans-coder from IP or ASI ports. The DCH-5100EC's re-multiplexing function enables creation of a new transport stream between the TS of encoder and the TS from ASI or IP port. The encoder/trans-coder output can be multiple SPTS or MPTS over IP, as well as over ASI. In trans-coding mode, the digital audios are looped through and time stamping is automatically implemented to ensure the synchronization between video and audio. This unique encoder/trans-coder with built-in re-multiplexer architecture makes the DCH-5100EC one of the best solutions to meet the MPEG2 to MPEG4/H.264 migration requirement in today's digital TV broadcast market.

### Main Feature

- Video encoding bit rate from 2Mb/s to 20Mb/s
- Multiple inputs HDMI, HD-SDI, YPbPr, and CVBS for encoding
- ASI and TS/IP Input for Trans-coding
- Built-in re-multiplexer for TS from encoder and TS from ASI and IP
- Support 10/100M TS/IP SPTS and MPTS
- Built-in Time Base Correction
- Support VBR and CBR encoding mode
- Digital audio pass through for trans-coding
- Support 2 pairs of analog stereo audio encoding with optional extension board
- Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software

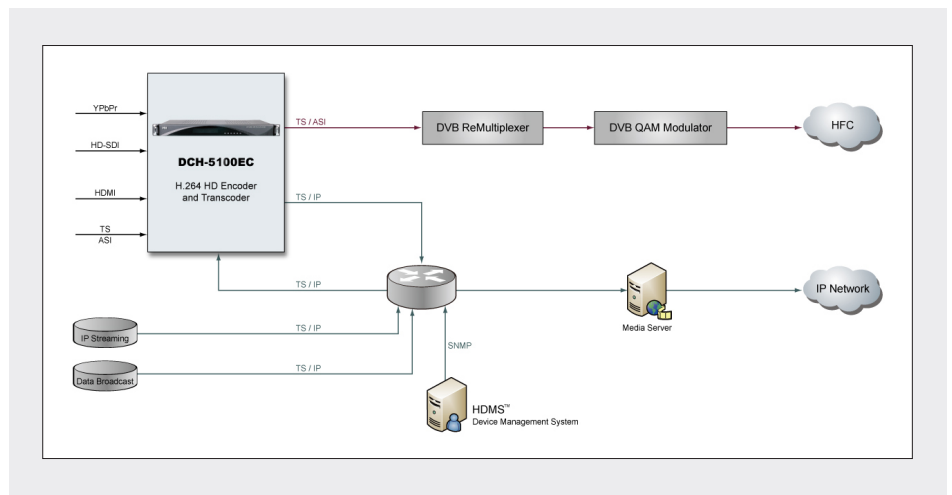
#### Multiple inputs HDMI, HD-SDI, YPbPr, and CVBS



#### 10/100M TS/IP optional



#### Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software



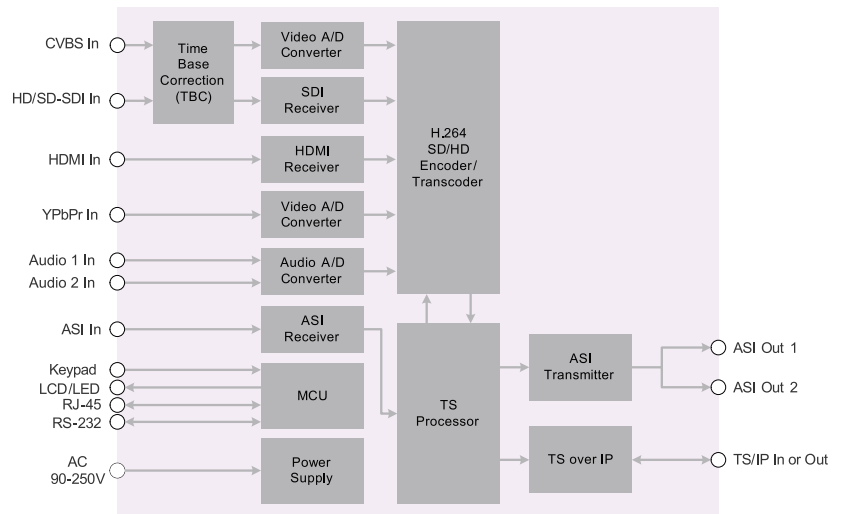
## Specification

Video Compression	
Video Resolution	1080i (1920/1440 × 1080) @25Hz, 29.97Hz, 30Hz: SMPTE 292M 720p (1280 × 720) @50Hz, 59.94Hz, 60Hz: SMPTE 292M 480i (720 × 480) @29.97Hz: SMPTE 259M 576i (720 × 576) @25Hz: SMPTE 259M
Compression Standard	H.264, High Profile Level 4.0
Aspect Ratio	4:3/16:9 selectable
Video Encoding Bit Rate	2Mb/s-20Mb/s
Audio Compression	
Audio Input	Embedded Audio, Analog audio
Compression Standard	MPEG-1 Layer II
Audio Mode	Stereo, Joint Stereo, Dual Mono, Mono
Audio Sampling Rate	48KHz
Audio Compression Bit Rate	32 ~ 384Kb/s
Audio/Video Input	
Analog Audio	1 × D-sub 9 Female male with XLR adaptor cables
Analog CVBS	1 × BNC Female, 75 Ω
SD-SDI	1 × BNC Female, 75 Ω
YPbPr	3 × BNC Female, 75 Ω
HDMI	1 × HDMI 1.3
ASI Input	
Connector Type	1 × BNC Female, 75 Ω
Input Bit Rate	≤ 100Mb/s
Packet Mode	Byte
Packet Length	188/204 Bytes
TS Processing	
TS Input Management	Remux and demux between ASI input and the SPTS encoded

TS Output Management	Remux and demux for mirrored ASI outputs
Service and PID management	Remux, filtering and remapping
PSI/SI	PSI/SI table regeneration, NIT and SDT edition
TS over IP	
Connector Type	1 × RJ45, 10/100M for TS/IP
Useful Bit Rate	70Mb/s for 10/100M
Protocol	UDP / RTP, Multicast / Unicast, IGMPv2, ARP
Source	Built-in Re-mux, ASI input, Encoder
ASI Output	
Connector Type	2 × BNC Female, 75 Ω
Output Bit Rate	≤ 99Mb/s
Packet Length	188 / 204 Bytes
Signal Level	800mVpp ± 10%
Source	Built-in Re-mux, ASI input, Encoder
Control & Monitoring	
Connector Type	1 × RJ45, 10/100M, for equipment IP Control
Remote Control	SNMP, HTTP Web, Proprietary HDMS network Management Software
Local Control	LCD display and 6-key keypad
Software Upgrade	Built-in FTP loader and Telnet
Physical	
Dimension	44mm × 483mm × 340mm
Net weight	3.2Kg
Power supply	AC90 ~ 250V, 50Hz/60Hz
Power Consumption	Maximum 20W
Operating Temperature	0 ~ 45°C
Storage Temperature	-10 ~ 60°C
Humidity	10 ~ 90%, non-condensed

## Block Diagram

DCH-5100EC Functional Block Diagram



### Order Information

Functionality		Model	DCH-5100EC-30	DCH-5100EC-32	DCH-5100EC-40	DCH-5100EC-42
Input	ASI		•	•	•	•
	CVBS		•	•	•	•
	SDI		•	•	•	•
	YPbPr		•	•	•	•
	HDMI		•	•	•	•
	Audio 1		•	•	•	•
	Audio 2			•		•
Output	ASI x2		•	•	•	•
	10/100M TS Over IP (6 Multicasts)				•	•
	Management		•	•	•	•
	RS-232		•	•	•	•

• Standard function

### Back panel Interface

